Operating System

• Introduction to Operating System:

An Operating System (OS) is system software that manages computer hardware and software resources, providing services for computer programs. It acts as an interface between the user and the hardware. Examples include Windows, Linux, macOS, and Android.

• Uses:

Operating System (OS):

- Manages hardware resources.
- Handles memory, process scheduling, file management, and security.
- Makes it easier for users and applications to work with the computer.

User Interface (UI):

- ➤ How users interact with the computer.
- > Allows input of data and instructions.
- Shows information from the computer.

• CMD (Command Prompt)

It is a command-line interpreter in Windows used to execute commands, manage files, and troubleshoot system issues.

We use CMD (Command Prompt) to execute system commands, automate tasks, manage files, configure system settings, and troubleshoot issues. It provides more control over the operating system compared to the graphical interface.

Commands:

Here are some basic CMD (Command Prompt) commands:

- 1. dir Lists files and folders in the current directory.
- 2. cd [folder] Changes the directory.
- 3. cd .. Moves up one directory.
- 4. mkdir [folder] Creates a new folder.
- 5. rmdir [folder] Deletes a folder.
- 6. del [file] Deletes a file.

- 7. cls Clears the screen.
- 8. echo [text] Displays text on the screen.
- 9. exit Closes CMD.
- 10. ipconfig Displays network information.

Advantages:

The advantages of CMD (Command Prompt) include:

- 1. Faster Execution Commands execute quickly compared to GUI based operations.
- 2. Automation Batch scripts automate repetitive tasks.
- 3. System Control Provides advanced control over the OS.
- 4. Troubleshooting Helps diagnose and fix system issues.
- 5. File Management Allows efficient file and directory handling.