**LAB ASSIGNMENT-2**

**Aim:** To study and understand Ubuntu Commands.

**To perform**: Execute different Commands

**Part 1 - Outputs of the following commands**

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

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

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

**mkdir**: creates a new directory

**rm**: removes files or directories

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

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

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

**chmod**: changes file permissions

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

**grep**: searches for patterns in file

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

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

**cp:** copies files or directories

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

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

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

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

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

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

**Part 2 - Answers to the following Questions:**

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

**Answer**: cd /path/to/directory

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

**Answer:** ls -l

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

**Answer:** mkdir dir1 dir2 dir3

**Question 4) How to remove multiple files at once with rm?**

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

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

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

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

**Answer:** cp source\_file destination\_file

cp -r source\_directory/ destination\_directory/

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

**Answer:** mv oldname.txt newname.txt

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

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

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

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

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

**Answer:** cat file1.txt file2.txt

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

**Answer:** cat > newfile.txt

This is some content.

(Press Ctrl+D to save)

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

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

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

**Answer:** cat "filename" | more

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

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

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

**Answer:** cat >> existingfile.txt

Additional content.

(Press Ctrl+D to save)

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

**Answer:** 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.

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

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

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

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

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

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

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

**Answer:** grep '^string' filename

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

**Answer:** sort -r filename

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

**Answer:** sort -k2 filename