

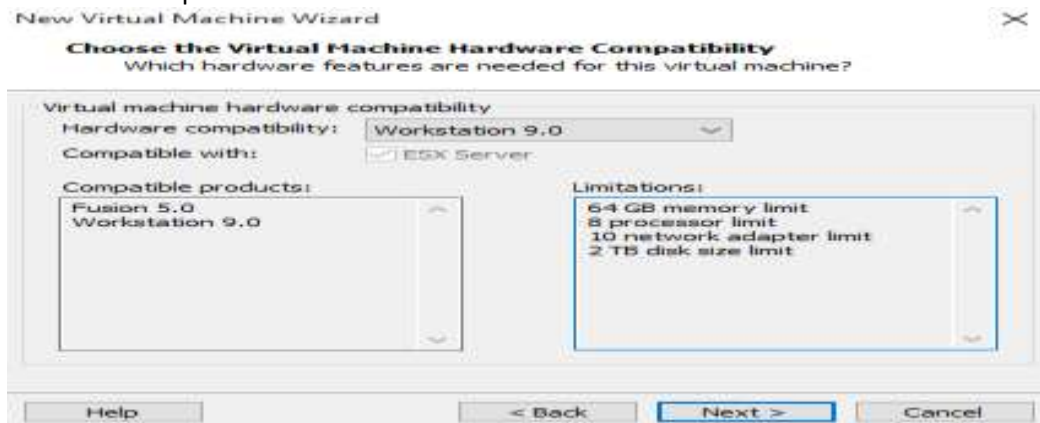
Configuring Virtualization on Single Linux Machine

Step 1. Create a Virtual Machine in VMware or Oracle Virtual Box.

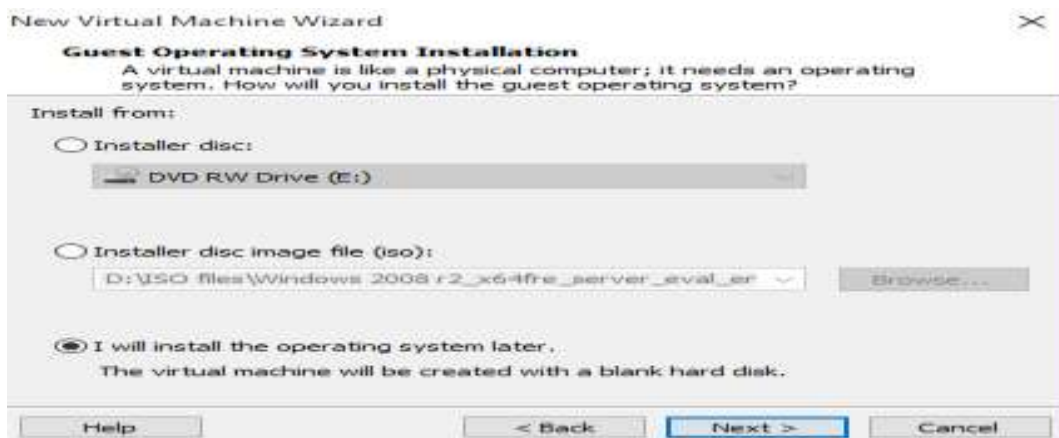
The following screen shots display procedure for creating a Virtual Machine in VMware. Open VMware, Click File and click New Virtual Machine. The following screen will open



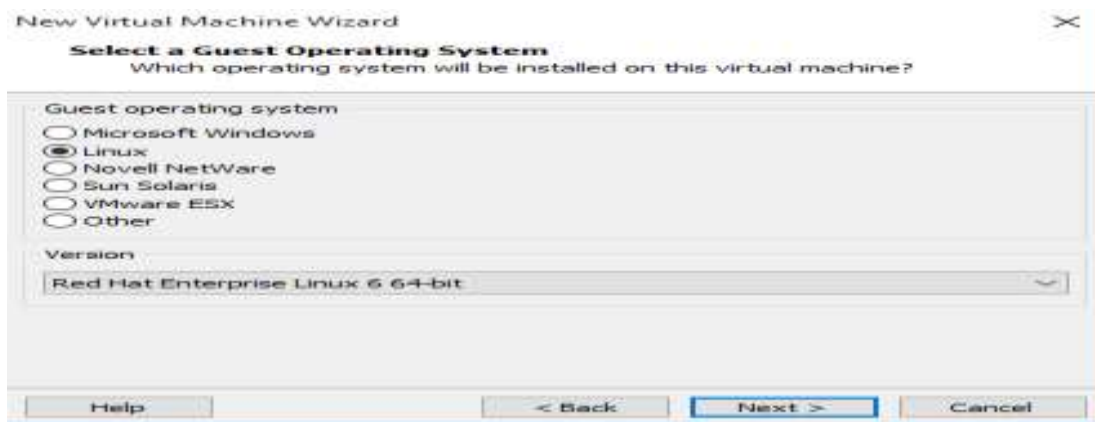
Click Custom option and click Next.



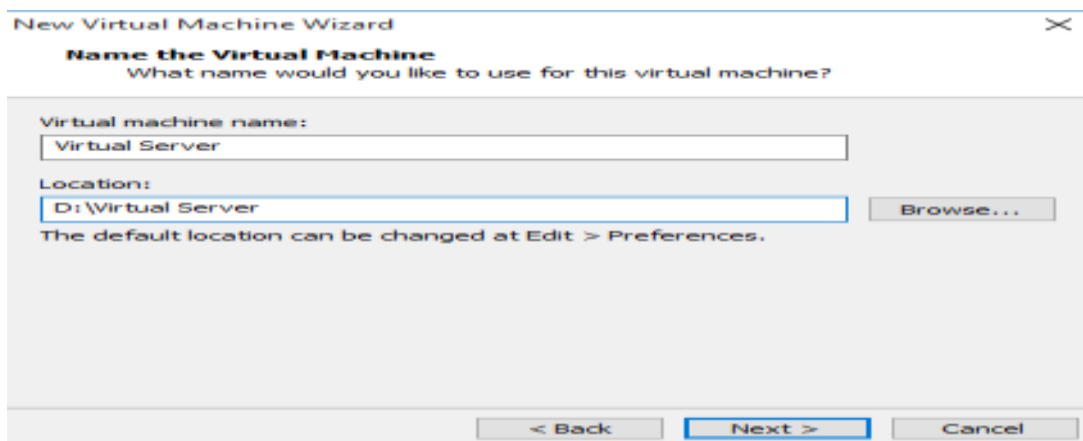
Click Next on the above window that opens.



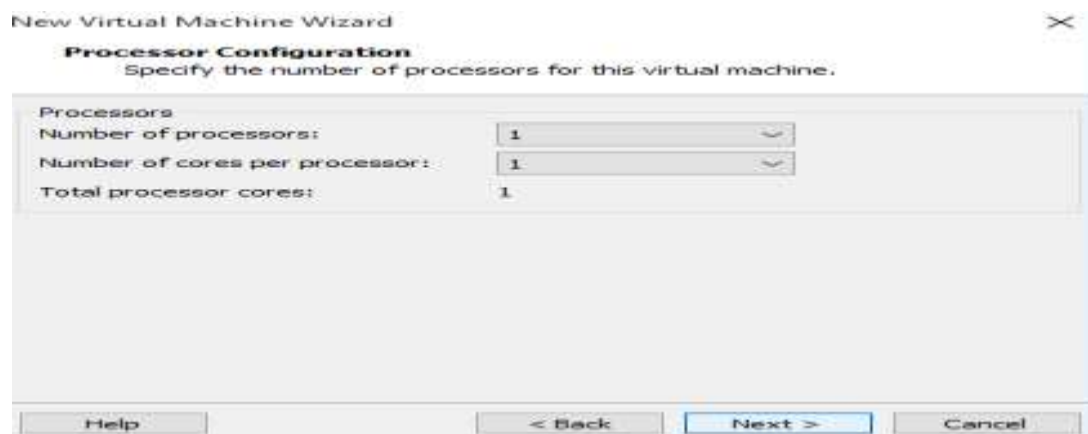
On the above screen that is displayed click to select “I will install the operating system later”. Then click Next.



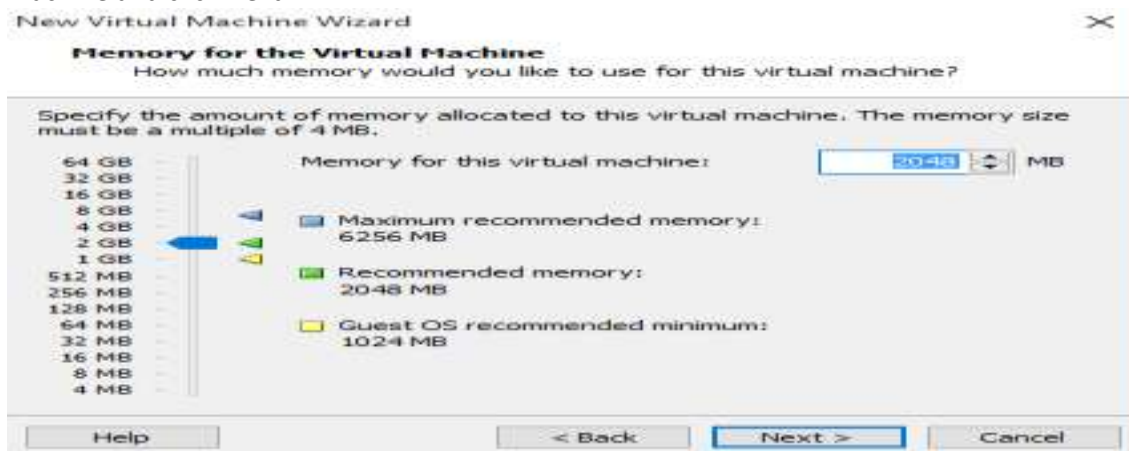
On the above screen select the OS that will be installed. Click Next.



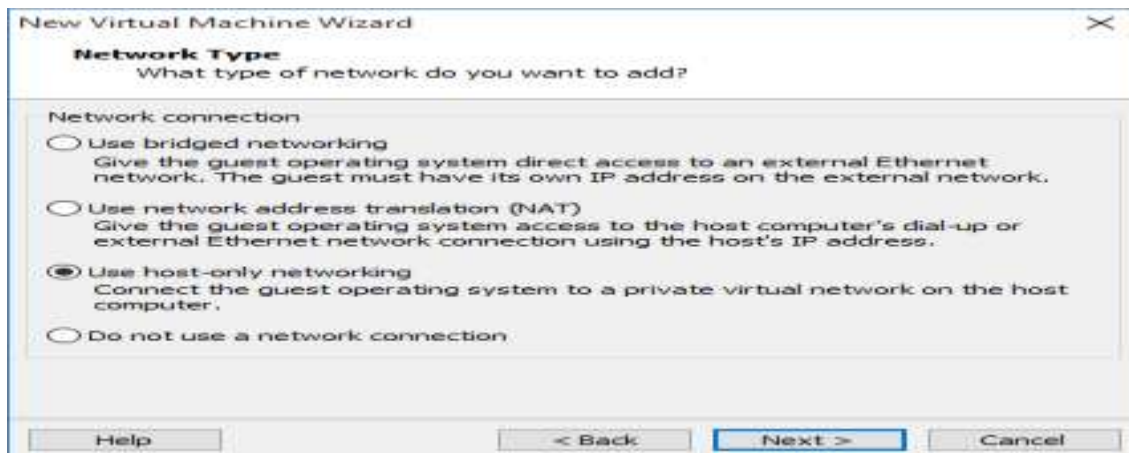
On the above screen that appears, provide the name for the virtual machine and path to directory where this virtual machine files will be stored. Then click Next.



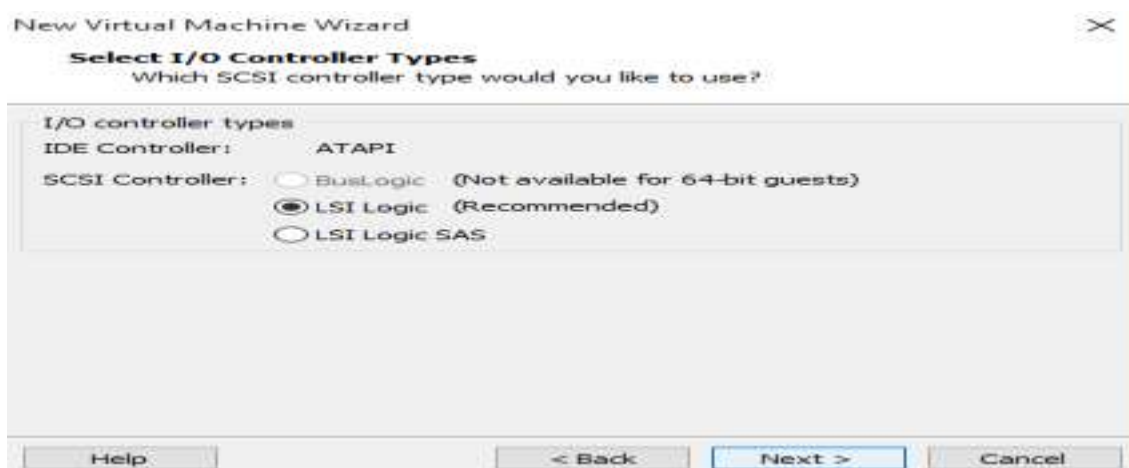
On the above screen displayed select number of processors and cores to be allocated for this virtual machine and click Next.



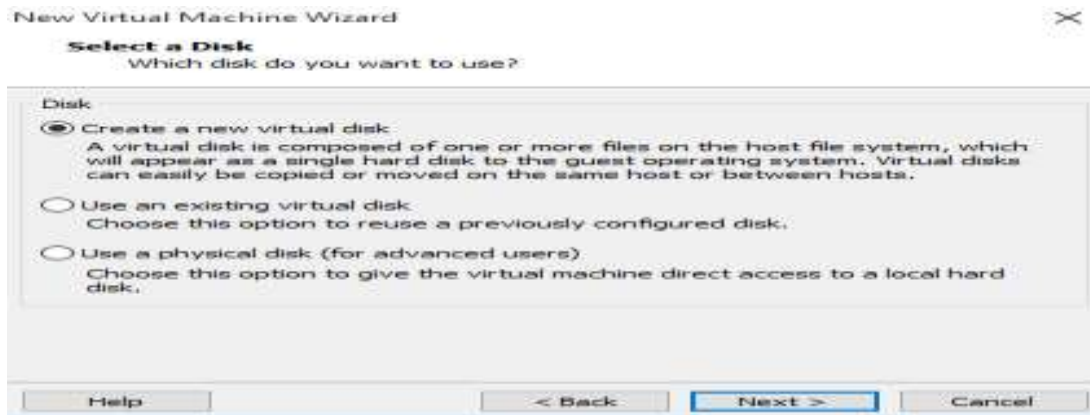
On the above screen select the amount of RAM to be allocated for this virtual machine. Click Next.



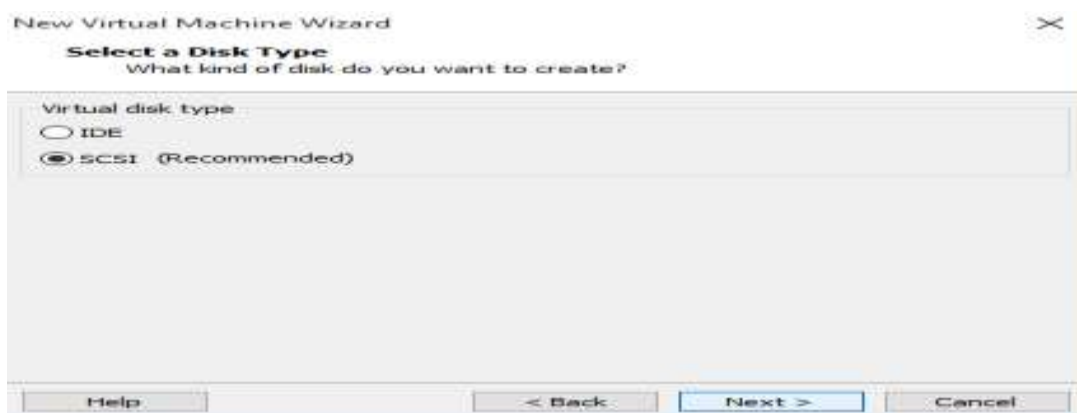
On the above screen, click to select "Use host-only networking" option. Click Next.



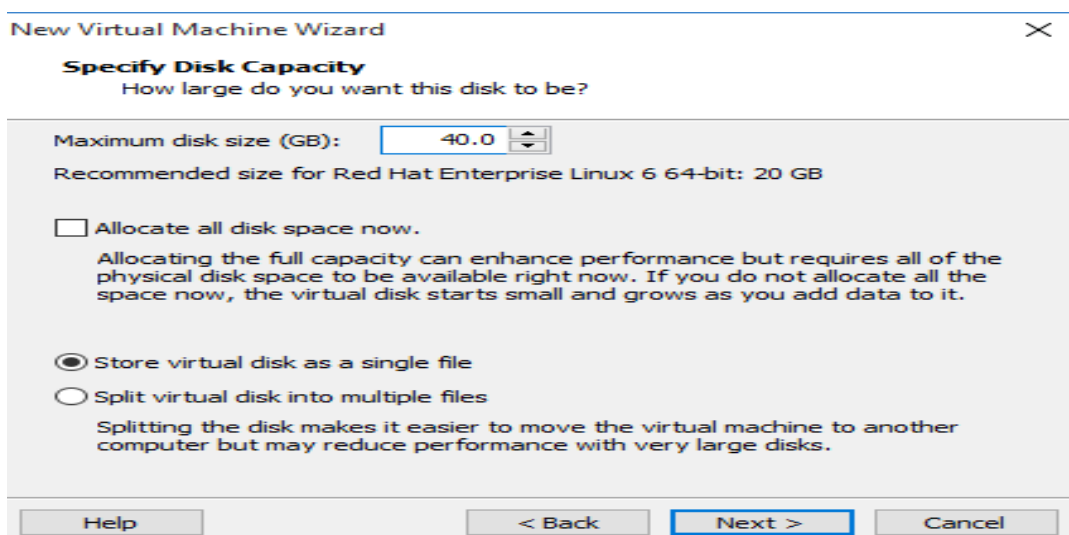
Click Next to select the default option for I/O controller type.



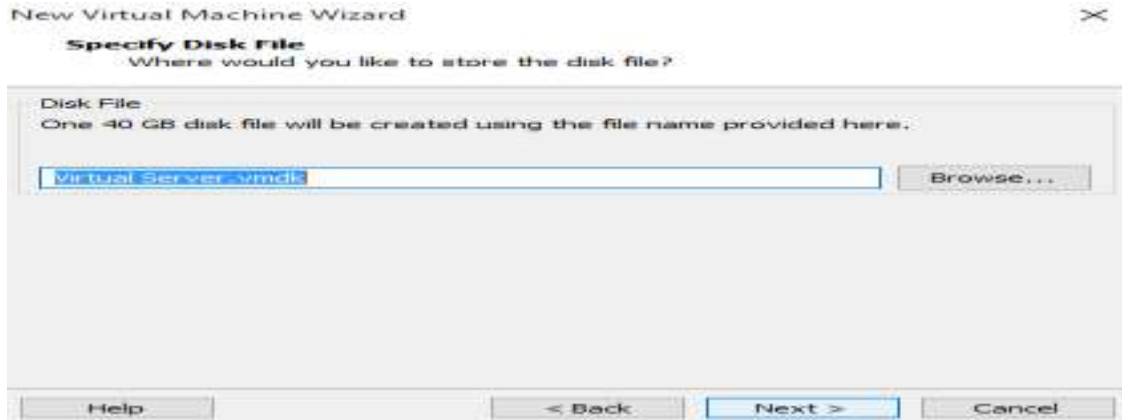
Click Next with Create a new Virtual Disk option selected.



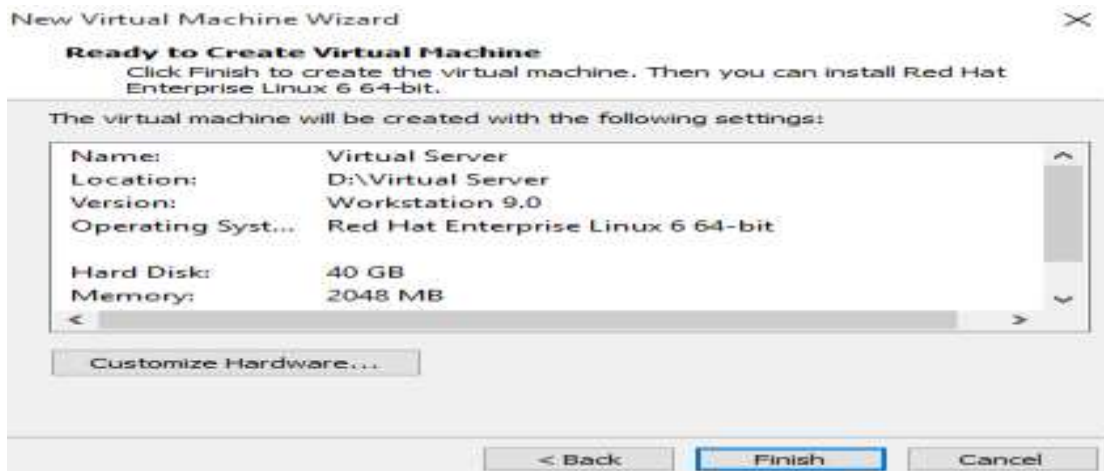
Click Next to select default SCSI option.



Specify the size of the hard disk and select "Store virtual disk as a single file" option. Click Next.



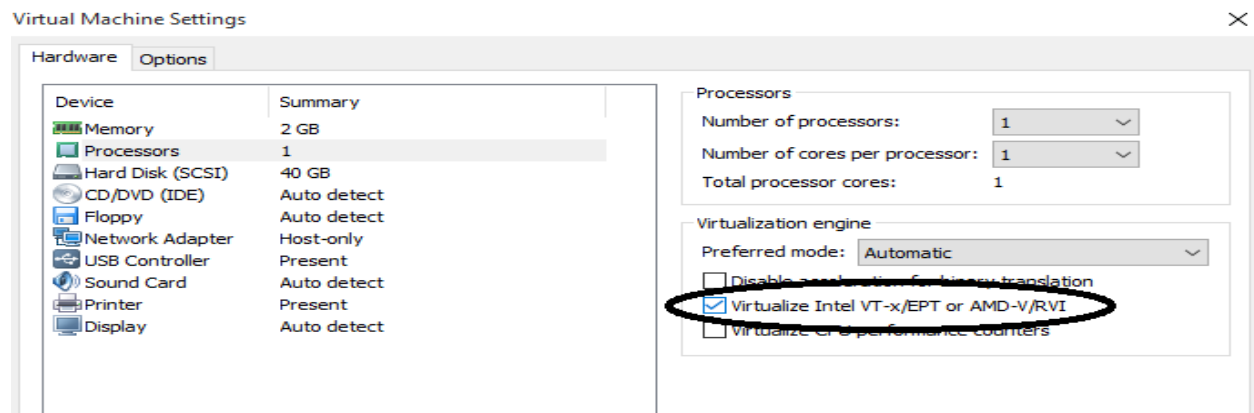
Click Next on the above screen.



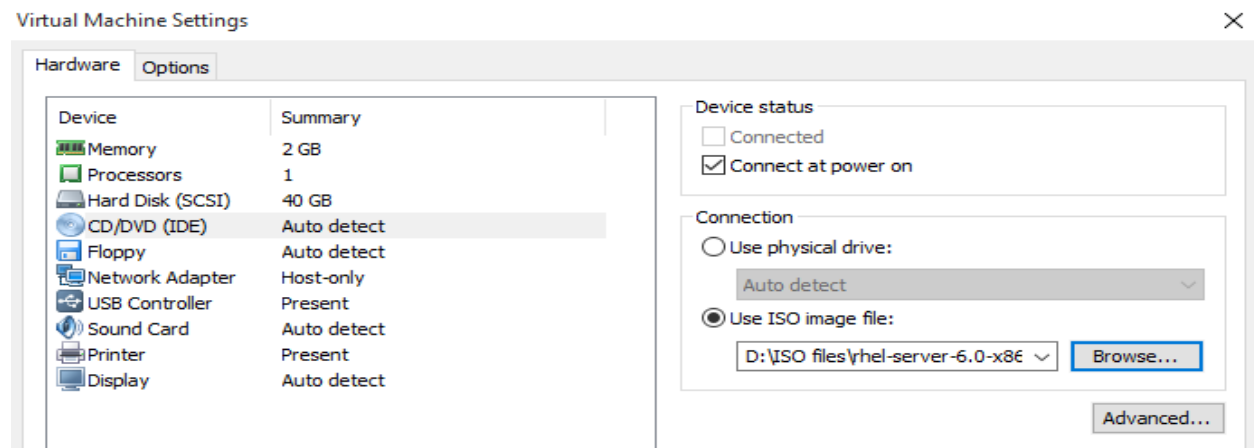
Click Finish to create the Virtual Machine.



Click Edit Settings option to edit settings of the newly created virtual machine. Click on the processor option in the new window that opens as shown below. Click the check box "Virtualize Intel VT-x...." to select it. This is shown in the below screen shot. This setting is necessary to support virtualization within the new virtual machine operating system.



Then select the CD/DVD option in the same window. Click “Use ISO image option”. Click browse button and select the required OS ISO image file to install operating system as shown below.



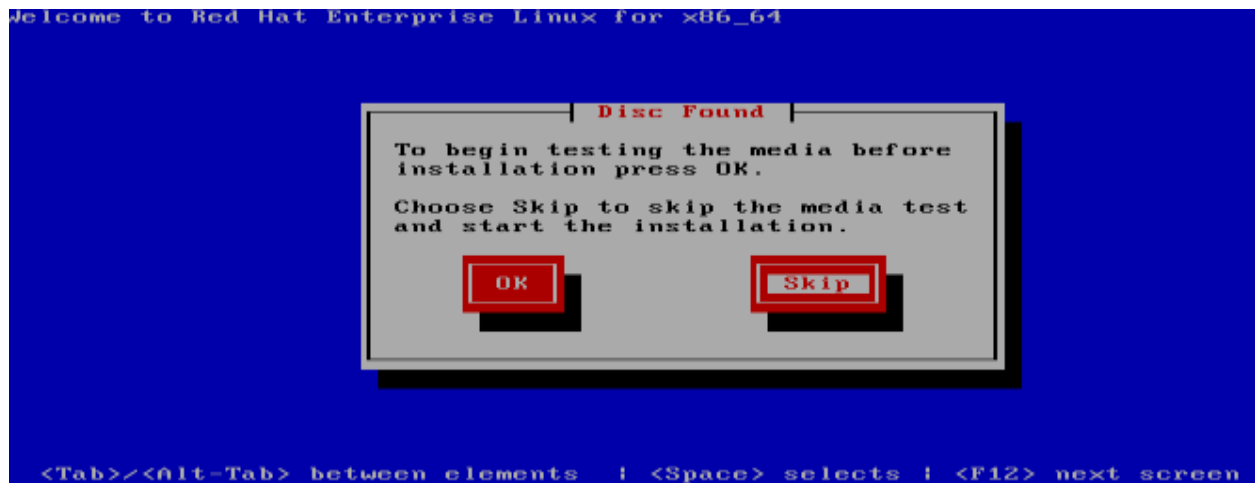
Click OK. The virtual machine is ready for Operating System installation.

Step 2 – Installing Linux Operating System on the above virtual machine.

Click power on this virtual machine option to start the above created machine.



In the above screen click on it and press “I”. Press Enter with “Install and upgrade an existing system” option selected.



On the above screen use side arrow key to select skip option and press Enter.



On the above screen click Next.



On the above screen click Next.



On the above screen also click Next.



Click Basic Storage Device option and click Next on the above screen.



Click Re-Initialize all option in the above screen.

Please name this computer. The hostname identifies the computer on a network.

Hostname:

Specify Hostname as specified above. Then click Configure Network.

Name	Last Used
System eth0	never

In the above window click on System eth0 option and click Edit button.

Connection name:

☐ Connect automatically

Wired 802.1x Security IPv4 Settings IPv6 Settings

Device MAC address:

Cloned MAC address:

MTU: bytes

In the above window click IPV4 Settings tab.

Editing System eth0

Connection name:

☐ Connect automatically

Wired | 802.1x Security | **IPv4 Settings** | IPv6 Settings

Method:

Addresses

Address	Netmask	Gateway
192.168.10.1	24	192.168.10.254

DNS servers:

Search domains:

DHCP client ID:

☒ Require IPv4 addressing for this connection to complete

☒ Available to all users

In the Method field click the drop down menu and select Manual option. Click the add button once and type IP address press enter it will select subnet mask. Press Enter till the Gateway field opens and type the gateway address. Fill IP address as shown above. Click Apply. Click Close and then Click Next.

Please select the nearest city in your time zone:



Selected city: Kolkata, Asia

☒ System clock uses UTC

In the above window Click to select Asia/Kolkata. Click Next.

 The root account is used for administering the system. Enter a password for the root user.


Root Password:


Confirm:


[< Back](#) [Next >](#)


Enter password for root user and click Next.


Which type of installation would you like?

☒  **Use All Space**
Removes all partitions on the selected device(s). This includes partitions created by other operating systems.
Tip: This option will remove data from the selected device(s). Make sure you have backups.

☐  **Replace Existing Linux System(s)**
Removes only Linux partitions (created from a previous Linux installation). This does not remove other partitions you may have on your storage device(s) (such as VFAT or FAT32).
Tip: This option will remove data from the selected device(s). Make sure you have backups.

☐  **Shrink Current System**
Shrinks existing partitions to create free space for the default layout.

☐  **Use Free Space**
Retains your current data and partitions and uses only the unpartitioned space on the selected device(s), assuming you have enough free space available.

☐  **Create Custom Layout**
Manually create your own custom layout on the selected device(s) using our partitioning tool.


☐ Encrypt system

☐ Review and modify partitioning layout

[< Back](#) [Next >](#)

In the above Window Click Use All Space and Click Next.

Writing storage configuration to disk

 The partitioning options you have selected will now be written to disk. Any data on deleted or reformatted partitions will be lost.

[Go back](#) [Write changes to disk](#)

Click Write Changes to disk.

The default installation of Red Hat Enterprise Linux is a basic server install. You can optionally select a different set of software now.

- ☐ Basic Server
- ☐ Database Server
- ☐ Web Server
- ☒ Virtual Host
- ☐ Desktop
- ☐ Software Development Workstation
- ☐ Minimal

Please select any additional repositories that you want to use for software installation.

- ☐ High Availability
- ☐ Load Balancer
- ☒ Red Hat Enterprise Linux
- ☐ Satellite Server

You can further customize the software selection now, or after install via the software management application.

☐ Customize later ☒ **Customize now**

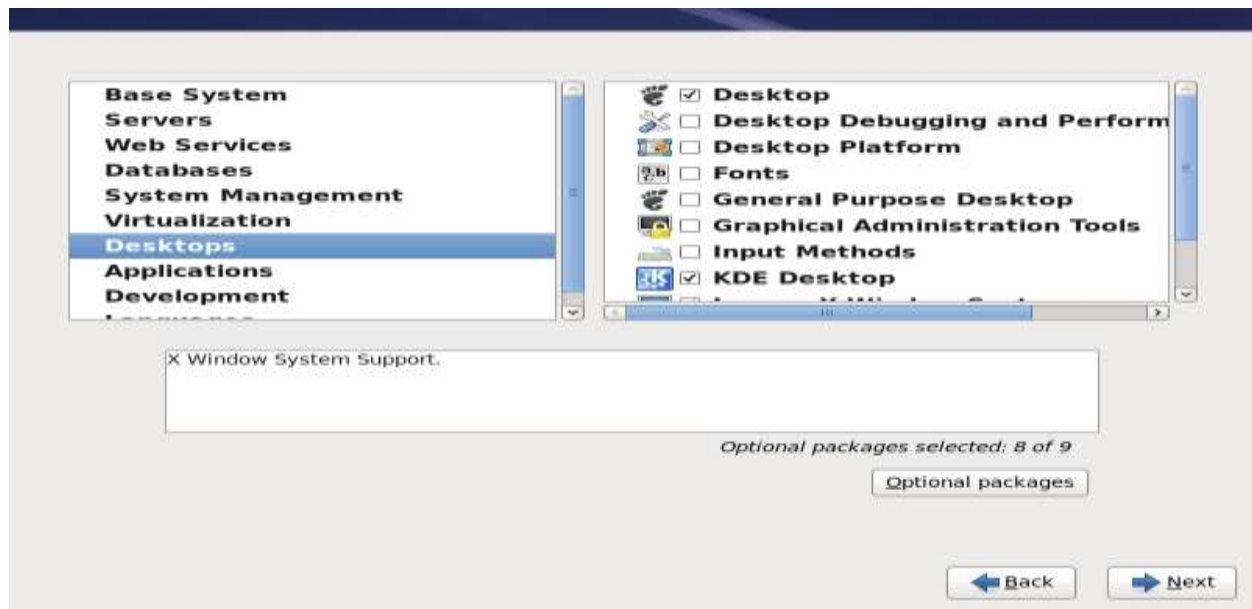
In the above screen click to select “Virtual Host” option. Also click to select “**Customize now**” option. Then click Next.

Base System	<input checked="" type="checkbox"/> Virtualization
Servers	<input checked="" type="checkbox"/> Virtualization Client
Web Services	<input checked="" type="checkbox"/> Virtualization Platform
Databases	<input checked="" type="checkbox"/> Virtualization Tools
System Management	
Virtualization	
Desktops	
Applications	
Development	
Tools	

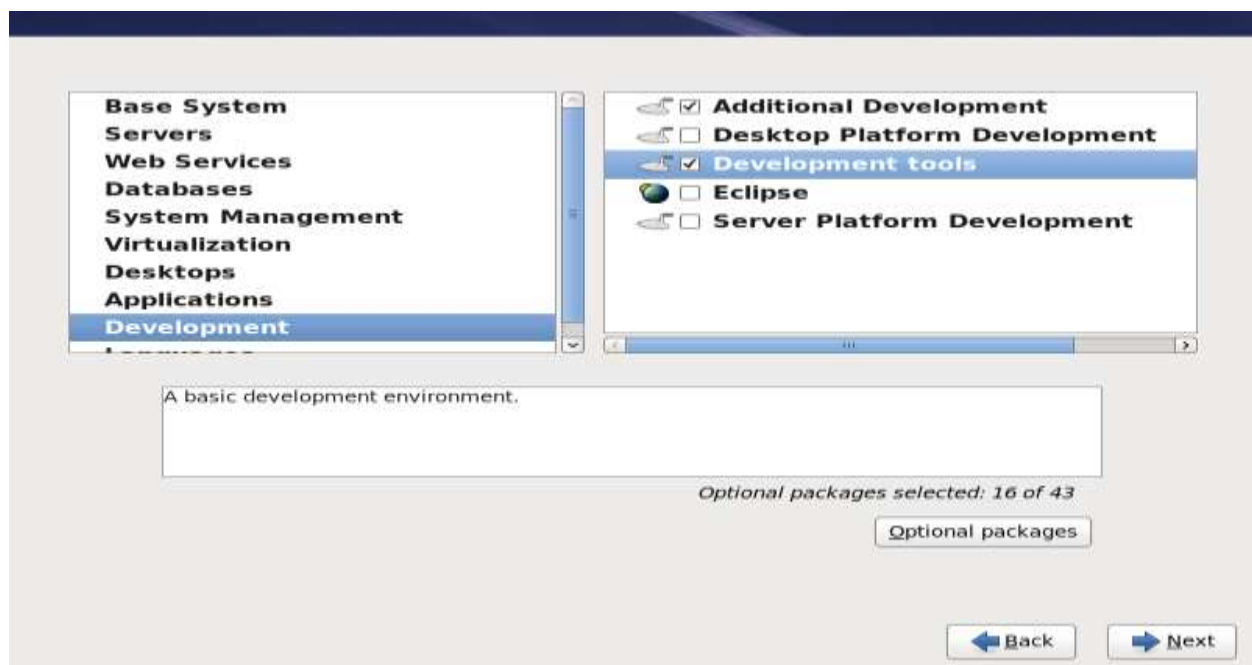
Tools for offline virtual image management.

Optional packages selected: 1 of 5

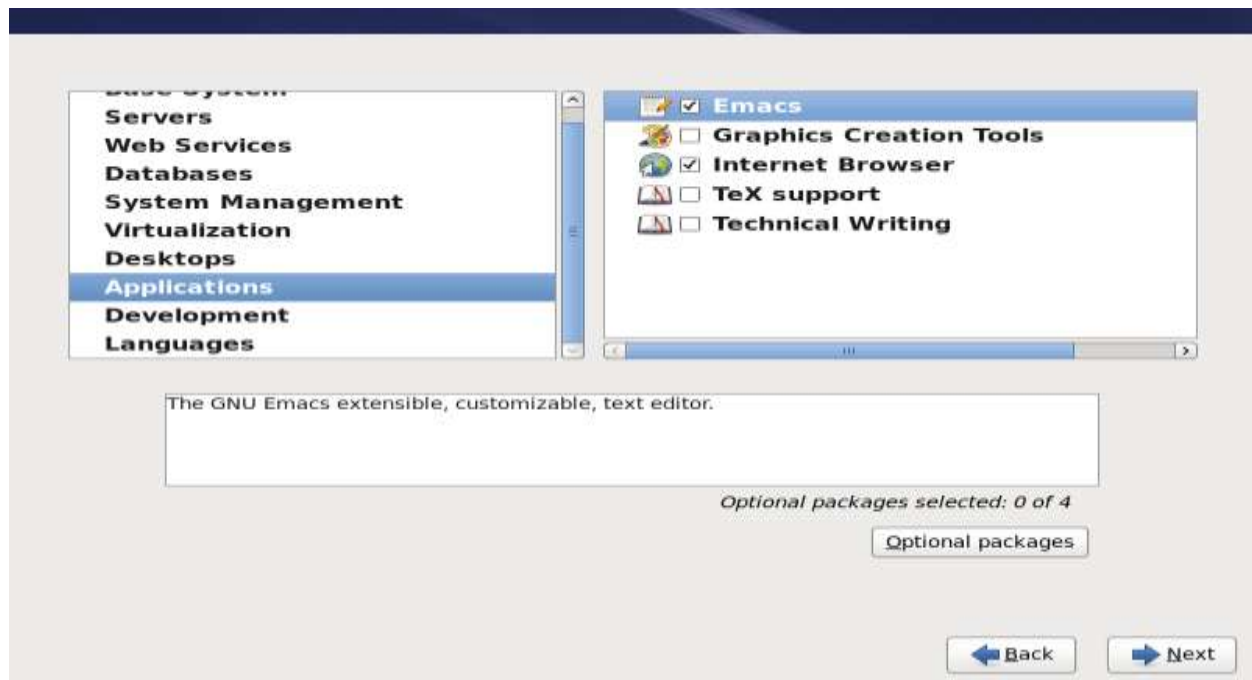
In the above screen click Virtualization on the left hand side and then make sure all check boxes are selected on the right hand side.



Next click Desktop option on the left hand side and then click Desktop, KDE Desktop and all X Windows related options below KDE Desktop option on the right hand side.



Next click the Development option on the left hand side. Click to select Additional Development and Development tools options on the right hand side.



Click Application option on the left hand side and select Emacs and Internet Browser option on the right hand side.

Once you have selected all the required options , you are ready to install the operating system. Click Next.



The OS installation will continue.

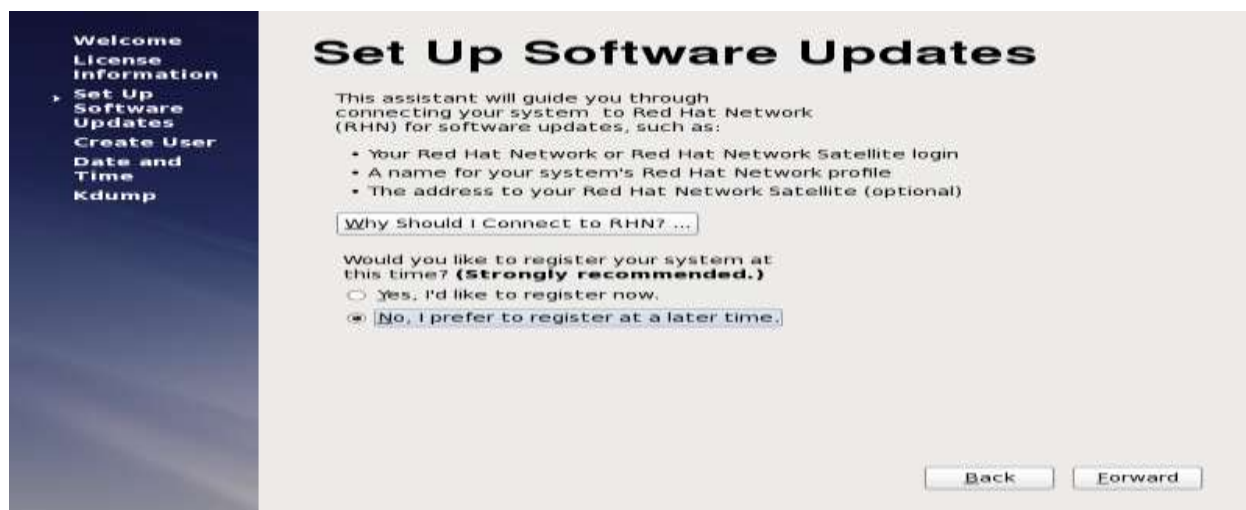


Once OS installation is complete, click Reboot to restart the system. Once the system boots the following screen will be displayed. Click Forward.





On the next screen click yes to accept license agreement. Click Forward.



On the next screen shown above click No option and then click Forward. On the popup window that opens click "No thanks, I'll connect later" as shown below.



On the next screen click Forward as shown below.

Welcome
License Information
Set Up Software Updates
Create User
Date and Time
Kdump

Finish Updates Setup

 Your system is not setup for software updates.

You won't be able to receive software updates, including security updates, for this system.

You may access the RHN registration tool by running **RHN Registration** in the **System > Administration** menu.

You may access the software update tool by running **Software Update** in the **System > Administration** menu.

Back Forward

On the following screen that opens, type username and password to create a new user. Click Forward.

Welcome
License Information
Set Up Software Updates
Create User
Date and Time
Kdump

Create User

You must create a 'username' for regular (non-administrative) use of your system. To create a system 'username', please provide the information requested below.

Username:

Full Name:

Password:

Confirm Password:

If you need to use network authentication, such as Kerberos or NIS, please click the Use Network Login button.

Use Network Login...

If you need more control when creating the user (specifying home directory, and/or UID), please click the Advanced button.

Advanced...

Back Forward

If message related to password appears click yes to continue with the simple password.
On the next screen select proper date and time. Then click Forward.

Welcome
License Information
Set Up Software Updates
Create User
Date and Time
Kdump

Date and Time

Please set the date and time for the system.

Date and Time

Current date and time: Mon 07 Mar 2016 03:03:58 AM IST

☐ Synchronize date and time over the network

Manually set the date and time of your system:

Date

March 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Time

Hour:

Minute:

Second:

Back Forward

On the next screen shown below, click ok.



On the next screen click finish.



On the login screen that appears as shown below, click other option.



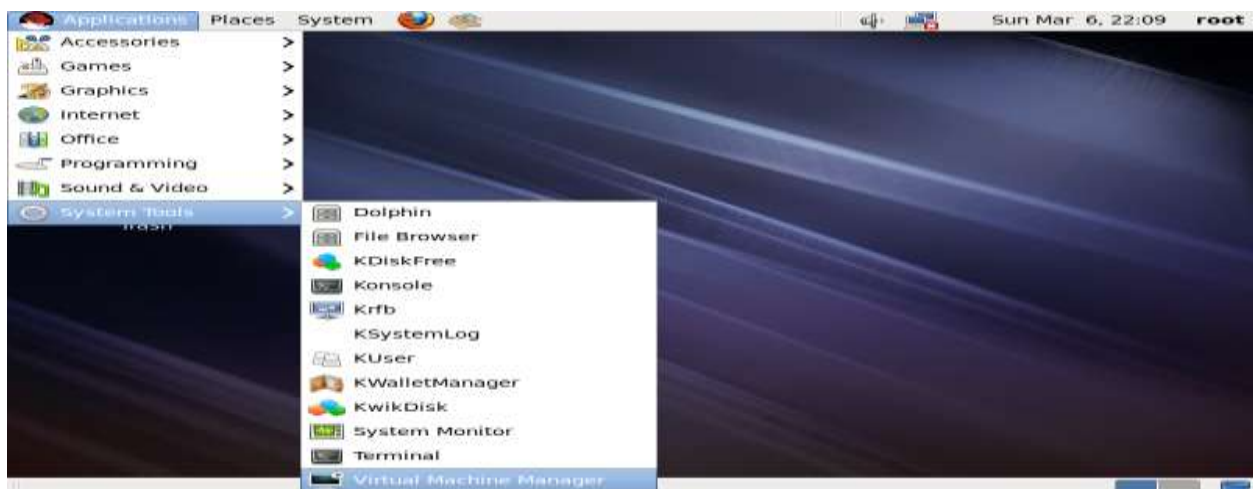
On the screen that opens as shown below enter the username as root. Click Log in.



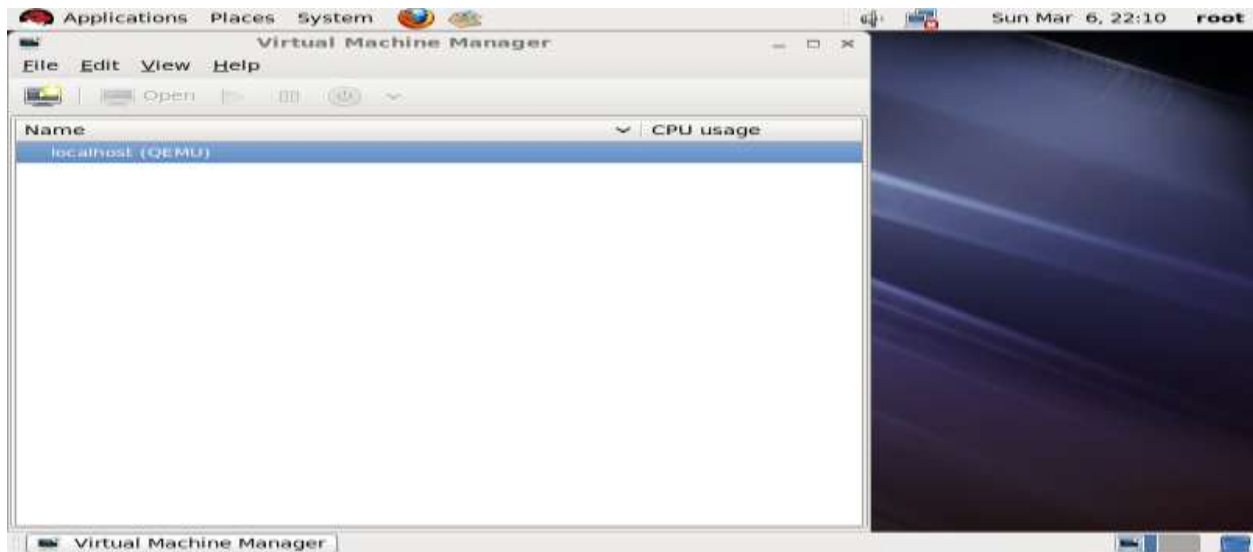
Enter password for root user given during Linux installation. Click Login. If any warning opens click close.



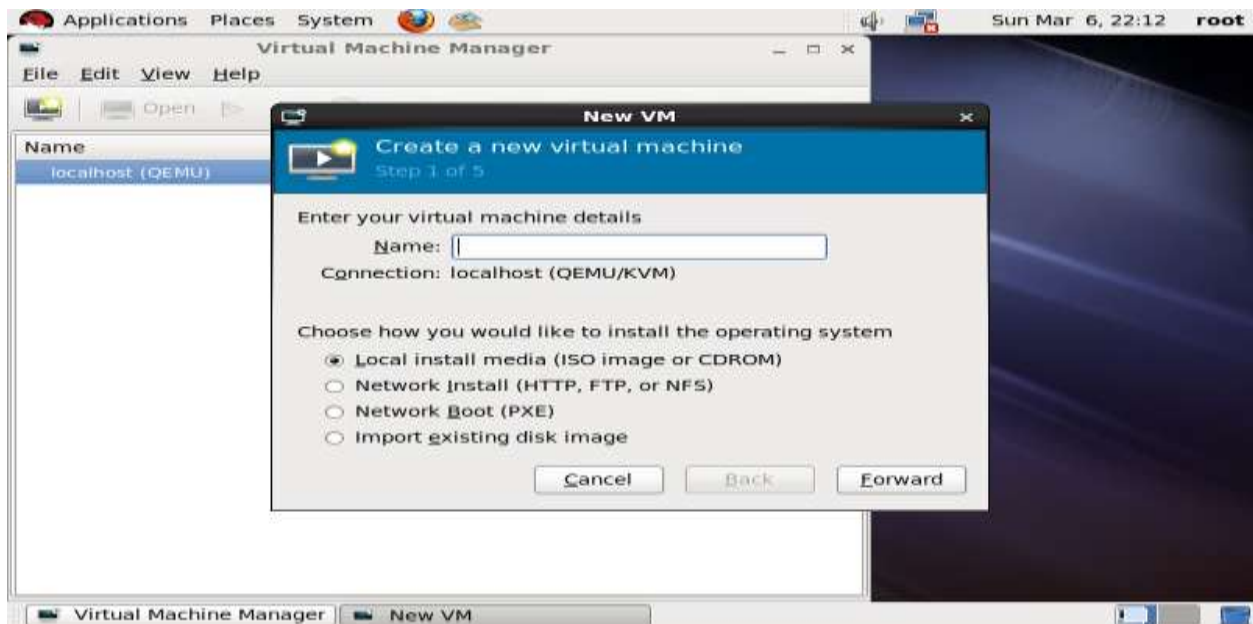
Once you log in as root user, open Virtual Machine Manager by clicking on Applications tab then System Tools and click Virtual Machine Manager as shown below.



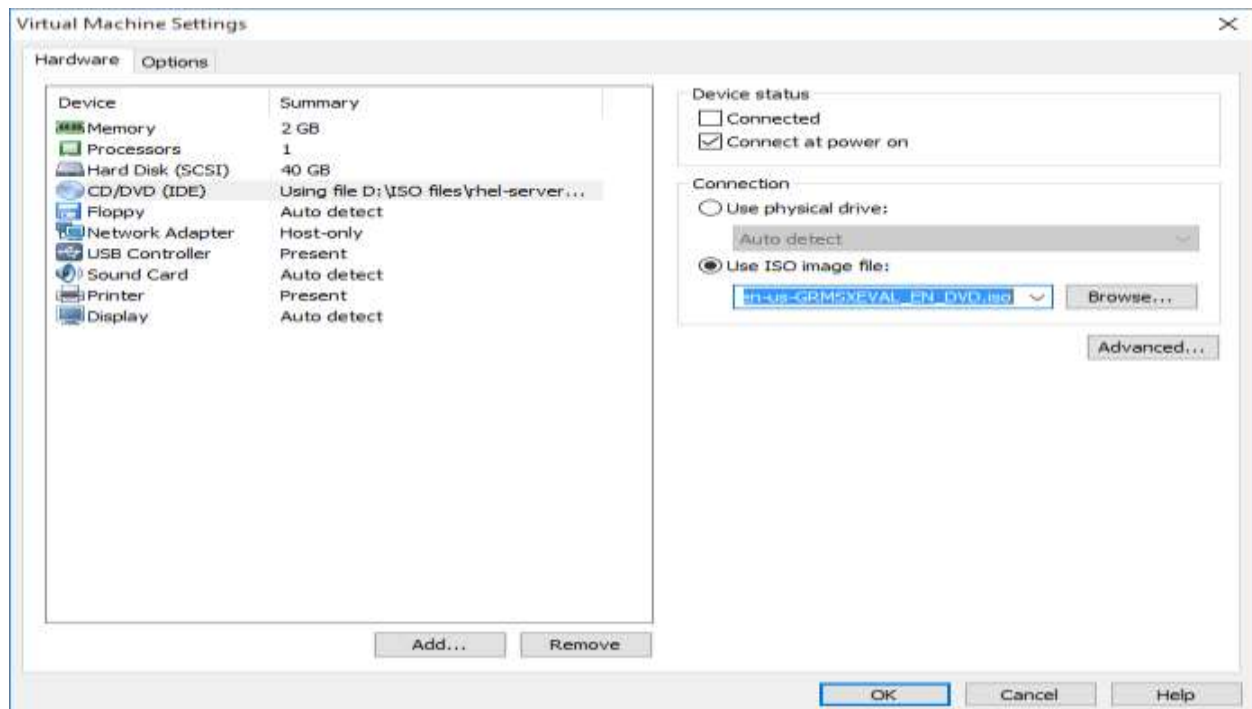
The Virtual Machine Manager will open as shown below.



Right click on the **localhost (QEMU)** in the Virtual Machine manager. The following window opens. These steps create a virtual machine within the Linux hypervisor. Give a name to the virtual machine and click Forward.

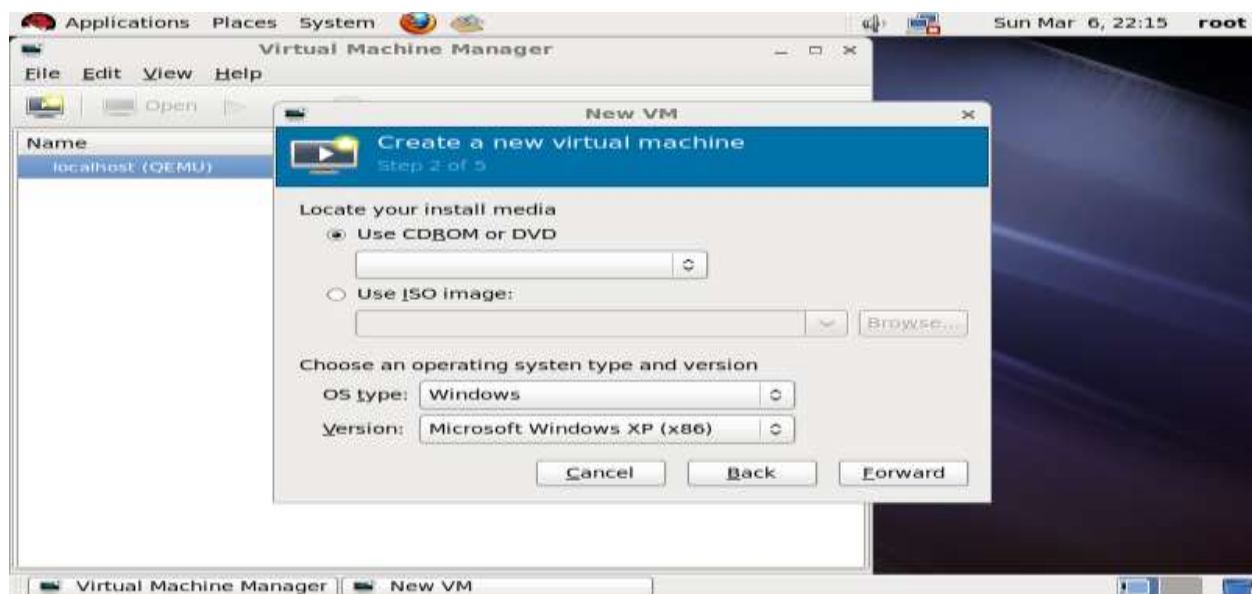


Before you continue edit the virtual machine settings in VMware as shown below. Click CD/DVD option. On the right hand side, select Use ISO image file. Click Browse to select the OS ISO image file (This is as if you are inserting the OS CD/DVD in the main machine CDROM. This will be used by the Virtual machine created in Linux for OS installation). Also make sure **connected check box** is selected.

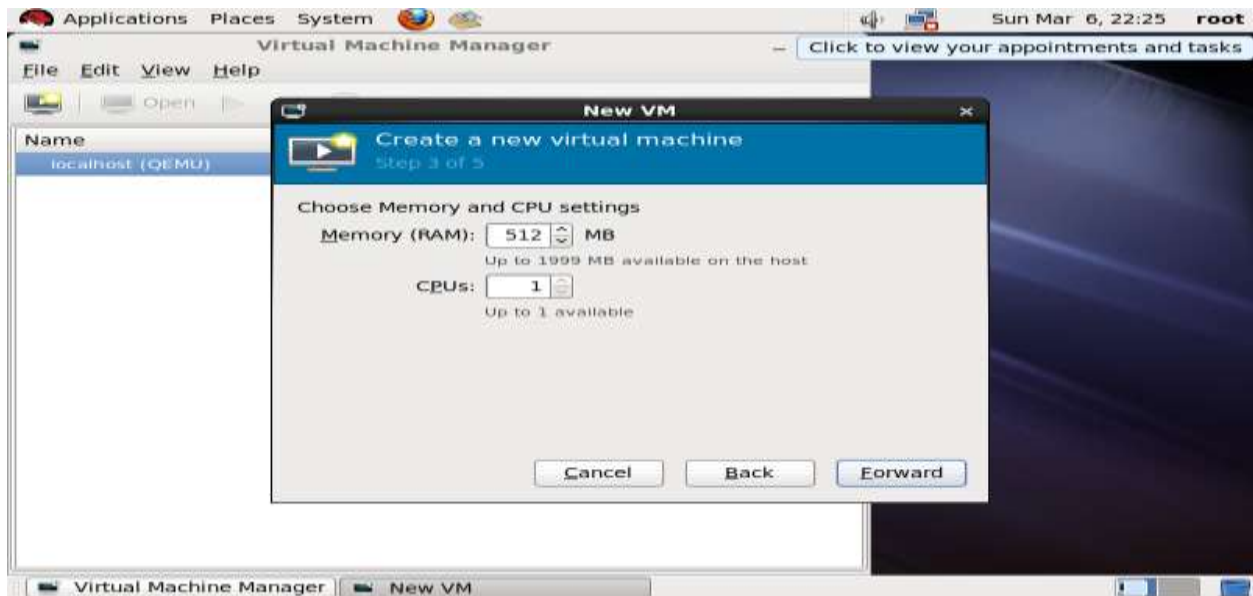


Click ok once ISO image selected. Then continue to Linux within the Virtual Machine.

On the following screen, select Use CDROM or DVD. Also in the OS type field the OS you want to install on the virtual machine. Also select the proper version of the OS, as shown below.



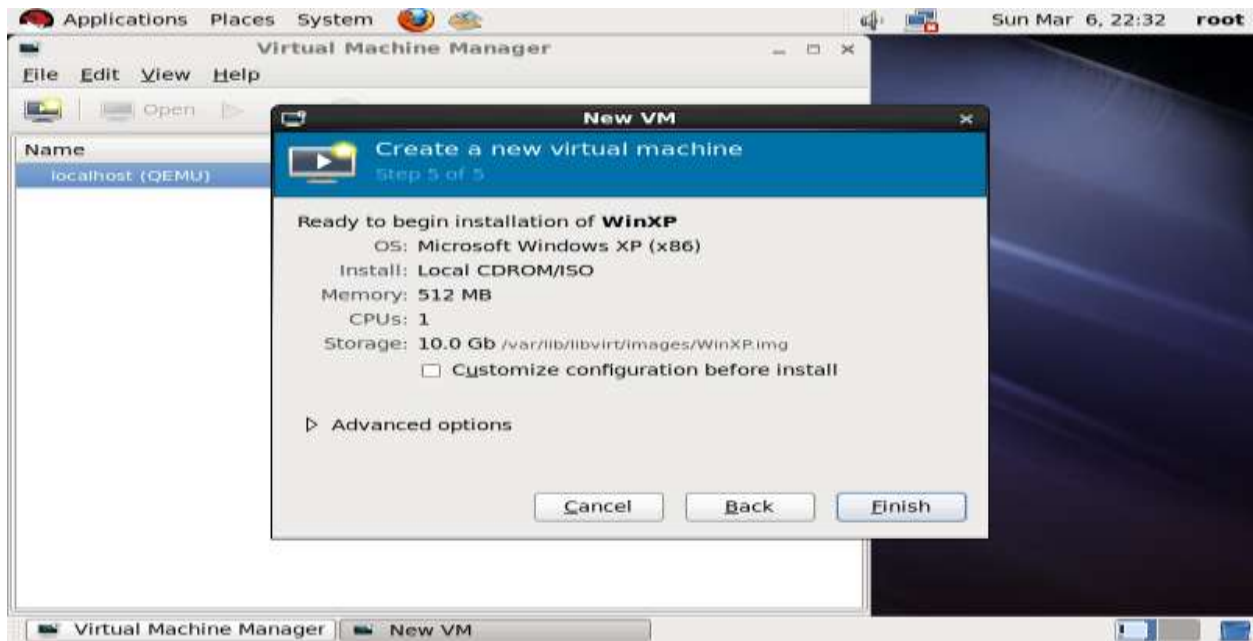
Click Forward. On the next screen you can select the amount of RAM and Processors to be allocated for the Virtual Machine. Click Forward.



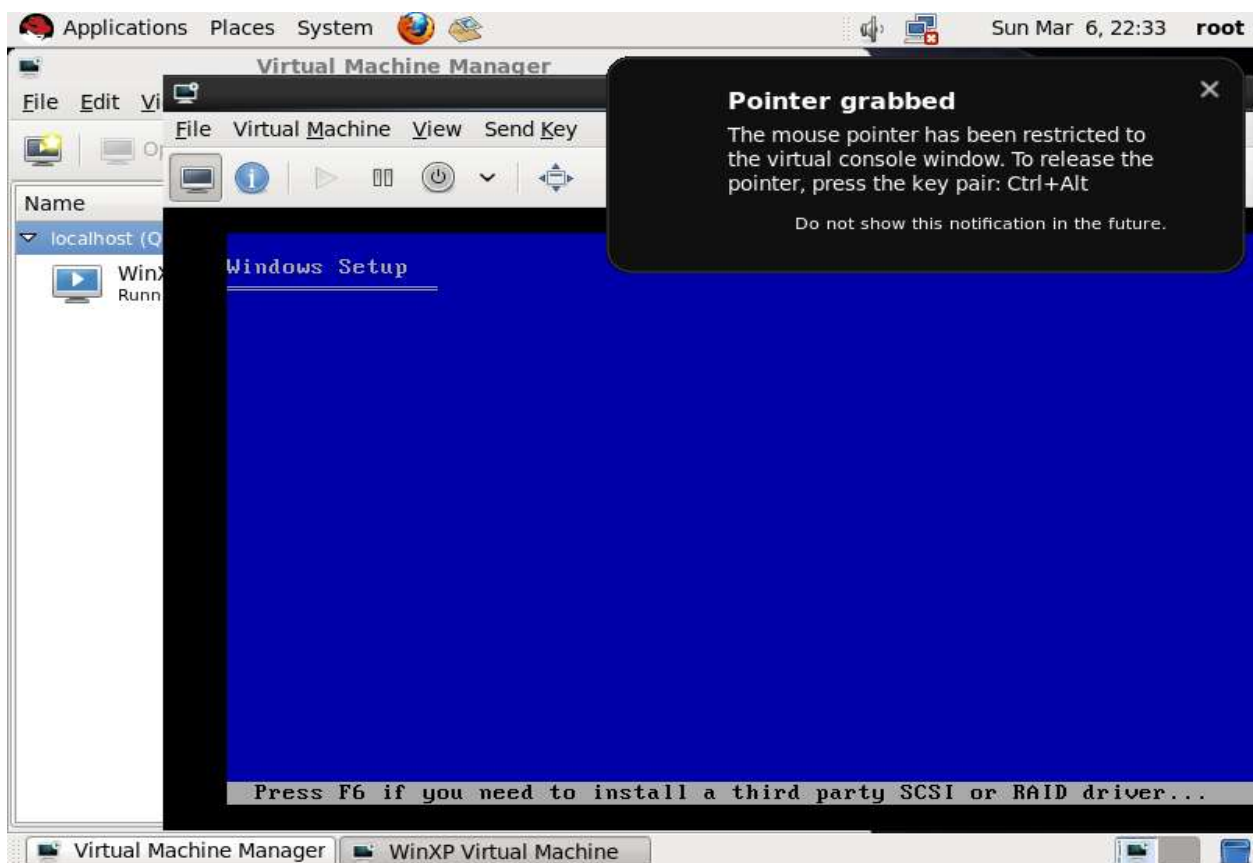
On the following screen specify space for the hard disk. Make sure you uncheck the check box “**Allocate entire disk now**” as shown below. Click Forward.



On the following screen click finish to create virtual machine.



The new virtual machine will be created and the installation will start as shown below.



This is how you have successfully created the virtual machine on Linux.

