

## **EXPERIMENT 1**

### **BASIC COMMANDS IN LINUX AND WINDOWS**

#### **AIM:**

To understand and execute basic Linux and Windows Operating System commands.

#### **Linux Commands:**

##### **1. pwd**

**Synopsis:** pwd

**Description:** Displays the current working directory (the folder you are currently in).

##### **2. ls**

**Synopsis:** ls [options]

**Description:** Lists all files and directories in the current location.

##### **3. cd**

**Synopsis:** cd [path]

**Description:** Changes the current working directory. Use cd .. to move up one level.

##### **4. mkdir**

**Synopsis:** mkdir [directory\_name]

**Description:** Creates a new directory in the current location.

##### **5. rmdir**

**Synopsis:** rmdir [directory\_name]

**Description:** Removes an empty directory.

##### **6. cp**

**Synopsis:** cp [source] [destination]

**Description:** Copies files or directories from one place to another.

##### **7. mv**

**Synopsis:** mv [source] [destination]

**Description:** Moves or renames files and directories.

##### **8. rm**

**Synopsis:** rm [file\_name]

**Description:** Deletes files from the system. Use rm -r to delete folders.

##### **9. touch**

**Synopsis:** touch [file\_name]

**Description:** Creates a new empty file or updates the timestamp of an existing file.

##### **10. cat**

**Synopsis:** cat [file\_name]

**Description:** Displays the contents of a file.

##### **11. nano / vi**

**Synopsis:** nano [file\_name] or vi [file\_name]

**Description:** Opens the specified file in a text editor for editing.

**12. chmod**

**Synopsis:** chmod [permissions] [file]

**Description:** Changes file permissions (read, write, execute) for users.

**13. chown**

**Synopsis:** chown [user]:[group] [file]

**Description:** Changes the owner and group of a file or directory.

**14. df**

**Synopsis:** df -h

**Description:** Displays available and used disk space on all mounted file systems.

**15. du**

**Synopsis:** du -h [directory]

**Description:** Shows the disk usage of files and directories.

**16. ps**

**Synopsis:** ps or ps aux

**Description:** Displays currently running processes.

**17. kill**

**Synopsis:** kill [process\_id]

**Description:** Terminates a process using its process ID (PID).

**18. grep**

**Synopsis:** grep [pattern] [file]

**Description:** Searches for a specific pattern or word within a file.

**19. man**

**Synopsis:** man [command]

**Description:** Displays the manual or help documentation for a command.

**20. sudo**

**Synopsis:** sudo [command]

**Description:** Executes a command with superuser (administrator) privileges.

**Windows commands:**

**1. dir**

**Synopsis:** dir

**Description:** Lists all files and folders in the current directory.

**2. cd**

**Synopsis:** cd [path]

**Description:** Changes the current working directory. Use cd.. to move up one level.

**3. mkdir**

**Synopsis:** mkdir [folder\_name]

**Description:** Creates a new folder in the current directory.

**4. rmdir**

**Synopsis:** rmdir [folder\_name]

**Description:** Deletes an empty folder.

**5. copy**

**Synopsis:** copy [source] [destination]

**Description:** Copies one or more files to another location.

**6. move**

**Synopsis:** move [source] [destination]

**Description:** Moves or renames files or folders.

**7. del**

**Synopsis:** del [file\_name]

**Description:** Deletes one or more files.

**8. cls**

**Synopsis:** cls

**Description:** Clears all text from the command prompt screen.

**9. tasklist**

**Synopsis:** tasklist

**Description:** Displays all currently running processes on the system.

**10. taskkill**

**Synopsis:** taskkill /IM [process\_name] /F

**Description:** Ends or forcefully terminates a process by its name.

**Result:**

The basic Linux and Windows commands were successfully executed. The functionalities of each command were understood, including directory handling, file operations, and system management tasks.