**LAB ASSIGNMENT-2**

**Outputs of the following commands**

1. **pwd**: prints the current working directory.

* Example: /home/users/Documents

1. **cd**: changes the current working directory.

* Example: /home/user/Desktop

1. **ls**: lists files and directories in the current directory.

* Example: file1.txt file2.txt folder1 folder2

1. **mkdir**: creates a new directory

* Example: mkdir folder

1. **rm**: removes files or directories

* Example: rm file1.txt

1. **touch:** Creates an empty file or updates the timestamp of an existing file.

* Example: touch file1.txt

1. **hostname:** Displays the system’s hostname

* Example: my-computer

1. **cat:** Displays the content of the file

* Example: cat file1.txt

Hello World!

1. **chmod**: changes file permissions

* Example: chmod 755 file1.txt

1. **echo:** prints text to the screen or redirects to a file

* Example: echo "Hello, World!"

Hello, World!

1. **grep**: searches for patterns in file

* Example: grep “Hello” file1.txt

1. **fgrep**: searches for fixed strings instead of patterns

* Example: fgrep "Hello" file1.txt

Hello, World!

1. **mv:** moves or renames files or directories

* Example: mv file1.txt myfile.txt

1. **cp:** copies files or directories

* Example: cp file1.txt backup.txt

1. **more**: Displays file content page by page

* Example: more largefile.txt

1. **less:** Displays file content with backward and forward navigation.

* Example: less largefile.txt

1. **wc:** count words, lines or characters in files.

* Example: wc file1.txt

1 2 13 file1.txt

1. **awk**: pattern scanning and text processing language

* Example: awk '{print $1}' file1.txt

Hello,

1. **sed**: stream editor for filtering and transforming text

* Example: sed 's/Hello/Hi/' file1.txt

Hi, World!

1. **tail:** displays last few lines of a file

* Example: tail file1.txt

Hello, World!

**Answers to the following Questions:**

**Ques 1) How to navigate to a specific directory?**

**Ans**: cd /path/to/directory

**Ques 2) How to see detailed information about files and directories using ls?**

**Ans:** ls -l

**Ques 3) How to create multiple directories in Linux using `mkdir` command?**

**Ans:** mkdir dir1 dir2 dir3

**Ques4) How to remove multiple files at once with rm?**

**Ans:** rm file1.txt file2.txt file3.txt

**Ques 5) Can rm be used to delete directories?**

**Ans:** rm -r directory\_name

**Ques 6) How Do You Copy Files and Directories in Linux?**

**Ans:** cp source\_file destination\_file

cp -r source\_directory/ destination\_directory/

**Ques 7) How to Rename a file in Linux Using mv Command?**

**Ans:** mv oldname.txt newname.txt

**Ques 8) How to Move Multiple files in Linux Using mv Command**

**Ans:** mv file1.txt file2.txt /path/to/destination/

**Ques 9) How to Create Multiple Empty Files by Using Touch Command in Linux?**

**Ans:** touch file1.txt file2.txt file3.txt

**Ques 10) How to View the Content of Multiple Files in Linux?**

**Ans:** cat file1.txt file2.txt

**Ques 11) How to Create a file and add content in Linux Using `cat` Command?**

**Ans:** cat > newfile.txt

This is some content.

(Press Ctrl+D to save)

**Ques 12) How to Append the contents of one file to the end of another file using cat command?**

**Ans:** cat file2.txt >> file1.txt

**Ques 13) How to use cat command if the file has a lot of content and can’t fit in the terminal?**

**Ans:** cat "filename" | more

**Ques 14) How to merge contents of multiple files using `cat` command?**

**Ans:** cat file1.txt file2.txt > mergedfile.txt

**Ques 15) How to use cat Command to Append to an Existing File?**

**Ans:** cat >> existingfile.txt

Additional content.

(Press Ctrl+D to save)

**Ques 16) What is “chmod 777 “, “chmod 755” and “chmod +x “or “chmod a+x”?**

**Ans:** chmod 777: Full permissions to everyone

chmod 755: Read, write, execute for owner; read, execute for others.

chmod +x / chmod a+x: Adds execute permission to file.

**Ques 17) How to find the number of lines that matches the given string/pattern?**

**Ans:** grep -c 'pattern' filename

**Ques 18) How to display the files that contains the given string/pattern?**

**Ans:**grep -l 'pattern' \*.txt

**Ques 19) How to show the line number of file with the line matched?**

**Ans:**grep -n 'pattern' filename

**Ques 20) How to match the lines that start with a string using grep?**

**Ans:** grep '^string' filename

**Ques 21) Can the ‘sort’ command be used to sort files in descending order by default?**

**Ans:** sort -r filename

**Ques 22) How can I sort a file based on a specific column using the ‘sort’ command?**

**Ans:** sort -k2 filename