Lab report: 01 [Tuesday, July 29, 2025]

☑ **Lab Problem — [15 Marks]**

Lab report Title: *Working with Files, Directories, and Permissions in Linux*

📌 **Scenario:**

You are asked to create, manage, and secure files for a project called **LabProject** in your home directory. Follow the tasks step by step and write down the exact commands you used.

Step 1 [1 Mark] — Check Your Location & Create a Project Folder

- Use pwd to display your current path.
- Go to your home directory (cd ~).
- Create a folder named LabProject.

Step 2 [2 Marks] — Create and Inspect Files

- Go inside LabProject.
- Create two empty files: notes.txt and .hiddenfile using touch.
- List all files including hidden files (ls -a).
- List files in long format (ls -l).

Step 3 [1 Mark] — Create a Subdirectory

- Make a subdirectory called Temp inside LabProject.
- Verify its existence with ls.

Step 4 [2 Marks] — Write, View, and Copy Files

- Add the text *"This is my lab file."* to notes.txt using echo.
- View the content of notes.txt using cat.
- Copy notes.txt to Temp as copy_notes.txt.

Step 5 [1 Mark] — Rename and Move Files

- Rename copy_notes.txt to final_notes.txt inside Temp.
- Move final_notes.txt back to LabProject main folder.

Step 6 [1 Mark] — Remove an Empty Directory

- Delete the empty Temp folder using rmdir.
- Confirm with ls.

Step 7 [2 Marks] — Change Permissions

- Change notes.txt to be **read-only** for everyone.
- Use chmod to do this.
- Use ls -l to confirm the permission change.

Step 8 [2 Marks] — Create a New Owner

- Suppose you have permission (or imagine you do):
    - Change the owner of final_notes.txt to another user student. *(If you don't have another user, write the command only.)*
- Show the file details using ls -l.

Step 9 [1 Mark] — Remove Files

- Delete Hidden file using rm.
- Verify with ls -a.

Step 10 [2 Marks] — Navigation Practice

- Use cd .. to move up one level.
- Use pwd to show your current directory.

☑ **Deliverables**

- Write each **command** you used for each step.
- For each step that involves ls or cat, write the **expected output**.
- Mention **any error messages**, if any occur.
- Submit your commands and outputs in your **lab report**.

Total Marks: 15