

Linux assignment – 3

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1) Distinguish between man and whatis commands? Justify with proper example.

Ans:

“man” command displays the complete manual page for the particular command. This includes all information about that specific command. It includes flags and options of the command. It is used whenever you need full guidance of the command. Very detailed manner explanation including syntax also.

Example: **man ls**

LS(1). NAME

ls - list directory contents

SYNOPSIS

ls [OPTION]... [FILE]...

DESCRIPTION

List information about the FILES (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.

Mandatory arguments to long options are mandatory for short options too

-a, --all

-A, --almost-all= do not list implied . And.

“Whatis” is a command where it is used to quickly lookup the command details or about that command, shows one line description for the specific command. The main purpose of this command is to know about what the command does it do. Example: **whatis ls** **ls (1)** - - list directory contents

2) Use the tee command to save the output of ls -l into a file while also displaying it ?

Ans: **ls -l | tee output.txt**

Here the ls-l is to list. Then it will be stored in the output.txt file, and displayed.

3) Explain with an example how the tee command can be used in logging ?

Ans: tee command is used to save the output of a command into a file, and also shows it on the screen at the same time so this is useful for logging purposes.

Example: `ping -c 4 google.com | tee ping.log`----- This will display the ping result on the screen and also save them to a file named ping.log.

4) List the steps involved in installing Ubuntu 25.04 LTS on Oracle VirtualBox.

Ans: **Step 1: Obtain The Components:** Download Oracle VirtualBox and the Ubuntu ISO file, which is the operating system install file, and install these programs.

Step 2: Create A New Virtual Machine: Launch VirtualBox and select "New". Name your virtual machine (e.g., "Ubuntu") and decide how much memory (RAM) to allocate. A good starting point is 4 GB, if available.

Step 3: Add The Installer: Go to the virtual machine settings, scroll to "Storage", and select the empty CD drive. Browse for and select the Ubuntu ISO you just downloaded. This tells the virtual machine to boot from the Ubuntu installer.

Step 4: Install Ubuntu: Select "Start" to boot your virtual machine. Follow the prompts. Choose "Erase disk and install Ubuntu" and create your username and password.

Step 5: Finish The Installation: After installation is complete, the virtual machine will restart, and you will be logged on to your new Ubuntu desktop.

5) During Ubuntu OS installation, you face a Kernel Panic Error. How would you troubleshoot it?

Ans:

A kernel panic error in the installation of Ubuntu means that the system kernel was not able to start correctly. To resolve this

1. First, ensure your bootable USB/DVD is working correctly (sometimes, the ISO file is corrupt).
2. Then be sure to check if your hardware is functioning properly, especially RAM and hard drive.
3. Finally, if it is not working properly, try editing the GRUB options at the boot screen with settings like: nomodeset or acpi=off to avoid hardware conflicts.

6) Write the command to display the system's hostname? How to change hostname using systemctl command?

Ans: To change the hostname using systemctl:

`sudo systemctl kernel.hostname=newname` here in the place of Newname we should put changing name.

7) Which command is used to show the calendar of the year 1984 with August Month?

Ans: `cal 8 1984`

8) Write a command to display system uptime and logged-in users together.

Ans: command “w” --- it displays uptime and logged-in users together.

9) Use the find command to list all “.c” files in /home/user. ?

Ans: (`find /home/user -name "*.c"`) this will search all the .c extension files in the folder

10) How do you change file permissions to allow only the owner to read and write?

Ans: “`chmod 600 filename`” here

6 → Owner can read and write (4 + 2)

0 → Group has no permissions

0 → Others have no permissions