

Computer and Information Technology

**PP.1
First Term**

Name:.....

Class:.....

Lesson 1

Computer Basics

Computer : Is an electronic device that processes data and converting it into useful information .

Computer Types :

1- Personal computer

Office computer , designed by IBM in 1981. Its hard disk average from 40 GB to 512 GB . Its fairly inexpensive .



2- LapTop

A lighter and more portable version of a PC .

Its hard disk average is from 80 GB to over 512 GB . Its fairly inexpensive but it is more expensive than PC .



3- Smart Devices

More lighter and easy to carry like mobiles, I pads and tablets.



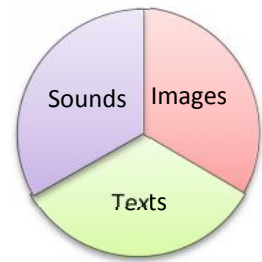
Elements of computer :

- 1- Hardware
- 2- Software
- 3- Humanware
- 4- Data & Information

Data & Information :

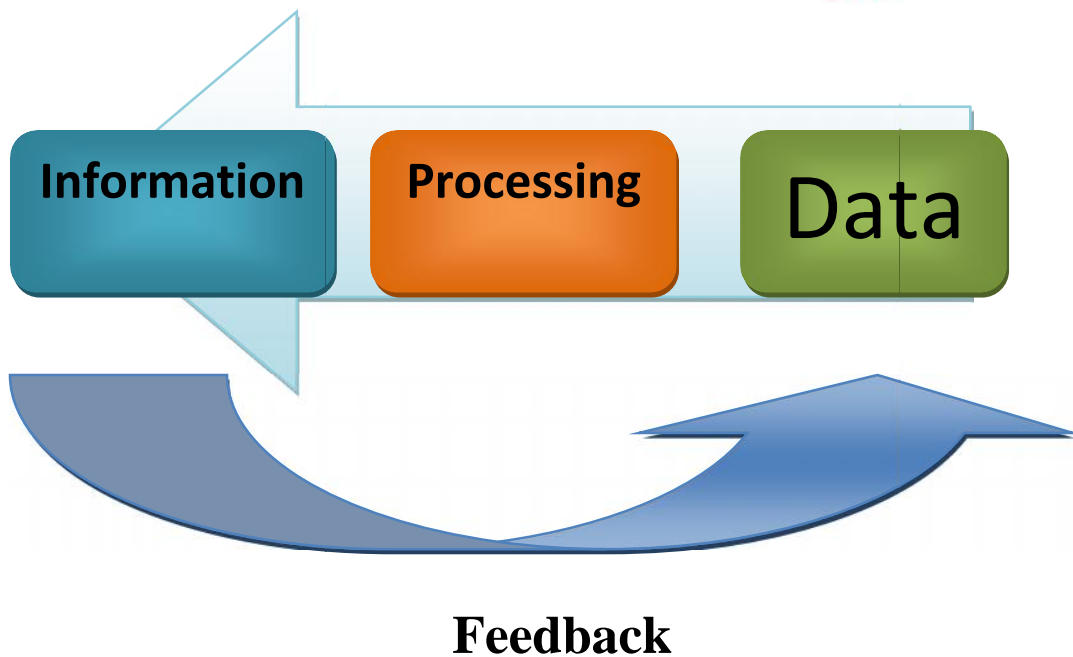
Data Is the raw material for information .

- The main forms of data are Texts (numbers , letters ,), Images (Image , Video shots ,), and Sounds (Sound , Music ,).



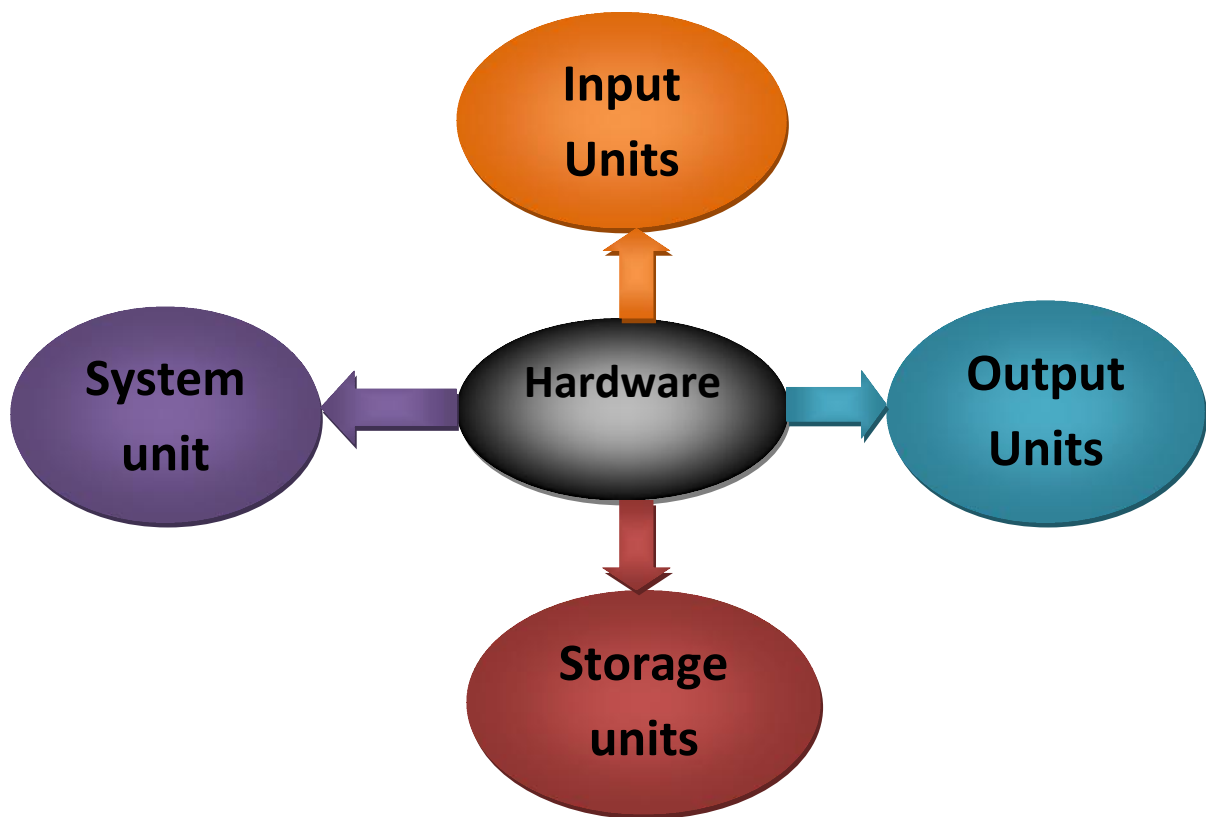
Information Is the result of data processing to get what those data include.

- The main forms of information are Reports , Tables , Graphs ,
That help us for making decisions .



Hardware :

Any part of the computer you can touch and see . It contain system unit and all the connected with it like screen , keyboard and mouse .



Input Units : Input data into the computers like Keyboard , Mouse , Scanner Microphone , Touch screen , Joystick ,.....

Output Units : Output information that the computer process it like Monitor , Printers , Plotter , Speaker ,

Storage Units : used to store data & information that we can recover it at any time and it doesn't lose its contents when the power turns off like Hard Disk , CD , DVD , Flash memory ,

Bit : Its value 0 or 1 (0) mean there is no pulse and (1) mean there is apulse .

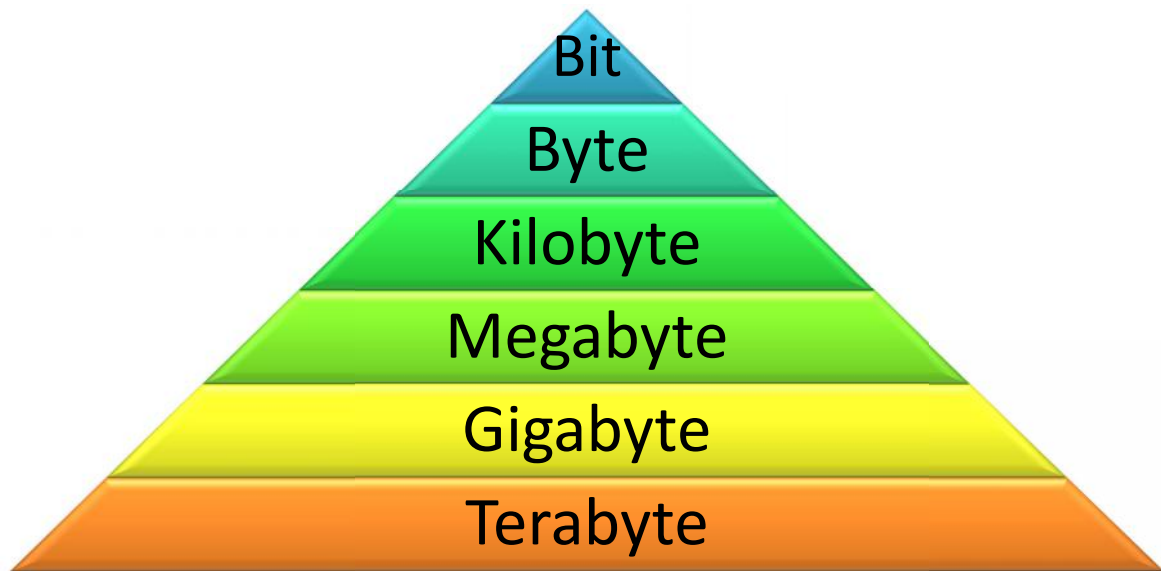
Byte : Measurment for data , it represent number or symbol & it consists of 8 bit , **Byte = 8 bit** .

1 Kilobyte = 1024 byte

1 Megabyte = 1024 kilobyte

1 Gigabyte = 1024 Megabyte

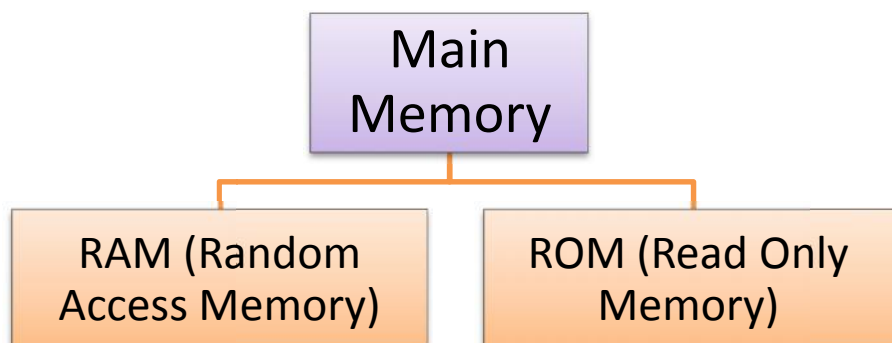
1 Terabyte = 1024 Gigabyte



- ❖ To convert from bit to byte divided to 8 (/8)
- ❖ To convert from byte to bit multiply by 8 (*8)

System Unit : The main part of the computer .

- 1- Main memory
- 2- Central processing Unit (CPU)
- 3- Motherboard



RAM (R andom A ccess M emory)	ROM (R ead O nly M emory)
Memory read & Write	Read-Only memory
User is in control its data	Computer manufacturer that writes its data
Can adjust the size of the memory	Can't adjust the size of memory
When the computer turned off , all data is lost	When the computer turned off , don't lose the data

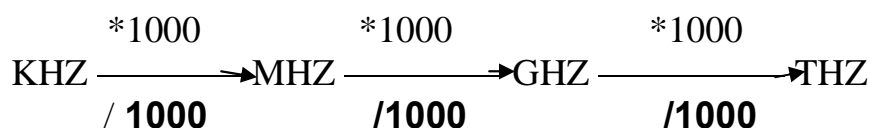
Central processing Unit (CPU) :

The processor is responsible for arithmetic and logic calculations that processed data according to orders & instructions .

- 1- **Control Unit** : control all computer units as a traffic cop directing the flow of data through CPU.
- 2- **Arithmetic & Logic unit (ALU)** : All computer data is stored as numbers , most of processing are comparing numbers .

Note

- We found processor , RAM and ROM on the motherboard that found inside the computer case .
- We measure processor speed by HZ

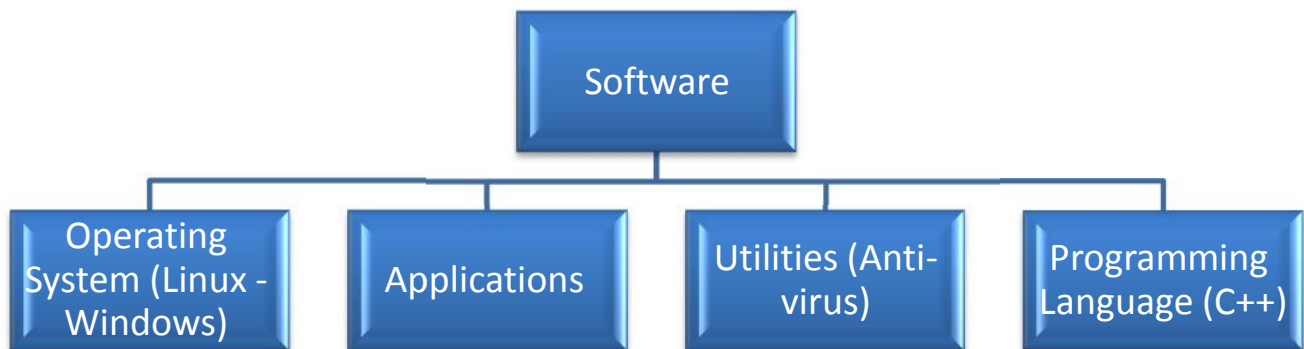




Computer Case



Motherboard



Software :

Programs : Set of commands that tells computer what to do , translate between users and computer .

Closed Sources Programs :

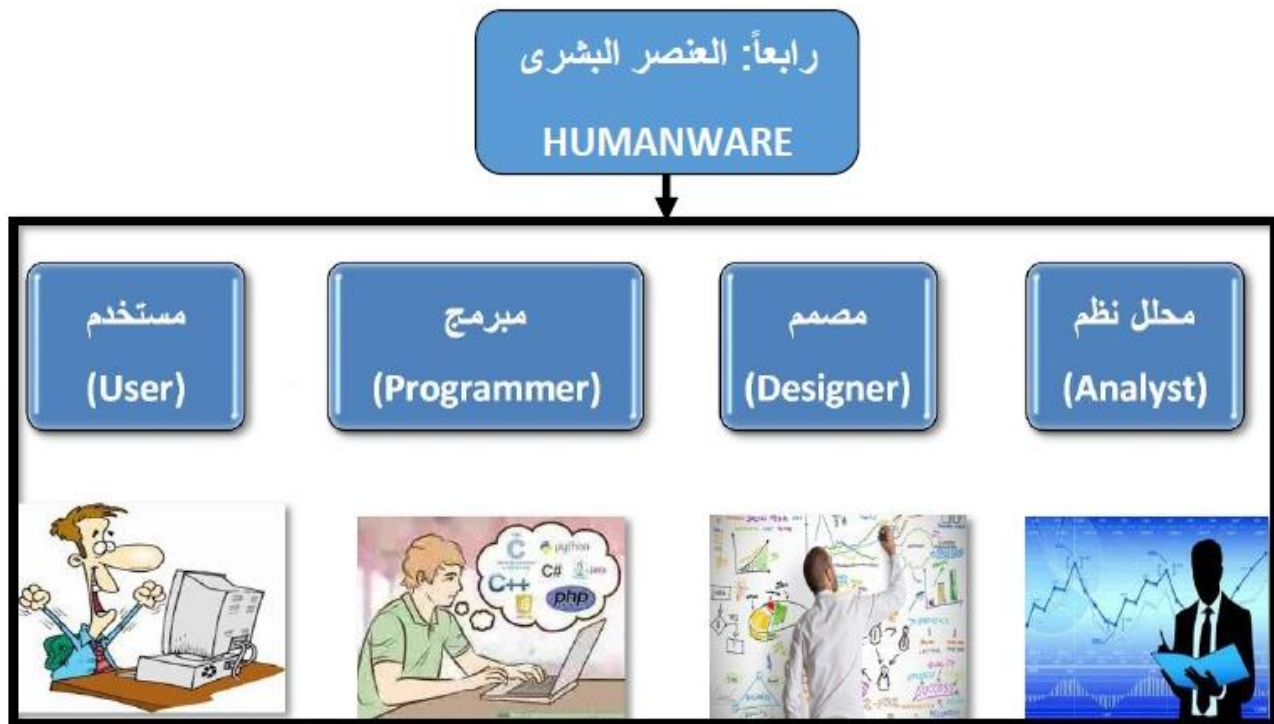
Programs that we can't see its source code , it is available only for programmers & designers or the company that own this programs , it is not free programs , we can't use it without license .

Open Sources programs :

Programs that we can see its source code and we can edit and develop it , it is free programs ,all users can use it without license like **Libra Office, Gimp , Open shot .**

Programs according to property rights consists of :

- 1- **Freeware** : It is free for all users without any charge .
- 2- **Shareware** : Its trial programs used for a certain time and after this time you can buy it .
- 3- **Original source programs** : It has a Serial number for security and property rights .



- 1- **Users**: a person who uses computers for work or entertainment or communication or business.
- 2- **Designer**: Graphic designers & Web designers who develop the overall layout of magazines, newspapers, and advertisements.
- 3- **Programmer**: Who write programs according to the specifications that determined by computer software engineers and system analysts. Using different programming languages such as Java, C++.
- 4- **Analyst**: Using computers and related systems to design new IT solutions, modify, enhance or adapt existing systems and integrate new features or improvements, all with the aim of improving business efficiency and productivity.

Work Sheet 1

Choose the correct answer :

- 1- Touch Screen is From
(a) Input unit only (c) Output unit only
(b) Input & Output unit (d) No thing from those
- 2- From output unit
(a) Printer (c) Keyboard
(b) Mouse (d) Microphone
- 3- Memory save data temporarily.
(a) RAM (c) ROM
(b) Flash Memory (d) No thing from those
- 4- 3 Kilobyte consists of byte .
(a) 3×1024 (c) $1024 \times 1024 \times 1024$
(b) 3×1000 (d) No thing from those

Complete the following :

- 1- From Examples of computer devices , ,
.....
- 2- Elements of computer system , ,
.....
- 3- From the input units , ,
.....
- 4- The processor speed measure unit

Put () or (×) :

- 1- The "processing operation" is to perform arithmetic or logical operations. ()
- 2- The computer can store different types of data. ()
- 3- The memory unit is divided into RAM and ROM. ()
- 4- It is possible to use data before processing it. ()

Lesson 2

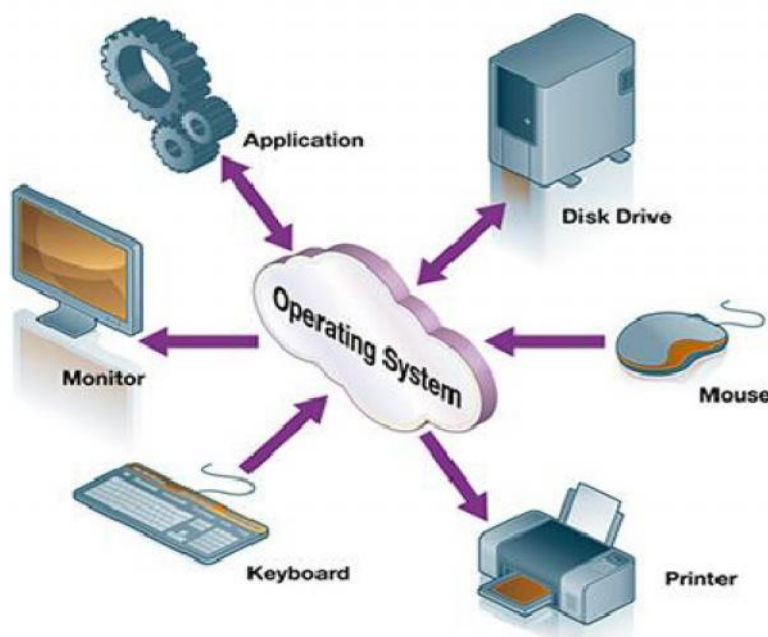
Operating Systems

It is the most important computer programs that should be installed on the computer to enable us to run other programs & applications .

It is responsible for managing computer hardware.

It is consider as intermediary between user & his programs from side and hardware from the other side .

It is the main stage to turn on the computer , at every time computer turned on it look for Os inside one of the storage media (Hard Disk) , then install the main components inside RAM (Temporary memory) , after this the computer be ready to receive commands and instructions from user .



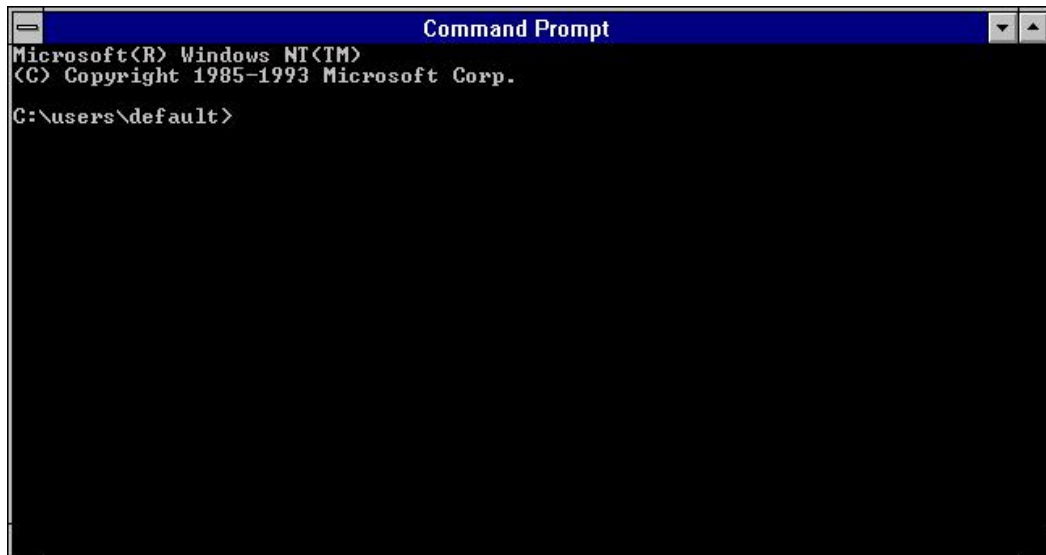
Operating System is responsible for:

- 1- Operating hardware
- 2- Software application
- 3- User can give orders to the operating system by command prompt or the Interface (GUI).

(A) Command prompt (cmd.exe) or Terminal:

-Command Prompt interacts with the user through a command-line interface.

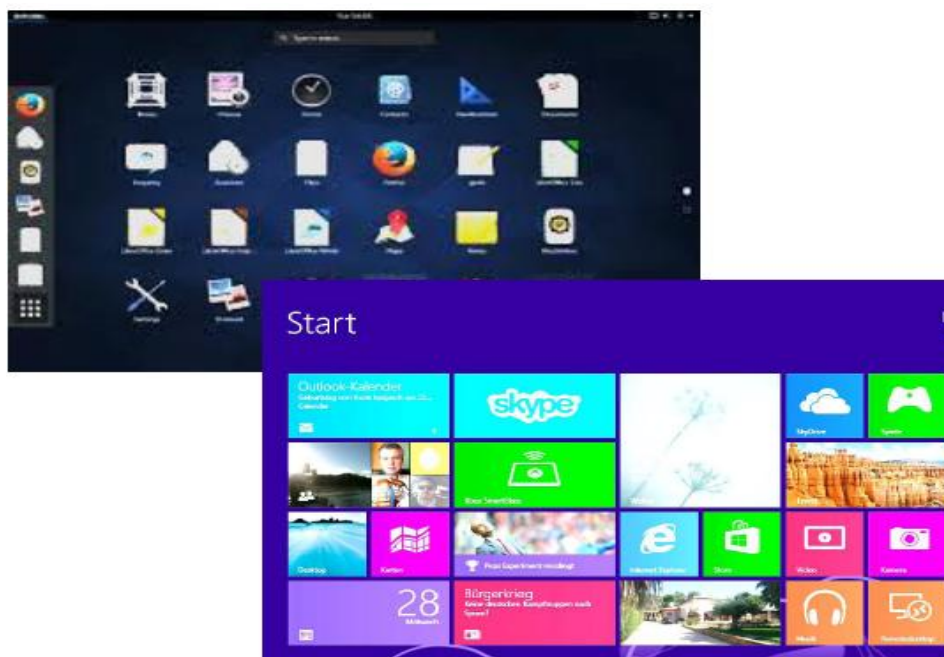
-Command Prompt is used to execute entered commands.



(B) Interface (GUI) Graphical User Interface:

is a type of user interface that allows users to interact with electronic devices through graphical icons and visual tools using input unit (mouse), what makes it more interested to use.

Examples:



Functions of Operating System:

- 1- Controls the storage units and peripherals such as scanners and printers .
- 2- Manage transaction of software with memory .
- 3- Transform data between different units and save it on storage media .
- 4- Security (Password – Access rights of users) .
- 5- Provide users with GUI to enable them to deal with the device .

Operating System Classifications :



Closed Source

MAC Operating system:

It is specified for apple devices , its GUI is attractive & easy for use .



Windows:

It is the famous operating system and wide spread .



Open Source

Linux:

Easy to use and users can edit and develop it



Android :

Operating systems for mobile phones may be open source or closed source . OS & applications are very important for users when they want to buy mobile phone .



Android is one of the open source operating systems used for mobiles and tablets .

GUI advantages:

- 1- Display programs in organized menus .
- 2- Opening more than one program at the same time .
- 3- Using Arabic Language & many languages .
- 4- Enable browser for internet .

Start screen of an operating system:

When switch on the computer, checkup is applied for main units Such as: RAM, Keyboard, Monitor and Hard Disk. This process made by an option called Power On Self-Test (POST) that found in ROM .

Power On Self-Test (POST):

The first thing that the BIOS does when it boots the PC is to perform what is called the Power-On Self-Test, or POST for short. The POST is a built-in diagnostic program that checks your hardware to ensure that everything is present and functioning properly. The POST runs very quickly, and you will normally not even notice that it is happening-- unless it finds a problem.



Common components among different types of operating systems (OSs):



Computer can contains more than one operating system; chose the required one when turning on the computer. All have common components .

- 1- Background
- 2- Icons
- 3- Bars

Work Sheet 2

Put () Or (×) :

- 1- We should install an operating system on the computer to be enabled to run different programs & applications . ()
- 2- User can give orders & instructions to an operating system using command prompt . ()
- 3- MAC is one of the open source operating system . ()
- 4- Android is an operating system & is open source . ()

Type the name of the operating system:



Lesson 3

Dealing with files & folders

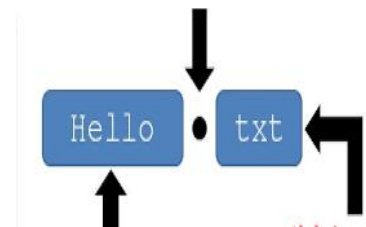
The most important features of the operating system is to control and manage files organized in folders and indexes. In order to keep your works on a permanent basis you must save inside the files on a storage media.

Note

All what we do in computer save inside RAM & when power turn off it lose all its content, so to save your works you should save it in files in one of the storage devices.

File is a set of data that is stored within the storage extensions and various media types, and user can handle either retrieve, modify, or delete them, or share them or print them ... etc.

- File name consists of two parts Main name & extension and separated from each other by dot (.).



The most file Types :

Video files : contain (sound clip , images) & we create it by recording video programs.



Image files : we create it using painting programs & it has many extensions different according to accuracy, clarity and size of the image.



Text files : there are a lot of programs that we use in writing texts such as (libre office – Ms office).



System Files : it is special for operating system and the devices connected to the computer that we shouldn't delete it because it will damage the operating system.



Create & save file:

- **Create file :**

- 1- Open one of the writing texts program.

- 2- Write any text.

- **Save file : (Ctrl+S)**

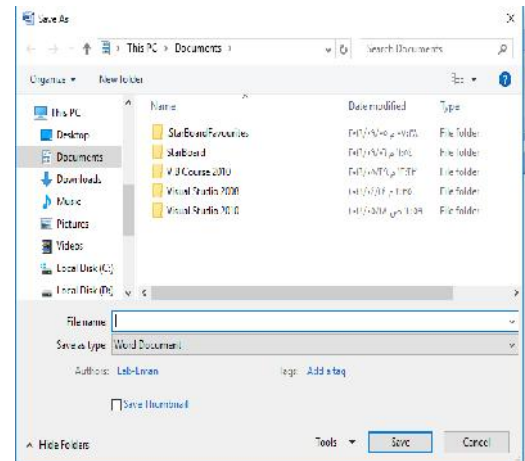
- 1- Open file menu.

- 2- Choose save as then,

- Write the file name.

- Select where you want to save.

- Press save button.

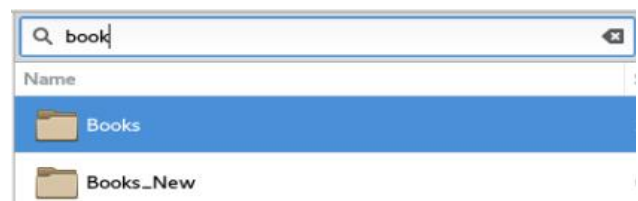
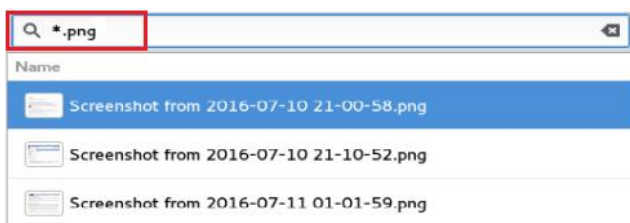


Search for file:

- 1- Search by name.

- 2- Search using the file extension.

Or Ctrl+F



Folder Definition:

Folder contains files or sub-folders, the folder properties can be identified by its size, the number of elements, the contents of files and folders, we can deal with folder by (Copy- Cut – Rename – Delete).



Create folder :

- 1- Right click in the place where we want to create folder.
- 2- Select new folder.
- 3- Write the folder name.
- 4- Press create.



Or ctrl+shift+N

Copy & cut folder :

Cut folder:

Move folder from its place to another place.



Copy folder:

Repeat the same folder in the same storage place or in other place.

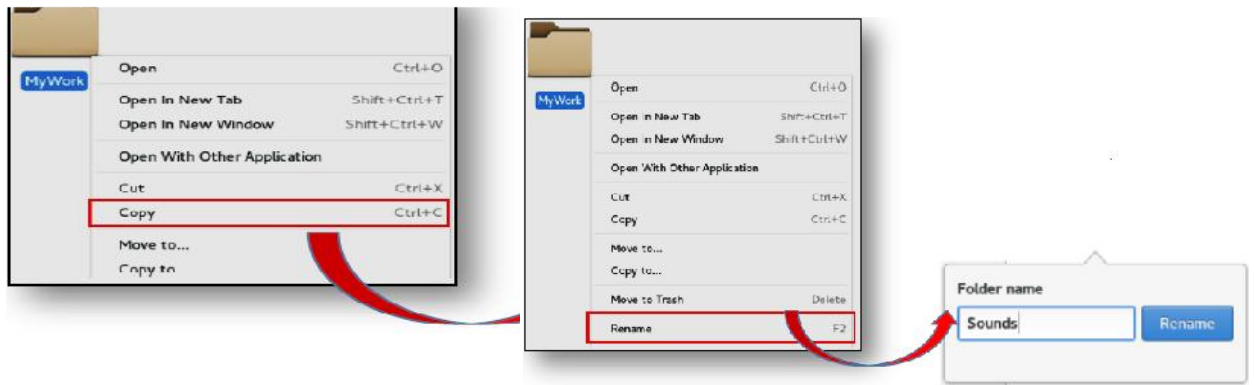


Copy or cut folder steps:

- 1- Right click on the folder.
- 2- Select copy or cut.
- 3- Move to other place.
- 4- Right click there and select paste.

Or (Ctrl+C) for copy & (Ctrl+X) for cut

& (Ctrl+V) for paste

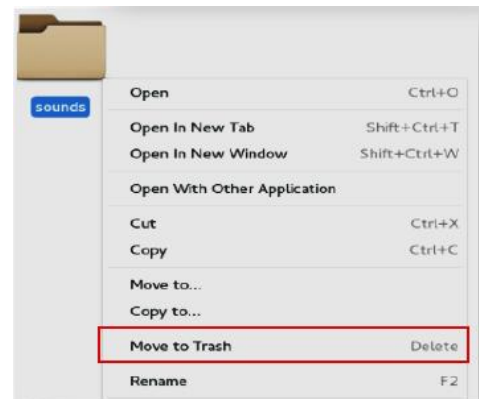


Rename folder:

- 1- Right click on the folder.
- 2- Choose Rename.
- 3- Write the new name.
- 4- Press Rename button.

"Delete" file or folder:

- 1- Right click on the file Or folder
- 2- Select "Delete"
- 3- Press Ok

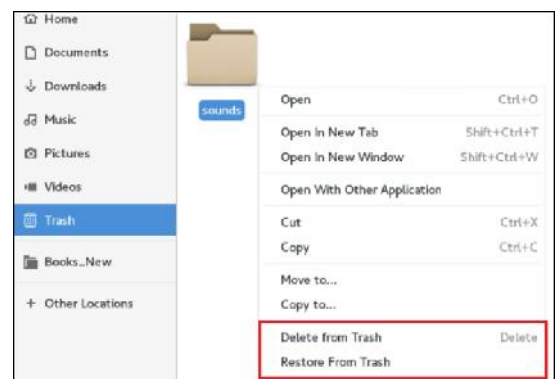


Restore the deleted files or folders:

- 1- Go to recycle bin
- 2- Right click on the file
- 3- Select "Restore"

Delete the file completely:

- 1- Go to recycle bin
- 2- Right click on the file
- 3- Select "Delete"



Or choose "Empty recycle Bin" from Recycle Bin tasks.

Work Sheet 3

Put () or(X)

1. We can identify the type of files through the file format icon or extension. ()
2. We can temporary delete file or folder in the Recycle Bin & restore it again. ()
3. cut / paste the folder means the process repeated for a backup copy of it, both in the same storage media or other storage. ()
4. Files can be saved by using the shortcut keys Shift + S. ()

Type the scientific name:

- 1- Files special for operating system and the devices connected to the computer that we shouldn't delete it because it will damage the operating system.

.....

- 2- Contains files or sub-folders, the folder properties.

.....

- 3- Is a set of data that is store in one of the storage devices with various extensions.

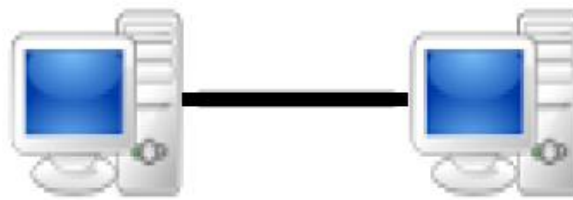
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Lesson 4

Computer Networks

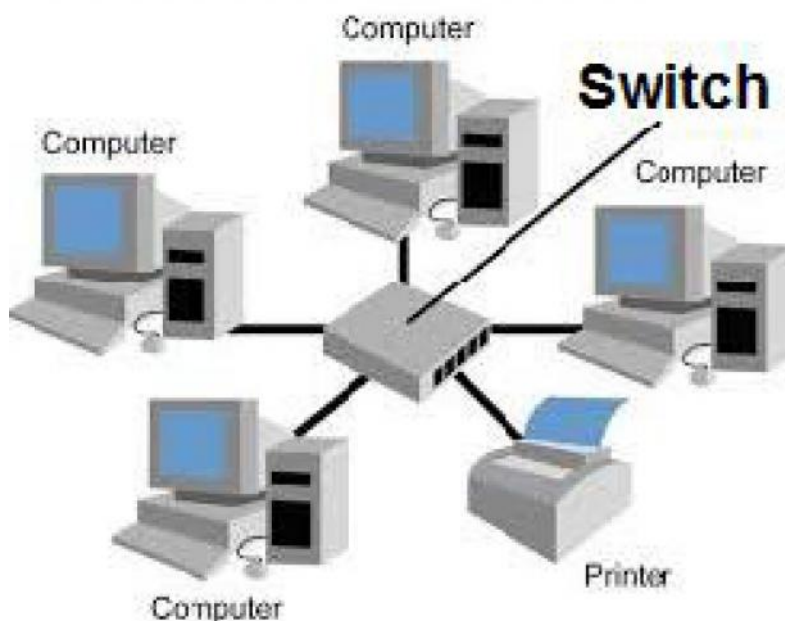
Computer network definition and its importance:

Is to connect two or more devices through a mediator wired or wireless to participate in the data and devices.



The most important benefits of computer network:

- Sharing Programs and data between network devices.
- Share some of hardware components such as (printer – scanner -).
- Centralized data (for example: there is a main bank branch has one computer saved in it data base of customer accounts and connected to computers in other bank branches to update data base from any bank branches).

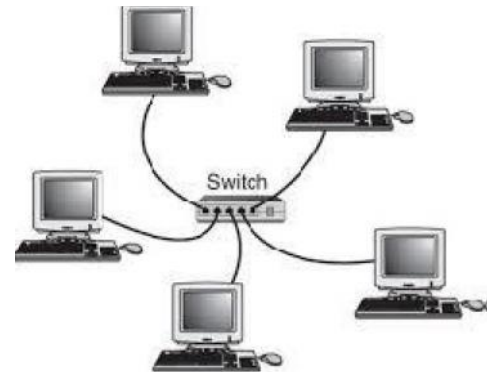


Types of computer networks in terms of range:

- Local Area Network (LAN)
- Wide Area Network (WAN)

Local Area Network (LAN):

Network is limited space inside a building or several neighbor buildings and used in small businesses, schools, universities or inside the house.



Wide Area Network (WAN):

Used to connect devices that are separated by a great distances, such as cities or countries, and the Internet consider a special type of large-scale networks.

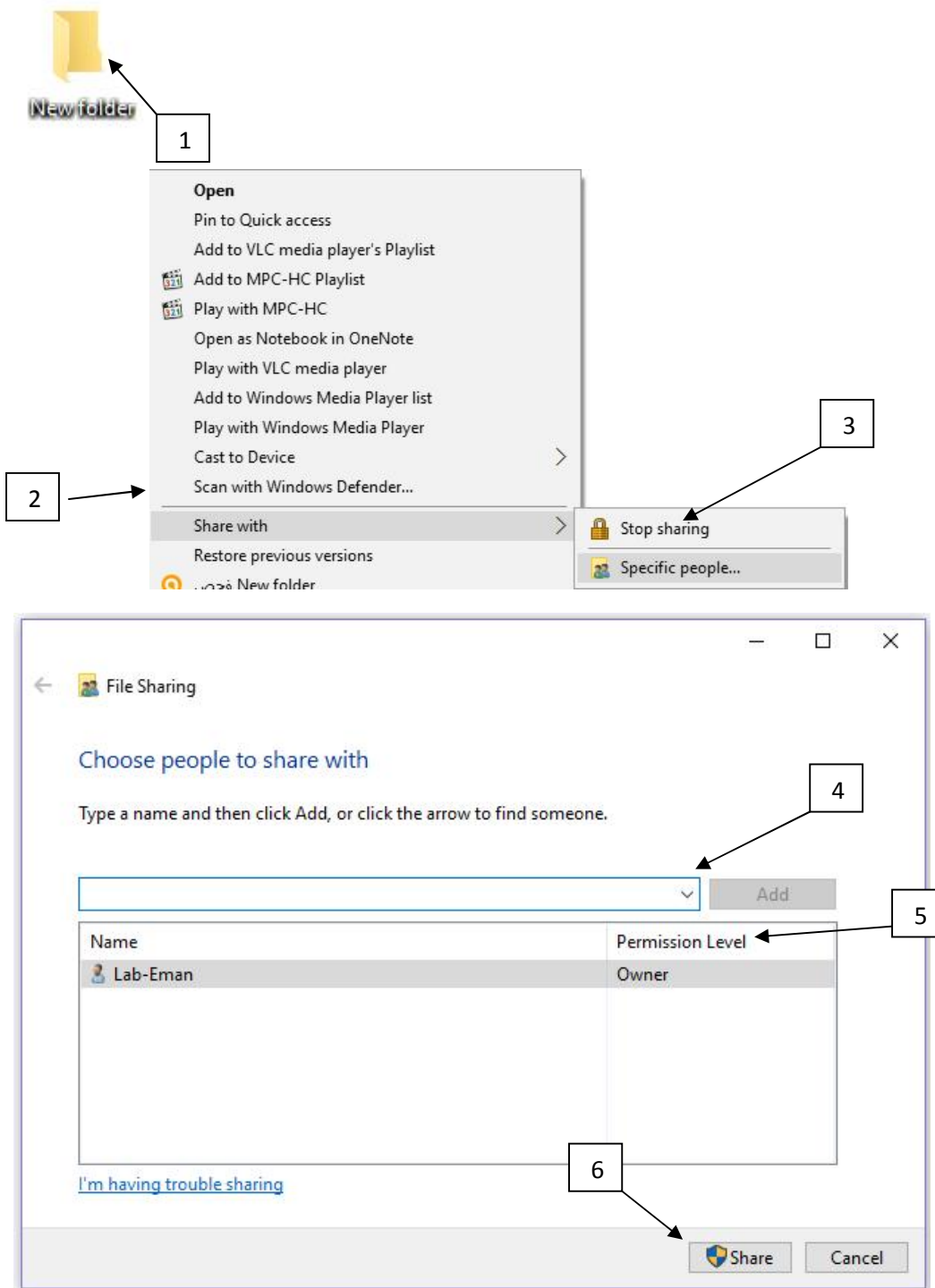


File sharing:

Sharing files is the process of sharing stored information, such as multimedia computer programs, documents and e-books mean allow them access through computer networks where they are sharing files, as well as hardware components such as a printer between network devices.

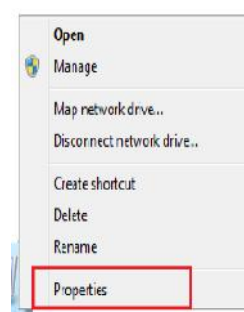
Share files in the Windows operating system:

1. Select the file or folder
2. Select share with
3. Select specific people (dialogue box appears)
4. Select people to share with
5. Select "permission level" (to read or write file).
6. Click " Share"



To know your computer name:

1. Right Click on my computer icon
2. Select properties

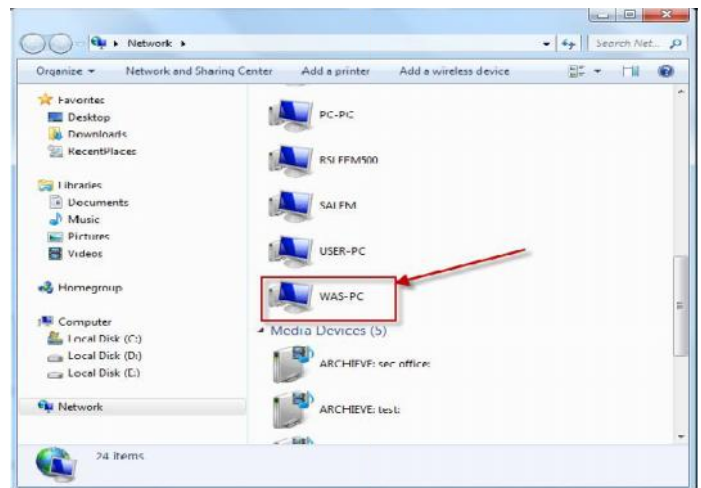


Computer name, domain, and workgroup settings:

Computer name	WAS-PC
Full computer name	WAS-PC
Computer description	
Workgroup	WORKGROUP

Get to your colleagues folders inside the network:

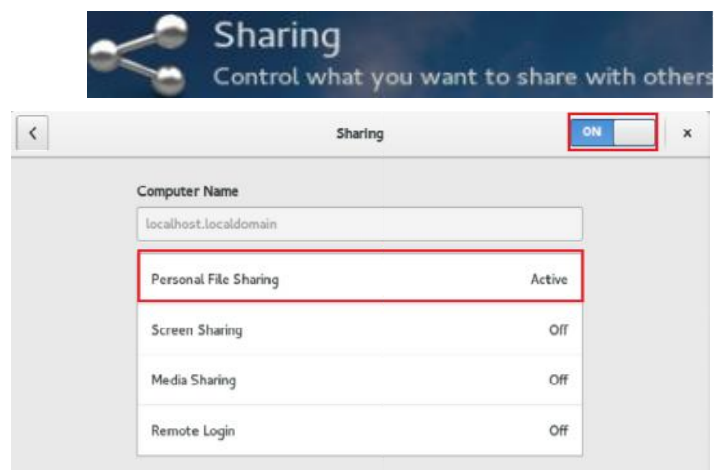
Open "network icon" on desk top



Search for the device that we want to reach to it through its name and double click on it to open, then we will find all folders that we share.

Share files in Fedora operating system:

1. Click on "Activities" That appear in the top bar of the Fedora interface.
2. Write in search box "Sharing".
3. Click on sharing icon.
4. Change the sharing from "Off" to "ON".
5. Set "Personal file sharing" to "ON".



So other users in the same network can access your device through its name, then reach to the public folder through their devices.

Note

We can know the name of the device from settings, then details.



Work Sheet 4

Put () or (X) :

- 1- Connect devices to each other inside the computer network just gives the possibility to sharing data only. ()
- 2- The Internet Consider a special type of WAN term. ()
- 3- Wide range network use different ways than the local network to achieve communication. ()
- 4- When you share folders, your device should connect to the network to enable other users to reach them. ()
- 5- In the operating system (Windows) to share files you don't need to place it inside a folder. ()
- 6-locate the user "everyone" when you share folder in the operating system (Windows) means to allow all users to share the folder. ()
- 7-We used Computer to access folders that we made sharing for it in operating system "windows". ()
- 8- Can perform file-sharing in the operating system Fedora by allowing network users access to the folder. ()
- 9- As the processes of sharing files become available in operating system "Fedora" we should adjust setting to (Off). ()

Complete:

{Files - Space - Data - User - Name -Search - Hardware components}

- 1- Most important benefits of the network, centralized.....
- 2 -LAN network is limited in.....
- 3- Share..... Is the process of sharing information that stored.
- 4 -Can search for the desired device to reach it inside the network by.....

5-.....can access your files that you share by accessing your public folder.

6-we write "sharing" in to reach to sharing icon.

Re-arrange: To share files in Fedora operating system

- () write in search box "Sharing"
- () click on "Activities"
- () set "Personal files sharing" to ON
- () change the sharing from Off to "ON"

To share files in Windows operating system

- () select "Permission level"
- () select share with
- () select the file or folder
- () select people to share with
- () click share
- () select specific people

Lesson 5

Image Processing Program

Image processing software programs are used to help edit and create images of various graphic designs, and enable the user to edit photographs, graphics, and there are many of those programs, including a closed-source software and open source software.



Closed-source software

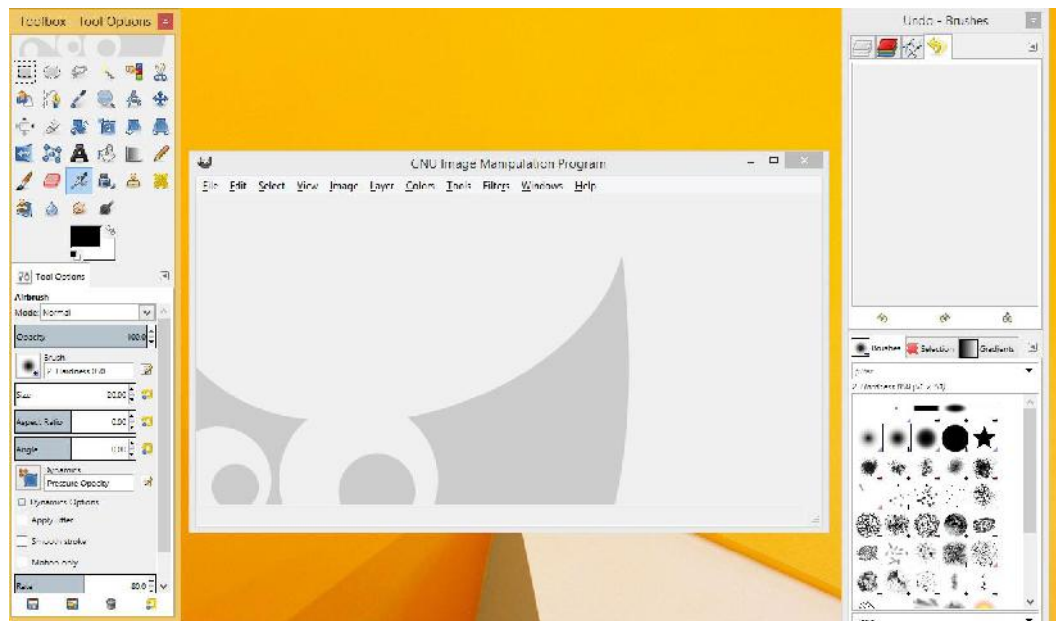


Open source software

GIMP is an open source program that allows creating and processing images.

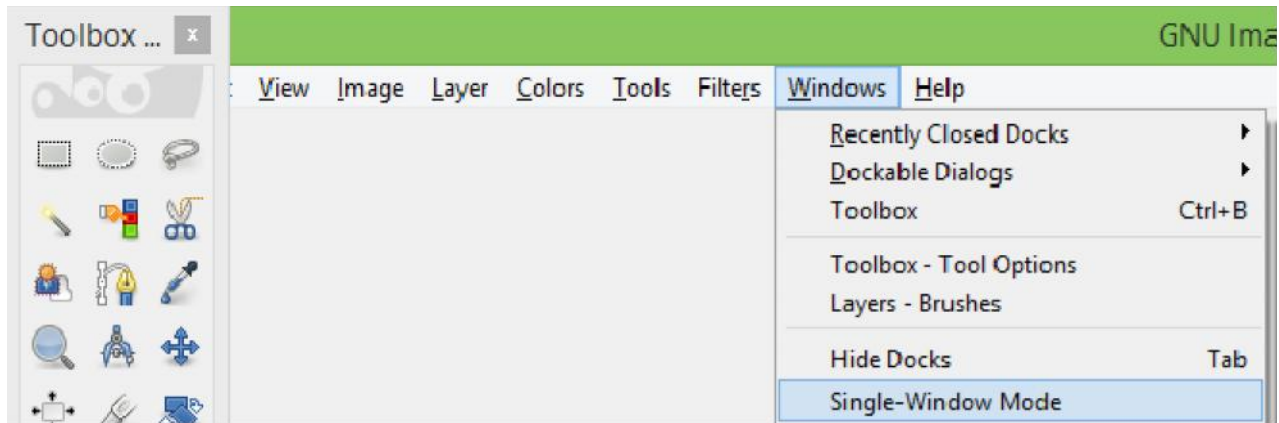
The GIMP user interface is available in two modes:

- Multi-window mode
- Single window mode

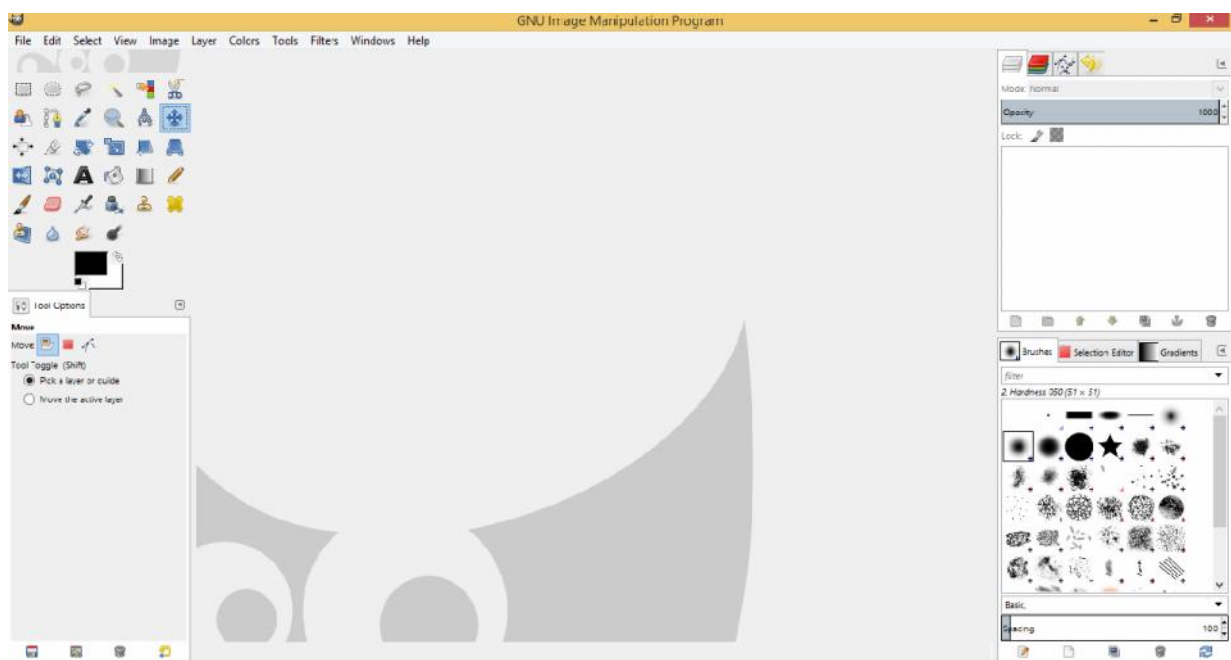


When you open GIMP for the first time, it opens in multi-window mode by default.

You can enable single-window mode through Windows >Single-Window Mode) from the image menu bar for easy use.

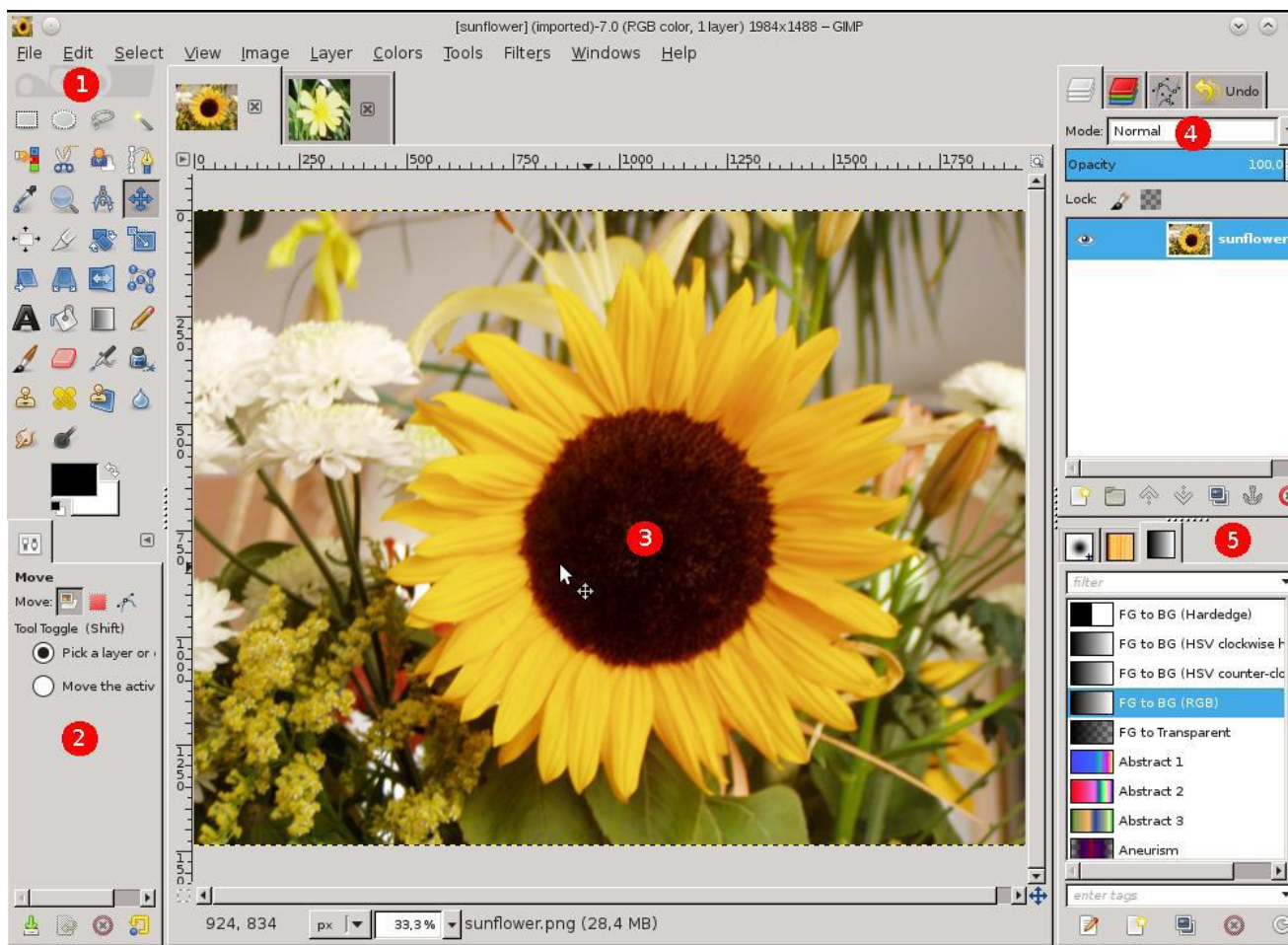


It will appear as in figure:



After quitting GIMP with this option, GIMP will start in single-window mode next time.

Knowing GUI components in GIMP program:



1- The Main Toolbox:

Contain a set of tools such as selection tools . tools of foreground and background colors.

2- Tool options dock:

Appear below the main Toolbox is a Tool Options dialog, showing options for the currently selected tool (in this case, the Move tool.

3- Image windows:

Each image open in GIMP is displayed in a separate window. Many images can be open at the same time, limited by only the system

resources. Before you can do anything useful in GIMP, you need to have at least one image window open.

4- The layers, channels, paths, undo history dock:

Contain layers window .

5- Brushes/Patterns/Gradients:

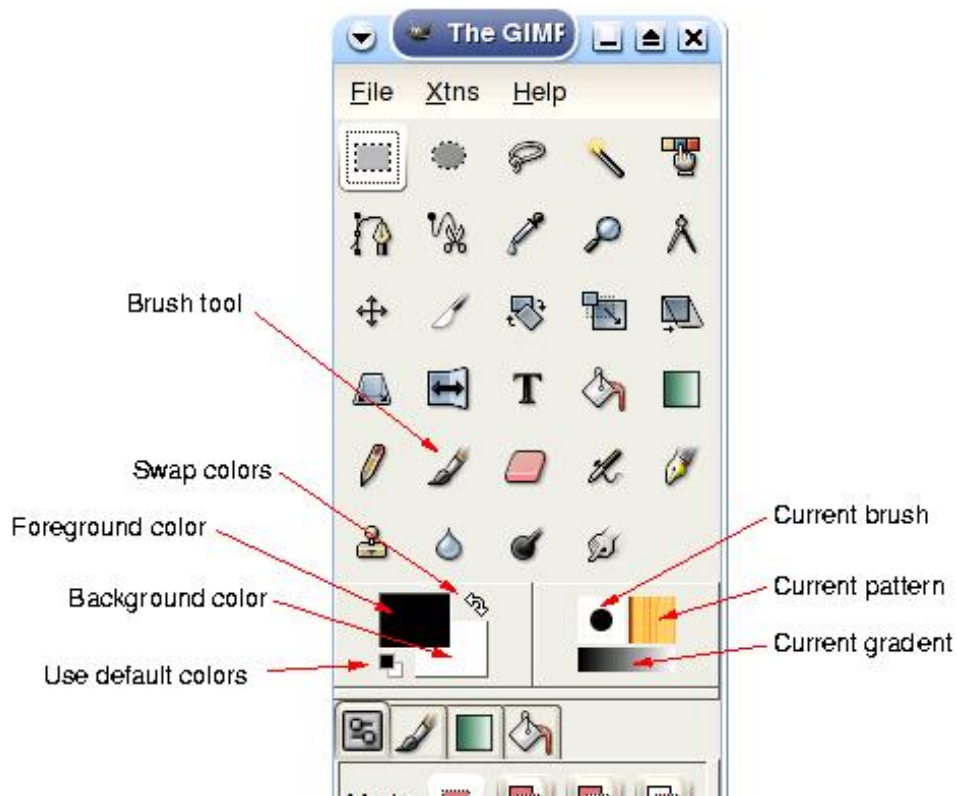
The docked dialog below the layer dialog shows the dialogs (tabs) for managing brushes, patterns and gradients.

Note

If your GIMP layout is lost, your arrangement is easy to recover using Windows → Recently Closed Docks, the Windows menu command is only available while an image is open.

To add, close or detach a tab from a dock, click in the upper right corner of a dialog. This opens the Tab menu. Select Add Tab, Close Tab, or Detach Tab.

F1 enable us to open help of the program .



Rectangular Select

Free-Hand Select

Select by Color

Foreground Select

Color Picker

Measure

Alignment

Rotate

Shear

Flip

Fill

Pencil

Eraser

Ink

Healing

Blur/Sharpen

Burn/Dodge



Elliptical Select

Fuzzy Select

Intelligent Select

Path

Zoom

Move

Crop

Resize

Perspective

Text

Gradient

Brush

Airbrush

Clone

Perspective Clone

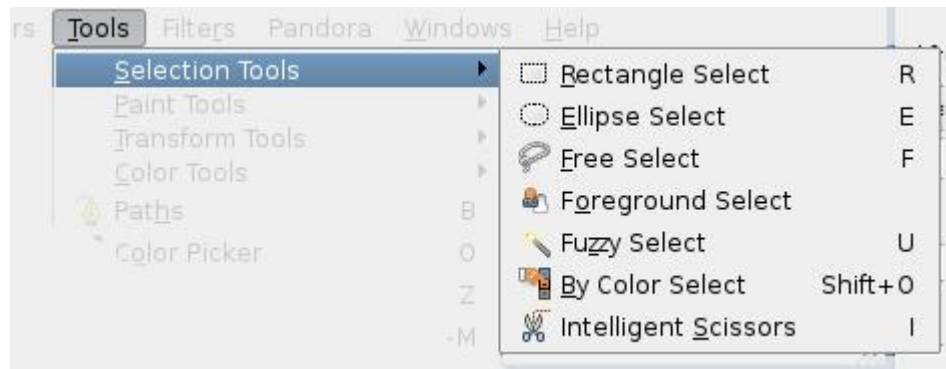
Smudge

Color Palette

Selection tools

To determine the portion of the image to deal with it (copy - Cut - Paste - change color... etc

We can open selection tools from the main toolbox or from tools menu, then choose selection tool you want.



Rectangle tool

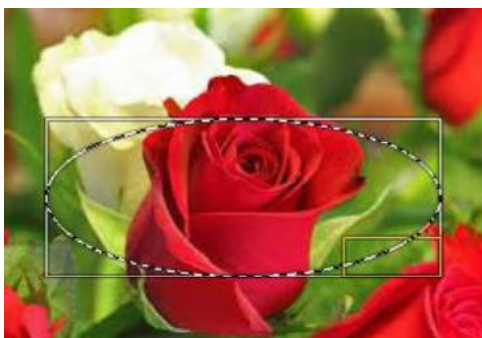


When we select area and draw any thing we notice that our drawing appear only in the selection area .

To end selection from select menu, choose None or from keyboard (Shift + Ctrl + A) .

Ellipse Select

Used to determine the elliptical part



Free Selection (Lasso)

Used to cut or determine the irregular part free way.



Magic Wand tool or Fuzzy Selection

Used to identify areas of similar color image



Intelligent Scissors

This tool is useful when trying to select a specific area or strong color area, So colors change at the edges of that region in a clear manner.

They use that tool make points by clicking and dragging around the area with a special color than others.





Notes

GIMP : is an open source program for creating & processing images.

When we open GIMP program for the first time, it open in multi-Window mode & user can change it to Single-window mode from

Window Single–window mode .

GUI of GIMP consists of :

The main toolbox – Tool Option dock – Image windows – The "layers, channels, paths, undo history dock" – "brushes, patterns, gradients dock.

Selection Tools :

Rectangle – Ellipse – Free selection (lasso) – Fuzzy or Magic wand tool – Intelligent Scissors .

Work Sheet 5

Put () or (X)

1. When you open GIMP for the first time, it opens in multi-window mode by default ()
2. To open "Help" program press "F5" from keyboard ()
3. Use selection tools free select "lasso" of the image ()
4. " Pencil Tool "is from selection tools ()
5. Use Ellipse Select to select Elliptical part of the image ()

Complete :

- 1- To cancel selection we choose
- 2- Free selection (Lasso) used to select
- 3- Fuzzy selection or Magic wand tool used to select
- 4- Intelligent scissors used to select

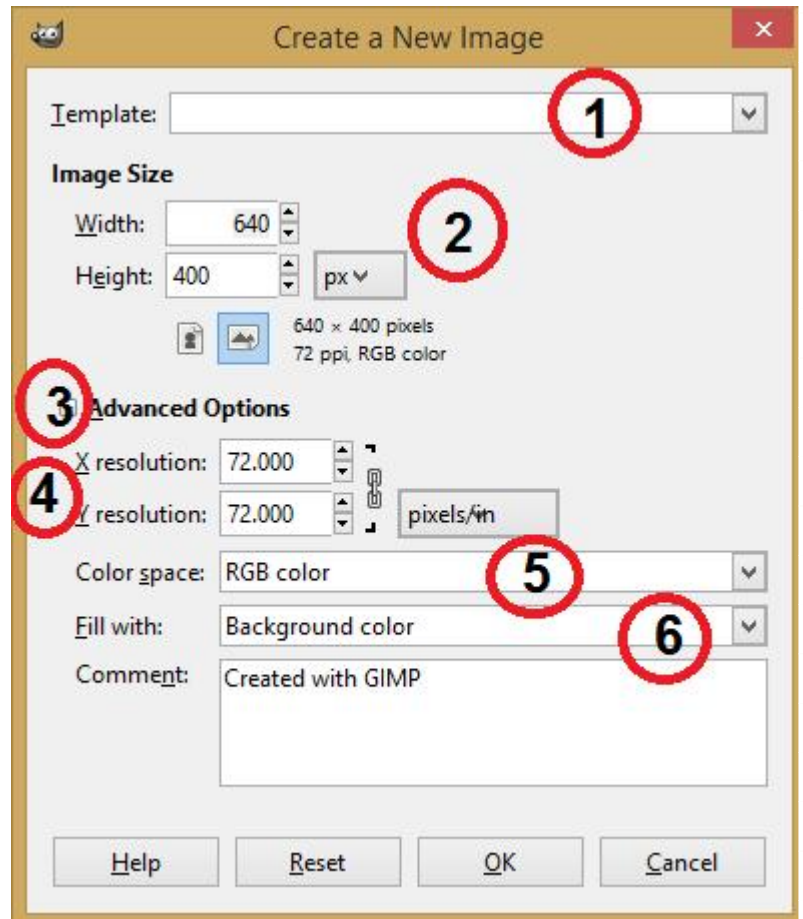
Lesson 6

Creat & Design New Drawings

To create new image:

Open "File" Menu, then Select "New"

1. "Templates ": prepared pattern For (Dimensions and image resolution).
2. "Image size" to Identifying new image dimensions (Width and height)
3. Advanced option: when we press + appear many other options.
4. "X , Y resolution" to select the good resolution for the image when printing (it doesn't effect the image dimensions)
5. Color Space : to select RGB color that use color system (red – green – blue) or grayscale color that is (black and white) and gradients between them.
6. Fill with: used to select foreground or background color that appear in the toolbox (white – transparency).

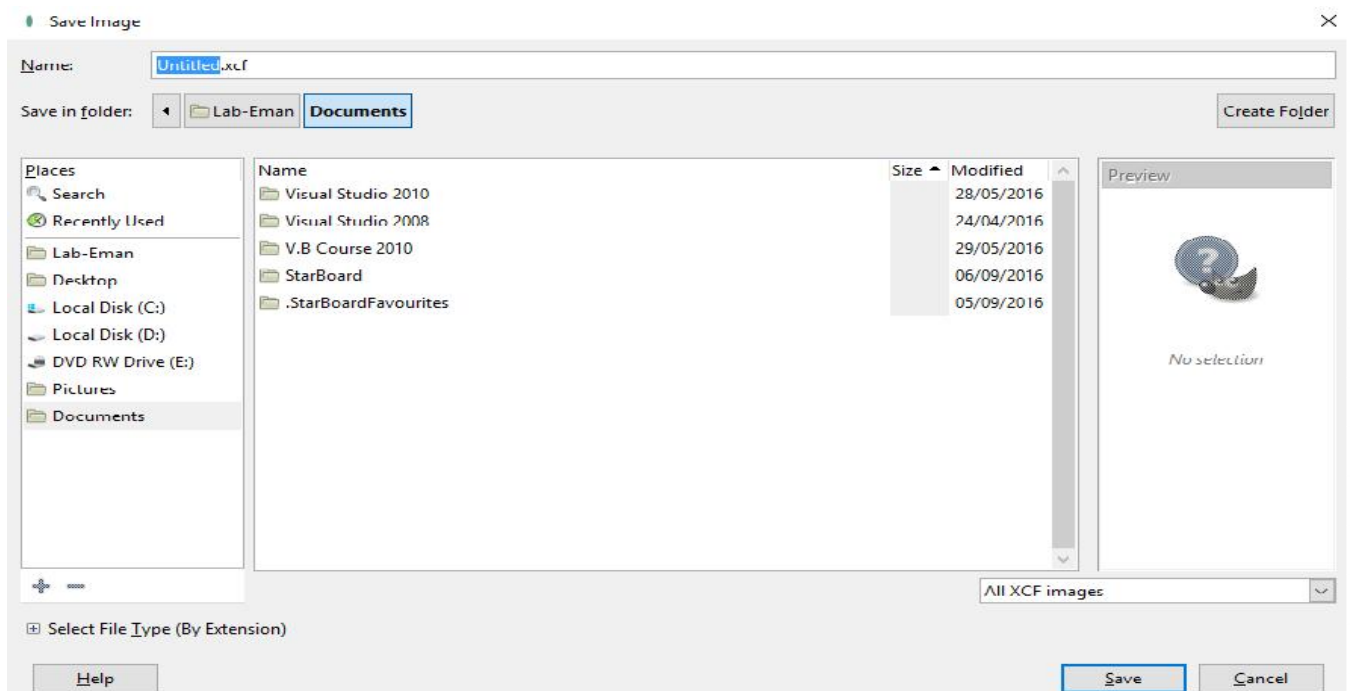


To save image:

- 1- Open "File" menu
- 2- Select "Save"
- 3- Write the name of image
- 4- Select the location from " Save in folder"
- 5- Press "Save"

Note

When you save the image file by command (Save) from the File menu Gimp extension (xcf) program is given to the image file to save all information about the image (layers).

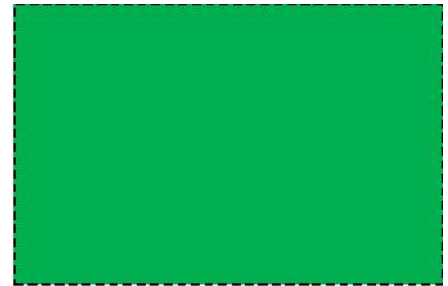
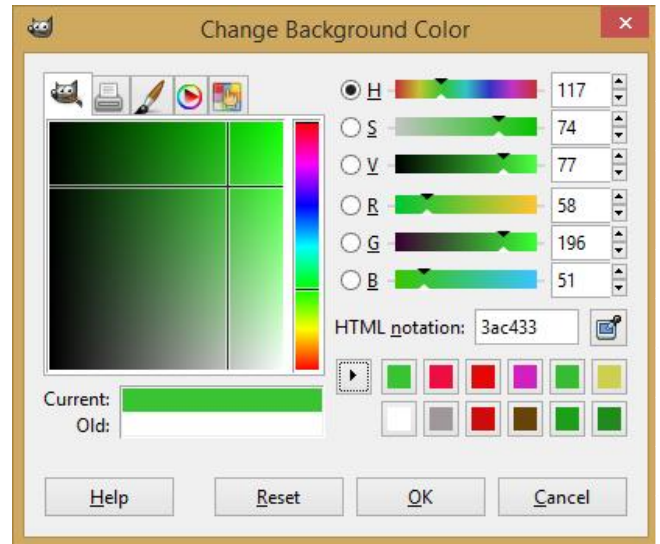


Activity

Create a new image with the dimensions 600x800 that are filled "Background"

The steps:

- 1- Select background color from toolbox
- 2- The dialogue box "change background color" appears
- 3- Click and drag to change color
- 4- (Current) it is background color
- 5- Press "Ok"
- 6- From "file "menu select "New"
- 7- From "template" select 600X800
- 8- From "Fill with" select "Background color"
- 9- Press "Ok"

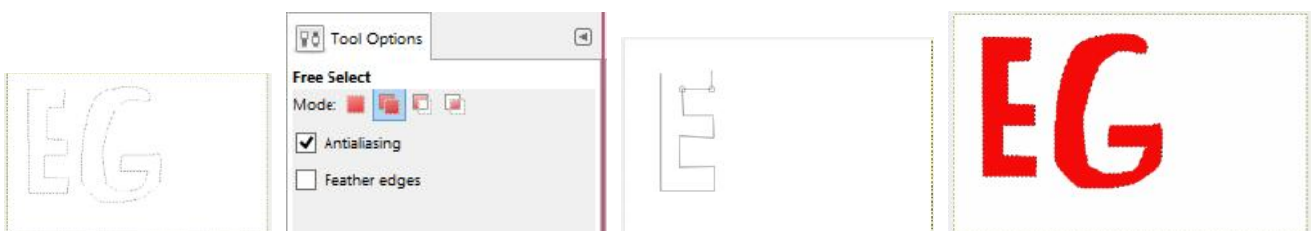


Activity



Try to draw this

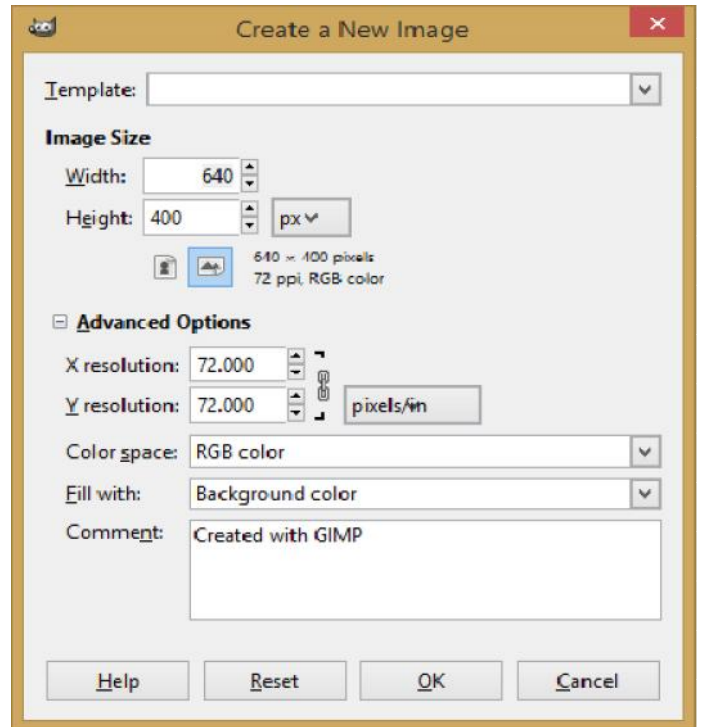
- 1- Create new file, then choose New
- 2- Select Lasso tool for drawing
- 3- To draw E click and drag with the tool until you finish and so on in G
- 4- To save the previous selection of E, select Add to current select from lasso tool option
- 5- Select bucket fill tool inside the selection to determine the front color



Work Sheet 6

To create a new image follows the steps:

1.
2.
3.
4.
5.
6.



Complete :

- 1- When we save file Gimp program give the image extension

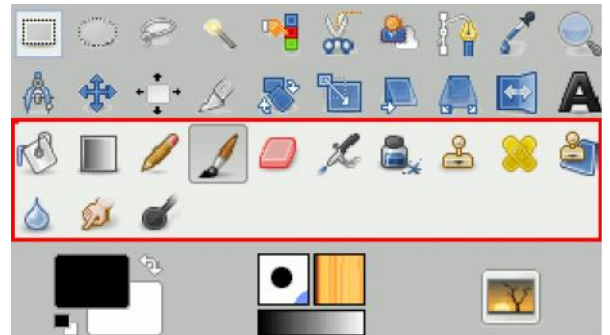
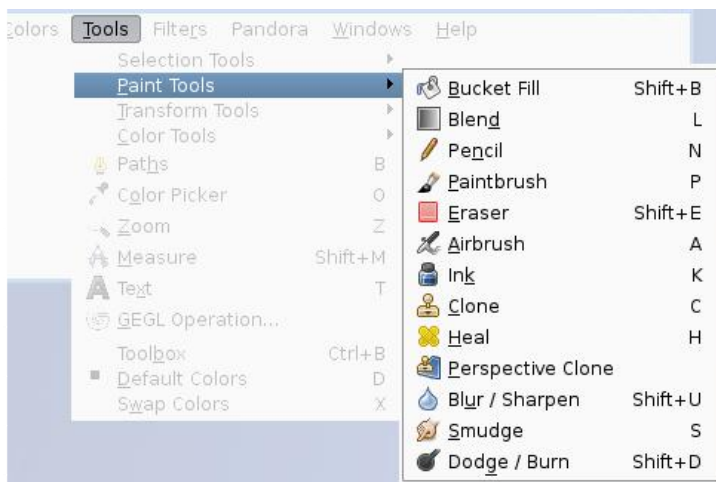
Put () or (×) :

- 1- X , Y Resolution used to select image resolution and it affect on the image dimension. ()
- 2- GIMP is a closed source program. ()

Lesson 1

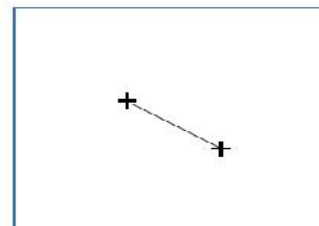
Painting, Transform & Sizing tools

Drawing tools are used for different purposes, such as free-hand drawing To work gradient, to mix this color with the surrounding colors, to copy part of the picture to other place at the same image...



Pencil Tool Used for free hand draw.

Blend tool Used to make a gradient color for the front or the back color.



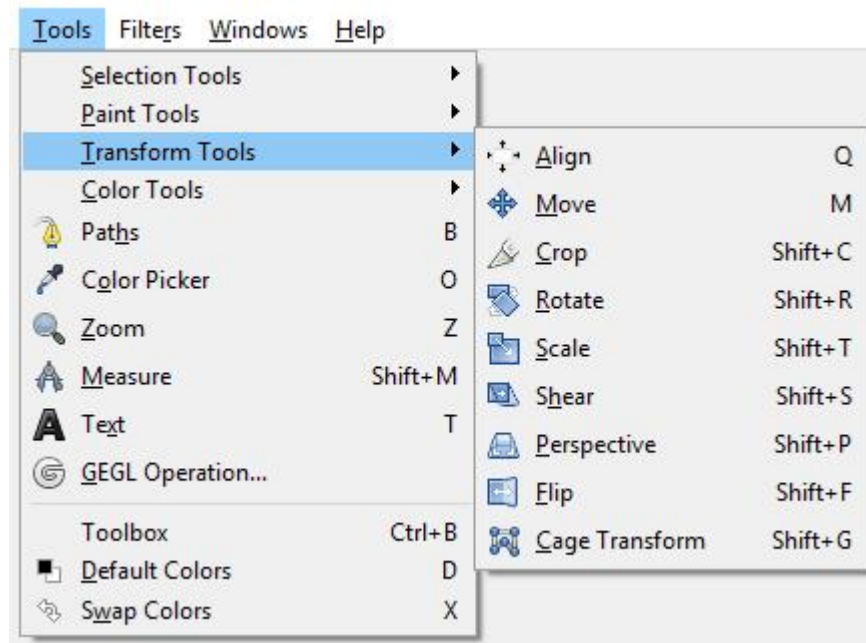
Smudge Used to mix this color with the colors around it



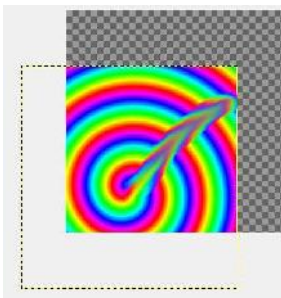
Clone tool (Stamp) Used to copy part of the image in other place (in the same image layer).

Transform tool

Transform tools used to change the image shape by transporting, sizing, changing the dimensions of the image, and can be accessed from the Tools menu, or through the toolbox, and there are more than a tool for each function and method of use.



Move tools Used to move the image, or layers, selection, or text



Crop tools Used to cut part of the image.



Rotate tools Used to rotate the image (change its direction).



Flip tools Used to make vertical Flip or horizontal Flip for the image.



Scale tools Used to change the image height and width.



Note

- To move selection area press (CTRL + ALT), continue pressing and move we will find that the selected area move with us.

Work Sheet 7

Put () or (×) :

1. Pencil Tool used to make free hand selection ()
2. Smudge used to copy part of the image to other place (in the same image layer). ()
3. Blend tool is one of the selection tools. ()
4. Clone tool used to mix current color with the surrounding colors in the area where we move the tool. ()
5. Eraser used to remove color area from the image. ()
5. Crop tool used to rotate the image. ()
6. Flip tools used to change image width & height of the image. ()
7. We move the selection by pressing the (CTRL+SHIFT). ()
8. Scale tool used to make vertical or horizontal reflection. ()
9. Move tool used to move the image or layers, selection, or text. ()

Re-Arrange steps to use scale tool :

- () Open image file.
- () Press & drag to any image corner to change its (width & height).
- () Press with tool on the image , so it appear a window to select image (width & height).
- () Press enter from keyboard after ending from image (width & height).
- () Select scale tool.

Lesson 8

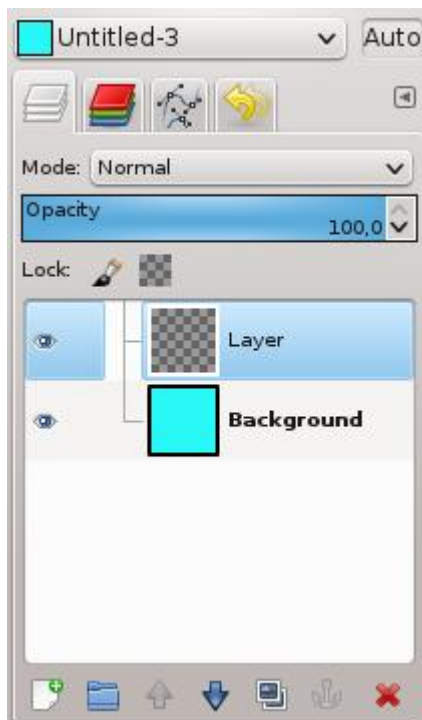
Image layers & Filters

Image layers used to edit and add and control the various image layers.

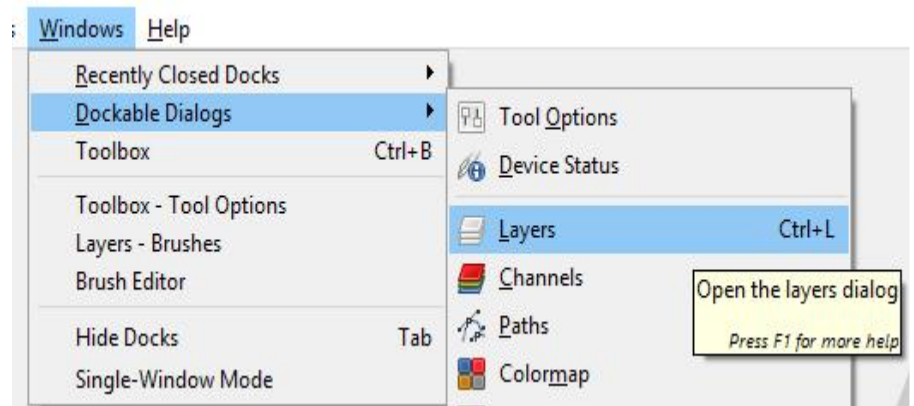
Layers help us to put contents & details for different images.

We put each detail in a layer to enable us to edit or process this part of image only (delete – Rotate – Selection) without effecting on other parts of the image.

The first layer represents background.

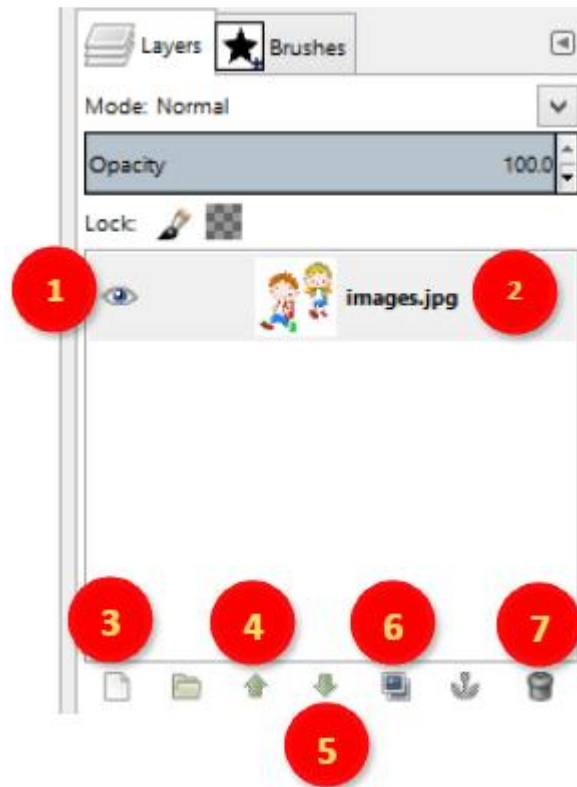


To open layers dialog



The image that contain many layer For example:





- 1- **Layer visibility:** to make visible layer.
- 2- **Layer thumbnails:** mini shape of the layer & show beside it the layer name (can be changed by clicking on it).
- 3- **New layer** to add a new layer.
- 4- **Raise layer** to move to a higher layer.
- 6- **Lower layer** to move to the bottom layer.
- 7- **Duplicate layer** to copy the current layer.
- 8- **Delete layer** to delete the current layer.

Text Tool:

We can insert text using this tool. When we use this tool the text appear in new layer automatically.

We can select this text and change its font, color & type of font.

To move the text we select its layer to be the current layer and then use move tool, press on the text and drag it so it will move.

To export file with a suitable extension (GIF or JPG Or.....):

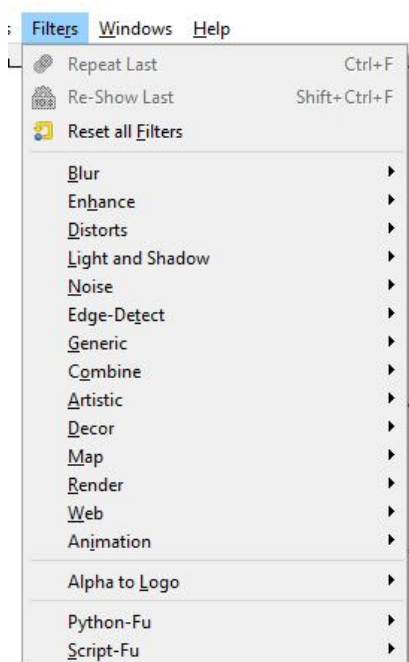
- 1- Be sure that all layers are visible.
- 2- Combine all layers to become one layer from image menu, then select Flatten image.
- 3- From "File" menu select "Export" and select appropriate extension and file name.

Filters:

Filter is a special kind of tool designed to take an input layer or image, apply a mathematical algorithm to it, and return the input layer or image in a modified format. GIMP uses filters to achieve a variety of effects and those effects are discussed here.

- Filter used to help in modifying any image.
- When applying "Filter" may be it add a new layer of the image or create a new image file.
- Use the filter from "Filter" menu and then select the appropriate filter.

To open "Filter" menu:



1- Blur Filter:

Filters → Blur → Blur



2- Emboss Filter:

Filters → Distorts → Emboss



3- Page Curl Filter:

Filters → Distorts → Page Curl.



4- Supernova Filter:

Filters → Light and Shadow → Supernova



5- Film Filter:

Filters → Combine → Film.



6- Weave Filter:

Filters → Artistic → Weave...



7- Old Photo Filter:

Filters → Decor → Old Photo



8- Map Object Filter:

Filters → Map → Map Object.



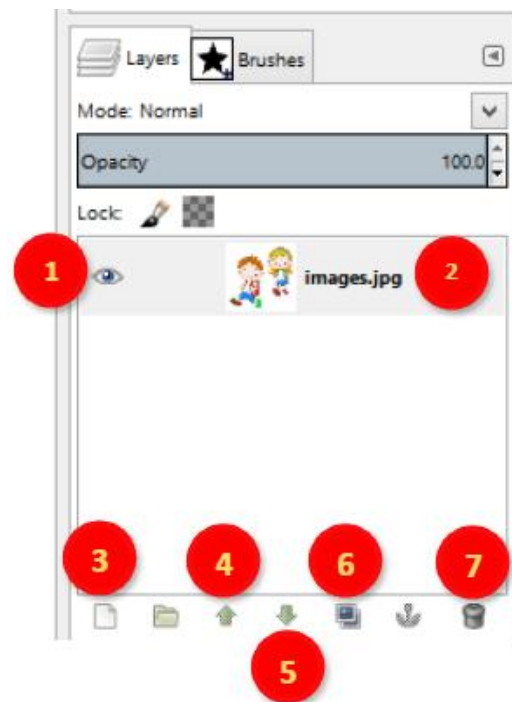
Work Sheet 8

Re-arrange the steps to export file to file with appropriate extension:

- () The integration of all classes, to become one layer of an image menu.
- () From "File" menu select "Export" and select appropriate extension and file name.
- () Ensure that all visible layers.

Complete :

- 1-
- 2-
- 3-
- 4-
- 5-
- 6-
- 7-



Put () or (x):

- 1. The filter is used for help appearance of the picture ()
- 2. To use the filter select "tools "menu ()
- 3. When applying "Filter" may be added a new layer of the image or create a new image file. ()

Complete:

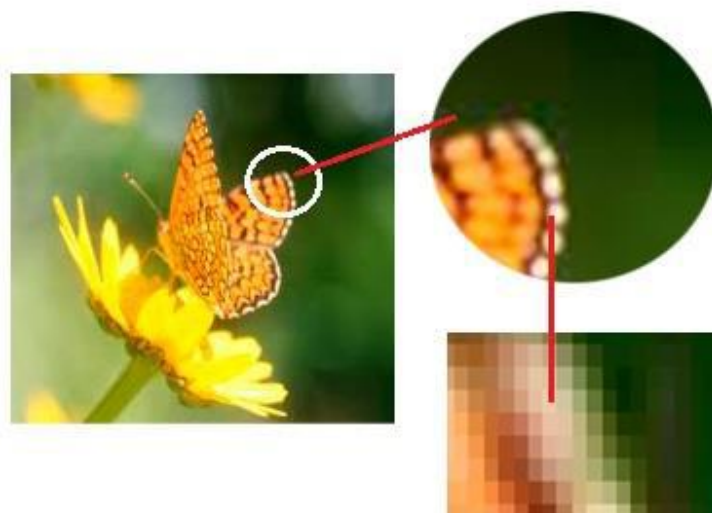
In old photo filter properties window, when we select work on copy this mean that

Lesson 9

Image Types

Type of image:

1. Raster Image: Consists of pixels & every image contain rows & columns, when number of pixels increase, the image will be more clear but its storage size is large. The image resolution changes when zooming in or zooming out.



2. Vector Image: Its more perfect because it doesn't change resolution of the image when zooming in or zooming out and its storage size is small.



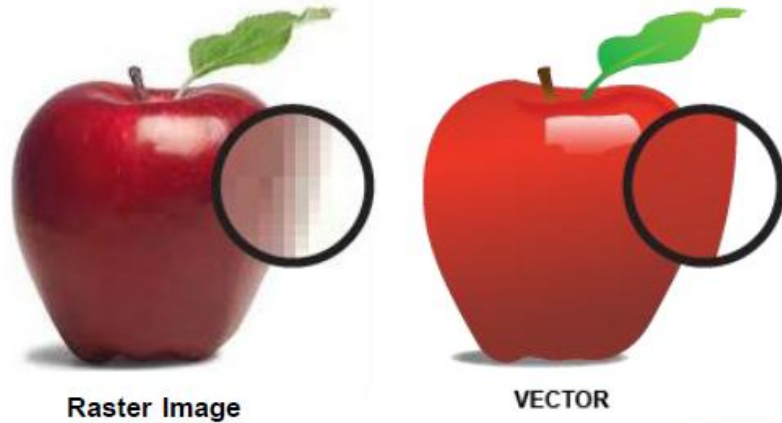


Image Mode: There are three conditions for the color of the image as follows:

1. RGB mode:

Consists of the primary colors (red - green - blue) when mixed together with different degrees of mitigation, lighting & intensity to give each of these colors 256 color degree.

2. Grayscale mode:

We can convert RGB mode to grayscale mode by selecting grayscale from image menu.

When we convert it from RGB to Gray mode we can't return it to RGB mode again.

3. Indexed mode:

We convert image to indexed mode by selecting indexed from image menu.



Work Sheet 9

Put () or (×):

- 1- Vector image changing quality and resolution of the image when zooming in and zooming out. ()
- 2- Raster image is special because it doesn't change the quality & resolution of the image when zooming in & zooming out. ()
- 3- There are only one mode for the image. ()
- 4- RGB mode is more suitable when displaying images & drawings on computer monitor. ()
- 5- RGB consists of main colors (Red, Green and black). ()
- 6- We can convert image to Gray color using grayscale mode. ()
- 7- We can convert image from RGB mode to Grayscale mode that image lose its color. ()
- 8- To enable other programs to read image file, we should export it using save from file menu. ()
- 9- From disadvantage of vector image, its storage space is large. ()

Choose the correct answer:

1- Consists of the main colors (red - green - blue).....

A- Grayscale mode

B- Indexed mode

C- RGB mode

D- Raster Image

2- The types of image are

A- RGB mode

B- Raster Image and Vector Image

C- Grayscale mode

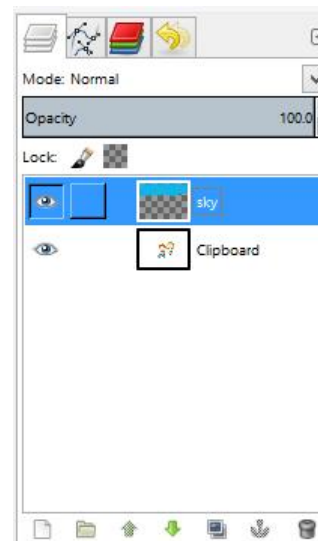
D- Indexed mode

Project

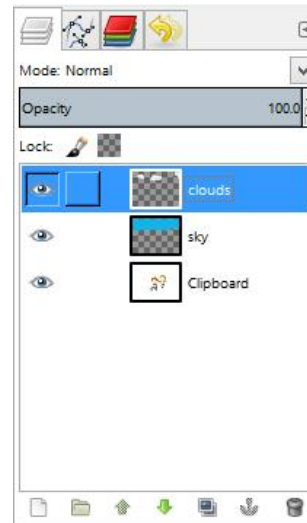
Design this drawing & save it with a suitable extension :



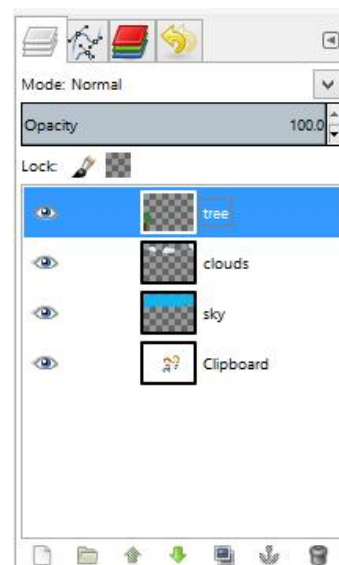
- 1- Open child photo file from image folder.
- 2- Add new layer called sky, use paint brush & change front color to draw the sky.



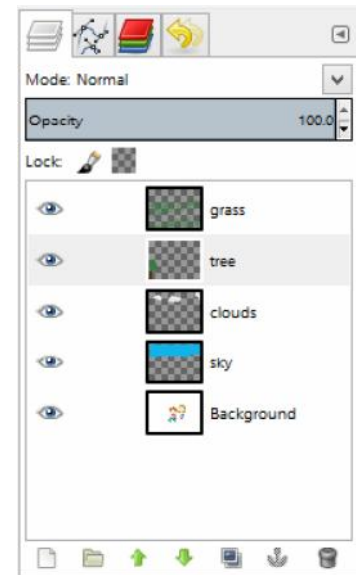
- 3- Add new layer called clouds, use one of the drawing tool to draw the clouds & changing the front color to white, then gray and use the shape, size of the brush.



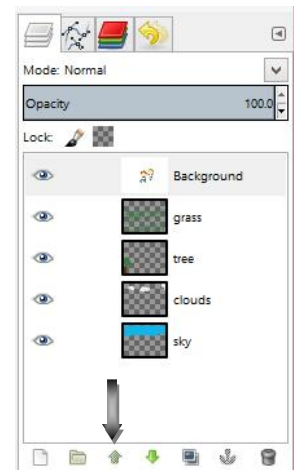
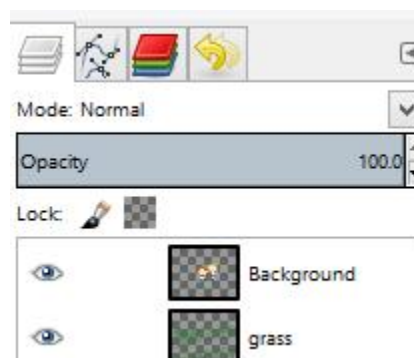
- 4- Add new layer called tree use one of the drawing tools to draw a tree & changing the front color to green, then brown. Select suitable shape & size for the brush.



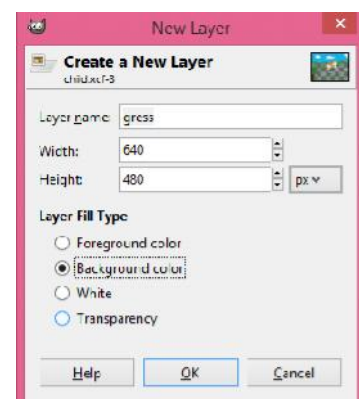
- 5- Add a new layer called grass use one of the drawing tools to draw and changing the front color to green, then select a suitable brush size & shape.



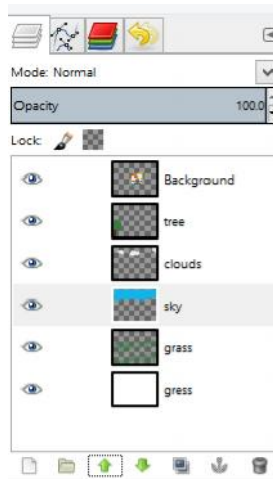
- 6- Move background layer to be the upper layer by clicking on the up arrow, after that we will notice that other below layers disappear & to show them click on background layer, then select fuzzy selection tool, click on white color of this layer to select it, then press delete button on keyboard so all other layers appear. To remove selection, from select menu, select None.



- 7- Add a new layer with the same color of background that is white.



8- Re arrange layers.



9- We can add teddy bear to new layer from image folder

10- We notice that children image is sharp so we can change that from smudge tool.



11- Export file with suitable name & extension.