

# **Assignment : 3**

## **Linux Programming**

Name : Yathish N R

Class: 3B CY

Roll No: 66

USN : ENG25CY1007

### **1. Difference between man and whatis commands (CO1)**

- The 'man' command shows the complete manual page of a command, including description, options, usage, and examples.

Example:

man ls

Displays the full manual of the ls command.

The 'whatis' command gives only a one-line short description of the command.

Example:

whatis ls

Output: ls (1) - list directory contents.

### **2. Use of tee command to save and display output (CO4)**

- ls -l | tee output.txt

This command lists files in long format, saves the result in output.txt, and also shows it on the terminal at the same time.

### **3. Example of tee command in logging (CO4)**

- ping google.com | tee pinglog.txt

This shows the ping result live on screen and stores it in pinglog.txt for future reference (logging).

### **4. Steps to install Ubuntu 25.04 LTS on Oracle VirtualBox (CO2)**

1. Download Ubuntu 25.04 LTS ISO from the official website.
2. Open VirtualBox → Click New → Enter VM name (Ubuntu).
3. Set memory (RAM) size, e.g., 4 GB.
4. Create a virtual hard disk (at least 25 GB recommended).
5. Start the VM → Choose the downloaded Ubuntu ISO.
6. Follow the on-screen installer steps: language, keyboard, installation type, disk partition, username, and password.
7. Complete installation → Restart the VM → Ubuntu is ready.

### **5. Troubleshooting Kernel Panic during installation (CO3)**

- Check if the ISO file was corrupted → Re-download.
- Ensure enough RAM and CPU are assigned in VirtualBox.
- Enable virtualization (VT-x/AMD-V) from BIOS.
- Try booting with safe graphics mode.
- Update VirtualBox to the latest version.

## **6. Hostname commands (CO1)**

- To display system hostname:  
`hostname`

To change hostname using sysctl:

`sudo sysctl kernel.hostname=newname`

Replace 'newname' with your desired hostname.

## **7. Calendar for August 1984 (CO1)**

- `cal 8 1984`  
Shows the calendar of August 1984.

## **8. Display system uptime and logged-in users together (CO3)**

- `uptime && who`  
First shows how long the system is running, then lists logged-in users.

## **9. Find all “.c” files in /home/user (CO1)**

- `find /home/user -name "*.c"`  
Lists all C source code files.

## **10. Change file permissions (Owner: read & write only) (CO1)**

- `chmod 600 filename`  
Only the owner can read and write; others have no access.