National Textile University

Department of Computer Science

Subject:

Operating Systems

Submitted To:

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Submitted By:

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Registration No:

23-NTU-CS-1135

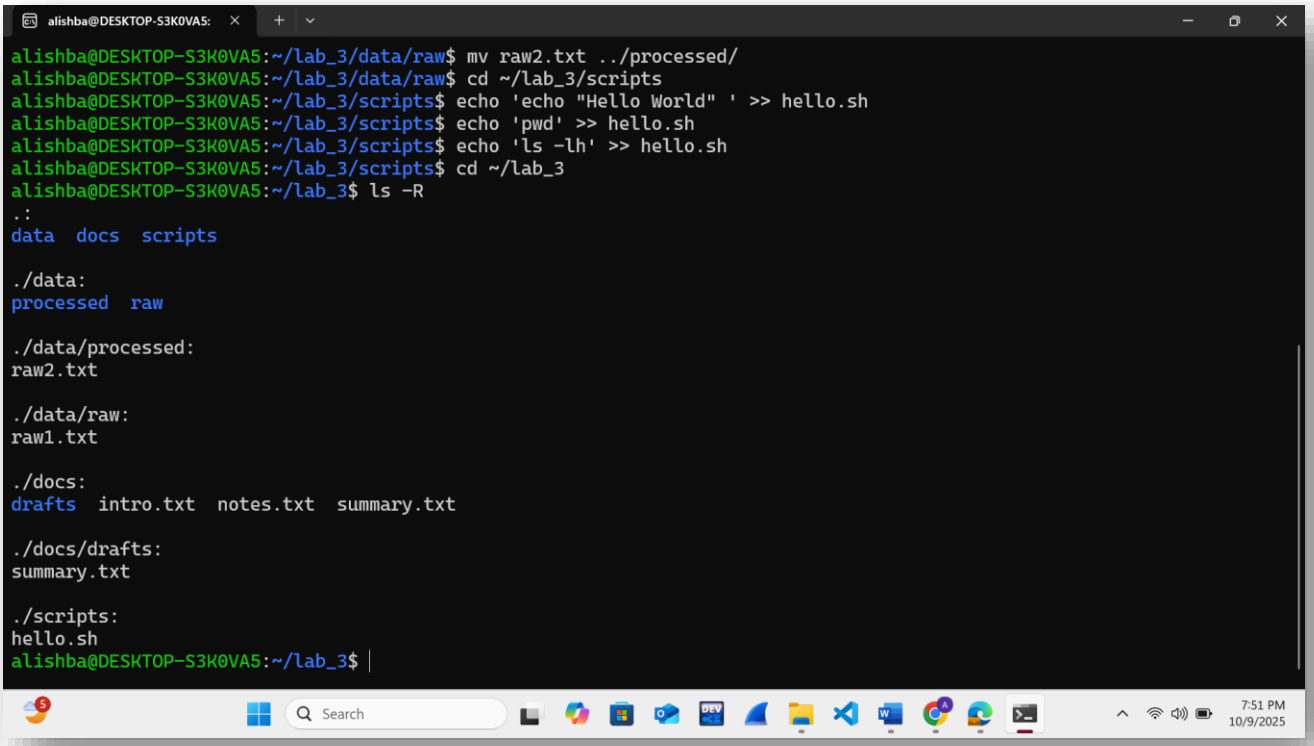
Lab No:

3 - Home tasks

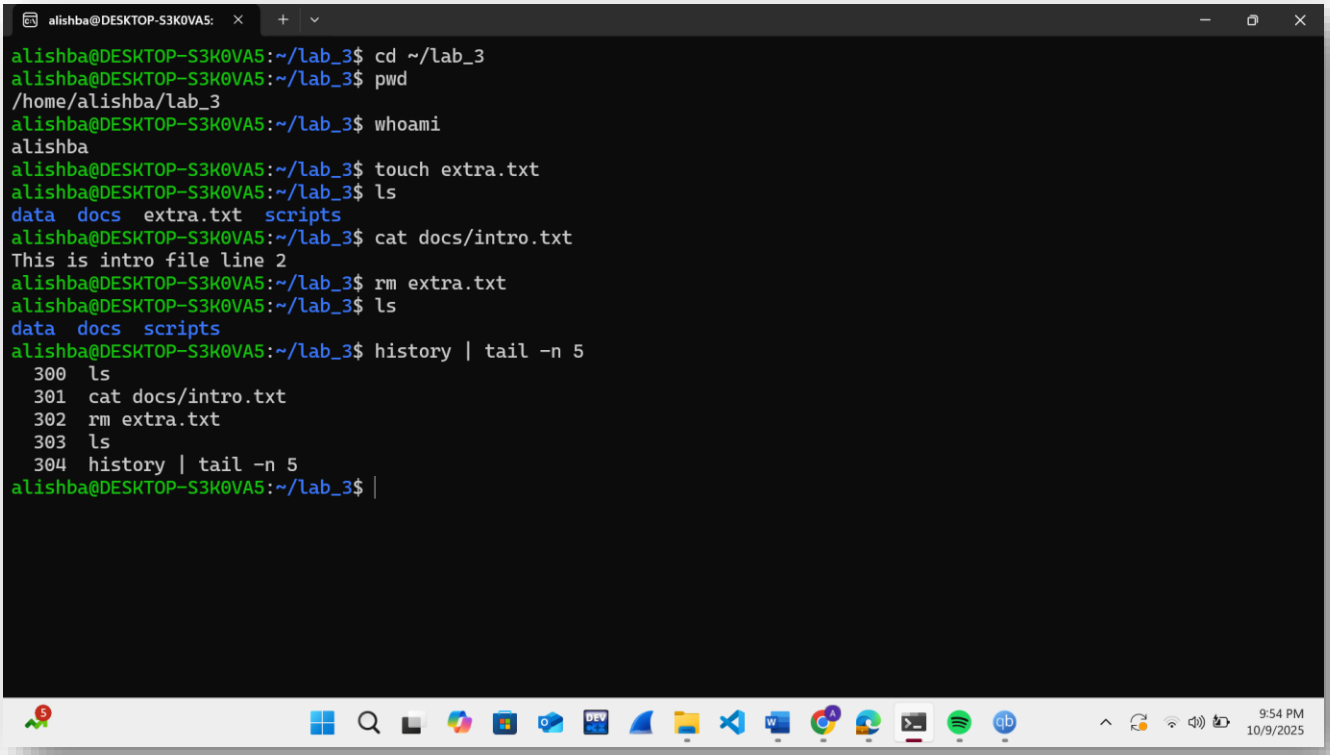
Semester:

5th

Part 1: File and Directory Operations

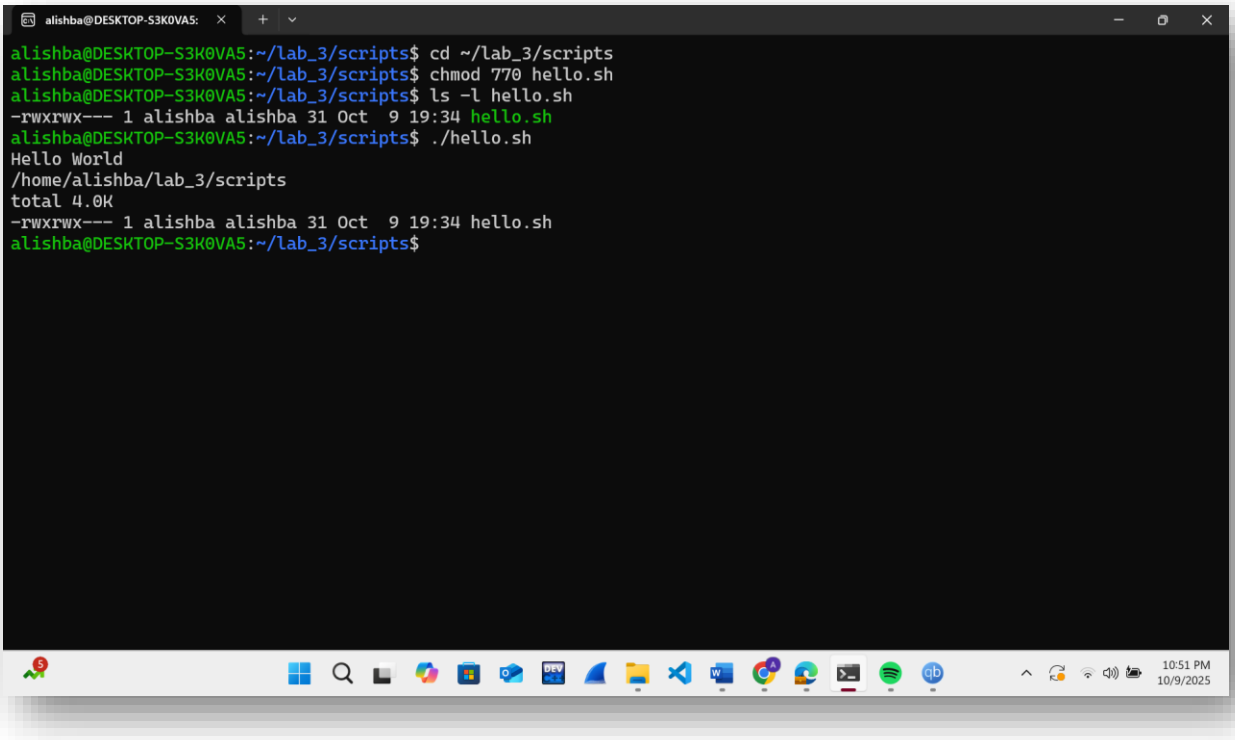


Part 2: Practice with Basic Linux Commands

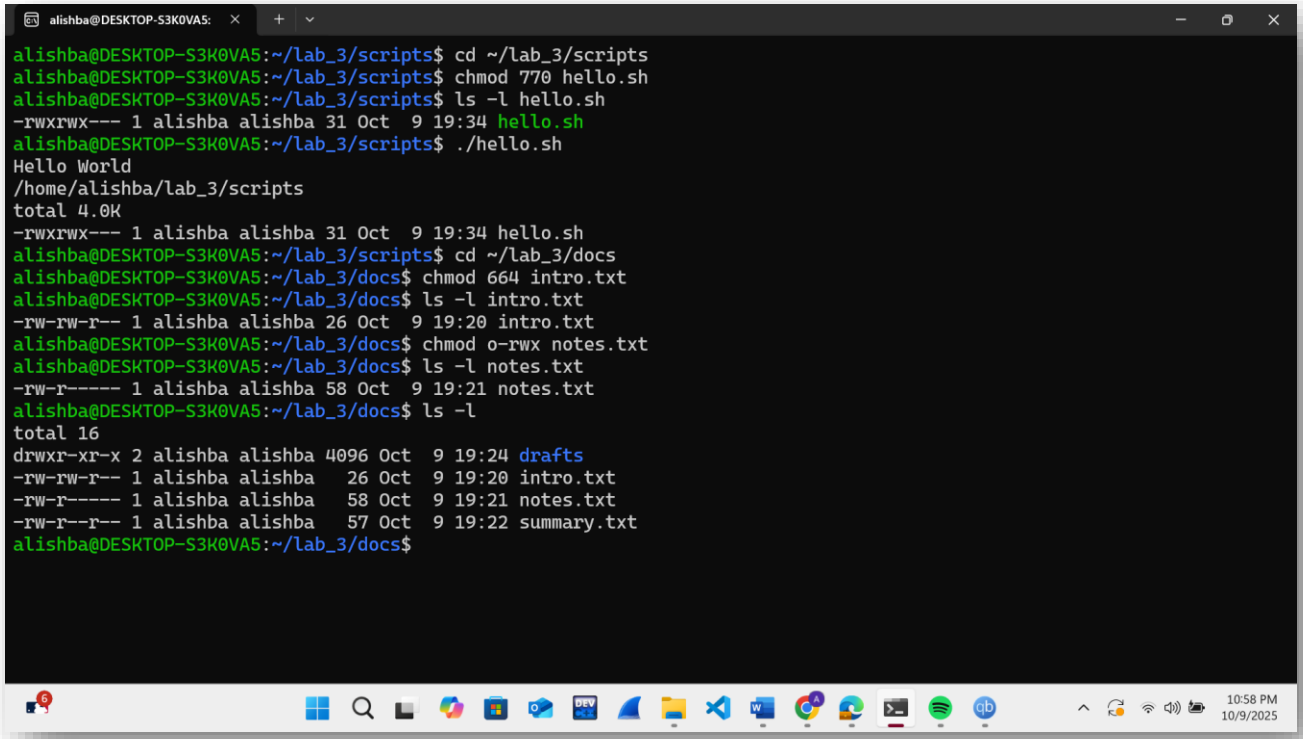


Part 3: File Permissions and Ownership

1. Change the permissions of hello.sh



2. Change the permissions of intro.txt & notes.txt



Part 4: Reading & Searching Files

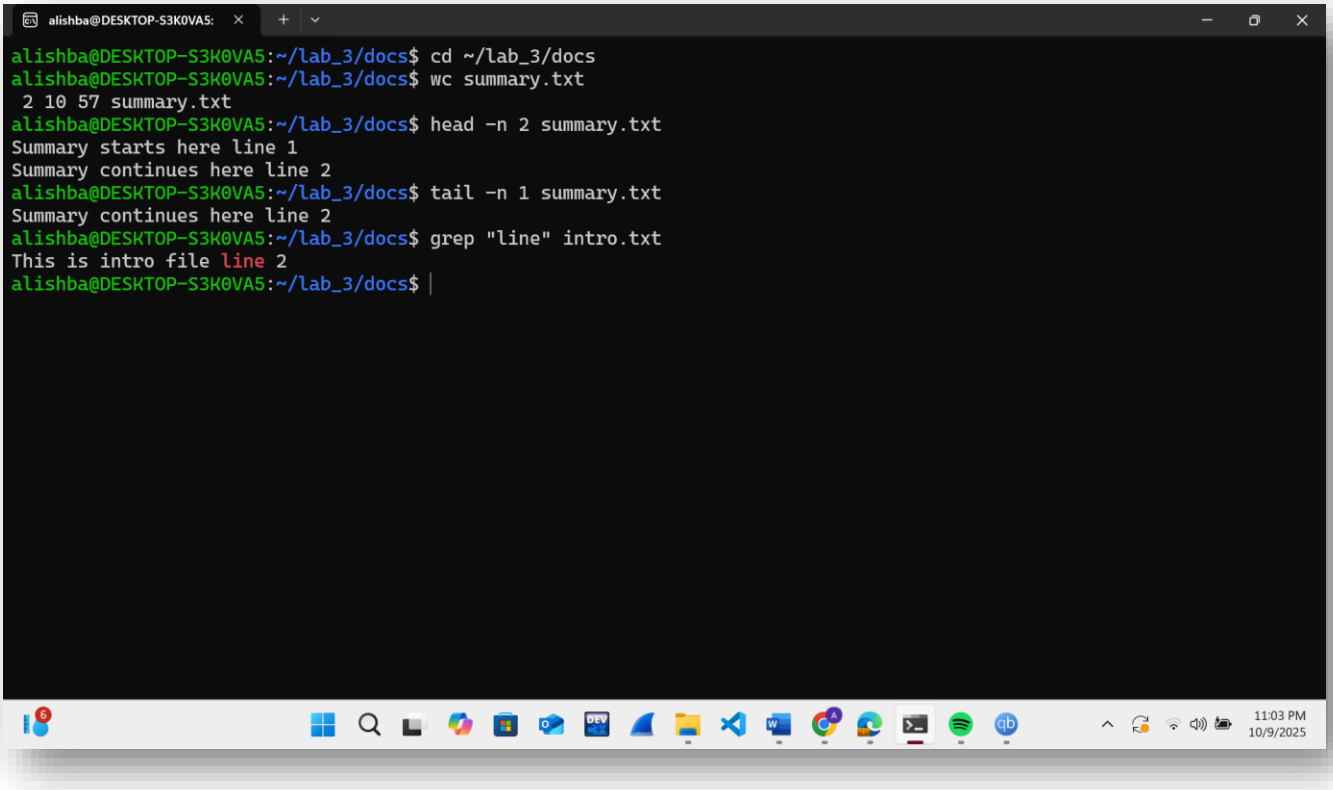
Inside docs/ :

1. Count the number of lines, words, and characters in

2. Show only the first 2 lines of summary.txt using head -n 2

3. Show the last line of summary.txt using tail -n 1 .

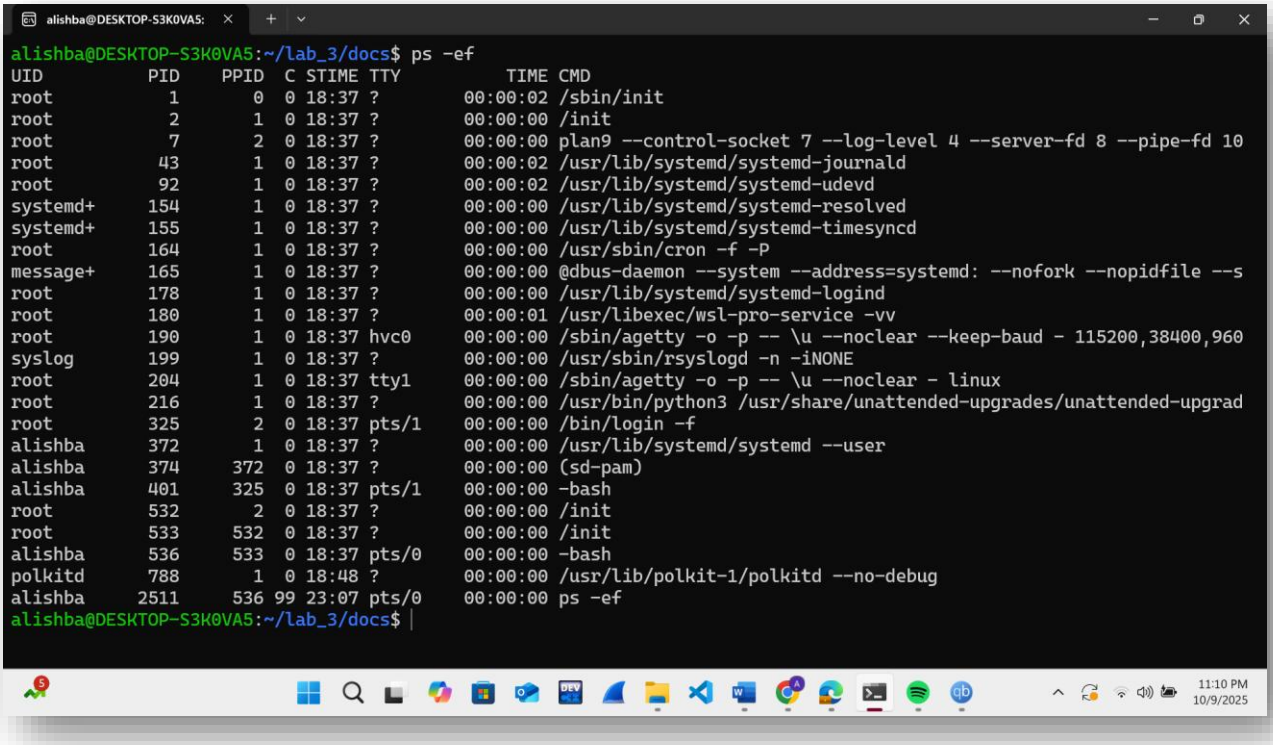
4. Search for a keyword (of your choice) in intro.txt grep .



Part 5: Linux Process Commands

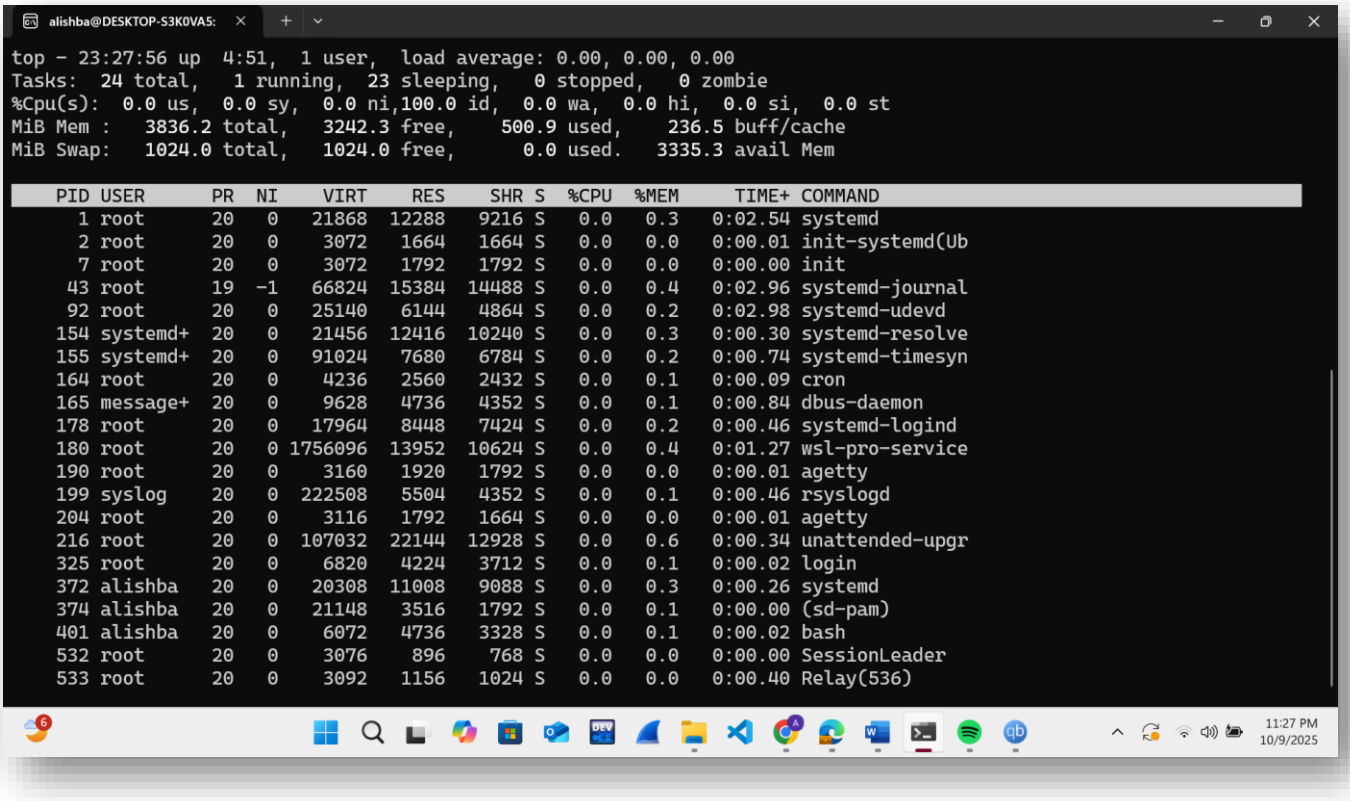
1. Exploring processes:
    - Use ps -ef and identify 3 processes running on your system. Note their PID, PPID, and command.

PID	PPID	Command
7	2	plan9 --control-socket 7 --log-level 4 --server-fd 8 --pipe-fd 10
533	532	/init
536	533	-bash



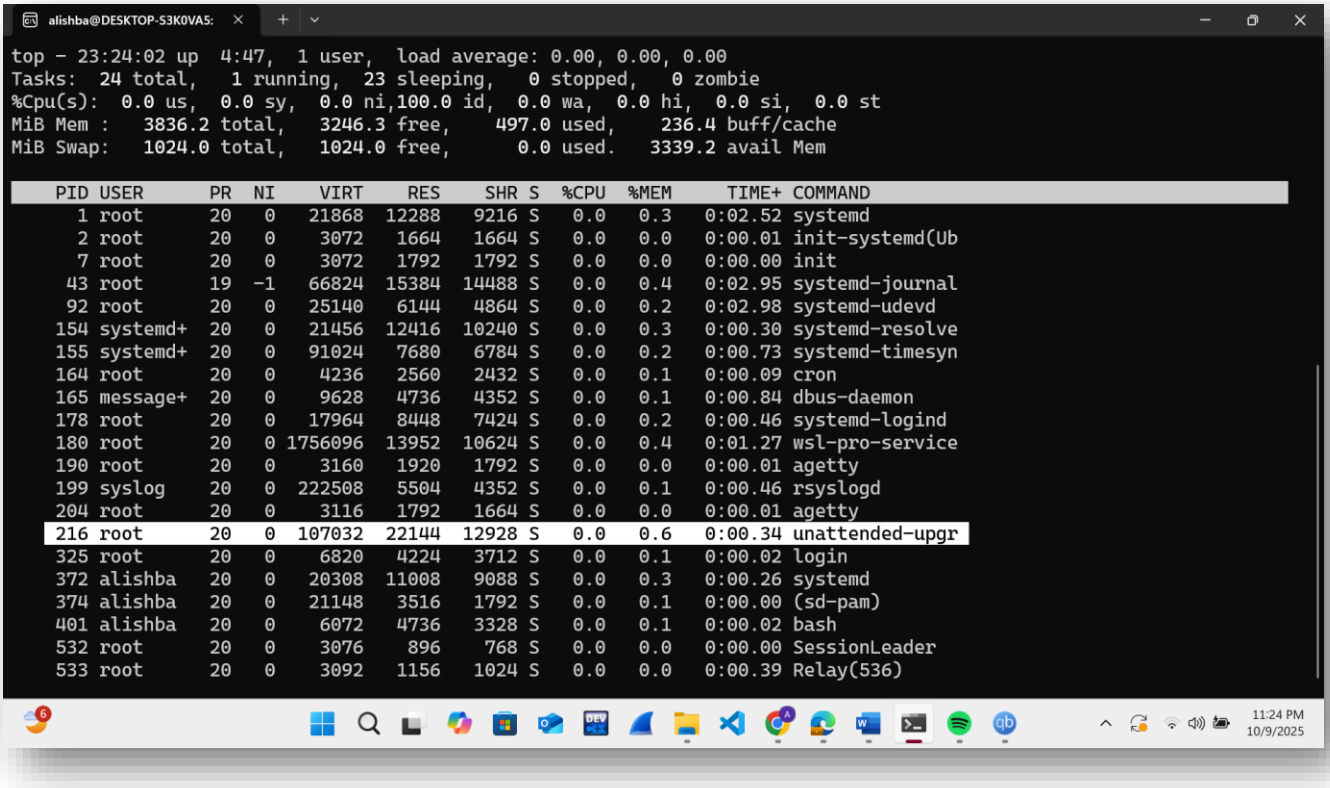
- Run top for 20–30 seconds. Write down:
    - Which process is consuming the most CPU?

All processes are using same CPU.

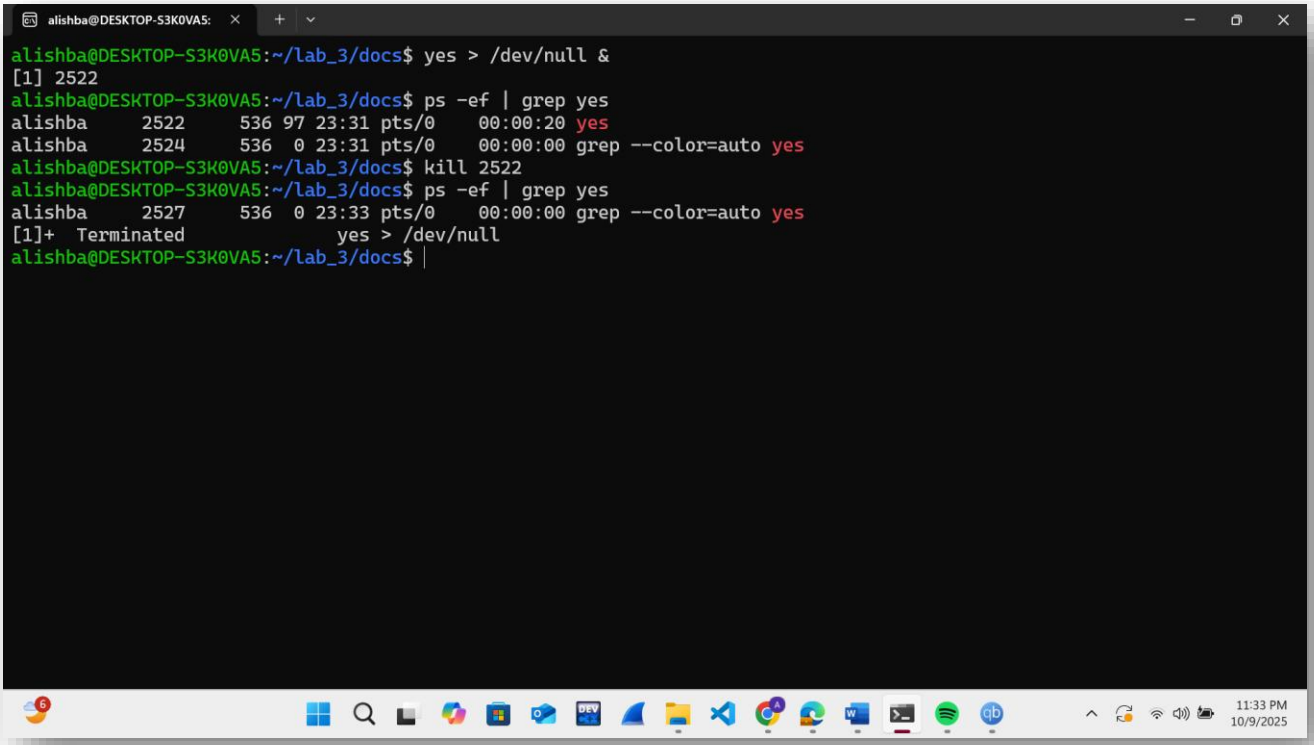


- Which process is consuming the most memory?

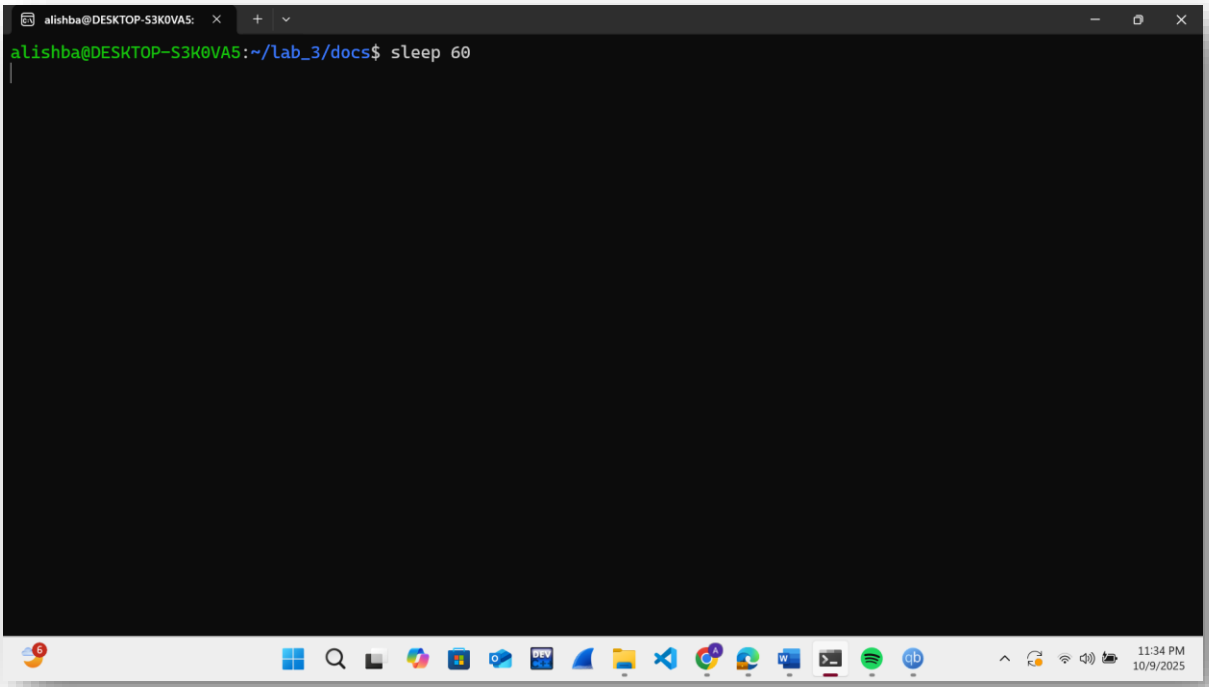
PID	User	%MEM	Command
216	root	0.6	Unattended-upgr



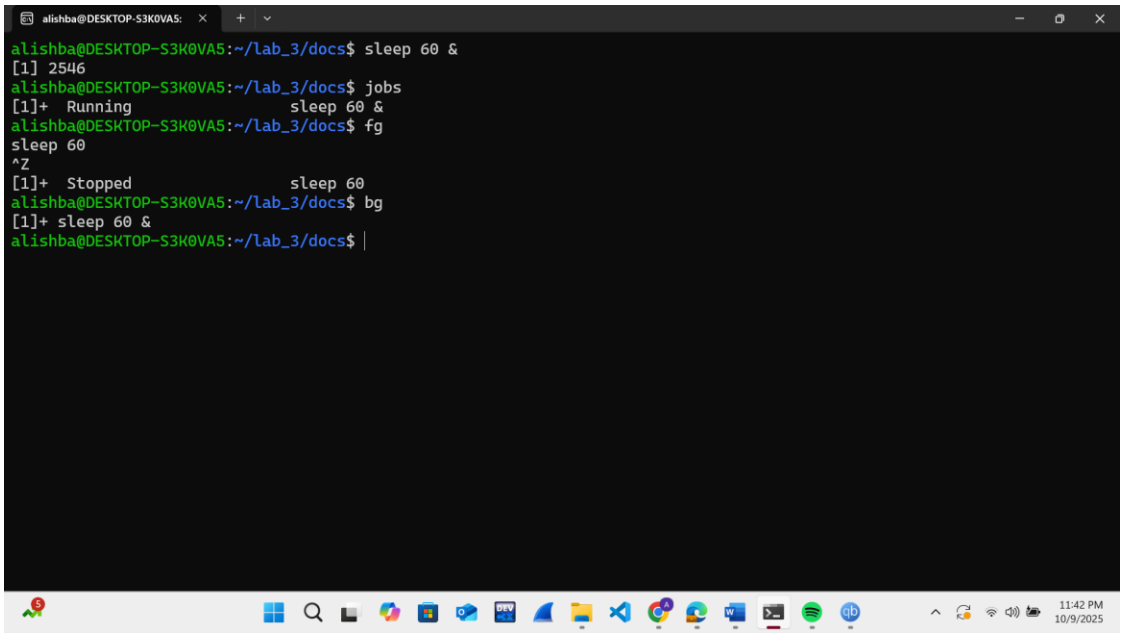
2. Practice with Infinite Process



3. Foreground & Background Jobs
    - Sleep 60

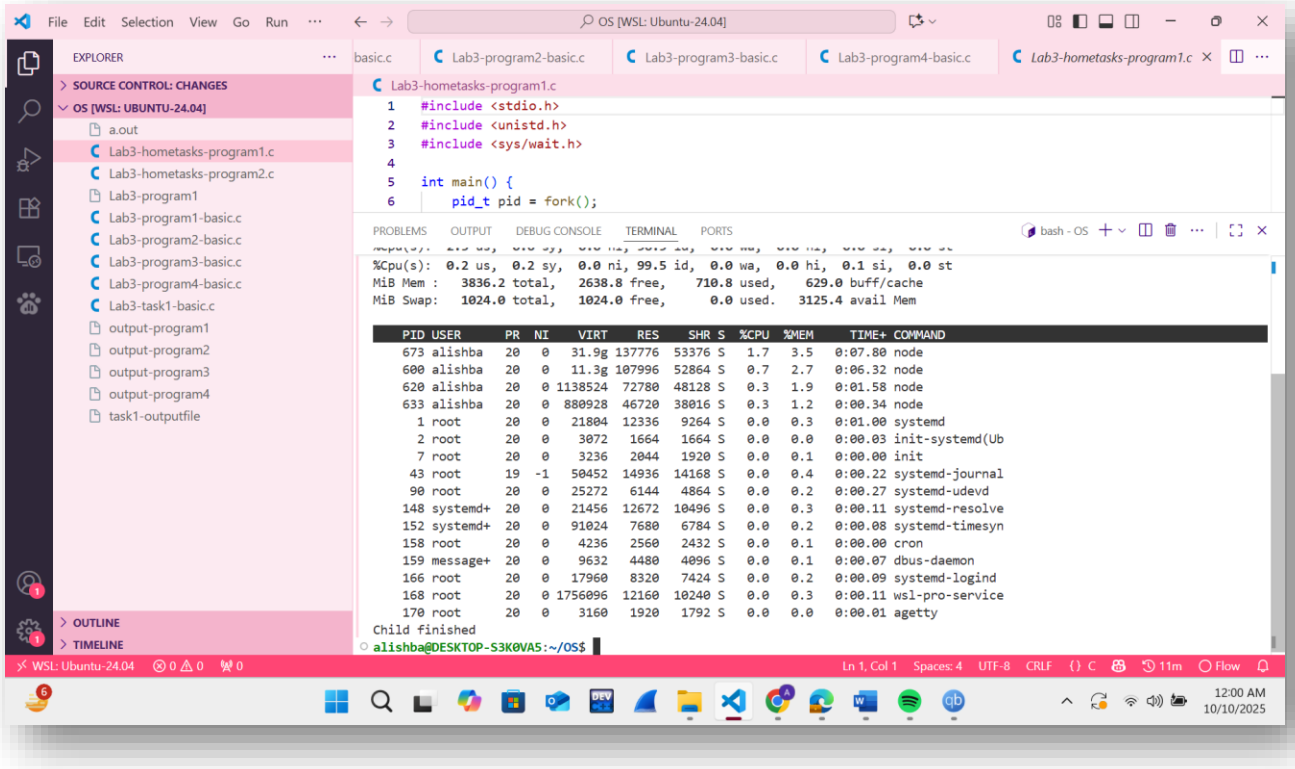


    - Sleep 60 &

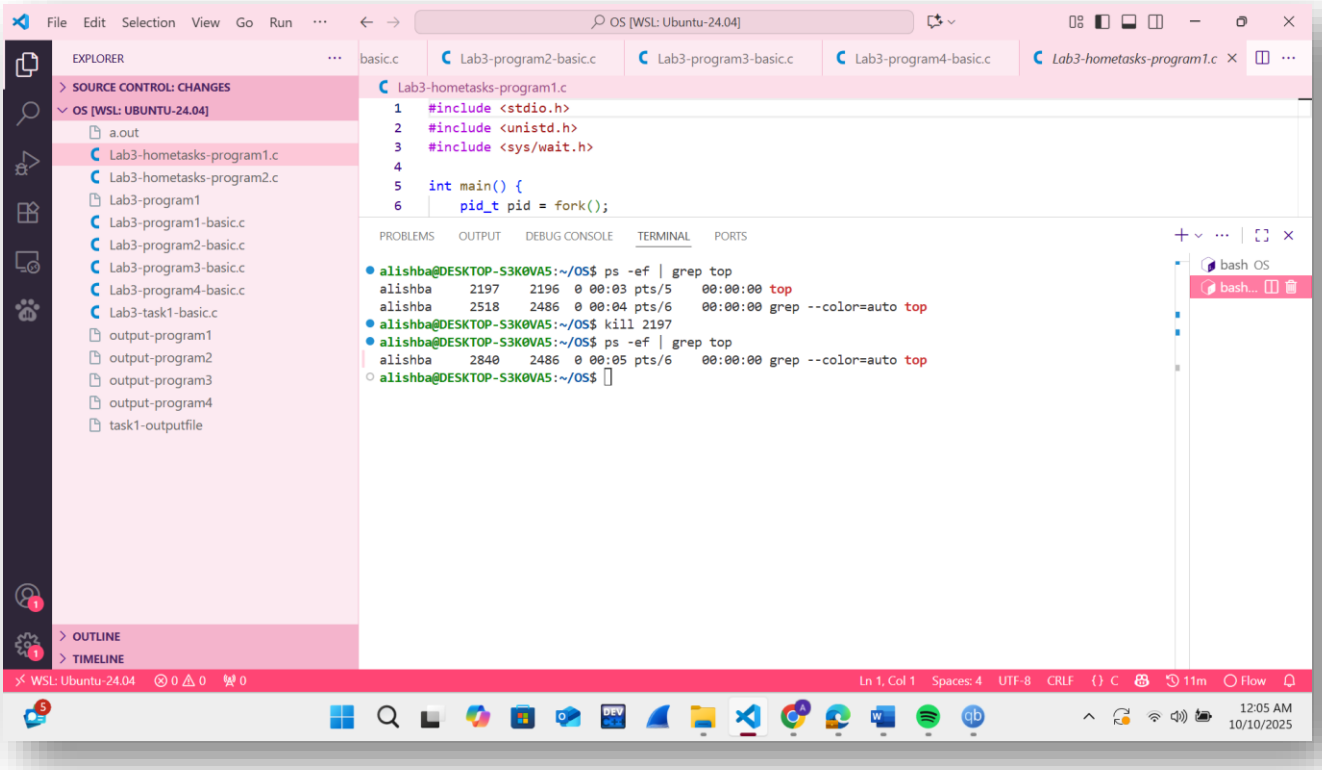


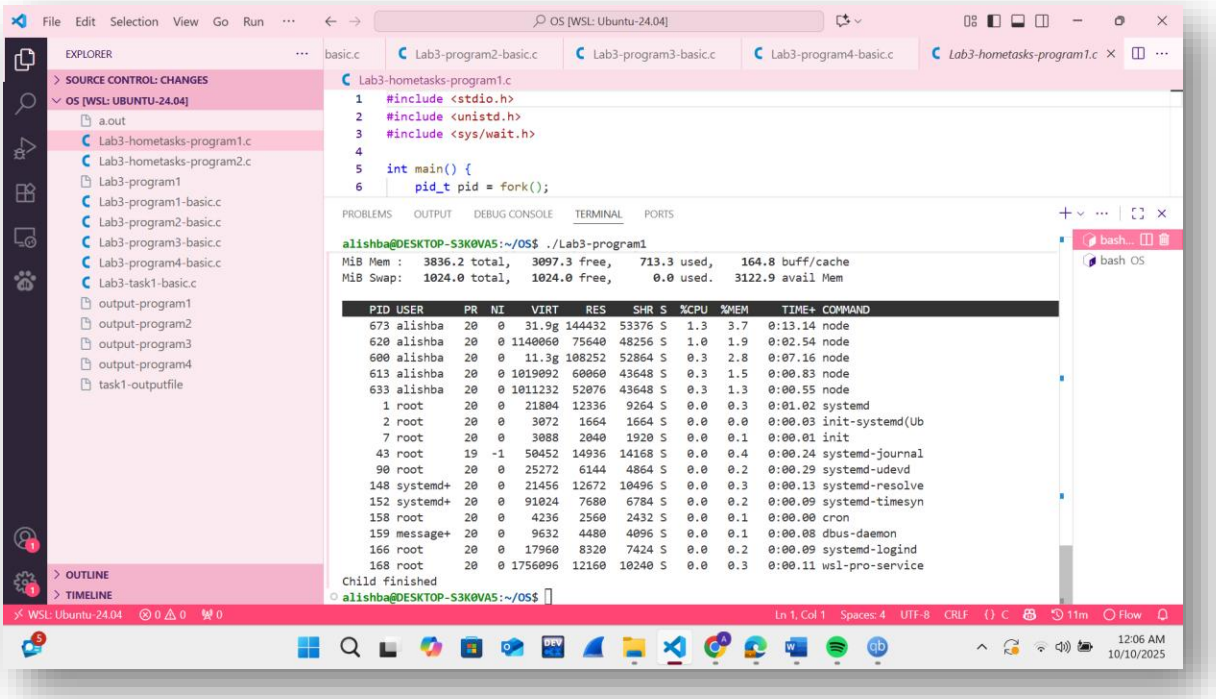
Part 6: C Programs on Processes

- **Program 1 – Exec with top**



Killing manually:





- **Program 2 – Incomplete Program**