

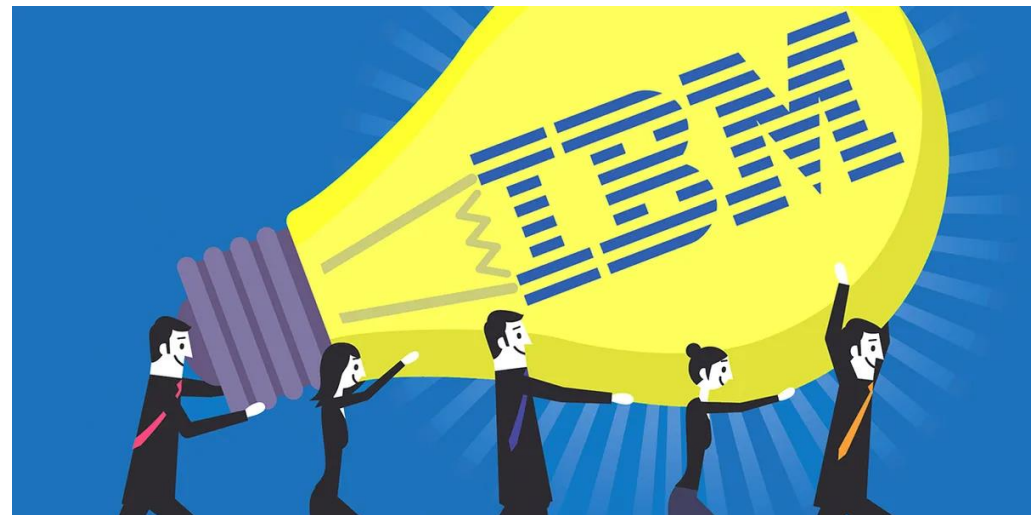
ADIT IBM COURSE 2022-24



Advanced Diploma (vocational) Course in IT, Networking & Cloud Computing

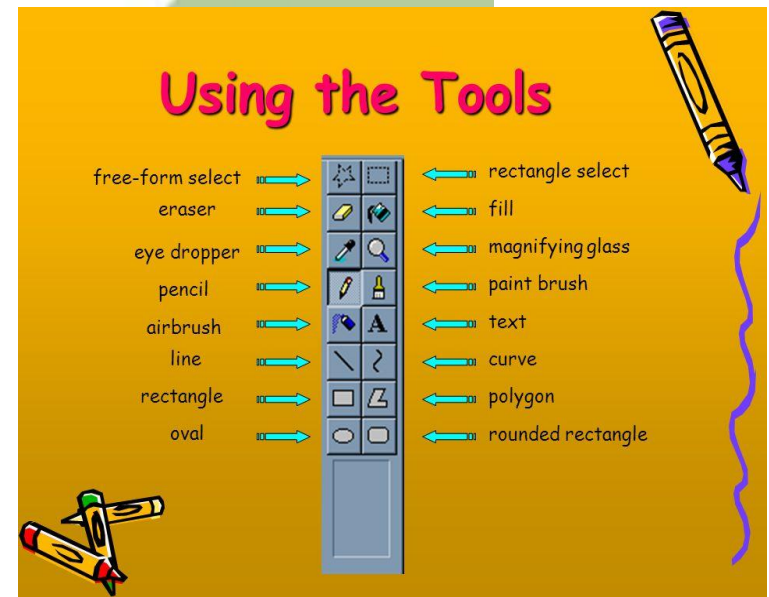
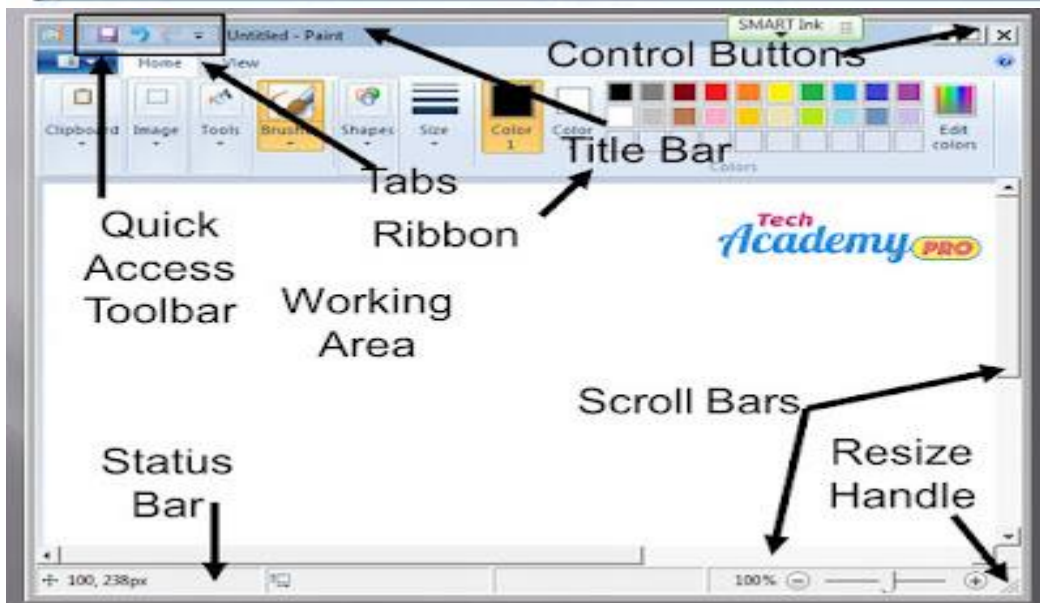
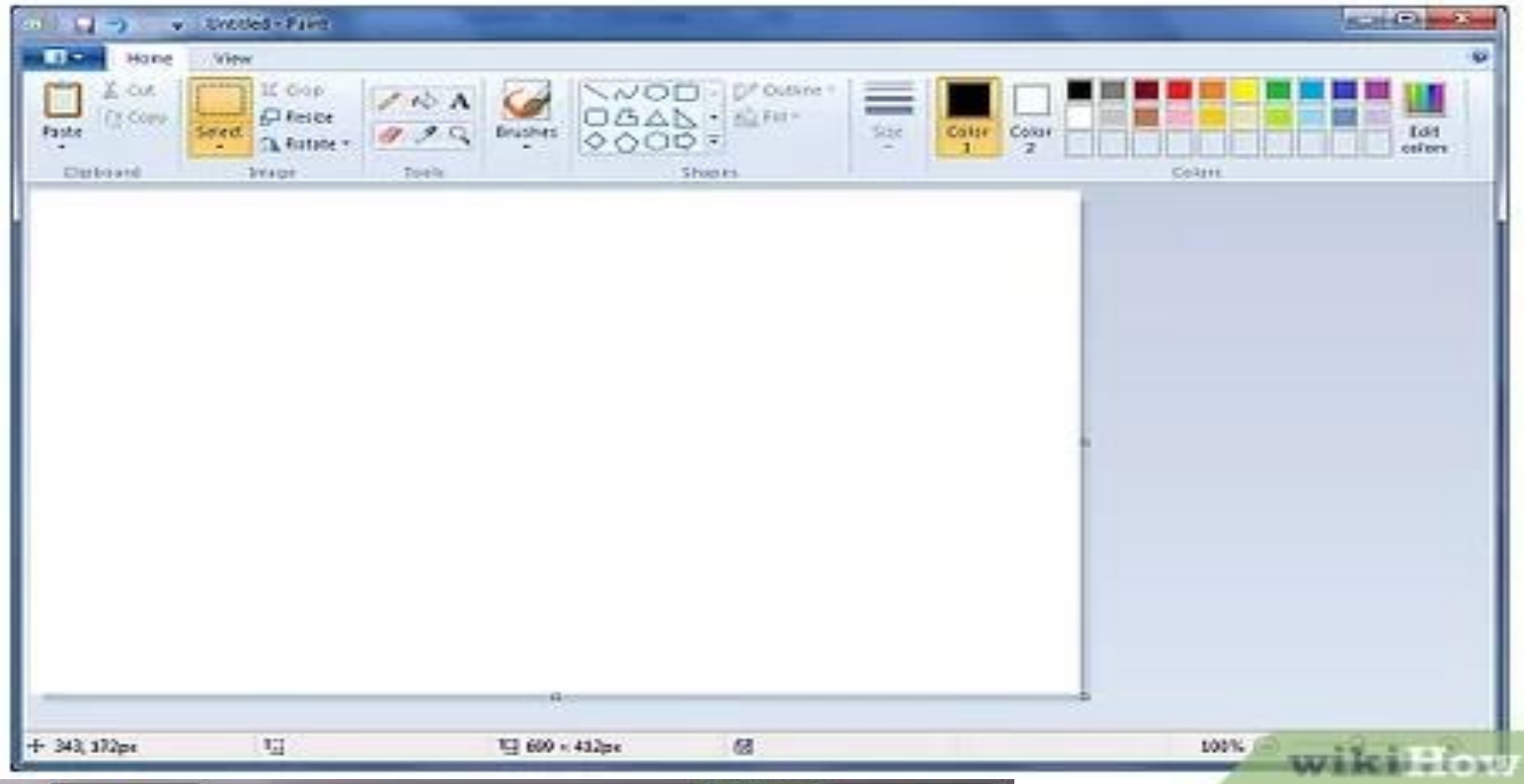
CORE MODULE 1

Applications MS Paint/Notepad



What is MS Paint?

- ☐ ***Paint is a drawing tool. It is a part of Windows.***
- ☐ ***You can use to create simple or elaborate drawings.***
- ☐ ***These drawings can be either black-and-white or color, and can be saved as bitmap files.***
- ☐ ***You can print your drawing.***
- ☐ ***You can also use it for creating your desktop background, or paste it into another 104 document.***
- ☐ ***You can even use paint to view and edit scanned photos.***
- ☐ ***You can also use Paint to work with pictures, such as .jpg, .gif, or .bmp files. You can paste a Paint picture into another document you've created.***
- ☐ ***The extension file name of Paint is .bmp.***



Tool name

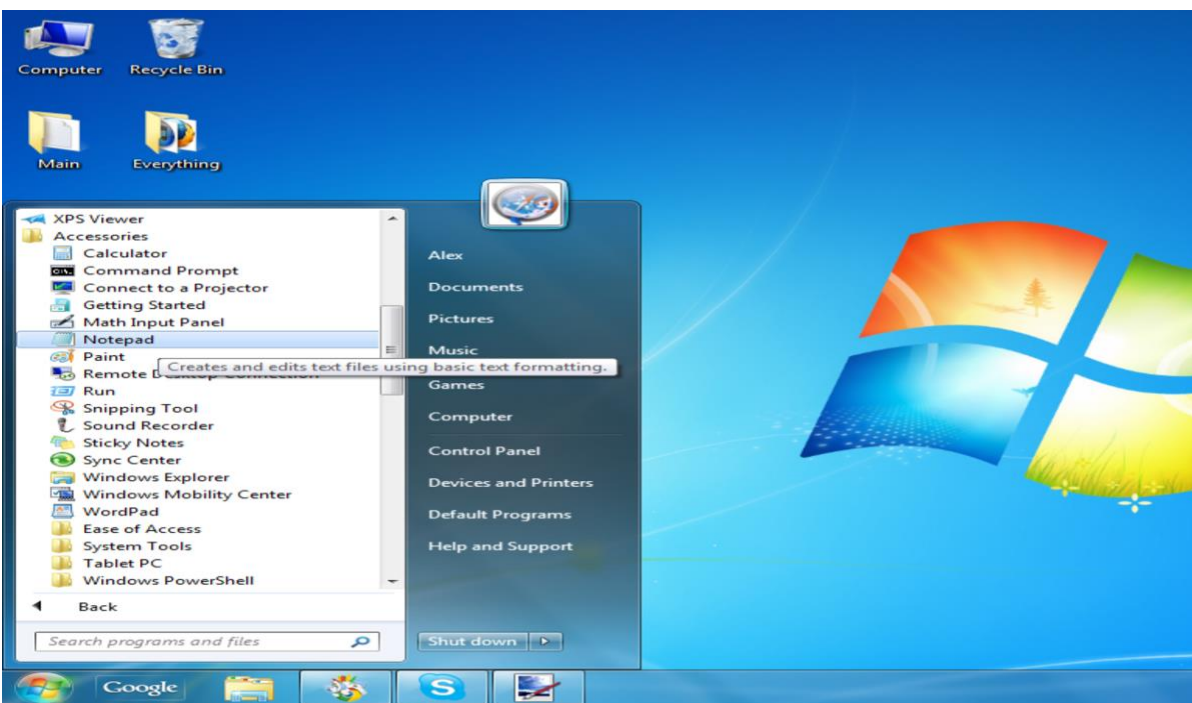
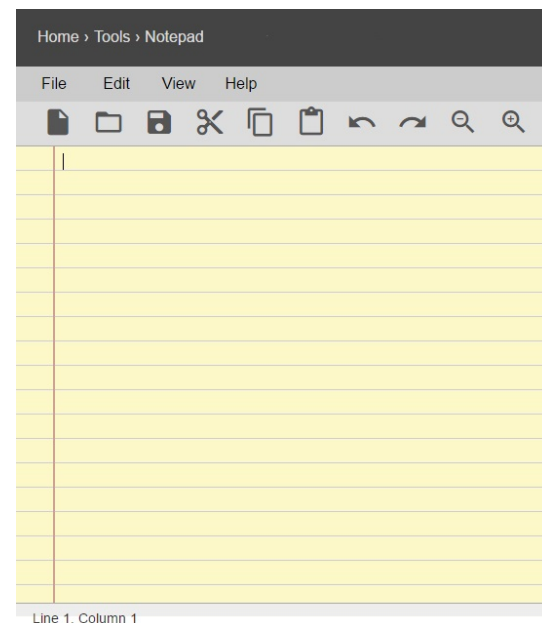
Function



Free –from select	To select a part of a picture to copy or edit.
select	To select a rectangular part of a picture to copy of edit.
Erase	To erase part of a picture.
Fill with colour	To fill a picture with colour
Pick colour	To draw a colour.
Magnifier	To change the size of a picture.
Pencil	To draw with a pencil.
Brush	To draw with a pencil.
Air brush	To draw or colour with an airbrush.
Tex	To insert a text in a picture.
Line	To draw a straight line.
Curve	To draw curves and curve width.
Rectangle	To draw a rectangle.
Polygon	To draw a polygon.

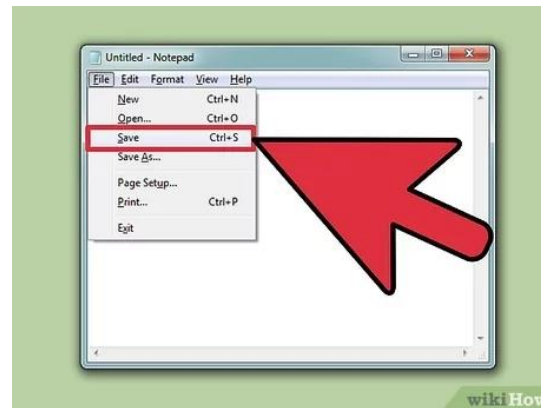
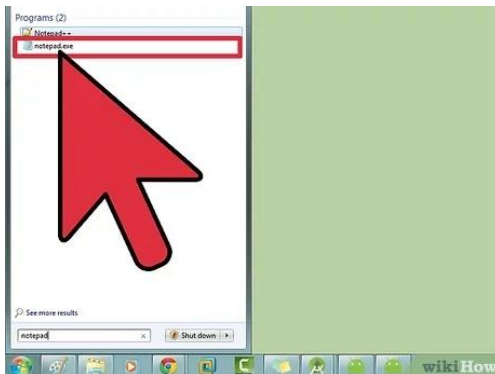
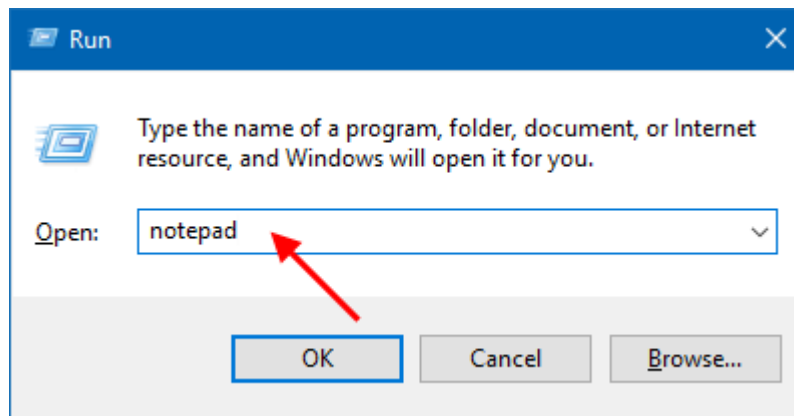
What is Notepad

Notepad is a generic text editor included with all versions of Microsoft Windows that allows you to create, open, and read plaintext files.



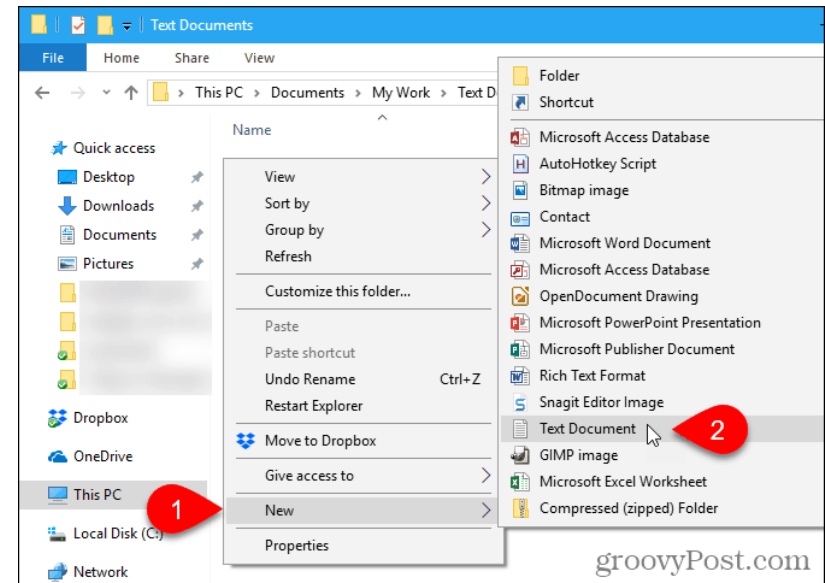
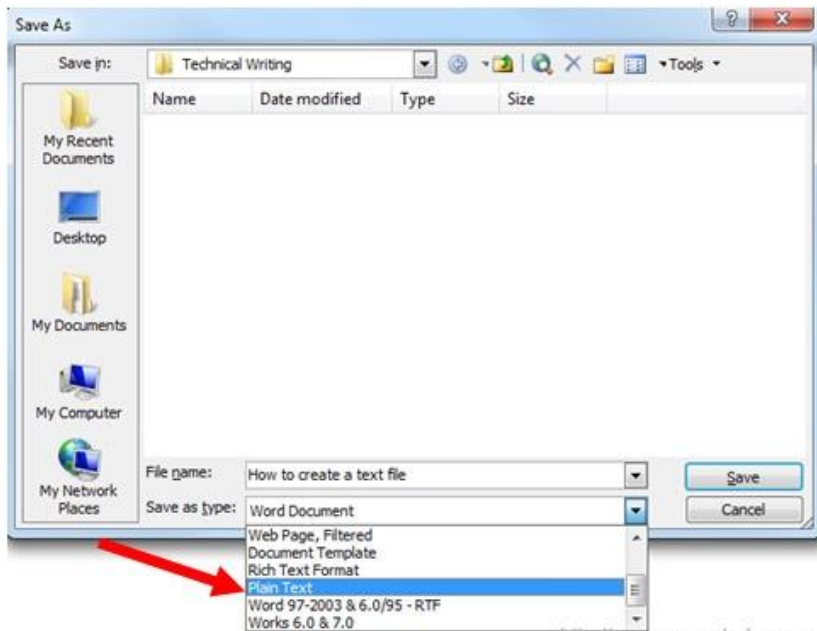
How to use Notepad

Users who are using Microsoft Windows can run Notepad (notepad.exe) by following the steps below.



How to create a text file using Notepad

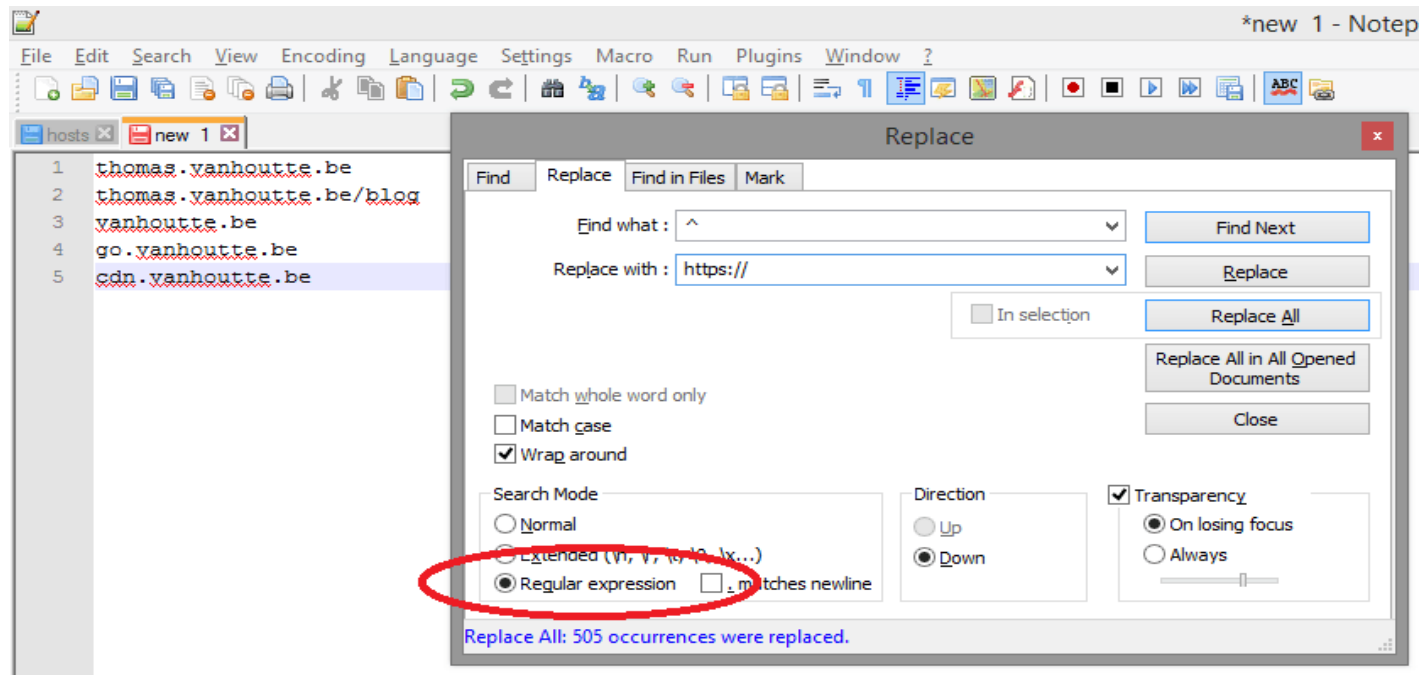
- ❑ Open Notepad and type the text you want in the file.
- ❑ Once done, save the file by clicking File and selecting Save.
- ❑ When saving the file, make sure the file is saved with a ".txt" extension.



Can you insert a picture in Notepad?



Notepad is a plaintext editor and does not support pictures. If you want to insert pictures, consider using WordPad instead of Notepad.



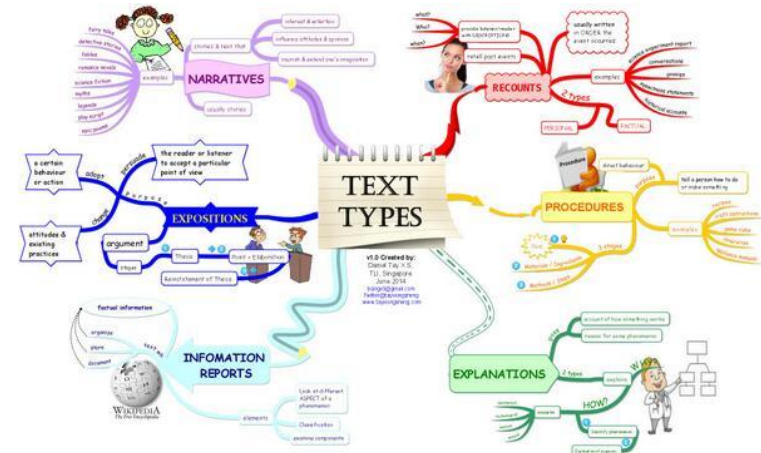
Different text formats



What is the text-based formats?

UTF-8, which can represent texts of all languages in real use, is becoming more common and may be the best choice for long term storage of text.

- .doc and .docx - Microsoft Word file
- .odt - OpenOffice Writer document file
- .pdf - PDF file
- .rtf - Rich Text Format
- .tex - A LaTeX document file
- .txt - Plain text file
- .wpd - WordPerfect document



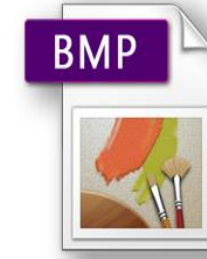
Different image formats

What is the image-based formats?

. Each format of the image has a different advantage and disadvantage. Image types such as TIFF is good for printing while JPG or PNG, are best for web.



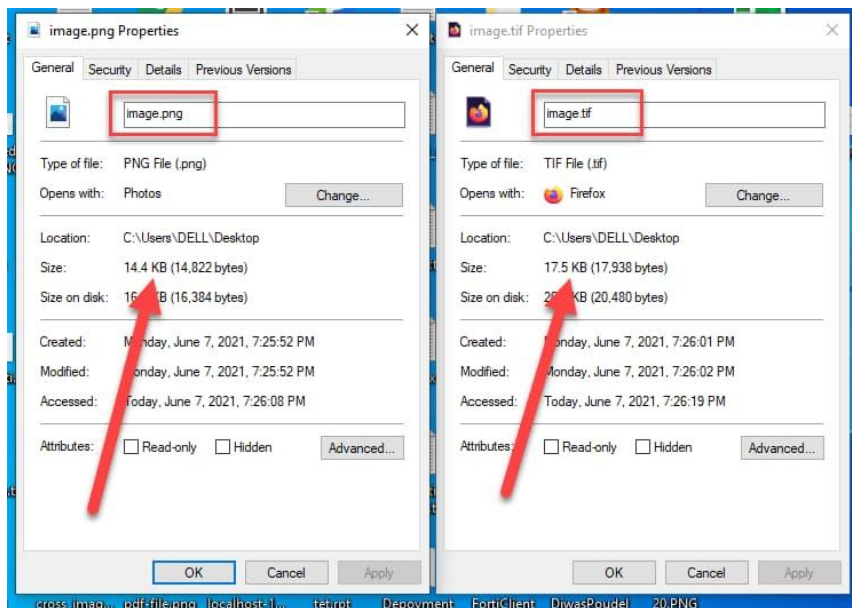
Raster image format



TIFF(.tif, .tiff)

Tagged Image File Format this format store image data without losing any data.

It do not perform any compression on images have a high-quality image is obtained but size of image is also large, which is good for printing, professional printing.



JPEG (.jpg, .jpeg)



- ❑ Joint Photographic Experts Group is a loss-prone (lossy) format in which data is lost to reduce size of image.
- ❑ Due to compression, some data is lost but that loss is very less.
- ❑ It is a very common format and are good for digital cameras, nonprofessional prints, E-Mail, PowerPoint etc., making it ideal for web use.



GIF (.gif)

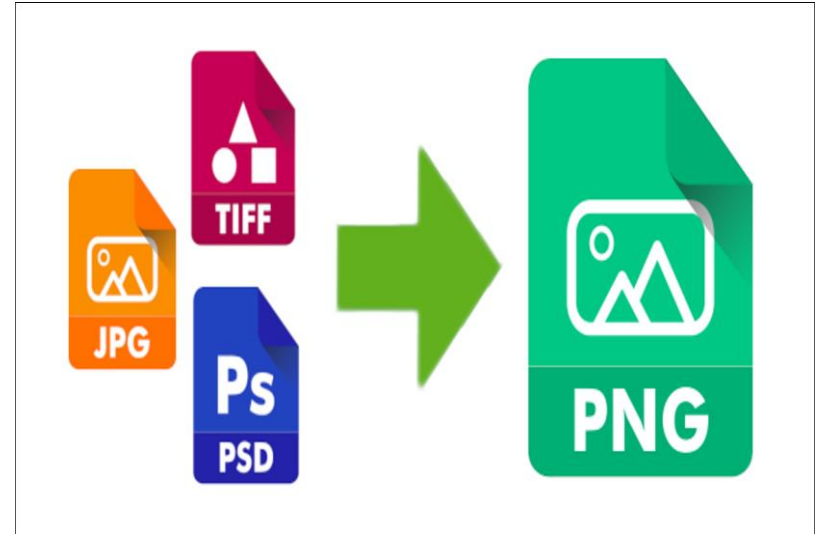
- ❑ GIF or Graphics Interchange Format files are used for web graphics.
- ❑ They can be animated and are limited to only 256 colors, can allow for transparency.
- ❑ GIF files are typically small in size and are portable.



PNG (.png)



PNG or Portable Network Graphics files are a lossless image format. It was designed to replace gif format as gif supported 256 colors unlike PNG which support 16 million colors. Bitmap (.bmp)



EPS (.eps)

Encapsulated PostScript file is a common vector file type. EPS files can be opened in applications such as Adobe Illustrator or CorelDRAW



File format extensions for image files

There are many different image types and image file extensions that can be used when creating and saving images on the computer. Below is a list of the most common image file extensions.

- .ai - Adobe Illustrator file
- .bmp - Bitmap image
- .gif - GIF image
- .ico - Icon file
- .jpeg or .jpg - JPEG image
- .png - PNG image
- .ps - PostScript file
- .psd - PSD image
- .svg - Scalable Vector Graphics file
- .tif or .tiff - TIFF image

Advantages of compressing files

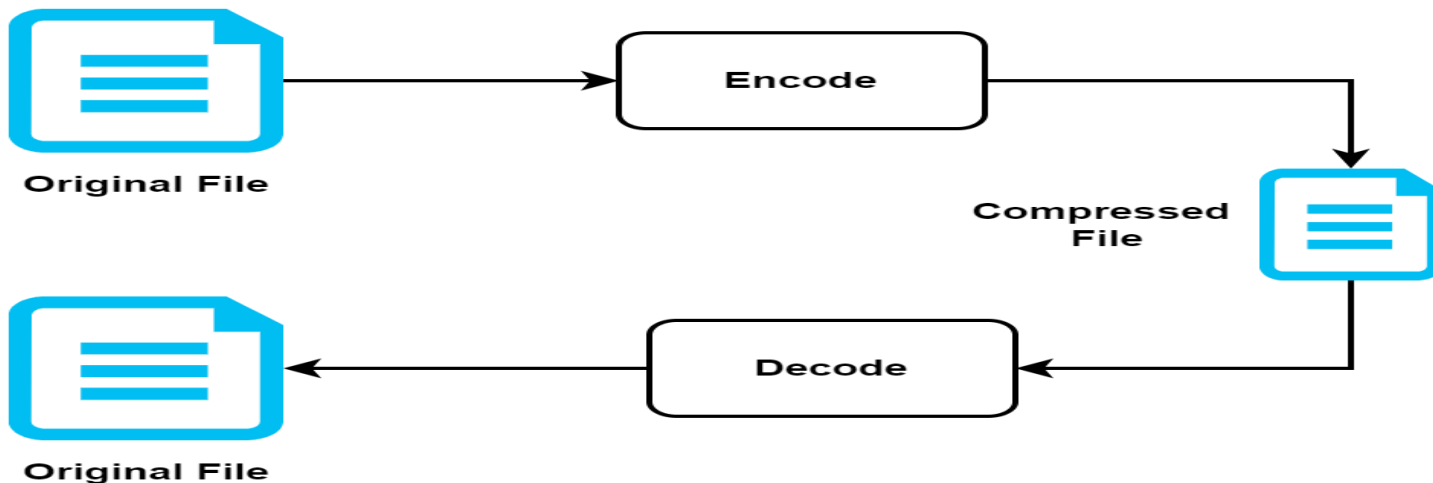
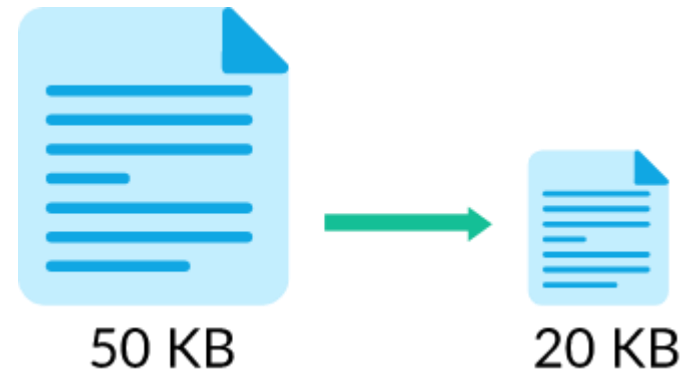
What Is a Compressed File?

- ☐ A compressed file has the compressed attribute switched on.
- ☐ Compressed files have the advantage of being faster to transmit and download, and can allow more data to be stored in physical or removable media.
- ☐ A compressed file is any file which is smaller than its original size and could contain one or more files, or even a directory

Why Compress Files?

Compressing is mainly used for the following purposes:

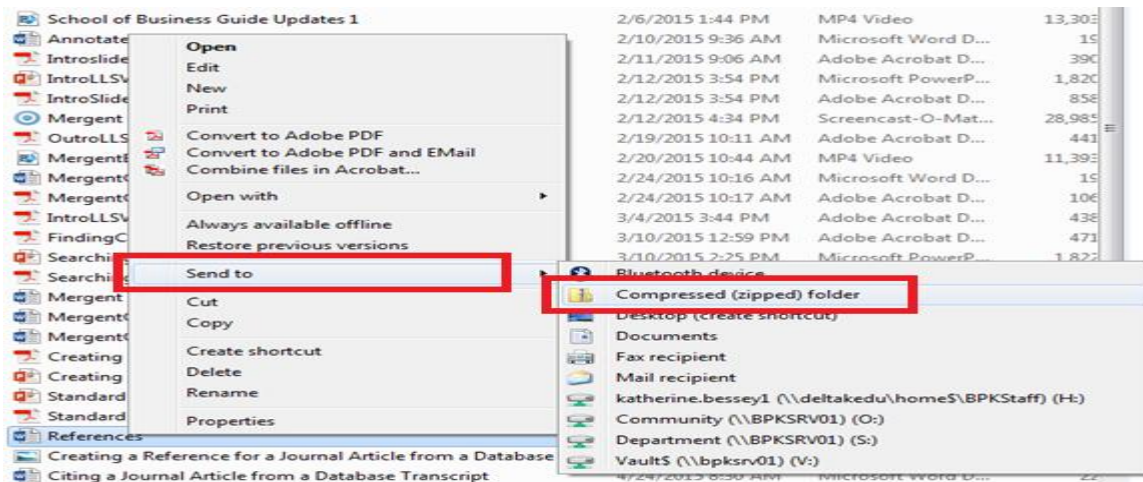
1. A compressed file takes up less storage space. A smaller file can be transferred faster between locations e.g., on the Internet.
2. Several files and folders are combined into one package that is easy to manage; it is usually easier to handle one file than a set of, say, 10,000 files.



When To Compress Files



- A file takes up a great deal of space on the hard drive, USB flash drive or other storage medium.
- You want to archive a file in compact form because you will not be needing it for a long time.



How Does Compression Work?

Data compression is a means of altering or encoding structured data to take up less disk space when stored on a computer-based system

Types of Compression

Lossless Compression

Lossless compression is a way to compress files without losing any data.

Lossy Compression

To make files up to 80 percent smaller, lossy compression is used.

Decompression

In order to use a compressed file, you must first decompress it. The software used to decompress depends on how the file was compressed in the first place

Common Compression and Extraction Methods



One of the most commonly used compression methods is ZIP compression. Most operating systems have a pre-installed program for ZIP compression or “zipping”.

<i>Compression method</i>	<i>Operating-system support for this compression method</i>
zip	Both Windows and Linux as well as Mac OS can handle zip files, usually without having to install a separate zip program.
rar	Usually requires installing a separate compression/extraction program (e.g., WinRAR).
gz	Gz packages are common in Linux and Unix, which usually have their own default applications for handling them, such as gzip. For Windows and Mac OS, there are separate programs with which you can open gz files
7z	The file extension of the 7-Zip packing application.

Advantages & Disadvantages of Using File Compression



Quicker transfers

Not only does file compression enable you to move files around on a local device more efficiently, it also enables you to send large documents and data faster over the internet.

Improved file integrity

Uncompressed files can often become corrupt when sent over the web.

Email/webpage accessibility

It's easier to compress larger files when uploading them to a webpage or sending them via email.

Disadvantage of File Compression



Memory Issue

When uncompressing a file for reading, your computer uses more memory to complete the task.

Speed

The uncompressing process not only uses memory but also processor time.

File Size

An increase in file size is another disadvantage of compressing file

Viruses and Malware



- *Your computer's anti-virus program may not be able to scan a compressed file for viruses and other malware, resulting in your computer being exposed to files that may contain viruses, Trojans, spyware and other harmful programs.*

File Transfer

If you send a compressed file to someone else via the Internet, email or on a computer network, that person may not be able to open the file if they don't have a program to uncompress it.

Difference between the Zip and Rar format.

Zip

ZIP is a widely used format and is supported by several software utilities including the built-in ZIP support provided by Microsoft Windows and Mac OS X. The best part, ZIP files can be opened with any program that creates ZIP files.

RAR

RAR stands for Roshal Archive Compressed file is a proprietary archive file format. It contains one or more files or folders together

SR. NO	ZIP	RAR
1	ZIP is an archive file format created by Phil Katz as a standard format for lossless data compression.	RAR is a proprietary archive file format for lossless data compression developed by Eugene Roshal.
2	It is free and open standard with many implementations and is supported almost everywhere.	It is not free and requires a third-party tool called WinRAR archiver to compress/decompress files.
3	The rate of compression of ZIP is lower than that of the RAR format	The rate of compression of RAR is better than that of the ZIP format
4	The rate of compression of RAR is better than that of the ZIP format	RAR doesn't offer a password-based protection.
5	ZIP files can be created with several programs such as WinRAR, WinZIP, Freebyte Zip etc.	ZIP files can be created with several programs such as WinRAR, WinZIP, Freebyte Zip etc.
6	ZIP uses the ZIP 2.0 encryption algorithm which is relatively weak	RAR uses the much efficient AES-128 encryption.
7	RAR uses the much efficient AES-128 encryption.	Filename extensions are .rar, .rv, .r00, .r01.
8	ZIP uses DEFLATE compression algorithm to compress data which is less efficient than the newer compression method.	ZIP uses DEFLATE compression algorithm to compress data which is less efficient than the newer compression method.



*Thank
You*

