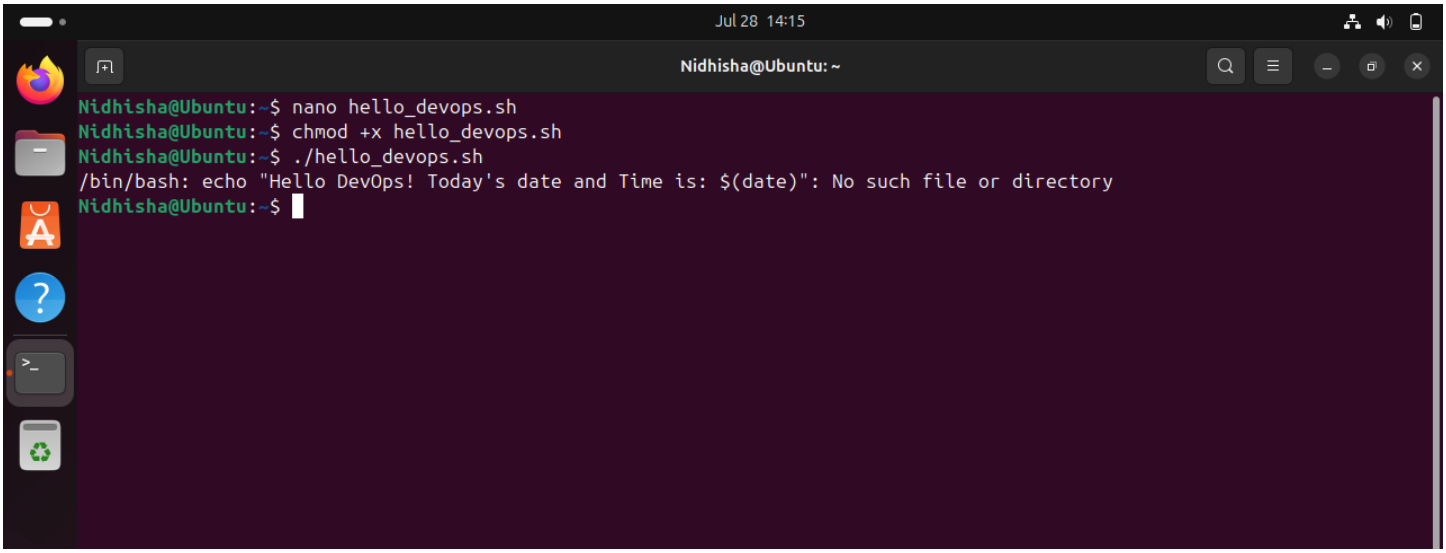
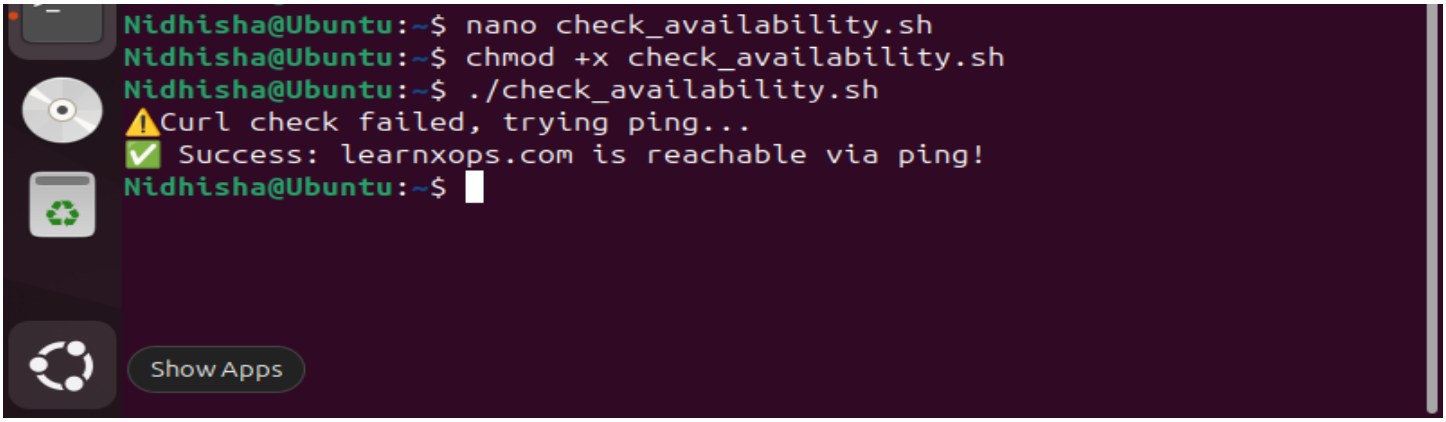
#DAY 2

Linux Shell Scripting & Automation

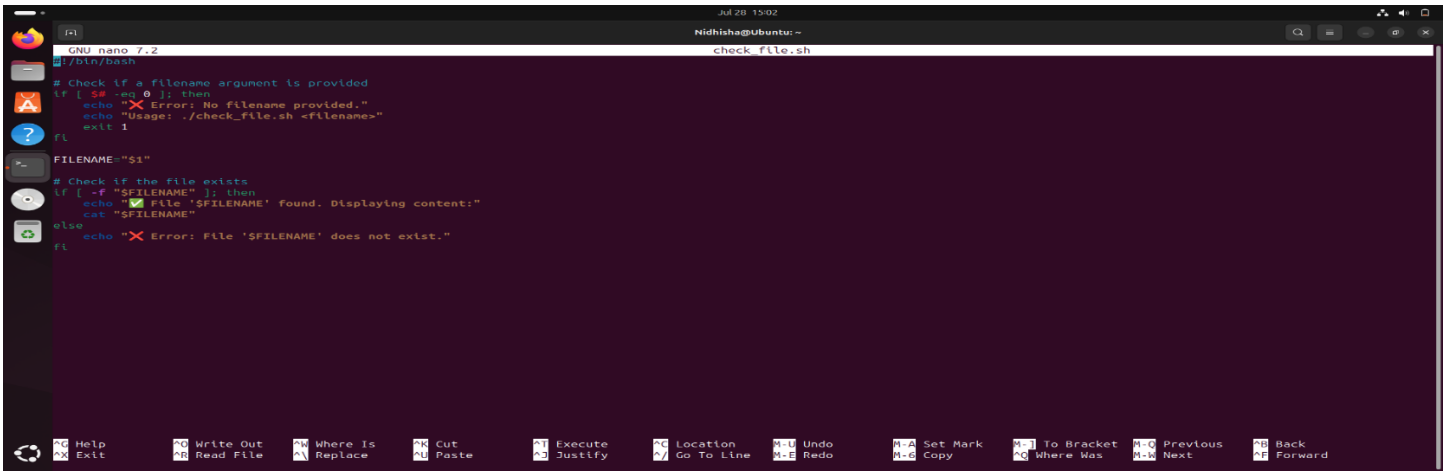
Challenge 1: Write a simple Bash script that prints “Hello DevOps” along with the current date and time.



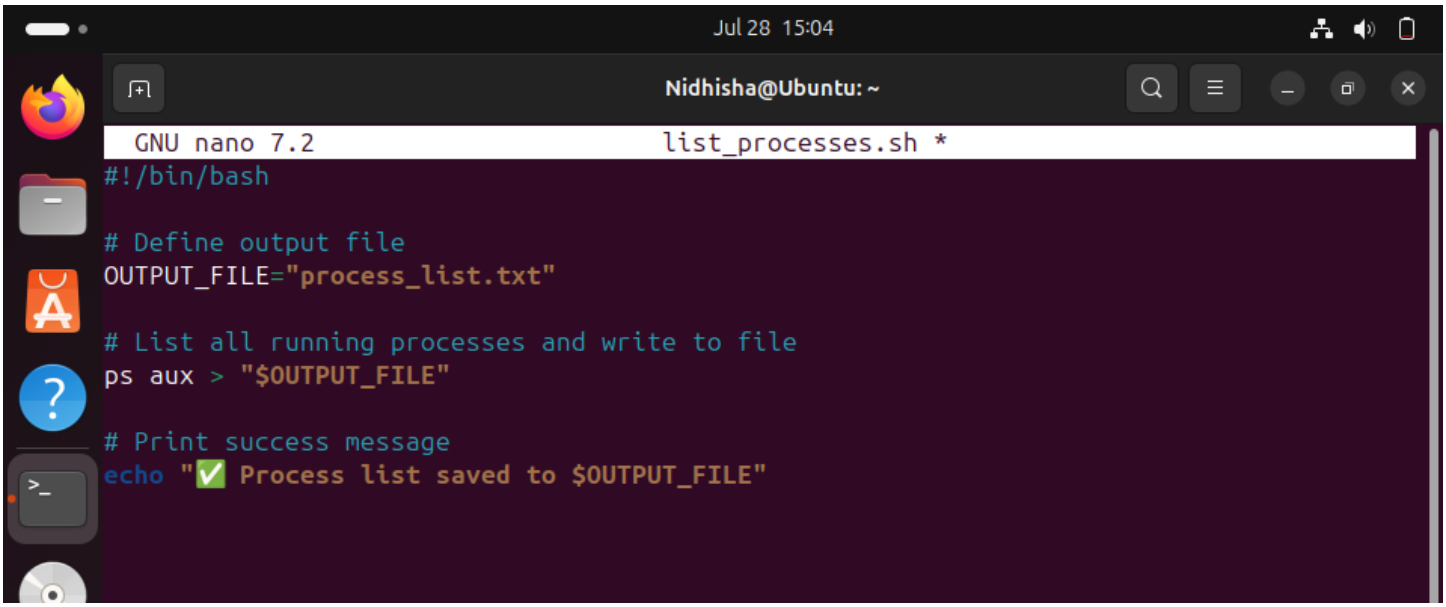
Challenge 2: Create a script that checks if a website (e.g., https://www.learnxops.com) is reachable using curl or ping. Print a success or failure message.



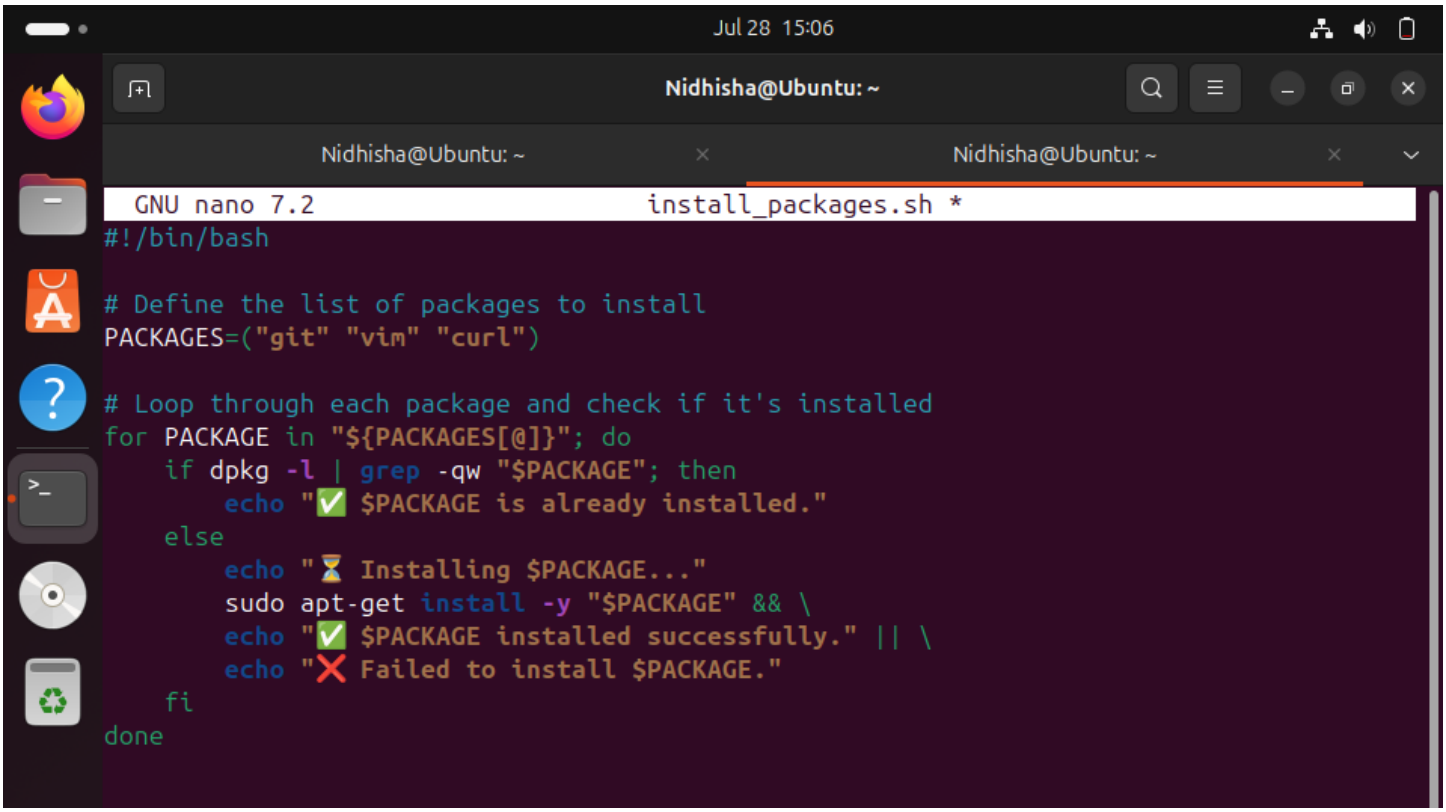
Challenge 3: Write a script that takes a filename as an argument, checks if it exists, and prints the content of the file accordingly.



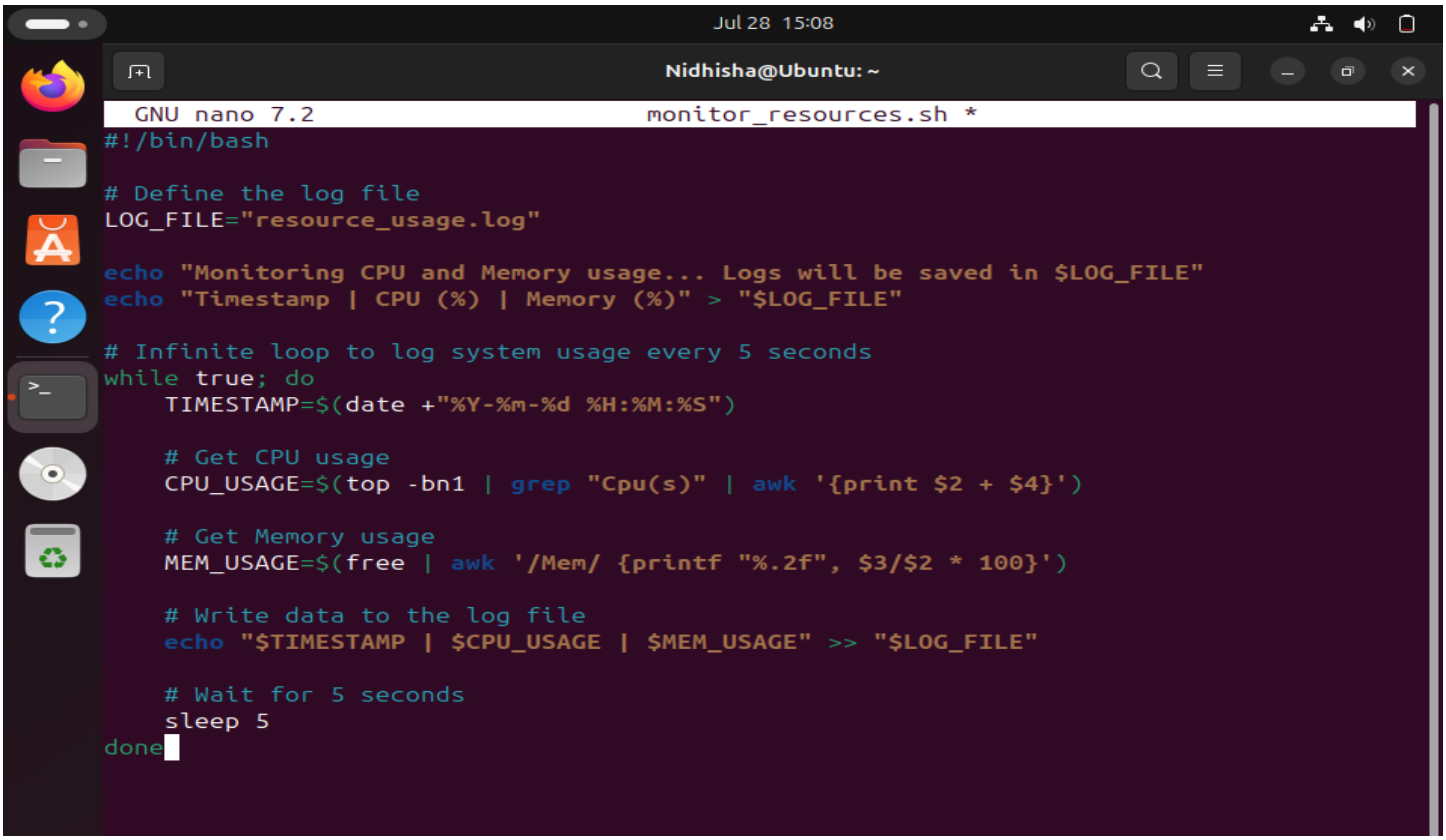
Challenge 4: Create a script that lists all running processes and writes the output to a file named process_list.txt.



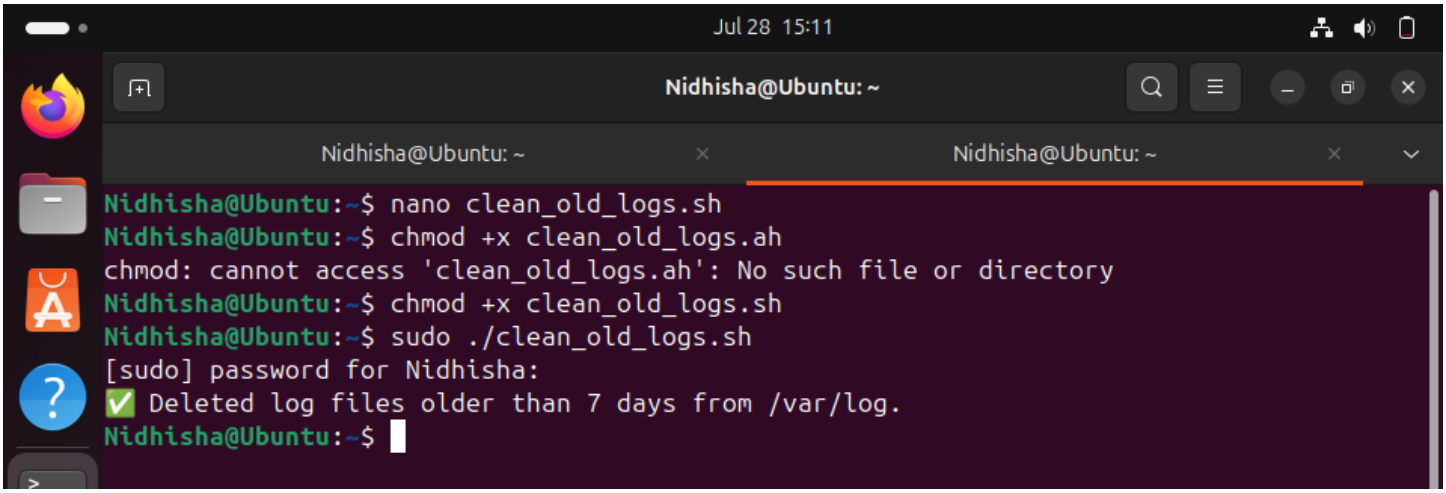
Challenge 5: Write a script that installs multiple packages at once (e.g., git, vim, curl). The script should check if each package is already installed before attempting installation.



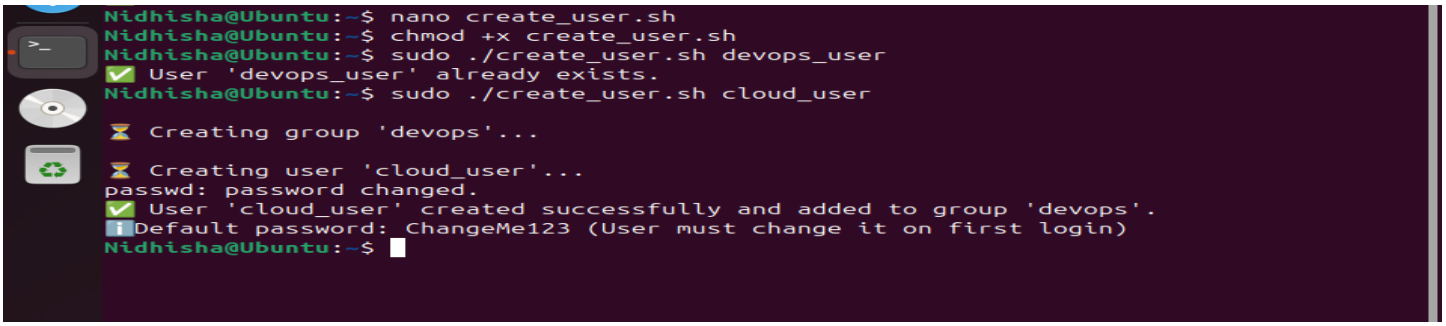
Challenge 6: Create a script that monitors CPU and memory usage every 5 seconds and logs the results to a file.



Challenge 7: Write a script that automatically deletes log files older than 7 days from /var/log.



Challenge 8: Automate user account creation – Write a script that takes the username as an argument, checks, if the user exists, gives the message "user already exists" else creates a new user, adds it to a "devops" group, and sets up a default home directory.



Challenge 9: Use awk or sed in a script to process a log file and extract only error messages.

```
Nidhisha@Ubuntu:~$ nano extract_errors.sh
Nidhisha@Ubuntu:~$ chmod +x extract_errors.sh
Nidhisha@Ubuntu:~$ ./extract_errors.sh
awk: cannot open "/var/log/syslog" (Permission denied)
✅ Extracted error messages saved to 'error_messages.log'.
```

Challenge 10: Set up a cron job that runs a script to back up (zip/tar) a directory daily.

```
Nidhisha@Ubuntu:~$ nano backup.sh
Nidhisha@Ubuntu:~$ chmod
chmod: missing operand
Try 'chmod --help' for more information.
Nidhisha@Ubuntu:~$ chmod +x backup.sh
Nidhisha@Ubuntu:~$ 0 2 * * * /path/to/backup.sh >> /var/log/backup.log 2>&1
bash: /var/log/backup.log: Permission denied
Nidhisha@Ubuntu:~$
```