

File Management: Organisation of Data

2

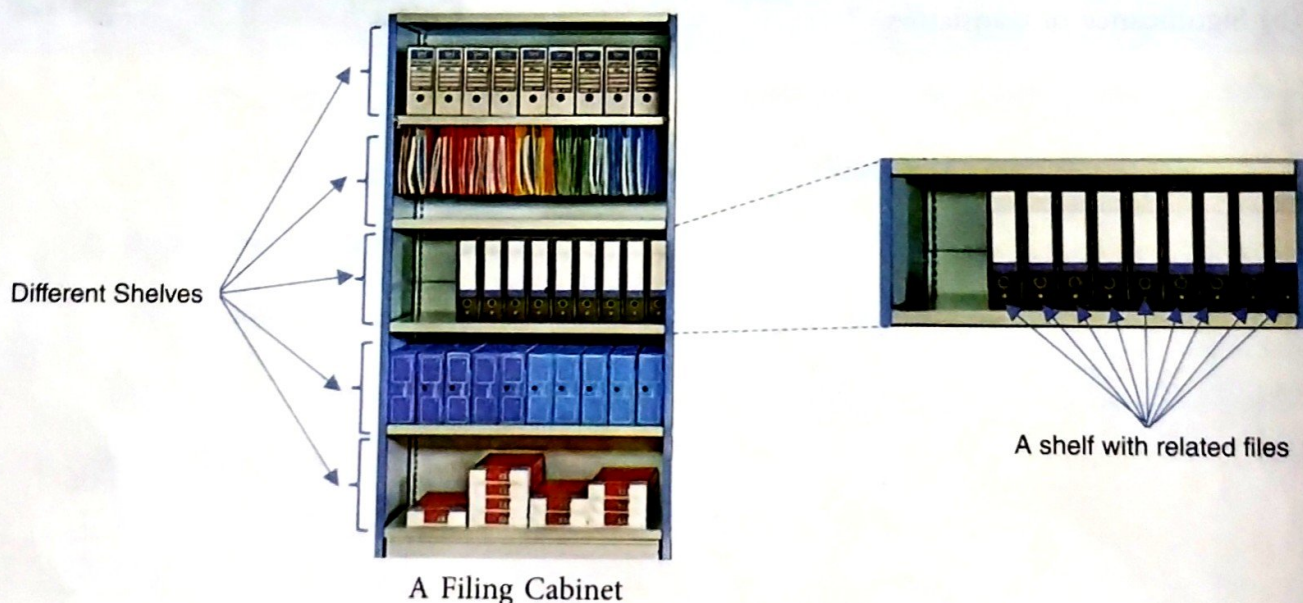
Learning Scope

Introduction, Files and folders, Formats, File operations (viewing, copying, moving, deleting, searching), Copying/Moving files from one drive/device to another drive/device, Playing audio and video files, Wildcard characters ('?' and '*'), Searching files using Wildcard characters, Working with multiple applications

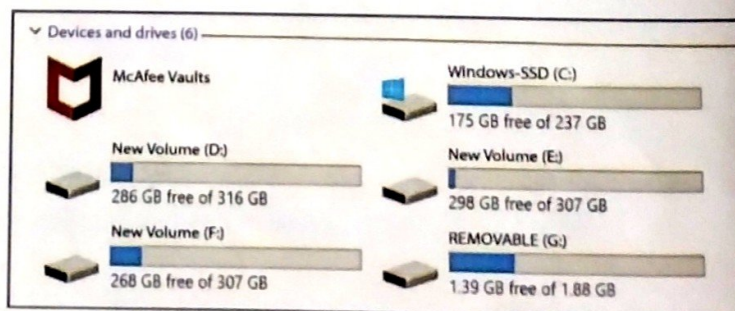
Introduction

A computer stores data or information in a file. The files are kept in different folders on the hard disk or some storage devices such as pen drive, CDs, DVDs, etc. Before discussing the storage concept of file/folder in a computer, let us understand the concept with a real-world example.

You might have seen how the files/folders are kept in schools or offices. There is a filing cabinet consisting of several shelves (storage area) in it. Each shelf contains different types of files, and files are kept in an organised manner. Consider the illustration given below:



In a computer, hard disk drives (a storage device) are similar to a filing cabinet. The different shelves it contains are analogous to the folders created in a computer to keep the related files together in a specific place.



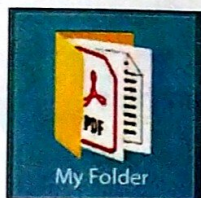
In the previously given image, a hard disk is partitioned into a number of drives along with an external storage device (removable drive). On clicking a specific drive, you can view all the files and folders that it contains.

File

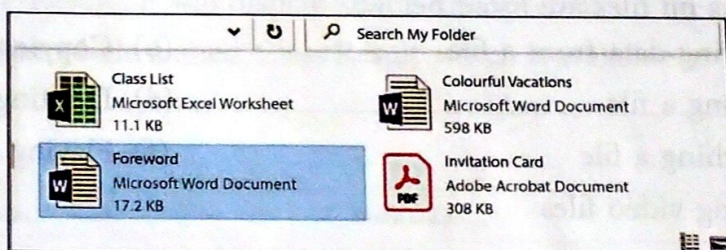
A file is the smallest unit of storage. It is a named unit on a storage device that stores information in an organised manner. The users can store them on the hard disk or any other storage device which can be accessed at any point of time.

Folder

A folder is the storage space to keep files in an organised manner. It can be created in any of the drives of a hard disk or an external storage device. You may create a number of folders for keeping different types of files such as text files, audio files, video files, etc. A folder may also contain another folder within it, known as a sub-folder.



A Folder named 'My Folder'



Files available in the folder

File Formats

On a storage device, a file name contains two parts—primary name and secondary name. The primary name is the file name that can be a suitable name related to the content of the file. The secondary name is the extension of the file type. Every file is characterised by its file extension, known as the file format or file type. Consequently, looking at its extension, the type of information stored can easily be described.

For example, a file name is given as:

Picnic.docx

Primary name _____ File extension (Secondary name)

Here, **Picnic** is the file name, and the extension is **.docx**. The extension indicates that the file is a text document.

Some well-known file extensions along with their types are listed below:

File Extension	Description	File Extension	Description
.doc/.docx	MS Word document	.jpg or jpeg	Joint Photographic Experts Group (A digital image format)
.xls/.xlsx	MS Excel spreadsheet	.pdf	Acrobat Portable Document Format

File Extension	Description	File Extension	Description
.ppt/.pptx	MS PowerPoint presentation	.psd	Adobe Photoshop document
.gif	Graphics Interface file	.mp3	Acronym for MPEG audio layer 3 (Moving Picture Experts Group), a music file

Now, let us learn more about file management. It will help you to carry out some common operations on stored files such as copying, moving, deleting, playing, etc. These file management will also help you to work with multiple applications. Let us discuss them in detail.

File Operations

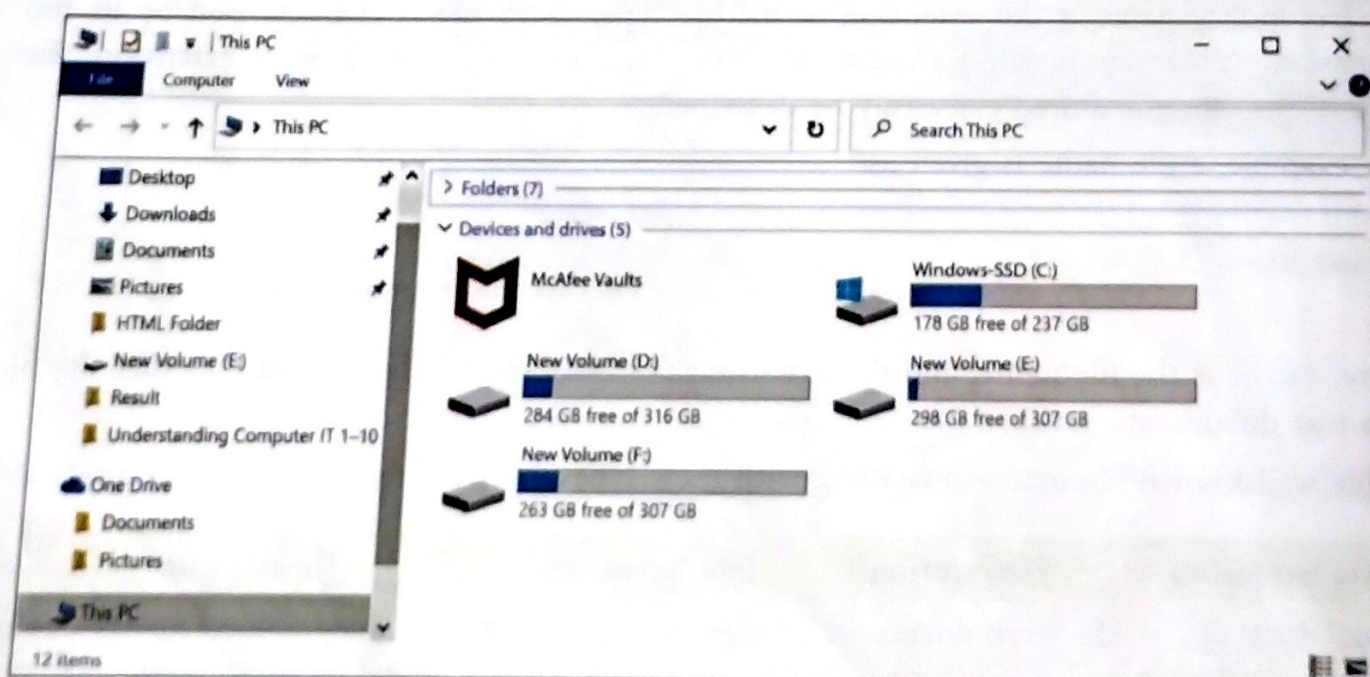
We can perform various operations on the files stored on a computer system. Some fundamental operations on files are listed below:

- (a) Viewing data from a file
- (b) Copying a file
- (c) Moving a file
- (d) Deleting a file
- (e) Searching a file
- (f) Playing audio/video files
- (g) Playing video files

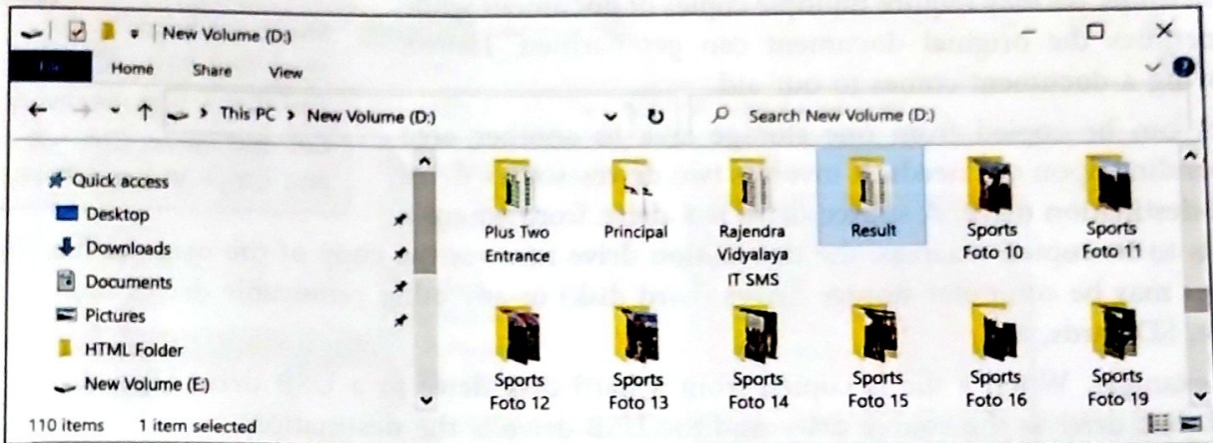
(a) Viewing Data from a File

Suppose you have stored a list of marks of a few students of your class in a file named 'Class Result'. It is stored in a folder named 'Result' on the D drive. Now, to view the file, perform the following steps:

Step 1: Select and double-click the 'This PC' icon on the desktop. The 'This PC' window will appear on the screen as shown below.

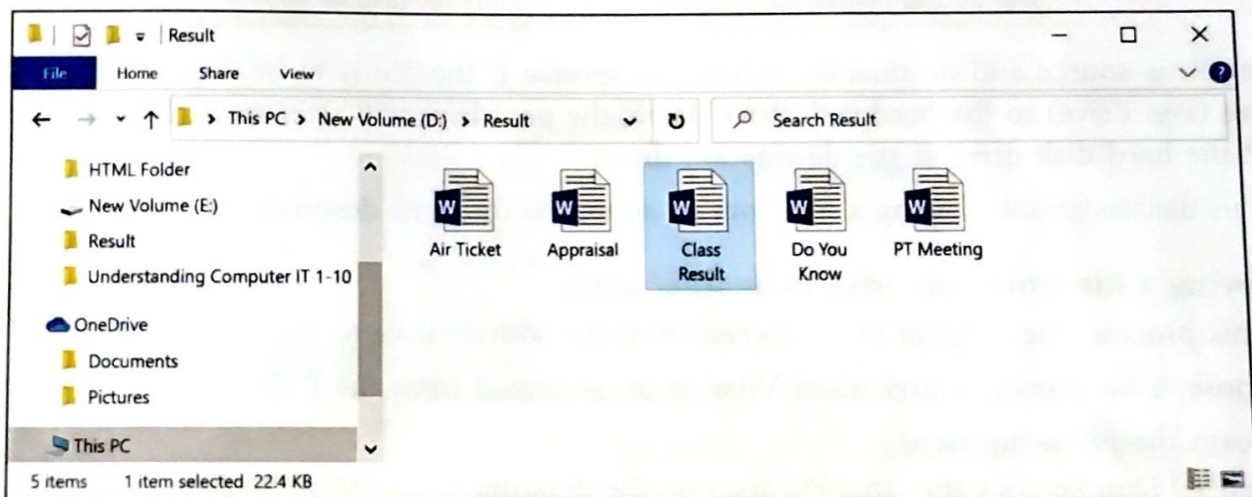


Step 2: Double-click the D drive (New volume(D:)). It will display all the files and folders in the drive.

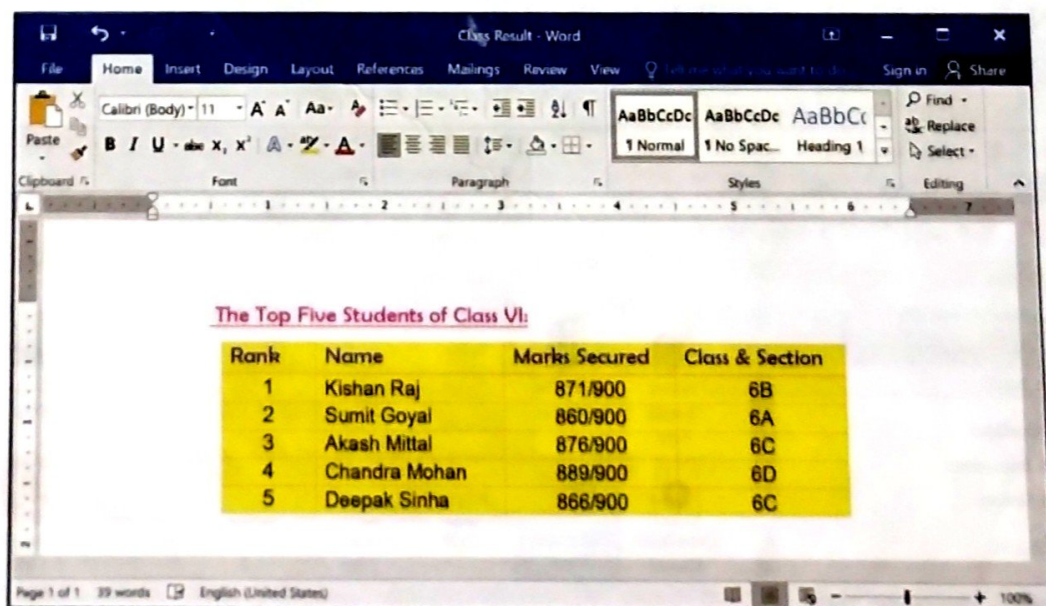


Step 3: Double-click the folder 'Result'. It will display all the files available in the folder.

Step 4: Double-click on the required file named 'Class Result' which is available in the folder.



The file will be opened as shown below.



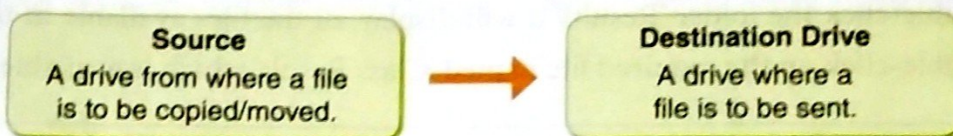
(b) Copying a File

Copying a file refers to making a duplicate copy of a document. Sometimes, we may require multiple copies of document while sometimes the original document can get harmed. Hence, copying a document comes to our aid.

Files can be copied from one storage area to another area depending upon our needs. It involves two drives—source drive and destination drive. A source drive is a drive from where a file is to be copied whereas, the destination drive receives the copy of the original file. These drives may be computer storage drives (hard disk) or any other removable drives such as pen drive, SD cards, etc.

For example, When a file is copied from a hard disk drive to a USB drive (Pen drive), the hard disk drive is the source drive and the USB drive is the destination.

It is illustrated as:



The terms source and destination drives will reverse if the file is to be copied from a USB drive (Pen drive) to the hard disk drive. Here, the pen drive will refer to as the source drive and the hard disk drive as the destination drive.

Let us discuss about copying a file from its source to different destinations.

Copying a file from one drive to another drive

In this process, the original file is copied from the source drive to the destination drive.

Suppose, a file named 'Curriculum Vitae' is to be copied from the F drive to D drive.

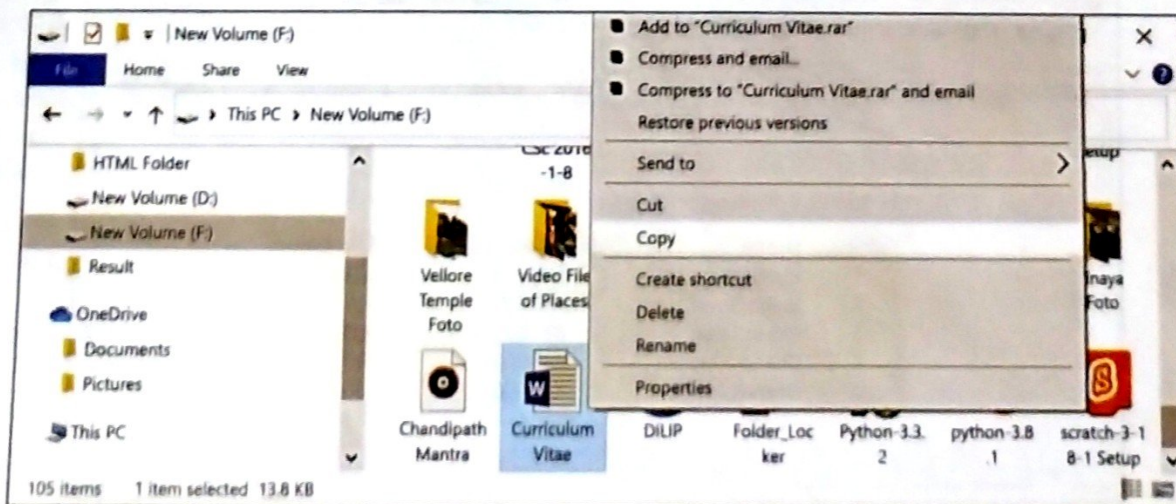
Perform the following steps:

Step 1: Double-click the 'This PC' icon on the desktop.

Step 2: Double-click the source drive (F drive). The window showing the contents of F drive opens.

Step 3: Now, select and right-click the file that you want to copy.

Step 4: Click the 'Copy' option from the drop-down menu.



Knowledge Corner

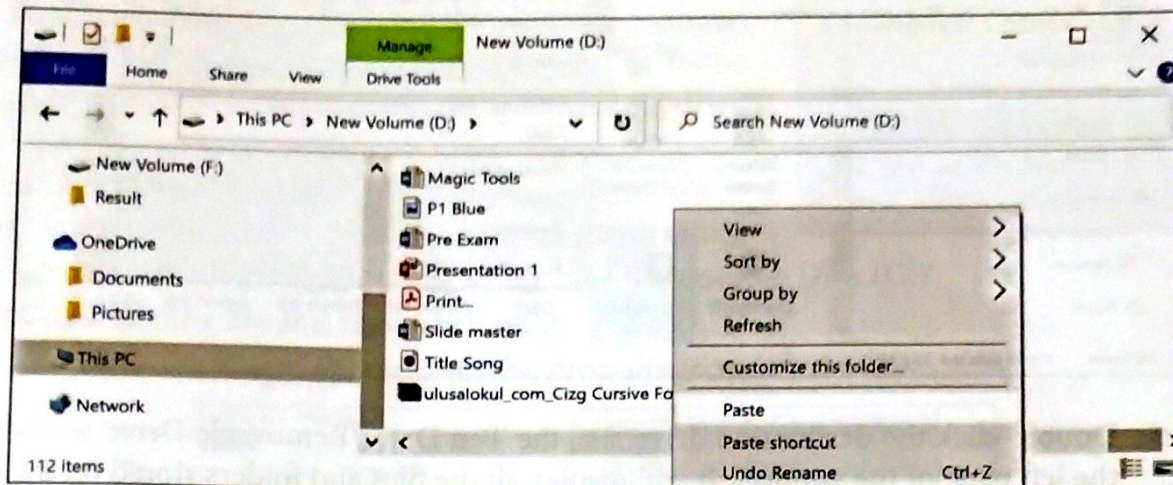
Short cut keys:

Copy and Paste: Ctrl + C and Ctrl + V respectively.

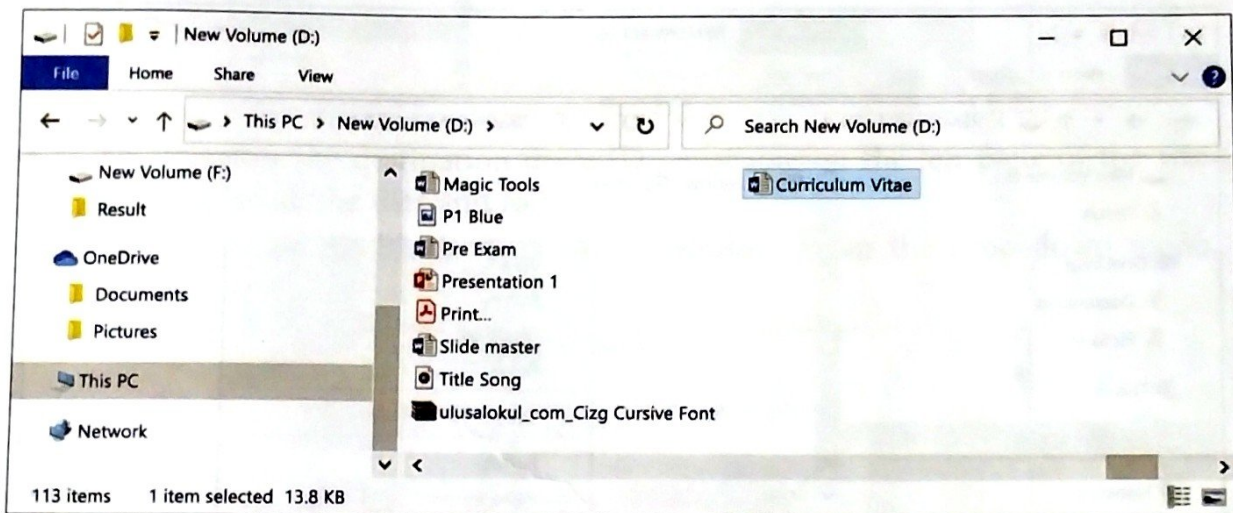
Cut and Paste: Ctrl + X and Ctrl + V respectively.

Step 5: Now, double-click the destination drive (D:). It will display all the files and folders.

Step 6: Keep the pointer in the blank space of the D drive (not pointing at any file/folder).



Step 7: Select the 'Paste' option from the drop-down menu. The file will be pasted and will be visible in the D drive.



Copying a file from a Drive to a Device (Pen Drive)

A file can be copied from its source drive to any external storage system, *for example*, a pen drive.

Suppose, a file named 'Curriculum Vitae' is to be copied from the F drive to a pen drive.

Perform the following steps:

Step 1: Double-click the 'This PC' icon on the desktop.

Step 2: Select and double-click the source drive (F:).

Step 3: Select the file and right-click on it.

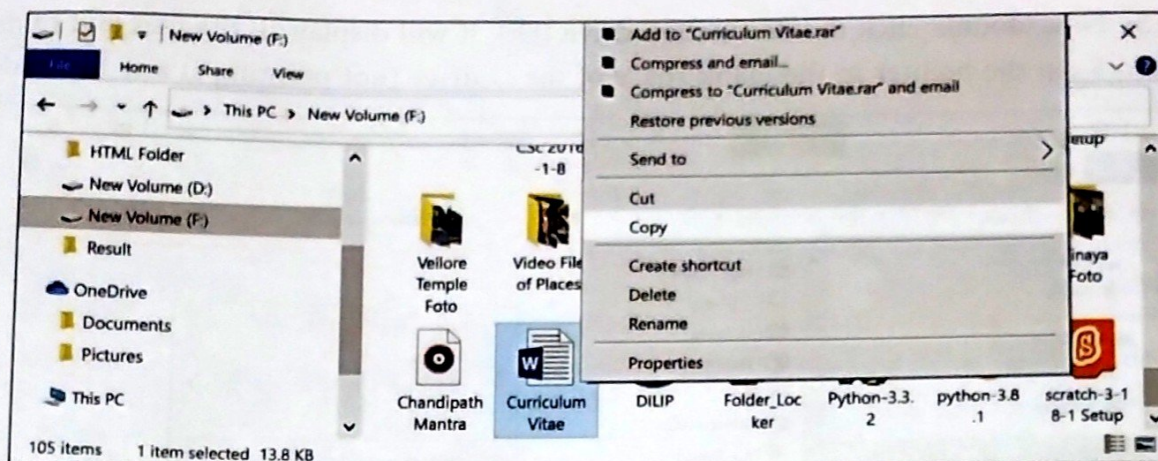
Step 4: Click the 'Copy' option from the drop-down menu.

Knowledge Corner



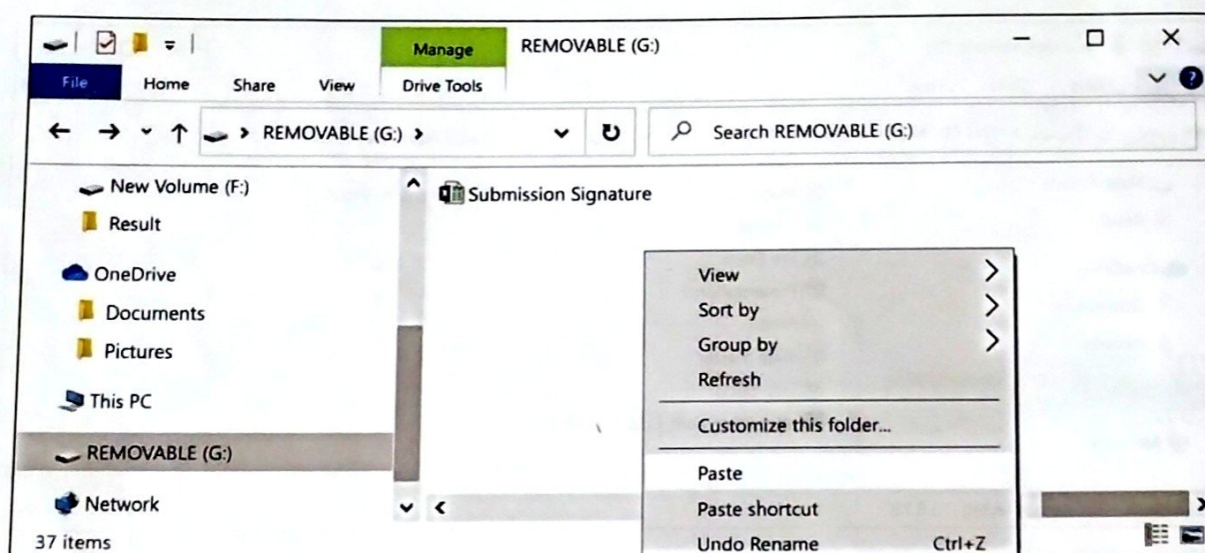
Pen drive is a portable storage device that can be easily carried from one place to other.

Other portable storage devices are SD card, Micro SD card, etc.

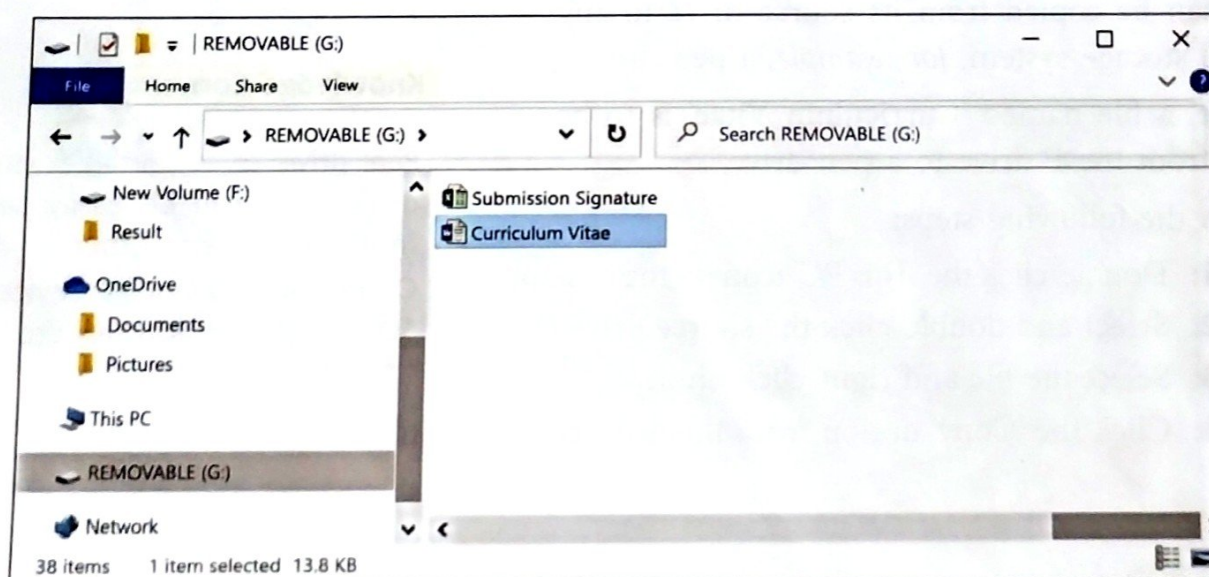


Step 5: Double-click the destination drive, *i.e.*, the 'Pen Drive/Removable Drive' available on the left pane of the window. It will display all the files and folders stored on the drive.

Step 6: Right-click on the blank space of the window. From the drop-down menu, select 'Paste' option.



The file will be copied to the removable drive (pen drive) as shown below.



Copying a file from a Device (Pen Drive) to a Hard Disk Drive

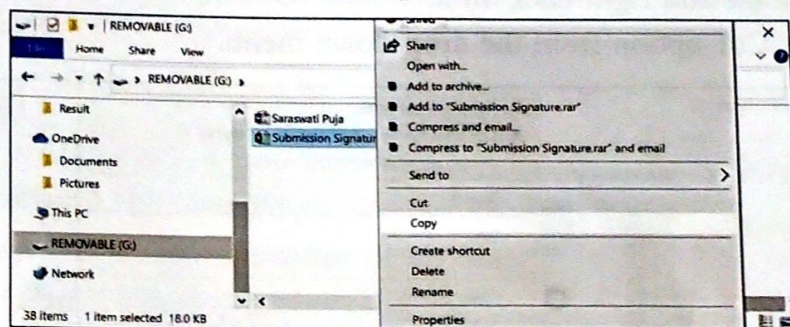
We can even copy a file from a pen drive (source drive) to a hard disk drive (say, D drive) in a similar manner. Suppose, a file named 'Submission signature' is to be copied from a device (pen drive) to a hard disk drive (say, D drive).

Perform the following steps:

Step 1: Double-click the 'This PC' icon on the desktop.

Step 2: Double-click the source drive, i.e., the 'Removable Disk (G:)'.
Step 3: Select the file and right-click on it.

Step 4: Click the 'Copy' option from the drop-down menu.



Knowledge Corner

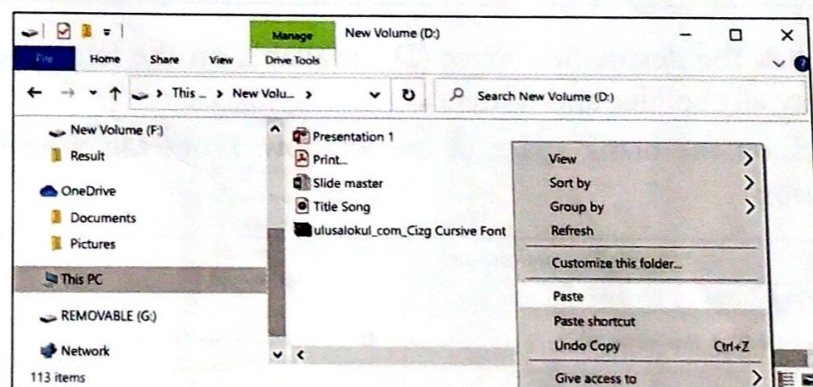


Path of a file

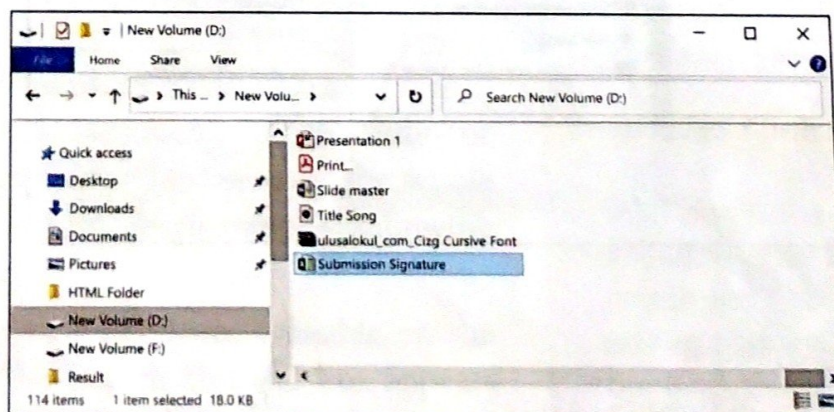
Path is the route through which you can reach from the source to the destination of a file.

Step 5: Double-click the destination drive (D:) available on the left pane of the window. It will display all the files and folders.

Step 6: Right-click on the blank space of the window. From the drop-down menu, select 'Paste' option.



The file will be copied to the D drive as shown below.



(c) Moving a File

Moving a file is the process of transferring a file/folder from one destination to the other. In this, a file is removed from its original position and made available on another destination of the drive/storage device. In the windows system, it is also termed as 'Cut and Paste'.

Moving a file from one Drive to another Drive

Suppose, a file named 'Yearly Performance' is to be moved from the F drive to the D drive.

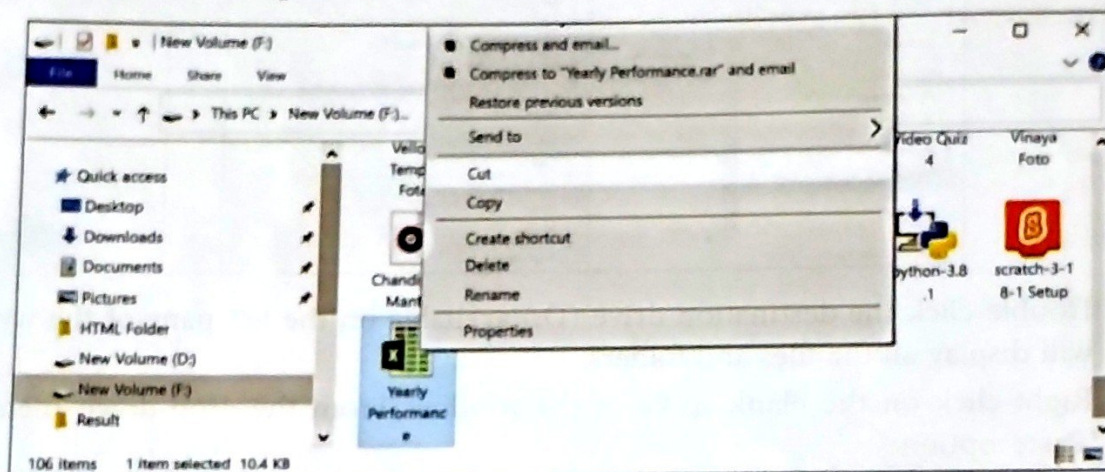
Perform the following steps:

Step 1: Double-click the 'This PC' icon on the desktop.

Step 2: Double-click the source drive (F:).

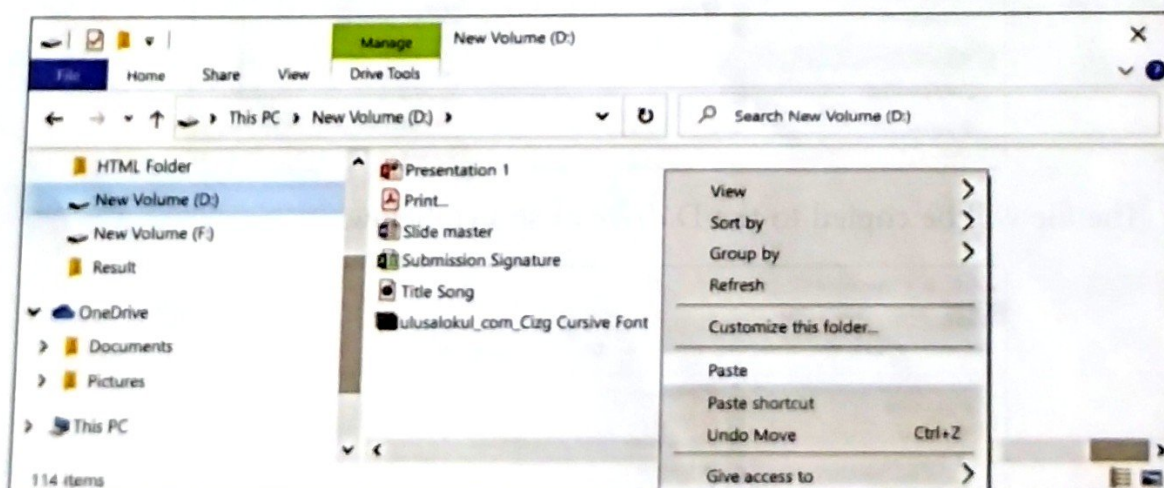
Step 3: Select the file and right-click on it.

Step 4: Click the 'Cut' option from the drop-down menu.

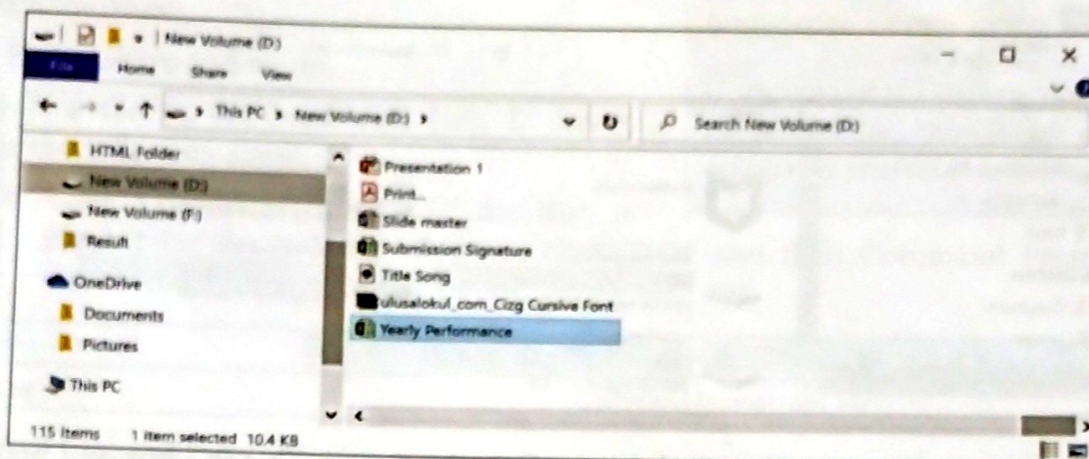


Step 5: Double-click the destination drive (D:) available on the left-pane of the window. It will display all the files and folders.

Step 6: Right-click on the blank space of the window. From the drop-down menu, select 'Paste' option.



The file will be available in the D drive as shown below.



(d) Deleting a File

When you no longer need a file in your computer, it may be deleted to free up the memory space.

Perform the following steps to delete a file:

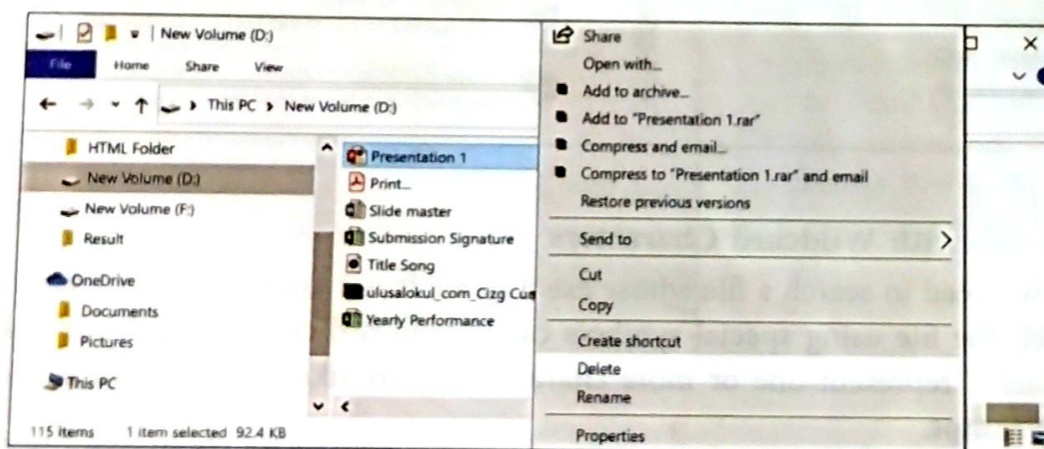
Step 1: Double-click the source drive (say, D drive) where the file to be deleted is present.

Step 2: Select the file to be deleted and right click on it. From the drop-down menu, select the 'Delete' option.

Knowledge Corner



By default, the deleted files are stored in the Recycle Bin. They can be brought back by selecting the option 'Restore' from the Recycle Bin.



The selected file will be deleted.

(e) Searching a File/Folder

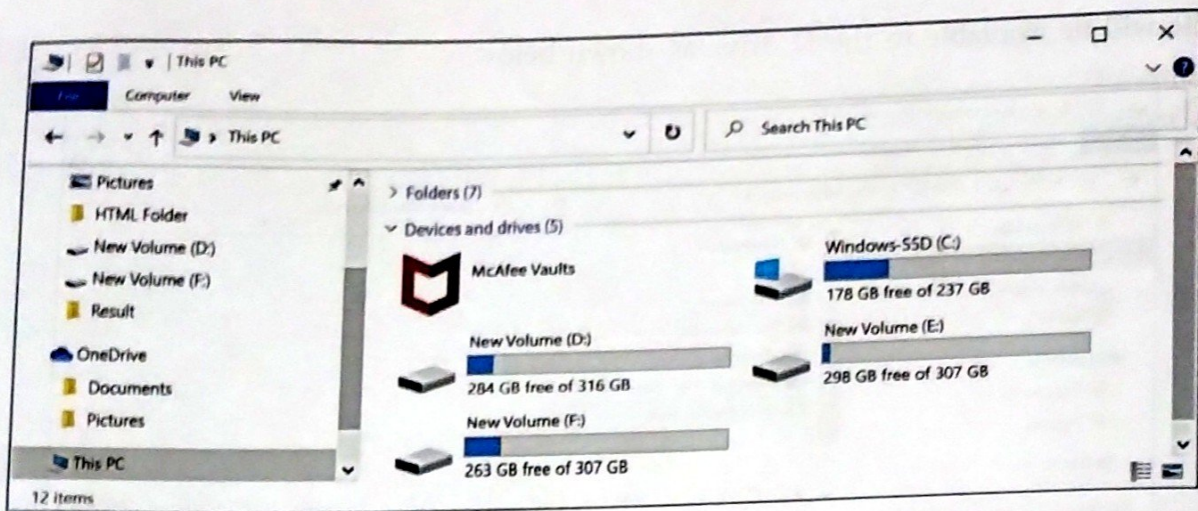
You can search for a document, image, audio or video file in a specific drive/device or in the whole computer storage system. Perform the following steps to search a file:

Step 1: Click the 'This PC' icon, available on the desktop. The 'Search This PC' box appears at the extreme right side of the window.

Knowledge Corner

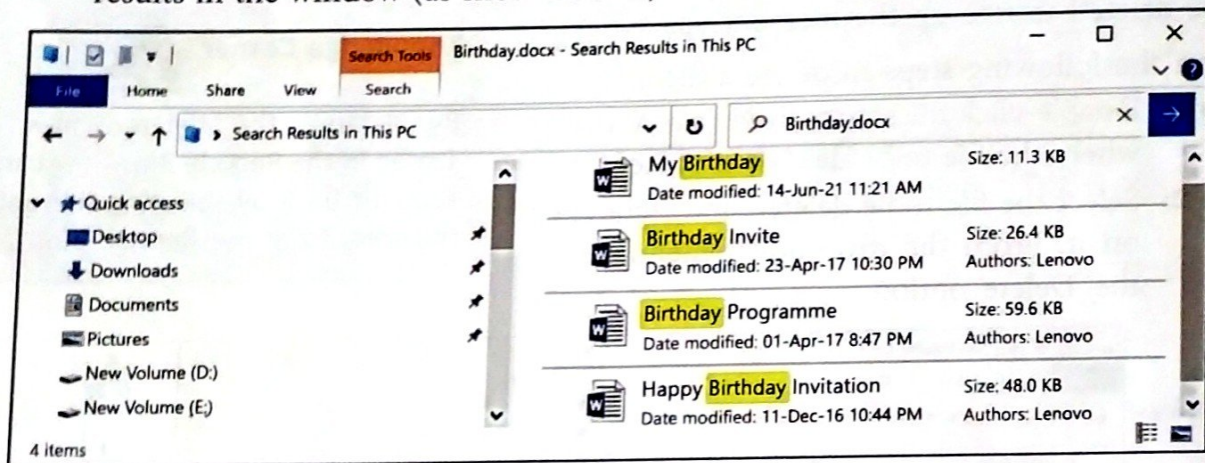


- Searching is the process of finding a file/folder on the computer.
- Search box is the most convenient way to find a file or a folder from the hard disk.



Step 2: Enter the file name (say, Birthday.docx) in the 'Search This PC' box and press 'Enter key'.

The computer will look for all such documents files in the system and then display results in the window (as shown below).



③ Searching a file with Wildcard Characters

Sometimes, we need to search a file whose exact name is not known to us. In such a situation, we can search the file using special symbols called wildcard characters. These characters are used to replace a represent one or more characters. More likely, these wildcards are used in **Command Prompt**.

The uses of two wildcard characters '?' and '*' are explained below.

③ Searching a file using (?) Wildcard

The '?' wildcard represents a single character in a file name. It means any character can occupy the position of the question mark (?).

For example, if '?' wildcard is used for searching files such as Phon?.docx, it will result in all the document files having first four characters as Phon with any or no fifth character. The probable files can be:

Phon.docx

Phone.docx

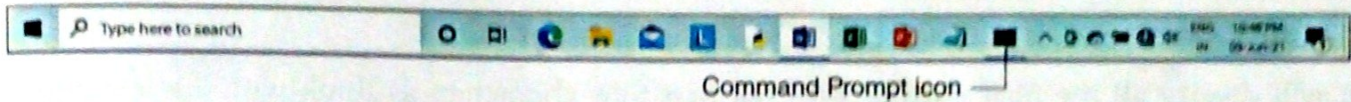
Phons.docx

Phony.docx

Phond.docx and so on.

To search a file in the hard disk (say, E drive), perform the following steps:

Step 1: Click Command Prompt (if the icon is present on the taskbar, otherwise click 'Start' and then Command Prompt). The Command Prompt window opens.



Step 2: Change the drive to C by typing `cd\` and then `E:` to go to E drive.

Step 3: Type `dir` command followed by the file name (say, `Cha??.docx`) in the Command Prompt window as `E:\>dir Cha??.docx`

Step 4: Press Enter key.

The computer will look for all document files starting with the letters **Cha** followed by any two or less characters and show the result in the window (as shown).

```
Command Prompt
(c) Microsoft Corporation. All rights reserved.
C:\Users\Dilip Kumar Dey>cd\
C:\>E:
E:\>dir Cha??.docx
Volume in drive E is New Volume
Volume Serial Number is 5063-707B

Directory of E:\

09-Jun-21 10:53 PM          11,618 Champ.docx
09-Jun-21 10:53 PM          11,633 Charm.docx
09-Jun-21 10:53 PM          11,626 Chart.docx
               3 File(s)      34,877 bytes
               0 Dir(s)  320,082,178,048 bytes free

E:\>
```

Knowledge Corner



- `dir` command is used to display the results of the search.
- `cd\` command is used to change the drive.

Searching a file using (*) Wildcard

The asterisk (*) represents all the letters present in the primary or the secondary name in a file. Let us understand with some examples.

Example 1: If '*' wildcard is used for `P*.xlsx`, it will display all Excel files starting with the letter P, shown as:

Player.xlsx

Packet.xlsx

Packer.xlsx

Polytech.xlsx and so on

Example 2: Using R*.* will display all the files starting with the letter R having any extension, shown as:

Report.docx

Race.xlsx

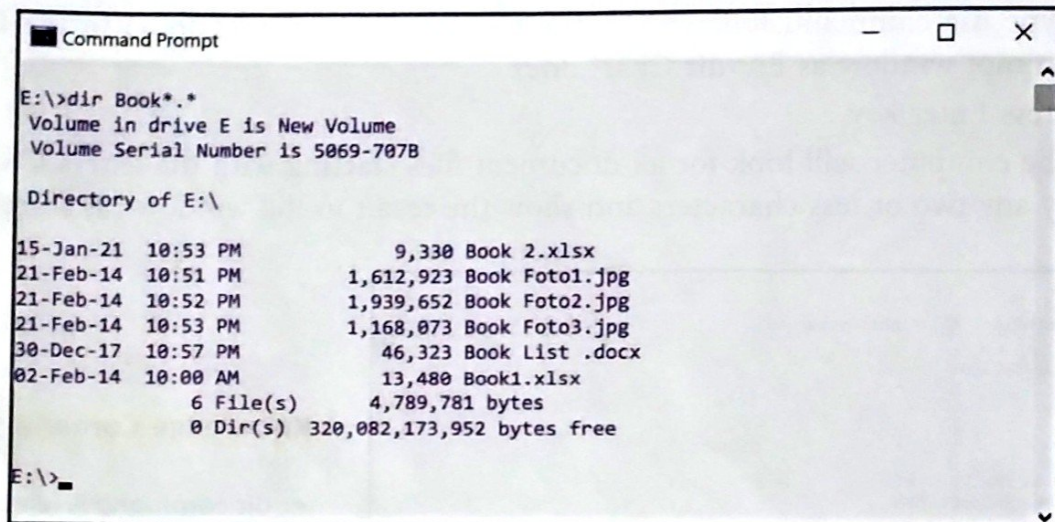
Representation.pptx

Recollect.mp3 and so on

By following the steps (as discussed in searching '?' wildcard), you can search files using '*' wildcard character. It is illustrated as:

E:\>dir Book*.* ↵

It will display all the files starting with the first four characters as Book with any extension. The window displays all such files when the command is executed, as shown below:



```
Command Prompt
E:\>dir Book*.*
Volume in drive E is New Volume
Volume Serial Number is 5069-707B

Directory of E:\

15-Jan-21  10:53 PM                9,330 Book 2.xlsx
21-Feb-14  10:51 PM            1,612,923 Book Foto1.jpg
21-Feb-14  10:52 PM            1,939,652 Book Foto2.jpg
21-Feb-14  10:53 PM            1,168,073 Book Foto3.jpg
30-Dec-17  10:57 PM             46,323 Book List .docx
02-Feb-14  10:00 AM             13,480 Book1.xlsx
               6 File(s)      4,789,781 bytes
               0 Dir(s)  320,082,173,952 bytes free

E:\>
```

(f) Playing Audio/Video Files

Today, most computers are equipped with a multimedia system. It allows us to play audios and videos that entertain us. We can play audios and videos using CDs, DVDs, external storage devices (pen drives, SD cards), etc. There are many media player software available to store and play audio and video files. Some of them are mentioned below.

- i. Windows Media Player
- ii. Media Player Classic
- iii. KMPlayer



Windows Media Player



Media Player Classic



KMPlayer

To play an audio file or a video file, follow these steps:

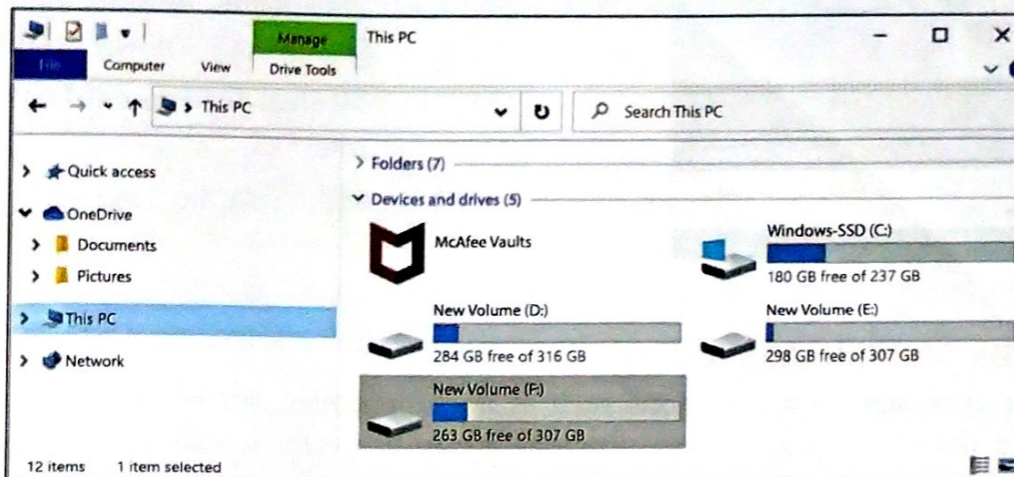
Step 1: Insert the audio or video CD/DVD in the DVD drive (if available on your system).

OR,

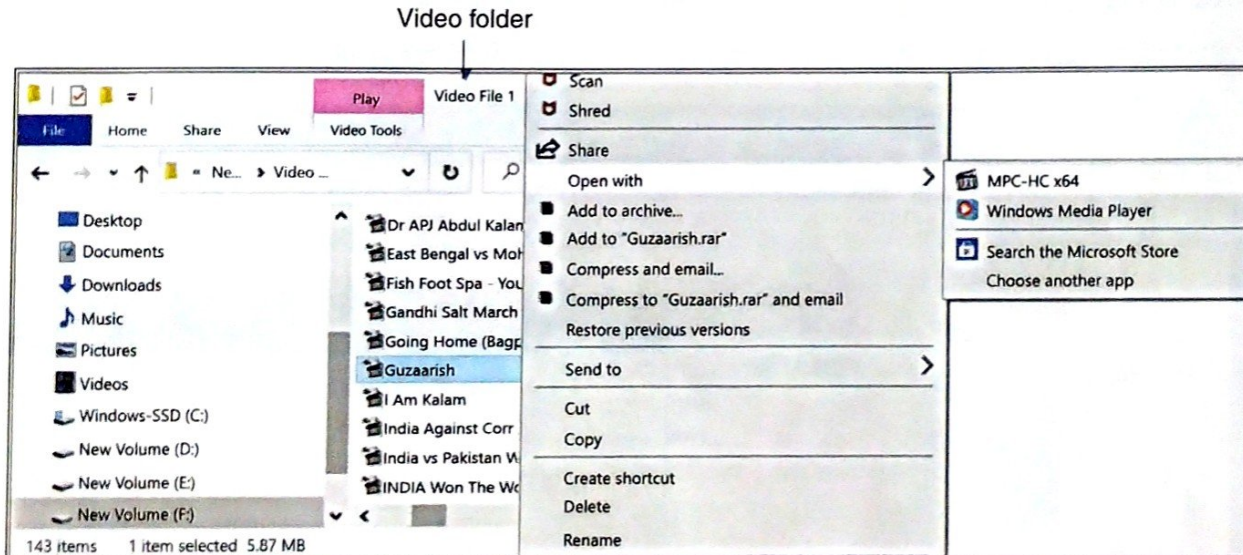
Insert the external device such as pen drive, SD card, etc. in the appropriate port (USB or SD card port).

OR,

Select the audio/video file present on your computer system which you want to play. Here, say, the file that is to be played is present in the F drive.



Step 2: Click the video folder named 'Video File 1' in the F drive. It will display all the video files available in the folder (as shown below).



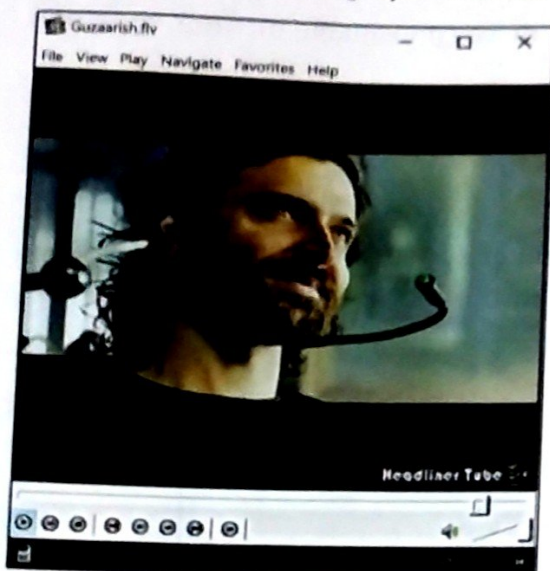
Step 3: Select the video file to be played and right-click on it.

Step 4: Select 'Open with' option and click on 'Media Player Classic' (MPC) or any other media player available in your system.

Note

If your system is set to Media Player Classic or any other player, by default, then the audio or video files will be played directly on the MPC or the other player format just with a double-click.

The media player will start playing the selected video file on the screen.

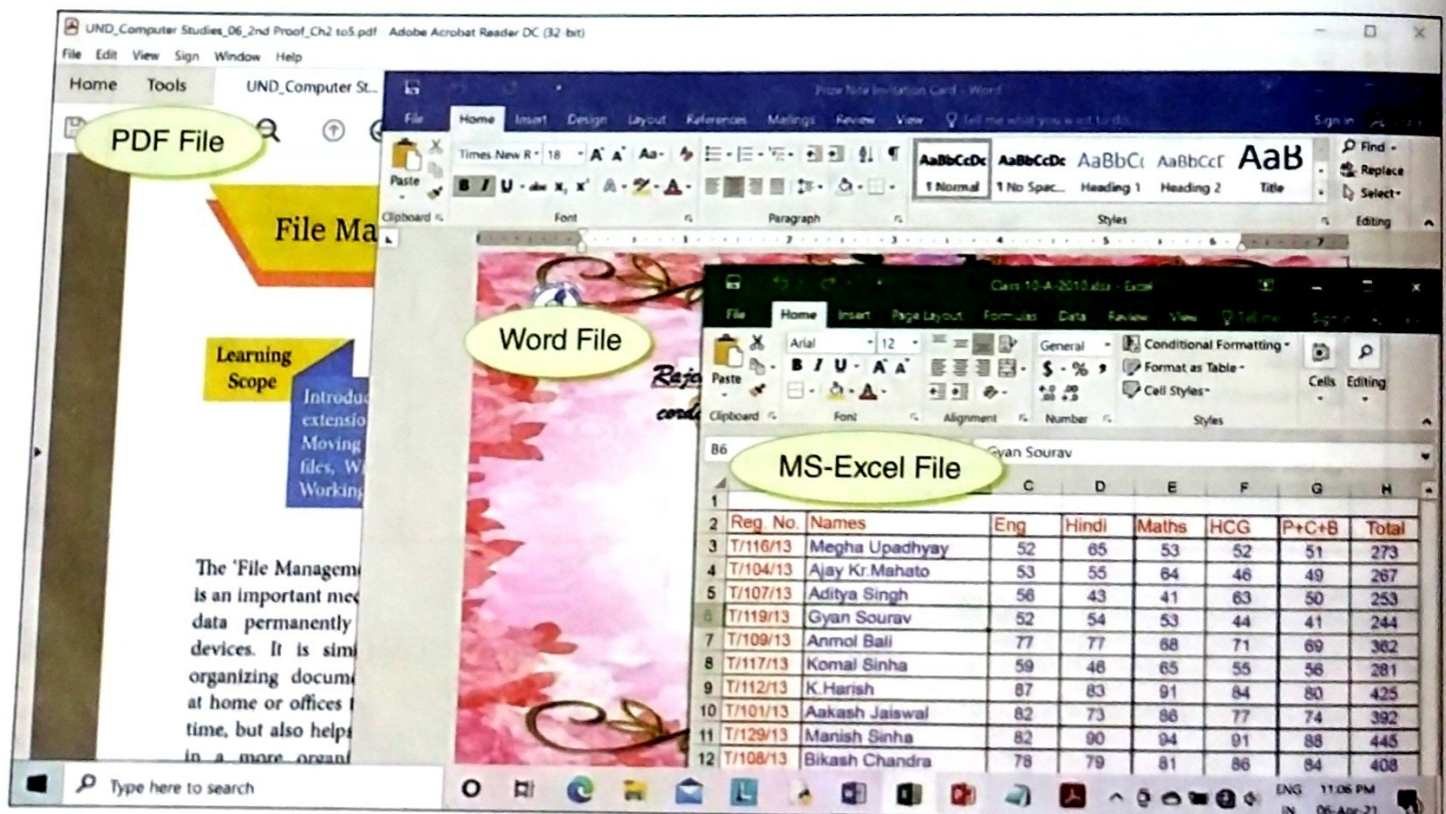


Extensions of some audio and video files:

- MPEG : Moving Picture Experts Group
- WMV : Windows Media Video
- WMA : Windows Media Audio
- WAVE : Waveform Audio File Format (commonly known as WAV)
- MIDI : Musical Instrument Digital Interface
- MP3 : MPEG Audio Layer-3

Working with Multiple Applications

You can also open several applications such as document files, spreadsheet files, PowerPoint files, etc. at a time. This way system provides a way to perform various tasks on the same window or in other application windows. However, the user can work on only one application at a time whose window is active. Whenever we want to work on a particular application window, it can be activated by just clicking the title bar of the corresponding window, as a result of which the title bar will become darker.



In the above example, we can notice that three different applications are open but the MS Excel file is the active application window.

Knowledge Corner



Buttons in a Window

Generally, there are three types of buttons present on the top right corner of an active window.

Minimize button

When we click on this button, the active window shrinks and takes the shape of a button on the task bar. This is done only when the user does not want to use the application window currently but wants to keep it opened.

Maximize button

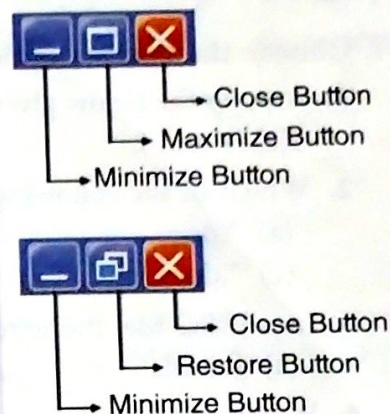
This button enlarges the active window to its maximum after clicking on it. This button is used only after using the restoring button which reduces the size of the active window.

Restore button

This button reduces the size of the active window to some extent. It remains active on the application window and can be maximized if required.

Close button

We can close an active window by clicking on this button. This is generally done when the user has finished his/her work and wants to exit the active window.



Chapter at a Glance

- File is a named unit on a storage device that stores information in an organised manner.
- Files are of three types- Ordinary files, Folder/Directory files and Special purpose file.
- A file format contains two parts- primary name and secondary name. The primary name is the name of the file and the secondary name is the extension of the file type.
- Various operations can be performed on a file - viewing, copying, moving, deleting, searching and playing audio/video files.
- A file can be moved from one device/drive to another device/drive.
- Wildcard characters are used when we want to search a file whose exact name is not known to us.
- A computer system is now well-equipped to allow users to perform multiple applications. However, the user can work only on one window at a time, which is known as the active window.

EXERCISES

Objective

I. Choose the correct option:

1. Among the below given options which two wildcard characters are used to search a file?
(a) # and ? (b) * and ! (c) @ and ! ☒ (d) ? and *
2. Which of the following options represents the correct format of MS Word file?
(a) *.doc (b) *.dox
(c) *.docx ☒ (d) Both (a) and (c)
3. In a JPEG file, the letter J stands for
(a) Jumble ☒ (b) Joint (c) Jip (d) Jointly
4. Which of the following is a shortcut key to paste the content?
(a) Ctrl+P ☒ (b) Ctrl+V (c) Ctrl+X (d) Ctrl+N
- B-1 ✓ 5. When a file is copied from a pen drive to hard disk, a pen drive is known as the
(a) destination drive ☒ (b) source drive (c) basic drive (d) home drive

II. State whether the following statements are True/False:

1. We needn't require including an extension while writing a file name. T
2. 'Copy and Paste' can also be referred to as moving a file. F
3. We can play MP3/MP4/CD on the Windows Media Player. T
- B-1 ✓ 4. Windows Media Player allows us to play an audio CD as well as a DVD. T
5. Deleting a file means removing it from the drive. T
6. Windows does not allow handling multiple files. F
7. External storage devices do not allow to play an audio or video file. T
8. By default, the deleted files/folders are stored in the Recycle Bin. T

III. Fill in the blanks:

1. Information is stored in a storage device with a specific name called File.
2. A file extension is also referred as file type.
3. .psd file type represents the Adobe Photoshop file.
4. Duplication of files from one drive to other is called Copying a file.
5. The 'cut and paste' option is also called moving a file.

6. Searching means locating a file among a set of files.
7. To delete a file, click the right button of the mouse on the file name and select the delete option.
8. Specific searching can be performed by using wildcard characters.

IV. Name the following:

1. The extension of two audio files.

(a) .mp3

(b) .wav

2. Two files using Arm?.docx

(a) Arm1.docx

(b) Arm2.docx / ArmA.doc

3. The extension of two video files

(a) .mp4

(b) .avi

4. Two well-known Wildcard characters

(a) *

(b) ?

5. Three different types of extension of a file

(a) .docx

(b) .jpg

(c) .exe

6. Three fundamental operations performed on a file

(a) Copy

(b) move

(c) Delete

7. Three types of files

(a) Text file

(b) Audio file

(c) Video file

8. Three Media Players

(a) VL C Media Player

(b) Windows Media Player

(c) KMP Player

V. Write down their file extensions:

S. No.	File Type	File Extension
1.	Adobe Photoshop	<u>.psd</u>
2.	Graphic files	<u>.jpg, .png</u>
3.	Acrobat portable document format	<u>.pdf</u>
4.	MS Word document file	<u>.doc / .docx</u>
5.	MS Excel spreadsheet file	<u>.xls / .xlsx</u>

VI. Answer in one word:

1. A device that contains a file - Drive
2. A portable storage device - Pen drive

3. The term given for duplicating a file
4. The character used for specific searching
5. The term used for removing a file

*copying
wildcard
Delete*

VII. Assertion and Reason based questions:

1. Solved

Assertion (A): Copying a file refers to making a duplicate copy of a document.

Reason (R): Ctrl + V is the command by which we can generate a copy of the selected document.

Based on the above discussion, choose an appropriate statement from the options given below:

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true and R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.
- (e) Both A and R are false.

Ans. (c) A is true but R is false.

2. Unsolved

Assertion (A): The '?' represents a wildcard character. Searching a file using wildcard character '?' lists all the files containing '?'.

Reason (R): The wildcard character '?' is used for searching files such as Phon?.docx. It will result in all the document files having first four characters as Phon.

Based on the above discussion, choose an appropriate statement from the options given below:

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true and R is not the correct explanation of A.
- (c) A is true but R is false.
- ✓(d) A is false but R is true.
- (e) Both A and R are false.

VIII. Case Study based questions:

Solved

1. Karan has a computer containing three drives. He stored an audio file (named Audio.*) in D: drive. His friend Soham also wants to have the same audio file. So, Karan duplicates the audio file to his friend's computer using a pen drive (F: drive).

As per the above discussion, answer the following questions:

- (a) Which drive will said to be a source drive?

(i) A: drive	(ii) F: drive	(iii) D: drive	(iv) Pen drive
--------------	---------------	----------------	----------------
- (b) Which drive will said to be a destination drive?

(i) F: drive	(ii) D: drive	(iii) CD: drive	(iv) B: drive
--------------	---------------	-----------------	---------------
- (c) What appropriate extension can be used for the audio file?

(i) .bas	(ii) .exe	(iii) .docx	(iv) .mp3
----------	-----------	-------------	-----------

(d) What is the term used for duplicating a file?

(i) Cut-paste

(ii) Copy-paste

(iii) Moving a file

(iv) Shifting a file

Ans. (a) (iii) D: drive

(b) (i) F: drive

(c) (iv) .mp3

(d) (ii) Copy-paste

Unsolved

1. You have participated in a quiz program. In the Rapid fire round, you were asked some questions as given below:

(a) What is the command used for removing a file from the hard disk?

(b) In which folder are all the deleted files stored?

(c) Which command is used to look for a file in the hard disk?

(d) Which command is used to move a file from one drive to other?

2. Windows 10 is a powerful operating system that provides various tools/commands for file manipulation. It uses (a) Del command to remove a file from the hard disk. The deleted files are stored in the Recycle bin (b) You can look for a file in the (c) Find box, by entering its name. If a drive is overloaded, you can shift a file to another drive using (d) Move command.

The above case includes some blanks. Choose the correct answer to complete the given case.

(a) This command removes a file from the hard disk.

(i) Remove

(ii) Rem

(iii) Delete

(iv) Del

(b) This icon stores the deleted file in the system.

(i) This PC

(ii) Recycle Bin

(iii) Chrome

(iv) VLC Player

(c) This box is used to find a file from the hard disk.

(i) Search

(ii) Locate

(iii) Seek

(iv) Find

(d) This command is used to shift a file from one drive to other.

(i) Copy-paste

(ii) Move

(iii) Transfer

(iv) Cut-paste

Subjective

I. Define the following:

1. File:

P-37

2. Folder:

P-23

3. Wildcard character:

P-32

4. Moving a file:

p-30

5. Copying a file:

p-26

II. Long Answer Questions:

- B-1 ✓
1. Differentiate between copying a file and moving a file.
 2. Can the deleted files be restored in the computer? Comment.
 3. Mention all the steps:
 - (a) to search a file using '*' Wildcard character
 - (b) to search a file in D drive of the hard disk
 - (c) to copy a file from E drive to a pen drive
 - (d) to play an audio or a video file on any media player.



In the Computer Lab

- I. Write short notes on the importance of 'Multiple Applications of Files' in MS Word. Finally, save the information with a suitable file name.
- II. A folder 'Master' in C drive contains the files 'Bio-data.docx', 'Result.xls', 'Notice.txt' and 'Nation.pptx'. Perform the following operations with the defined files:
 1. Copy the file 'Bio-data.docx' to the D drive.
 2. Move the file 'Result.xls' to pen drive.
 3. Search the file 'Notice.txt' on the hard disk.
 4. Delete the file 'Nation.pptx'.



Activities

Group Discussion

You might have used many types of media players on your computer system. Which one did you like the best and why? What features does it have that make it better than other media players? Make groups of four-five students each and discuss.

Topics for class debate

1. Digital filing is better than manual filing
2. Multiple file handling creates confusion

