**Windows Command Line Interface (CLI) Commands Guide**

**File and Directory Management**

The following commands are essential for managing files and directories in the Windows Command Line Interface:

1. **dir**

Description: Lists files and directories.

Common Flags:

* + /A – Display files with specific attributes (e.g., hidden files: /A:H).
  + /S – List files in the specified directory and all subdirectories.
  + /P – Pause after each screen of information.
  + /B – Bare format (lists only file names).

Example: dir /A:H /P

1. **cd**

Description: Changes the current directory.

No flags, but paths are used:

* + .. – Move up one directory.
  + \ – Move to the root directory.
  + /D – Change drive and directory simultaneously.

Example: cd /D D:\Projects

1. **md or mkdir**

Description: Creates a new directory.

No specific flags, but you can specify full paths.

Example: mkdir NewFolder\SubFolder

1. **del**

Description: Deletes files.

Flags:

* + /P – Prompt for confirmation before deletion.
  + /F – Force deletion of read-only files.
  + /S – Delete specified files from all subdirectories.
  + /Q – Quiet mode (no prompts).

Example: del /P /F important.txt

1. **rmdir**

Description: Removes directories.

Flags:

* + /S – Remove the directory and all subdirectories.
  + /Q – Quiet mode (no prompts).

Example: rmdir /S /Q old\_directory

1. **copy**

Description: Copies files.

Flags:

* + /Y – Suppress prompt to confirm overwriting.
  + /V – Verify that new files are written correctly.

Example: copy source.txt D:\Backup\ /Y

1. **move**

Description: Moves or renames files.

Flags:

* + /Y – Suppress prompt for overwriting files.
  + /Y – Prompt for confirmation before overwriting.

Example: move file.txt D:\NewFolder\

1. **tree**

Description: Displays directory structure.

Flags:

* + /F – Display the names of the files in each folder.
  + /A – Use ASCII characters instead of extended characters.

Example: tree /F

**System Information**

These commands provide information about the system and its configuration:

1. **systeminfo**

Description: Displays detailed system information.

No flags, outputs all available system information.

Example: systeminfo

1. **ipconfig**

Description: Displays network configuration.

Flags:

* + /all – Display full configuration information.
  + /release – Release the current IP address.
  + /renew – Renew the IP address.

Example: ipconfig /all

1. **tasklist**

Description: Displays a list of running processes.

Flags:

* + /V – Display detailed information.
  + /FI – Filter processes by criteria.
  + /SVC – Display services hosted in each process.

Example: tasklist /FI "STATUS eq running"

1. **taskkill**

Description: Terminates processes.

Flags:

* + /PID – Specify the process ID to terminate.
  + /IM – Terminate by process name.
  + /F – Forcefully terminate.

Example: taskkill /IM notepad.exe /F

1. **hostname**

Description: Displays the computer's hostname.

No flags.

Example: hostname

**Utilities**

These commands serve various utility functions:

1. **cls**

Description: Clears the terminal screen.

No flags.

Example: cls

1. **echo**

Description: Displays messages or turns command echoing on/off.

Flags:

* + echo. – Print a blank line.

Example: echo Hello, World!

1. **type**

Description: Displays the contents of a file.

No flags.

Example: type file.txt

1. **find**

Description: Searches for a string in a file.

Flags:

* + /I – Ignore case.
  + /N – Display line numbers of matching lines.

Example: find /I "error" logfile.txt

1. **fc**

Description: Compares two files.

Flags:

* + /L – Compare files as text.
  + /B – Compare files as binary.
  + /C – Ignore case.

Example: fc /L file1.txt file2.txt

**Batch Scripting Basics**

These commands are useful for batch scripting:

1. **pause**

Description: Pauses execution and waits for a key press.

No flags.

Example: pause

1. **set**

Description: Displays or modifies environment variables.

Flags:

* + /A – Perform arithmetic operations.
  + /P – Set variables with user input.

Example: set /P username=Enter your name:

Followed by : echo Hello, %username%