ENGINEERING WORKSHOP LAB (IT)

[Course code :**20ES11EW**]

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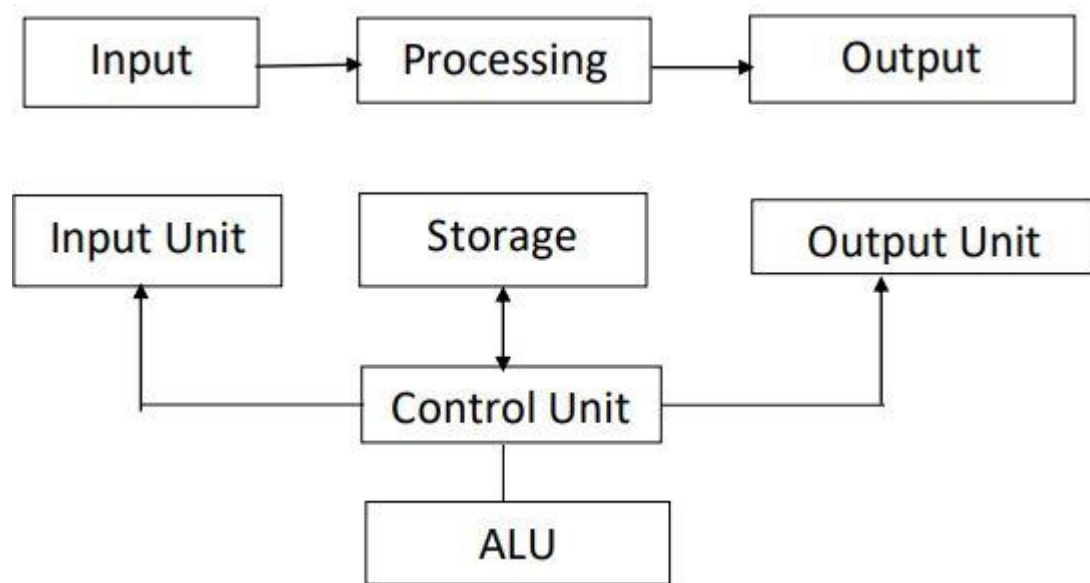
CSE-3

WEEK- 1

Demonstrate the peripherals of a computer or a laptop.Prepare a report containing the block diagram of CPU along with the configuration of each peripheral

Aim: To identify the peripherals of a computer.

Block diagram of a computer:

A computer can process data, pictures, sound and graphics. They can solve highly complicated problems quickly and accurately.

INPUT UNIT:

Computers need to receive data and instruction in order to solve any problem. Therefore we need to input the data and instructions into the computers. The input unit consists of one or more input devices. Keyboard is the one of the most commonly used input device. Other commonly used input devices are the mouse, floppy disk drive, magnetic tape, etc. All the input devices perform the following functions.

1. Accept the data and instructions from the outside world.

2. Convert it to a form that the computer can understand.

3. Supply the converted data to the computer system for further processing.

STORAGE UNIT:

The storage unit of the computer holds data and instructions that are entered through the input unit, before they are processed. It preserves the intermediate and final results before these are sent to the output devices. It also saves the data for the later use. The various storage devices of a computer system are divided into two categories.

1 Primary Storage

2 Secondary Storage

MEMORY SIZE:

All digital computers use the binary system, i.e. 0's and 1's. Each character or a number is represented by an 8 bit code.

The set of 8 bits is called a byte. A character occupies 1 byte space.

A numeric occupies 2 byte space.

Byte is the space occupied in the memory.The size of the primary storage is specified in KB (Kilobytes) or MB (Megabyte). One KB is equal to 1024 bytes and one MB is equal to 1000KB. The size of the primary storage in a typical PC usually starts at 16MB. PCs having 32 MB, 48MB, 128 MB, 256MB memory are quite common.

OUTPUT UNIT:

The output unit of a computer provides the information and results of a computation to outside world. Printers, Visual Display Unit (VDU) are the commonly used output devices. Other commonly used output devices are floppy disk drive, hard disk drive, and magnetic tape drive.

ARITHMETIC LOGICAL UNIT:

All calculations are performed in the Arithmetic Logic Unit (ALU) of the computer. It also does comparison and takes decision. The ALU can perform basic operations such as addition, subtraction, multiplication, division, etc and does logic operations viz, $>$, $<$, $=$, 'etc. Whenever calculations are required, the control unit transfers the data from storage unit to ALU once the computations are done, the results are transferred to the storage unit by the control unit and then it is send to the output unit for displaying results.

CONTROL UNIT:

It controls all other units in the computer. The control unit instructs the input unit, where to store the data after receiving it from the user. It controls the flow of data and instructions from the storage unit to ALU. It also controls the flow of results from the ALU to the storage unit. The control unit is generally referred as the central nervous system of the computer that control and synchronizes its working.

CENTRAL PROCESSING UNIT:

The control unit and ALU of the computer are together known as the Central Processing Unit (CPU). The CPU is like brain performs the following functions:

• It performs all calculations.

• It takes all decisions.

• It controls all units of the computer.

A PC may have CPU-IC such as Intel 8088, 80286, 80386, 80486, Celeron, Pentium, Pentium Pro, Pentium II, Pentium III, Pentium IV, Dual Core, and AMD etc.

INTRODUCTION TO COMPUTER HARDWARE:

Hardware is the physical appearance of the devices or tools. It is what which we can touch and feel. Computer Hardware consists of the Monitor, CPU, Keyboard, Mouse and all other devices connected to the computer either externally or internally.

A typical computer (personal computer, PC) consists of a desktop or tower case (chassis) and the following parts:

1. **CPU** The central processing unit contains the heart of any computer, the processor. The processor is fitted on to a Mother Board. The Mother Board contains various components, which support the functioning of a PC.

2. **SYSTEM BOARD/MOTHERBOARD** which holds the Processor, Random Access Memory and other parts, and has slots for expansion cards
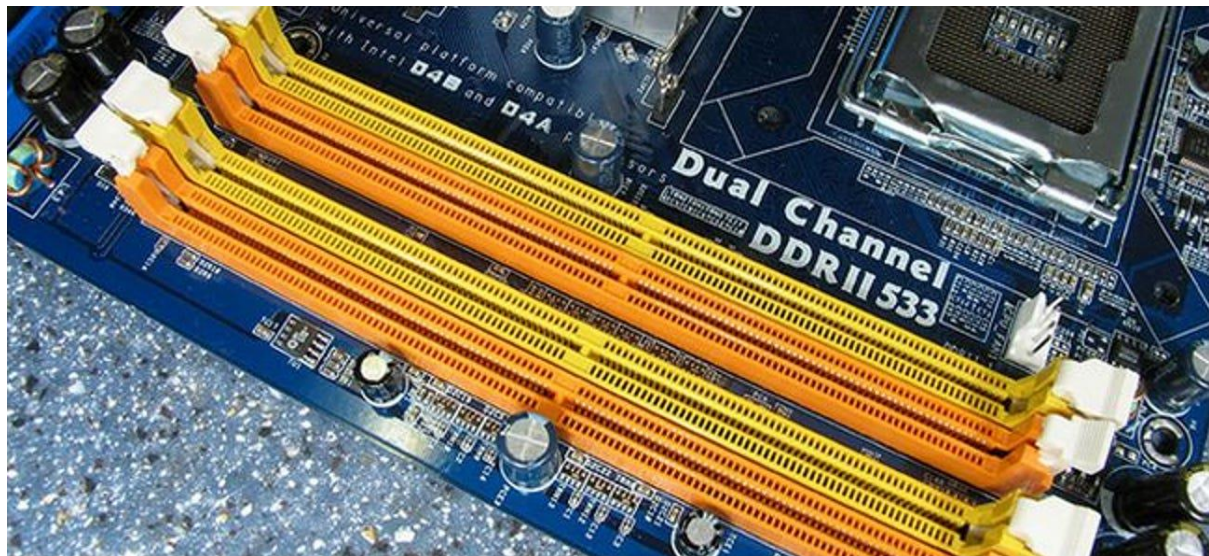

SOCKET 478:

- It use 478 –PIN MICROPGA package,usd in installing CPU

- It is square type design.

RAM SLOTS AND RAMS:
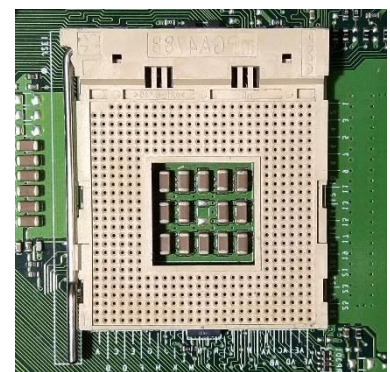
- Ram slots are used to install the rams
- It is in rectangle shape and each ending has small chips
- There are two type slots
- SD RAM : contains 2 gaps
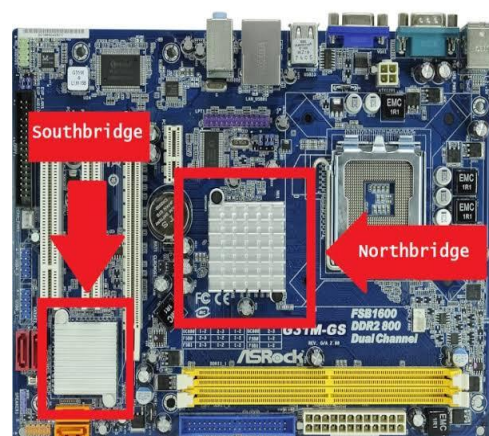- DDR RAM: contains 1 gap

NORTH BRIDGE:

- It is also called controller
- It converts electrical signals into binary values and vice versa
- It is near by socket 478
- It is placed in the middle of the mother board

SOUTH BRIDGE:

- It controls major components of mother board,and is the back bone of the input output devices

- It communicates with PCI slots,IDE-1,IDE-2, floppy connector.BIOS chip.

- It is near by CMOS battery.

CMOS BATTERY:

- Computer uses a coin shape battery
- It generates the clock signal and it manages
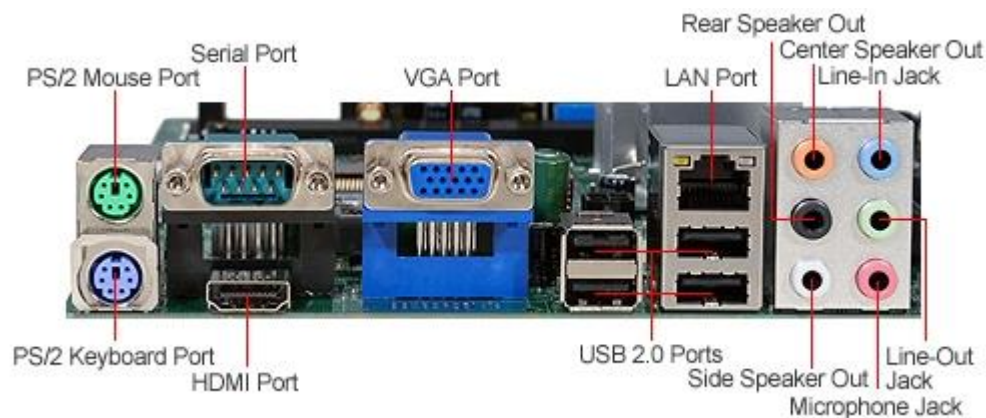system continuous time.

PRIMARY & SECONDARY:

- It is also called as IDE-1,IDE-2.
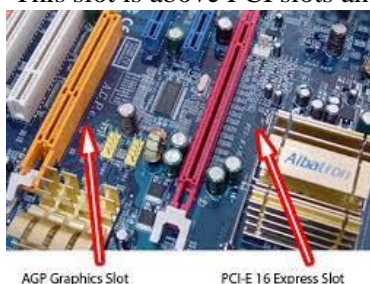- It is used to connect Hard disk drive,CD ROM
DVD ROM.

INPUT & OUTPUT PORTS:

- IO ports are used to connect IO device such as
keyboards,mouse,monitor,printer,scanner,speakers,etc.

AGP SLOT & AGP CARD:

- AGP Slot is used install the AGP card.
- AGP back view same as VGA port(15-female pins) and used to connecting the monitors.
- This slot is above PCI slots and its color is Black or Brown

CI SLOTS & PCI(EXPANSION) CARDS:

- PCI slots are used to install the PCI cards such as
    1. LAN(Ethernet) card-Back view ethernet port
    2. Sound card-Back view Audio pin connector
    3. TV Tuner(Internal) card-Dish pin connecto
- .PCI Slots are white or yellow color.
- PCI Card has Single gap only.

BIOS CHIP :

- BIOS controls how the operating system
  And hardware work together.
- BIOS identification is BIOS name is available
  on chip or mother board

ATX POWER CONNECTER:

- ATX power connecter is used to connect
  ATX power plug(This is from SMPS).
- ATX Power connecter has 20/24 pins available.
- It is white color and it has ATX name is available
  on Mother Board

FLOPPY CONNECTER:

- Floppy connecter is used to connect Floppy Disk Drive.
- This is beside of ATX power connecter and Name FDD
  is available on the mother board.

BUS CABLES OR DATA CABLES :

- A Bus is a collection of wires through which data is transmitted from one device to another
  device cables are two types.
- IDE cable : it used to connect HDD, CD ROM, DVD ROM.
- FDD cable: it used to connect FDD (braking or manufacture defecting)
  Hard Disk Drive:
- The hard disk drive is the main, and usually largest, data storage device in a computer.
- The operating system, software titles and most other files are stored in the hard disk drive.
- Identifications is the panel name is Hard Disk dive.

CD ROM DRIVE & CD-WRITER:

- CD-Rom (Compact Disk Read only Memory) Drive is a device that reads the information
  from Compact Disks (CD).
- CD-Writer is used to write the data into Compact Disks.
- Identification is the panel name is CD Writer

FLOPPY DISK DRIVE:

- The floppy disk drive is used to read the information stored in floppy disks.
- Floppy disks also called as a diskette.
- Identification is smaller than CD writer.

SMPS:

- SMPS is used to supply the power to Mother Board HDD,CD ROM, FDD.
- In SMPS holds a transformer, voltage control and fan.
- Identification is the rectangular box shape and panel name is switching

CABINET:

- It is used to install all hardware devices like
  mother board, SMPS, HDD,CD ROM, FDD.
- It has Start, Restart Button, Led's, Audio and
  USB Connecters are available at front side.

MONITOR :

- Monitor of a computer is like a television screen.
- It displays text characters and graphics in colors or in shades of grey.
- The monitor is also called as screen or display or CRT (cathode ray tube).
- In the monitor the screen will be displayed in pixels format.
    1. 800 by 600 pixels.
    2. 1024 by 768 pixels

KEY BOARD:

- Key board is like a type writer, which contains keys to feed the data or information into the computer.
- Keyboards are available in two modules.
- These are:
    1. standard key board with 83-88 keys
    2. enhanced keyboard with 104 keys or above.

MOUSE:

- Every mouse has one primary button (left button) and one secondary button (right button).
- The primary button is used to carry out most tasks, where as secondary button is used in special cases you can select commands and options.

PRINTER:

- A device that prints images (numbers, alphabets, graphs, etc…) on paper is known as Printer.
- We have different types of printers to take printouts.
- These are as follows:
    1. Dot matrix printer
    2. Inkjet printer
    3. Laser printer

SPEAKERS:

- Speakers make your system much more delightful to use entertain you while you are working on computer.

SCANNER:

- It is used to scan images and text.

WEEK- 2

Demonstrate the installation operating systems like Linux and MS windows on the personal computer.Configure the system as dual boot with both windows and Linux.

**Aim:** To dual boot Linux and Windows.

Prerequisites:

1. Two USB flash drives(or DVD_Rs)
2. A Windows 10 license.
3. Windows 10 Media Creation Tool.
4. Ubuntu Installation Media.
5. Etcher software(for making a bootable Ubuntu USB drive).

Procedure:

- Download and launch windows 10 media creation tool.Once you launch the tool,it will walk you through the steps required to create the windows media on USB or DVD-R.
- Download the Ubuntu ISO image.
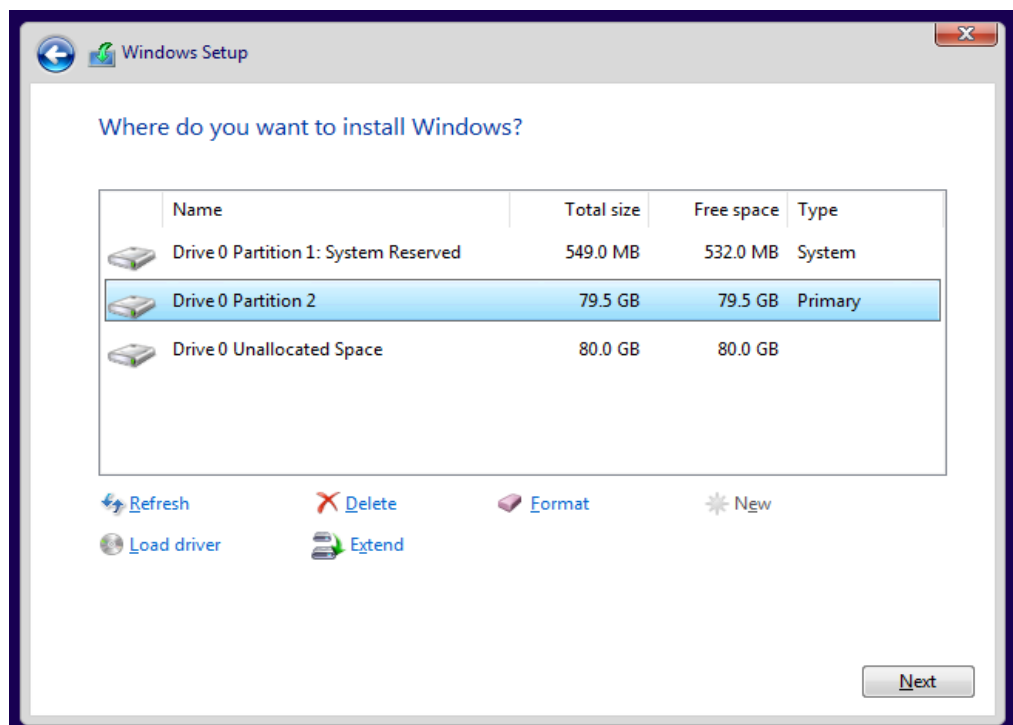- **Installing Windows:**

1. Insert the Windows installation media you created into your computer and boot from it. How you do this depends on your computer, but most have a key you can press to initiate the boot menu. On a Dell PC for example, that key is F12.
2. If the flash drive doesn't show up as an option, you may need to restart the computer.
3. If you see a message like, "press any key to boot from the installation media," press a key. You should see the following screen. Select your language and keyboard style and click *Next*.
4. Click on Install now to start the windows installer.
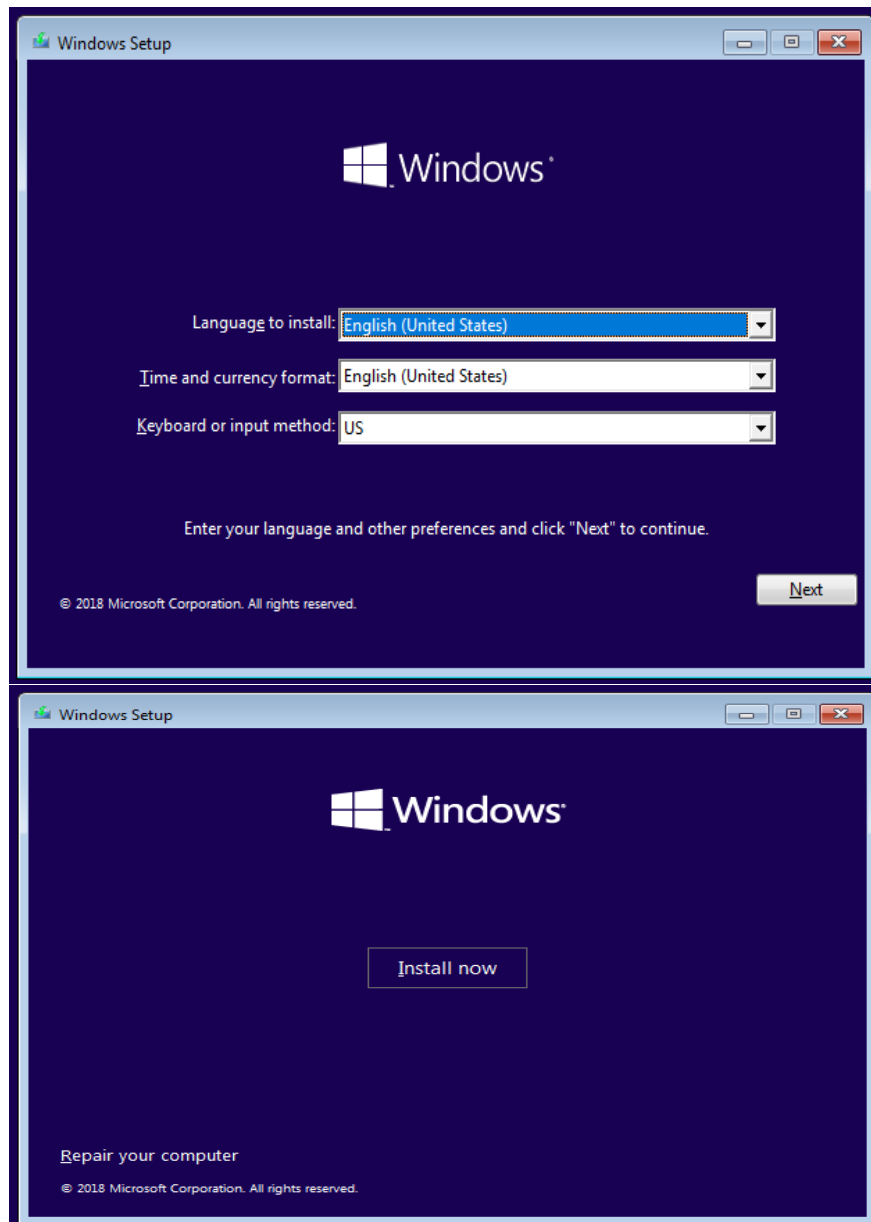
5. On the next screen, it asks for your product key. If you don't have one because Windows 10 came with your PC, select "I don't have a product key." It should automatically activate after the installation once it catches up with updates. If you do have a product key, type that in and click Next.
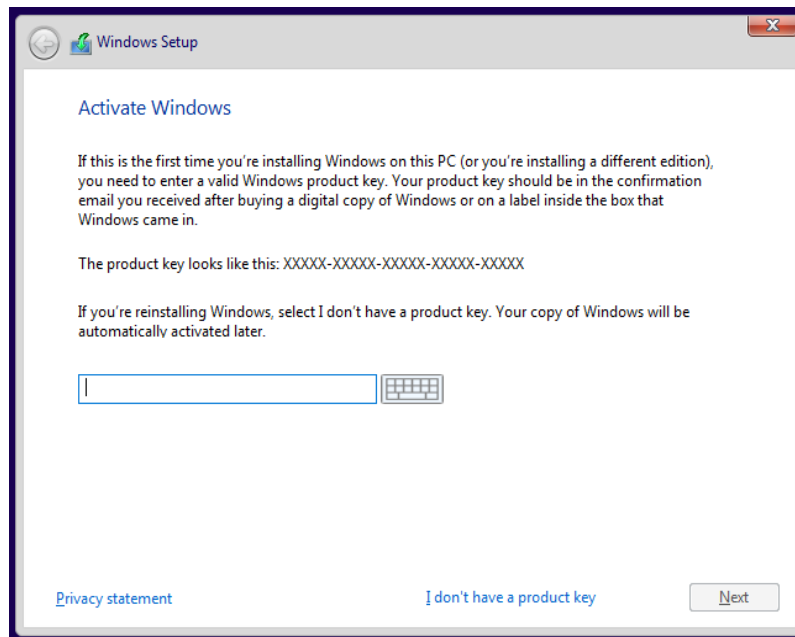
6. Select which version of Windows you want to install.
7. Accept the license agreement by checking the box,then click next.
8. After accepting the agreement,you have two installation options available.
   Choose custom : install windows only(advanced).
9. The next screen should show your current hard disk configuration.

10. Click next and windows will begin installing.

- **Installing Ubuntu:**
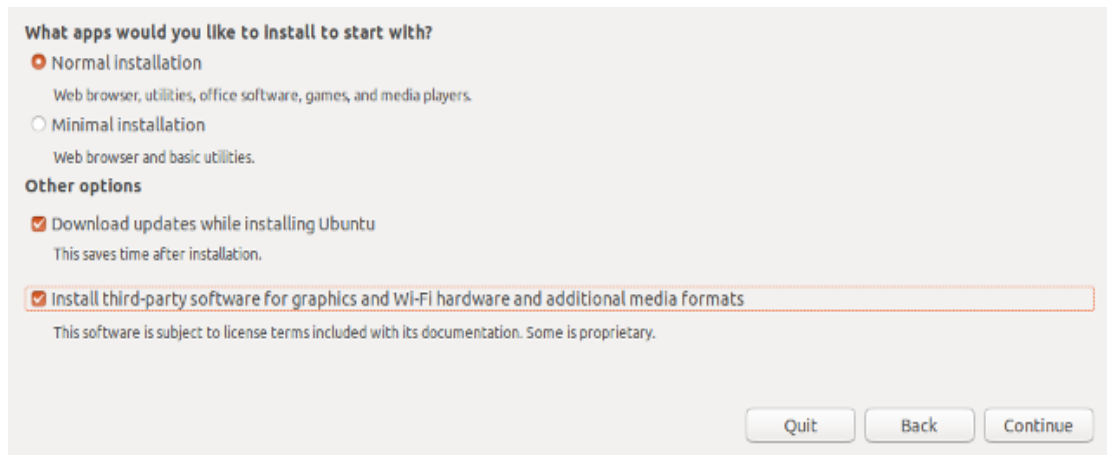 1. Use the Ubuntu installation media you created earlier to boot into Ubuntu
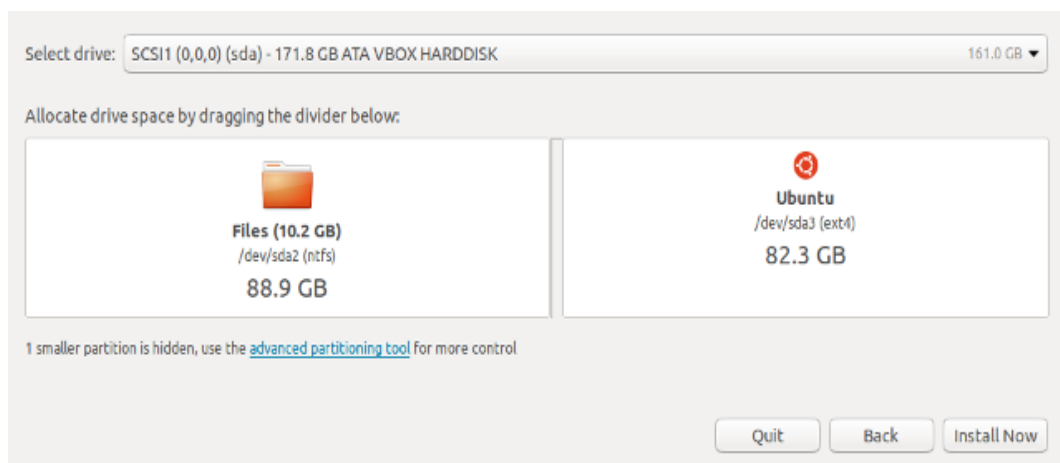   Insert the media and boot your computer from it.

2. You can select try Ubuntu or install Ubuntu.After it finishes loading,you should see the Ubuntu desktop.
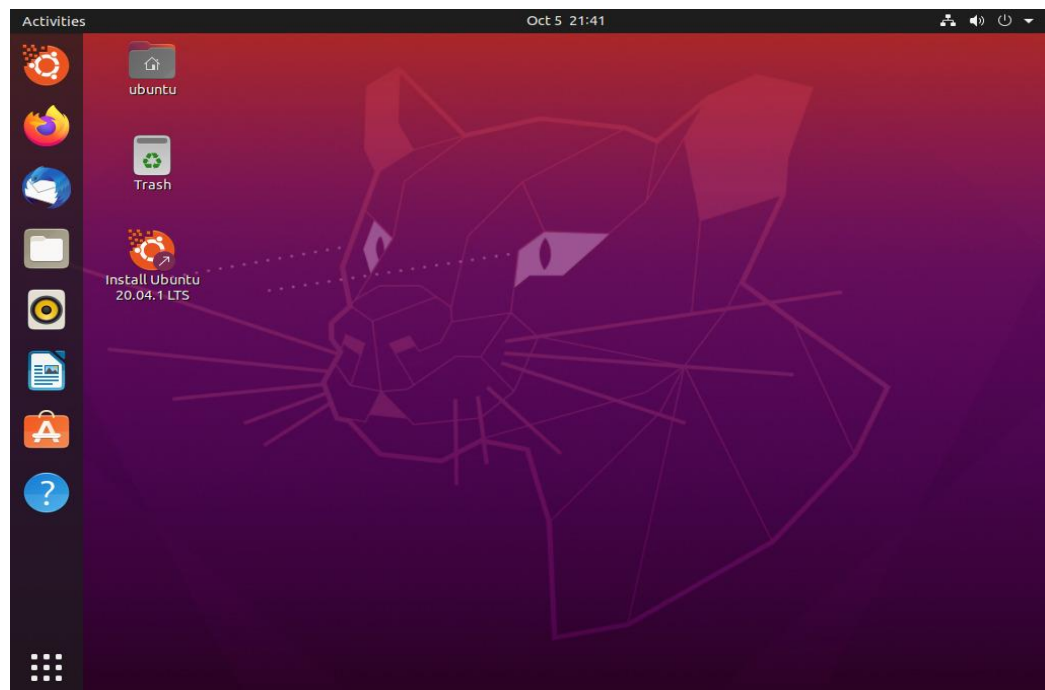
3. Double click on Install Ubuntu 20.04 LTS icon on the desktop to launch the installer.

4. Choose the language you want to use for installing and click continue.

What apps would you like to install to start with?

○ Normal installation

Web browser, utilities, office software, games, and media players.

○ Minimal installation

Web browser and basic utilities.

Other options

☑ Download updates while installing Ubuntu

This saves time after installation.

☑ Install third-party software for graphics and Wi-Fi hardware and additional media formats

This software is subject to license terms included with its documentation. Some is proprietary.

Quit   Back   Continue

5. Choose either normal / minimal installation.And you can choose for other options and click continue.
6. The next screen asks you whether to erase the disk or set up a dual boot.
   Choose install Ubuntu alongside windows 10.Click install now
7. If you installed windows and left unallocated space on disk,Ubuntu will automatically set itself up in the empty space.
8. If there is no space,the following screen will appear and asks you to select a disk and allocate the space.Click install now.

Select drive: SCSI1 (0,0,0) (sda) - 171.8 GB ATA VBOX HARDDISK   161.0 GB ▼

Allocate drive space by dragging the divider below:

Files (10.2 GB)
/dev/sda2 (ntfs)
88.9 GB

Ubuntu
/dev/sda3 (ext4)
82.3 GB

1 smaller partition is hidden, use the advanced partitioning tool for more control

Quit   Back   Install Now

9. Fill the user account information,your name,computer name,username and password.Click continue.
10. Once the installation finishes,reboot your PC.
11. If all went according to the plan,you should see the below screen when your computer restarts.

```
*Ubuntu
 Advanced options for Ubuntu
 Memory test (memtest86+)
 Memory test (memtest86+, serial console 115200)
 Windows 10 (on /dev/sda1)
```

WEEK- 3

Task 1: Using MS word perform the following:

Inserting tables,borders,drawing toolbar and word art,formatting images,text boxes,paragraphs,mail merge.

INSERTING TABLES:

i. Open a blank Word document

ii. In the top ribbon, press *Insert*

iii. *Click on the table button*

iv. Either use the diagram to select the number of columns and rows you need, or click *Insert Table* and a dialog box will appear where you can specify the number of columns and rows.

v. The blank table will now appear on the page. Alter it as necessary. Standard features like **bold**, *italics*, and underline are still available! These items may be helpful for creating headings or calling out certain items in the table.
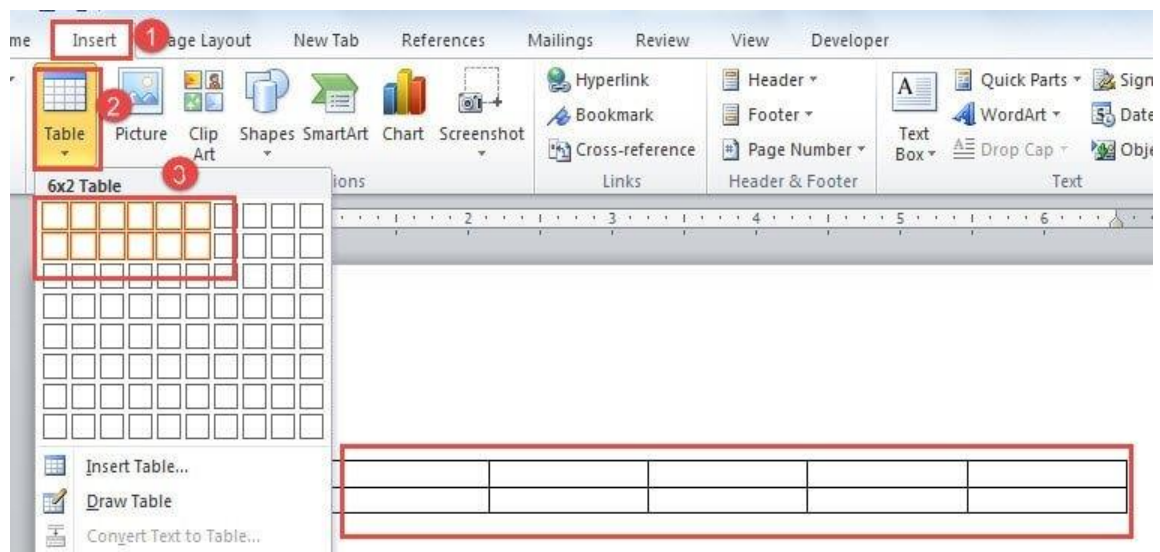
INSERTING BORDERS:

i. Go to Design>Page Borders
ii. Make selections for how you want the border to look.
iii. To adjust the distance between the border and edge of the page,select options.Make your changes and select OK.

DRAWING TOOLBAR AND WORD ART:

1. Click in your document where you want to create the drawing.
2. On the Insert menu, point to Picture, and then click New Drawing.

    A drawing canvas is inserted into your document.
3. Use the Drawing toolbar to add any shapes or pictures that you want.

WORD ART:

1. On the Drawing toolbar, click Insert WordArt   .

2. Click the WordArt effect you want, and then click OK.

3. In the Edit WordArt Text dialog box, type the text you want.

TEXT BOX:

1. On the Drawing toolbar, click Text Box   .
2. Click or drag in your document where you want to insert the text box
3. You can use the options on the Drawing toolbar to enhance a text box— for example, to change the fill color— just as you can with any other drawing object

PARAGRAPHS:
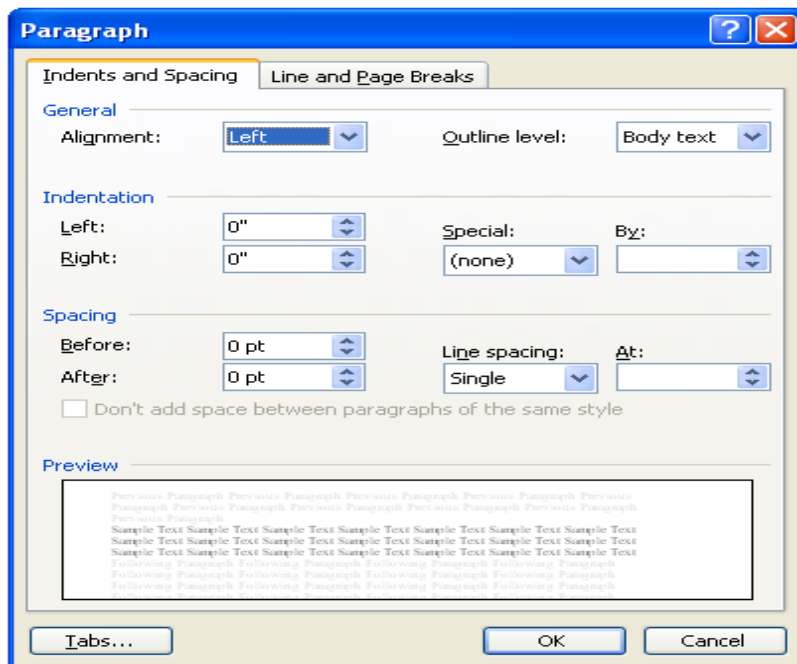
CHANGE LINE SPACING

Select the text you want to change.

1. On the Formatting toolbar, point to Line Spacing, and then do one of the following:
    - o To apply a new setting, click the arrow, and then select the number that you want.
    - o To apply the most recently used setting, click the button.
    - o To set more precise measurements, click the arrow, click More, and then select the options you want under Line Spacing.

CHANGE SPACING BEFORE OR AFTER PARAGRAPHS

1. Select the paragraphs in which you want to change spacing.
2. On the Format menu, click Paragraph, and then click the Indents and Spacing tab.
3. Under Spacing, enter the spacing you want in the Before or After box.

Change paragraph direction

1. Place the insertion point in the paragraph that you want to change, or select several paragraphs.
2. Do one of the following:
    - o To have text begin from the left, click Left-to-Right on the Formatting toolbar.
    - o To have text begin from the right, click Right-to-Left on the Formatting toolbar.

When you change the paragraph direction, Microsoft Word leaves justified and centered text as it is. In the case of left-aligned or right-aligned text, Word flips the alignment to its opposite. For example, if you have a left-to-right paragraph that is right aligned, such as the date at the top of a letter, clicking Right-to-Left results in a right-to-left paragraph that is left aligned.

MAIL MERGE:

PROCEDURE:

1. Open a document and type the complete body of the letter and format it as required.
2. Create a data source(for ex:in excel) and choose mail merge from tool bar a window is displayed.
3. Click on create button and choose from letter options. Then a window is displayed.
4. Click active window choose currently active document. Click on data and create data source option.
5. A window for customizing the data base structure appears and this file contains the names address details with contact number etc. we can add or remove fields from this file.
6. Once the list of fields is finalized a window of same is displayed and types the required file names and click on save button.
7. A window is displayed. Type the details of 10 candidates. After typing details of one person, click on add menu.
8. Click on the o.k. to finish entering the records mail merge tool bar is displayed.
9. Place the curser at the place where you wish to insert names and click on insert mail merge button. A drop list is displayed all fields created would be shown.
10. By highlighting to desired file and click on it we can insert the field into the main document and go to begin the mail merge click on mail merge.
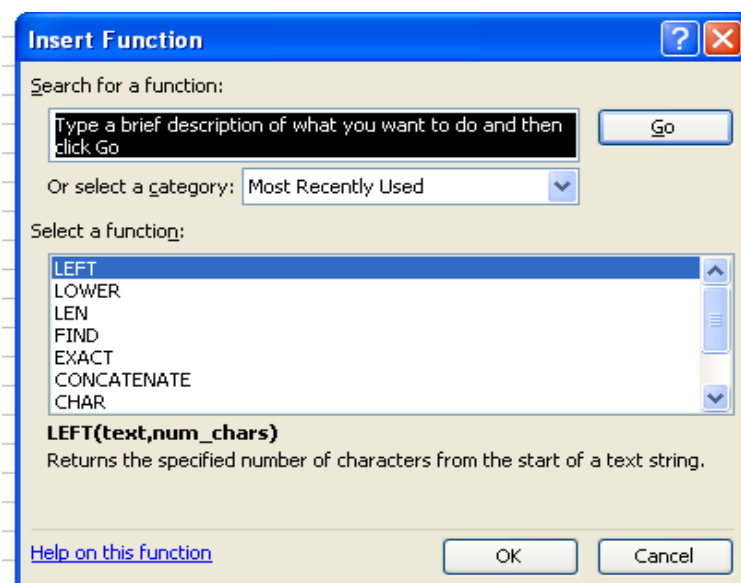
A window is displayed click once on the merge button to generate letters for all records in your data source file.
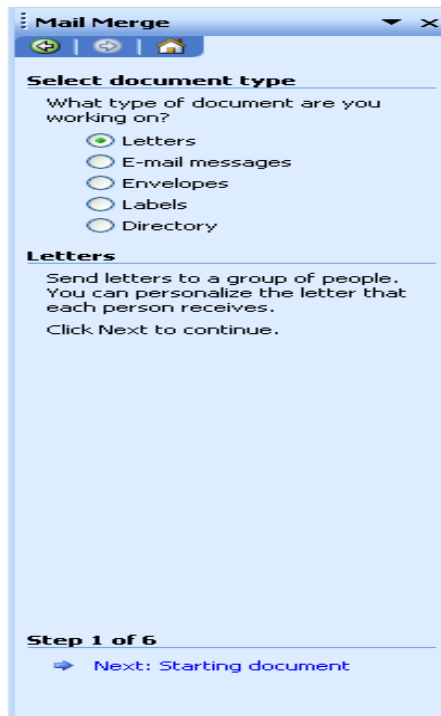
Task 2: Using MS excel perform the following:

Formulae in spreadsheet-sum,average,standard deviation,charts,count

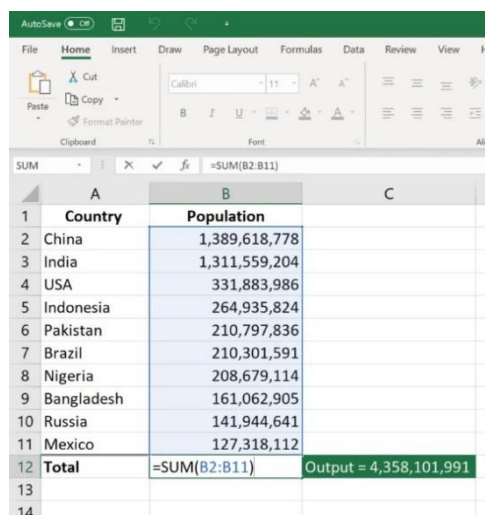*function,sorting,conditional formatting,Pivot,HLOOKUP,VLOOKUP.*

FORMULAE IN EXCEL:

1. Open a new document. Give the main heading and subheading by changing the size so that they look in block letters. Enter the data.
2. To calculate go to Insert menu in the menu bar and then click on function and then ok. Then select the data to which you want to calculate.

SUM:

o It usually aggregates values from a selection of columns or rows from your selected range.

o This usually starts by typing an equal sign,followed by name of the function(sum)

o It has several parameters which describes the rows and columns of the selected data.

AVERAGE:

o Written as =AVERAGE(number 1:number 2…..)

COUNT:

- o The COUNT function counts all cells in a given range that contain only numeric values.
- o =COUNT(value 1:value 2)

CHARTS:

- o Select data for the chart
- o Select Insert > Recommended charts
- o Select a chart in the recommended charts tab,to preview the chart
- o Select a chart

o   Select OK

Types of Graphs in Excel
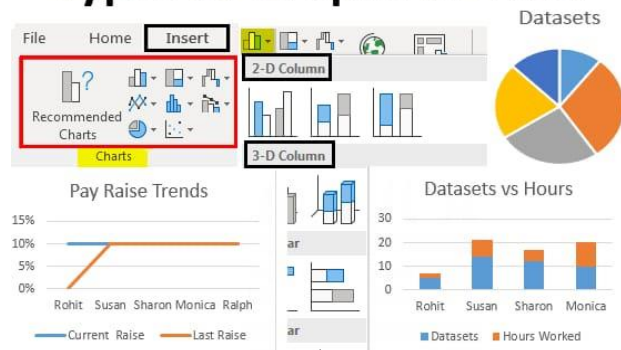
SORTING:

1. Click a cell in the list you want to sort.
2. On the Data menu click sort.
3. Under first key sort click the custom sort order you want and then click ok.

Click any other sorting option you want
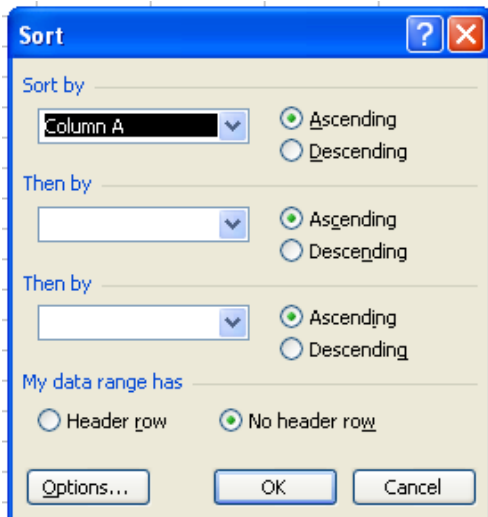
CONDITIONAL FORMATTING:
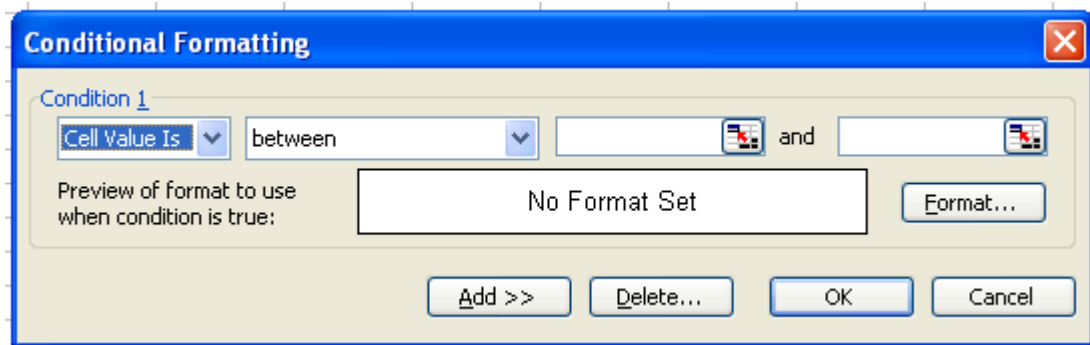
1. Select the cells for which you want to add, change, or remove conditional formatting
2. On the **Format** menu, click **Conditional Formatting**.
3. Do one of the following:

   Add a conditional format

   1. Do one of the following:

      To use values in the selected cells as the formatting criteria, click **Cell Value Is**, select the comparison phrase, and then type a constant value or a formula. If you enter a formula, start it with an equal sign (=).

To use a formula as the formatting criteria (to evaluate data or a condition other than the values in selected cells), click **Formula Is** and then enter the formula that evaluates to a logical value of TRUE or FALSE.

2. Click **Format**.

3. Select the formatting you want to apply when the cell value meets the condition or the formula returns the value TRUE.

4. To add another condition, click **Add**, and then repeat steps 1 through 3.

   You can specify up to three conditions. If none of the specified conditions are true, the cells keep their existing formats

CHANGE OR REMOVE A CONDITIONAL FORMAT
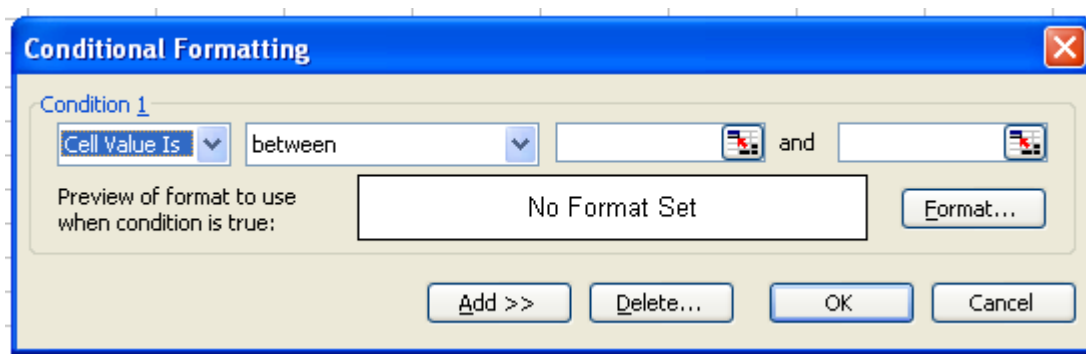
Do one or more of the following:

- o To change formats, click **Format** for the condition you want to change.
- o To reselect formats on the current tab of the **Format Cells** dialog box, click **clear** and select new formats.
- o To remove one or more conditions, click **Delete**, and then select the check box for the conditions you want to delete

PIVOT TABLES:

A PivotTable report is an interactive table that quickly combines and compares large amounts of data. You can rotate its rows and columns to see different summaries of the source data, and you can display the details for areas of interest.

PROCEDURE:

1. Open the workbook where you want to create the PivotTable report.
   - o If you are basing the report on a Web query, parameter query, report template, Office Data Connection file, or query file, retrieve the data into the workbook, and then click a cell in the Microsoft Excel list containing the retrieved data.

If the retrieved data is from an OLAP database, or the Office Data Connection returns the data as a blank PivotTable report, continue with step 6 below.

   o   If you are basing the report on an Excel list or database, click a cell in the list or database.

2. On the **Data** menu, click **PivotTable and PivotChart Report**.

3. In step 1 of the PivotTable and PivotChart Wizard, follow the instructions, and click **PivotTable** under **What kind of report do you want to create?**

4. Follow the instructions in step 2 of the wizard.

5. Follow the instructions in step 3 of the wizard, and then decide whether to lay out the report onscreen or in the wizard.

HLOOKUP:

This function finds a value from data in a horizontal table,the lookup values must appear in the first row of the table,moving horizontally to the right.It returns the matched value from a table

Syntax:HLOOKUP(lookup_value,table_array,row_index,[range_lookup])

lookup_value : The value to lookup

table_array : The table from which to retrieve the data

row_index : The row number from which to retrieve the data

range_lookup : (optional) A Boolean to indicate exact match.

	B12		× ✓	fx	=HLOOKUP("Ornage";B1:H8;2;1)				
	A	B	C	D	E	F	G	H	I
1		Apple	Banana	Kiwi	Lemon	Orange	Peach	Pear	
2	May 1st	21	15	19	19	17	20	22	
3	May 2nd	25	17	20	23	24	22	17	
4	May 3rd	30	20	22	24	29	23	19	
5	May 4th	29	21	21	22	22	23	11	
6	May 5th	20	18	18	21	18	19	13	
7	May 6th	18	16	16	20	16	17	17	
8	May 7th	32	21	19	18	20	16	18	
9	Total week 1	175	128	135	147	146	140	117	
10									
11		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	
12	Oranges sold	17	24	29	22	18	16	20	
13									
14									

VLOOKUP:

It is a function that makes Excel search for a certain value in a column,in order to return a value from a different column in the same row.It consists of 4 arguments.

1.The value you want to lookup

2.The range in which you want to find the value and return the value

3.The no.of column within your defined range,that contains the return value

4.0 or FALSE for an exact match with the value you are looking for,1 or TRUE for an appropriate match.

Syntax : VLOOKUP(value,range,column number,false or true)

	H4	▼	: × ✓	fx	=VLOOKUP(H3,B4:E13,2,FALSE)				
	A	B	C	D	E	F	G	H	I
1									
2		1	2	3	4				
3		ID	First	Last	Email		ID	622	
4		610	Janet	Farley	j.farley@ace.com		First	Jonathan	2
5		798	Steven	Batista	s.batista@ace.com		Last	Adder	3
6		841	Evelyn	Monet	e.monet@ace.com		Email	j.adder@ace.com	4
7		886	Marilyn	Bradley	m.bradley@ace.com				
8		622	Jonathan	Adder	j.adder@ace.com				
9		601	Adrian	Birt	a.birt@ace.com				
10		869	Julie	Irons	j.irons@ace.com				
11		867	Erica	Tan	e.tan@ace.com				
12		785	Harold	Clayton	h.clayton@ace.com				
13		648	Sharyn	Castor	s.castor@ace.com				
14									

# WEEK- 4

Using MS powerpoint perform the following:

PPT Orientation,Slide layouts,Auto Shapes,Lines and Arrows,Inserting Images,Tables,Charts,Hyperlinks and adding Animations in the slides.

Aim : To maintain a PowerPoint presentation with some specifications

Procedure:

PPT ORIENTATION:

- Select Design
- Select Slide Size > Custom slide size
- Select Portrait/landscape > OK
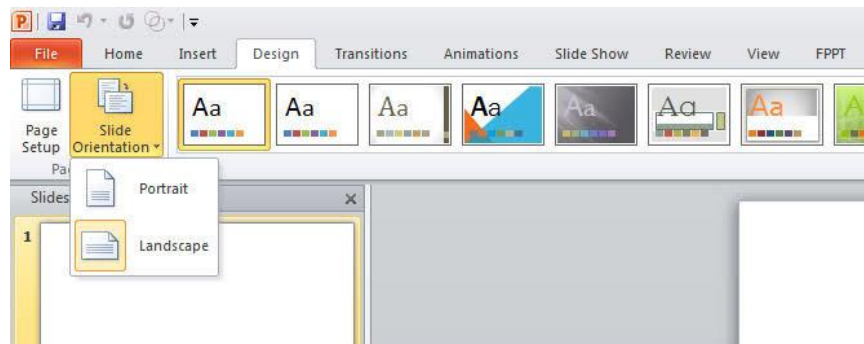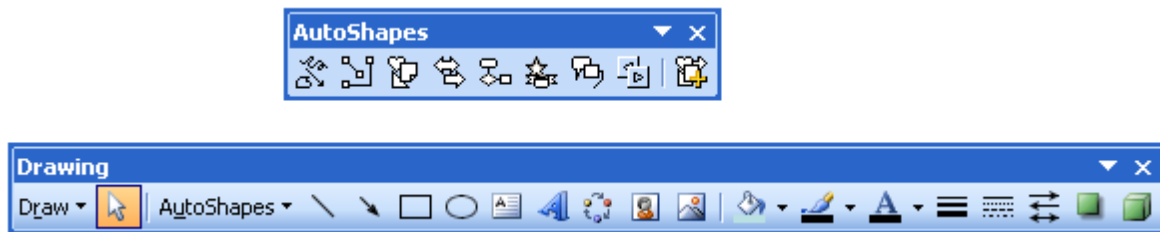

SLIDE LAYOUTS:

1. On the format menu, click slide layout.
2. On the slides tab in normal view, select the slides; you want to apply a layout too.
3. In the slide layout task pane, point to layout you and then click it.
4. A new slide can also be inserted within the task pane. Point the layout you want the slide to have, click the arrow and then click the insert new slide.
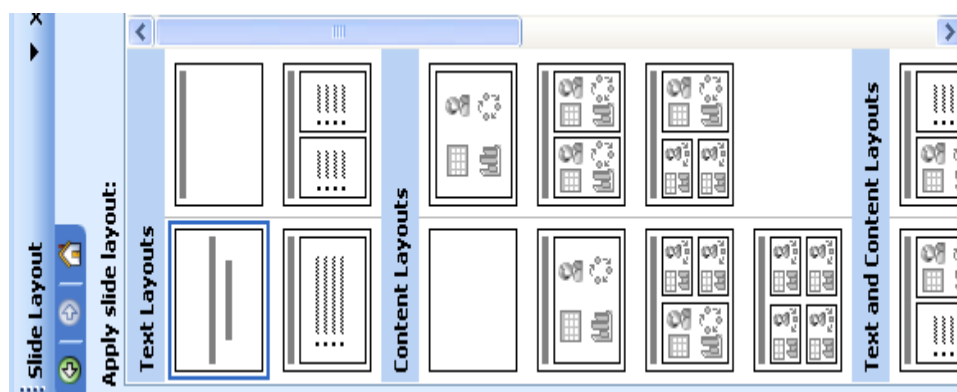
AUTOSHAPES:

1. Select the auto shape that has the text you want to position.
2. Double-click the selection rectangle of the auto shape or text box and then click the text box tab in the format dialog box.
3. In the text anchor point box, click the position you want the text to start in.

LINES AND ARROWS:

1. In Microsoft power point, double click the chart.
2. Double click the chart item you want to change.
3. On the patterns tab, do one or both of the following.
4. To change the colors, patterns or lines, select the options you want.
5. To specify a fill effect, click fill effect and then select the options you want on the gradient, text patterns or picture tabs.

To return to the slide, click outside the about.

HYPERLINK:
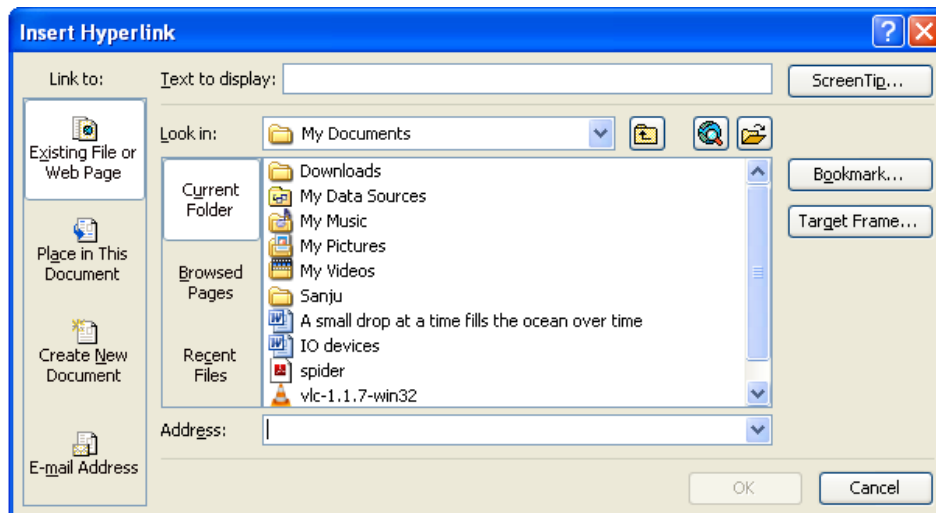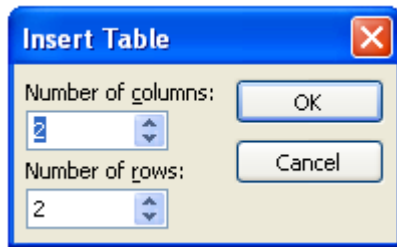
1. Select the text or object that you want to represent the hyperlink.
2. Click insert hyperlink.
3. Under link to, click place in this document.

INSERT IMAGES:

1. Click where you want to insert the picture.
2. On the drawing tool bar, click insert picture.
3. Locate the folder that contains the picture that you want to insert, and then click the picture file.

TABLE:

1. On the standard tool bar, click insert table.
2. Print to select the numbers of rows and columns you want and then click.

CHARTS:

- Select the insert tab
- Click the insert chart command in the iilustrations group.The insert chart dialog box will appear
- Select a category from the left pane of dialog box,and review the charts that appear in the center.
- Select the desired chart
- Click Ok.Extract the data from the Excel.

ADDING ANIMATIONS IN THE SLIDE:

1. Open powerpoint.Click on the object you would like to animate.Click on text or images to animate.
2. Go to the Animations tab.It is in the top menu bar and will display a variety of animation options and controls.
3. Select the animation you would like.These are split into 4 categories :
   - Entrance animations

- Exit animations
- Emphasis animations
- Paths

4. Click Add Animation to add extra animations to the object.

5. Select an activation option for animation.Select one of the options from start.

.
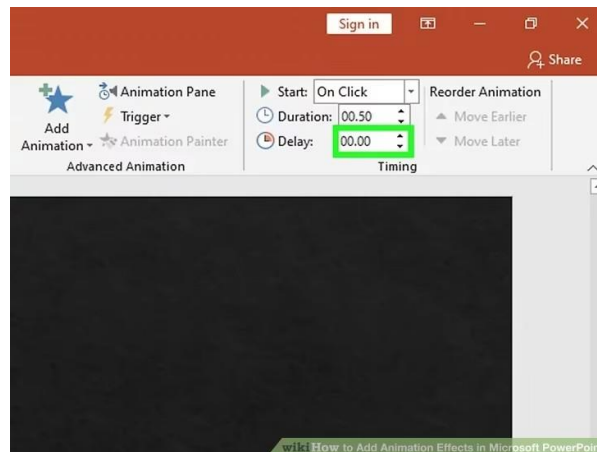
6. Adjust the animation delay.Also adjust the animation duration in Timing section

7. Reorder animations

8. Add a sound effect to an animation.In the animation plane,click down the arrow next to an animation and select Effect options.Choose Enhancements to select a sound effect from a list or add manually

9. Click Preview.This button is on the left side of animations tab and will run through the animations on the selected slide.
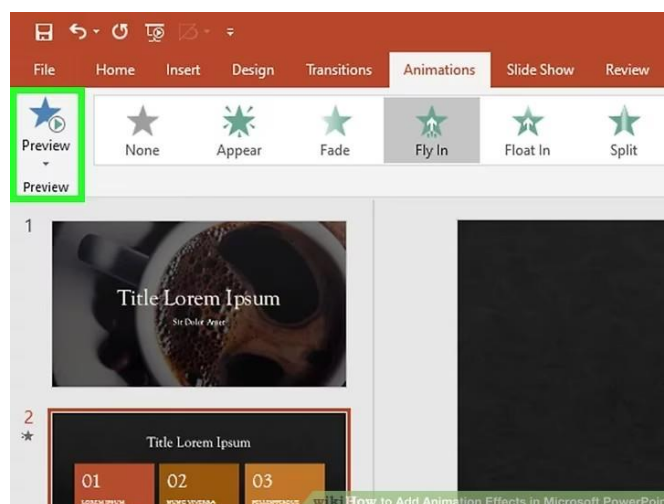
WEEK-5

Create a newsletter using MS word

AIM : To create a newsletter In MS word

PROCEDURE :

1. Create a new Word document and click the "Page Layout" tab. Click the "Margins" icon in the Ribbon to reduce the default 1-inch margins to a half-inch. Click the "Columns" icon and then click "Two.
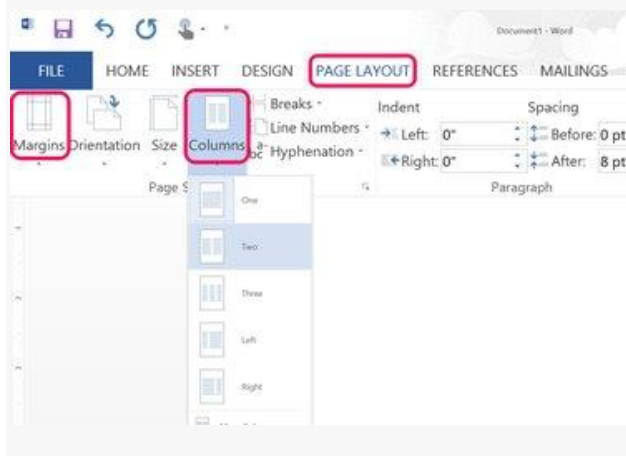
2. Right-click the top edge of the page and select "Open Header." The header is unaffected by the two columns you set, making it an ideal place to insert the newsletter's title, or masthead.

Before editing the header, click the Header & Footer "Design" tab and then click the "Different First Page" check box. This option allows you to put the masthead on the first page without it appearing on other pages.
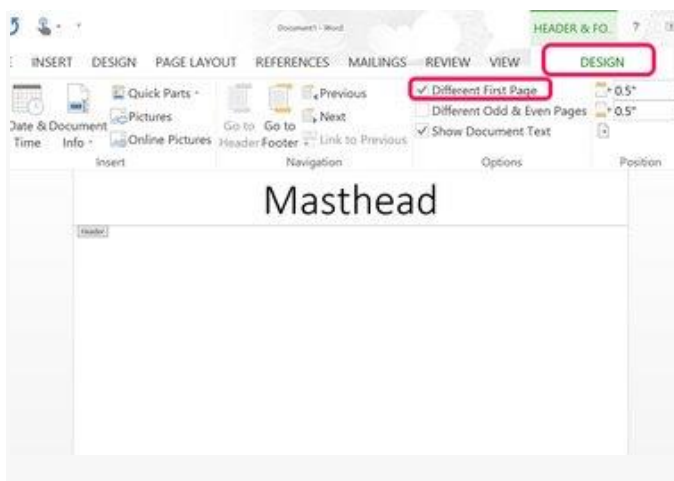
3. Type the title of the newsletter in the header, using the Home tab options to set the font and alignment. To insert an image in the header, like a company logo, click the Header & Footer "Design" tab and click the "Picture" icon.
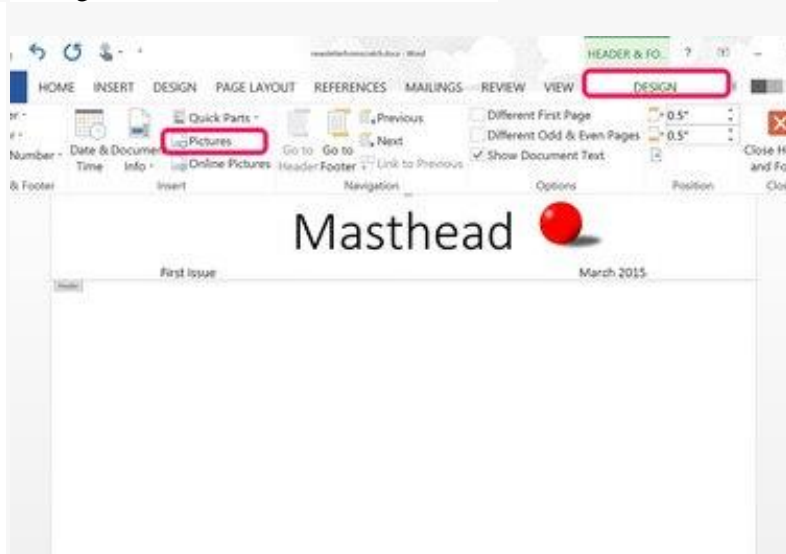
4. Double-click anywhere near the center of the page to exit the header. Enter the rest of the newsletter just as you would any other Word document. To specify font styles and colors, for example, click the "Home" tab. To insert images and text boxes, click the "Insert" tab. To have text wrap around an image or text box, right-click the object and select "Wrap Text."

5. Save a completed newsletter by clicking the "Save" icon in the upper-left corner of the page and use the default DOCX format.

WEEK-6

Calculate GPA of all students in a class using Excel

AIM : To calculate GPA of all students using Excel.

PROCEDURE :

- First, we have to define the criteria that will be used to return a Grade for the marks scored by the student.

	L	M	N
1	Criteria	Grade	
2	Above 80	A	
3	Above 70	B	
4	Above 60	C	
5	Below 60	D	
6			

- After the criteria are defined, then we need to calculate the Total marks of students and the Percentage(using specified functions) achieved by the student.

	A	B	C	D	E	F	G	H
H2						fx	=G2/500	
1	Name of student	Math	Science	History	Civics	Accounting	Total Marks	Percentage
2	Dessie Berta	83	91	67	72	78	391	78%
3	Tam Pridgeon	89	59	64	50	55	317	63%
4	Etta Bogdan	53	90	61	85	50	339	68%
5	Magdalena Spagn	58	60	83	51	97	349	70%
6	Tomika Lumsden	55	64	77	100	65	361	72%
7	Denae Stthomas	89	51	97	91	77	405	81%
8	Arleen Verdun	79	81	52	53	60	325	65%
9	Berry Nott	65	68	91	78	100	402	80%
10	Tim Giuliani	85	68	52	60	70	335	67%
11	Leonel Chretien	76	97	61	90	53	377	75%
12	Rona Mellon	81	92	80	95	99	447	89%
13	Roni Kofoed	99	84	54	94	76	407	81%
14	Edward Seel	76	56	70	88	96	386	77%
15	Antone Lykes	60	64	65	100	75	364	73%
16	Kyra Hoots	61	64	60	59	53	297	59%
17	Samantha Jerniga	62	60	61	93	90	366	73%
18	Jonas Shinn	87	97	89	52	87	412	82%
19	Ima Begaye	60	66	66	85	88	365	73%
20	Nicki Carbonneau	61	81	87	96	85	410	82%
21	Cyrstal Chaplin	66	89	93	99	76	423	85%
22								

- Now we have to use the nested IF formula that is

=IF(H2>80%,"A",IF(H2>70%,"B",IF(H2>60%,"C","D")))

- **Now we need to drag the formula down to other cells also to calculate the**
grade for other students.

I2 f_x `=IF(H2>80%,"A",IF(H2>70%,"B",IF(H2>60%,"C","D")))`

	A	B	C	D	E	F	G	H	I
1	Name of student	Math	Science	History	Civics	Accounting	Total Marks	Percentage	Grade Achieved
2	Dessie Berta	83	91	67	72	78	391	78%	B
3	Tam Pridgeon	89	59	64	50	55	317	63%	
4	Etta Bogdan	53	90	61	85	50	339	68%	
5	Magdalena Spagr	58	60	83	51	97	349	70%	
6	Tomika Lumsden	55	64	77	100	65	361	72%	
7	Denae Stthomas	89	51	97	91	77	405	81%	
8	Arleen Verdun	79	81	52	53	60	325	65%	
9	Berry Nott	65	68	91	78	100	402	80%	
10	Tim Giuliani	85	68	52	60	70	335	67%	
11	Leonel Chretien	76	97	61	90	53	377	75%	
12	Rona Mellon	81	92	80	95	99	447	89%	
13	Roni Kofoed	99	84	54	94	76	407	81%	
14	Edward Seel	76	56	70	88	96	386	77%	
15	Antone Lykes	60	64	65	100	75	364	73%	
16	Kyra Hoots	61	64	60	59	53	297	59%	
17	Samantha Jerniga	62	60	61	93	90	366	73%	
18	Jonas Shinn	87	97	89	52	87	412	82%	
19	Ima Begaye	60	66	66	85	88	365	73%	
20	Nicki Carbonneau	61	81	87	96	85	410	82%	
21	Cyrstal Chaplin	66	89	93	99	76	423	85%	
22									