

Assignment-6

1. Which command is used to list the contents of a directory? Justify with proper example.

➤ Ls

Ex: 1) ls

2) ls -l

out put: -rw-r--r-- 1 user user 1024 Oct 12 10:00 file.txt

drwxr-xr-x 2 user user 4096 Oct 11 15:30 Documents

3) ls -a

out put:bashrc file.txt Documents

2. Write the command to create a new directory named 123test_dir.

➤ mkdir 123test_dir

3. What is the purpose of the sed command? Justify with proper example.

The sed command is to serve as a stream editor that performs basic text transformations on an input stream (such as a file or piped input) in a non-interactive manner. It allows users to search, replace, insert, and delete text line-by-line without needing to open the file in a text editor.

Ex: 1. Substituting text

Sed 's/apple/orange/' fruits.txt

2. delete a line

Sed '2d' fruits.txt

3. Print a specific line

Sed -n '1p' fruits.txt

4. Which distinct command is used to display one-line descriptions of any commands?

➤ Whatis

5. Write the command to create an empty file named “notes.txt”.

➤ touch notes.txt

6. Differentiate between grep and awk commands with an example.

Feature	grep	awk
Purpose	Searches for lines matching a pattern	Full programming language designed for text processing
Complexity	Simple filtering based on matching patterns	Complex text manipulation, field-based processing
Use Case	Extract lines containing a pattern	Extract/transform specific fields or perform calculations
Output	Prints matching lines	Prints/manipulates specified columns or formats output
Example Command	grep "error" logfile.txt	awk '{print \$1}' data.txt
Example Explained	Finds lines with "error" in logfile	Prints the first column of each line in data.txt

7. Write the command to give read, write, and execute permission to the owner of a file script.sh.

➤ `chmod u+rwx script.sh`

8. How is chown different from chgrp? Give one example for each.

Chown:- Changes the owner (user) of a file or directory

Ex : `sudo chown alice script.sh`

Chgrp:- Changes the group ownership of a file or directory

Ex: `sudo chgrp developers script.sh`

9. A user complains that they cannot execute a file even though it exists in their directory. How would you troubleshoot this using ls -l, chmod, and whoami?

`ls -l filename`

```
whoami  
chmod +x filename
```

10. Design a command pipeline to: find all .log files modified in the last 2 days in /var/log, display them on screen, and save the results into a file recent_logs.txt using tee command.

```
> find /var/log -name "*.log" -mtime -2 -print | tee recent_logs.txt
```