Linux Programming: Assignment-6

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

Answer:

Ls

Example:

ls /home/user

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

Answer:

mkdir 123test_dir

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

Answer:

Sed (stream editor) is used to perform text transformations like substitution.

Example:

Sed 's/Linux/Ubuntu/g' file.txt

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

Answer:

 whatis command_name

Example:

 whatis grep

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

Answer:

touch notes.txt

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

Answer:

grep: Searches for matching patterns.

grep "error" log.txt

awk: A text processing tool for pattern scanning and data extraction.

awk '{print $1, $3}' data.txt

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

Answer:

chmod u+rwx script.sh

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

Answer:

chown: Changes file owner.

chown user1 file.txt

chgrp: Changes group ownership.

chgrp staff file.txt

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?

Answer:

Use ls -l file.sh to check permissions.

If execute bit (x) is missing, give permission:

chmod +x file.sh

Check who owns the file:

Whoami

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.

Answer:

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

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