DAY 9 **DATE:08/05/2025**

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USER ID:27739

Batch: 25VID0885_DC_Batch4

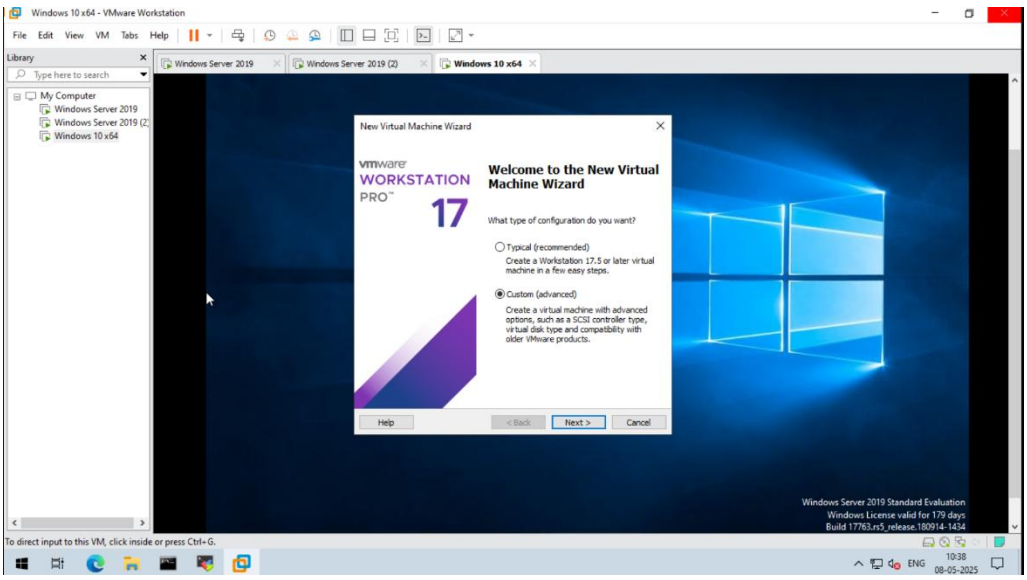
TITLE: INSTALLATION OF LINUX OPERATING SYSTEM IN VMware

- **OBJECTIVE:**

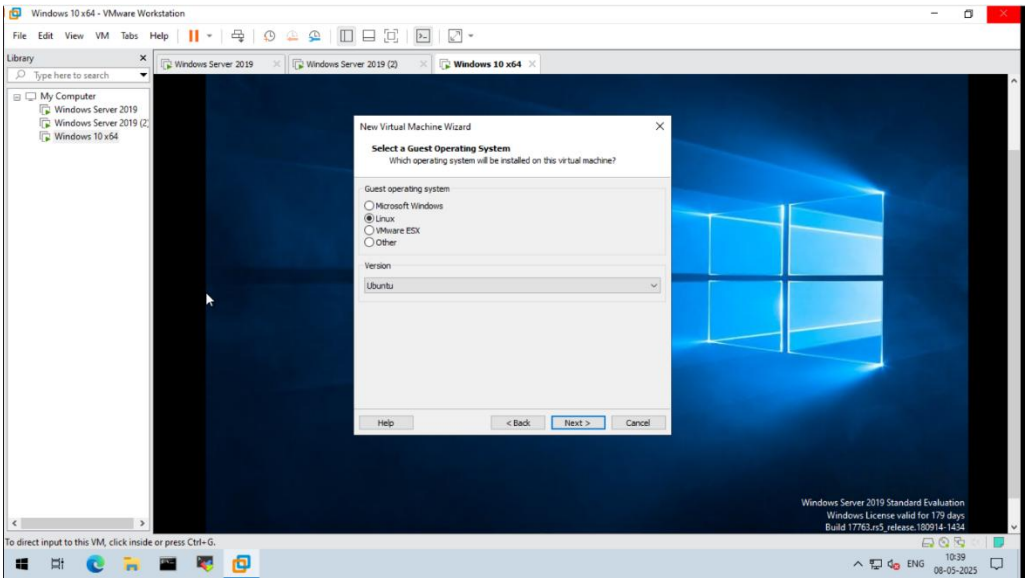
  The objective of this lab is to guide the user through the manual installation of Linux on a VMware virtual machine. This includes: Setting up an enterprise-grade Linux distribution. Ensuring efficient resource allocation (CPU, RAM, disk). Proper network configuration. Applying necessary updates. Creating a virtualized environment suitable for: Testing, Development and Learning Linux system administration.

- **PROCESS**

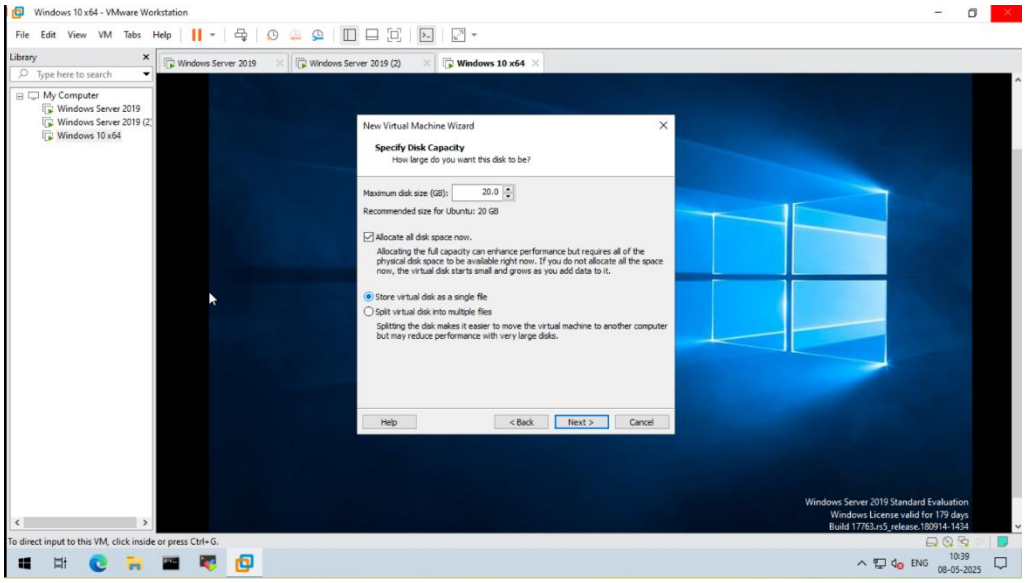
  - Step 1: Open VMware Workstation/Player-> Click Create a New Virtual Machine.



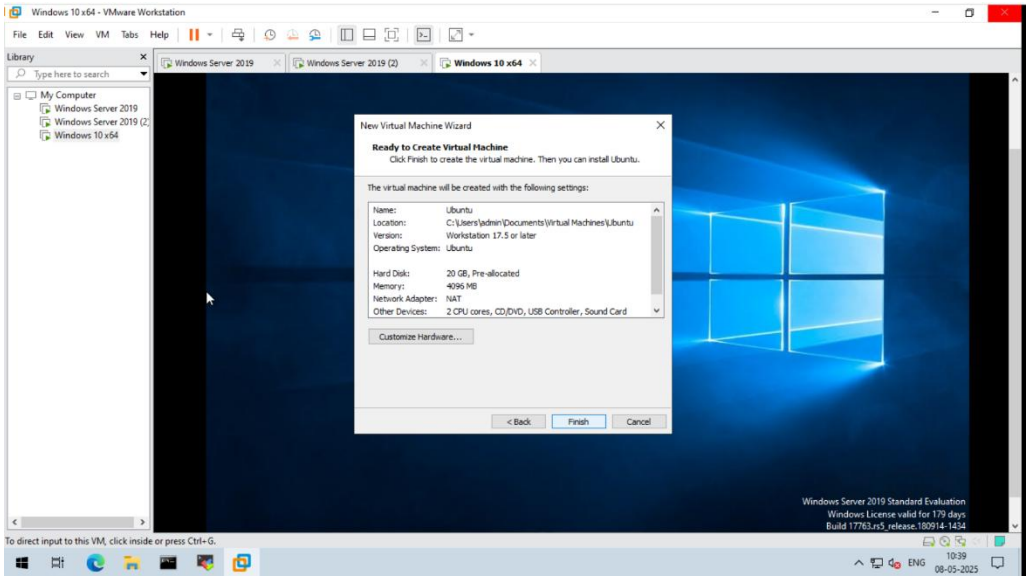
  - Step 2: Click Next until you see the select a guest operating system tab->select operating system.



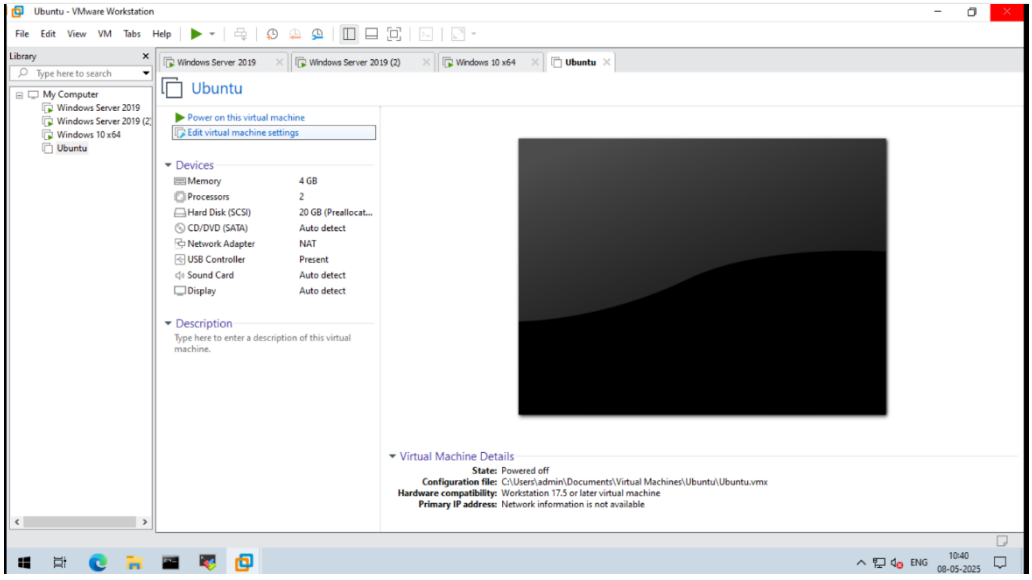
- Step 3: Specify disk capacity->click next.

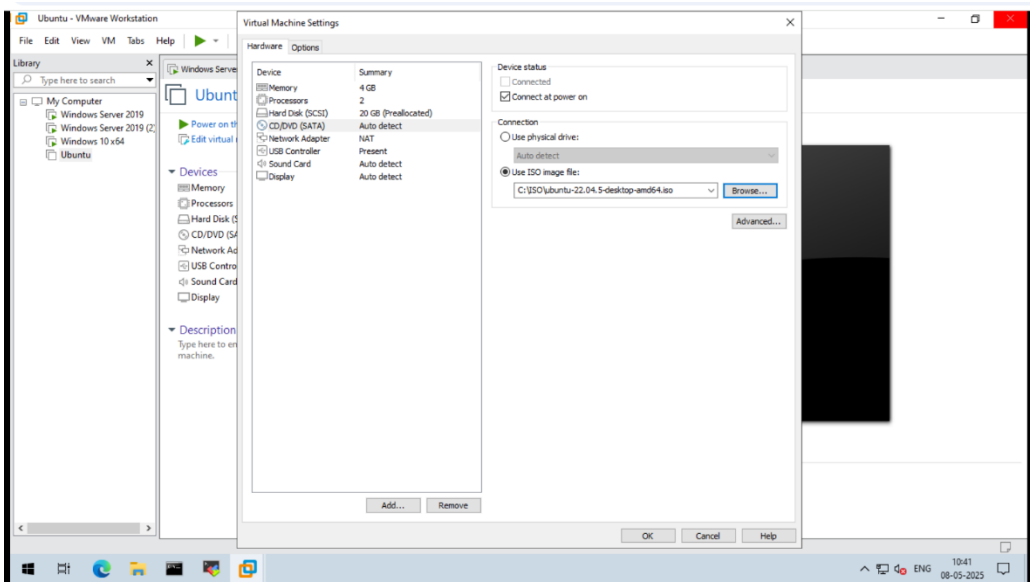


- Step 4: Click next until you see this tab->Finish.

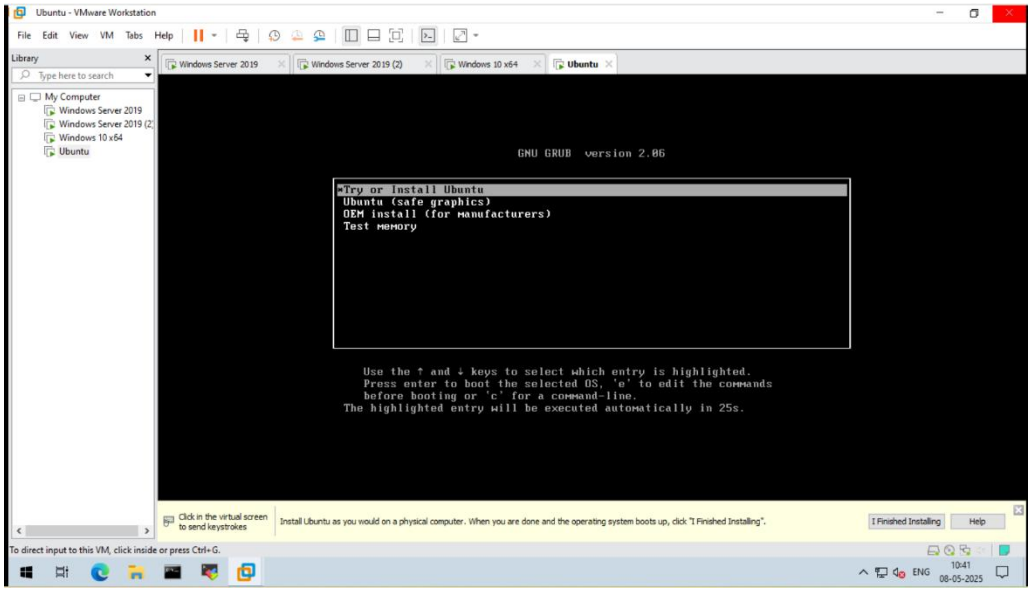


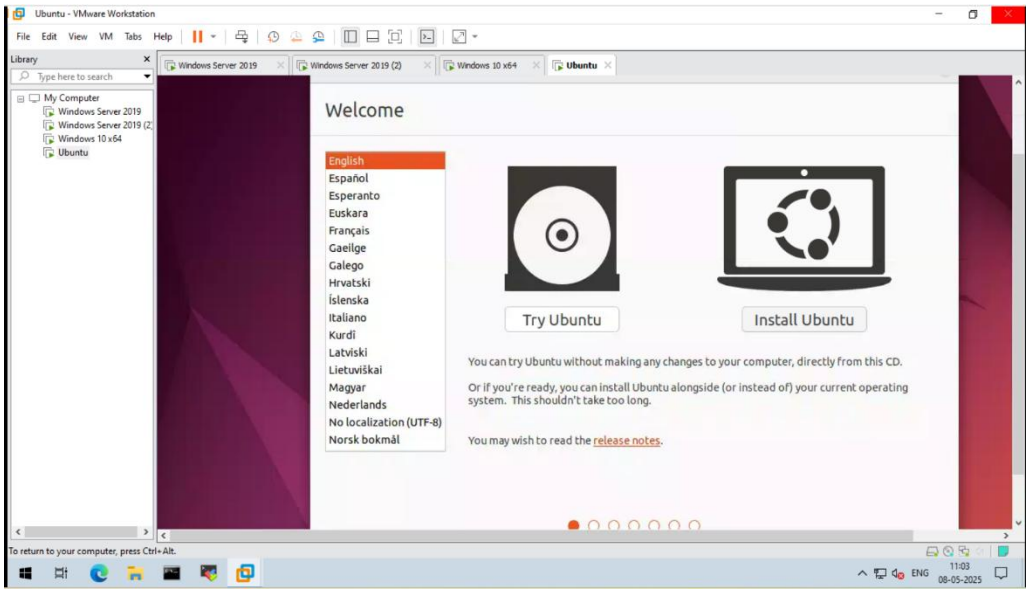
- Step 5: Click on edit virtual machine settings-> Add ISO file->Select ubuntu->click ok.



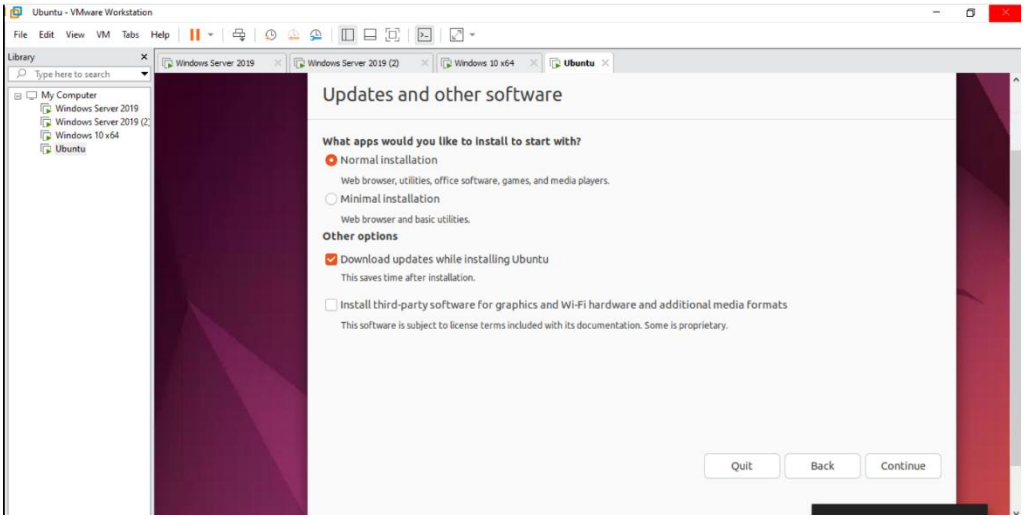


- Step 6: Power on virtual machine->Install Linux from Boot menu.

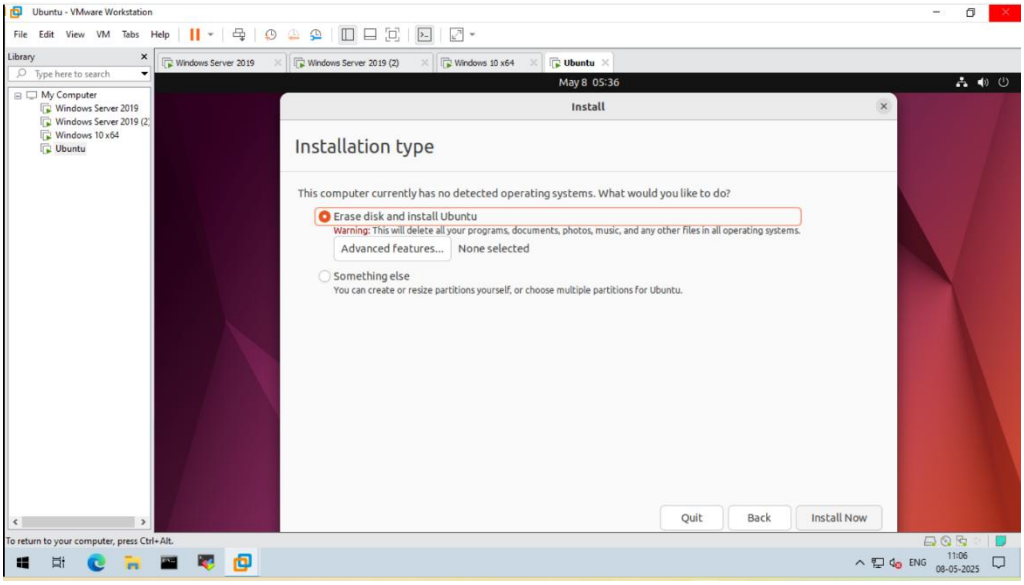




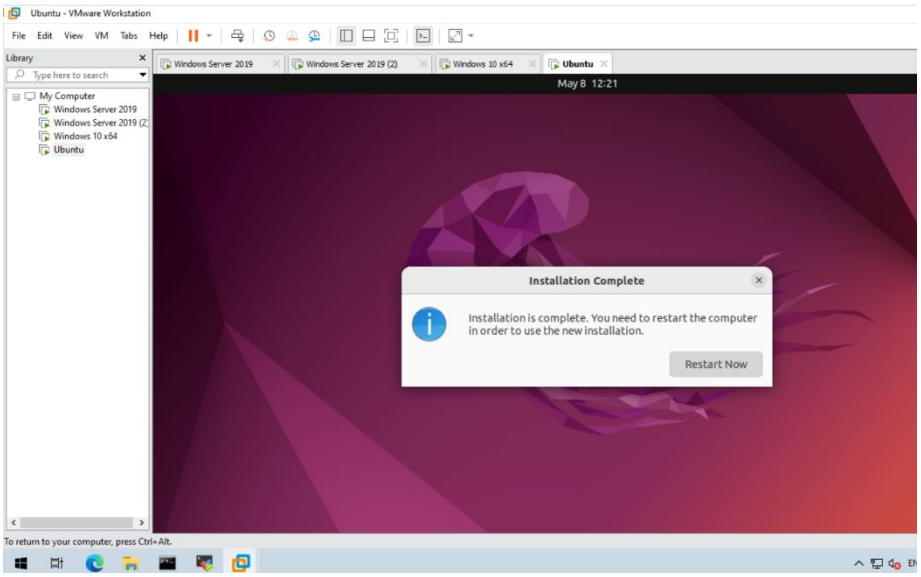
- Step 7: Choose Language and click Continue-> Updates and other software.
    1. Continue Configure: Installation Destination - Select the disk Root Password → Set a root password->contiue.



- Step 8: Choose installation type->Install.

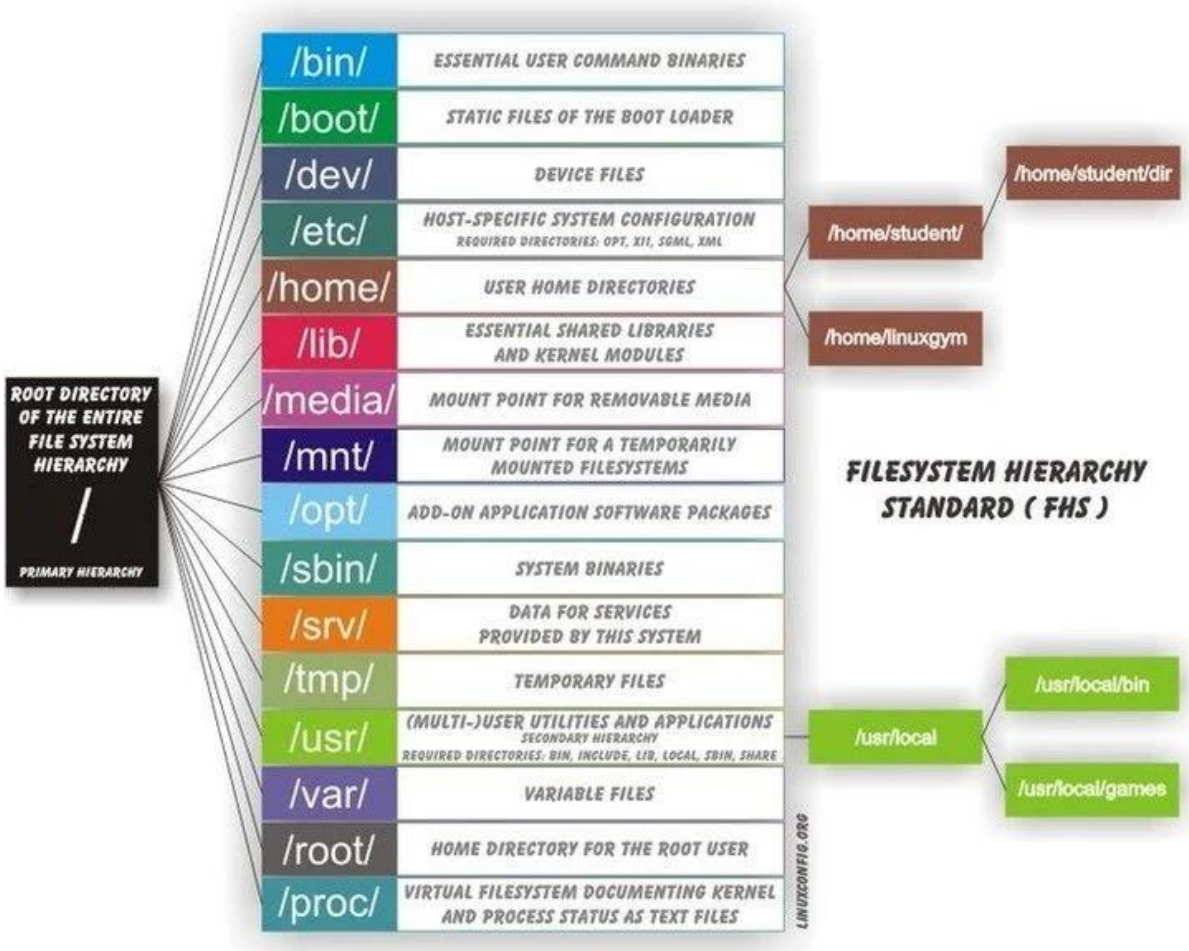


- Step 9: Installation complete.



- **CONCLUSION:** You have successfully completed the installation of Linux on VMware. Your virtual machine is now set up and ready for further configuration, software installation, and day-to-day use. This virtual environment offers a secure and controlled space, making it ideal for experimenting, learning, and practicing Linux system administration skills. Linux's stability and enterprise-level features make it a strong choice for both beginners and professionals.
- An **Operating System (OS)** is system software that acts as an interface between the computer hardware and the user. It manages hardware resources, runs applications, and provides essential services for programs.

- **Types of OS**
    - **Single User – Single Tasking Operating System -** Allows only one user to perform one task at a time. Simple systems like early computers or embedded systems.
      Example: MS-DOS.
    - **Single User – Multitasking Operating System -** Allows a **single user** to run **multiple applications** at the same time. Common in personal computers for multitasking (e.g., browsing, music, and word processing).
      Example: Windows 10, macOS.
    - **Multi User – Multitasking Operating System -** Allows **multiple users** to access the system **simultaneously**, each performing multiple tasks. Used in servers and large systems where many users need access at the same time.
      Example: UNIX, Linux (server environments).
- **FILE SYSTEM HIERARCHY STRUCTURE**



- **Linux Introduction**- **Linux** is a free and open-source operating system created by **Linus Torvalds** in 1991, based on the Unix architecture. It is known for its security, stability, and versatility, making it widely used in servers, desktops, and embedded systems.
- **Linux commands**

Linux Commands	Functions
1. Is command in Linux	Displays information about files in the current directory.
2. pwd command in Linux	Displays the current working directory.
3. mkdir command in Linux	Creates a directory.
4. cd command in Linux	To navigate between different folders.
5. rmdir command in Linux	Removes empty directories from the directory lists.
6. cp command in Linux	Copy files from one directory to another.
7. mv command in Linux	Rename and Replace the files
8. rm command in Linux	Delete files

9. uname command in Linux	Command to get basic information about the OS
10. locate command in Linux	Find a file in the database.
11. touch command in Linux	Create empty files
12. ln command in Linux	Create shortcuts to other files
13. cat command in Linux	Display file contents on terminal
14. clear command in Linux	Clear terminal
15. ps command in Linux	Display the processes in terminal
16. man command in Linux	Access manual for all Linux commands
17. grep command in Linux	Search for a specific string in an output
18. echo command in Linux	Print string or text to the terminal

19. wget command in Linux	download files from the internet.
20. whoami command in Linux	Displays the current users name
21. sort command in Linux	sort the file content
22. cal command in Linux	View Calendar in terminal
23. whereis command in Linux	View the exact location of any command typed after this command
24. df command in Linux	Check the details of the file system
25. wc command in Linux	Check the lines, word count, and characters in a file using different options