

# Bash Practice Lab (Student)

- Use this Bash Practice Lab after the class and watching the screencast.
- Do each step **in order**.
- Read and make sure what you are entering is correct.
- Tick/mark it only after you actually do it.

# 1. Getting Oriented

- Open a terminal
- Identify the **prompt**
- Run `pwd` and say where you are
- Run `ls` and say what you see

## 2. Understanding Paths (`.`, `..`, `~`)

- Run `pwd`
- Run `ls .`
- Explain what `.` means
- Run `cd ..`
- Explain what `..` means

- Run `cd ~`
- Run `pwd` again
- Explain what `~` represents
- Run `cd ~/`
- Create a folder inside home:  
`mkdir ~/practice`
- Enter it using:  
`cd ~/practice`

### 3. Command Structure

- Run `ls`
- Run `ls /etc`
- Explain: command vs parameter
- Run `ls -l`
- Explain: what is an option?

## 4. Getting Help

- Run `ls --help`
- Find where options are listed
- Run `man ls`
- Inside `man`, try:
  - `/long`
  - `n`
  - `q`
- Explain when you prefer `--help` vs `man`

## 5. Files and Redirection

- Run `ls > files.txt`
- Run `ls` and confirm the file exists
- View file content using `cat files.txt`
- Run `echo "hello" > test.txt`
- Run `echo "world" >> test.txt`
- View file again using `cat test.txt`
- Explain difference between `>` and `>>`

## 6. History

- Run `history`
- Use ↑ arrow to bring back a command
- Re-run a command without retyping
- Explain why history is useful

## 7. Variables

- Run `echo $USER`
- Create a variable:  
`MYNAME="your name"`
- Run `echo $MYNAME`
- Create another variable with spaces:  
`COURSE="Intro to Computers"`
- Run `echo $COURSE`
- Explain why quotes are needed sometimes

## 8. Aliases

- Create alias:

```
alias ll='ls -l'
```

- Run `ll`
- List all aliases using `alias`
- Explain what an alias is
- Think: when can aliases be confusing?

## **9. Editing with nano (Core Practice)**

## Opening and Saving

- Open nano: `nano notes.txt`
- Type at least 3 lines
- Save using `ctrl + o`
- Press Enter to confirm filename
- Exit using `ctrl + x`
- Reopen the file

## Editing Skills

- Add one new line
- Cut a line using `Ctrl + K`
- Paste it using `Ctrl + U`
- Search a word using `Ctrl + W`
- Modify a word and save again

## Creating a New File

- Open a new file: `nano script.sh`
- Type:  
  `echo "Hello from nano"`
- Save and exit
- View file content using `cat script.sh`

## Understanding nano

- What does `^` mean at the bottom of nano?
- What happens if you exit without saving?

## 10. Safety Habits

- Read a command fully before pressing Enter
- Be extra careful with `>`
- Use `pwd` when confused
- Use `man` instead of guessing

## Final Self-Check

Answer without typing:

- What does `pwd` show?
- What does `.` mean?
- What does `..` mean?
- What does `~` represent?
- Option vs parameter?

## Final Self-Check

- How do you quit `man` ?
- What happens if you misuse `>` ?
- How do you save in nano?
- How do you exit nano?

# Thank you!

Any questions?

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