NAVYA NARAYAN PANICKER

WEEK 5 DAY 1: 9/10/25 [FRIDAY]

TASK : Install Multipass, Launch Ubuntu VM, SSH into VM, Practice CLI commands (ls, cd, touch, nano, rm, chmod, sudo), Install Python, Git, curl, net-tools, Setup simple folder & run Python script inside

QUESTIONS/REFLECTIONS:

1. What is the difference between VM and container?
    - VM: runs a full os inside another systems.
      The boot time is very slow.
      Isolation is slow
      Ex: virtual, vmware
    - Container:
      Shares a host kernel that is runs isolated apps
      The size is small
      Boot time is fast
      Ex: docker, podman

2. How do permissions work in Linux? Explain chmod and chown.
   Every file has 3 types of access- read, write,execute
   And 3 user groups-user, group, others

    - Owner can read/write/execute
    - Group can read/execute
    - Others can read only

    CHMOD:

    Syntax:

    chmod <permissions> <file>

    chmod-changes what can be done

    CHOWN:

    Syntax:

    chown <user>:<group> <file>

    chown- changes who owns it.

3. Why use apt and sudo? What happens behind the scenes when updating packages?
    Apt: Used to **install, update, and remove software** on Ubuntu.
    Ex: sudo apt update
    sudo apt install python3

    sudo: give temporary admin root rights to give the system level commands.

Its can also, install packages modifies system directories

4. Write command flow: create project folder → create script → run it → make it executable → delete folder

   Create a folder → add a script → run it → make executable → delete folder.

   # Step 1: Create folder

   mkdir navya_task

   cd navya_task

   # Step 2: Create a script

   echo 'echo "Hello World!"' > hello.sh

   # Step 3: Run script (using bash)

   bash hello.sh

   # Step 4: Make it executable

   chmod +x hello.sh

   ./hello.sh

   # Now runs directly

   # Step 5: Go back and delete folder

   cd ..

   rm -rf navya_task