

Operating Systems Laboratory (CSE 4510)
WEEK 1
Basic Linux Shell Commands (Ubuntu Demo Guide)

1. Navigation Commands

Command	Purpose	Example / Result
pwd	Shows current directory path	Example: pwd Result: /home/enamul
ls	Lists files and directories	Example: ls Result: Desktop Documents Downloads
ls -l	Lists files with details	Example: ls -l Result: -rw-r--r-- 1 enamul enamul 1248 Nov 11 notes.txt
cd Documents	Change to Documents folder	Example: cd Documents Result: Moves into Documents
cd ..	Go back to previous directory	Example: cd .. Result: Moves up one level

2. File and Directory Management

Command	Purpose	Example / Result
mkdir testlab	Create a new folder named testlab	Example: mkdir testlab Result: Creates directory 'testlab'
rmdir testlab	Remove an empty directory	Example: rmdir testlab Result: Removes folder if empty
touch note.txt	Create an empty file	Example: touch note.txt Result: Creates a blank file
cp note.txt copy.txt	Copy file to a new file	Example: cp note.txt copy.txt Result: Creates 'copy.txt'
mv note.txt note1.txt	Rename or move file	Example: mv note.txt note1.txt Result: Renames file
rm copy.txt	Delete a file	Example: rm copy.txt Result: File removed
rm -r testlab	Delete a folder with all contents	Example: rm -r testlab Result: Deletes directory recursively

3. Viewing and Editing Files

Command	Purpose	Example / Result
cat file.txt	View content of file	Example: cat file.txt Result: Displays text inside file
nano file.txt	Edit file using nano editor	Example: nano file.txt Result: Opens nano text editor
echo 'Hello UIU Students!' > hello.txt	Create or overwrite file with text	Example: echo 'Hello UIU Students!' > hello.txt Result: Writes text to file

4. System Information Commands

Command	Purpose	Example / Result
whoami	Show current user	Example: whoami Result: enamul
date	Display date and time	Example: date Result: Mon Nov 11 22:15:00 +0600 2025
uname -a	Show system info	Example: uname -a Result: Linux ubuntu 6.1.0-15-generic ...
history	Show previous commands	Example: history Result: 1 pwd 2 ls 3 cd Documents ...
clear	Clear terminal	Example: clear Result: Screen cleared
exit	Close terminal session	Example: exit Result: Session terminated

5. GUI Integration (Optional)

Command	Purpose	Example / Result
xdg-open .	Open current folder in File Manager	Example: xdg-open . Result: Opens GUI file explorer
xdg-open file.txt	Open file with default GUI app	Example: xdg-open file.txt Result: Opens file in text viewer

PRACTICE 1: Let's create a text file, write and then open it.

Solve:

Command	Purpose	Example
touch	Creates an empty file	touch notes.txt
echo	Creates a file with text inside	echo "Hello Linux World" > hello.txt
cat	Lets you type text manually and save	cat > diary.txt (then type text, press Ctrl+D to save)
nano	Opens a text editor to write inside	nano myfile.txt