CIT 705: COMPUTER APPLICATION IN BUSINESS

NATIONAL OPEN UNIVERSITY OF NIGERIA

FACULTY OF SCIENCE

COURSE CODE: CIT 705

COURSE TITLE: COMPUTER APPLICATION IN BUSINESS

COURSE GUIDE

CIT 705

COMPUTER APPLICATION IN BUSINESS

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Course Guide

Introduction

CIT705 – Computer Application in Business is a 2 credit unit course designed to train you for the use of personal computer in the world of business. The knowledge gained in this course would lead to proficiency in electronic business management. As a business educator in training, it is advised that you study each unit carefully to ensure you gain the desired skills required in electronic business management.

Course Competencies

In this course you will be exposed to the introductory aspect of computers and its application in business, the use of Microsoft Word in business, Microsoft Excel in business and other computer applications in business.

Course Objectives

At the end of this course, you should be able to:

- Identify various business documents maximally,
- Create electronic business documents with minimal errors,
- Manage business data effectively, and
- Manage business data efficiently.

Working through this Course

To gain the maximum proficiency required in this course, you must work through all the study units. Starting from module 1, unit 1 to module 4, unit 4. Ensure you master a unit of study before proceeding to the next unit. Where references are made to previous taught courses or elsewhere, you should Endeavour to visit reference sources.

Study Units

This course material contains four modules and sixteen study units as follows:

Module 1 **Introduction to Computers and Business**
Unit 1: History and Generations of Computers
Unit 2: Basic Concepts of Computers
Unit 3: Importance and Application of Computers in Business

Module 2 **Microsoft Word in Business**
Unit 1: Document Production
Unit 2: Data Security
Unit 3: File Management
Unit 4: Document Presentation,

Module 3 **Microsoft Excel in Business**

Unit 1: Solving and Making Decision with Microsoft Excel
Unit 2: Managing Large Worksheet
Unit 3: Presentation of Data with Charts

Module 4 Other Applications in Business
Unit 1: Graphics
Unit 2: Database
Unit 3: Microsoft Office Outlook
Unit 4: Desktop Tools/Data Communication/Creating Website

References and Further Readings

Buttle, F. (2015). *Customer Relationship Management*. London: Taylor and Francis.

General introduction to Computing, The Department of Computer Science and Mathematics, Babcock University, Ilisan Remo, Ogun State, Nigeria

Hartley, P., & Bruckmann, C. (2015). *Business Communication*. London: Taylor and Francis.

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Kumar, V., & Reinartz, W. (2012). *Customer Relationship Management* (3rd ed.). Berlin: Springer Berlin.

Parameswaran, R. (2010). *Computer Application in Business*. Ram Nagar, New Delhi: S Chand & Co Ltd.

Reed, D. (2011). *A balanced introduction to computer science* (3rd ed.). Pearson.

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

FrontPage: Microsoft Office. (2005). Barcelona: Ed. ENI.

Gross D., Akaiwa F., Nordquist K. & Evans J. (2008). Business Computing Using Excel and FrontPage. U.S.A. Thomson Course Technology.

Lambert, J., & Cox, J. (2013). *Microsoft Outlook 2013: Step by Step*. Redmond, WA: Microsoft.

Matthews, M. S. (1996). *Web publishing with Microsoft FrontPage*. Berkeley, CA: Osborne McGraw-Hill.

McFedries, P. (2015). *Windows 10 simplified*. Indianapolis, IN: John Wiley & Sons.

Comment [D1]: Improved on the references and further readings. Expunged the very old references and incorporated recent references and books for further readings.
This was done here and within the main content for each unit.

Murray, K. (2013). *Microsoft Office Professional 2013: Plain & Simple*. Sebastopol, California :: OReilly Media.

Pazmandy, G. (2013). *Business computing: Using Microsoft® Office 2013*. Rose Bay, NSW: Tekniks Publications.

Price, M. (2013). *Office 2013: In easy steps*. Leamington Spa, Warwickshire, U.K.: In Easy Steps.

Rathbone, A. (2018). *Windows 10 for dummies*. Milano: Hoepli.

Weverka, P. (2013). *Office 2013 all-in-one for dummies*. Hoboken, NJ: John Wiley & Sons.

Presentation Schedule

The Presentation Schedule included in your course material gives you important dates for the completion of Tutor Marked Assignments and tutorial attendance. Remember, you are required to submit all your assignments by the due date. You should guard against falling behind in your work.

Assessment

Your assessment will be based on Tutor Marked Assignments (TMAs) and final examination which you will write at the end of the course.

How to get the Most from the Course

In distance learning, the study units replace the university lectures. This is one of the great advantages of distance learning; you can read and work through specially designed study materials at your own pace, and at a time and place that suits you best. Think of it as reading the lecture instead of listening to the lecturer. In the same way a lecturer might give you some reading to do, the study units tell you when to read, and which are your text materials or set books. You are provided exercises to do at appropriate points, just as a lecturer might give you an in-class exercise.

Each of the study units follows a common format. The first item is an introduction to the subject matter of the unit, and how a particular unit is integrated with the other units and the course as a whole. Next to this is a set of learning objectives. These objectives let you know what you should be able to do by the time you have completed the unit. These learning objectives are meant to guide your study. The moment a unit is finished, you must go back and check whether you have achieved the objectives. If you make this a habit, then you will significantly improve your chances of passing the course. The main body of the unit guides you through the required reading from other sources. This will usually be either from your set books or from a reading section. The following is a practical strategy for working through this course. If you run into any trouble, telephone your tutor. Remember that your tutor's job is to help you. When you need assistance, do not hesitate to call and ask your tutor to provide it.

In addition, do the following:

1. Read this Course Guide thoroughly, it is your first assignment.

2. Organise a Study Schedule. Design a "Course Overview" to guide you through the Course. Note the time you are expected to spend on each unit and how the assignments relate to the units. Important information, e.g. details of your tutorials, and the date of the first day of the semester is available from the study centre. You need to gather all the information into one place, such as your diary or a wall calendar. Decide on a method and write in your own dates and schedule of work for each unit.

3. Once you have created your own study schedule, do everything to stay faithful to it. The major reason students fail is that they get behind with their course work. If you get into difficulty with your schedule, please, let your tutor know before it is tool late for help.

4. Turn to Unit 1, and read the introduction and the objectives for the unit.

5. Assemble the study materials. You will need your set books and the unit you are studying at any point in time.

6. Work through the unit. As you work through it, you will know what sources to consult for further information.

7. Keep in touch with your study centre as up-to-date course information will be continuously available there.

8. Well before the relevant due dates (about 4 weeks before due dates), keep in mind that you will learn a lot by doing the assignments carefully. They have been designed to help you meet the objectives of the course and therefore will help you pass the examination. Submit all assignments not later than the due date.

9. Review the objectives for each study unit to confirm that you have achieved them. If you fee unsure about any of the objectives, review the study materials or consult your tutor.

10. When you are confident that you have achieved a unit's objectives, you can start on the next unit. Proceed unit by unit through the course and try to pace your study so that you keep yourself on schedule.

11. When you have submitted an assignment to your tutor for marking, do not wait for its return before starting on the next unit. Keep to your schedule. When the assignment is returned, pay particular attention to your tutor's comments, both on the tutor-marked assignment form and on the ordinary assignments.

12. After completing the last unit, review the course and prepare yourself for the final examination. Check that you have achieved the unit objectives (listed at the beginning of each unit) and the course objectives (listed in the Course Guide).

13. Finally, ensure that you practice on the personal computer as prescribed to gain the maximum proficiency required.

Facilitation

The dates, times and locations of these Tutorials will be made available to you, together with the name, telephone number and address of your Tutor. Each assignment will be marked by your tutor. Pay close attention to the comments your tutor might make on your assignments as these will help in your progress. Make sure that assignments reach your tutor on or before the due date.

Your tutorials are important; therefore try not to skip any. It is an opportunity to meet your tutor and your fellow students. It is also an opportunity to get the help of your tutor and discuss any difficulties you might encounter when reading.

Course Information

Course Code: CIT 705
Course Title: COMPUTER APPLICATION IN BUSINESS
Credit Unit: 2 units
Course Status:
Course Blurb: This course covers computers and its various applications to business. The basic concepts of computers, history and generations of computers are discussed within the context of this course. The applications of computers in business are also presented. In this course content, the use of Microsoft Word, Excel, Access, Outlook, etc are extensively presented.
Semester:
Course Duration:
Required Hours for Study

Course Team

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Learning Technologists:
Copy Editor

Ice Breaker

Describe yourself in three words
If you could solve one of the world's greatest problems, which one would you choose?
Where do you want to live after you finish school? Why?

Module 1: INTRODUCTION TO COMPUTERS AND BUSINESS

Module Introduction

In this module a brief history and overview of computers will be presented. The importance of computers to business and the application areas of computers in business are discussed in this module. This module is divided into three units. They are:

Unit 1: History and Generations of Computers
Unit 2: Basic Concepts of Computers
Unit 3: Importance and Application of Computers in Business

Comment [D2]: Modules and units were designed and rearranged according to the guide given. Icons and listings were placed accordingly. References and further reading were updated, old references and textbooks were expunged while new ones were incorporated.
Case studies were included were necessary for further explanations and discussions.

Comment [D3]: Expunged the old module 1 and its unit and Introduced a new module and units to improve on the course note

Unit 1: HISTORY AND GENERATIONS OF COMPUTERS

Contents

1.0 Introduction

Computers truly came into their own as great inventions in the last two decades of the 20th century. But their history stretches back more than 2500 years to the abacus: a simple calculator made from beads and wires, which is still used in some parts of the world today. The difference between an ancient abacus and a modern computer seems vast, but the principle—making repeated calculations more quickly than the human brain—is exactly the same. This unit presents the history of computers from the early counting devices to modern devices.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- identify the various early counting devices,
- identify the various mechanical and electromechanical counting devices,
- identify the various electronic counting devices,
- explain the modern computer

3.0 Main Content

3.1 Early Counting Devices

Early counting devices are devices that were used in the early days to perform arithmetic operations such as addition of numbers, subtraction and multiplication. Examples of early counting devices are fingers, toes, stones, sticks, pebbles, cowries among others. The history and development of computers can be traced back to the studies of Mathematics which started with counting. The history of Mathematics is the history of civilization. These has led to various computing inventions in search for a tool that could enable man meet his computational and data processing needs until we have the computer today. It was in the process of finding solutions to the problem of counting that early counting devices emerged. Examples of fingers and toes method of calculation are seen below;

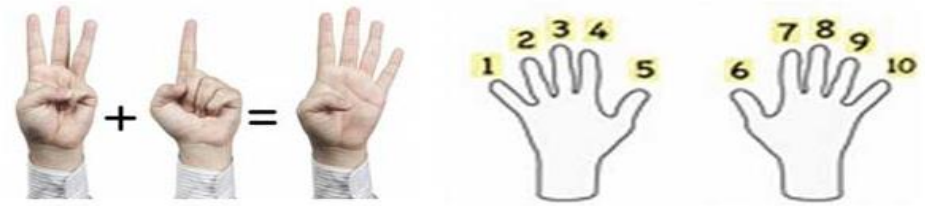


Fig 1: Finger method of calculation

As time went on, fingers and toes method became ineffective, especially for large numbers, hence, the emergence of stones and sticks for counting and solving basic arithmetic problems.

Fig 2: Other early method of calculation

3.1.1 Limitations of the Early Counting Devices

The problems posed by these early counting and data processing method were enormous. The following are limitations to the early counting devices:

1. They could not be used for counting large numbers efficiently and effectively.
2. It was stressful to use
3. It required man power
4. It was time consuming
5. It required more of that device to perform a large number of counting

3.2 Mechanical Counting and Calculating Devices

As a result of the disadvantages of the early counting devices, more advanced mechanical counting and calculating devices were invented. Some of these devices are;

1. Abacus (Chinese)
2. Napier's Bone (John Napier)
3. Slide Rule (William Oughtred)

3.2.1 The Abacus

The abacus was one of the first adding machines. The abacus is made out of beads strung by several wires. The position of a bead determines its value. Thus a few beads are required to represent large numbers.

The **abacus** (*plural* **abaci** or **abacuses**), also called a **counting frame**, is a calculating tool that was in use in the ancient Near East, Europe, China, and Russia. The exact origin of the abacus is still unknown. The Abacus is made up of beads threaded on iron rods. The iron rods are fixed to a rectangular wooden frame. It is used for addition and subtraction only. It could not carry out

complex mathematics.

For any particular abacus design, there are usually numerous different methods to perform a certain type of calculation, which may include basic operations like addition and multiplication, or even more complex ones, such as calculating square roots. Some of these methods may work with non-natural numbers (numbers such as 1.5 and ¾).

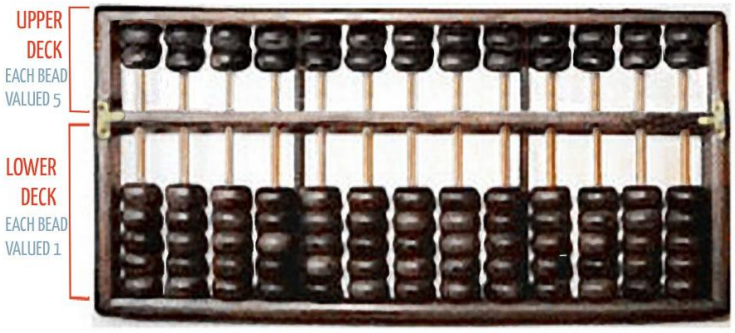


Fig 3: The Abacus

3.2.2 Napier's Bone

After the Abacus, the next significant development was the Napier's Bone made by John Napier in the year 1617. John Napier was a mathematician, physicist, and astronomer from Scotland. His most important achievement was the discoverery of logarithms. He also made the use of the decimal point in arithmetic and mathematics common. Napier's bone is a manually-operated calculating device for calculation of products and quotients of numbers.

The method was based on lattice multiplication, and was also called Rabdology. Using the multiplication tables embedded in the rods, multiplication can be reduced to addition operations and division to subtractions. A more advanced use of the rods was for square roots operations. Napier's bones are not the same as logarithms, with which Napier's name is also associated.

The complete device usually includes a base board with a rim; the user places Napier's rods inside the rim to conduct multiplication or division. The board's left edge is divided into 9 squares, holding the numbers 1 to 9. The Napier's rods consist of strips of wood, metal or heavy cardboard. Napier's bones are three-dimensional, square in cross section, with four different rods engraved on each one. A set of such bones might be enclosed in a convenient carrying case.

A rod's surface comprises 9 squares, and each square, except for the top one, comprises two halves divided by a diagonal line. The first square of each rod holds a single digit, and the other squares hold this number's double, triple, quadruple, quintuple, and so on until the last square contains nine times the number in the top square. The digits of each product are written one to each side of the diagonal; numbers less than 10 occupy the lower triangle.

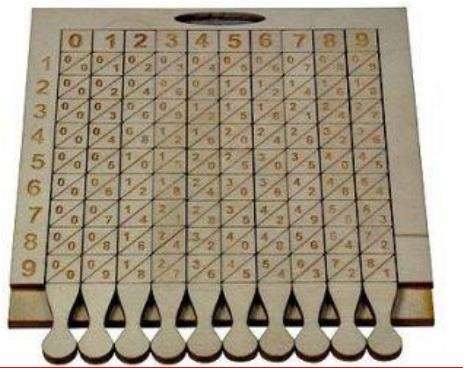
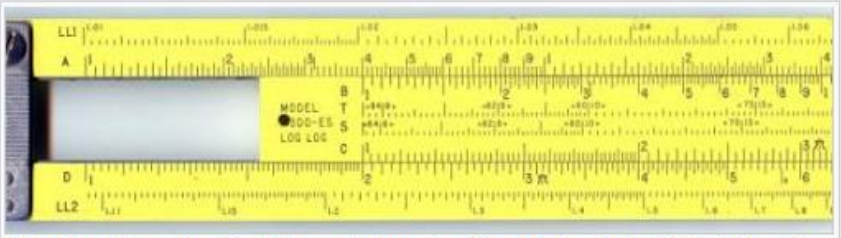


Fig 4: The Napier Bone

3.2.3 Slide Rule

The slide Rule which is also called the **slip-stick** was invented in1622 shortly after John Napier's publication of the concept of logarithms. It is a mechanical analogue computer. The slide rule is used mostly for multiplication, division, and also for functions as roots, algorithms and trigonometry, **but is not normally used for addition or subtraction.**

Slide rules come in different range of styles and generally appear in a straight or circular form with a standardized set of markings (scales) essential to performing mathematical operations. It was used widely for calculations up until the 1970s when the scientific calculator was invented, creating a much easier and more convenient way to calculate.



This slide rule is positioned to yield several values: From C scale to D scale (multiply by 2), from D scale to C scale (divide by 2), A and B scales (multiply and divide by 4), A and D scales (squares and square roots).

Fig 5: The Slide Rule

3.3 Electro-Mechanical Counting Devices

3.3.1 Blaise Pascal Machine

In 1642 Blaise Pascal invented the first calculating machine when he was 19 years old. This machine was developed to assist his father's work as a government auditor of accounts. The machine consists of clogged wheels, gears, and dials. Each wheel was divided into ten sections, representing numbers (0-9), and the mechanism allowed a carry from one wheel to the next. This

principle is still in use today. Odometers in cars use Pascal's wheel principle to keep track of the number of kilometers traveled. The machine had input, processing and output devices. Basically, the Pascal machine was only capable of addition.

Fig 6: Blaise Pascal Machine

3.3.2 Gottfried Leibniz Machine

A famous German mathematician, Gottfried Von Leibniz made the most significant contribution to the mechanical calculator in 1671 when he invented the Leibniz calculating machine. The machine can perform 4 arithmetic operations. The machine also used a wheel with teeth on them, termed "steeped wheel", which allowed long multiplication and division to be done. The process of multiplication involved repeated addition. Unfortunately, Leibniz's machine was unreliable, as were most of the early calculators. Because of this problem, mechanical calculators were not popular for many years, and it was not until the late nineteenth century that they became widely used in business.

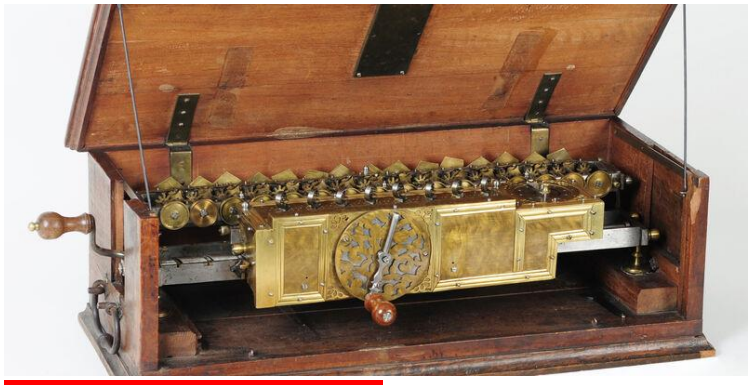


Fig 7: Gottfried Leibniz Machine

3.3.3 Joseph Jacquard Loom

The Jacquard loom is a mechanical loom, invented by Joseph Marie Jacquard in 1800. The loom simplifies the process of manufacturing textiles with complex patterns such as brocade, damask, and matelasse. In 1725, French weaver, Basile Bouchon constructed a weaving loom that could be controlled by holes in a roll of paper. The holes allowed some needles in the loom to be engaged, while others were held back.

The loom was, therefore "programmed" by the placement of the holes in the roll of paper to produce a particular pattern. However, in Bouchon's loom, someone had to be employed to control the needles and decide which would be used for each line of weave in the fabric.

But Joseph-Marie Jacquard improved upon Bouchon's design by developing a loom which used a punched card to control each line of the weave. Over 1000 needles could be controlled at one time, and very intricate designs were easily created.

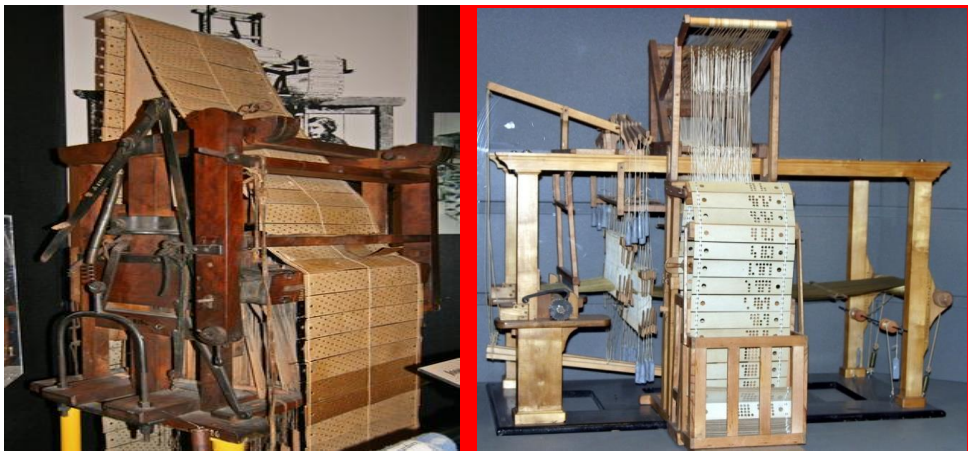


Fig 8: Joseph Jacquard Loom

3.3.4 Charles Babbage Analytical machine

Charles Babbage was a mathematics professor at Trinity College in Cambridge, England. After several unsuccessful attempts at building a mechanical calculating machine, Babbage developed the analytical engine in 1834. Babbage's designs were similar to the general design of modern-day computers, including a central arithmetic unit for calculating, called a mill, an area for retaining numbers, called a store, and sophisticated methods for input and output.

While working on his analytical engine, Babbage began a lengthy correspondence with poet Lord Byron's daughter, Ada Augusta, Countess of Lovelace. Lady Lovelace became fascinated with Babbage's ideas, and in her analysis of his analytical engine, she developed the essential ideas of programming, such as "branching" to perform decisions and repetitions. Because of her work in this area, she is considered to be the first computer programmer. The programming language "Ada" is named after her.

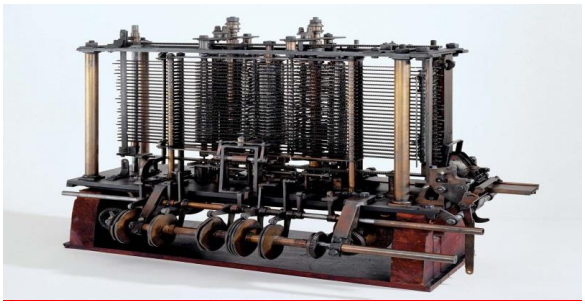


Fig 9: Charles Babbage Analytical machine

3.4 Electronic Counting Devices and Modern Computer

3.4.1 Herman Hollerith Punch Cards

The rest of the nineteenth century witnessed the design of more complicated mechanical devices. By 1890, an American called Dr. Herman Hollerith made the most outstanding and important invention called punch cards. The machine was used to process information obtained in the census of the population carried out in the United States in 1890. With this machine, he was able to achieve in three years what will take seven years to do manually.

Hollerith used Jacquard's punched-card idea to feed personal statistics into his machine. Holes in the punched cards stood for a person's age, sex, state, and other similar information. There was one card for each person. As each card was fed into the machine, a set of metal pins were brought down on the card. The pins passed through any holes punched in the card, which completed an electrical circuit which turned a counter dial.

To sell the machine, Hollerith formed his own company in 1896, then later merged with several other companies to form the Computing Tabulating Recording Company (CTR) in 1911. CTR later became the International Business Machines or IBM.

Fig 10: Herman Hollerith Punch Cards

3.4.2 John Von Neumann Machine

In 1945, the Hungarian born American mathematician, John von Neumann undertook a study of

computation. In this study, he demonstrated that a computer could have a simple, fixed structure, yet be able to execute any kind of computation if given properly programmed control, and without the need for hardware modification.

Von Neumann contributed a new understanding of how practical fast computers should be organized and built; these ideas, often referred to as the stored-program technique, became fundamental for future generations of high-speed digital computers and were universally adopted.

The principal feature of a von Neumann machine is that the program and any data are both stored together, usually in a slow-to-access storage medium such as a hard disk, and transferred as required to a faster, and more volatile storage medium (RAM) for execution or processing by a central processing unit (CPU).

Since this is practically how all present-day computers work, Neumann is termed the *father of the modern computer*.

The term "von Neumann architecture" is rarely used now, but it was a common parlance in the computing profession through to the early 1970s.

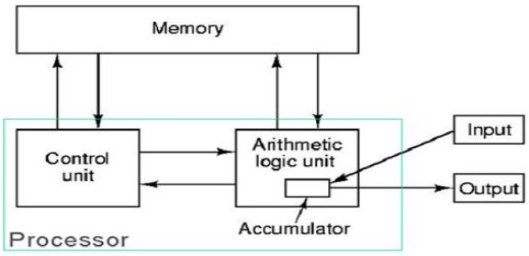


Fig 11: Von Neumann's Architecture

Prior to Neumann's idea, programs were viewed as essentially part of the machine, and hence different from the data the machine operated on. A common approach was to input the program by some physical means, such as wiring a plugboard, and then feeding in the data for the program to act upon.

As a result of Neumann's discovery, computing and programming became faster, more flexible, and more efficient, with the instructions in subroutines performing far more computational work.

In 1945, von Neumann proposed the stored program concept in his report on the EDVAC. He did it together with computer pioneers, J. Presper Eckert, John Mauchly, Arthur Burks, and Hermann Goldstine, who was working on plans for the EDVAC.

According to the original papers proposing the new architecture, a von Neumann computer has five parts: **an arithmetic-logic unit, a control unit, a memory, some form of input/output, and a bus** that provides a data path between these parts. Such a computer operates by performing the following sequence of steps:

1. Fetch the next instruction from memory at the address in the program counter.
2. Add the length of the instruction to the program counter.
3. Decode the instruction using the control unit.

4. Go back to step 1.

Von Neumann computers have some drawbacks. In particular, they carry out instructions one after another, in a single linear sequence, and they spend a lot of time moving data to and from the memory. This slows the computer. This problem is called the *von Neumann bottleneck*.

3.4.3 Modern machines

The EDVAC computer, when it was finally constructed in 1952, followed von Neumann's design. But the first von Neumann computer to be constructed and operated as the Manchester Mark I.

Manchester Mark 1

This machine was designed and built at Manchester University in England. It ran its first program in 1948. The computer had a 96-word memory and executed an instruction in 1.2 milliseconds. Today, the computer you are using is born out of von Neumann's idea.

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. List the early counting devices and state their limitations
2. Explain the working principle of the Napier bone, Blaise Pascal and Charles Babbage machine
3. Explain the stored program concept by John Von Neumann

5.0 Conclusion

The history of computers goes way back more than 2500 years to the early counting devices to abacus to Blaise Pascal machine to the Charles Babbage machine to Von Neumann's machine and to the modern day computer. Each of these were stepping stones to the modern computer we have today.

6.0 Summary

In this unit, you have learnt about the history of computers from the early counting devices to the modern computer of today. You have also learnt about the pioneers/individuals who put in effort and developed these machines and how the machines were used

.

7.0 Further Readings

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General introduction to Computing, The Department of Computer Science and Mathematics,

Babcock University, Ilisan Remo, Ogun State, Nigeria

Hartley, P., & Bruckmann, C. (2015). *Business Communication*. London: Taylor and Francis.

Introduction to Business Communications | Boundless Business. (2020). Retrieved 11 August 2020, from https://courses.lumenlearning.com/boundless-business/chapter/introduction-to-business-communications/

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Parameswaran, R. (2010). *Computer Application in Business*. Ram Nagar, New Delhi: S Chand & Co Ltd.

Reed, D. (2011). *A balanced introduction to computer science* (3rd ed.). Pearson.

Unit 2: BASIC CONCEPTS OF COMPUTERS

Contents

1.0 Introduction

A computer is an electronic device that can accept data, store data and manipulate the data to produce information or a result. This unit presents the basic concepts of computers such as the units of computers, the configuration (hardware and software) of computers.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- identify the various units of the computer,
- differentiate between RAM and ROM,
- classify computers according to data representation and size,
- identify various hardware and software components of the computer

3.0 Main Content

3.1 Primary Units of a Computer

There are three classical units, they are tagged as IPO:
(1) Input unit,
(2) Processing unit,
(3) Output unit.

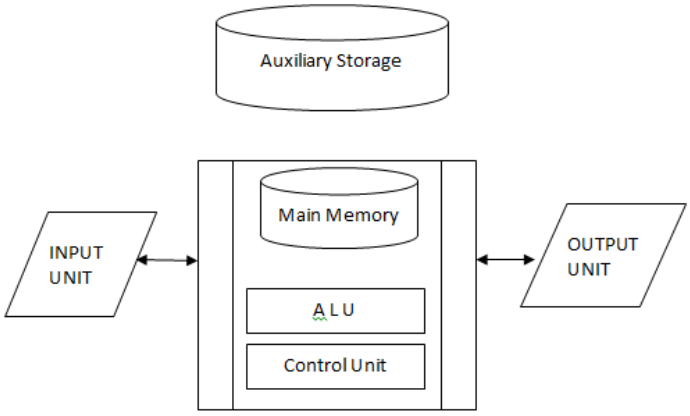

Fig 11: A diagram showing the three basic units (left-right arrows indicate communication flow)

3.1.1 The Input Unit:

This is the unit that accepts data, instructions and programs into the computer. It is the avenue

whereby users “talk” to or communicate with the computer system. Examples of input devices are keyboard (basic input device for entering characters, numbers etc. into the system), scanner (turning hardcopy material like pictures into electronic or softcopy formats), mouse (a pointing device that helps in selecting objects on the screen), touch screen, light pen, joystick, disk, and other computers through network connection.

3.1.2 The Output Unit:

This is the unit that makes the information (processed data or the result) available to users. Devices in this category may display information on the screen, send output to other computers, display or print error messages, send requests or even save information for use. Examples are monitor commonly called the screen (Cathode Ray Tube (CRT), Liquid Crystal Display (LCD)), printer (to get an output printed on paper (hardcopy))

3.1.3 The Processing Unit:

This is the unit where the processing of data is done, where data is manipulated. It is divided into three main parts namely:

a) The control unit
b) The Arithmetic and Logic Unit (ALU)
c) The main memory

- **The Control Unit/Processor Unit**: Directs and coordinates the flow of instructions and activities within the computer system. There is nothing that happens that does not involve this unit such as input activity, calculation done by ALU, storage of files onto secondary memory, release of output, etc.
- **The Arithmetic and Logic Unit**: Here, the ***arithmetic*** sub-unit performs arithmetic operations like addition, subtraction, multiplication, while the ***logic*** sub-unit performs comparison operations resulting in true or false outcome.
- **The Main Storage**: Here, we have the ROM and the RAM and they are referred to as the internal memory.
- **ROM** (Read Only Memory). This is where some instructions that are responsible for the booting or starting up of the computer system are permanently stored. From the name “read only”, it means the control unit fetches the first set of already coded instructions from there, and uses it to put the computer system in a ready state at every instance when the user switches the system. ROM chips are installed by the computer manufacturer and the instructions cannot be altered by the user.
- **RAM** (Random Access Memory). This is the part of memory where every instruction resides during execution or processing. All processing take place with the RAM. The RAM is volatile; loses its contents on switching the system off. It is random access memory, the data on it wherever located can be accessed in equal amount of time. The size and access time of the RAM have a great impact on the overall processing speed of a computer system.

Auxiliary storage is a secondary memory that is non-volatile, usually larger and cheaper than the

main memory, even though slower.

3.2 Classification of Computers

3.2.1 Classification of Computers based on Data Representation

There are three basic types of computers with respect to how data are represented:

1. **Digital Computers**

The word 'digital' as used means whole numbers (discrete); for example the channel selector on the television set is a digital device because it restricts you to discrete set channels; (you cannot select channel 3.141).

These computers process data in form of discrete or separate values that is 0,1,2,3 etc by operating on it in steps. They cannot work with values in intermediate intervals such as $1^1/2$, 1/3 etc. Digital computers are more accurate and more flexible than analog computers because they use the digital form of electricity signals. However, it must be noted that input and output information in digital compatible computers must be converted to analog form before processing can take place. Examples are the IBM and compatible machines, and Mackintoshes.

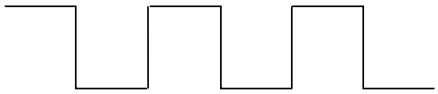

Fig 12: Data representation for digital computer

2. **Analog Computers**

In contrast to digital devices, analog devices have continuous values. An example is the volume control of a television that allows continuous adjustment of the volume in one smooth action.

These computers process data in form of variables, that is, quality that changes every time or continuous signals. They are like measuring instruments such as thermometers and voltmeter. They are mainly used in scientific and industrial control applications. They are devices that can measure the numerically defined variables of an abstract system in terms of some physical quality; examples are speedometer of a car and odometer of a pressure gauge.

Fig 13: Data representation for digital computer

3. **Hybrid Computers**

These computers process data both in digital and analog forms. Hybrid computer is a digital computer that accepts analog signals, converts them to digital and processes them in digital form. For example, setting (programming) on a modern day television involves both digital and analog. They are special purpose computers that have found much application in control and feedback

processes. An example is a robot used in an industrial environment. First, it allows the process to get to a particular temperature (analog); it then does some other processes, which could be digital and /or analog.

3.2.2 Classification of Computers Based on Size and Processing Power

The following are the computer systems available according to their sizes and processing power; small, or microcomputers, medium-sized or minicomputers, large or mainframe computers and super-large or super computers

1. **MICRO COMPUTERS**

A microcomputer is a computer whose central processing unit (CPU) is based on a microprocessor. They use silicon chips and memory chips like ROM and RAM. These are the smallest and inexpensive computers. They are also known as micro or PCs (Personal Computers). Micro computers can be classified into three units which are desktop, portables (laptops, notebooks) and hand-held units.

- **Desktop Unit**

This is the computer unit that can fit on top of a desk. It is the type that is found in homes, offices and schools. Examples of this are, IBM PC; IBM PA/1, IBM PS/2, Apple II, IIc, and IIe. Desktop unit is divided into two, namely: the single user unit or multi-user unit.

Single User Unit: This is a computer unit that can only be used by one person at a time.

Multi-user Unit: It is a computer unit that many people can use simultaneously, with two or more access points.

- **Portable/Laptop Units**

These are computer units that can fit unto the lap or small enough to be carried in a briefcase. They have liquid crystal display (LCD) screen and compact arrangement of keys on the keyboard. They are as powerful as the desktop units but more expensive. For their mobility, some are also known as notebook computers.

- **Hand-held or Palm top Units**

These are smaller computer units that are usually used to keep track of events, anniversaries, translation of words into foreign languages, providing synonyms and antonyms for words and so on. They can fit into a pocket; they look like calculators and are operated on top of the palm, (e.g. organizers).

2. **Mini Computers**

These are computer systems that fall between microcomputers and mainframe computers. They are sometimes called minis. They are more expensive than the microcomputers and are used by medium sized companies whose volume of work needed computer systems with a higher processing power than the microcomputers. Examples are MIR 9300, DEL, HEWLET PACKARD 3000, IBM system 38 and MU 400 (data general). They are multi-user systems and are usually found in factories and warehouses where they are used for managing production and inventory operations.

3. Mainframe Computers

These are large computer systems that are used by big organisations for processing their business transactions like payroll, salary, inventory and routine paperwork. They can operate 24 hours a day serving hundred of users (e.g. IBM 360/370 system, NCRV-8800 systems).

4. Super Computers

These are the fastest largest and most expensive computer system. They are used usually in scientific and research laboratories. They are also used for crunching of data needed in sending astronauts into the outer space, for weather forecasting and in computer generated movies and commercials (e.g. CRAY, X-Map and CRAY 2).

3.3 Computer Configuration

There are two basic components of a computer system: Hardware and Software.

- The Hardware are the various physical components of a computer system. Any part that can be held or felt or touched is hardware.
- The Software consists of the non-tangible elements. It includes instructions and other commands that control the operation of the computer system.

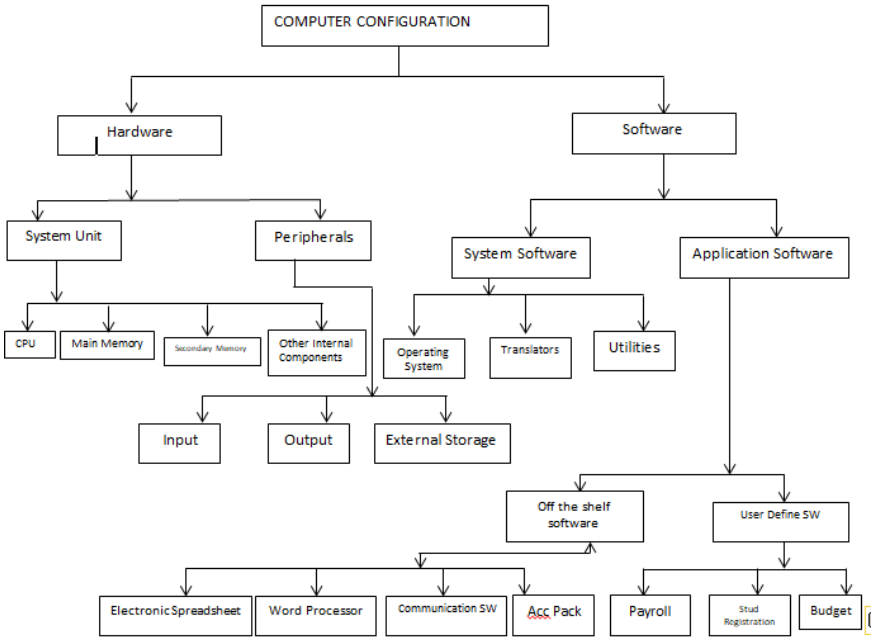

Fig 14: Configuration of a Desktop Computer

3.3.1 The Hardware Component

The hardware consists of the system unit and peripherals.

3.3.1.1 The component of the system unit

The system units consist of the CPU (e.g. microprocessor), main memory, internal secondary memory and other internal components held and made to function together by the mother-board.

- **The microprocessor**: this is the integrated circuit built on a small piece of silicon. This is commonly referred to as the brain of the computer system (e.g. Intel family, Motorola etc).
- **The motherboard:** It is a large board containing a number of tiny electronic circuits and other components. The internal components sit on the board and are linked together by the board. Examples of such components are microprocessor, RAM, and ROM.
- **Secondary memory**: this is also referred to as the auxiliary storage or the backing storage. Since RAM is volatile and may not be able to hold large volume of data or programs, the secondary memory provides the necessary support. Anytime a program is needed to run, the system moves it from its resting state in the secondary to the primary storage (RAM). We can describe this occurrence as reading of files into main storage in manageable form. When data is saved on the secondary memory it is kept permanently until it is no longer needed and is deliberately erased. Such files can be lost if and only if the disk in damaged or the user unconsciously deletes them. Examples of secondary memory includes; hard disk drive (fixed disk), floppy disk (diskette), flash drive, zip disk and so on. Only the internally attached secondary storage qualifies as part of the system unit.

3.3.1.2 Peripherals

Peripheral devices are the hardware components of a computer system that are either attached or connected externally to the system unit through a wired or wireless media. The common ones are input, output, and storage devices.

- **Input Devices**: Used by computer system user to input data and instructions. Examples are:
  - **Keyboard:** used for entering characters like numeric alphabetic and special characters/symbols.
  - **Mouse:** used as a pointing device to select objects on the screen, place the cursor wherever the user wants and so on.
  - **Scanner:** reads images, converts hard copy material into its electronic form
  - Others are light pen, joystick, digitizing pen, voice recorder etc.
- **The Output Devices**: These are means of outputting computer system's processing results. Examples are:
- **Monitor:** Also called Visual Display Unit (VDU) or the screen It gives an instant feedback and /or output while working on the system. We have the monochrome type i.e the black and white and the colour type i.e. the ones that displays colour and graphics eg. Super Video Graphic, Adaptive (SVGA), Video Graphic Adaptor (VGA), Enhanced Graphic Adaptor (EGA), etc.
- **Printer:** Used to produce computer systems output on paper.

- **External Storage**: refers to storage/memory like flash disk, hard disk, magnetic tape, cassette tape and so on; that are either attached or connected to the system unit mentioned earlier. They are secondary storage.

3.3.2 Computer System Software

Software is the intangible part of a computer system. It is a set of instructions written by a computer expert or a programmer that represents the logical steps the computer follows to solve a particular problem or do a specific task, and the accessory data.

Classification of Computer Software

The different types of computer software available in the global computer market consist of the following two main types: (i) Systems Software (ii) Applications Software

3.3.2.1 Systems software

System software is a program or collection of programs which links other software like the application software with the system hardware. It acts like the intermediary between them. These are designed or written by software manufacturers and other computer software experts.
The major system software is the operating systems. Other includes translators and utilities.

Operating Systems: a software designed by system developers to control and manage the resources of a computer system. Examples of such resources are the hardware resources such as (memory, other peripherals), and the software resources like application programs. Management of resource by the operating system includes memory management, sharing of resources, error handling, running of other programs, interrupt handling etc. or graphics application.
The operating system acts as an interface, or link, between the user and the computer hardware.

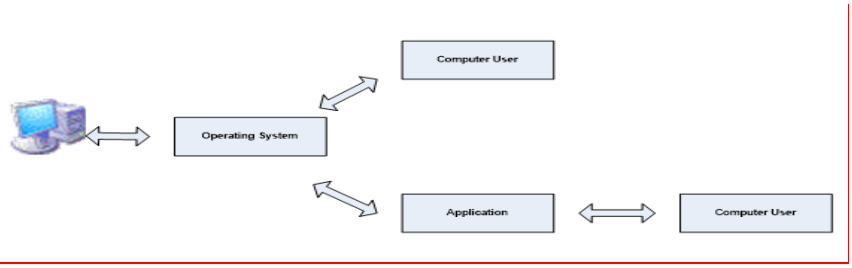

Fig 15: The operating system acts as interface between the computer hardware and the user

Utility Software: Utility software performs the basic operations necessary for the fundamental performance of the computer system such as creating, copying, saving, deleting, merging and sorting files.

Language Translators: Language translators convert programmers-made instructions into machine-language instructions (object code). Types of language translators are:

i. Assemblers

ii. Interpreters
iii. Compilers

(i) Compiler: Compiler is a language translator which is used to convert programs written in High-Level Language all at once to low-level language. It translates the entire program and also reports the errors in source program encountered during the translation.

(ii) Interpreter: Interpreter is a language translator which is used to convert programs in high-level language to low-level language. Interpreter translates the program line by line and reports the error once it encountered during the translation process.

(iii) Assemblers: Assembler is a language translator which is used to translate a program written in Assembly language to machine language code.

3.3.2.2 Applications Software

There are two main types of Application software: Off the shelf/General purpose and In-house/User Defined.

- **General Purpose/Off the Shelf Application Software**

As the name implies, these are the programs designed by computer experts to be applied or used in solving a particular type of problem. They are usually general purpose software which may be useful to many organisations at the same time. The designer and developers consider the need of the general public in a particular problem area and produce a program that will meet the general needs. Examples are: word processing packages (e.g MS word), spreadsheet packages (e.g MS Excel), communication software (e.g Internet explorer), analytical/statistical packages (e.g SPSS)

- **User-defined/In-house Application Software:**

This refers to the custom-built program or software written by a programmer or group(s) of them (employed to do so) to meet the need of a particular user or customer. Program developers or software experts would have to visit the individual in need of this, ask for his requirement/specification, do appropriate feasibility study, do analysis, put up a design and finally come up with a program that meets these very needs. Because it is not a generalised software like the general purpose application software (e.g. MS Word), the program tends to cater for all that the customer wants. A good example of this kind of software is the University Result Processing Software that caters for the students' record and their Cumulative Grade Point Average (CGPA).

The following list describes different kinds of software applications that would be suitable for different tasks:

- **Word Processing software** - Use this kind of tool to create worksheets, type letters, type papers, etc. MS Word, WordPerfect, MS Works, AppleWorks, ...
- **Desktop Publishing software** - Use this software to make signs, banners, greeting cards, illustrative worksheets, newsletters, etc. Adobe PageMaker, MS Word, MS Publisher, AppleWorks, MS Works, Quark Express,..

- **Spreadsheet software** - Use this kind of tool to compute number-intensive problems such as budgeting, forecasting, etc. A spreadsheet will plot nice graphs very easily. MS Excel, Quattro Pro, Lotus 1-2-3, ...
- **Database software** - Use this software to store data such as address, membership and other text information. A database can be used to easily sort and organize records. MS Access, Filemaker Pro, ...
- **Presentation software** - Use this software to create multimedia stacks of cards/screens that can effectively present a lesson or a sales pitch. The user often clicks on buttons to advance to the next screen in a sequence.MS PowerPoint, AppleWorks (slideshows), HyperStudio, Flash, Director, HyperCard, Digital Chisel, SuperCard, Corel Envoy,...
- **Internet Browsers** - This software allows one to surf the Web. Often they can read email and create Web pages too. Netscape Navigator (or Netscape Communicator), MS Internet Explorer, Mozilla Firefox, Opera….
- **Email programs** - These programs send and receive email. Netscape Messenger (part of Netscape Communicator), MS Outlook Express, MS Outlook, Eudora, AOL browser (has email built in)....
- **Graphics Programs (pixel-based)** - This software allows one to touch up photographs and create graphics from scratch. Adobe Photoshop, Paint Shop Pro, MS Paint (comes free on Windows PC's), Adobe Illustrator, Corel Draw, Painter, ...
- **Communications software** - This software allows two computers with modems to communicate through audio, video, and/or chat-based means.MS NetMeeting, AOL Instant Messenger, IRC, ICQ, CU-See Me, ...

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. List and explain the primary units of a computer
2. Classify computers according to data representation and size,
3. identify various hardware and software components of the computer
4. Differentiate between General purpose and User defined application software

5.0 Conclusion

A computer is an electronic device that can accept data, store data and manipulate the data to produce information or a result. The computer is divided into three main units which are the (i) Input Unit (ii) Processing Unit (iii) Output Unit. Computers can also be classified based on the type if data represented and the size and processing power of the system. There are two main configurations that make up the computer system: (i) hardware components (ii) software components.

6.0 Summary

In this unit, you have learnt about the following:

- The three (3) primary units of the computer system,
- Classification of computers according to data representation and size,
- Hardware and software components of the computer

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Unit 3: IMPORTANCE AND APPLICATION OF COMPUTERS IN BUSINESS

Contents

1.0 Introduction

Over the years, computers have become of great importance and applied in virtually every aspect such as aviation, education, business, finance, etc. In this unit the focus will be on business, that is, the importance and application of computers in business.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- identify the importance of computers in business,
- identify and explain various application areas of computers in business.

3.0 Main Content

3.1 Importance of Computers in Business

The following are the importance of computers in business

- A computer is important to use in business to automate the manufacturing, marketing and, distribution process. It is the 1st and main tool in business that generates and manages profits.
- Computers help in research, production, distribution, marketing, banking, team management, business automation, data storage, employees management and very helpful to increase the productivity in lower cost, less time with high quality.
- Computer help business to manage, calculate, arrange, and visualize customer data and information by us computer applications such as Microsoft word, excel, lower power point and tally etc..
- A computer helps to communicate faster with the customer by using the internet, online communication tools and internet phone system. It's really important for the administration of the big or small organization and each field that manage resources and opportunities.
- Computer help creates marketing and advertising materials by using adobe Photoshop, Corel draw, online designing tools. Also to create websites for the business
- The computer is important in business to automate business transactions by using online banking, payment Gateway.

3.2 Application Areas of Computers in Business

The following are some of the application areas of computers in business: (i) Business Communication (ii) Inventory Management (iii) Customer Relationship Management (iv) Payroll (v) Advertisement (vi) Data Management and Analysis (vii) Management Information System (viii) Human Resource Management

3.2.1 Business Communication

This is the sharing of information between people within an enterprise that is performed for the commercial benefit of the organization. In addition, business communication can also refer to how a company shares information to promote its product or services to potential consumers.

Business communication within an organization can either be:

Upward communication: any communication that comes from a subordinate to a manager or from another person up the organizational hierarchy.

Downward communication/Managerial communication: anything that comes from a superior to a subordinate.

Lateral communication/ Technical communication: internal or cross-departmental communication between coworkers

Methods of business communication include:

Web-based communication: This includes everyday communication channels like emails and instant messaging applications (such as Slack, Hangouts, or even Nextiva Chat). The benefits of emails and messages lie in the ability to lead private conversations in a busy office environment, as well as sharing a message with many people—from a few to hundreds—all at once.

Telephone meetings: Phones removed the location barrier to running productive, fast-moving meetings. It allows for better idea exchange thanks to the non-verbal communication (tone of voice) compared to written communication. Cloud phone systems can accelerate onboarding and overall team collaboration.

Video conferencing: Great video conferencing systems enable people at remote locations to run meetings that feel as close to in-person meetings as possible. They take phone meetings one step up.

Face-to-face meetings: In-person meetings can help a business move forward with ideas quickly. Research shows that in-person meetings generate more ideas than virtual meetings. However, having a rock-solid meeting agenda is essential for effective meetings. 46% of employees rarely or never leave a meeting knowing what they're supposed to do next.

Reports and official documents: Documenting activities that impact other people and departments is a crucial part of a well-oiled business communication system. The ability to refer to a written document at any moment reduces the chance for confusion or disagreement and provides extra clarity in communication.

Presentations: Presentations supported by reports and PowerPoint slide decks are often how meetings with larger groups are conducted. These are great for sharing new ideas in a way that creates space for questions and any clarifications.

Forum boards and FAQs: An internal area for employees to refer to frequently asked questions on various departmental topics and to ask new ones that will make them more productive and up-to-date on a matter.

Surveys: Both internal and customer surveys are an ideal way to gather feedback and ratings on important topics. Surveys facilitate a healthy cycle of feedback-supported improvements and open a communication channel between all levels inside an organization.

Customer management activities: This can include any customer relations activity. Examples include live chat support, customer relationship management (CRM) systems, customer onboarding process, customer reviews, and more.

Suggestion box: primarily for upward communication, because some people may hesitate to communicate with management directly, so they can give suggestions by drafting one and putting it in the suggestion box.

3.2.2 Inventory Management

Inventory management is the supervision of non-capitalized assets (inventory) and stock items.

A component of supply chain management, inventory management supervises the flow of goods from manufacturers to warehouses and from these facilities to point of sale. A key function of inventory management is to keep a detailed record of each new or returned product as it enters or leaves a warehouse or point of sale.

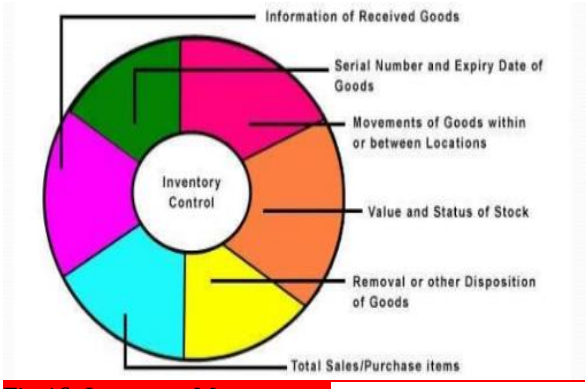

Fig 16: Inventory Management

Inventory management uses a variety of data to keep track of the goods as they move through the process, including lot numbers, serial numbers, cost of goods, quantity of goods and the dates when they move through the process. Computers help in making the process of inventory management easier through the use of **inventory management software systems**

An inventory management system is a combination of technology (hardware and software) and processes and procedures that oversee the monitoring and maintenance of products stocked by a company. These products can be either company assets, raw materials, or finished products that are ready to be sent to vendors or end consumers.

3.2.3 Customer Relationship Management (CRM)

Customer relationship management (CRM) is the combination of practices, strategies and technologies that companies use to manage and analyze customer interactions and data throughout the customer lifecycle, with the goal of improving customer service relationships and assisting in customer retention and driving sales growth.

The use of CRM software systems has helped the CRM approach. CRM systems compile customer data across different channels, or points of contact between the customer and the company, which could include the company's website, telephone, live chat, direct mail, marketing materials and social media. Through the CRM approach and the systems used to facilitate it, businesses learn more about their target audiences and how to best cater to their needs.

3.2.4 Payroll

Payroll is the process by which employers pay an employee for the work they have completed. Any business with employees should have a payroll process established; payroll is often the largest expense for a business. An effective and efficient payroll process will ensure that employees are paid accurately and consistently, keeping them satisfied with this aspect of employment and allowing HR to focus on other areas.

A payroll system is software designed to organize all the tasks of employee payment and the filing of employee taxes. These tasks can include keeping track of hours, calculating wages, withholding

taxes and deductions, printing and delivering checks, completing direct deposit, paying premiums to insurance carriers, and paying employment taxes to the government.

Payroll software often requires very little input from the employer. The employer is required to input employee wage information and hours—then the software uses the information to perform calculations and deduct withholdings automatically. Most payroll software is automatically updated whenever a tax law changes and will remind employers when to file various tax forms.

3.2.5 Advertisement

Advertising is the attempt to influence the buying behavior of customers or clients with a persuasive selling message about products and/or services. In business, the goal of advertising is to attract new customers by defining the target market and reaching out to them with an effective ad campaign.

3.2.6 Data Management and Analysis

Data management is an administrative process that includes acquiring, validating, storing, protecting, and processing required data to ensure the accessibility, reliability, and timeliness of the data for its users. Organizations and enterprises are making use of Big Data more than ever before to inform business decisions and gain deep insights into customer behavior, trends, and opportunities for creating extraordinary customer experiences.

To make sense of the vast quantities of data that enterprises are gathering, analyzing, and storing today, companies turn to data management solutions and platforms. Data management solutions make processing, validation, and other essential functions simpler and less time-intensive.

Data analysis is a process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision-making. In today's business, data analysis is playing a role in making decisions more scientific and helping the business achieve effective operation.

3.2.7 Management Information System

A management information system (MIS) is a computerized database of financial information organized and programmed in such a way that it produces regular reports on operations for every level of management in a company. It is usually also possible to obtain special reports from the system easily. The main purpose of the MIS is to give managers feedback about their own performance; top management can monitor the company as a whole. Information displayed by the MIS typically shows "actual" data over against "planned" results and results from a year before; thus it measures progress against goals. The MIS receives data from company units and functions. Some of the data are collected automatically from computer-linked check-out counters; others are keyed in at periodic intervals. Routine reports are preprogrammed and run at intervals or on demand while others are obtained using built-in query languages

3.2.8 Human Resource Management

The process of defining HRM leads us to two different definitions. The first definition of HRM is that it is the process of managing people in organizations in a structured and thorough manner. This covers the fields of staffing (hiring people), retention of people, pay and perks setting and

management, performance management, change management and taking care of exits from the company to round off the activities.

The second definition of HRM encompasses the management of people in organizations from a macro perspective i.e. managing people in the form of a collective relationship between management and employees. This approach focuses on the objectives and outcomes of the HRM function. What this means is that the HR function in contemporary organizations is concerned with the notions of people enabling, people development and a focus on making the “employment relationship” fulfilling for both the management and employees.

Case Studies

California Pizza controls costs with IT

California Pizza Kitchen (CPK) started out in 1985 as a venture by two former federal prosecutors who wanted to do something different. They decided to sell "designer pizza" in which the pizza dough is a "canvas" for exotic food toppings such as Thai chicken, shrimp pesto, Peking duck, or southwestern burritos. By offering stylish entrees costing less than $10 in a sitdown setting, CPK mushroomed into a national chain of 70 restaurants in only nine years, with PepsiCo buying half-ownership in 1992.

Success did not come easily to this Los Angeles-headquartered chain. The restaurant business is a high-risk industry with many factors that are beyond their control-like :swelling competition, fickle customer tastes, and rising real estate costs. Thus, restaurants need to tightly control food and labor costs to remain profitable-without affecting the quality of their food or service. CPK company is poised for another take-off. It hopes to expand to 700 restaurants by using information systems to control food costs and make employees more productive. Since diners are turned away by high prices, the only way to control costs is through inventory and portion control -keeping precise track of the amount of ingredients used in each menu item and stocking only as much of these ingredients as each restaurant actually needs.

All California Pizza Kitchen restaurants installed point-of-sale (POS) devices, which capture data about each item sold at the time the sale takes place. The sales data and inventory reports prepared by restaurant managers are transmitted from each restaurant to the company's central computer, where the information is consolidated and analyzed. An application called Inventory Express "remembers" ordering patterns, such as the amount of lettuce a restaurant needs each week, and also compares the amount of each item used to what each restaurant actually sold. If, for example, a restaurant sold 100 Thai shrimp pizzas in one week, it should have used a predetermined amount of shrimp, such as 40 pounds, based on portion measurements established by CPK management.

Using more shrimp would indicate a problem with over portioning or waste. Restaurants with out-of-line portions would be told to take corrective action. The POS-derived data is used for other purposes besides portion control. CPK's restaurant operations group uses the data to determine peak sales at each location so that they can schedule employee work shifts. The data

tell food and beverage specialists how well each item sells. CPK found that it should get rid of its egg-salad pizza, for instance, when the item registered poor sales. California Pizza now has pilot projects to move to more state-of-the art information system technology. Waiters and waitresses are experimenting with hand-held point-of-sale devices, which management hopes will boost productivity by reducing the amount of time employees spend with customers. The devices use radio frequencies to transmit orders to a computer in the back of the restaurant, eliminating the need for employees to run back and forth to a stationary POS device to place orders. CPK can also use its information systems to calculate the relative costs of different markets so it can determine if it has a lower profit margin on Hawaiian pizza in Maryland, than in Waikiki. (Pineapple should be less expensive in Hawaii than in the northeastern United States.) CPK's corporate accounting department can use the aggregated sales data to tally revenue and can manage the accounts payable and accounts receivable processes by combining that data with financial data residing on a central CPK computer.

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. State the importance of computers in business
2. Identify various application areas of computers in business

5.0 Conclusion

The use of computers in business and other areas cannot be over emphasized. New technologies, software, applications are developed daily to aid business growth and developemt and to also maximize profit.

6.0 Summary

In this unit, you have learnt about the following:

- The importance of computers in business.
- The various application areas of computers in business.

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Module 2: MICROSOFT WORD IN BUSINESS

Module Introduction

Microsoft Word is an application software designed to handle the basic skills of business documents. The main features of this software are improvement on the use of the typewriting skills in typing basic business documents. This module will expose you to the management of business documents which will acquaint you on:

Unit 1: Document Production
Unit 2: Data Security
Unit 3: File Management
Unit 4: Document Presentation

Comment [D4]: Updated the use of Microsoft word 2007 to 2010/2013 and windows xp/7 to windows 10. Improved on the references and further readings. Expunged the very old references and incorporated recent references and books for further readings.

Unit 1: Document Production

Contents

7.0 Further Readings

1.0 Introduction

No business can thrive well without data or information which is usually passed from one person to another or from one company to another. The life wire of any company lies in the way and manner information is being processed and transferred. This makes communication imperative in business. There will be no buying, selling or rendering of services if there is no communication. In communication, there must be a sender, process and the receiver. There is no communication if the receiver cannot decode (interpret) what has been sent.

Fig 17: Communication in diverse forms

All forms of communication are important in business, but this course material would concentrate on written communication; which mostly requires the use of personal computer. Written communication in business can take the form of letters, memoranda, reports, minutes, invoice, newsletters, flyers, table, charts and diagrams. These are the various forms through which messages can be sent from one source to another. The way these documents are presented speaks about a

company's image. This is why this unit is designed to teach you the vital skills required when using personal computer for business documentation.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- Identify different types of business documents;
- Display business document using the appropriate skills.

3.0 Main Content

The most commonly used business documents are:

- Letters;
- Memoranda;
- Reports;
- Minutes;
- Invoice;
- Newsletters and
- Flyers.

In the process of producing these documents other functions may be required. For example there might be need to create a table, use charts and diagrams for illustrations. In this instance it becomes necessary to know how personal computer can be used to create these documents.

3.1 Letters

There are four types of letters. They are:

i. business letters
ii. circular letters
iii. personal-business letters
iv. personal letters

We would start the discussion from the bottom.

Personal Letters – These are letters written or received from relatives and friends. This type of letter can take any form of display. We are not usually concerned about this type of letter in business. Personal letters are not regarded as official letters, hence the name personal letters.

Personal–business Letters – These are personalised letters that take some features of business letters. The major difference between personal-business letters and business letters is in the

salutation and complimentary close. For a business letter the salutation and complimentary close are formal. For the salutation, it is usually typed as Dear Sir/ Dear Madam/Sir/Madam and the complimentary close is "Yours faithfully". But for personal-business letters, the salutation reflects the addressee's name e.g. Dear Mr. Adegbuyi/Dear Kayode, while the complimentary close ends with "Yours sincerely". Using this form of letter implies that the writer is familiar with the addressee. The issue for discussion or the issue for which messages are sent will be a familiar one.
This method is useful at a certain stage in business, because it makes you have a personal touch with your clients. You speak to them in familiar terms; which makes the clients feel recognised and happy.

Circular Letters – These are letters addressed to a group of persons. For example, if a company XYZ wants to inform its customers about a change in the company's closing hour; the salutation would read – Dear Customers. This is to say that the content of the letter is for all the company's customers. This form of letter is also used by government parastatals when instructing the various bodies on actions that should be taken. This form of letter is not specific neither does it consider the interest of an individual.

The most important thing to note is that circular letters do not have addressee's address, the salutation is general, the complimentary close is "Yours sincerely" and sometimes omitted, finally the designation is general e.g. Management. The use of complimentary close in circular letters has given way to the non-use of it in Nigeria. Most companies have now adopted the non-use of complimentary close. Rather simply type Management.

Business Letters – First and foremost we need to look at the different parts of a business letter. Just as human beings have parts of the body; which is needed for a whole being to function, so also are the various parts of a business letter, so as to have a standard and presentable business letters.

Parts of a Business Letter
The parts of a business letter are:

1. Writer's Address
2. References – Our Referenceand Your Reference
3. Date
4. Attention Line
5. Addressee's Address
6. Salutation
7. Heading
8. Body of the Letter
9. Complimentary Close
10. Signature

11. Designation
12. Enclosure.

Although our concern is on the display of a business letter and not the construction or the grammatical structure, the various parts of a business letter would be better understood if they are discussed. Therefore, let us look at the discussion of the various parts.

Writer's Address

The first thing to be seen on a business letter is the writer's address. There is a need for the recipient (the person to whom the letter is written) to know where the letter is coming from. The practice today, is to print the address of the writer at the top edge of the paper. Once this is done, it is referred to as letter headed paper.

There are different qualities of papers that may be used. The printer can give a better advice on this. Where there are no printed letter headed papers, the address can be typed in thus:

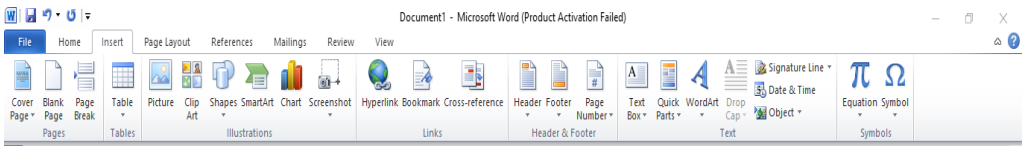
National Open University of
Nigeria University Village
Plot 91, Cadastral Zone
Nnamdi Azikiwe
Expressway Jabi, Abuja

To achieve the above you need to consider the following:

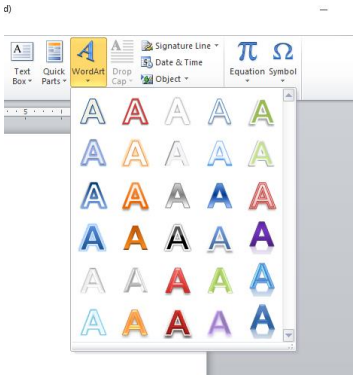
1. Set half an inch as top margin
2. Set your left and right hand margins at 1 inch each or $1^1/_2$ inch each
3. Type in the address, break the words appropriately
4. Highlight each line and select appropriate font type and size to match a letter headed paper. It is not compulsory that all lines of the heading must be equal font size. You can vary the size for space or for appropriate display.
5. Centre each line vertically on the paper.
6. You may use colour if desired, but with appropriate combinations to reflect the maturity of the company.

You may also decide to use the WordArts. Follow this procedure:

1. Click on Insert, the following display will appear at the menu



2. Then click on WordArt -  , the following drop down menu will appear thus:



3. Click on any design of your choice. A dialog box will appear

4. Type in the text in the specified box
5. Follow the command to achieve the desired goal.

The beauty of the use of word arts is that you can have variety of display. Also you can move the text as desired by clicking on the text and move to desired position. But the best is to use printed letter headed paper on a quality A4 paper.

References

You have two types of references – "Our Reference" and "Your Reference". Reference helps to establish relationship between the writer and the receiver; which helps to keep track of the communication between the two. "Our Reference" indicates the reference of the writer; which is used to keep record of its communication to the receiver. Then "Your Reference" indicates the receiver's reference; which is also used to keep record of its communication to the writer. For example if company ABC is writing a letter to company XYZ, company ABC reference will be "Our Reference" and company XYZ reference will be "Your Reference". But if the writing is on its first instance, it would be only ABC reference i.e. "Our Reference" that would be available while "Your Reference" would be vacant.

Example

Our Reference: NOUN/REG/CONT/XYZ/1

Your Reference: _____

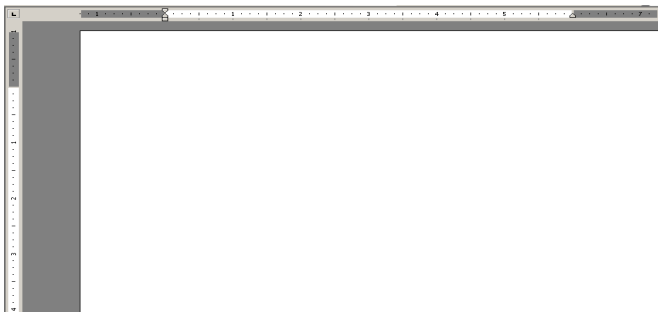
This takes us to how to formulate references. The purpose of reference as earlier

mentioned is to track communication. So in formulating references you need to consider the parameters (tools) involved in tracking the communication. This may involve the names of the company, the department the letter is coming from, the purpose of the letter, the volume if necessary and the number. With the example above, NOUN refers to National Open University of Nigeria; REG refers to Registrar which indicates registrar's office; CONT refers to Contractor which implies that the subject matter is on contract for company XYZ and the '1' means that is the first letter coming from company ABC to company XYZ. Whoever that is writing takes the position of "Our Reference".

It is often advised that the references positions are printed along side with the letter headed paper, e.g.

Show letter headed with reference	
Our Ref:	Your Ref:

Another important thing to note in typing references on a letter headed paper with references positions is to ensure alignment i.e. the references should align with "Our Ref" and "Your Ref". To do this effectively, requires a ruler. Both the manual and computer rulers are found useful. See below to identify the computer ruler.



Sometimes the ruler may not appear as you launch Microsoft Word. When this happens, do the following to make the ruler appear:
Click on the view menu – click on ruler, and the ruler will appear.

The computer ruler and the manual ruler have the same measurements. Use the manual ruler to measure the letter headed paper to know the exact measurement where the positions of the

references are. Let's say 2 inches as you measured. Locate 2 inches on the computer and type in the references. As you print, it would align with the headings of the references.

Date

There are two methods of typing dates. They are the British and American methods. With the British method you have the day, month and year for example, 2nd March 2009 or 2nd March, 2009. But the American style would be month, day and year e.g. March 2nd 2009. The British style is the most common and preferred in Nigeria. The house style of either of the two could be adopted. To type the date, leave a minimum of three clear spaces and maximum of five clear spaces between the last lines of print on the letter headed paper and the typing line of the date.

Attention Line

In business letters, there are times the attention of someone else other than the addressee is drawn to the subject matter under discussion. In typing the attention line, there are two schools of thought – one school says the attention line should be typed before the addressee's address and the other school of thought says that the attention line should be typed immediately after the addressee's address. The opinion of the first school of thought is that the addressee might not notice the attention line soon after sighting the addressee's address; therefore it should be typed first to avoid oversight. The second school of thought feels that the addressee being the main person the letter is addressed to should have the honour first before the person whose attention is called to the subject matter. Again, any method used is acceptable depending on the prevailing house style. See the examples below:

For the Attentionof: Mrs. C. Okoro

The Dean,
School of Education,
National Open University of Nigeria,
14/16, Ahmadu BelloWay,
Victoria Island, Lagos.

Attention line before the addressee's address

OR

The Dean,
School of Education,
National Open University of Nigeria,
14/16, Ahmadu BelloWay,
Victoria Island, Lagos

For the Attention of: Mrs. C. Okoro

Attention line after the addressee's address

Whichever method that is used; single or double line clear spacing should be left in between the attention line and the addressee's address.

Addressee's Address
This is the address of the recipient. It is typed in single line spacing.

Salutation
In business letters, the salutation is formal and it is usually typed as Dear Sir/Dear Madam. Where the sex of the addressee is not known, the salutation should be Dear Sir. The salutation is typed one or two clear spaces after the addressee's address.

Heading
The heading introduces the letter. It gives an idea to the reader of what the content of the letter contains. The heading is also helpful in sorting of mails. It is typed one or two clear spaces after salutation in capitals and bold. Preferably font size 14. Once it is bold, it should not be underscored (underlined). Both underscore and bold perform the same function of emphasis; therefore one should be used at a time. The heading should distinctly express the content.

Body of the letter
This is typed in single line spacing or at the most $1^1/_2$ line spacing, with one or two clear line spaces in between paragraphs.

Complimentary Close
Business letter ends with "Yours faithfully". Before now when the use of letter headed paper was not common the company's name is typed immediately after the complimentary close to show that the writer is writing on behalf of the company.
Example
Yours faithfully,
NOUN
These days, this practice is now obsolete, though some companies are still practicing it out of ignorance. Once a company's letter headed paper is used, it shows that the writer is not autonomous rather he/she is standing in for the company. Should there be a need for legal action, it is the company that would be sued and not the individual because the individual was not representing himself/herself. Company's letter headed paper cannot be used for personal writing.

Signature
A space need to be left for the signature of the writer. Without the writer's signature, a business letter is disregarded because it is assumed somebody else would have done the writing. But there are occasions whereby someone else needs to sign for the supposed writer. This can be reflected in

the designation.

Designation
This is the position the writer is holding in the company. The designation would signify the amount of importance that would be attached to the content of the letter. Let us look at the following examples for clarity:

Suppose Mr. O.A. Okonofua is the Sale's Manager in company ABC, and a letter need to be sent from his office to company XYZ to tender apology for the delay in the supply of goods to company XYZ, but it happens that Mr. O.A. Okonofua is on annual leave. Some questions like, would the letter be put on hold until Mr. Okonofua returns from his annual leave? Can somebody else write on his behalf?

It is Mr. Okonofua that is on annual leave and not the entire company. Therefore the normal business should still be carried out. Somebody would have been approved by the management of the company to act in his office while he was away for his annual leave. So the letter must be written in the office of the Sale's Manager. So the complimentary close and designation would appear thus, assuming Mr. K.E. Adeleke is the one acting in his office.

Yours faithfully,

Sign. of Mr. Adeleke

K.E. Adeleke
for Sale's Manager

Sometimes it may be that the Sale's Manager is not on annual leave, but he is very busy with official matters. In this instance he could mandate any of his subordinates to sign on his behalf. This would still follow the same procedure as explained above.

It is wrong to type in the name of the manager when he is not the one signing. The signature alone may not be enough to trace the actual person when the need arises. Using the example above, it will appear thus:

Yours faithfully,
ൗ൯ } K. E. Adeleke's signature
O. A. Okonofua
for Sale's Manager
This method must not be used.

Another area of importance in a business letter is when a letter needs to pass through two or more officers before getting to the final addressee. For example if a course coordinator or a programme leader is to send an official letter to the vice-chancellor, it would be wrong for the course coordinator or the programme leader to write straight. Such a letter must pass through the Dean of the School where the course coordinator or programme leader belongs; say School of Arts and Social Sciences.

The letter will be addressed thus:

To: The Vice Chancellor,
National Open University of Nigeria,
14/16, Ahmadu Bello Way,
Victoria Island,
Lagos.

Through: The Dean,
School of Arts and Social Sciences,
National Open University of Nigeria,
14/16, Ahmadu Bello Way,
Victoria Island,
Lagos.

It is not compulsory that the "through" must be typed in full. The abbreviation "Thru" can be used. The layout pattern has two schools of thought. One school says that the address of the final person to act on the letter should come last while the first address should be the address of the officer that would act on the letter first. Following this school of thought, it means the above example would appear as follows;

Thru: The Dean,
School of Arts and Social Sciences,
National Open University of Nigeria,
14/16, Ahmadu Bello Way,
Victoria Island,
Lagos.

To: The Vice Chancellor,
National Open University of Nigeria,
14/16, Ahmadu Bello Way,
Victoria Island, Lagos.

Suppose it is more than two addresses, say in a conventional university where a letter is routed from a lecturer through the Head of department, through the Dean of the faculty to the Vice Chancellor. Such letter will be addressed thus:

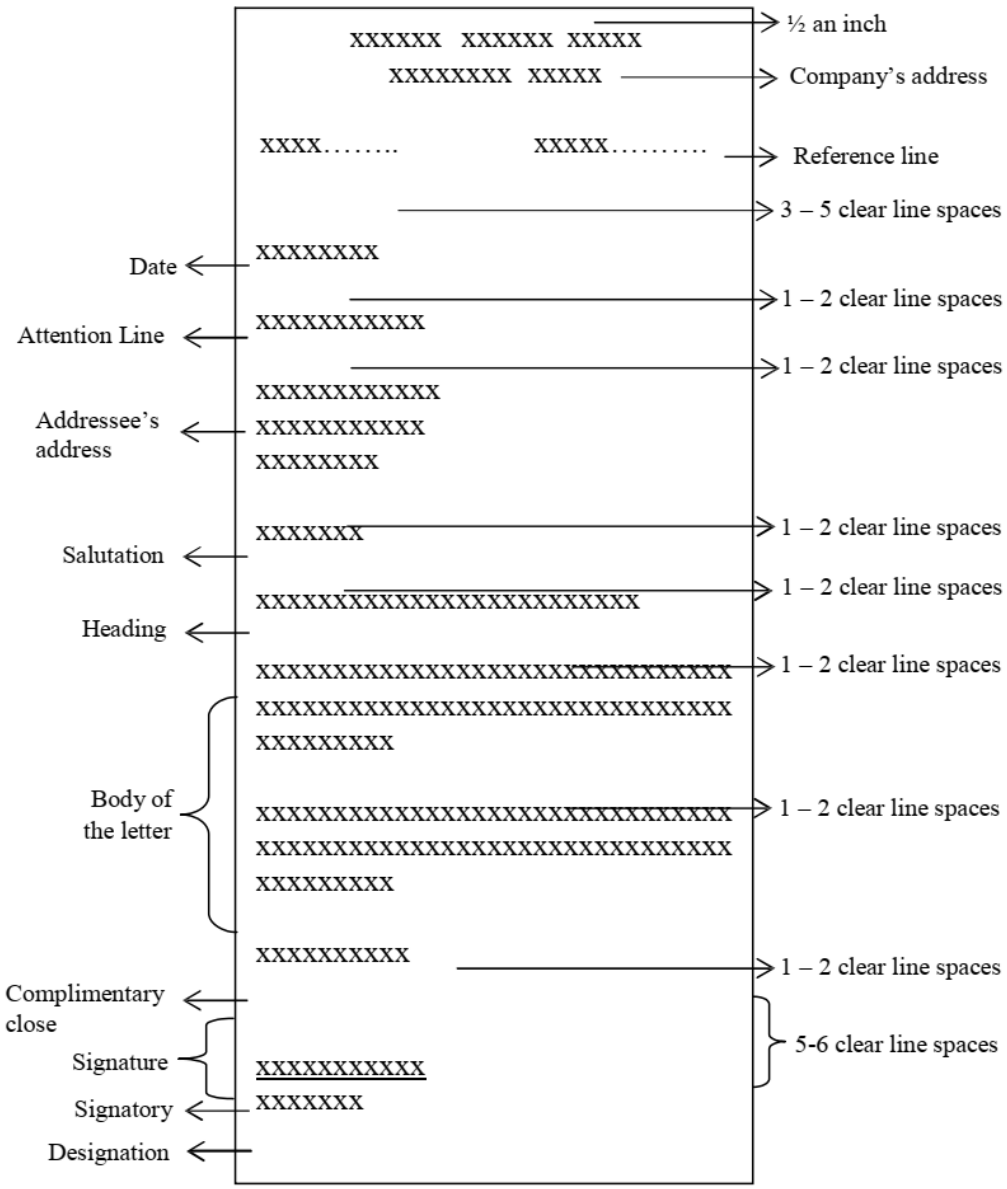
Thru: The Head of Department,
Department of Educational Studies and Management,
Faculty of Education,
University of Benin,
Benin City.

Thru: The Dean,
Faculty of Education,
University of Benin,
Benin City.

To: The Vice Chancellor,
University of Benin,
Benin City.

Remember it could be the vice chancellor first, followed by the Dean and then the Head of Department. The two methods are acceptable depending on the most preferred by an individual or the house style of the organization.

Where a personal business letter is written, a letter headed paper is not mandatory except where the individual has one. Let us see some samples of business letter.



A simple business letter layout

National Open University of Nigeria
14/16 Ahmadu Bello Way
Victoria Island – Lagos

The Registrar's Office

Our Ref:: Your Ref:

5th March, 2009

The Manager,
MACVY Enterprises,
14 Jones Street,
Victoria Island, Lagos.

Dear Sir,

RE: MR. MARTINS OJO

I write to introduce Mr. Martins Ojo to you. He is one of our Information Technology staff. He is efficient and effective in the use of modern technology. The university is sending him to train your staff as requested. Feel free to work with him.

We look forward to receiving your comments on the training.

Yours faithfully,

Abikoye, J. K.

Registrar

There are things to note in this letter:
The space given after the end of print on the letter headed paper,
The consistency in the line spacing,
The signatory, and
The space provided for signature.

The space given after the end of print on the letter headed paper and the beginning of the letter, starting from the "Date" is **three** clear spaces. Remember you could also use **four** clear spaces. The mode of determining these spaces would be explained to you in unit 3 of this module.

Also the spaces given between each section was consistent. In typing of letters, use single line spacing to type and give one clear space in between paragraphs. At the most use 1½ line spacing and two clear line spaces in between the paragraphs.

The signatory is the registrar. Nobody is signing for him. Also enough space is given for the signature. Remember you need to give four or five clear spaces for the signature. But supposing someone else is signing for the registrar, the display will go thus:

National Open University of Nigeria
14/16 Ahmadu Bello Way
Victoria Island – Lagos

The Registrar's Office

Our Ref:: Your Ref:

5th March, 2009

The Manager,
MACVY Enterprises,
14 Jones Street,
Victoria Island, Lagos.

Dear Sir,

RE: MR. MARTINS OJO

I write to introduce Mr. Martins Ojo to you. He is one of our Information Technology staff. He is efficient and effective in the use of modern technology. The university is sending him to train your staff as requested. Feel free to work with him.

We look forward to receiving your comments on the training.

Yours faithfully,

Akintorin T. (Mrs.)

For: *Registrar*

Another important area of note is the style of presentation. The two main styles of business letters presentations are – blocked and indented. The commonly and widely accepted today, is the blocked style as used above. For the purpose of this course the two styles are presented thus:

Our Ref PC/BW/12
2/3 SLS
Your Ref SA/455/KL
2/3 SLS
4th June 2006
2/3 SLS
For The Attention of…
2/3 SLS
The Managing Director
22/24 Adekoya Close
Opebi Junction
Ikeja – Lagos
2 SLS
Dear sir
2 SLS
SUBJECT HEADING
2 SLS
Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
2 SLS
Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
2 SLS
Yours faithfully
CARET & CO LTD
5 SLS
Aigbodion A A
Sales Manager
2 SLS
Enc
2 SLS
cc Mr Otokhine
File
2 SLS
PS xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Blocked Style

Long letters usually have continuation sheets. Plain sheet of the same quality of the letter headed paper is used as continuation sheet. The display of such continuation sheet may appear thus:

2

4th June 2006

The Managing Director

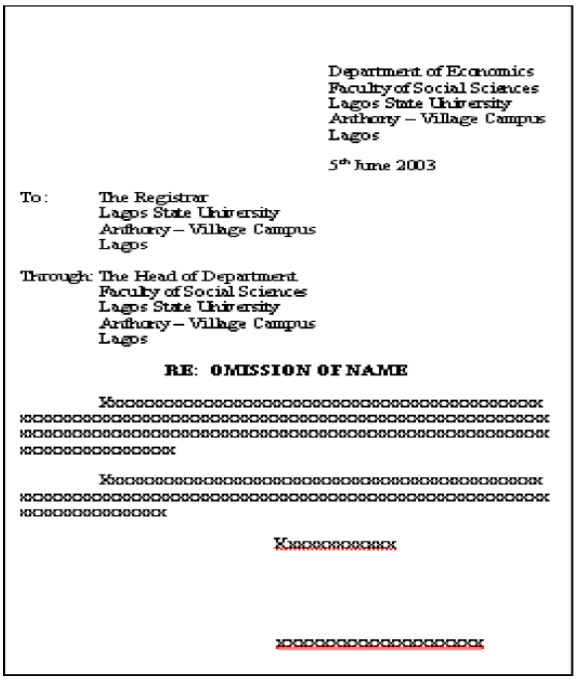
Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxx

Yours faithfully
CARET & CO LTD

Aigbodion A.A
Sales Manager

Continuation Sheet of a Blocked Style

But a letter that is displayed in indented style will appear thus:



Department of Economics
Faculty of Social Sciences
Lagos State University
Ardhuary – Village Campus
Lagos

5th June 2003

To: The Registrar
Lagos State University
Ardhuary – Village Campus
Lagos

Through: The Head of Department
Faculty of Social Sciences
Lagos State University
Ardhuary – Village Campus
Lagos

RE: OMISSION OF NAME

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxx

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxx

Xxxxxxxxxx

xxxxxxxxxxxxxxxxxxx

Indented Style

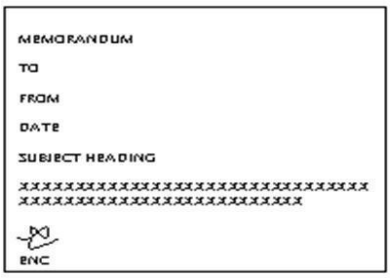
In indented style, the first line of typing in each paragraph is indented five or six spaces to the right depending on the font size. This is set as ‘tab’ default. To achieve this just press the ‘tab’ key and it takes you to the desired point to start the first line in a paragraph. The complimentary close is typed starting from the middle of the document to the right. A continuation sheet of indented style will appear thus:

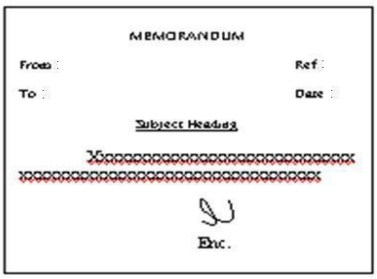
Indented style continuation sheet

Note the position of the first line of the addressee’s address, the page number, the date and complimentary close.

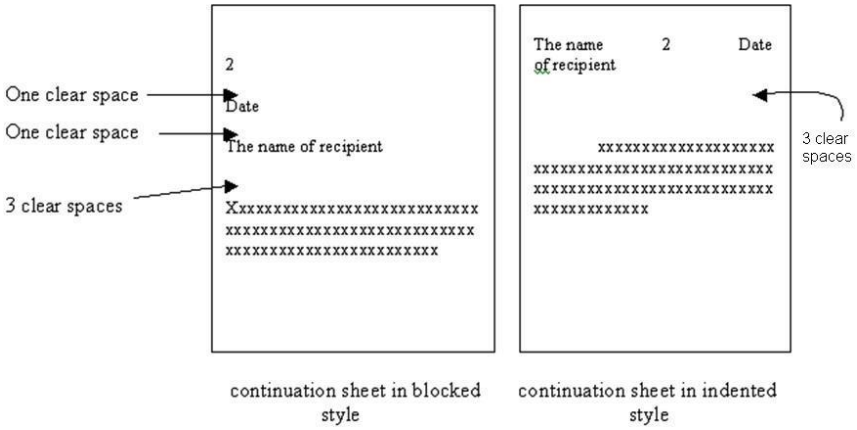
3.2 Memoranda

The memoranda are another form of written communication in a business. The memoranda are used within an organisation. The singular form is memorandum. It is often abbreviated as ‘memo’. Memo does not contain addressee’s address, salutation and complimentary close, but it must be signed for the purpose of authority; which the document needs to carry. How should a memo be displayed? Let us see the following:





Most companies also have memo headed paper. Where this applies, the memo has to be printed on the memo headed paper. There are equally long memo; which may run into another page. The continuation page should not be typed on the memo headed paper but on a plain paper. This may appear thus:



continuation sheet in blocked style

continuation sheet in indented style

3.3 Reports

Reports are vital in an organisation. The report of a committee helps in decision making. The way reports are typed indicates the type of understanding the readers would receive. A good report must reflect the following:

- The body that constitute the committee
- The date the committee was constituted
- Members of the committee
- The terms of reference
- Procedure
- Findings
- Recommendations

These usually form the major headings in a report. The headings could be presented as a shoulder or side headings. The shoulder heading is most recommended.

Reports are typed in single line spacing and at the most, one and half line spacing with size 12 in Times New Roman or Arial font type or any other font type within the same range. Where charts and table are required for illustrations, they must be well spaced in between lines or paragraphs.

3.4 Minutes

Minutes are typed in shoulder or side headings. Minutes could be presented in a tabular form. This

depends on house style. But whether it is typed in plain or tabular form, the most important thing is to ensure that the major headings are well spelt out.

3.5 Invoice

Invoices are vital in a business environment. This may differ from business to business. First and foremost, identify the key words that are required to describe the goods to be transacted in the business. Invoice is presented in a combination of straight typing and tabulation. Here is an example of an invoice:

INVOICE: 54323
MONTH DAY YEAR

PLACE LOGO HERE,
OTHERWISE DELETE BOX

COMPANY NAME HERE

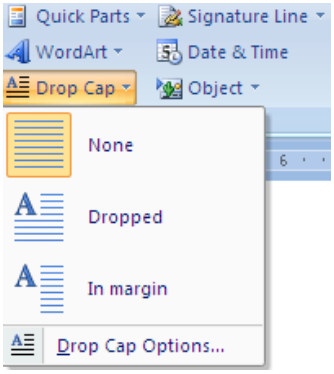
TO:
COMPANY NAME HERE
Street Address, Suite 555, City, State 55555
555.555.5555
555.555.5555
555.555.5555

SHIP TO:
COMPANY NAME HERE
Street Address, Suite 555, City, State 55555
555.555.5555
555.555.5555
555.555.5555

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL

3.6 Newsletters/Flyers

Newsletters and flyers are usually display work. This may require the use of dropped caps and column typing. To insert ‘Drop Cap’. Type the words and highlight the letter that you want drop e.g. Presentation. Then click on ‘Insert’ and click on ‘Drop Cap’, the following drop menu will appear:



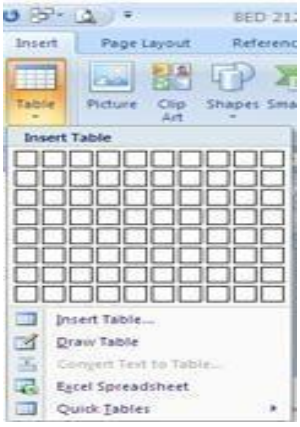
Click as desired and follow the instruction. If the document is to be presented in columns, click on 'Page Layout' and click on 'Columns', it will appear thus:

Select as desired, and follow the instructions.

In selecting new document you can insert default template. To get this done, click on "Office Button" → "New"→ select from the displayed templates → follow given instructions in the template.

3.7 Tables

To insert a table in a document, click on "Insert" → click "Table", the following drop down menu will appear thus:



Select the rows and columns as desired as you point the cursor through the boxes. Click after you have selected the desired rows and columns. But where the desired rows and columns go beyond the specified rows, click on “Insert Table” and select as desired.

The challenges that are usually encountered in tabular work include:

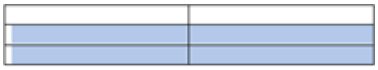
- Addition of rows
- Addition of columns
- Deletion of rows
- Deletion of columns
- Splitting of cells
- Merging of cells
- Text Direction
- Border and shading

Now let us see how these can be achieved using the table below:

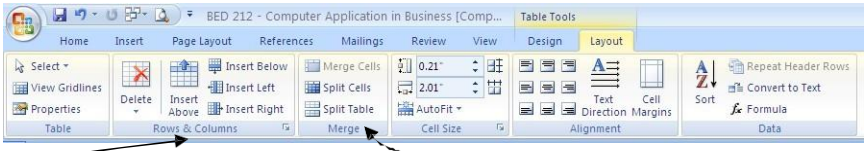
To add row(s) to the above table, do the following: There are different ways to achieve this. First, place your cursor on the right edge of the last row as shown below:

and press the enter key. As soon as the enter key is pressed a third row would appear.

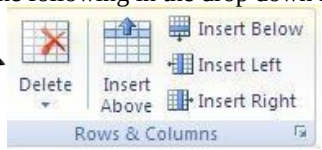
Another way is to highlight, the number of row(s) to be inserted, see example below:



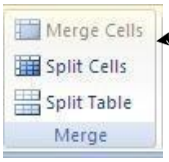
With the cursor still in the cell click on “layout” and the following will appear:



Then click on any of the following in the drop down menu as desired:

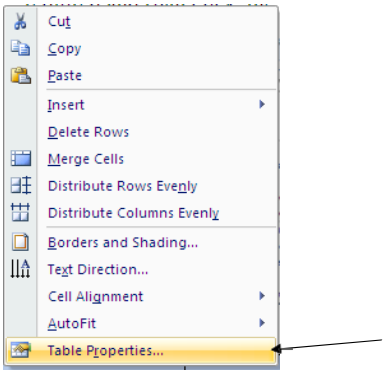


From this menu, you can also delete unwanted row and column. To merge or split cells, select as desired from the following section in the menu, while the cursor is placed on the required cell(s):



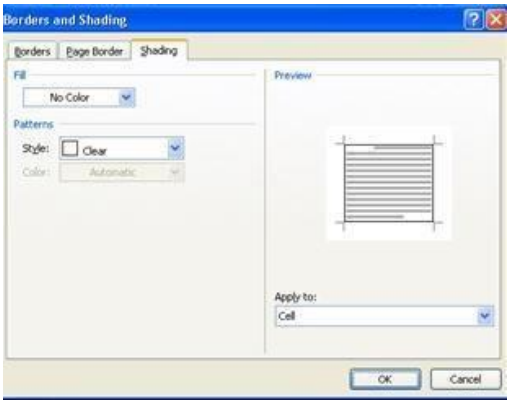
Still on the “Layout” menu, you can align your text within the cell, set your text direction and sort data.

There are times you want to add boarder or shading to a cell or some group of cells within a table. To achieve this highlight the cell(s) required and right click, the following would appear:

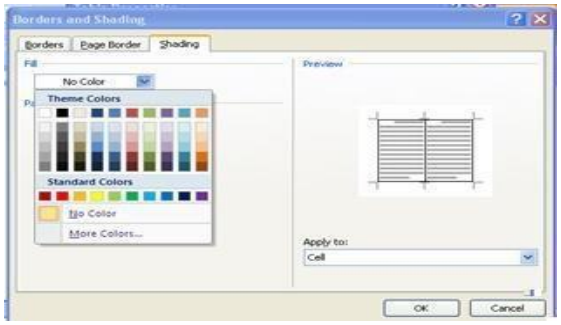


Click on “Table Properties”. The following will appear:

Click on “Borders and Shading”



Then click on "v" shape in the box beside "No Color", the following drop down menu will appear:

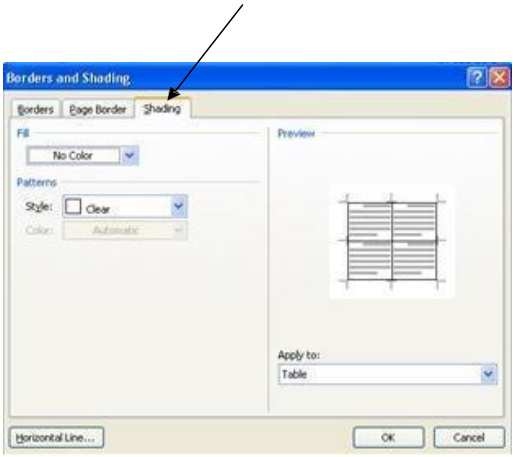


Choose desired colour, and click OK and OK in the underneath box. The highlighted part will appear thus:

Name	Country	City

You can equally use the "Apply to" in the dialog box to select the desired position within the table where you want the colour to appear.

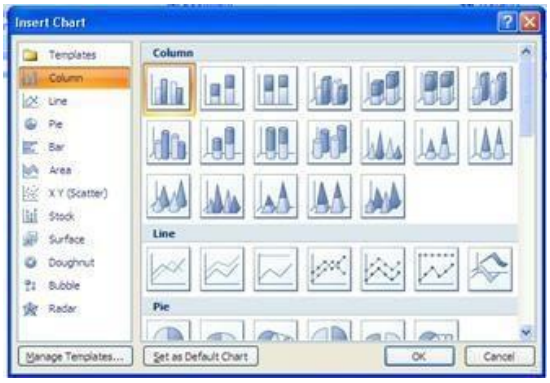
Another method of achieving this is to highlight the cell or cells to be shaded and right click, then click on "Border and Shading", a dialog box will appear, click on "Shading" to see exactly the appearance of the dialog box below:



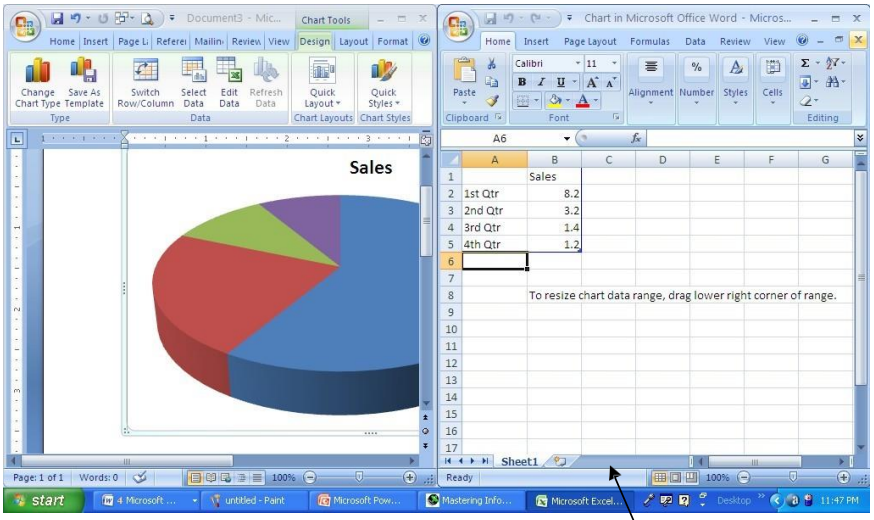
Then select colour and apply as desired.

3.8 Charts and Diagrams

Charts and diagrams are used for illustrations. They help to enhance information in a business environment. To insert a chart on a document, click on “Insert” → click on “Chart” and the followingdialog box will appear:



Select the desired chart. Suppose, a pie is selected, the following will appear:



Type in the desired headings and figures to over- write the default prints, and delete the default where not required in the excel worksheet

Once you are done with the data entry close the excel worksheet, then the chart will appear. It can be resized by clicking and dragging. To edit the chart, right click on the chart and click "edit data". To insert diagrams, click on "Insert" → picture/Clip Art/Shapes/SmartArt as desired. Within the shapes, it is only textbox you can easily type inside the box. To type text into other shapes, right click on the shape and click add text, a cursor will appear. As soon as a cursor appears type whatever you wish totype.

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. Type an invitation letter, inviting an applicant to an interview in a particular organisation. Describe the format adopted including the line spacing.
2. Get samples of various documents as discussed and practise the typing as described above. Cross check your typing with the above specifications.
3. Type a report that includes charts, tables and diagrams as illustrations from any source of

your choice.

5.0 Conclusion

Document production is a vital aspect of business communication. To produce a good business document requires adequate practice. Therefore ensure you practice more of this.

6.0 Summary

Document production includes business letters, memoranda, invoice charts, and diagrams.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

FrontPage: Microsoft Office. (2005). Barcelona: Ed. ENI.

Gross D., Akaiwa F., Nordquist K. & Evans J. (2008). Business Computing Using Excel and FrontPage. U.S.A. Thomson Course Technology.

Lambert, J., & Cox, J. (2013). *Microsoft Outlook 2013: Step by Step*. Redmond, WA: Microsoft.

Matthews, M. S. (1996). *Web publishing with Microsoft FrontPage*. Berkeley, CA: Osborne McGraw-Hill.

McFedries, P. (2015). *Windows 10 simplified*. Indianapolis, IN: John Wiley & Sons.

Murray, K. (2013). *Microsoft Office Professional 2013: Plain & Simple*. Sebastopol, California :: OReilly Media.

Pazmandy, G. (2013). *Business computing: Using Microsoft® Office 2013*. Rose Bay, NSW: Tekniks Publications.

Price, M. (2013). *Office 2013: In easy steps*. Leamington Spa, Warwickshire, U.K.: In Easy Steps.

Rathbone, A. (2018). *Windows 10 for dummies*. Milano: Hoepli.

Weverka, P. (2013). *Office 2013 all-in-one for dummies*. Hoboken, NJ: John Wiley & Sons.

Unit 2: **Data Security**

Contents

1.0 Introduction

Data security is very important in business. You need to secure the data or information generated or received for the following reasons:

i. for the purpose of future use;
ii. for easy retrieval;
iii. for confidentiality;

From time to time information or data are usually referred to for the smooth running of any business. There are time that vital data or information need to be kept for future use. In this case the data need to be well secured, failing which there would be a problem at the time the data is needed for use. It is not all information or data that provide their usefulness at the immediate; some of them are found useful at a later date. Therefore such data must be well kept so as not to run into problem of need.

It would be meaningless if information or data kept for future use cannot be retrieved at the time of need. This is more frustrating than not having the information or data at the first instance.

Finally, for the purpose of confidentiality, information or data need to be well secured. This covers both present and future use of data or information.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- apply the basic procedure of securing data;
- explain the basic process of disposingdata;
- explain simple procedure of datastorage.

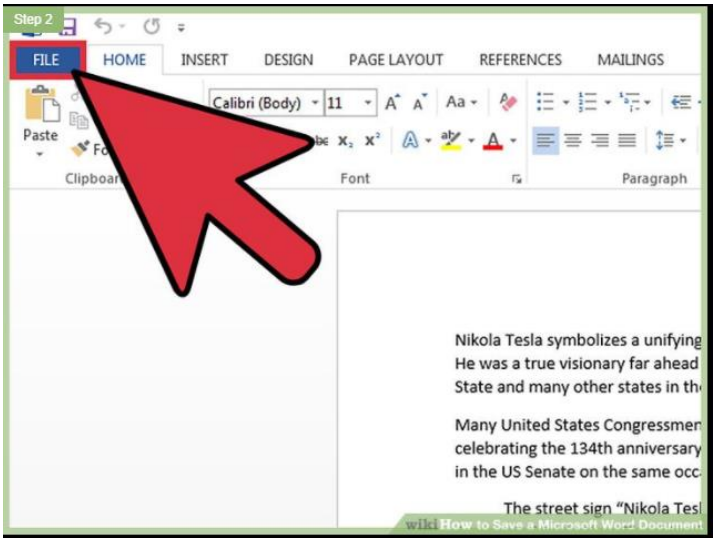
3.0 Main Content

3.1 The use of password

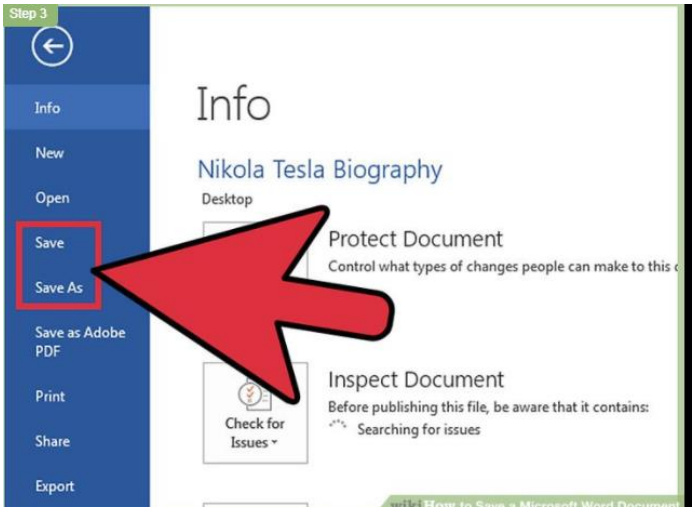
The personal computer can be secured without unauthorised persons having access to use it. The use of the personal computer could be personalised by the use of password. Except the right password is typed in, the computer cannot be used. In this case it means the user has to make the password personal. If not anybody that has the password can use it. To personalise the use of a personal computer, seek the advice of a computer engineer.

Apart from using the password to personalise the use of a personal computer, it could also be used to secure access to documents. In this case, anybody can have access to the computer but any anybody cannot have access to the documents that have password, except the person who has the password. To password a document, use the following method:

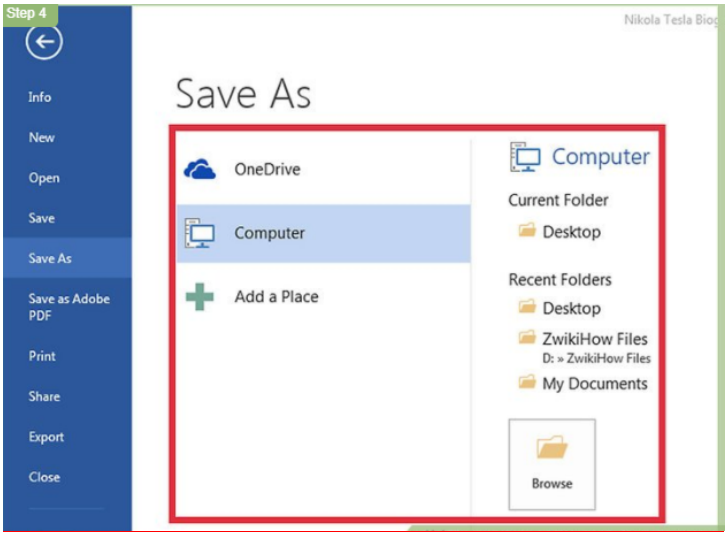
Stage one: Type the document
Stage two: Save the document. Do this:
Click on "File Tab" with your document opened.



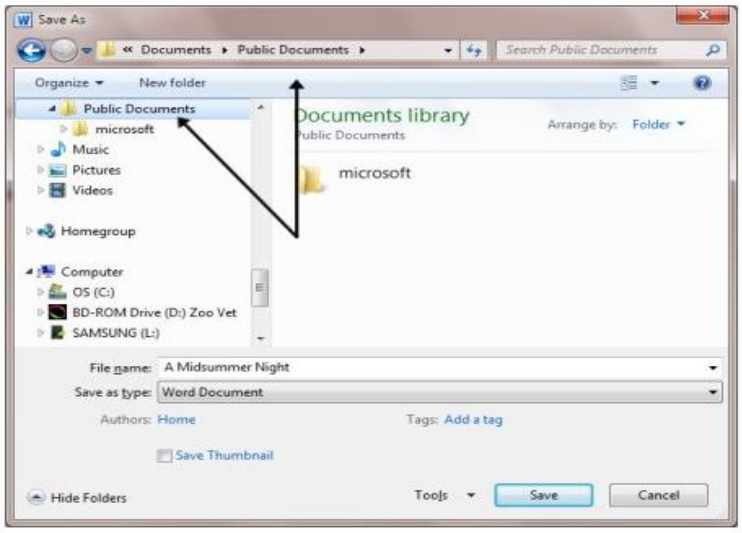
From the dropped down menu



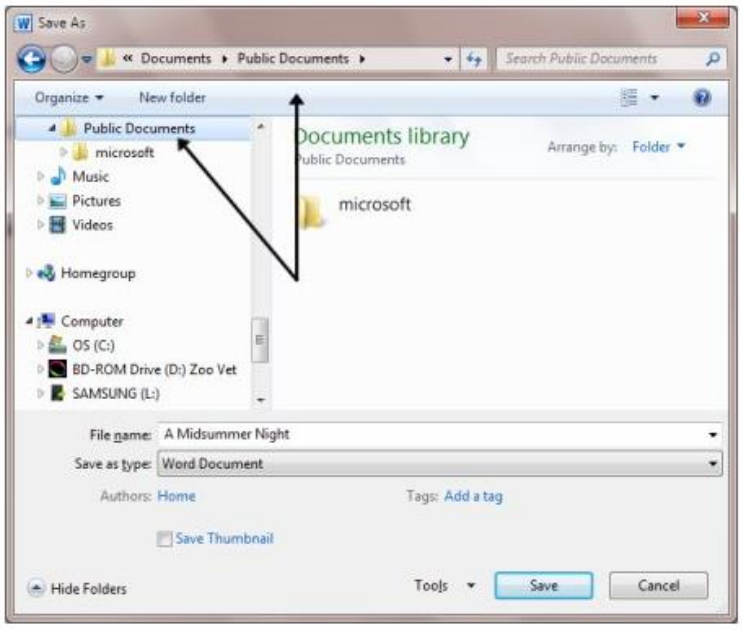
Click on “Save” or “Save As”;



Under “Save As”, decide your save location



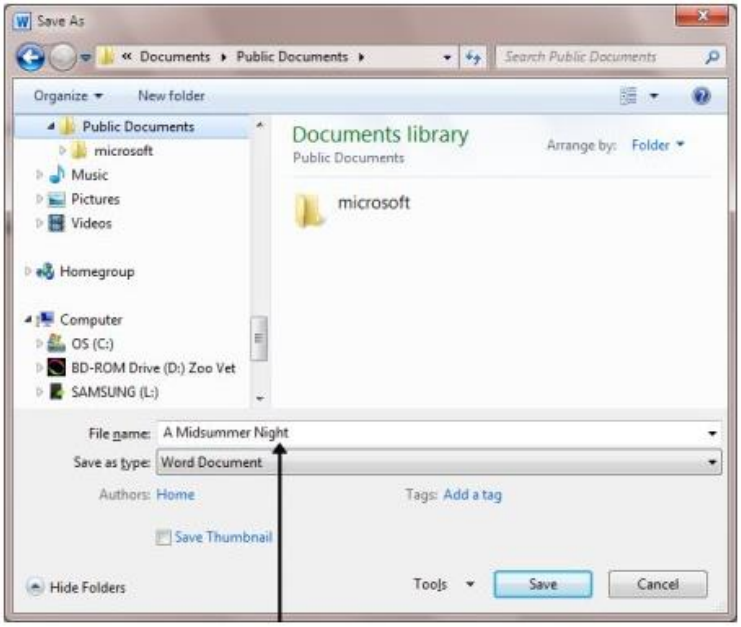
Now note the following:



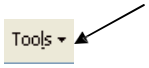
What is unique in these arrows?

The source name – this is the source where you want your document to be saved. The source name in the above dialog box shows "Public Document" this means that the document is saved or is going to be saved under the folder named "Public Document".

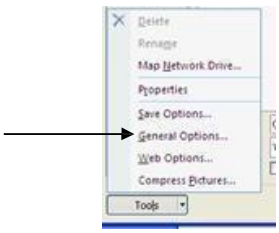
Another important aspect of the arrow is the "File name". Type in the name in which you want the file to be saved, using the example on the dialog box above, the file name is "A Midsummer Night" i.e. the name the document is saved with. A name must be given for identification, easy sorting and retrieval. Do not use a name you cannot easily retrieve your file with.



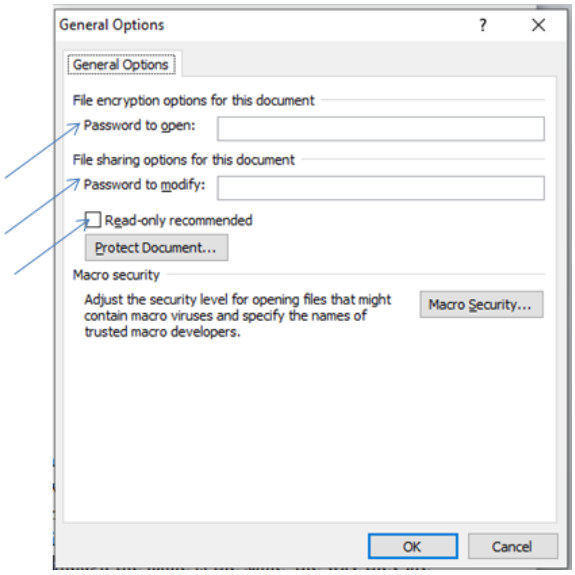
Then the "Tools". Click on the black 'v' like shape at the bottom:



A dialog box will appear thus:



Click on “General Options”, and a dialog box will appear thus:



In the above dialog box, take a look at the directions of the three arrows:

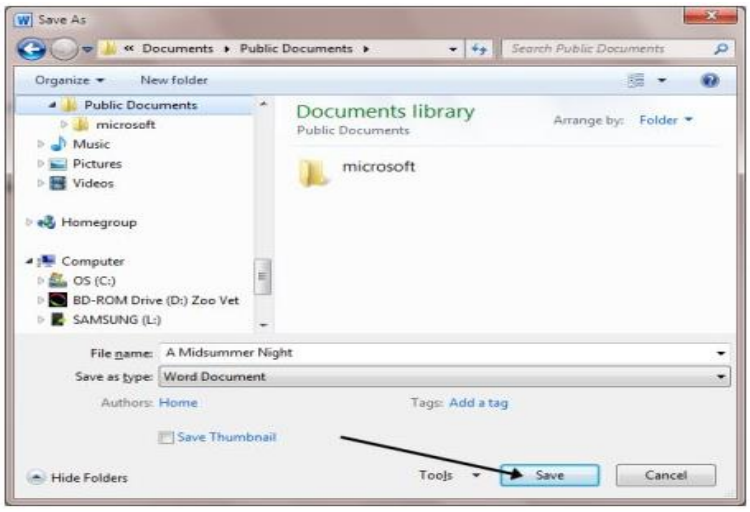
In the first arrow in the box, type in the name you wish to use as the password e.g. kate. You must use a name you can easily remember, if not you may not be able to open your document. Also mind the ‘case’ of letters used i.e. upper case (capital letters - KATE), initial case (Kate) or lower case (small letters – kate). You would notice that though the name is the same, the way they are typed is not the same. It is the way the password is recorded at the initial stage that the computer would recognise when opening the document.

In the second arrow, type in the same password name, it will prompt an error if there is a difference.

Click on the small box where the third arrow is pointing to if you want your document to be ready only. What this means is that when the document is opened, you may not be able to effect any correction, but can only read. It is advisable not to click on the box, except when you want to make your document read only.

After this process, click on OK, and a dialog box will appear thus:

Re-enter the password in the space provided and click OK. The same box may come up again, re-enter the same password and click OK. Then click save at the main box underneath.



After this first saving, any other information added to the document would be saved by clicking on "save' from the file menu or press "ctrl + s".

To open a file that is having a password, a click on the document would produce a dialog box where the password would be typed in before it can open.

Go through the process once more and ensure you have mastered the procedure before you continue to the next stage.

3.2 Data Storage

There are two basic ways to store data – internal and external devices.

3.2.1 Internal Device

A part of the internal device has been discussed along with the password. But it is important to note that documents could be savedin:

i. my document
ii. my computer – for the internal device under my computer, the saving device is the Local Disk (C:)

iii. Desktop

My document is usually set at the default. Once 'save as' is clicked, the source directory that comes up is 'my document'. Once saving is done through that source, it means the file will be domiciled in 'my document'. To change the source directory from 'my document' click on the 'v' black shape beside the source box as shown in the description of 'password' and select as desired. Saving on the Local Disk (C:) means saving on the hard disk.

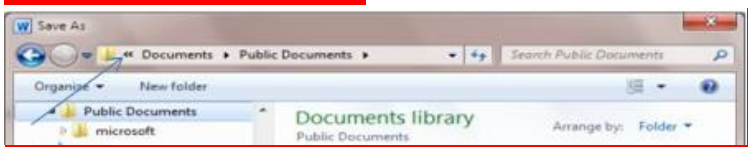
You could save a particular file on both directories i.e. on 'my document' and on 'local disk (C:)', one would then act as a back-up file. Should there be a problem with one directory; the file could then be retrieved from the other directory.

The best source to save your document is "My document". Saving in the Local Disk (C) is not too secured especially when there is the need to re-format the disk. The saved file may not be recognised. And saving at the Desktop may slow down the speed of your computer.

Remember, to save a document, click on file, from the dropped down menu click on 'save as', follow the direction on the dropped down menu.

3.2.2 External Device

Documents could also be stored through the external device through 3½ floppy (A:), DVD/CD(D), Pen Drive or Flash Drive and the use of external hard disk. To save on the external device, go through the normal process of saving. The major difference in the saving is the selected source where the document would be saved. Remember to click on the '>>' shape black button to select the desired source.



3.3 Data Disposal

What do you do when you no longer need a particular file or document?
Different questions come to mind:

- Am I sure I no longer need this document?
- Would there be a need of it in the future?
- Is the document a confidential document?
- How do I dispose the document?

These and many other questions may come to mind. But the most worrisome is when the

document is a confidential one. It means it must be disposed without a trace. A leakage in confidential documents could cause the company great distress.

If the file or document is not a confidential document, the normal delete can be used. In this instance it means that the deleted document or file would be resided in the recycle bin, which can be culled back if need be. But where confidential documents or files are involved, not only should the document be deleted from the source file name but must also be deleted from the recycle bin. For a very high confidential document, the knowledge of an engineer may be sought to ensure proper disposal to avoid any trace that may be carried out by experts who may want to retrieve the unwanted data by all means.

When you are disposing the electronic data, do not forget to look at the 'hard copy' if any. The hard copy is the printed copy of the document. Where there is no need for it dispose it through the use of trash bin. Do not burn, do not release for re-cycling and do not give to petty traders to use as wrappers for their wares. Any of these methods may lead to exposing the confidentiality of the document.

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. Visit any organisation of your choice, and state the mode of data disposal that is used in the organisation. Share your findings with your colleagues and facilitator.
2. With reference to a particular organisation, explain how vital information can be protected in a business.

5.0 Conclusion

In conclusion, do not hastily dispose your documents or files; ensure you are done with them before disposing them off. Choose the right mode of discarding your files. Your data or information must not litter the environment. Remember that an information or data that is not properly secured could lead the organisation into a doom.

6.0 Summary

To secure data or documents or files, the use of password is considered very helpful. The personal computer could use password to personalise the usage. Where this is not done, the file or document could be saved with password, which means the document or file can only be opened with the use of the recognised password by the computer.

The user of the computer could choose where a document or file should be saved. File could be saved through the internal device or external device. Both could also be used.

But where by a file is no more needed an appropriate means should be used to discard the file without allowing the information to litter the environment.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

FrontPage: Microsoft Office. (2005). Barcelona: Ed. ENI.

Gross D., Akaiwa F., Nordquist K. & Evans J. (2008). Business Computing Using Excel and FrontPage. U.S.A. Thomson Course Technology.

Lambert, J., & Cox, J. (2013). *Microsoft Outlook 2013: Step by Step*. Redmond, WA: Microsoft.

Matthews, M. S. (1996). *Web publishing with Microsoft FrontPage*. Berkeley, CA: Osborne McGraw-Hill.

McFedries, P. (2015). *Windows 10 simplified*. Indianapolis, IN: John Wiley & Sons.

Murray, K. (2013). *Microsoft Office Professional 2013: Plain & Simple*. Sebastopol, California :: OReilly Media.

Pazmandy, G. (2013). *Business computing: Using Microsoft® Office 2013*. Rose Bay, NSW: Tekniks Publications.

Price, M. (2013). *Office 2013: In easy steps*. Leamington Spa, Warwickshire, U.K.: In Easy Steps.

Rathbone, A. (2018). *Windows 10 for dummies*. Milano: Hoepli.

Weverka, P. (2013). *Office 2013 all-in-one for dummies*. Hoboken, NJ: John Wiley & Sons.

Unit 3: **File Management**

Contents

1.0 Introduction

File management was very pronounced in the office before the advent of the modern office. This was usually referred to as filling system, where filing is done horizontally, vertically, geographically, numerically, departmentally, alphabetically and by subject. But today, most people have lost sight of this various mode of filling systems because they feel it is only associated with manual filling system since the office today speaks Information Technology. This is where the problem lies. Most users of the personal computer find it difficult to manage their files, hence the problem of retrieving files especially when the person that created the file is not available. This unit will teach you on how to manage electronic files.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- Create and Organise electronic files,
- Create and Organise electronic folders.

3.0 Main Content

3.1 Creating a File

Remember in the past unit, we have discussed a little on how to create files. As a refresher on creation of files, let us consider this case study.

Case Study

National Open University of Nigeria has various schools and units divided as follows:

Schools - School of Arts and Social Sciences
School of Education
School of Business and Human Resources
School of Science and Technology School of Law

Units - The Vice Chancellor's Office
The Office of the Deputy Vice Chancellor (Academics)
The Office of the Deputy Vice Chancellor (Administration)
The Office of the Registrar
Centre for Continuing Education and Work Training (CCE & WT)
Foundation Programmes (Access and General Studies)
Study Centres

These are some of the units that exist in the university.

The university is systems where by the various sub units interact to achieve the set goals. The major mode of interaction is written communication; which is produced electronically. Also the university may also need to interact with the environment, this include the public, other organisation and government. To have an effective interaction also requires the use of computer.

Since the schools and units need each other to contribute to the welfare of the university, it means each of them has to keep an up-to-date record of each other interaction to have a good link. But for the purpose of this course material, let us consider the record system in the office of the Registrar.

In the office of the Registrar, mail would be sent and received from all the existing schools and units as well as the government parastatals and other concerned organisations.

Question

How would the mail be organised electronically for easy retrieval?

Procedure

For the documents going out of the Registrar's office, files have to be created for them. A file is for identification. To make the identification much easier, a name is attached hence 'file name'. The file name is the name given to the file for proper identification. Just as you have name of persons such as John, Modupe, Adewale, Ajadi, Okoli, so as to be able to identify the particular person that is being referred to. So for every document that is created, it has to be saved with a file name. You may apply the following process:

- Type the document
- Click on Office Button

- Click on 'Save As'
- From the dialog box select the source as desired

Through this method several files would have been created. The same procedure would be adopted in saving a document received. The only difference would be that, you are not the one to create the document rather you have to scan the document, import and save with a desired file name. In this regard, it is assumed that the files created in the Registrar's office may include:

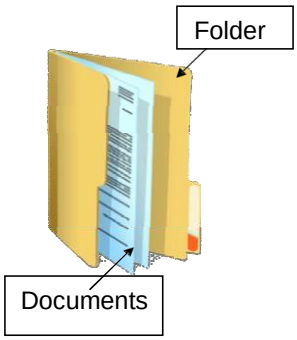
- Dr. J. K. Adedeji
- Prof. O. M. Komolafe
- Mrs. A. A. Kadiri
- Dr. J. B. Jubrin
- Leave Notification
- Advertisement for Academic Vacancy
- Workshop on Course Writing
- Computer supplies
- Advertisement for Contractors
- Senate Minutes
- Students' Academic Records

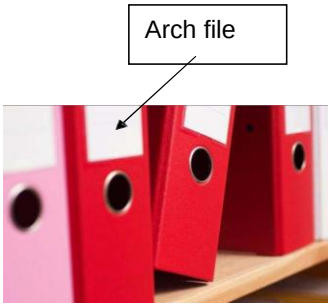
In creating a file name, the right name needs to be used for easy sorting. Therefore the name given to a file must be reflective of the content of the document.

3.2 Organisation of Files

There are already created files. This may run into several hundreds, thousands and even more. So if they are not properly organised there will be difficulty locating a file at the point of need. This is where file organisation becomes very vital. To sort files appropriately, the file names must be reflective of the document if not the file may be placed wrongly and would lead to difficulty in the process of retrieving same.

There are files that need to go together. Files in the electronic way are documents. So we are now talking about putting related documents together in one box i.e. the folder. This could be likened to the normal manual flat file folder or arch file where documents of related matters are kept.





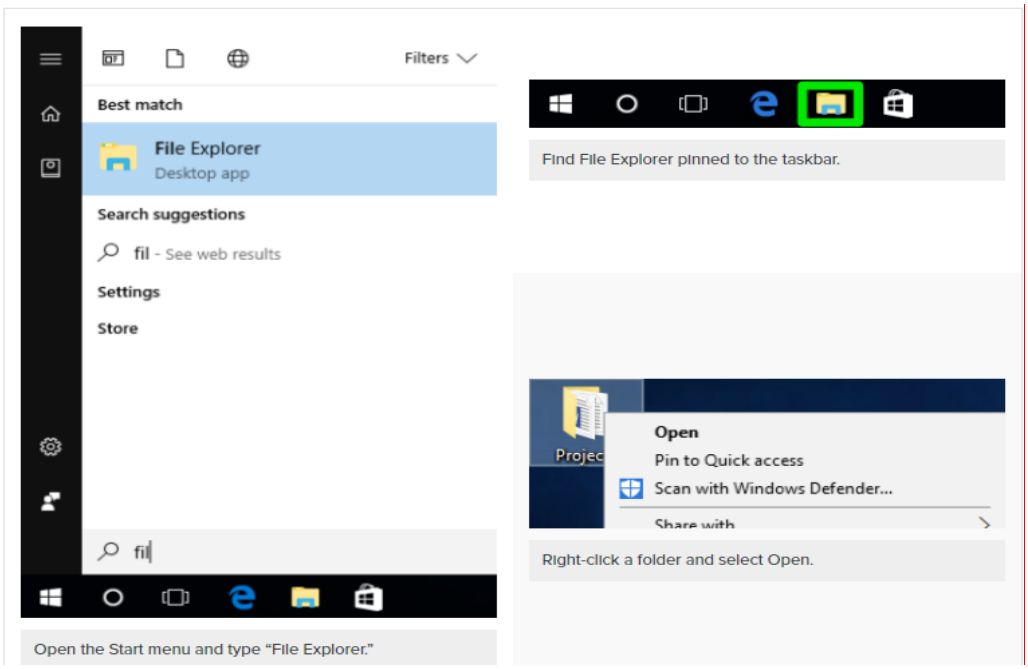
The list of files above from the registrar's office has to be sorted so that related documents have to be kept in the same folder for easy identification.

3.3 Creating a Folder

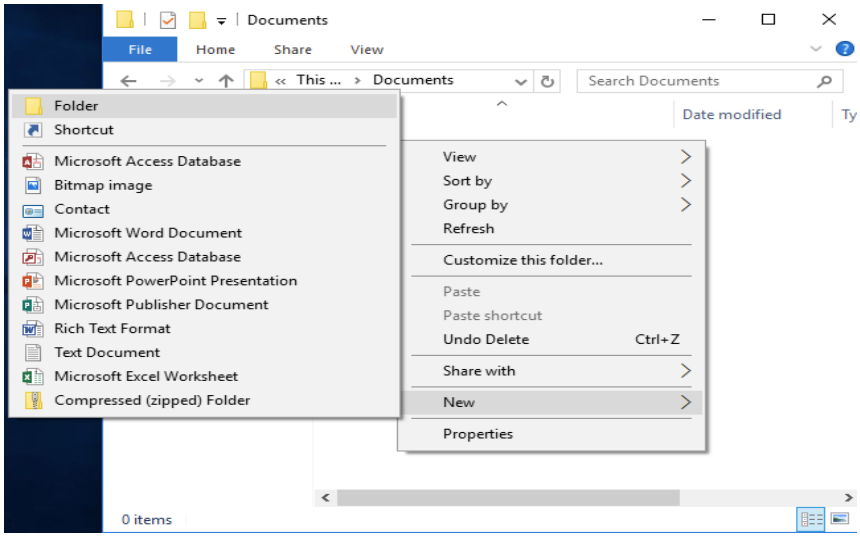
Comment [D5]: Changed from windows xp to windows 10

How do I create a folder? To create a folder, do the following:

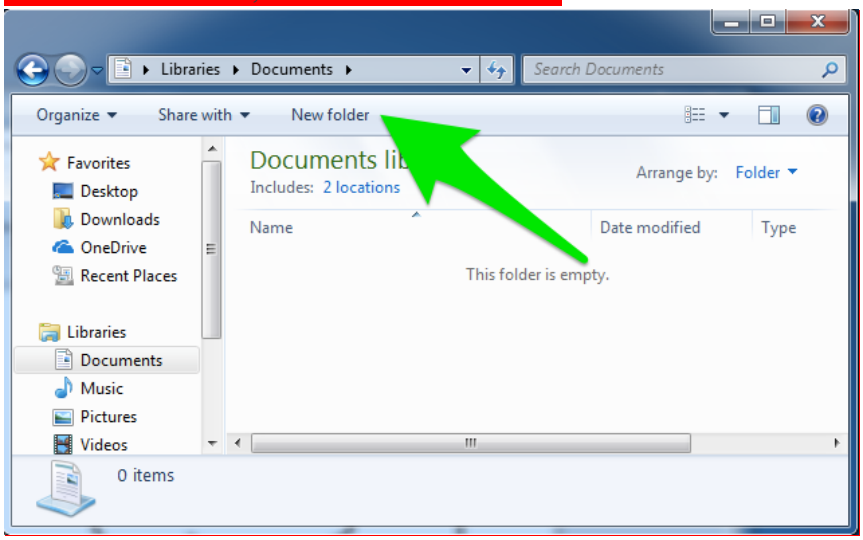
There are a couple of ways to open File Explorer. The shortcut Win+E will open File Explorer. It can also be opened by clicking the Start button and typing "File Explorer" or by right-clicking any folder and selecting Open. By default, File Explorer is pinned to the task bar (see below), and it can be opened from there.



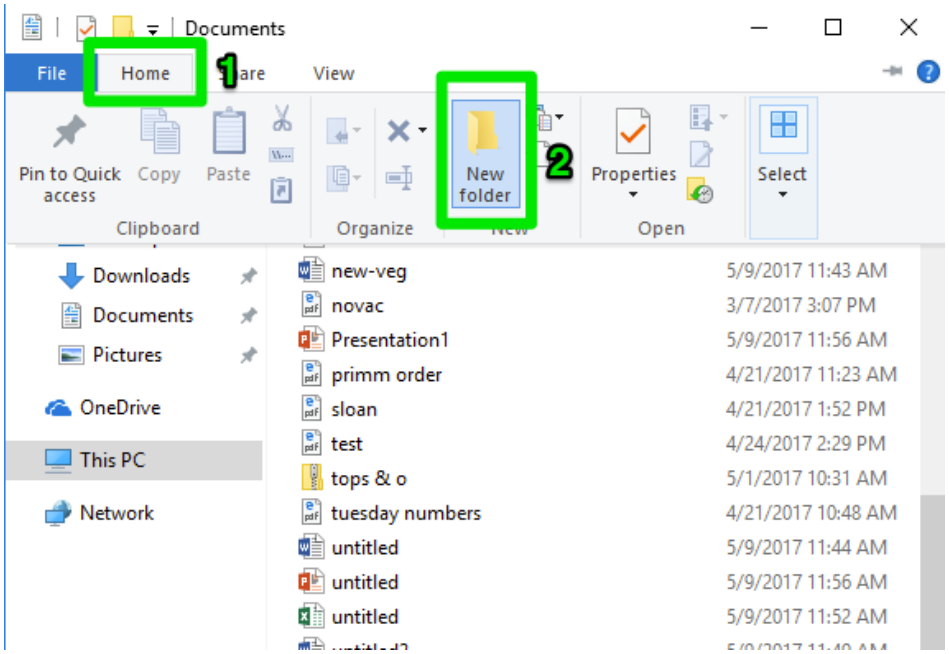
Some folders already exist in File Explorer, such as Documents, Desktop, and Downloads. (Documents may be called "My Documents" in older versions of Windows). You can create more folders or folders within folders to allow for better organization.
To create a folder, right-click, then select New>Folder.



In Windows 7, there is a New folder button near the top of the window. In Windows 10, you can also click the Home tab, then the New Folder button.



Windows 7 New folder button

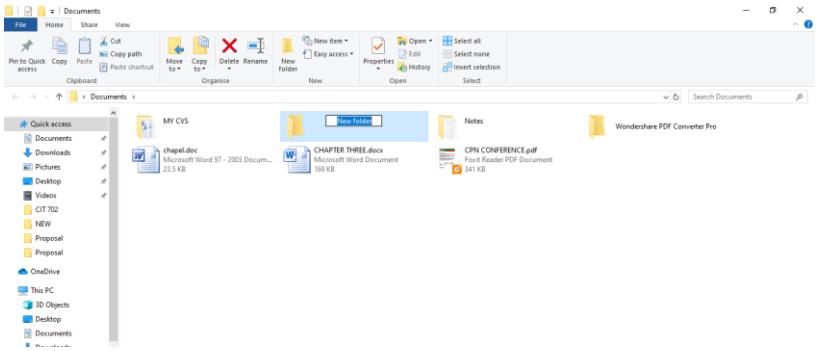


Windows 10 New folder button

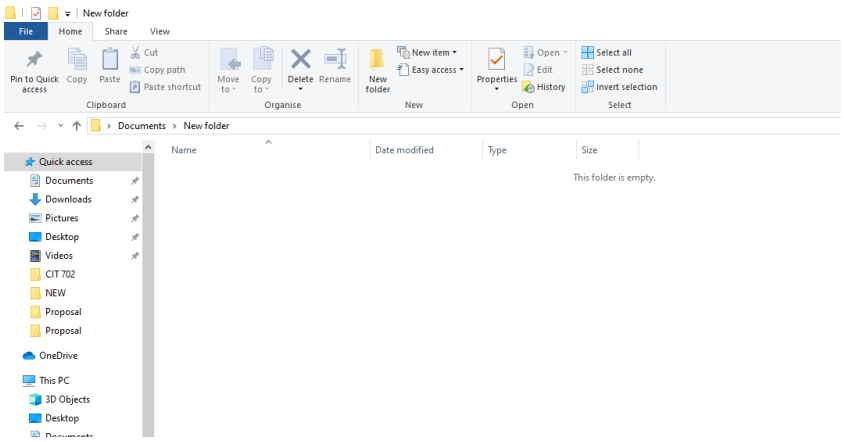
Note: Follow this procedure to create as many folders as desired. Working with the files from the registrar's office as indicated above, all the files are not related. To make files more manageable, we have to sort into schools and units. So in this instance folders should be opened for the various schools and units.

Enter files into folder. There are two ways of entering files into folder.

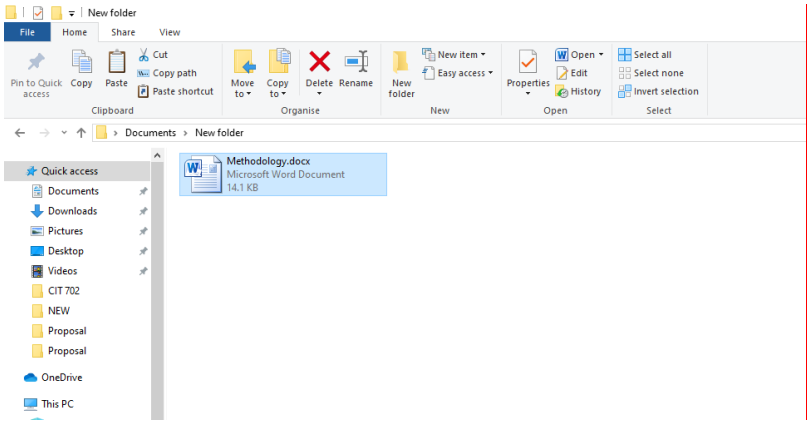
First, if the files have been created, open the source where the files are and open the folder. Copy the file(s) and paste inside the folder using the cut and paste mode. Sometimes both the folder and the file(s) may be in the same source like my document. E.g.



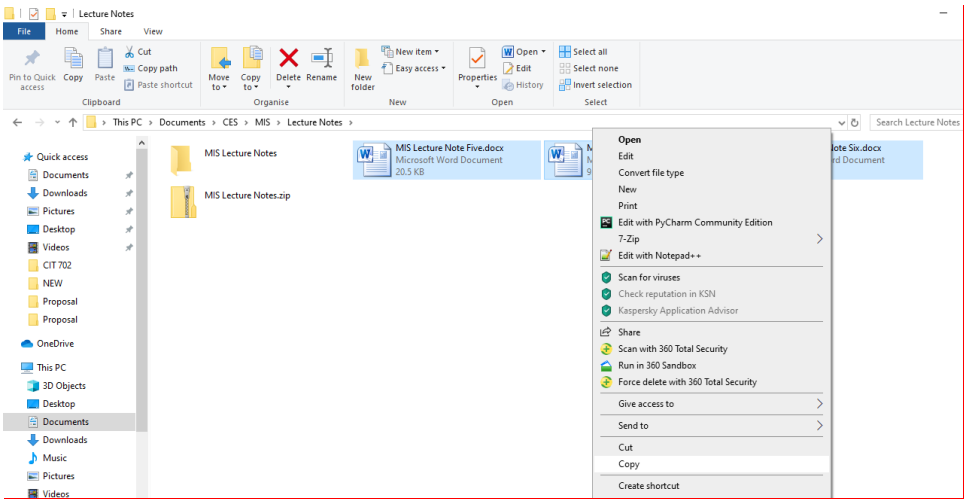
The folders are in yellow colour. The others are files. Let us assume we want to put the files into the folder named 'New Folder". Right click on the file, a dropped down menu will come up, from the dropped down menu click on 'copy' then go to the folder (New Folder) where you want to copy the file, double click (i.e. fast click twice) and the folder will open thus:



This shows there is no file in the folder. Right click inside the white space and from the dropped down menu, click on paste. Let assumed the file we copy is 'Methodology', as you click on paste the file will appear on the folder thus:



You can enter as many files in this order. But you must ensure that the files entered are related to the name given to the folder, because the folder is acting as the umbrella. Apart from copying the files one by one you could highlight all the files you want to copy, right click and click on copy and go to the folder, right click and click on paste, all the files copied would be pasted at once.



You could also use drag and drop method. With this method, left click on the file, hold down the mouse without releasing your finger and take the cursor to the folder and release your finger. As soon as this is done, the file(s) automatically copy into the folder.

The best method is:

- to create a folder first
- then type the document
- click on file
- click on save as
- click on the source where you want the document saved e.g. my documents
- click on the folder you have created
- and save

3.4 Organisation of Folders

Remember you have created folders for all the schools and units in National Open University of Nigeria. If the folders are left to exist the way they are, they will turn to junks i.e. it will again become unmanageable. Therefore there is a need to arrange these folders. Take for example, the folder named 'school of education' in the Registrar's office. There are so many letters going and coming from School of Education. Putting everything together will not make it manageable, so there is a need to create other folders within the folder 'school of education'.

But before creating folders within the school of education, yearly folders e.g. 2002 folder, 2003 folder, 2004 folder etc need to be created and within each year folder two major folders need to be created in office of the Registrar. These folders are 'Incoming Mail folder' and 'Outgoing

Mail Folder'. Folders for all the schools and units in the university would be present in both the incoming mail folder and the out-going mail folder. This is for easy retrieval. The incoming mails should be recorded electronically both the ones that are received in electronic form and those that are received in hardcopy form. The hard copy form would be made possible through scanning.

Within each school or unit folder, other folders can now be created e.g. staff record, facilitators update, Notice of Senate meeting etc.
To save folder inside another folder, follow the same procedure of saving file(s) inside folder.

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. With reference to a particular organisation, explain the process of managing a file in a business.

5.0 Conclusion

To be effective and efficient in an organisation, documents must be properly managed failing which the efficiency level will be very low. Low efficiency could increase the problem of quality assurance which is sought by the public. Therefore the issue of file management must be considered very vital in the business world.

6.0 Summary

To have adequate file management, create files with file names that can easily be retrieved and arranged them in manageable folders for easy retrieval and control.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

FrontPage: Microsoft Office. (2005). Barcelona: Ed. ENI.

Gross D., Akaiwa F., Nordquist K. & Evans J. (2008). Business Computing Using Excel and FrontPage. U.S.A. Thomson Course Technology.

Lambert, J., & Cox, J. (2013). *Microsoft Outlook 2013: Step by Step*. Redmond, WA: Microsoft.

Matthews, M. S. (1996). *Web publishing with Microsoft FrontPage*. Berkeley, CA: Osborne McGraw-Hill.

McFedries, P. (2015). *Windows 10 simplified*. Indianapolis, IN: John Wiley & Sons.

Murray, K. (2013). *Microsoft Office Professional 2013: Plain & Simple*. Sebastopol, California :: OReilly Media.

Pazmandy, G. (2013). *Business computing: Using Microsoft® Office 2013*. Rose Bay, NSW: Tekniks Publications.

Price, M. (2013). *Office 2013: In easy steps*. Leamington Spa, Warwickshire, U.K.: In Easy Steps.

Rathbone, A. (2018). *Windows 10 for dummies*. Milano: Hoepli.

Weverka, P. (2013). *Office 2013 all-in-one for dummies*. Hoboken, NJ: John Wiley & Sons.

Unit 4: **Document Presentation**

Contents

1.0 Introduction

The way documents are presented speaks about the integrity of an organisation. A document may carry good information, but if the document has poor presentation, such document would send wrong signals in spite of the good information it possesses. This is why document presentation is very important in business. This unit would therefore be devoted to discussing different areas that are eye catching in document presentation.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

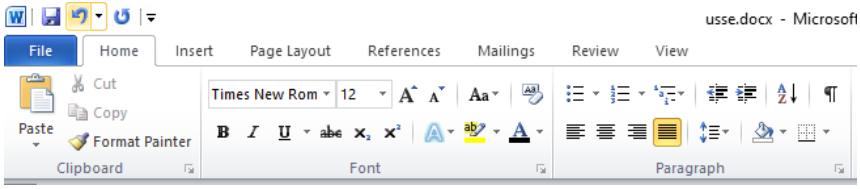
- Format documents
- Review documents

3.0 Main Content

3.1 Formatting

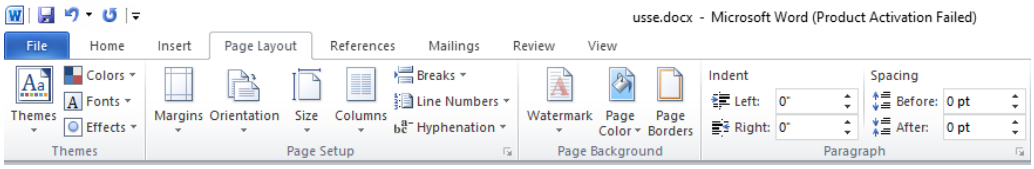
There are different types of formatting:

Simple Character Formatting e.g. underline, bold, italicize your text:
To achieve this, click on Home on the menu bar and click the desired formatting -



Short cut keys could also be used. Press ***ctrl + B*** for bold, ***ctrl + I*** for italic and ***ctrl + U*** for underscore. Press one of the shortcuts before you type the text you want to format. When you want to stop formatting, press the same shortcut key to turn off the formatting. You can also format already typed document. To format already typed document, highlight the desired part and select the desired format.

Special character formatting: These are used to enrich the document. This may be "Page Background", which may include watermark, page colour and page borders. You may also want to effect "Page Setup" or work in different "Paragraphs". To achieve any of these, click on "Page Layout" in the menu and select as desired.



To have special effect on font like subscript and superscript, click on "Home" in the menu and select from:

for example to type 9 to the power of 3, type 9 and 3 thus 93, highlight 3 thus and click X^2 button

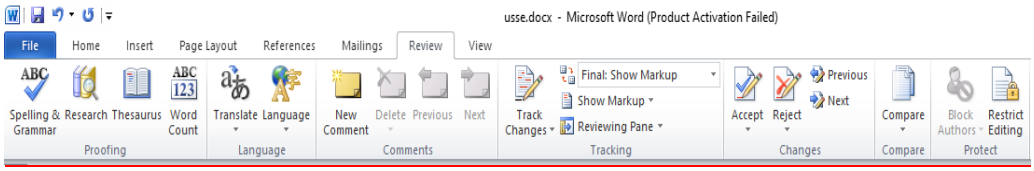
then it will appear thus 9^3.

To achieve paragraph formatting, click on "Page Layout" and select the desire format under "paragraph".

3.2 Proofreading

It is important to proofread a typed job before it is sent out of the organisation. This is best achieved by the use of Thesaurus, spelling and grammar tools. To get this click on "Review" and select as desired. A quick type can be done by highlighting the desired word(s) and right click on

the word to check for spellings and grammar. Sometimes, the computers automatically prompt green or red waiving lines. The green waiving line queries grammar, while the red waiving line queries spellings. These serve as alert to proofreading.



Another important aspect of proofreading is the use of "Track Changes". This will enable you to edit materials electronically.

3.3 Mail Merging

Mail merging is very important in the production of business documents. There are times there is the need to send the same content of a document to several persons probably with different names and addresses. In this instance, mail merging is the best option that can be used to achieve such documentation within a short time.

To mail merge, the following steps may be taken:
First, prepare a table for the information that would be different in the document e.g. name and address. This may appear thus:

Name	Address
John Mark	12 Street Benin City
Ojo Adekunle	23 Abiola Avenue Lagos
Okoro Nduka	School of Education NOUN, Lagos
Pius Ehimen	Department of Arts and Social Sciences Lagos State University Ojo
Caroline Ujagbe	56 Lane Close Kano
Dada Ojugo	Plot 547 Arewa Suit Abuja
Ibhagbosoria Uduaghe	99 Ajuwa Avenue Sokoto

Save the table in appropriate source.
Secondly, type the document, say a letter e.g.
Dear,

We are glad to inform you that our interest rate has been reviewed downwards. You are now to pay 2.5% on any outstanding loan as from the month of September, 2009 as against the 6% earlier charged.

Should you need further clarification, please feel free to ask.
Yours Sincerely,

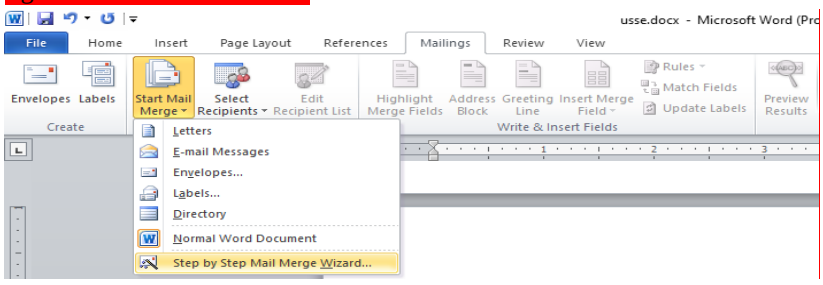
This letter is to be sent to different persons and addresses. So let us identify where the names and addresses would be inserted.

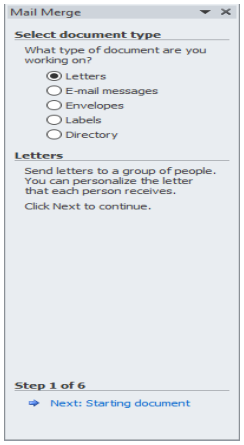
"Address"
Dear "Name"

We are glad to inform you that our interest rate has been reviewed downwards. You are now to pay 2.5% on any outstanding loan as from the month of September, 2009 as against the 6% earlier charged.

Should you need further clarification, please feel free to ask.
Yours Sincerely,

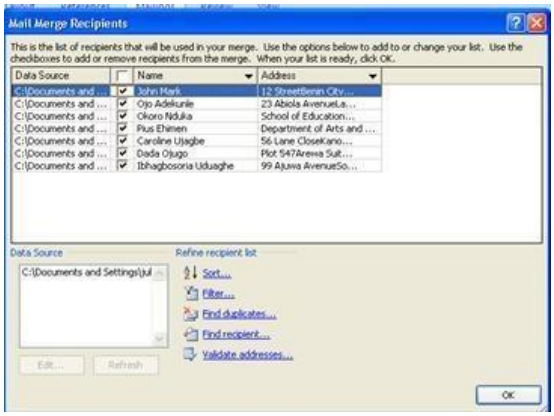
Thirdly, place the cursor on the document and click on "Mailings" at the menu bar. Then click Mail Merge → Step by step mail merge wizard, then a drop down menu will appear thus at the right hand side of the screen:





At the bottom of the drop down menu click on "Next: Starting document", and follow the instructions.

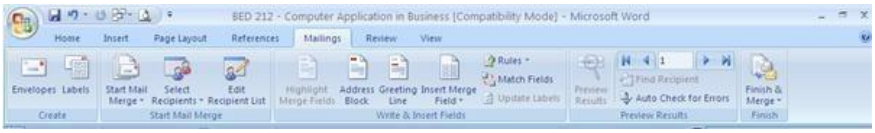
When you click on step 3 a dialog box will appear requesting for your existing list. Click on the source to open the file. With our above list, this will appear:



Then click OK. A click on step 4 will bring the following dialog box

Place your cursor on the first place of insertion, in this instance where you want the address to be placed then click on “More items”, the following dialog box will appear:

Click Insert. Repeat this in all the points of insertion. A click on step 5 will effect all the identified names and addresses.
To enhance the mail, you may work through the icons on “Mailings”



4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. Edit a material electronically, and share your experience with your colleagues.
2. With the use of mail merge, type a letter and duplicate same to 10 persons.
3. Edit any material of your choice with the use of “Track Changes”. Use balloon to show the changes in the text and print.

5.0 Conclusion

It is good to present our documents in a way to enhance understanding and as well as gaining time.

6.0 Summary

In presenting a business document, attention should be given to appropriate formatting as well as

time gaining techniques, such as mail merging.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

FrontPage: Microsoft Office. (2005). Barcelona: Ed. ENI.

Gross D., Akaiwa F., Nordquist K. & Evans J. (2008). Business Computing Using Excel and FrontPage. U.S.A. Thomson Course Technology.

Lambert, J., & Cox, J. (2013). *Microsoft Outlook 2013: Step by Step*. Redmond, WA: Microsoft.

Matthews, M. S. (1996). *Web publishing with Microsoft FrontPage*. Berkeley, CA: Osborne McGraw-Hill.

McFedries, P. (2015). *Windows 10 simplified*. Indianapolis, IN: John Wiley & Sons.

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Pazmandy, G. (2013). *Business computing: Using Microsoft® Office 2013*. Rose Bay, NSW: Tekniks Publications.

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Module 3: MICROSOFT EXCEL IN BUSINESS

Module Introduction

Microsoft Excel is very useful in the business world, especially in the computation of data that involve figures and complicated tabulations. This module would discuss the day-to-day activities that require the use of excel in business. BED 211 – Microsoft Office has already introduced us to Microsoft Office Excel, therefore, this module would focus on the use of excel for problem solving in business. Microsoft Office Excel 2010/2013 would be used in this module to discuss the following:

Unit 1: Solving and Making Decision with Microsoft Excel
Unit 2: Managing Large Worksheet
Unit 3: Presentation of Data with Charts

Comment [D6]: Updated the use of Microsoft excel 2007 to 2010/2013 and windows xp/7 to windows 10. Improved on the references and further readings. Expunged the very old references and incorporated recent references and books for further readings.

Unit 1: Solving and Making Decision with Microsoft Excel

Contents

1.0 Introduction

In Microsoft Word, we study some tabular work which involves the use of columns, rows, and cells. But there is a limit to which Microsoft word can handle tabular work, especially when advanced calculations are involved. This is where Microsoft Excel comes in. This unit will expose you to the beginning part of the use of Microsoft Excel.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- Solve basic problems in business by applying basic statistics with the use of Excel.
- Analyse basic problems with the use of Microsoft excel.

3.0 Main Content

3.1 Identification of Business Problems

Excel works with columns, rows and cells. Sometimes problem may occur in the use of formulas, using formulas and cell references instead of values and determining order of preferences. Let us look at some areas that may require problem identification:

Excel Arithmetical Operations –

Calculation	Excel Operations	Example
Addition	+	=3+A1
Subtraction	-	=A1-A2
Multiplication	*	=A1*4
Division	/	=X4/Y4
Exponent	^	=2^8

You will recall that in BED 211 – Microsoft Office, we were told that every formula in excel starts with '=' sign. By way of interpretation, under the column of example above, the equal sign is mandatory. =3+A1 means the value 3 is added to any value that is in cell A1. In the second row, =A1-A2, it means the value in A2 is subtracted from the value in A1. In the third row, =A1*4 means the value in A1 is multiplied by the value 4. The fourth row =X4/Y4 means the value in X4 is divided by the value in Y4 and finally in the fifth row =2^8, it means the value 2 is raised to the power of 8. The day-to-day activities in the business world require these basic arithmetical operations for business to flow. For example, a business man may want to get the total amount of sales per month and year. In this case, it means monthly sales should reflect as well as the summation per year. Also the business man may want to get the net profit, by subtracting all expenses from the gross profit made. This can be achieved by simply entering the right formula to capture the right value.

Formulae and Cell References instead of values –

Supposing the cost of producing 1000 copies of a textbook is ₦3,235, the cost of one textbook

will be ₦3,235 divided by 1000. Using excel formula it will be ₦3,235/1000. It is wrong to type a value into a cell instead of entering the formula that produced the value. Typing a value will make your work cumbersome and you will find it difficult to reference cells. To work with formulae accurately and with fewer problems you need to know how to determine order of precedence rules.

Order of Precedence Rules

Order of Precedence	Example	Resulting Value	Explanation
1. Operations in parentheses	=A1*(3+5)	If A1=2, the resulting value is 2*(3+5), or 2*8 = 16	Excel first performs the addition of 3 + 5 even though multiplication has a higher precedence than addition, because the addition operation is enclosed in parentheses
2. Exponentiation	=3*A1^3	If A1 = 2, the resulting value is 3*2^3 or 3x8 = 24	Excel first performs the exponential operation of cubing A1, and then performs the multiplication
3. Multiplication and division from left to right	=A1 + B2* C3	If A1=2, B=3 and C3 = 10, the resulting value is 2+3*10 or 2+30 = 32	Excel first multiples B2 by C3, and then adds the result to A1
4. Addition and subtraction from left to right	=A1-B2+C3/10	If A1=2, B2=3, and C3=10, the resulting value is 2-3+1 or -1+1=0	Excel first divides C3 by 10, then subtracts B2 from A1, and finally adds this value to the quotient

3.2 Problem Analysis

The following is a case study:

Sharback manufactures and sells Adire (tie and dye) clothes at Abeokuta, a town which is distinctly known for good Adire clothes. Due to the popularity of this Adire, the company is challenged to meet the demand. The manufacturing company is forced to add volume to the quantity manufactured so as to be able to meet with the demand. Sharback is committed to maintaining a high standard for which the company is known, but there is a great concern that

the standard may be compromised due to increase in production. One of the problems in the production process is Quality Control, which is often referred to as "QC". Each Adire is thoroughly inspected and tested before being released for sale when a defect is detected. The defect is traced to the original production line that manufactures and package the Adire. Adewale who is the control manager noticed an increase in defect products since the increase in the production of Adire. The fear arose that the company may not be able to meet the demand if the numbers of defected goods keep increasing.
In this instance, Adewale would need statistics for the analysis statistics for thorough analysis..

Using Statistical Functions of Data Values
The skills required in using statistical functions include:

- Freezing rows and columns
- Splitting a window into panes
- Using absolute references
- Using the AVERAGE function
- Using relative references
- Using the ROUND function

Statistics is often referred to as a subset of mathematics, which is applied to observe data. Some common statistics that are used are:

- Mean
- Median
- Mode
- Standard deviation

The mean is the arithmetical average of a set of data. Median is the arithmetical value that occurs in the middle of a set of data. Mode is the arithmetic value that occurs most frequently in a set of data. Standard deviation is a measure of how widely data values are dispersed from the arithmetical mean. Let us see the following examples:

Values: 8, 7, 2, 2, & 10

a. Arithmetic mean = (8+7+2+2+10)/5
b. Median = to get the median, reorder the value in ascending order thus: 2, 2, 7, 8, 10, the middle value 7 is the median.
c. The mode is the value that occurs most often, in this set of data, the mode is 2.
d. The standard deviation is the degree which scores spread out about the mean or central tendency.

The mean in two sets of data might be the same but with different standard deviation, which shows the data is more or less widely distributed or could exhibit entirely different distribution profile. Also two data might have the same standard deviation and the mean values in the same data could be different, this indicates two dissimilar manners.

In the case of Sharback Adire production, Adewale must analyse the recent trend in Adire being rejected in the quantity control for quality defects. The two most common defects being found in the Sharback Adire models are as follows:

- High colour coefficient indicating poor surface finishing that can result in fast fading of material. Adires are rejected if the colour mixture differ from the actual colour number with 0.01
- Low texture strength indicating that the material texture cannot absolve the desired colour. The Adires are rejected if the texture of material is less than 0.7

The problem has under gone some analysis, the next stage would be to identify possible solution.

3.3 Identification of Possible Solution

To be able to identify the possible solution that excel can provide the following are essential:
In statistical value, you may want to ROUND functions e.g. 26.436 would be 26. Examples of ROUND functions are:

Formula	Description	Resulting Value
=ROUND (26.436)	Rounds 26.436 to the nearest whole number	26
=ROUND (B2,1)	Where B2 contains	21
	value 21.38, round 21.38 to the nearest tenth	
=ROUND (102234,-2)	Rounds 102234 to the nearest hundred	102,200
=ROUND (33.75%,2)	Rounds 33.75% to the nearesthundredth, which is the same as the nearest percent because the precise value is 3375	24%

=ROUND (SUM(10.33,10.44),0	First sum 20.33 and 20.44 resulting in 40.77, then round the value to the nearest whole number	41

These functions can also be expressed in excel. Let us see the following: Examples of Functions that modify the precision of a value

Function	Description	Syntax and Example	Resulting Value
ROUND	Rounds a number to a specified number of decimal places	ROUND (number, num-digits) = ROUND(25.33%,2)	25%
ROUND-UP	Rounds a number up to the specified number of decimal places	ROUND(number, num-digits) = ROUNDUP(1.002,2)	1.01
ROUND DOWN	Rounds a number down to the specified number of places	ROUNDDOWN (number, num-digits) = ROUNDDOWN(9.99,0)	9
EVEN	Rounds a number up to the next highest even integer	EVEN (Number) = EVEN(2.23)	4
ODD	Rounds a number up to the next highest odd integer	ODD (number) = ODD(1.23)	3
INT	Round a number down to the nearest integer	INT (number) = INT(-4.3)	-5

TRUNC	Truncates a number to an integer removing the fractional part of the number	TRUNC (Number, num-digits) = TRUNC(-4.3)	-4

Paste Special

The copy and paste mode is the same in what we have learned in BED 111 (Introduction to Keyboarding and Word Processing), BED 112 (Advanced Word Processing) and BED 211 (Microsoft Office). But there are situations where you need to use the paste special mode. When

you click on paste special; click on the desired function. As a reminder, let us look at the following Paste Special box:

Let us see the explanations of some of these paste functions in the table below:

Formulas	Description
Paste Special	Displays a dialog box that provides different paste options
Formulae	Paste only the formulae from the original (copied) cells
Values	Paste only the values from the original cell(s); the formula or any formatting are not pasted
All except Borders	Paste the formulae and formatting from the original cell(s), but not the format of the cell borders

Transpose	Paste the formulae and formatting from the original range of cells, but reverses the orientations, so that the rows of the original cell range, and the original columns become rows
Paste Link	Paste a connection or link to the original cells, including the applied formatting
Paste operations (Add, Subtract, Multiply and Divide)	Paste the operation so specified

Mean, Median, Mode and Standard Deviation

Excel Statistical Functions

Statistic	Function and Syntax
Arithmetic Mean	AVERAGE(number 1, number2,…)
Median	MEDIAN(number1, number2, …)
Mode	MODE(number1, number2,…
Standard Deviation	

Now let us calculate the statistics for the colour coefficient

Quantity Control Data for Sharback Ventures

	A	B	C	D	E	F	G
1	MGF (ID#)	Size	Style	Date Manufactured	Production Line	Colour Coefficient	Texture Strength
2	14125	180	B	10/11/2008	1	0.05	0.4
3	14126	180	B	10/11/2008	1	0.004	0.6
4	14127	220	D	12/11/2008	2	0.2	0.3
5	14128	220	A	14/12/2008	2	0.08	0.5
6							
7	Mean						0.0835
8	Median						0.065
9	Mode						#N/A
10	STDEV						0.0837198

- Unique manufacturing identification number (mfg ID#)
- Size
- Style
- Date manufactured
- Production line on which the Adire was manufactured
- Colour coefficient value
- Low texture

To calculate the colour coefficient, the mean, median, mode and standard deviation are calculated for proper decision making. To achieve this, the following formulas are entered:

For Mean - = AVERAGE(F2:F5)
For Median - = MEDIAN(F2:F5)
For MODE - = MODE(F2:F5)
For STDEV - = STDEV(F2:F5)

The result showed there was no mode. The standard deviation would be best used for the decision. The present standard deviation would be compared with the previous standard deviation. The lower the standard deviation the better the coefficient.
The use of excel in problem solving is not limited to manufacturing industry. It could be applicable to other industries such as education. Let's see how we can solve the following problem:

S/NO	NAMES	MATRIC NUMBER	C.A.	EXAM SCORE	TOTAL	LETTER GRADE	RMK
1	Adeniji Eunice kemi	03/01/AV/01/053	19	27	46		
2	Adeoye Victor A.	03/01/AV/03/041	19	33	52		
3	Adesanya S. Adekunle	03/01/AV/01/010	19	27	46		
4	Adesuji Modupe Om oboja	03/01/AV/01/054	19	27	46		
5	Adeyemi Ademola	03/01/AV/01/055	21	36	57		
6	Afolabi Motunrayo S.	03/01/AV/01/056	22	33	55		
7	Agbebaku Evelyn	03/01/AV/03/002	21	36	57		
8	Agoro Fadilat T.	03/01/AV/03/042	21	33	54		
9	Agunbiade Bukola	03/01/AV/01/140	21	29	50		
10	Ajayi Emmanuel O.	03/01/AV/01/011	19	27	46		

The Problem:
The above result was submitted by a lecturer. The examination officer is faced with the problem of providing the letter grades and thereby seeks an easy way this can be achieved to meet the time line and at the same time minimize error.

Question: What would the examination officer do to achieve this, using excel.

Answer: To solve this problem, the examination officer has to use the 'IF Formula', if when defined will eliminate errors in the conversion of scores to letter grades and at the same time be fast enough to achieve the desired result.

Procedure:

1. Enter the data into excel worksheet and it will appear thus:

	A	B	C	D	E	F	G	H
1	S/NO	NAMES	MATRIC NUMBER	C.A	EXAM SCORE	TOTAL	LETTER GRADE	RMK
2	1	Adeniji Eunice kemi	03/01/AV/01/053	19	27	46		
3	2	Adeoye Victor A.	03/01/AV/03/041	19	33	52		
4	3	Adesanya S. Adekunle	03/01/AV/01/010	19	27	46		
5	4	Adesuji Modupe Omoboja	03/01/AV/01/054	19	27	46		
6	5	Adeyemi Ademola	03/01/AV/01/055	21	36	57		
7	6	Afolabi Motunrayo S.	03/01/AV/01/056	22	33	55		
8	7	Agbebaku Evelyn	03/01/AV/03/002	21	36	57		
9	8	Agoro Fadilat T.	03/01/AV/03/042	21	33	54		
10	9	Agunbiade Bukola	03/01/AV/01/140	21	29	50		
11	10	Ajayi Emmanuel O.	03/01/AV/01/011	19	27	46		

2. Place your cursor on G2 and type the following formula

=IF(F2>69,"A",IF(F2>59,"B",IF(F2>49,"C",IF(F2>44,"D",IF(F2>39," E","F")))))

3. Press the enter key. The letter grade will appearthus:

	A	B	C	D	E	F	G	H
1	S/NO	NAMES	MATRIC NUMBER	C.A	EXAM SCORE	TOTAL	LETTER GRADE	RMK
2	1	Adeniji Eunice kemi	03/01/AV/01/053	19	27	46	D	
3	2	Adeoye Victor A.	03/01/AV/03/041	19	33	52		
4	3	Adesanya S. Adekunle	03/01/AV/01/010	19	27	46		
5	4	Adesuji Modupe Omoboja	03/01/AV/01/054	19	27	46		
6	5	Adeyemi Ademola	03/01/AV/01/055	21	36	57		
7	6	Afolabi Motunrayo S.	03/01/AV/01/056	22	33	55		
8	7	Agbebaku Evelyn	03/01/AV/03/002	21	36	57		
9	8	Agoro Fadilat T.	03/01/AV/03/042	21	33	54		
10	9	Agunbiade Bukola	03/01/AV/01/140	21	29	50		
11	10	Ajayi Emmanuel O.	03/01/AV/01/011	19	27	46		

4. Copy the result in G2 into other cells. The result would be:

	A	B	C	D	E	F	G	H
1	S/NO	NAMES	MATRIC NUMBER	C.A	EXAM SCORE	TOTAL	LETTER GRADE	RMK
2	1	Adeniji Eunice kemi	03/01/AV/01/053	19	27	46	D	
3	2	Adeoye Victor A.	03/01/AV/03/041	19	33	52	C	
4	3	Adesanya S. Adekunle	03/01/AV/01/010	19	27	46	D	
5	4	Adesuji Modupe Omoboja	03/01/AV/01/054	19	27	46	D	
6	5	Adeyemi Ademola	03/01/AV/01/055	21	36	57	C	
7	6	Afolabi Motunrayo S.	03/01/AV/01/056	22	33	55	C	
8	7	Agbebaku Evelyn	03/01/AV/03/002	21	36	57	C	
9	8	Agoro Fadilat T.	03/01/AV/03/042	21	33	54	C	
10	9	Agunbiade Bukola	03/01/AV/01/140	21	29	50	C	
11	10	Ajayi Emmanuel O.	03/01/AV/01/011	19	27	46	D	

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. Practice all that you have read so far with solving business problems with Microsoft

excel. Share your experience with your co-students.

2. Identify a problem in a particular organisation and use Microsoft Office Excel to solve the problem. Explain how you were able to achieve this.

5.0 Conclusion

There are a lot of ways excel can be used to solve business problems. But first and foremost, you must identify the prevailing problem and know the possible ways of solving that problem and then approach the possible solution. Where you do not know the right formula to use, go to the Help function of excel and study the recommended ways each formula can be applied. You should always use the help function.

6.0 Summary

For excel to effectively help in solving business problems, the user must be able to identify the problem areas and the possible solutions to the problem. After which the appropriate section of excel is applied. There is no limitation on the type of business excel can be used. Excel if properly applied can be useful in all kinds of business – manufacturing or servicing.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

FrontPage: Microsoft Office. (2005). Barcelona: Ed. ENI.

Gross D., Akaiwa F., Nordquist K. & Evans J. (2008). Business Computing Using Excel and FrontPage. U.S.A. Thomson Course Technology.

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Unit 2: Managing Large Worksheet

Contents

1.0 Introduction

Most people usually run into problem with dealing with large data. At a point it may become cumbersome managing data to derive desirable results. At this point in time it becomes necessary to look for alternative ways stress can be reduced in achieving the desired goal.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- Freeze panes and split windows in excel
- manage large data

3.0 Main Content

3.1 Freezing Panes

Freezing panes means making some rows and columns visible while you scroll across the work sheet. Large worksheets usually go beyond the window view at a time. In this instance the part that is required to supply leading information may be kept in view while other rows or columns scroll.

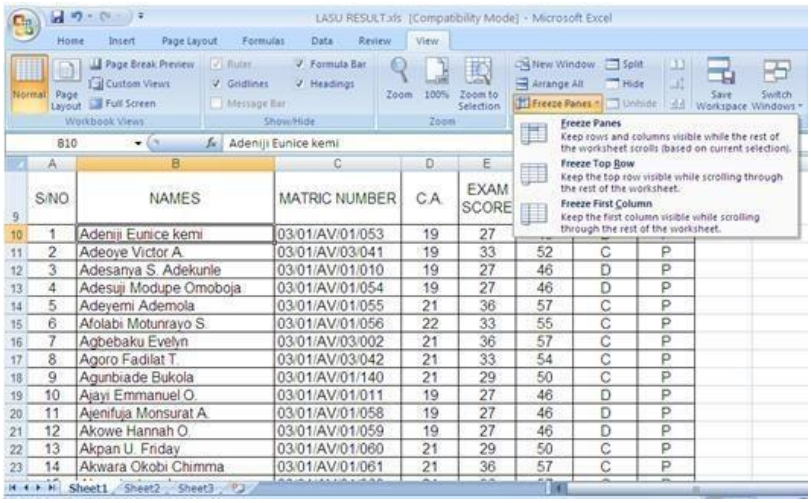
	A	B	C	D	E	F	G	H
9	S/NO	NAMES	MATRIC NUMBER	C.A.	EXAM SCORE	TOTAL	LETTER GRADE	RMK.
10	1	Adeniji Eunice kemi	03/01/AV/01/053	19	27	46	D	P
11	2	Adeoye Victor A.	03/01/AV/03/041	19	33	52	C	P
12	3	Adesanya S. Adekunle	03/01/AV/01/010	19	27	46	D	P
13	4	Adesuji Modupe Omoboja	03/01/AV/01/054	19	27	46	D	P
14	5	Adeyemi Ademola	03/01/AV/01/055	21	36	57	C	P
15	6	Afolabi Motunrayo S.	03/01/AV/01/056	22	33	55	C	P
16	7	Agbebaku Evelyn	03/01/AV/03/002	21	36	57	C	P
17	8	Agoro Fadilat T.	03/01/AV/03/042	21	33	54	C	P
18	9	Agunbiade Bukola	03/01/AV/01/140	21	29	50	C	P
19	10	Ajayi Emmanuel O.	03/01/AV/01/011	19	27	46	D	P
20	11	Ajenifuja Monsurat A.	03/01/AV/01/058	19	27	46	D	P
21	12	Akowe Hannah O.	03/01/AV/01/059	19	27	46	D	P
22	13	Akpan U. Friday	03/01/AV/01/060	21	29	50	C	P
23	14	Akwara Okobi Chimma	03/01/AV/01/061	21	36	57	C	P

Sheet1 Sheet2 Sheet3

In this excel sheet, the number of students go beyond 14. To see the other names would require scrolling the rows. But once the rows are scrolled, row 9 would no longer be visible because it would scroll up to give space to view the underneath names. But, the information in row 9 is guide to what data should be entered in each cell of the data. Therefore you may want to leave row 9 and column A on view while others scroll. To achieve this, the following steps should be adopted.

Procedure:

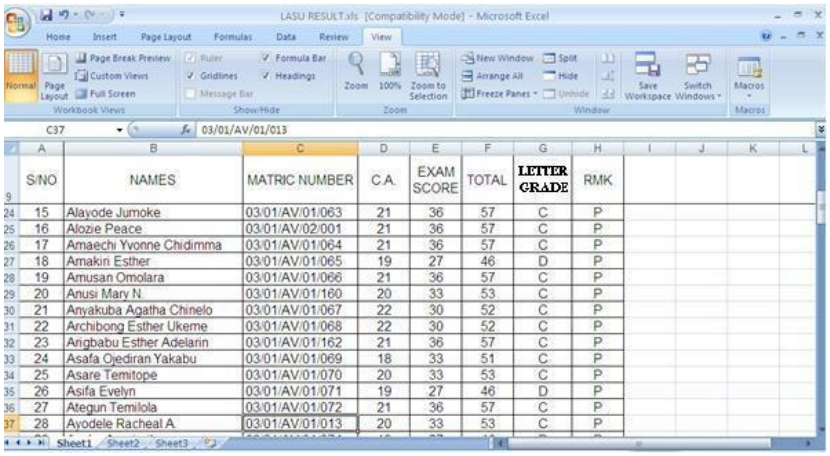
1. Place your cursor on B10
2. On the view menu, click on Freeze Panes and you willhave:



S/NO	NAMES	MATRIC NUMBER	C.A	EXAM SCORE			
1	Adeniji Eunice kemi	03/01/AV/01/053	19	27			
2	Adeoye Victor A.	03/01/AV/03/041	19	33	52	C	P
3	Adesanya S. Adekunle	03/01/AV/01/010	19	27	46	D	P
4	Adesuji Modupe Omoboja	03/01/AV/01/054	19	27	46	D	P
5	Adeyemi Ademola	03/01/AV/01/055	21	36	57	C	P
6	Afolabi Motunrayo S.	03/01/AV/01/056	22	33	55	C	P
7	Agbebaku Evelyn	03/01/AV/03/002	21	36	57	C	P
8	Agoro Fadilat T.	03/01/AV/03/042	21	33	54	C	P
9	Agunbiade Bukola	03/01/AV/01/140	21	29	50	C	P
10	Ajayi Emmanuel O.	03/01/AV/01/011	19	27	46	D	P
11	Ajenifuja Monsurat A.	03/01/AV/01/058	19	27	46	D	P
12	Akowe Hannah O.	03/01/AV/01/059	19	27	46	D	P
13	Akpan U. Friday	03/01/AV/01/060	21	29	50	C	P
14	Akwara Okobi Chimma	03/01/AV/01/061	21	36	57	C	P

3. Click on freeze panes

Once this is done, as you scroll, column A and row 9 will be on view. Originally, the data that were on view were S/N 1 – 14. With freezing of panes, as you scroll you will see more data but column A and row 9 constant. The table below shows the data after freezing and scrolling. You will observe that the new data on the screen view shows S/N 15 – 28 but with the headings still on view.

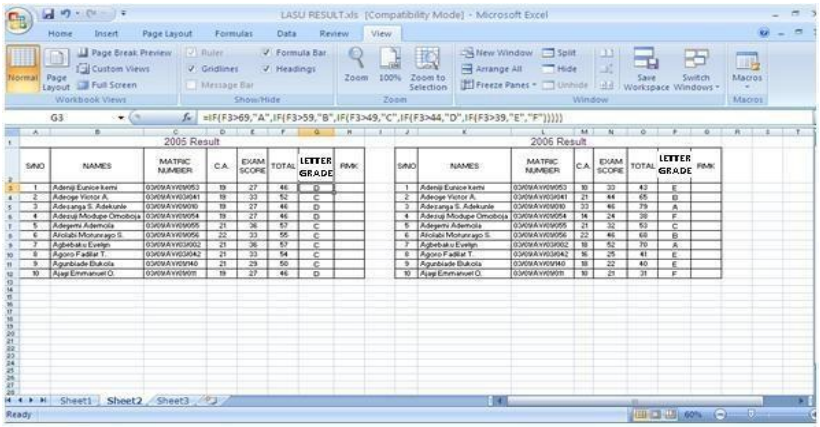


S/NO	NAMES	MATRIC NUMBER	C.A	EXAM SCORE	TOTAL	LETTER GRADE	RMK
15	Alayode Jumoke	03/01/AV/01/063	21	36	57	C	P
16	Alozie Peace	03/01/AV/02/001	21	36	57	C	P
17	Amaechi Yvonne Chidimma	03/01/AV/01/064	21	36	57	C	P
18	Amakiri Esther	03/01/AV/01/065	19	27	46	D	P
19	Amusan Omolara	03/01/AV/01/066	21	36	57	C	P
20	Anusi Mary N.	03/01/AV/01/160	20	33	53	C	P
21	Anyakuba Agatha Chinelo	03/01/AV/01/067	22	30	52	C	P
22	Archibong Esther Ukeme	03/01/AV/01/068	22	30	52	C	P
23	Arigbabu Esther Adelarin	03/01/AV/01/162	21	36	57	C	P
24	Asafa Ojediran Yakabu	03/01/AV/01/069	18	33	51	C	P
25	Asare Temitope	03/01/AV/01/070	20	33	53	C	P
26	Asifa Evelyn	03/01/AV/01/071	19	27	46	D	P
27	Ategun Temilola	03/01/AV/01/072	21	36	57	C	P
28	Ayodele Racheal A.	03/01/AV/01/013	20	33	53	C	P

You could also freeze only row or column instead of freezing both. It all depends on what you need at a time.

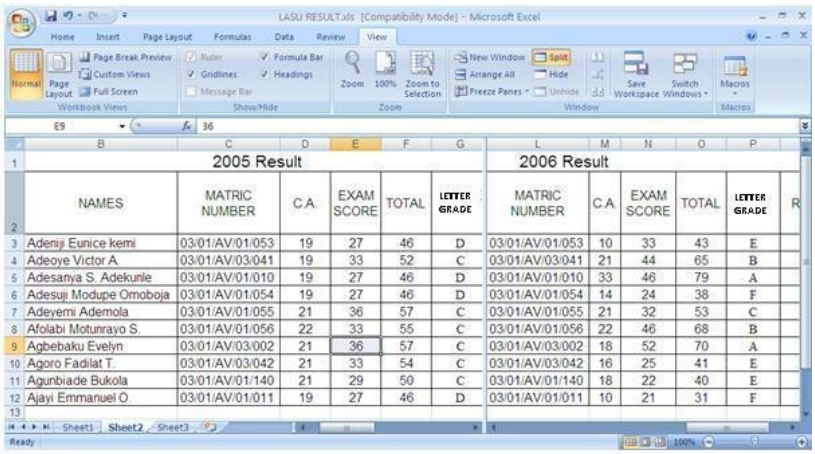
3.2 Splitting Window

Another way to manage large data is to split window. This is very helpful when you want to compare values. Let us consider the academic result of a set of students for academic year 2005 and 2006. The data may be entered thus:



To be able to scroll and compare, go to view menu, place your cursor in between the two sets of data or any other point as desired. The placement of the cursor would determine whether the sheet will split horizontally, vertically or both then go to 'window group' in the view menu and click on 'split'.

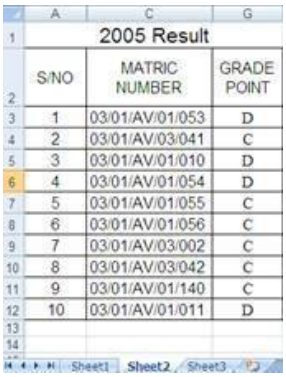
The resulting effect would be:



	2005 Result						2006 Result				
	NAMES	MATRIC NUMBER	C.A.	EXAM SCORE	TOTAL	LETTER GRADE	MATRIC NUMBER	C.A.	EXAM SCORE	TOTAL	LETTER GRADE
3	Adeniji Eunice kemi	03/01/AV/01/053	19	27	46	D	03/01/AV/01/053	10	33	43	E
4	Adeoye Victor A.	03/01/AV/03/041	19	33	52	C	03/01/AV/03/041	21	44	65	B
5	Adesanya S. Adekunle	03/01/AV/01/010	19	27	46	D	03/01/AV/01/010	33	46	79	A
6	Adesuji Modupe Omoboja	03/01/AV/01/054	19	27	46	D	03/01/AV/01/054	14	24	38	F
7	Adeyemi Ademola	03/01/AV/01/055	21	36	57	C	03/01/AV/01/055	21	32	53	C
8	Afolabi Motunrayo S.	03/01/AV/01/056	22	33	55	C	03/01/AV/01/056	22	46	68	B
9	Agbebaku Evelyn	03/01/AV/03/002	21	36	57	C	03/01/AV/03/002	18	52	70	A
10	Agoro Fadilat T.	03/01/AV/03/042	21	33	54	C	03/01/AV/03/042	16	25	41	E
11	Agunbiade Bukola	03/01/AV/01/140	21	29	50	C	03/01/AV/01/140	18	22	40	E
12	Ajayi Emmanuel O.	03/01/AV/01/011	19	27	46	D	03/01/AV/01/011	10	21	31	F

This view presents two windows. You can scroll on both.
Thirdly, large data could be managed by hiding the unwanted data at a time. Supposing in the above data, you are only interested in printing the Matric. Number and the Grade Point (Letter Grade), but still want to retain the data in the database. You could take the following steps:

Highlight the unwanted row, right click, and select 'Hide'. Repeat this for all unwanted rows and columns. At the end only the desired columns or rows would be left. See the example below:



	A	C	G
1	2005 Result		
2	S/NO	MATRIC NUMBER	GRADE POINT
3	1	03/01/AV/01/053	D
4	2	03/01/AV/03/041	C
5	3	03/01/AV/01/010	D
6	4	03/01/AV/01/054	D
7	5	03/01/AV/01/055	C
8	6	03/01/AV/01/056	C
9	7	03/01/AV/03/002	C
10	8	03/01/AV/03/042	C
11	9	03/01/AV/01/140	C
12	10	03/01/AV/01/011	D
13			
14			

Sheet1 Sheet2 Sheet3

From the above, only columns A, C and G are on view, the other columns in between are hidden. To unhide, highlight the columns, right click and select 'Unhide'.

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. Practice working on an excel worksheet with the above examples. Share your experience with your colleagues and facilitator.
2. Present data involving large worksheet and explain how you where able to manage the data.

5.0 Conclusion

In conclusion always identify the area of problem encountered in managing large worksheet. This would help you sort out the right solution to the problem using excel.

6.0 Summary

There are three basic ways of managing large worksheets. It could be done through freezing of panes, splitting of window and hiding of rows and columns. The prevailing problem would

determine the type that may be applied at a time.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

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Pazmandy, G. (2013). *Business computing: Using Microsoft® Office 2013*. Rose Bay, NSW: Tekniks Publications.

Price, M. (2013). *Office 2013: In easy steps*. Leamington Spa, Warwickshire, U.K.: In Easy Steps.

Rathbone, A. (2018). *Windows 10 for dummies*. Milano: Hoepli.

Weverka, P. (2013). *Office 2013 all-in-one for dummies*. Hoboken, NJ: John Wiley & Sons.

Unit 3: **Presentation of Data with Charts**

Contents

1.0 Introduction

In the previous units, chart was discussed as an illustration device which enhances business documentation. This unit shall be more elaborate on how charts are used in presenting data, not just for illustration only. Data well presented in charts are easier to understand than those presented in elaborate texts and figures. Some people do not have the patience to read and deduce facts, thereby may run into wrong conclusion or ignoring the data. This is why in business, presentation of data in charts is encouraged.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- present data in charts for maximum interpretation

3.0 Main Content

Before we go on problem solving, let us have a review on creating charts in excel.

Creating Charts in Excel

Step 1: Enter the data for the chart in excel worksheet. The type of chart to be used would determine how the data would be entered into the worksheet. This would be discussed later.

Step 2: Select the cells that contain the data for the chart.

Step 3: On the Insert tab, in the **Charts** group, click the chart type as desired.

Step 4: Follow the given instruction to complete the chart.

To create charts in a way that will make them meaningful to your audience, you need to decide what exactly you want the audience to understand and the type of audience that is target because some charts are easier to understand than others. Knowing what you want will help you to select

from the wide range of charts.

Things to remember in the use of chart types are the types of charts and the arrangement of figures. The type of charts excel provided are:

- Column charts
- Line charts
- Pie charts
- Bar charts
- Area charts
- XY (Scatter) charts
- Stock charts
- Surface charts
- Doughnut charts
- Bubble charts
- Radar charts

Arrangement of Values in Charts

The type of chart to be used determines the way the values would be entered into the worksheet. Let us briefly look at what should be noted when entering values into worksheet for a chart

Column Charts – The categories are entered in the horizontal axis and the values are entered in the vertical axis.

Line Charts – The categories are distributed evenly along horizontal axis, while the values are distributed evenly along the vertical axis.

Pie Charts – shows size of items in one data series, proportional to the sum of the items. Data points are displayed as percentage of the whole pie. Therefore in a pie chart data are arranged in one column or row only.

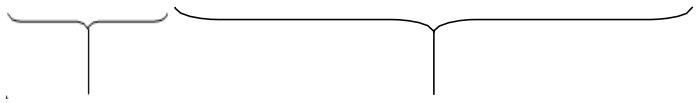
Bar Charts – Illustrate comparison among individual items. Data are arranged in rows and columns.

Area Charts – Data are arranged in rows and column of the worksheet. For example, data that represent profit over time can be plotted in an area chart.

XY (Scatter) Charts – Data is arranged in rows and columns. Scatter charts show the

relationships among the numeric values in several data series, or plots two groups of numbers as one series of XY coordinates. In arranging data on a worksheet for a scatter chart, place the X value in one row or column, and then enter the corresponding Y value in the adjacent rows or columns e.g.

Days	Weather Forecast	Predicted Weather Forecast
Monday	32^{o}C	35^{o}C
Tuesday	36^{o}C	38^{o}C
Wednesday	24^{o}C	42^{o}C
Thursday	30^{o}C	34^{o}C



X values Y values

Stock Charts – Data are arranged in columns and rows in a specific order on a worksheet. E.g. to create a simple high-low-close stock chart, you should arrange your data High, Low, and Close entered as Column Headings, see below:

Date	High	Low	Close
2/09/09	58	53	55.5
7/09/09	57	56	56.5
11/09/09	52	50	51

The sub-types of stock charts are:

- High-Low-Close
- Open-High-Low-Close
- Volume-High-Low-Close
- Volume-Open-High-Low-Close

Surface Charts – These charts are useful when you want to find optimum combinations between two sets of data. As in topographic map, colours and patterns indicate areas that are in the same range of values. Data for surface charts is arranged in columns and rows on a worksheet. You can use surface chart when both categories and data series are numeric values.

Doughnut Charts – Data are arranged in rows and columns only. A doughnut chart shows the

relationship of parts to a whole, it can contain more than one data series. Doughnut charts are not easy to read.

Bubble Charts – Data are arranged in columns on a worksheet. The X values are listed in the first column and corresponding Y values and bubble size values are listed in the adjacent columns e.g.

No of Products	Sales (₦)	Market Share %
15	21,500	3
25	66,200	10
20	23,000	5

Radar Charts – Data are arranged in columns or rows on a worksheet. Radar charts compare the aggregate values of number of data series.

You can equally create charts in other Microsoft office environment, such as Office Power Point 2013 and Office Word 2013. The process of creation is the same as it is in excel. You can equally copy charts from excel to PowerPoint 2013 and Word 2013.

Modifying Charts

You can modify charts after they have been created. To modify charts, you can:

- Change the display of chart axes
- Add titles and data labels to a chart
- Add legend or data table

To make your chart eye-catching, you can format your chart to:

- Fill chart elements. This will enable you use colour, textures, pictures and gradient fills
- Change the outline of chart elements
- Add special effects to chart elements
- Format text and numbers

For help, visit the 'Help Function' in 2007 Microsoft Excel.

Now let us see how we can present some data with the use of charts.

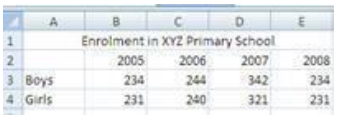
Example 1: Present the following data with an appropriate chart.

Enrolment in XYZ Primary School

	2005	2006	2007	2008
Boys	234	244	342	234
Girls	231	240	321	231

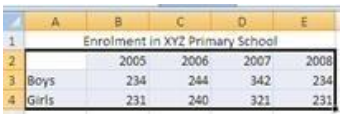
Column or bar charts will be appropriate for this data. But for the purpose of this study, we shall use the column chart. To do this, follow the following procedure:

1. Enter the data into a worksheet



	A	B	C	D	E
1	Enrolment in XYZ Primary School				
2		2005	2006	2007	2008
3	Boys	234	244	342	234
4	Girls	231	240	321	231

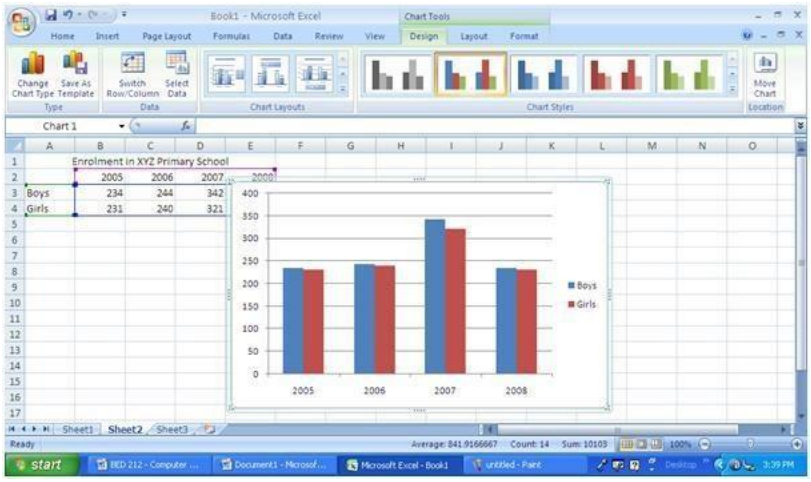
2. Select the cells that contain the data



	A	B	C	D	E
1	Enrolment in XYZ Primary School				
2		2005	2006	2007	2008
3	Boys	234	244	342	234
4	Girls	231	240	321	231

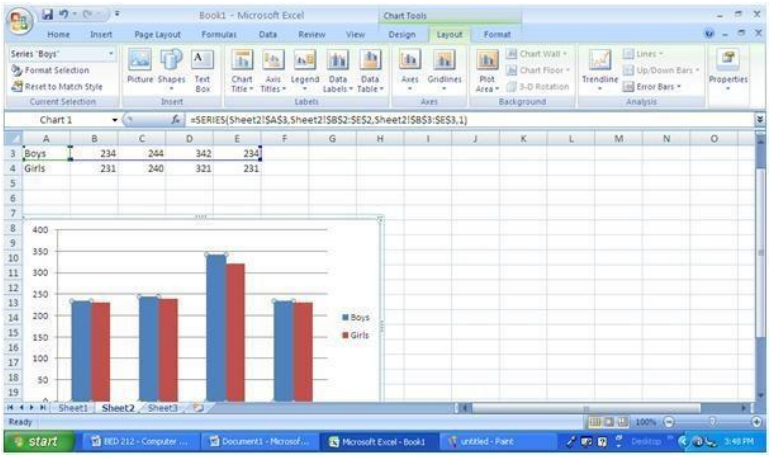
3. On the Insert tab, in the charts group, click the column chart type and select as desired

4. A click on selected column chart will appear thus:

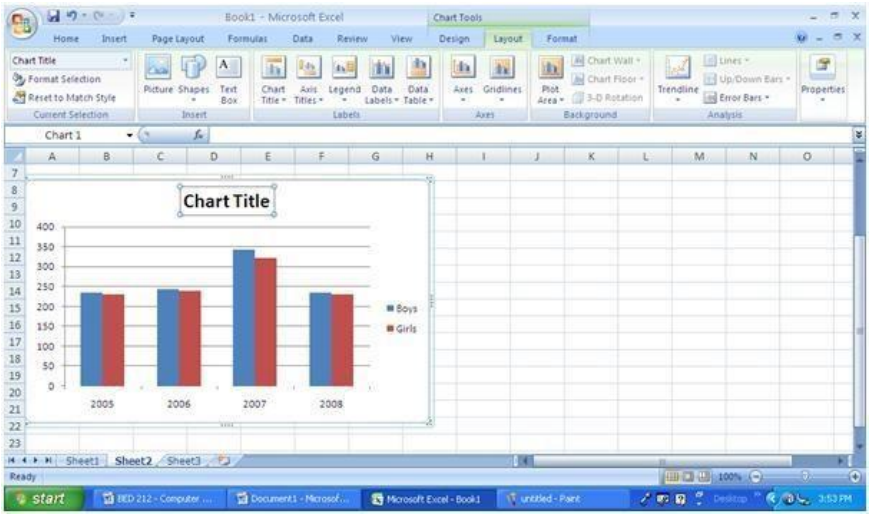


5. Click outside the chart and re-click on it, left click without releasing your hand and move the chart to desired position.

6. To add title, click on the chart, and select layout menu

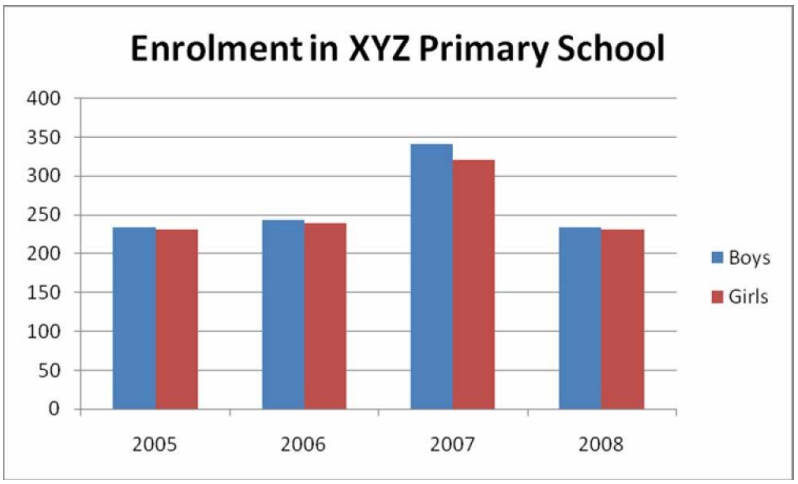


7. Click on chart title, and select as desired

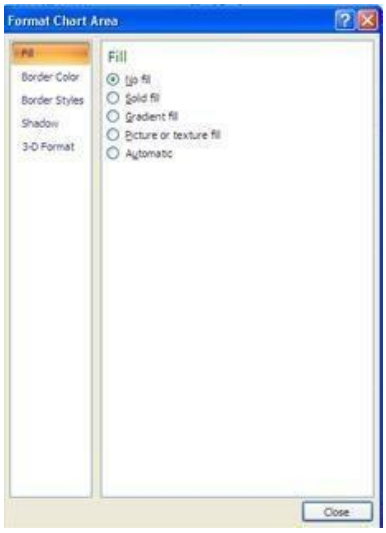


8. Type in the title of the chart in the box “Chart Title”.

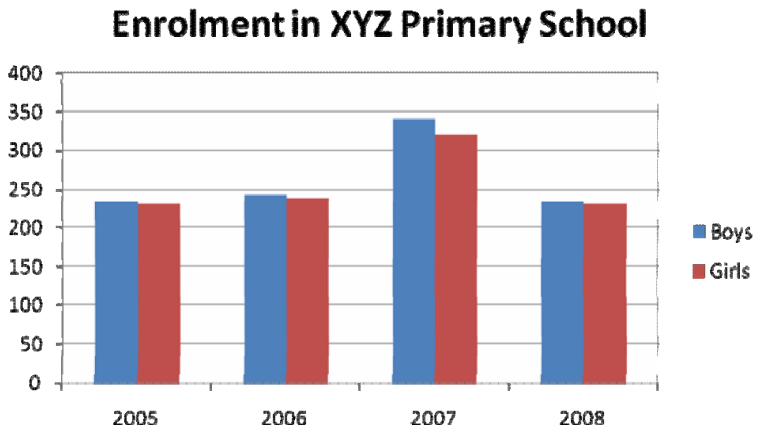
9. Click outside the chart, your chart is ready.



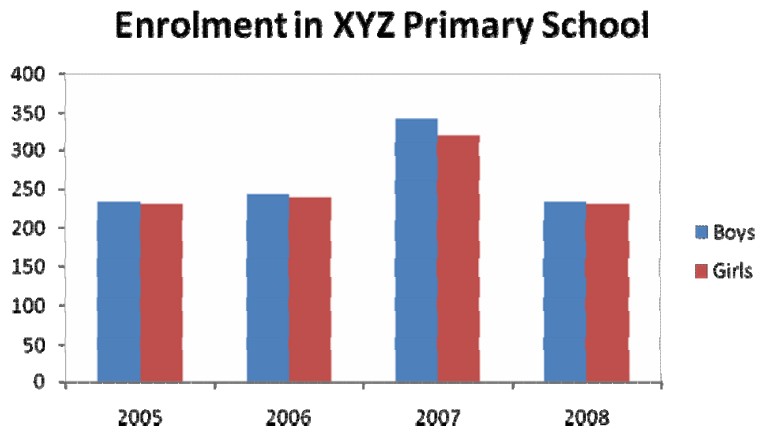
10. You may want to remove the border. To remove the border, right click on the chart and from the drop down menu select “format Chart Area”, after selection you will have:



11. Select 'Border Color', and click on 'no line', then close. The resulting effect would be:



12. You can remove the gridlines. To remove the gridlines, select click on the chart and select 'layout menu', then click on gridlines and select as desired. The resulting effect would appear thus:



You can get more effect as desired.

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. Get as many data as you can and present them in charts. You may work in group, or share your experience with your facilitator or colleagues at the completion of the task.
2. Collect data from any form of business and present the data in:

    i. Pie chart
    ii. Bar chart
    iii. Bubble chart
    iv. XY (Scatter) chart

5.0 Conclusion

There are various types of charts which can be used to present different types of data. The kind of data to be presented would determine the type of chart that may be use. To have a desirable result chart data should be entered appropriately into the excel worksheet.

6.0 Summary

There are eleven types of charts in excel. These include column charts, line charts, pie charts, bar charts, area charts, XY (scatter) charts, stock charts, surface charts, doughnut charts, bubble charts and radar charts. The type of data to be presented would determine the type of chart that should be used at atime.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

FrontPage: Microsoft Office. (2005). Barcelona: Ed. ENI.

Gross D., Akaiwa F., Nordquist K. & Evans J. (2008). Business Computing Using Excel and FrontPage. U.S.A. Thomson Course Technology.

Lambert, J., & Cox, J. (2013). *Microsoft Outlook 2013: Step by Step*. Redmond, WA: Microsoft.

Matthews, M. S. (1996). *Web publishing with Microsoft FrontPage*. Berkeley, CA: Osborne McGraw-Hill.

McFedries, P. (2015). *Windows 10 simplified*. Indianapolis, IN: John Wiley & Sons.

Murray, K. (2013). *Microsoft Office Professional 2013: Plain & Simple*. Sebastopol, California :: OReilly Media.

Pazmandy, G. (2013). *Business computing: Using Microsoft® Office 2013*. Rose Bay, NSW: Tekniks Publications.

Price, M. (2013). *Office 2013: In easy steps*. Leamington Spa, Warwickshire, U.K.: In Easy Steps.

Rathbone, A. (2018). *Windows 10 for dummies*. Milano: Hoepli.

Weverka, P. (2013). *Office 2013 all-in-one for dummies*. Hoboken, NJ: John Wiley & Sons.

Module 4: OTHER APPLICATIONS IN BUSINESS

Module Introduction

This module presents the use of various applications such as Microsoft access as a database tool, Paint for drawing/graphics, Microsoft outlook for messaging, keeping track of tasks, etc in business. This module is divided into four (4) units:

Unit 1: Graphics
Unit 2: Database
Unit 3: Microsoft Office Outlook
Unit 4: Desktop Tools/Data Communication/Creating Website

Comment [D7]: Updated the use of Microsoft access and Microsoft outlook 2007 to 2010/2013.
Updated the use of Paint in windows XP/7 to paint in windows 10
Improved on the references and further readings. Expunged the very old references and incorporated recent references and books for further readings.

Unit 1: Graphics

Contents

1.0 Introduction

Graphics are essentials in enriching business documents. There are major graphics that require special training, which is usually categorised under desktop publishing. However, in the day-to-day business, one may not require major training. What are these graphics? Computer graphics refer to any pictorial representation that can be produced by computer, either on the display, printer, plotter, or other output devices (Allen and Klooster, 1990). Graphics could be charts, diagrams or pictures.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- Give examples of computer graphics
- Describe the use of paint programs

- Solve business problems with simple computer aided graphic designs

3.0 Main Content

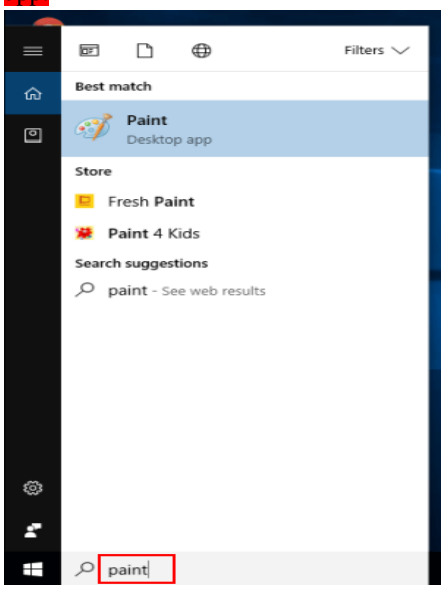
There are different types of graphic software, some require special skills and others may easily be integrated into documents. The following are examples of graphic software:

- Paint Programs – This allows the user to integrate arts into a document.
- CAD programmes – This is used for computer-aided drafting and used to assist designers of products in drawing plan. CAD could be contrasted to paint.
- Graphing programs – these include pie, charts, bar graphs etc.

For the business of this course, the paint programme shall be discussed in details. But before we go on to discuss paint, it is important to know that computer graphics are used in every kind of business e.g. education, media, manufacturing companies, health etc.

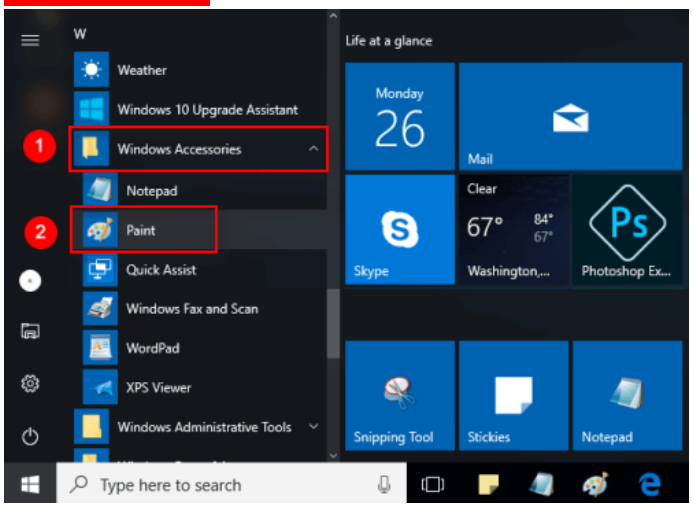
Paint

Paint forms a good tool when you want to add special effect to your document e.g. shapes, this can be duplicated, flip, rotate, tilt the image and as well perform other desired operations.
To access paint, do the following:
Method 1: Type **paint** in the search box on the taskbar, and then press **Enter** key to start Paint app.

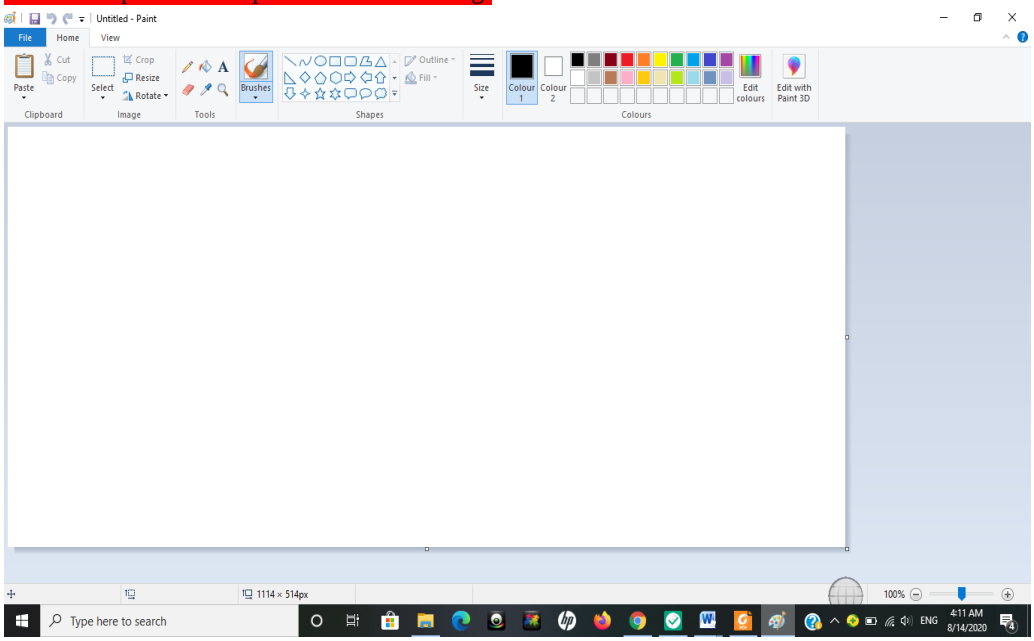


Method 2: Go to Start Menu and click **All apps**, you can find it under **Windows**

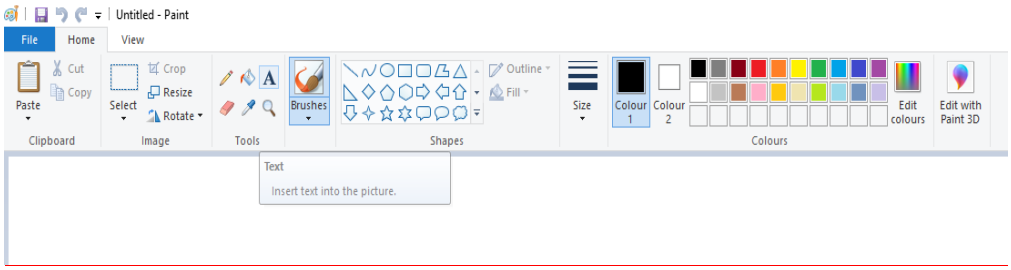
Accessories folder.



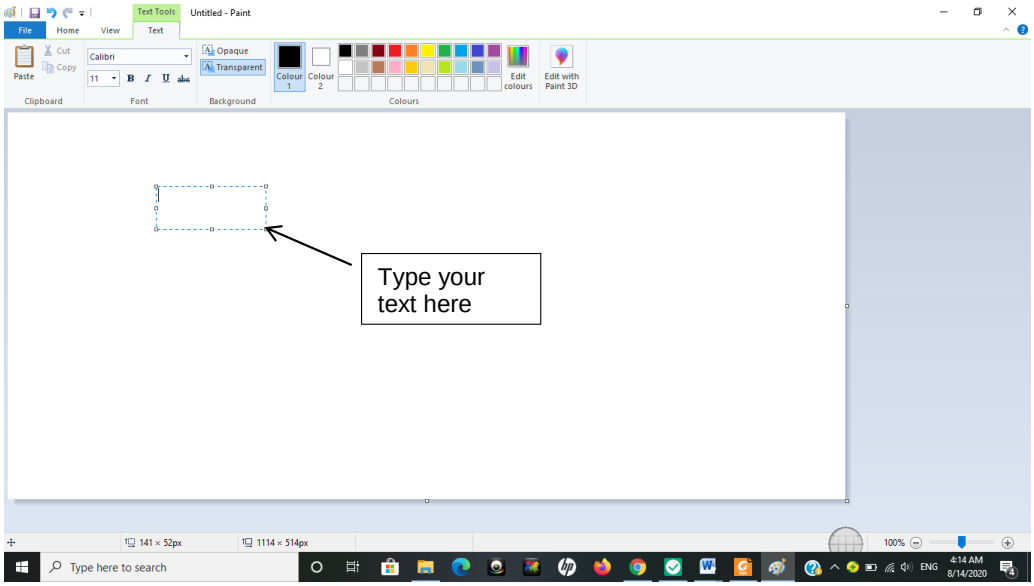
A click on paint would produce the following:



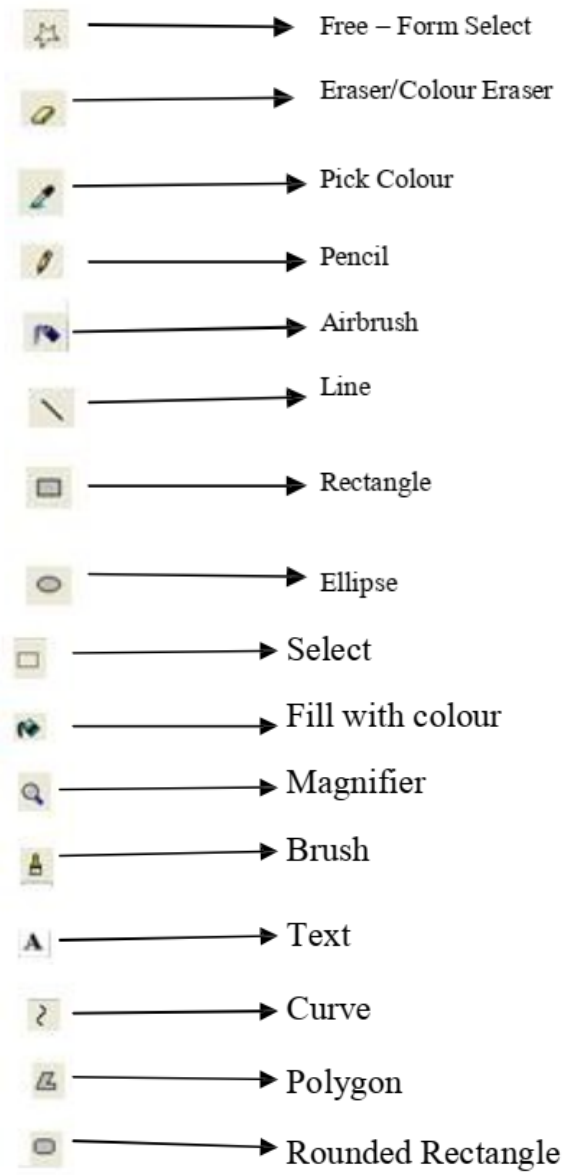
Working under paint environment is very easy. All you need to understand know is the functions of each tool. To know what each tool does, place your cursor on a tool, do not click, and it would prompt the function e.g.



This means the “A” sign is a “text” tool. A click on the text tool would give you a ‘+’ sign. Draw a rectangle with the sign in the free space and type whatever you desire to type. As soon as the rectangle shape is drawn a text menu bar comes up. See the example below:



While within the text box, you can format your text as desired using the text tools. Now let us discuss the function of the other tools:

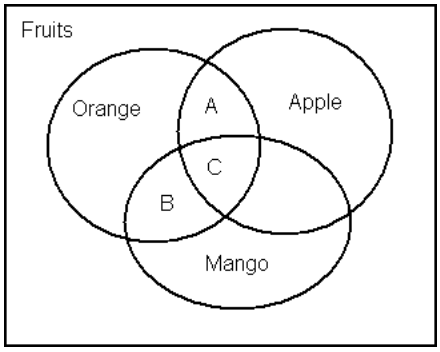


The tools you will often require to do your work include select, eraser, text, line, pencil and pick colour or fill with colour. The select tool will enable you to move text or object from one position to another. To do this, click on select tool and draw a rectangle around the text or object, click and move to desired position. For any of the tools you want to use, click on it and apply.

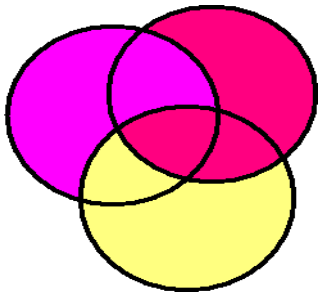
4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. Perform the following task with paint software:
   a. Type the words “I love paint software”.
   b. Draw this as it is



   c. Draw the following. You may use different colours.



   d. Share your experience with your colleagues.
2. With reference to a particular business problem, present a typed work in which you combine Microsoft word and Paint. Explain how you achieved your task.

5.0 Conclusion

The use of paint software helps to improve the effect on our documents. You can copy or cut text or object from paint environment to other environments such as word and excel. Other graphics software includes CorelDraw and Photoshops.

6.0 Summary

Graphics help to enhance our business documents. There are different types of graphic software, but the one that can easily be learned is the paint software. Others may require more time to

train.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

FrontPage: Microsoft Office. (2005). Barcelona: Ed. ENI.

Gross D., Akaiwa F., Nordquist K. & Evans J. (2008). Business Computing Using Excel and FrontPage. U.S.A. Thomson Course Technology.

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Pazmandy, G. (2013). *Business computing: Using Microsoft® Office 2013*. Rose Bay, NSW: Tekniks Publications.

Price, M. (2013). *Office 2013: In easy steps*. Leamington Spa, Warwickshire, U.K.: In Easy Steps.

Rathbone, A. (2018). *Windows 10 for dummies*. Milano: Hoepli.

Weverka, P. (2013). *Office 2013 all-in-one for dummies*. Hoboken, NJ: John Wiley & Sons.

Unit 2: Database

Contents

1.0 Introduction

A database is a collection of organised data with relationship in their elements. This can be achieved by using software usually referred to as database management system (DBMS). Database helps to maintain all relevant data in such a way that it will be useful to its owner for record keeping and decision making. There are commercial database management soft wares, but apart from the commercially produced database management software, an organisation can have its own customised database software with the help of programmers to meet with the day-to-day running of the organisation. With the use of commercial database software, you will be able to enter data, manipulate data, and report information from the data without programming. These functions can be categorised as:

- Creating the structure of database
- Adding data to the database
- Editing data already in the database
- Retrieving data
- Designing reports
- Modifying the structure of the database

The type of computer and the brand of software used would determine how these functions are accessed by commands, by menu choices selected with the keyboard or by making selection with a mouse.

The database software that shall be used for analysis in this unit is *Microsoft Office Access 2007*.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- Identify a database

- Solve business problems with Microsoft Office Access

3.0 Main Content

Database is a collection of related information on a particular subject or purpose. This may involve tracking customers orders. Information is usually not from one source. A database is formed when a collection of information is organised for quick and easy retrieval of needed information. Database started in paper-based, examples of paper- based database are telephone directories and dictionaries. A database file divides data into separate storage containers called tables. You can view, add and update table data through online forms.

This unit will be devoted more to solving business problems with Access. The basics of Access have been discussed in BED 211 – Microsoft Office. You should make reference to BED 211, and never forget to use the help function (just press F1 key) any time you need more assistance. But for the purpose of reminder the following table is presented.

Table 1: General Preview

Objects	Functions
Table	To store data. Create a table for each information that you track.
Query	To find and retrieve data. Query can also be used for updating and deleting multiple records at the same time.
Form	A form helps you to view, enter and change data directly in a table.
Report	Report helps to analyse your data
	and present it in the format for printing.
Data Access Page	This helps to make data available on the internet fro interactive reporting.
Columns	Columns in a table are called fields
Rows	Rowsin a table are called records
Table Datasheet View	This enables you to add, edit, view and work with data in a table.

Table 2: Working with formulas

Function	Description	Use with the data type(s)
Average	Calculates the av erage val ue for a column. The column must contain numeric, currency, or date/time data. T he function ignores null values.	Number, Currency, Date/Ti me
Maximum	Returns the item with the highest val ue. For text data, t he highest val ue is the last alphabetic value — Access i gnores case.	Number, Currency, Date/Ti me
Minimum	Returns the item with the lowest value. For te xt data, the lowest value is the first alphabetic value — Access i gnores case. The function ignores null values.	Number, Currency, Date/Ti me
Standard Deviation	Measures how widely values are dispersed from an average val ue (a mean).	Number, Currency
Sum	Adds the items in a column. Works only on numeric and currency data.	Number, Currency
Variance	Measures the statistical variance of all values in the column. You can use this function only on numeric and currency data. If the table contains less than two rows, Access returns a null	Number, Currency

Source: Microsoft Office Access 2013

For the purpose of solving problems in business, let us look at the following:

Working with Query

Before you start have a table. To build a query, do the following as suggested by Microsoft Office Access 2013.

1. On the **Create** tab, click **Query Wizard**.

2. In the **New Query** dialog box, click **Simple Query Wizard**, and then click **OK**.

3. Under **Tables/Queries**, click the table that has the data that you want to use. In this case, click **Table: Customers**. Note that a query can also use another query as a record source.

4. Under **Available Fields**, double-click the **Contact**, **Address**, **Phone**, and **City** fields. This adds them to the **Selected Fields** list. When you have added all four fields, click **Next**.

5. Name the query **London Contacts**, and then click **Finish**.

Access displays all of the contact records in Datasheet view. The results show all of the records, but show only the four fields that you specified in the query wizard

6. Close the query, and note that your query is automatically saved.

CalculatingGrand Totals Using Query

In business transactions, there is often the need to calculate figures, which are used for decision making. Here are examples:

The Order Table				
rder ID	**Order Date**	**Ship Date**	**Ship City**	**Shipping Fee (N)**
1	11/8/2007	8/12/2007	Benin	1,000.00
2	11/8/2007	8/12/2007	Kano	2,500.00
3	8/15/2007	8/18/2007	Abuja	2,500.00
4	8/20/2007	8/21/2007	Lagos	500.00
5	8/20/2007	8/21/2007	Ibadan	800.00

Order Details Table						
etail ID	**rder ID**	**Product Name**	**oduct ID**	**t Price (N)**	**antit y**	**Discount**
1	1	Deep Freezer	12	11,800.95	4	0.05
2	1	Desktop Computer	1	70,000.25	3	0
3	2	Horse Fan	3	15,000.75	9	0.03
4	2	Giant Size Generator	5	62,875.00	12	0.04

5	2	Laptops (Acer) 8”	8	68,699.00	11	0.06
6	3	Microwave oven	9	12,375.00	4	0.09
7	4	Typist Chair	10	868.00	8	0.08

From the above tables, calculate:

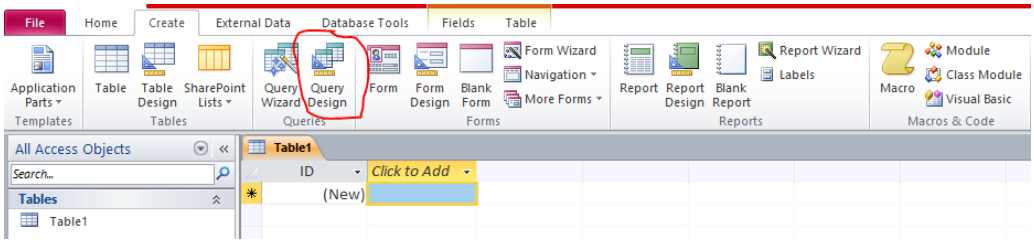
a. Simple grand total

b. Calculate grand total that exclude somerecords

To achieve this follow the following procedure as stated in Microsoft Office Access 2013:

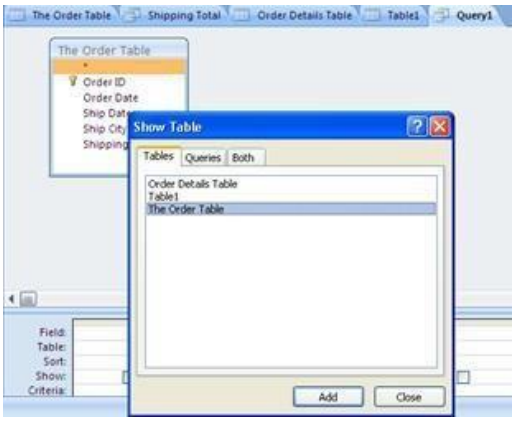
a. To calculate simple grand total, dothis:

i. On the **Create** tab, click **Query Design**.



ii. In the **Show Table** dialog box,

double-click the table that you want to use in your query, and then click **Close**.



If you use the sample data, double-click the Orders table.
The table appears in a window in the upper section of the query designer.

iii. Double-click the field that you want to sum. Make sure that the field is set to either the Number or Currency data type. If you try to sum values in non-numeric fields, such as a Text field, Access displays the **Data type mismatch in criteria expression** error message when you try to run the query.

If you use the sample data, double-click the Shipping Fee column.

NOTE You can add additional numeric fields to the grid if you want to calculate grand totals for those fields. A totals query can calculate grand totals for more than one column.

iv. On the **Design** tab, in the **Show/Hide** group, click **Totals**. Σ
The **Total** row appears in the design grid and **Group By** appears in the cell in the Shipping Fee column.

v. Change the value in the cell in the **Total** row to **Sum**.

vi. Click **Run** to run the query and display the results in Datasheet view.

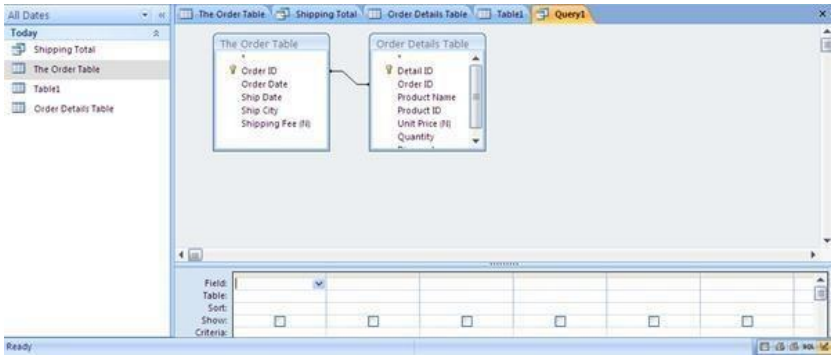
TIP Note that Access appends "SumOf" to the beginning of the name of the field that you sum. To change the column heading to something more meaningful, such as **Total Shipping**, switch back to Design view, and click in the **Field** row of the Shipping Fee column in the design grid. Place the cursor next to **Shipping Fee** and type the words **Total Shipping**, followed by a colon, like so: **Total Shipping: Shipping Fee**.

vii. Optionally, save the query and close it.

b. To calculate a grand total that excludes some records. Do the following:

1. On the **Create** tab, click **Query Design**.

2. In the **Show Table** dialog box, double-click the Order table and Order Details table, and then click **Close** to close the dialog box. Then thisappears:



3. Add the Order Date field from the Orders table to the first column in the query design grid.

4. In the **Criteria** row of the first column, type **Date() -1**. That expression excludes the current day's records from the calculated total.

5. Next, create the column that calculates the sales amount for each transaction. Type the following expression in the **Field** row of the second column in the grid:

Total Sales Value: (1-[Order Details].[Discount]/100)*([Or der Details].[Unit Price]*[Or der Details].[Quantity])
Make sure your expression references fields set to the Number or Currency data types. If your expression refers to fields set to other data types, Access displays the message **Data type mismatch in criteria expression** when you try to run the query.

6. On the **Design** tab, in the **Show/Hide** group, click **Totals**.
The **Total** row appears in the design grid and **Group By** appears in the first and second columns.

7. In the second column, change the value in the cell of the **Total** row to **Sum**. The

Sum function adds the individual sales figures.

8. Click **Run** to run the query and display the results in Datasheet view.
9. Save the query as **Daily Sales**.

NOTE The next time that you open the query in Design view, you might notice a slight change in the values specified in the **Field** and **Total** rows of the Total Sales Value column. The expression appears enclosed inside the **Sum** function, and the **Total** row displays **Expression** instead of **Sum**.

For example, if you use the sample data and create the query (as shown in the previous steps), you see:

Total Sales Value: Sum((1-[Order Details].Discount/100)*([Or der Details].Unitprice*[Or der Details]. Quantity))

The use of Microsoft Access is not restricted to buying and selling, it could equally be used in educational institutions. Access enhance student database.

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. Practice the examples given above and share your experience with your colleagues.

Students' Data

S/N	Surname	First Name	School	State of Origin
1	Adegoke	Judith	Education	Ondo
2	Okonofua	Otihbor	Arts and Social Sciences	Edo
3	Okoro	John	Law	Aba
4	Adeboye	Caroline	Education	Oyo
5	Ujagbe	Mary	Law	Edo
6	Abanikannda	Adegoke	Business	Lagos
7	Amekhiena	Maria	Business	Edo
8	Oyakhilome	Ebi	Education	Ondo
9	Okoruwa	Ani	Arts and Social Sciences	Delta
10	Abraihim	Adako	Arts and Social Sciences	Kano

Examination Scores for 2007

S/N	Surname	First Name	School	Program	Level	Course	Exam Scores (100%)
1	Adegoke	Judith	Education	Business Education	100	BED 112	40
2	Okonofua	Otihbor	Arts and Social Sciences	Theology	300	TH 321	50
3	Okoro	John	Law	Criminal Law	200	LAW 223	55
4	Adeboye	Caroline	Education	Primary Education	100	PRI 134	66
5	Ujagbe	Mary	Law	Civil Law	200	LAW 222	65
6	Abanikannda	Adegoke	Business	Entrepreneurship	300	BHM 342	56
7	Amekhiena	Maria	Business	Banking and Finance	300	BHM 223	67
8	Oyakhilome	Ebi	Education	Business Education	200	EDU 223	55
9	Okoruwa	Ani	Arts and Social Sciences	French	100	FRE 111	68
10	Abraihim	Adako	Arts and Social Sciences	English	200	ENG 221	67

i. Prepare a database for the abovedata in the tables

ii. Show the results of serial numbers 2,3,5,6, and 10 with other details of the students

5.0 Conclusion

Database software enhances decision making in business especially in critical times of solving problems. But correct data need to be fed into the database so as to be able to get accurate information that would be required for decision making.

6.0 Summary

There are different types of database software. Some are commercially produced while some are customised. To have a customised software requires a programmer who will programme what is required in the organisation.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

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Murray, K. (2013). *Microsoft Office Professional 2013: Plain & Simple*. Sebastopol, California :: OReilly Media.

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Unit 3: **Microsoft Office Outlook**

Contents

1.0 Introduction

Microsoft Office Outlook is very useful in office management. It has four major areas where its value is very essential in business. These include mail, calendar, contacts and tasks. Though the basics of this software has been taught in BED 211 – Microsoft Office, a review of it shall be made in this unit, while the main focus would be on solving business problems using Microsoft Office Outlook 2013.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- Organise meetings effectively using Microsoft Office Outlook
- Monitor tasks adequately using Microsoft Office Outlook

3.0 Main Content

Microsoft Office Outlook 2013 as earlier mentioned has four major features – calendar, contacts, tasks and mail. We shall discuss these briefly and apply them to some problems that may often arise in business.

With calendar, you can:

- **Create appointments and events** – This can be achieved just the same way you write in a notebook, click anytime slot in the outlook calendar and begin typing. The current time is highlighted in colour. You could have message reminder of meetings, appointments, and events. You can easily colour items for quick identification.
- **View group schedules** – With calendar you can show the schedules of a group of people or resources simultaneously. For instance you can view the schedules of all the persons in your

department or other units.

- **Organi se meetings** – to organise a meeting, select calendar and create a meeting request.
- **View Calendars Side by Side** – Different Calendars created by you can be viewed side-by-side and at the same time calendars shared by other outlook users. Appointments can also be copied and moved between the displayed calendars.
- **View Calendars on top of each other in overlay view** – This display multiple calendars that you have created as well as calendar shared by other outlook users.
- **Manage another user's calendar** – You can manage another person's calendar with the use of Delegate Access feature. For example an administrative assistant can manage the calendar of a manager or his boss.

With Contacts you can create contacts from within contacts, from an e-mail message that you receive and from electronic Business Cards that you receive.

Tasks – To create a task the following are applicable:

- To create and track assigned tasks – after you have completed a task and assign to some one, you may still need to manage it. For example, you might need status report and updates of the task in progress.

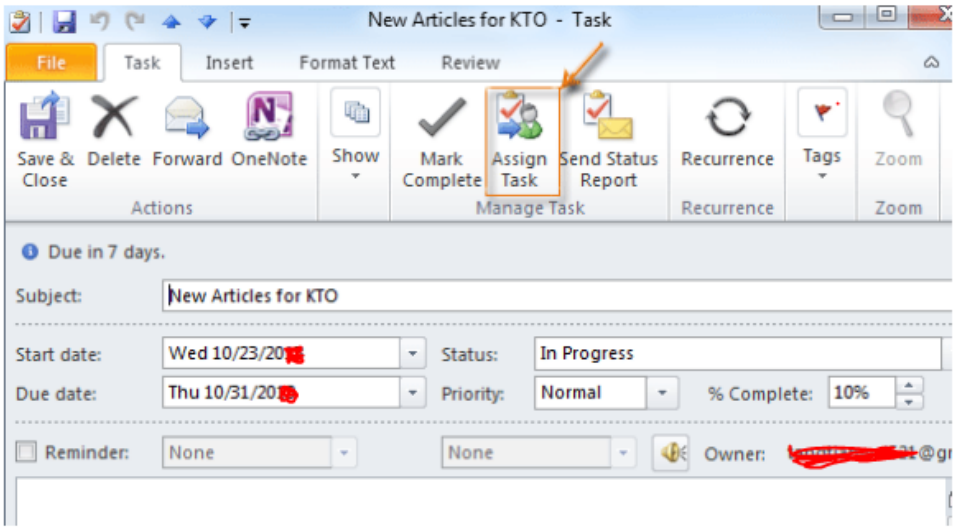
  To assign a task, first create the task, and send it as task request to someone. The person can decline the task, accept the task or assign the task to someone else. The task is returned to you if it is declined, but even when the declined task is returned to you, it is still owned by the recipient until you reclaim ownership by returning the task to your own tasklist.

  But if you assign a task to more than one person at a time, you would not be able to keep an update copy of that task in your tasklist.

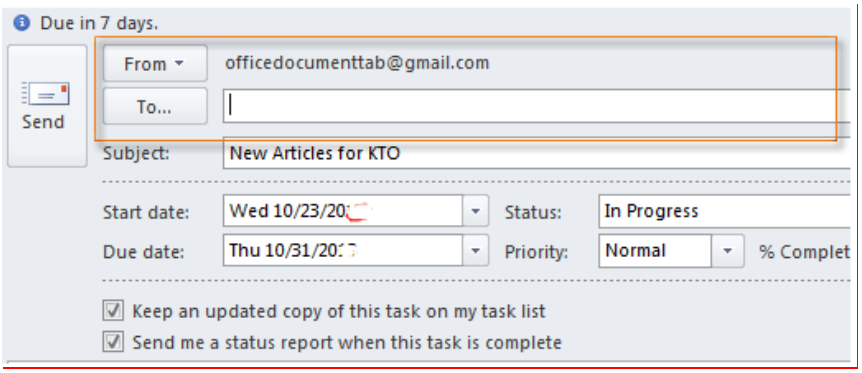
- To assign a task to someone the following steps are suggested by Microsoft Office 2013:

1. To assign a new task, do the following:

Step 1: Get into the Task Window and edit a new task.
You can click the **Home** > **New Items** > **Task** to get into the Task Window in Outlook 2013.
Step 2: Click the **Assign Task** button in the **Manage Task** group under the **Task** tab in the Ribbon.



Step 3: Then the **From** box, **To** box and **Send** button appear above the **Subject** box. Just type names or email address in the **To** box.



Step 4: Click the **Send** button, and this new built task is assigned to the people whose email addresses you typed in the **To** box.

2. To assign existing task, do the following:

- Go to the task list
- Open the desired task
- On the Task tab in the manage Task group, click Assign Task
- In the box 'To', enter the name or e-mail address of the person to whom you want to assign the task.

- Type the name of the task in the subject box. For an existing task, the subject box is already filled in except you want to change.

- Select the due date and status options as desired.

- Select or clear the keep an updated copy of this task on my task list check box and the send me a status report when this task is complete check box.

- To repeat the task, on the Task tab in the options group, click Recurrence, select desired options and click ok.

- In the body of the recurring task, type any information you want to include in the task.

- Click send.

To forward a task to someone else to track, do the following:

1. Open the task you want to send
2. On the Task tab, in the manage Task group, click forward
3. Enter recipient names or e-mail addresses in the, "to" and "cc", boxes
4. Type the message at the body of the task
5. Click send

To reclaim a rejected test management, do the following:

1. Open the e-mail message that contains the task request, which you will find in Sent item Folder.
2. On the Task tab, in the manage Task group, click Return to Task list. Task can also be reclaimed from the declined task message by clicking Return to Task List.

To track tasks that you have assigned, do the following:

Automatically copies of the tasks assigned are kept and you receive automatic status reports.

1. On the tools menu, click options
2. Click Task Options
3. Select the keep updated copies of assigned tasks on my task list check box
4. Select the send status reports when assigned tasks are completed check box

To view Tasks Assigned to others, do the following:

1. Click Tasks
2. On the View Menu, point to Current View and then click Assignment

To view the list of people who received updated copies of an assigned task, do the following:

1. Open the assigned task you want to view the list
2. From the Details tab, view the names in the Update list box

To Accept or decline a task assignment, do the following:

1. Open the task or task request
2. On the Task tab, in the manage Task group, click Accept or Decline
3. Then:

a. Click edit the response before sending, type your comment in the message and click send.
b. Click send the response now

To send a status report or a comment about a task assign ment, do the following:

1. Open the task for which you want to send a status report or comment
2. On the Task Tab, in the Manage Task group, click either Send Status Report, Reply or Reply to All
3. Enter recipient names or e-mail addresses in the To and cc boxes
4. Type any information that you want to include at the status report in the body of the message
5. Click send

To create an e-mail message, do the following:

This is the most frequent task that is performed in Microsoft Office Outlook. Follow the process of creating the usual e-mail. Click on the e-mail option and follow the display on the menu.

To set the delivery Options:

Setting message in the order of importance enables the recipients to sort their message important. To do this, go to the message Tab in the option group, click High Importance or  Low Importance.

To set message expiring date, do the following:

1. On the option tab, in the **more options** group, click the message Options group, click the message options Dialog Box Launcher
2. In the Message Options dialog box, under Delivery Options, select the Expires after checkbox and click a date or time.

In Delay Sending a Message, do the following:

1. On the options tab, in the More Options group, click delivery
2. Click delivery date and time that you desire

4.0 Self-Assessment Exercise(s)

Answer the following questions:

1. Company XYZ has it's headquarters office at Abuja but with branches in the 36 states of the country Nigeria. The company runs a central administration from the headquarters at Abuja. The Head of Administration has new tasks to assign to all heads of units at the various branches which must be accomplished within one week of assignment. He has the following information to pass across.

S/N	Head of Unit	e-mail Address	Branch	Message	Start Date of Task
1	Mr. K.O. Akaka	oakaka@xyz.com		To send the update of all transactions within the last four months to the headquarter on or before 7th October, 2020	1/10/2020
2	Mr. E. B. Adeboye	badeboye@xyz.com	Ibadan		
3	Mrs. H. E. Ikejama	eikejama@xyz.com	Benin		
4	Ms. K. K. Udoh	kudoh@xyz.com	Warri		
5	Mr. Ada Ada	aada@xyz.com	Lagos		
6	Mr. J. K. Okouwa	kokouwa@xyz.com	Minna		
7	Mr. J. J. Johnson	jjohnson@xyz.com	Zaira		

From the above information and with the use of Microsoft Office Outlook,

a. Assign task to heads of units
b. Forward the task to the head of units in the specified branches
c. Track the assigned task to head of units
d. Send a status report on the assigned task

2. With reference to a particular business, identify the problem areas that require the use of Microsoft Office Outlook. Explain how Microsoft Office Outlook can be used to solve the problems.

5.0 Conclusion

The use of Microsoft Office Outlook enhances communication within an office. It could be used to replace paper memoranda.

6.0 Summary

Microsoft Office Outlook 2007 covers the management of mail, calendars, contacts and tasks; which are basic requirements for the smooth running of any type of business. Go through the steps above to ensure adequate usage of Outlook.

7.0 Further Readings

2013 Microsoft Office

Bott, E., Siechert, C., & Stinson, C. (2016). *Windows 10 inside out: Includes current book service*. Redmond, WA: Microsoft.

FrontPage: Microsoft Office. (2005). Barcelona: Ed. ENI.

Gross D., Akaiwa F., Nordquist K. & Evans J. (2008). Business Computing Using Excel and FrontPage. U.S.A. Thomson Course Technology.

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Unit 4: Desktop Tools/Data Communication/Creating Website

Contents

1.0 Introduction

We have discussed some major software that enhance business transactions, such software Microsoft Office Word, Microsoft Office Excel, Microsoft Office Access and Microsoft Office Outlook. In this unit, we shall discuss other features, though not very major are essential in electronic office administration. This includes Desktop tools, Data Communication and creating website.

2.0 Intended Learning Outcomes (ILOs)

At the end of this unit you should be able to:

- Apply simple desktop tools in solving business problems with ease
- Choose adequate communication hardware and software to solve diverse business problems
- Direct the basics of web creation

3.0 Main Content

The three main areas of concentration in the desktop tools in this unit shall be 'the Address Book', 'Calculator' and 'Notepad'. But the address book shall be discussed in details. The address book provides convenient way storing important information about people; finding business partners; creating contact; sending and receiving business cards electronically. The calculator is simplified for any user to be able to solve simple mathematical challenges and the notepad is designed for easy typing of data. To launch these tools; click start, point to programmes, point to accessories and click on the desired tool.

Storing Contact

There are different ways of adding contact to address book. These shall be discussed as detailed

by the package (See Help Function in Address Book).
To add names directly from e-mail messages to your Address Book,
You can set up Outlook Express so that when you reply to a message, the people you reply to are automatically added to your Address Book. In addition, any time you send or receive a message in Outlook Express, you can add the recipient's or sender's name to your Address Book.

To add all replies recipients to your Address Book

1. In Outlook Express, on the **Tools** menu, click **Options**.
2. On the **Send** tab, click **Automatically put people I reply to in my Address Book**. To add an individual name to your Address Book from Outlook Express
    - In a message you are viewing or replying to, right-click the person's name, and then click **Add to Address Book**.
    - In the message list of your Inbox or other mail folder, right-click a message, and then click **Add Sender to Address Book**.

To import an address book from another program

You can import address book contacts from other Windows Address Book files (.wab), as well as from Netscape Communicator, Microsoft Exchange Personal Address Book, or any text (.csv) file.

For Windows Address Book files:

1. In Address Book, on the **File** menu, point to **Import**, and then click **Address Book (WAB)**.
2. Locate and select the address book you want to import, and then click **Open**.

Forall other address book formats:

1. In the Address Book, on the **File** menu, point to **Import**, and then click **Other Address Books**.
2. Click the address book or file type you want to import, and then click **Import**.

If your address book is not listed, you can export it to either a text (.csv) file or an LDIF (LDAP Directory Interchange Format) file, and then import it using that file type.

To add a contact to your Address Book

1. On the Outlook Express toolbar, click **Tools**, and then click **Address Book**.
2. In the Address Book, select the folder to which you want to add a contact.
3. On the Address Book toolbar, click **New**, and then click **New Contact**.
4. On the **Name** tab, type at least the first and last name of the contact. This is the display name.

A display name is required for each contact. If you enter a first, middle, or last name, it will automatically appear in the **Display** box. You can change the display name by typing in a different name or by selecting from the drop-down list. The drop-down list will contain variations of the first, middle, and last name, as well as anything you typed in the **Nickname** box or the **Company** box on the **Business** tab.

5. On each of the other tabs, add any information you would like to include.

Notes

- Be sure to include an e-mail address for your contact. While your Address Book can be used for many purposes, its most immediate benefit is in providing e-mail addresses when you are composing mail.
- If you include a contact's street address on the **Home** tab or the **Business** tab, you can click **View Map** located on each of these tabs to display a printable street map showing the contact's address.

To find people and businesses on the Internet

1. In the Address Book, click **Find People** on the toolbar.
2. From the **Look in** drop-down list, select the directory you want to search.
3. On the **People** tab, type the name or e-mail address of the person you want to look for, and then click **Find Now**.

-or-

On the **Advanced** tab, define the search criteria you want by filling in the top three boxes, and then click **Add**. Add all the search criteria you want, and then click **Find Now**. (To remove a search criterion you added, select the item you want to delete from the **Define Criteria** list, and then click **Remove**. Or, if you want to delete all criteria and start over, click **Clear All**.)

Notes

- Your search will be most efficient if you use **starts with** or **is**. The options for **contains**, **ends with**, or **sounds like** can make your search take much longer, possibly so long that the search fails. The more exact your search criteria, the faster the result.
- If your search is too broad, the number of matches might exceed the limits of the server, or your directory service settings might not be set up to handle all of the returned matches. You can change these directory service settings.

To import a business card

1. In the Address Book, on the **File** menu, point to **Import**, and then click **Business Card (vCard)**.
2. Locate the business card file on your computer or a network drive, select it, and then

click **Open**.

Note

- When the business card is added to your Address Book, a dialog box appears where you can modify or add to the contact information as necessary.
- Once the contact's street address is entered on the **Business** tab, you can click the tab's **View Map** button to display a map pinpointing the address. When you click **View Maps**, Expedia Maps opens in your browser with a printable street map showing the contact's address.

To change contact information

- In the Address Book list, locate and double-click the name you want, and then change the information as needed. Click the tabs to access different information sections.

Note

- To delete a contact, select the contact name in the Address Book list, and then click **Delete** on the toolbar. If the contact is a member of a group, the name will also be removed from the group.

To create a group of contacts

You can create a single group name (or *alias*) to use when sending a message to several contacts at once. Simply create a group name and add individual contacts to the group. Then, just type the group name in the **To** box when you send e-mail.

1. In the Address Book, select the folder in which you want to create a group. Click **New** on the toolbar, and then click **New Group**.
2. The **Properties** dialog box opens. In the **Group Name** box, type the name of the group.
3. There are several ways to add people to the group:
    - To add a person from your Address Book list, click **Select Members**, and then click a name from the Address Book list.
    - To add a person directly to the group without adding the name to your Address Book, type the person's name and e-mail address in the lower half of the **Properties** dialog box, and then click **Add**.
    - To add a person to both the group and your Address Book, click **New Contact** and fill in the appropriate information.
    - To use a directory service, click **Select Members**, and then click **Find**. Select a directory service from the drop-down list at the end of the text box. After finding and selecting an address, it is automatically added to your Address Book.
4. Repeat for each addition until your group is defined.

Note

- To view a list of your groups separately from the Address Book listings, in the Address Book, on the **View** menu, make sure that **Folders and Groups** is selected.
- You can create multiple groups, and contacts can belong to more than one group.

To add a contact to an existing group

1. In the Address Book list, double-click the group you want. The group's **Properties** dialog box opens.
2. You can add people to the group in several ways —and in some cases you can add them to your Address Book as well.
    - To add a person from your Address Book list, click **Select Members**, and then click a name from the Address Book list. Click **Select**, and then click **OK**.
    - To use a directory service (use the drop-down list at the end of the text box to see directories you have added to Outlook Express), click **Select Members**, and then click **Find**. Select a directory service to search, enter your search criteria, and when you find the person, click **Select**, and then click **OK**. This person's name and e-mail address is added to your Address Book.
    - To add a person directly to the group without adding the name to your Address Book, type the person's name and e-mail address in the boxes provided in the lower half of the dialog box, and then click **Add**.
    - To add a person to both the group and your Address Book, click **New Contact**, fill in the appropriate information, and click **OK**.

To create a business card

The easiest way to exchange contact information with people over the Internet is by attaching a business card to e-mail messages. A business card is your contact information from the Address Book in vCard format. The vCard format can be used with a wide variety of digital devices and operating systems.

You must have your contact information in your Address Book before you can create a business card.

1. In the Address Book, create an entry for yourself, and then select your name from the Address Book list.
2. On the **File** menu, point to **Export,** and then click **Business Card (vCard)**.
3. Select a location in which to store the file, and then click **Save**.

Note

- To add your business card to an e-mail message, on the **Insert** menu, click **My Business**

Card.

To add a contact's digital ID to your Address Book

To send someone encrypted mail, you must have the recipient's digital ID, and that ID must be associated with the recipient's name in your Address Book. Outlook Express automatically adds digital IDs to your Address Book when you receive digitally signed mail. If you have turned off this option, you will need to manually add a contact's digital ID.

1. Open the digitally signed message.
2. On the **File** menu, click **Properties**.
3. Click the **Security** tab, and then click **Add digital ID to the address book**.
   When a contact has a digital ID, a red ribbon is added to their card in your Address Book.

To add a digital ID to your Address Book from another source

1. In the Address Book, create a new entry for the contact, or double-click an existing one in the Address Book list.
2. On the **Digital IDs** tab, click **Import**.
3. Find the digital ID file, and then click **Open**.

Notes

- To automatically add a contact's digital ID to your Address Book, on the **Tools** menu, click **Options**. Then on the **Security** tab, click **Advanced**, and select **Add senders' certificates to my address book**.
- You can also get someone's digital ID by downloading it from a certification authority's Web site. (See the Microsoft Internet Explorer Digital ID site for links to certification authorities.)

To organize names in your Address Book

When you have a large Address Book, you can organize it in several ways to make it easy to retrieve contacts and groups.

- To sort contacts by name, e-mail address, or phone number, click the appropriate column heading above the name list.
- To switch columns between ascending and descending sort order, click the column heading.
- To change the order of the columns, point to a column heading (**Name**, **E-mail Address**, **Home Phone**, and so on), and then drag the column to the left or right until it's located where you want it.
- To view a list of your mailing groups, on the **View** menu, select **Folders and Groups**.

What are identities?

Creating identities is a way for several people to use Outlook Express and the Address Book on the same computer. For example, you and a family member may share a computer. If you each create an identity, you would each see your own mail and your own contacts when you log on under your identity. Once your identity is created, you can organize your contacts the way you want them by creating subfolders.

Usually, you will create identities while you are using Outlook Express (or other applications that use identities). You can create identities from your Address Book only when you open your Address Book from the **Start** menu rather than from Outlook Express. To open Address Book from the **Start** menu, click **Start**, point to **All Programs**, point to **Accessories**, and then click **Address Book**.

Organizing contacts and folders

You can keep contacts in your main folder, as well as organize them into subfolders. If you have contacts you would like to share with the other people with whom you share Outlook Express, you can move contacts into the Shared Contact's folder, where other identities can view them when they use the Address Book. Subfolders are always in alphabetical order; you cannot reorganize them.

If you cannot see the folders on the left, point to the **View** menu and select **Folders and Groups**.

Deleting contacts from your Address Book

You can easily remove contacts and groups from your Address Book. When you delete a contact from a group, the name is removed from the group but the entries for both the group and the individual remain in your Address Book. Likewise, deleting an entire group does not remove the entries for the individual members who made up the group.

To print Address Book information

1. In the Address Book, select the contacts you want to print.
    - To select a block of names, press and hold down the SHIFT key, click the first name in the block and then click the last name in the block.
    - To select individual names, press and hold down the CTRL key while you click the names.
2. Click **Print** on the toolbar. On the **Print** dialog box, under **Print Style**, select a printing

style:

- To print all Address Book information about the contacts, click **Memo**.
- To print business-related information about the contacts, click **Business Card**.
- To print a list of phone numbers for the selected contacts, click **Phone List**.

Note

- You may be able to customize the size and orientation of your printed Address Book pages. To view your printer's options, in the **Print** dialog box, click **Properties**.

Finding People using Directory Service

What are directory services?

A directory service is a powerful search tool that you can use to find people and businesses around the world. The Address Book supports LDAP (Lightweight Directory Access Protocol) for accessing directory services, and it comes with built-in access to several popular directory services. You can also add additional directory services from your Internet service provider.

Like the Internet search tools, directory services use different methods for collecting data, so when you are trying to find people or businesses online, you might try more than one service.

To add a directory service

To add a directory service to your Address Book, you will need the name of the computer server (available from the directory service provider).

1. In either the Address Book or Outlook Express, on the **Tools** menu, click **Accounts**.
2. In Outlook Express, select the **Directory Service** tab, click **Add**, click **Directory Service**, and then follow the instructions in the Internet Connection Wizard.
   In the Address Book, click **Add**, and follow the instructions in the Internet Connection Wizard

To find people and businesses on the Internet

1. In the Address Book, click **Find People** on the toolbar.
2. From the **Look in** drop-down list, select the directory you want to search.
3. On the **People** tab, type the name or e-mail address of the person you want to look for, and then click **Find Now**.

-or-

On the **Advanced** tab, define the search criteria you want by filling in the top three boxes, and then click **Add**. Add all the search criteria you want, and then click **Find Now**. (To remove a search criterion you added, select the item you want to delete from the **Define Criteria** list, and then click **Remove**. Or, if you want to delete all criteria and start all over, click **Clear All**.)

Notes

- Your search will be most efficient if you use **starts with** or **is**. The options for **contains**, **ends with**, or **sounds like** can make your search take much longer, possibly so long that the search fails. The more exact your search criteria, the faster the result.
- If your search is too broad, the number of matches might exceed the limits of the server, or your directory service settings might not be set up to handle all of the returned matches. You can change these directory service settings.

To set up a directory service to check for e-mail addresses

When you can't remember someone's complete e-mail address, you can enter a partial name and then use the **Check Names** command on the **Tools** menu to search for matches. Outlook Express first searches your Address Book and if no matches are found, searches the directory services you have set up to check e-mail addresses.

1. In the Address Book or Outlook Express, on the **Tools** menu, click **Accounts**.
2. If you are in Outlook Express, click the **Directory Service** tab.
3. Select a directory service, and then click **Properties**.
4. On the **General** tab, select the **Check names against this server when sending mail**

Using Your Address Book with other Programmes

To export your Address Book contacts to other programs

You can export your Address Book contacts to other Windows Address Book (.wab) files, as well as to Microsoft Exchange Personal Address Book, or any text (.csv) file.

To export your Address Book files to another Windows Address Book:

1. In Address Book, on the File menu, point to Export, and then click **Address Book (WAB)**.
2. Locate and select the Windows Address Book file you want to export to, and then click **Open**.

Forall other address book formats:

1. In the Address Book, on the File menu, point to Export, and then click **Other Address Book**.
2. Click the address book or file type you want to export to, and then click **Export**.

To set up a conference call from the Address Book

If you use Microsoft NetMeeting or other conferencing software, you can store conferencing account information (such as e-mail and server addresses) along with other contact information and then make a conferencing call directly from the Address Book.

1. In the Address Book, double-click the contactname.
2. On the **NetMeeting** tab, type the **Conferencing Server** address. (If NetMeeting is not installed, this tab is named **Conferencing**).
3. Type the **Conferencing Address** for the contact. This address must be the one used for conferencing, which could be different from the contact's e-mail address.
4. Click **Add** to add this information to the contact's properties.
   Now, whenever you want to initiate a conference call, you can click **Call Now** on the **NetMeeting** (or **Conferencing**) tab of the contact's properties.

Note

- You can have multiple e-mail addresses and directory servers listed for one contact.

Communication

No business can function without communication. Data communication is achieved by using communication hardware, software and transmission carriers. Computers that are connected to communicate with each other are referred to as 'being network.'

Advantages of Data Communication

A good data communication leads to the following advantages:

- More individuals have access to availablehard and software
- Expensive equipment can beshared
- Data can be shared amongusers
- Many tasks can be completed more conveniently and effectively

Disadvantages of Data Communication

Apart from the advantages associated with the use of data communication, there are equally disadvantages as stated below:

- There would be no work once the mainframe computer goes down
- High cost for backup systems andmaintenance
- Cost for transmission carrierscan be high
- Needs high trained and experiencedpersonnel
- Problem of incompatibility among hardware and software that mayhighly arise

Uses of Communication Hard and Software

1. Bulletin Board Systems: This involves sharing and exchanging ideas and information, which could come in:
   a. Electronic mail
   b. General messages and announcements

    c. File library that the user can download
2. Information Services: The area of information services include:
    a. Local and national news
    b. Weather
    c. Travel
    d. Recipes
    e. Shopping
3. Bibliographic Services: This is connected with library, and is as used in the library.
4. Stock Exchange Services: This includes:
    a. Comprehensive company profile as per investors, earning forecast, price/volume, charts, financial history
    b. Up-to-date stock prices and quotes
    c. Individual customer portfolio management
5. Electronic banking and transfer of funds

Creating a Web Site

It is advisable to have basic ideas about web site creation. You are not required to be an expert. With the advent of electronic marketing, you may be required to customise your company's web site.

To develop a web site requires the creation of a team. The team includes:

1. Graphic designers – they develop the visual appearance and create graphic images of the site.
2. Marketing representative – Sets the goals for the web side and controls the presence of the organisation.
3. Content developer and editor – prepares and evaluates the content.
4. Director – This could also be referred to as webmaster. He co-ordinates teams' activities and at the same time manages web development.
5. Programmer – Creates HTML documents and develops server processing.
6. Systems administrator – Conversant with web server limitations, manages security and access and maintains system hardware.

Developing a website involves the following activities:

- Define the goal and purpose of the web site. This will include:
    - Primary intent
    - Short and long-term goals
    - Intended audience
    - Website plan – objectives, requirements and results.
- Determine and prepare the web site's content. After the plan, the next stage is to develop the website content (gather relevant documents), you may re-visit the planning team for information.

- Designing the website. This may include:
    - Working with the organisation objectives
    - Preparing a sitemap
    - Building the site
        - FrontPage is used to build and create a web site
        - In building and creating web site, you need to:
            - Determine the number of page web site
            - Specify the browser version
            - Specify the page size
    - Text in web page – to determine the type of text a web page should have you need to:
        - Determine the format
        - Proofread the content
    - Language used – The common language used is Hypertext Markup Language (HTML), which can be viewed with the use of FrontPage.

 **4.0 Self-Assessment Exercise(s)**

Answer the following questions:

1. With the aid of the above illustrations, organise your Address Book. Share your experience with your colleagues.
2. With reference to a particular organisation, explain how Address Book would help the business achieve its goal. Demonstrate the process.

 **5.0 Conclusion**

In conclusion, it should be noted that there is no business that will be able to achieve a desired goal in this technological age without effective use of the computer in the administration of the business. A good use of the computer application leads to effectiveness and efficiency in business.

 **6.0 Summary**

In this unit, we have discussed elaborately, the use of Address Book. But we should not forget the use of calculator and Notepad. The Notepad can be likened to a note pad used in long hand. Microsoft Power Point was not discussed in this course because it has been fully taught in BED 211. But for the purpose of completeness, PowerPoint is very essential during presentation, especially when you want to have a demonstration of your product. All the required effect can always be added for the purpose of illustrations.

7.0 Further Readings

2013 Microsoft Office

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