

LINUX PROGRAMMING

ASSIGNMENT-6

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Q1. Which command is used to list the contents of a directory?

Ans:

ls — lists files and directories.

Example:

```
ls /home/user
```

Q2. Write the command to create a new directory named 123test_dir.

Ans:

```
mkdir 123test_dir
```

Q3. What is the purpose of the sed command?

Ans:

sed stands for **Stream Editor**; it is used to **filter and transform text** in a stream or file.

Example:

```
sed 's/linux/unix/' file.txt
```

Replaces the first occurrence of “linux” with “unix” in each line

Q4. Which command displays one-line descriptions of commands?

Ans:

whatis

Example:

```
whatis grep
```

Q7. Write the command to give read, write, and execute permission to the owner of script.sh.

Ans:

```
chmod u+rwx script.sh
```

Q8. How is chown different from chgrp? Give examples

Ans:

Command	Purpose	Example
chown	Changes file owner	chown user1 file.txt
chgrp	Changes group ownership	chgrp staff file.txt

Q9. A user cannot execute a file even though it exists. How to troubleshoot using ls -l, chmod, and whoami?

Ans:

Steps:

1. Check file permissions:

```
ls -l filename
```

Look for the execute (x) bit.

2. If missing, give execute permission:

```
chmod u+x filename
```

3. Check the username:

```
whoami
```

Confirms if the user is the file's owner.

Q10. Design a command pipeline to find all .log files modified in the last 2 days in /var/log, display them, and save results into recent_logs.txt using tee.

Ans:

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

This displays matching files on the screen and saves the same output in recent_logs.txt.