

Chapter-2 Introduction to Windows

Q.No 1 what is an operating system? Discuss the various functions of OS?

Answer:

An Operating System (OS) is an interface between computer user and computer hardware. An operating system is software which performs all the basic tasks like file management, memory management, process management, handling input and output, and controlling peripheral devices such as disk drives and printers.

Some popular Operating Systems include Linux Operating System, Windows Operating System, VMS, OS/400, AIX, z/OS, Android etc.



Following are some of important functions of an operating System.

- Memory Management
- Processor Management
- Device Management
- File Management
- Security
- Control over system performance
- Job accounting
- Error detecting aids
- Coordination between other software and users

Memory Management

Memory management refers to management of Primary Memory or Main Memory. Main memory provides a fast storage that can be accessed directly by the CPU. For a program to be executed, it must in the main memory. An Operating System does the following activities for memory management –

- Keeps tracks of primary memory, i.e., what part of it are in use by whom, what parts are not in use?
- In multiprogramming, the OS decides which process will get memory when and how much.
- Allocates the memory when a process requests it to do so.
- De-allocates the memory when a process no longer needs it or has been terminated.

Processor Management

In multiprogramming environment, the OS decides which process gets the processor when and for how much time. This function is called **process scheduling**. An Operating System does the following activities for processor management –

- Keeps tracks of processor and status of process. The program responsible for this task is known as traffic controller.
- Allocates the processor (CPU) to a process.
- De-allocates processor when a process is no longer required.

Device Management

An Operating System manages device communication via their respective drivers. It does the following activities for device management –

• Keeps tracks of all devices. Program responsible for this task is known as the I/O controller.

- Decides which process gets the device when and for how much time.
- Allocates the device in the efficient way.
- De-allocates devices.

File Management

A file system is normally organized into directories for easy navigation and usage. These directories may contain files and other directions.

An Operating System does the following activities for file management -

- Keeps track of information, location, uses, status etc. The collective facilities are often known as file system.
- Decides who gets the resources.
- Allocates the resources.
- De-allocates the resources.

Other Important Activities

Following are some of the important activities that an Operating System performs -

- Security By means of password and similar other techniques, it prevents unauthorized access to programs and data.
- Control over system performance Recording delays between request for a service and response from the system.
- Job accounting Keeping track of time and resources used by various jobs and users.
- Error detecting aids Production of dumps, traces, error messages, and other debugging and error detecting aids.
- Coordination between other software's and users Coordination and assignment of compilers, interpreters, assemblers and other software to the various users of the computer systems.

Q.No. 2 Define Operating System for Mobile Phone & Tablets:

A mobile operating system, also called a *mobile OS*, is an operating system that is specifically designed to run on mobile devices such as mobile phones, Smartphone's, PDAs, tablet computers and other handheld devices.

Types of Mobile Operating Systems 1. Android OS (Google Inc.)

The Android mobile operating system is Google's open and free software stack that includes an operating system, middleware and also key applications for use on mobile devices, including Smartphone's.

2. Bada (Samsung Electronics)

Bada is a proprietary Samsung mobile OS that was first launched in 2010. The Samsung Wave was the first Smartphone to use this mobile OS. Bada provides mobile features such as multipoint-touch, 3D graphics and of course, application downloads and installation.

3. BlackBerry OS (Research In Motion)

The BlackBerry OS is a proprietary mobile operating system developed by Research In Motion for use on the company's popular BlackBerry handheld devices.

4. iPhone OS / iOS (Apple)

Apple's iPhone OS was originally developed for use on its iPhone devices. Now, the mobile operating system is referred to as iOS and is supported on a number of Apple devices including the iPhone, iPad, iPad 2 and iPod Touch.

5. Windows Mobile (Windows Phone)

Windows Mobile is Microsoft's mobile operating system used in Smartphone's and mobile devices – with or without touch screens. The Mobile OS is based on the Windows CE 5.2 kernel. In 2010 Microsoft announced a new Smartphone platform called Windows Phone 7.

Q.No 3 what are the three type of user interface?

Answer:

Communication between a user and a computer is two-way. One of the jobs of the operating system is to provide a 'user interface', so that a human can communicate with the hardware that makes up a computer. When you buy a piece of software, it too will have a user interface, so that you can access and use the software. A user will give data and instructions to a computer and a computer will give information back to a user. The way that a computer and a user communicate is known as the interface.

We will describe the different types of software interface that you might find as part of an operating system and identify their characteristics.

There are five different types of interface that might come with an operating system. These are:

- 1. Graphical User Interfaces (GUI)
- 2. Command Line Interfaces (CLI) or Command User Interfaces (CUI)
- 3. Form-based interfaces
- 4. Menu-based interfaces
- 5. Natural language interfaces.

1. Graphical User Interfaces (GUI)

Interfaces that are graphical in nature are known either as Graphical User Interfaces (GUI) or WIMP interfaces (Windows, Icons, Menus and Pointer). You will all have used a GUI hundreds of times, when you used Windows, or Word or Paint in primary school, or Explorer or Firefox to surf the web and so on.

2. Command line interface



An example of a command used in a command line interface.

A command line interface requires a user to type in commands from a list of allowable commands.

Example: Suppose you want to back-up a file called donkey.doc to a folder (directory) called animals on your floppy disk. In DOS, You would have to type: C :> copy donkey.doc a:\animals

3. Forms based interface

some operating systems are designed for businesses where employees have to enter in lots of information in boxes of the application form or tick for option selection. A formbased software interface on a computer is similar to a paper-based 'interface'. The input into the computer is predictable. If you used a range of form-based interfaces, you would start to see a number of common characteristics.

WIDGET OR	DER FORM	?
Product no: Quantity: Colour: Big or small? (Enter B or S)	Surname:	
Payment method: Account: Cash: Credit card: Cheque:	OK Cancel	Options

An example of a form-based interface.

4. Menus based interface

Some operating systems are designed with a menu-based user interface. Menu-based user interfaces are ideal for situations where the user's IT skills cannot be guaranteed or in situations which require selections to be made from a very wide range of options or in situations which require very fast selection. The user of a system that uses a menu-based interface will be presented with a limited number of options on the screen. Once a selection has been made, the user is presented with a sub-menu. This gives them further options. They make another selection and may be presented with a further sub-menu. This continues until the user is able to select exactly what they want from the choices finally displayed on the screen. Here is an example of a menu-based screen that might be found at a tourist office.



Example : Fast food outlets usually have a till made up of simple selections for the cashier to choose from, sometimes with words on each button and sometimes with pictures. This makes it easy for a cashier to take an order. They need very little training and it is one way that fast food outlets make the jobs in their restaurants low-skill, which they want to do because they can then keep wages low.



5. Natural language

This kind of interface requires the user to enter responses to questions asked by the computer. The questions are displayed on the VDU and the answers are entered via the keyboard. This kind of interface is called a 'natural language' interface because the computer and the user appear to be holding a conversation. For example, imagine the user has initiated a 'save file' request. The 'conversation' might go like this:

USER: Save file COMP: What is the file name? USER: chapter1.txt COMP: What folder? USER: UserGuide COMP: File already exists. Overwrite? USER: Yes COMP: Done.

Q.No 4 Give the procedure to create a new folder in windows 10.

How to Create a New Folder in Windows 10

- 1. Navigate to the location where you want to place the new folder.
- 2. Right-click and select New.
- 3. Select Folder.
- 4. The folder will be displayed, with the default name "New folder."
- 5. To change the name, type the new name for the folder and then press Enter.

Q.No 5 what do you mean by types of file extensions?

A file extension (or simply "extension") is the suffix at the end of a filename that indicates what type of file it is. For example, in the filename "myreport.txt," the .TXT is the file extension. It indicates the file is a text document. Some other examples include .DOCX, which is used for Microsoft Word documents, and .PSD, which is the standard file extension for Photoshop documents.

most file extensions are 3 characters in length, they can be as short as 1 character or longer than 20 characters. Sometimes long file extensions are used to more clearly identify the file type.

For example .TAX2015 TurboTax 2015 tax returns

.DESKTHEMEPACK Windows 8 desktop themes.

Since there are tens of thousands of file types, there are also tens of thousands of file extensions. While it may not be possible to remember all of them, it is helpful to learn some of the more common ones, such as .JPG, .GIF, .MP3, .ZIP, .HTML, and others.

Audio file formats by file extensions

- 1. .cda CD audio track file
- 2. .mid or .midi MIDI audio file.
- 3. .mp3 MP3 audio file
- 4. .mpa MPEG-2 audio file
- 5. .wav WAV file
- 6. .wma WMA audio file
- 7. .wpl Windows Media Player playlist

Compressed file extensions

- 1. .rar <u>RAR</u> file
- 2. .zip Zip compressed file

E-mail file extensions

- 1. .email Outlook Express e-mail message file.
- 2. **.eml** E-mail message file from multiple e-mail clients, including <u>Gmail</u>.
- 3. .emlx Apple Mail e-mail file.
- 4. .msg <u>Microsoft Outlook</u> <u>e-mail message</u> file.
- 5. .oft Microsoft Outlook e-mail template file.
- 6. **.ost** Microsoft Outlook offline e-mail storage file.
- 7. .pst Microsoft Outlook e-mail storage file.
- 8. .vcf E-mail contact file.

Executable file extensions

- 1. .apk <u>Android</u> package file
- 2. .bat Batch file
- 3. .bin Binary file
- 4. .cgi or .pl <u>Perl</u> script file
- 5. .com <u>MS-DOS</u> command file
- 6. **.exe** <u>Executable file</u>
- 7. .gadget Windows gadget
- 8. .jar Java Archive file
- 9. .msi Windows installer package
- 10. **.py** <u>Python</u> file
- 11. .wsf Windows Script File

Font file extensions

- 1. .fnt Windows font file
- 2. .fon Generic font file
- 3. .otf Open type font file
- 4. .ttf <u>TrueType</u> font file

Image file formats by file extension

- .ai <u>Adobe Illustrator</u> file
- .bmp Bitmap image
- .gif <u>GIF</u> image

- .ico <u>Icon</u> file
- .jpeg or .jpg <u>JPEG</u> image
- .png <u>PNG</u> image
- .ps <u>PostScript</u> file
- .psd PSD image
- .svg Scalable Vector Graphics file
- .tif or .tiff <u>TIFF</u> image

