Part 9

Mini Practice Lab (Hands-on)

How to Use This Lab

- Do it in a **real Linux terminal** (VM / WSL / server)
- Type commands yourself (don't copy blindly)
- Try to **predict output before pressing Enter**

LAB 1: Navigation & Files (Part 2)

Task

1. Go to home directory
2. Create a folder called `linux_lab`
3. Inside it, create 3 files

Commands

```
cd ~
mkdir linux_lab
cd linux_lab
touch file1.txt file2.txt file3.txt
ls
```

You practiced: `cd`, `mkdir`, `touch`, `ls`

LAB 2: Viewing & Editing Files (Part 2)

Task

1. Write text into a file
2. View it using two different commands

```
echo "Linux is powerful" > file1.txt
cat file1.txt
less file1.txt
```

You practiced: `>`, `cat`, `less`

LAB 3: Pipes & Redirection (Part 3)

Task

Count how many files are in the folder.

```
ls | wc -l
```

Save result:

```
ls | wc -l > count.txt
cat count.txt
```

You practiced: `|`, `>`

LAB 4: Searching Text (Part 4)

Task

1. Add multiple lines
2. Search for a word

```
echo "error occurred" >> file2.txt
echo "all good" >> file2.txt
grep "error" file2.txt
```

You practiced: `grep`, `>>`

LAB 5: Finding Files (Part 4)

Task

Find all `.txt` files.

```
find . -name "*.txt"
```

You practiced: `find`

LAB 6: Permissions (Part 5)

Task

1. Create a script
2. Make it executable

```
nano test.sh
```

Content:

```
#!/bin/bash
echo "Permission test"
```

```
chmod +x test.sh
./test.sh
```

You practiced: `chmod`, script execution

LAB 7: Processes (Part 6)

Task

1. Start a background process
2. Find and stop it

```
sleep 300 &
jobs
```

```
ps aux | grep sleep
kill PID
```

You practiced: `ps`, `kill`, background jobs

LAB 8: Shell Scripting (Part 7)

Task

Create a script that:

- Takes a filename
- Checks if it exists

```
nano check.sh
```

Content:

```
#!/bin/bash

if [ -f "$1" ]; then
  echo "File exists"
else
  echo "File not found"
fi
```

Run:

```
chmod +x check.sh
./check.sh file1.txt
```

You practiced: arguments, `if`, testing files

LAB 9: Automation Script (Part 8)

Task

Backup your lab folder.

```
nano backup_lab.sh
```

Content:

```
#!/bin/bash

tar -czf lab_backup_$(date +%F).tar.gz linux_lab
```

Run:

```
chmod +x backup_lab.sh
./backup_lab.sh
```

You practiced: real automation

FINAL LAB: THINK LIKE LINUX

Challenge

Answer mentally:

```
ps aux | grep root | wc -l > result.txt
```

Questions:

1. What is being counted?
2. Where is it saved?
3. What commands run first?

If you can answer → **you understand Linux.**