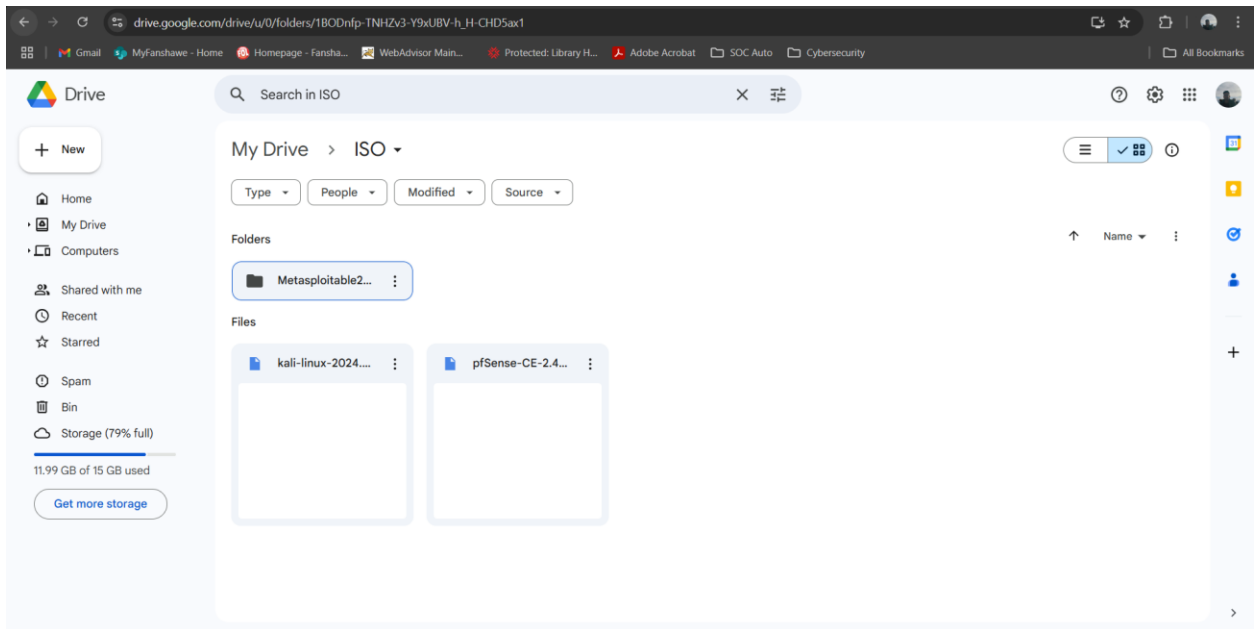# Creating Pfsense virtual machine and config.

Objective:-

Steps:-

1. Downloading pfsense iso from internet.
2. Creating virtual machine, mounting iso and adding hardware.
3. Configure the pfsense firewall.
4. Configure the network interface in pfsense.

Steps1: Downloading pfsense firewall iso.

1. Go to any web browser and search for the drive link provided to you.

2. Now click the 3 dots beside the pfsense and click download now.
3. Now wait for the download process to complete.
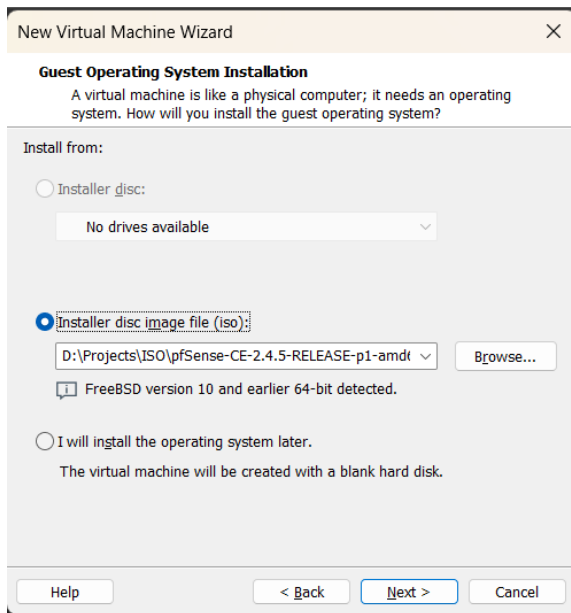
Steps 2: Creating virtual Machine.

1. Now head over to VMware workstation and click new virtual machines.
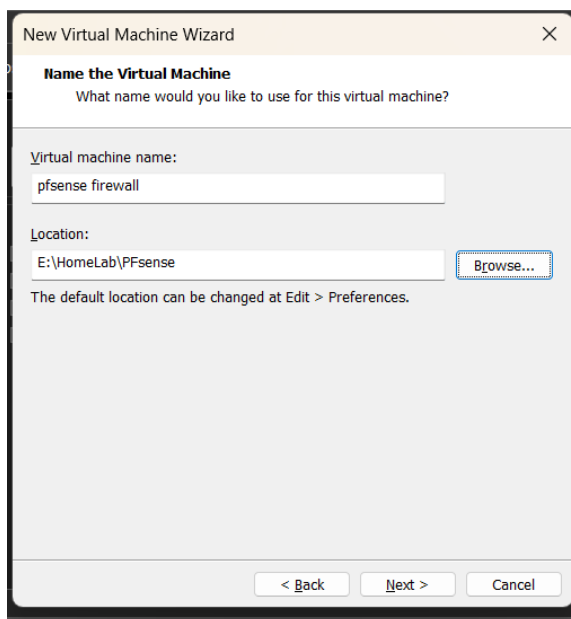
2. Now click custom(advanced)

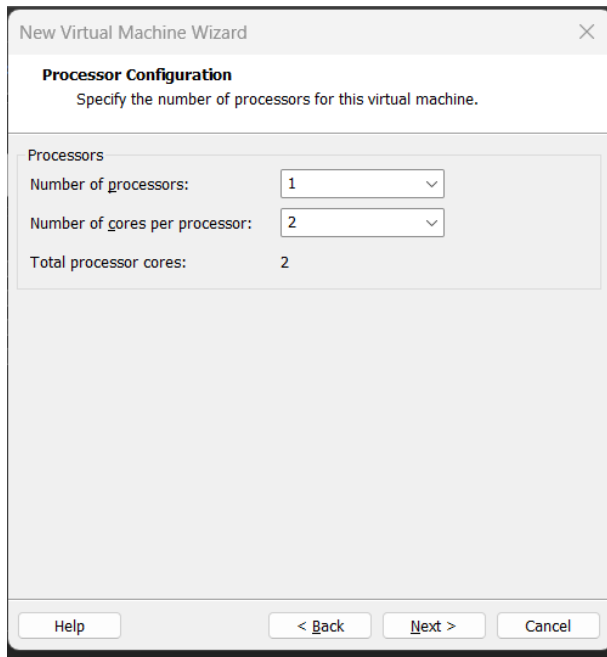3. Then click next and choose the latest VMware workstation version.
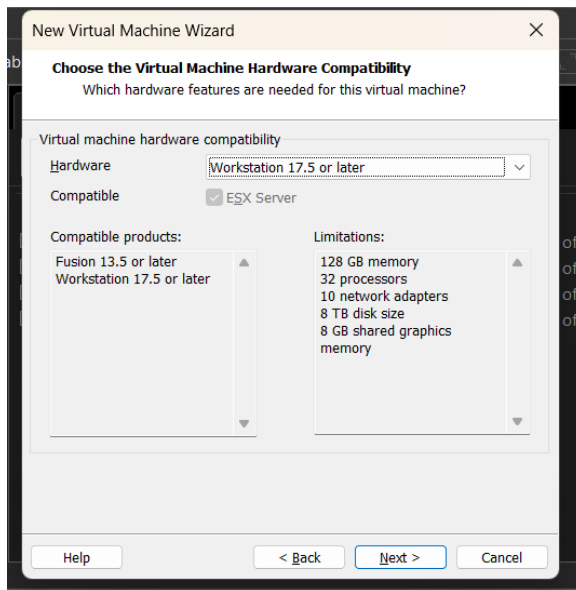
4. Next, you ask to add installer disk and choose the installer disk iso and add the pfsense firewall.
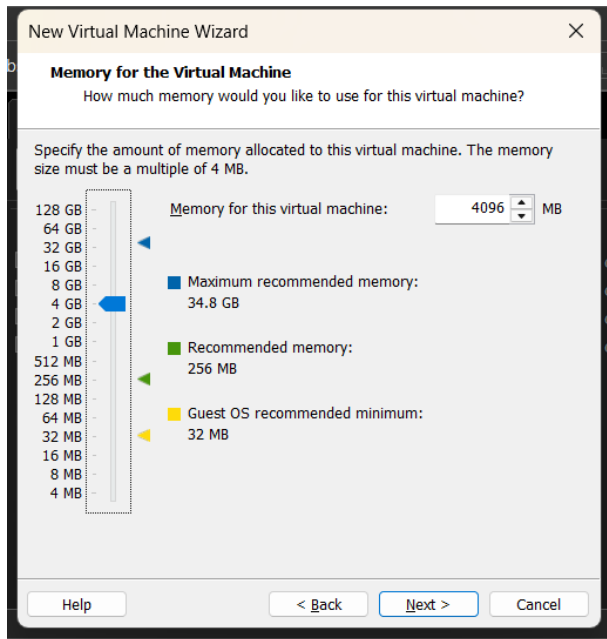
5. Next, give a virtual machine name and storage location to save the virtual machine.
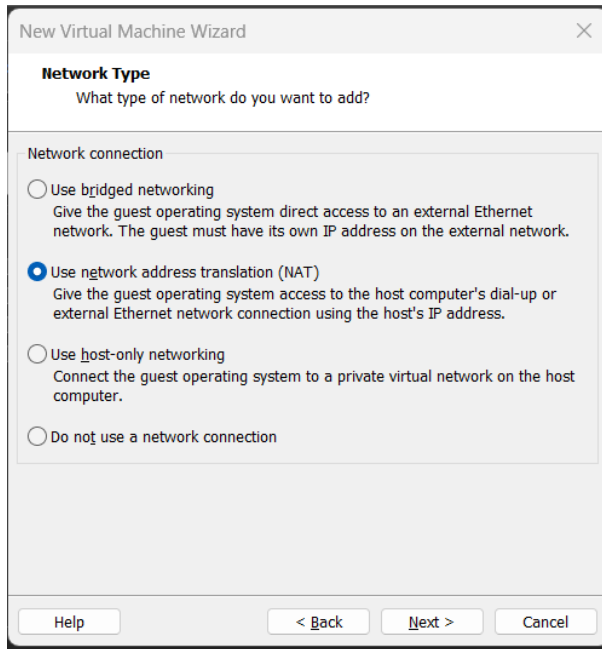

6. Now for the processor choose the number of processors 1 and cores per processor 2.
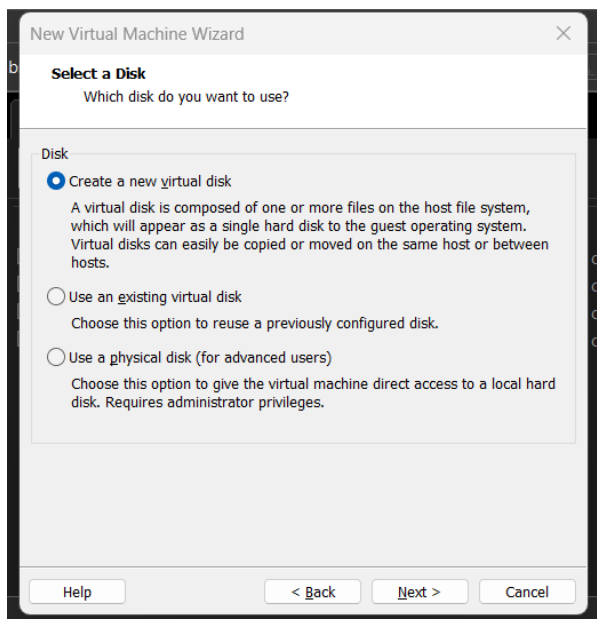
7. Give it 4 gb ram.

8. For the network type choose the Nat, this will be the primary interface connected to internet.
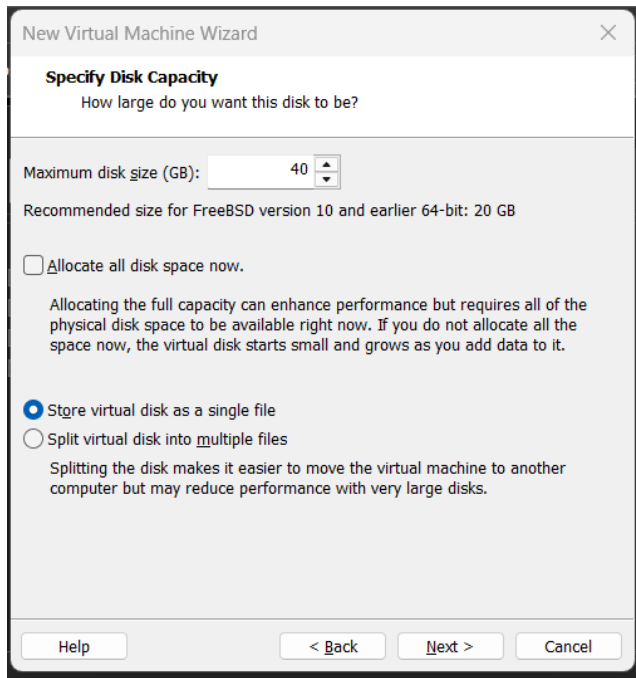
9. Give everything else as default.

10. For the Disk and choose Create a new virtual disk.

11. Give it 40 gb storage and store virtual disk as a single file.

12. Keep the disk file name as it is and click the customize hardware and we will add some network adapter to the firewall.

12. To add new network adapter click add at the bottom, after click network adapter. So I have added 3 new network adapter. The main network adapter will use to connect to internet, second will used as a management interface and other will be lan segment referred to as dmz and internal/inside.
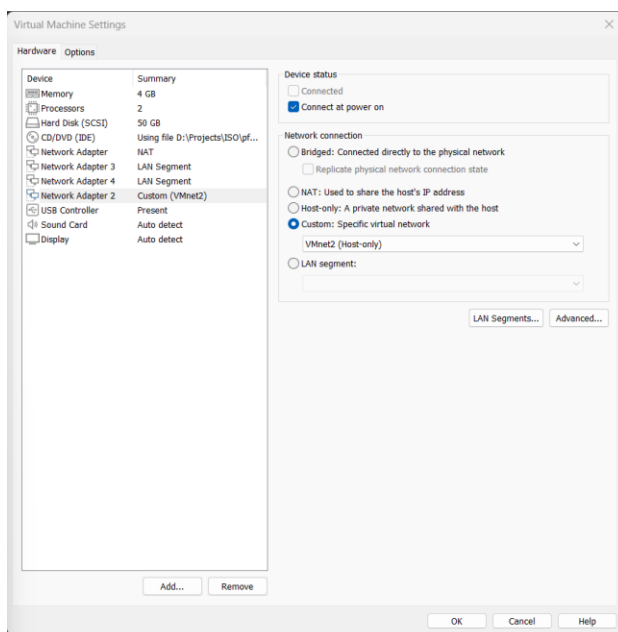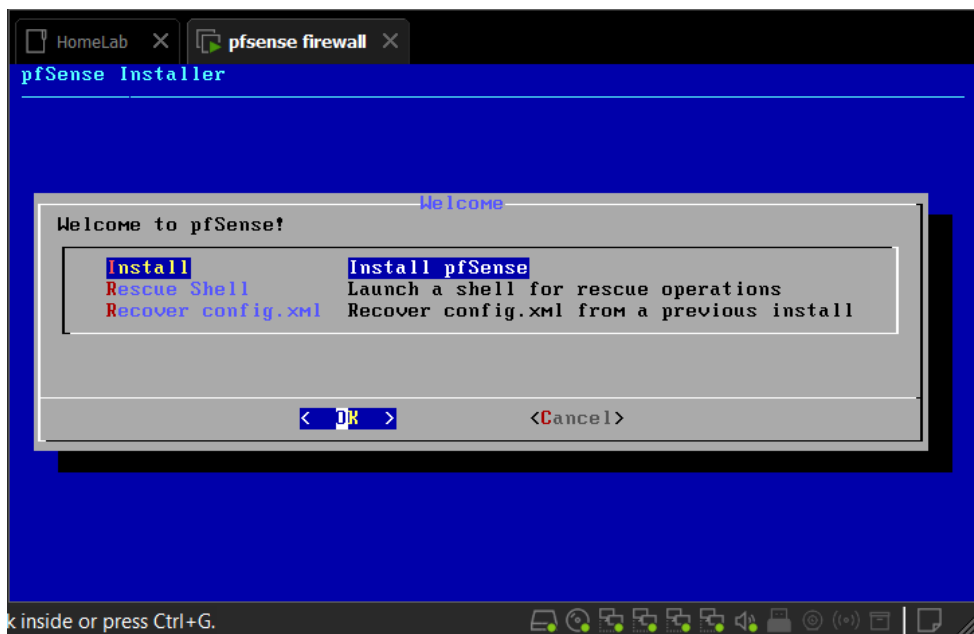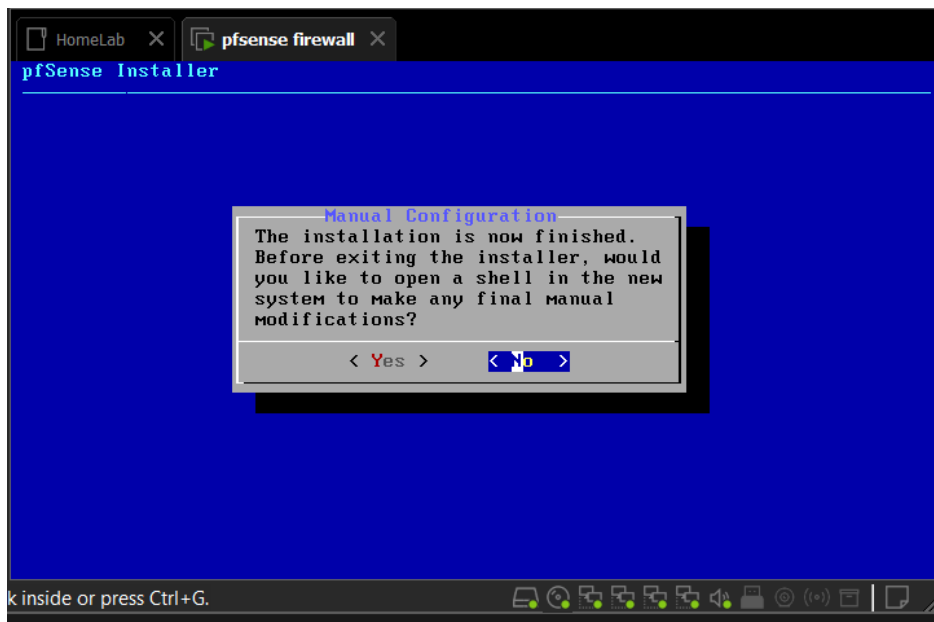
Steps 3: Configure the Pfsense firewall.

1. Power on the virtual machine and wait for the machine to boot, after the machine is boot up ,you will be prompted to copyright and distribution notice. Click the accept.
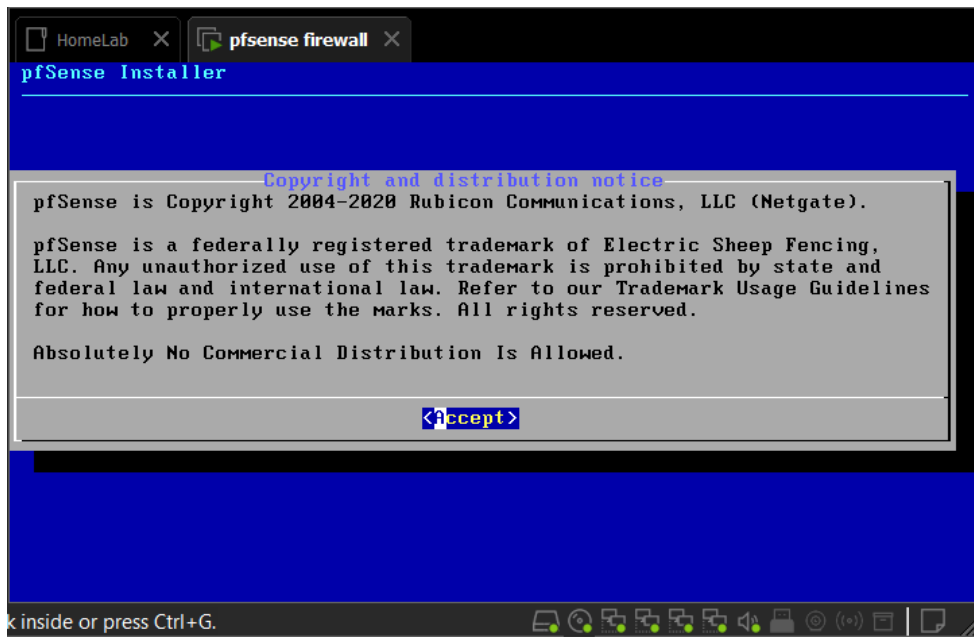
2. Now you will ask with 3 options install, rescue shell and recover config, Now we will click the install.

3. Now for the keymap selection, select continue with default keymap, if you want to selection any other keyboard you can do it with using space. If not click, select and move to next page.

4. Now you will ask to select how you want to partition your disk. Choose the Auto UFS.

5. Now the installation process will start, wait for the process to complete.

6. After the installation process is finished, there will be a prompt saying the installation is now finished, you just have to click no.

7. After you click No the machine will be rebooted.

Steps 4: Configure Interface.

1. Start pfsense firewall machine and after the machine is started you will a black screen with white text, as shown figure below.

2. Now to configure the interface, you will have to use the numbers, as per the above screenshot you can see the to assign interface you need to click 1.

3. Now the next task is to give ip address, ip address is up to you. To give ip address select 2.

4. Now after going to option 2, you will ask to choose which interface you want to give ip address to so for that click the 2 interfaces, make sure the lan interface which have web gui enabled. So, in my case I am using it as management interface.

5. Give every other detail to like subnet mask and default gateway. After you give all the details you will prompt to you can access the firewall using web browser using this ip.

Here all the basic configuration of firewall completes if you want to more configuration you can find it in my github repo under config folder.