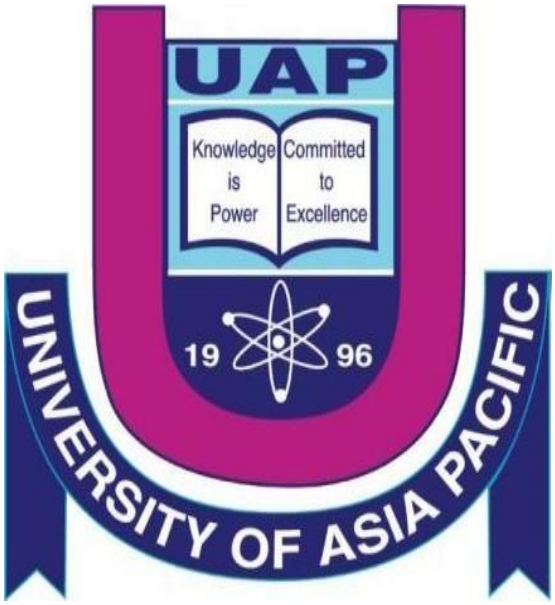

Department of Computer Science & Engineering

Course Title: Operating System Lab

Course Code: CSE 406

Lab Report No: 12

Lab Report On, Basic Ubuntu Operation

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Problem Statement:

Basic Ubuntu Operations (CRUD) – Create, Read, Update, Delete operations using Linux terminal to manage student record files inside a directory.

Solving Process Steps:

1. Create a Directory

- mkdir students
- A new directory named students is created to store student files.

2. Create Text Files

- touch s1.txt s2.txt s3.txt
- Creates three empty student record files in the current directory.

3. Move Files into the students Directory

- mv s1.txt s2.txt s3.txt students/
- Moves all three student files into the students folder.

4. Open a File in Viewer

- less students/s1.txt
- Opens s1.txt in a pager to view its (currently empty) contents.

5. Delete a File

- rm students/s1.txt
- Deletes s1.txt from the students directory.

6. Navigate into students Directory

- cd students
- Changes the current working directory to students.

7. Incorrect File Creation Attempt

- touch students/s4.txt
- Fails because there is no subdirectory named students inside the current students directory.

8. Correct File Creation

- touch s4.txt
- Successfully creates s4.txt in the current (students) directory.

Discussion:

This example demonstrates a full cycle of file and directory management in Ubuntu:

- **File creation and organization**: Using mkdir, touch, and mv, we built a logical directory structure.
- **Navigation and viewing**: Using cd and less, we moved through the file system and viewed file content.
- **Error handling**: A failed attempt to create a file (students/s4.txt) helped highlight the importance of understanding relative and absolute paths.
- **Cleanup**: Files were removed when no longer needed using rm.

Conclusion:

The task successfully demonstrates how to use basic Ubuntu commands for managing files and directories. Through a simple example of managing student files, it shows both correct operations and common mistakes, such as misunderstanding relative paths. Mastery of these basics is essential for efficient use of the Linux terminal.