

e-Journal  
on  
**CLOUD COMPUTING**

SUBMITTED BY  
**KALLIL RAHUL RAVINDRAN**  
ROLL NO:05

Submitted in partial fulfilment of the requirement for  
Qualifying  
M.Sc. Part I Semester II Examination  
2018-19

Department of Information Technology

Ramniranjan Jhunjhunwala College  
Station Road, Ghatkopar (w), Mumbai-86



Hindi Vidya Prachar Samiti's

**RAMNIRANJAN  
JHUNJHUNWALA COLLEGE  
(AUTONOMOUS)**

Opposite Ghatkopar Railway Station, Ghatkopar West, Mumbai-400086



## CERTIFICATE

This is to certify that Mr. KALLIL RAHUL RAVINDRAN with Seat No. 05 has successfully completed the necessary course of experiments in the subject of **CLOUD COMPUTING** during the academic year **2018 - 2019** complying with the requirements of **RAMNIRANJAN JHUNJHUNWALA COLLEGE OF ARTS, SCIENCE AND COMMERCE**, for the course of **M.Sc. (IT)** semester -II.

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Internal Examiner

Date: \_\_\_\_\_

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Head of Department  
Examiner

College Seal

External

# CLOUD COMPUTING

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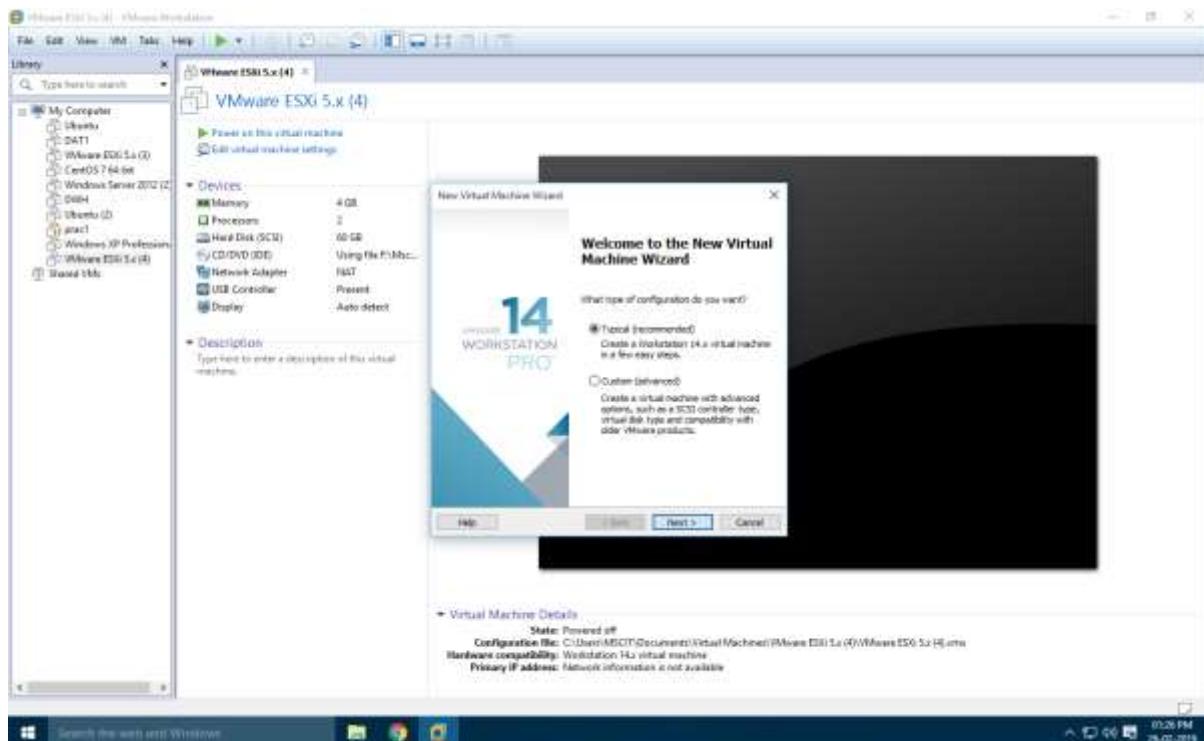
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## PRACTICAL: 1

### IMPLEMENTING CLUSTER ON WINDOWS

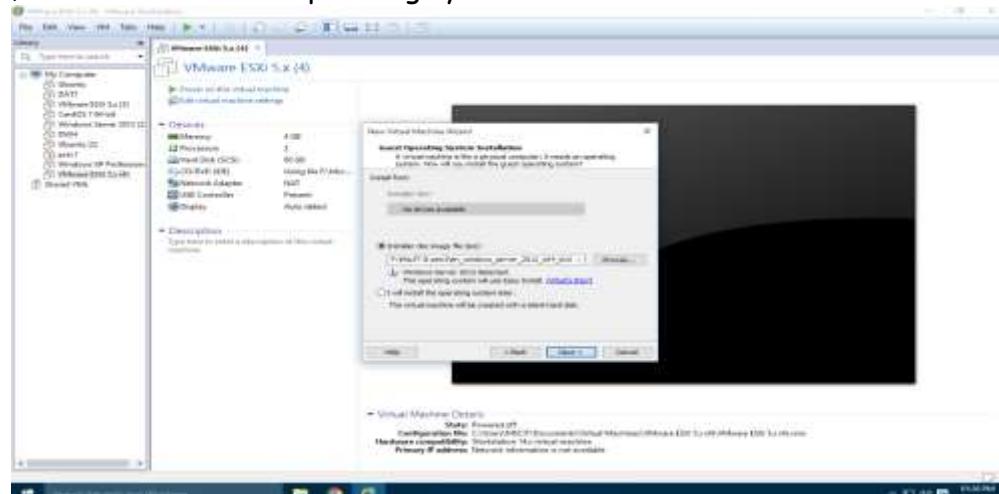
Install the VMWare Workstation. The Home page of VMWare Workstation looks like the picture below. To create a new Virtual Machine click on "Create a New Virtual Machine".

In the "New Virtual Machine Wizard" select the "Typical" option. And click on "Next" button.

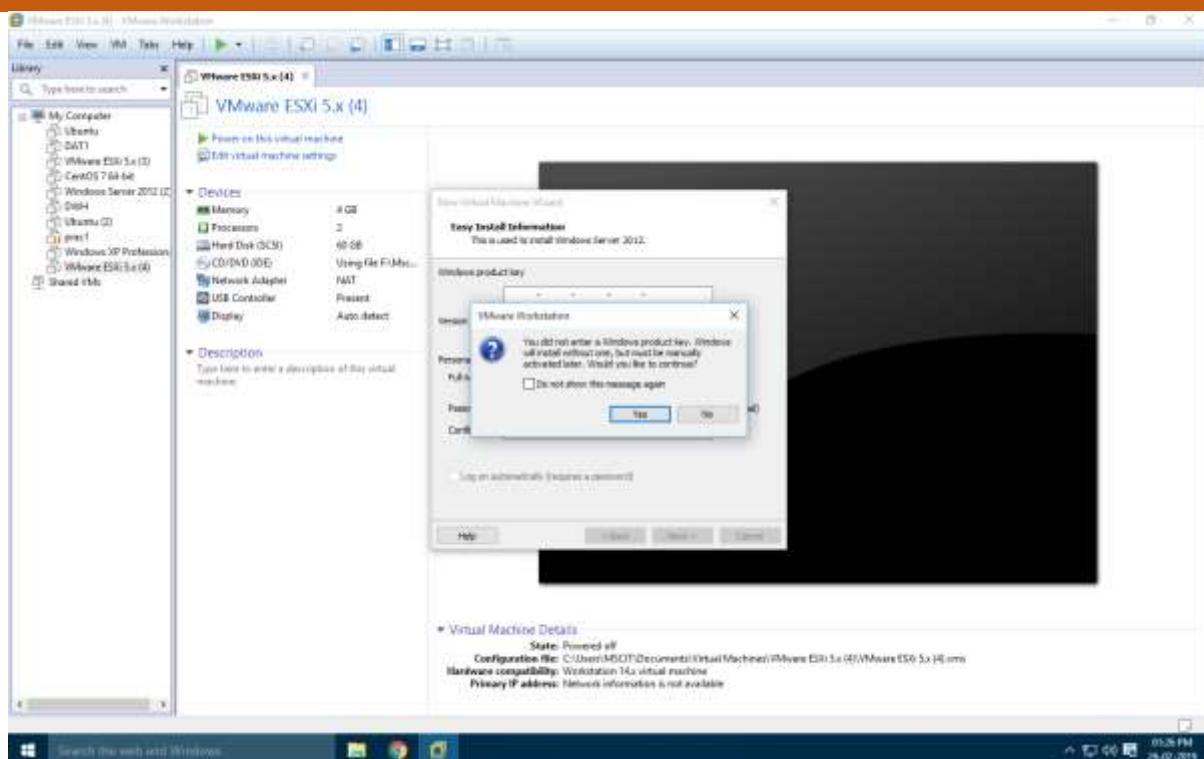


In the Next window, select the option Install Disc and click on Browse to select the windows server2012 iso file and then click on Next.

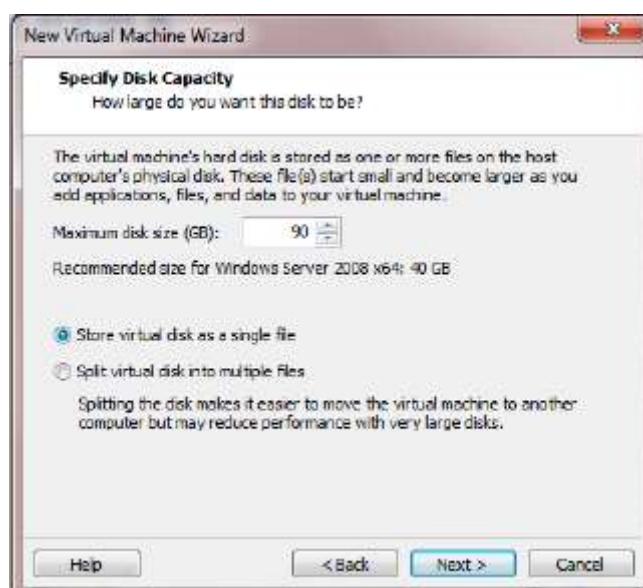
In this window, select the name of operating system and its version.



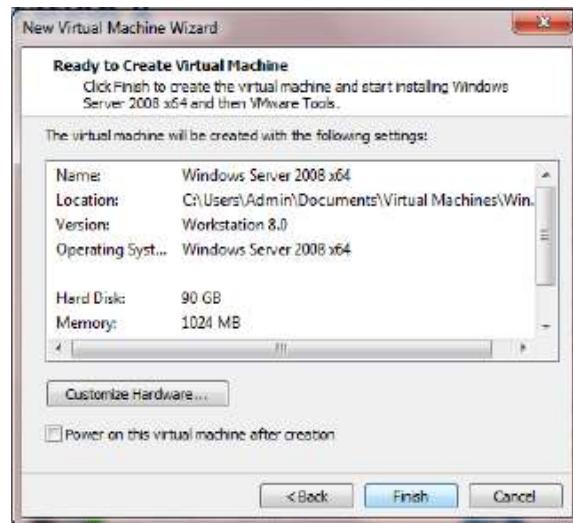
Click "Next", And click on yes



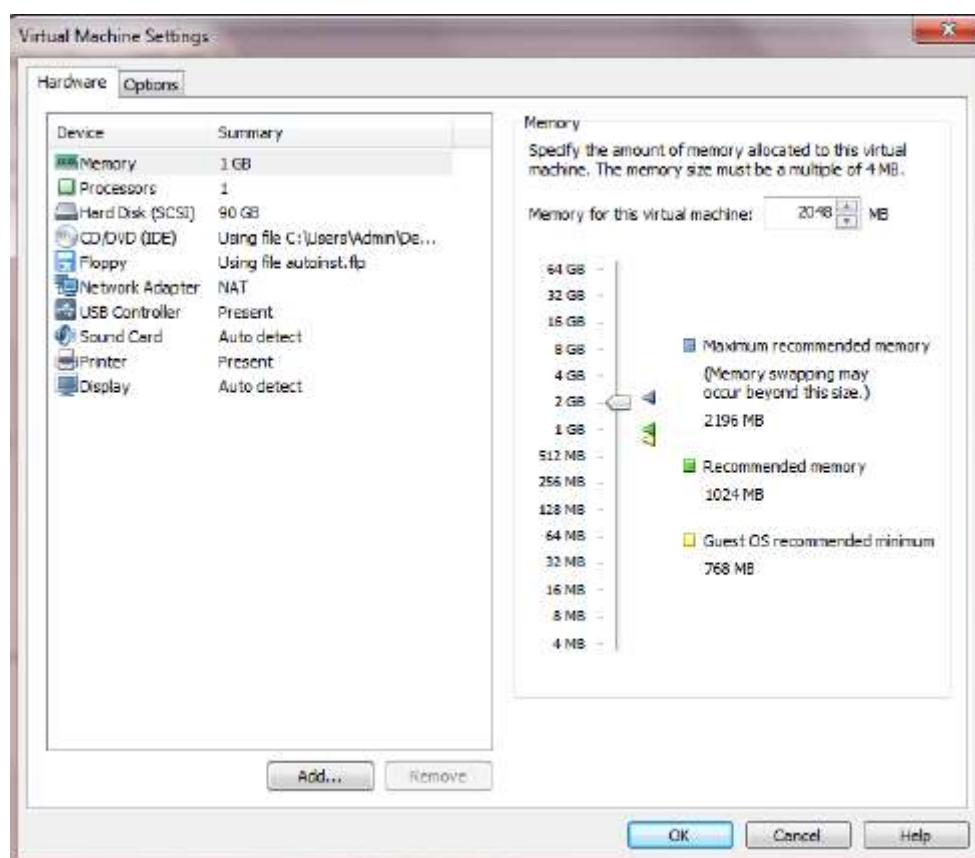
Choose "Store virtual disk as a single file" and Keep the memory size as 90GB. Click on "Next".



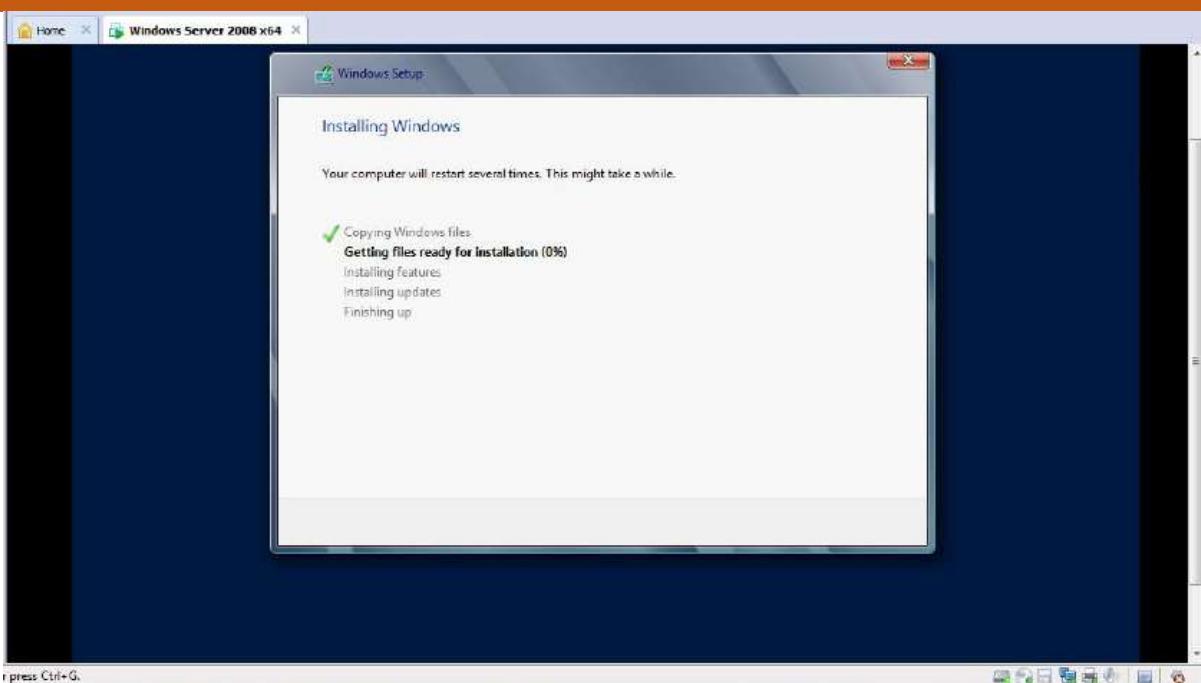
Click on "Finish" button.



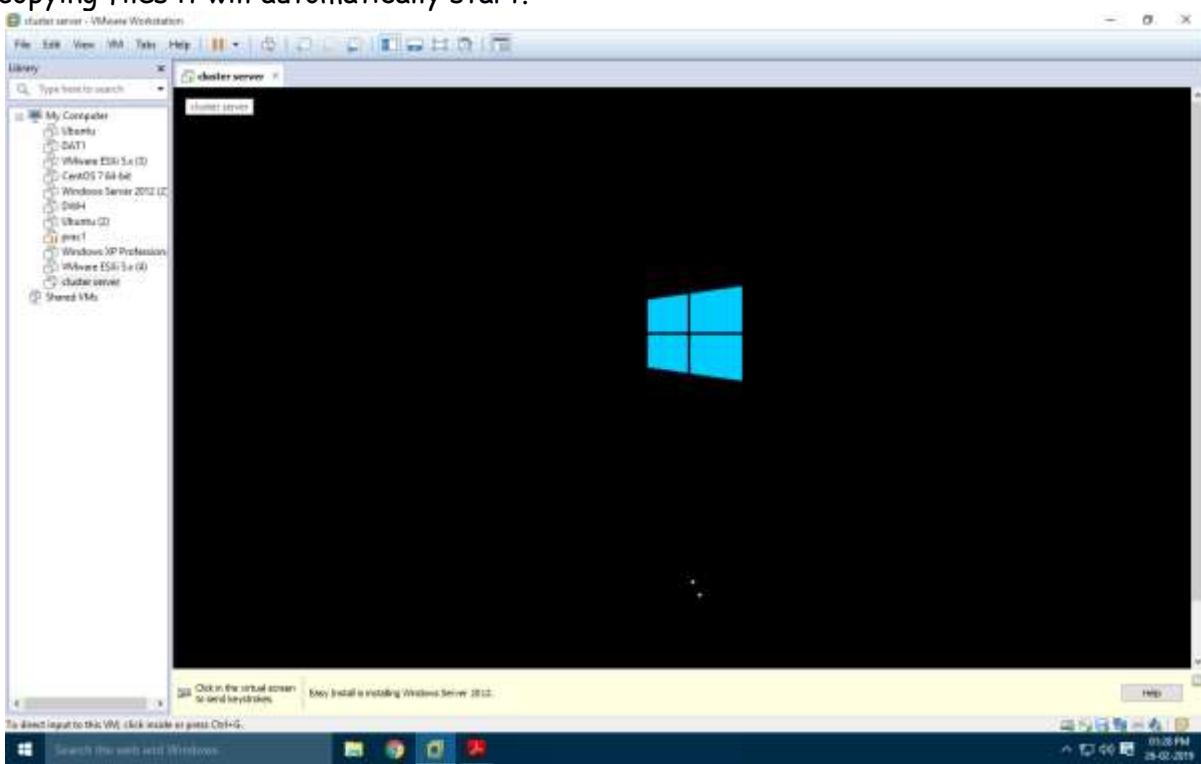
Click on Memory under Devices on the right side and make it to 2GB.  
Power on the virtual machine by clicking on "Power on this virtual machine".



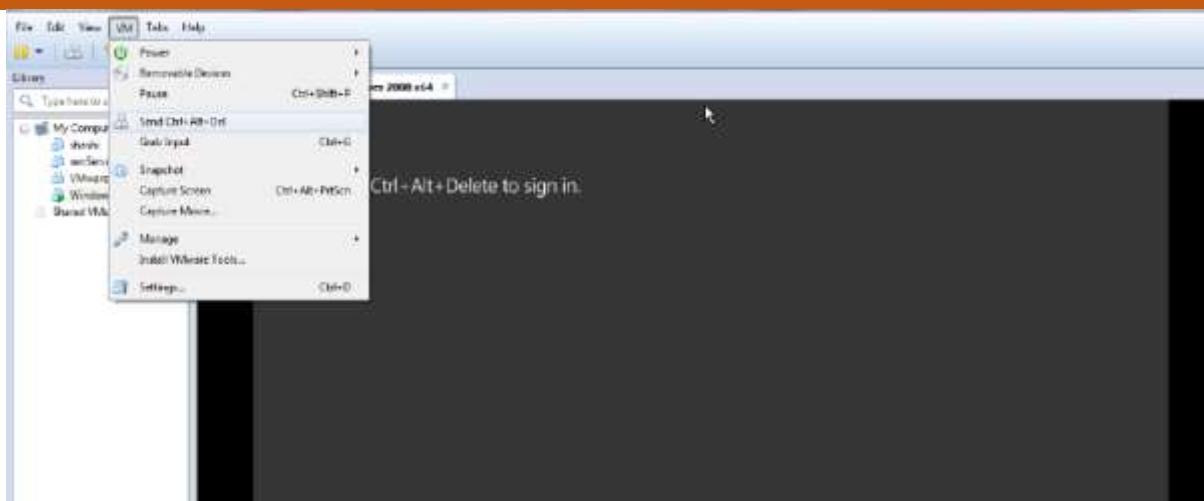
Copying of System Files will start.



After copying files it will automatically start.



If installing on the Virtual Machine like VMWare then you need to click on the menu as show in the next screen.

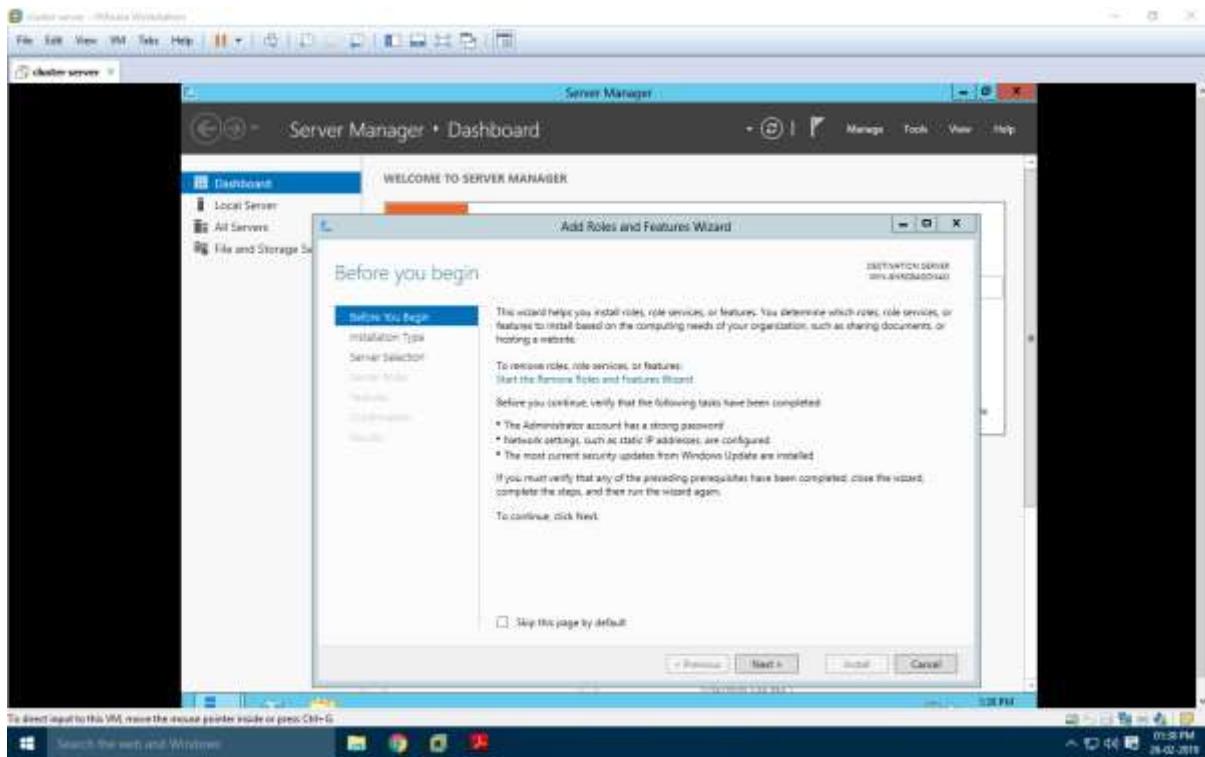


Enter the password and press "Enter" button on the keyboard

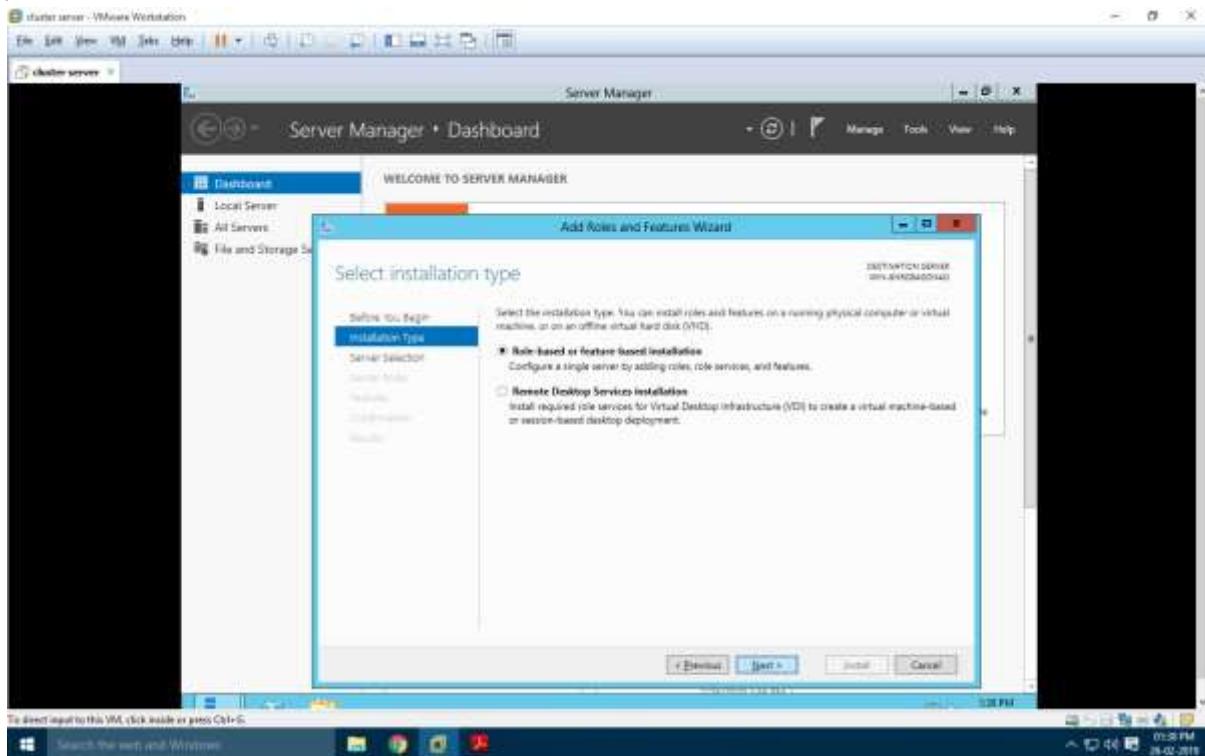
Password: Admin12345



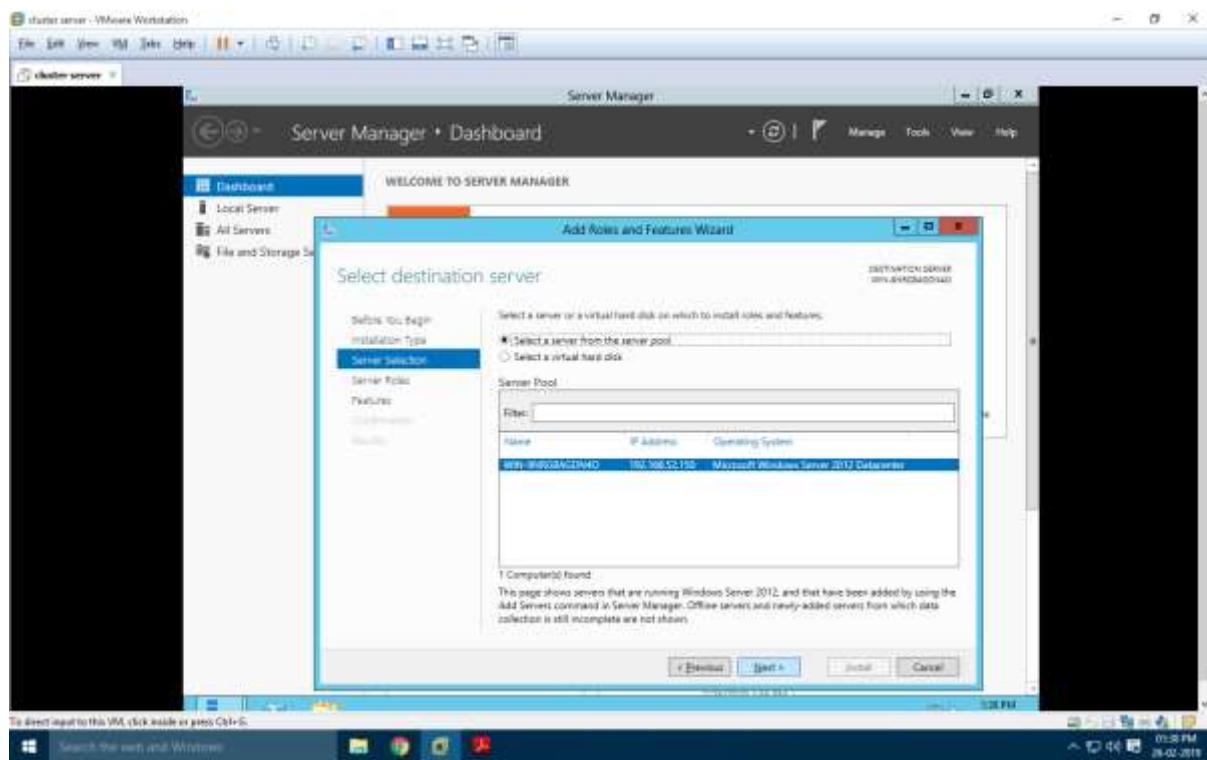
To make the current system a Domain Controller click on "Add Roles and Features" under the "Manage" menu at the top of the screen and get the "Add Roles and Feature Wizard".



Under "select installation Type" select "Role-based or feature-based installation" and click "Next" button.

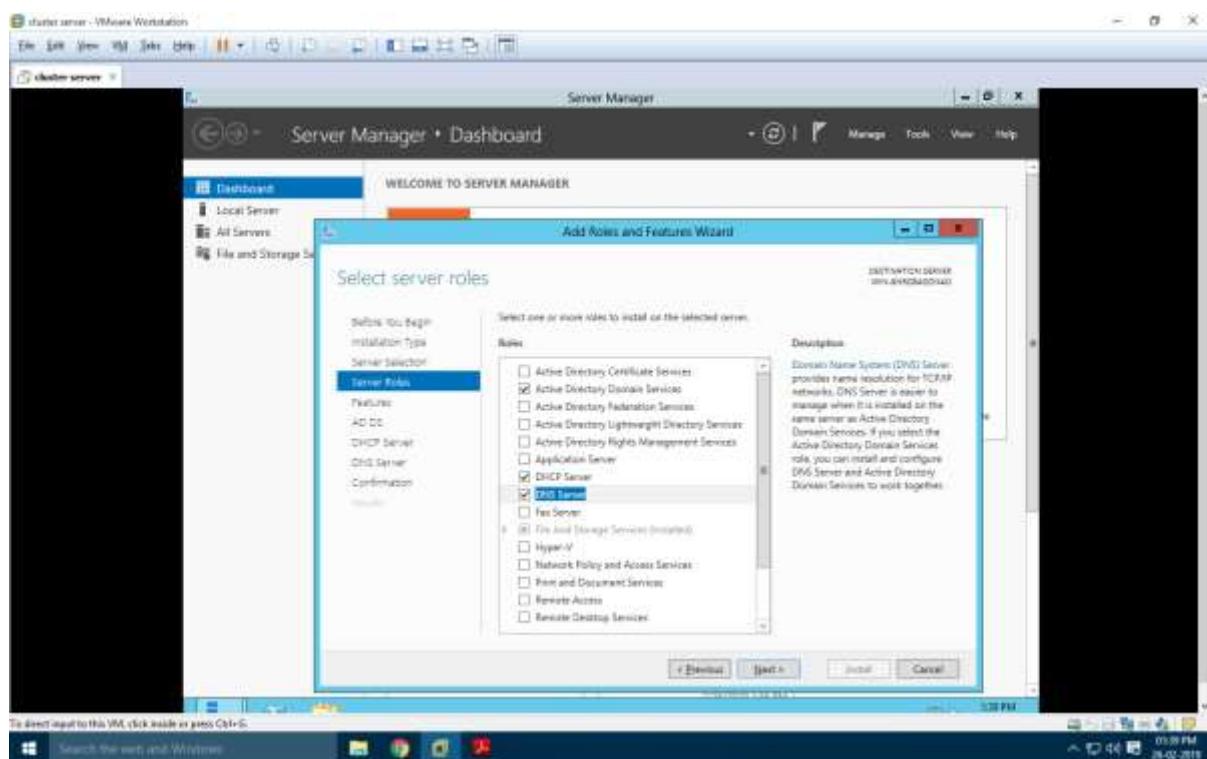


Under "select destination Server" select "Select a server from the server pool" option and select the server as shown in the screen below and click "Next"

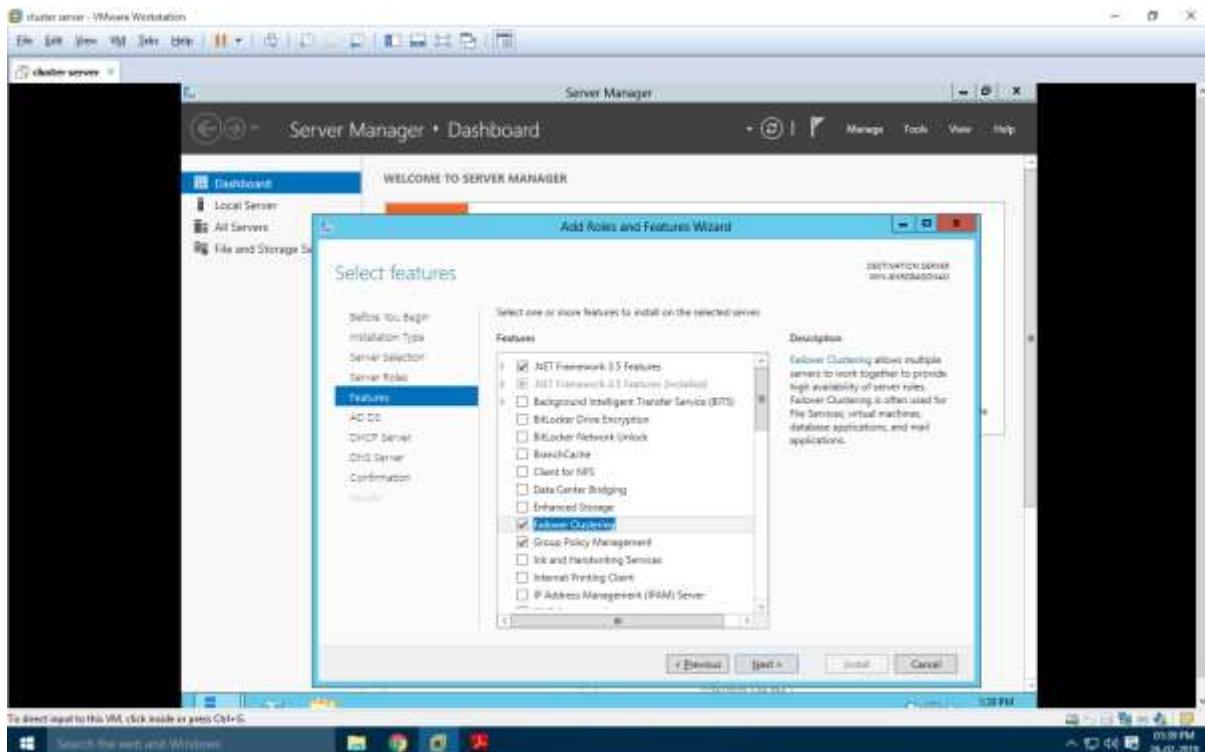


Click on "Active Directory Services", "DNS" and "DHCP" roles from the list of roles provided and click on "Add Features" button as shown in the screen. Add Features button will appear as you click on any of the roles.

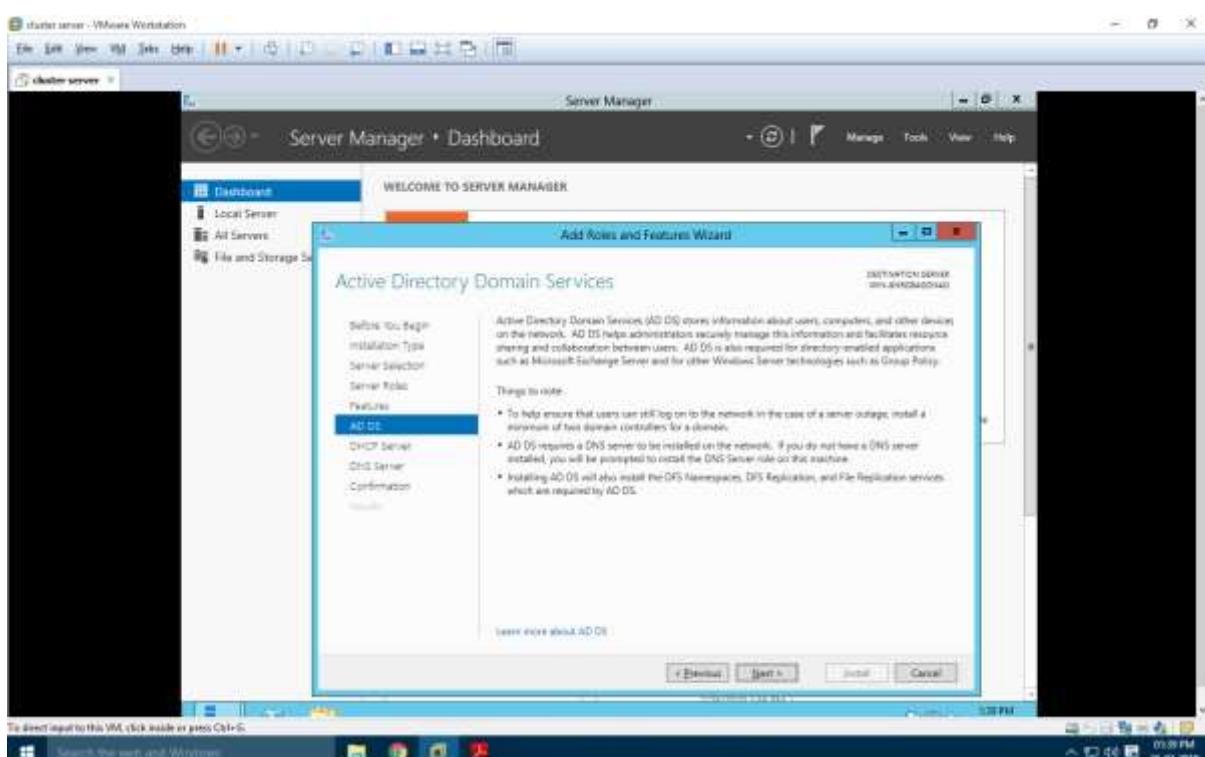
After selecting the Role click "Next".

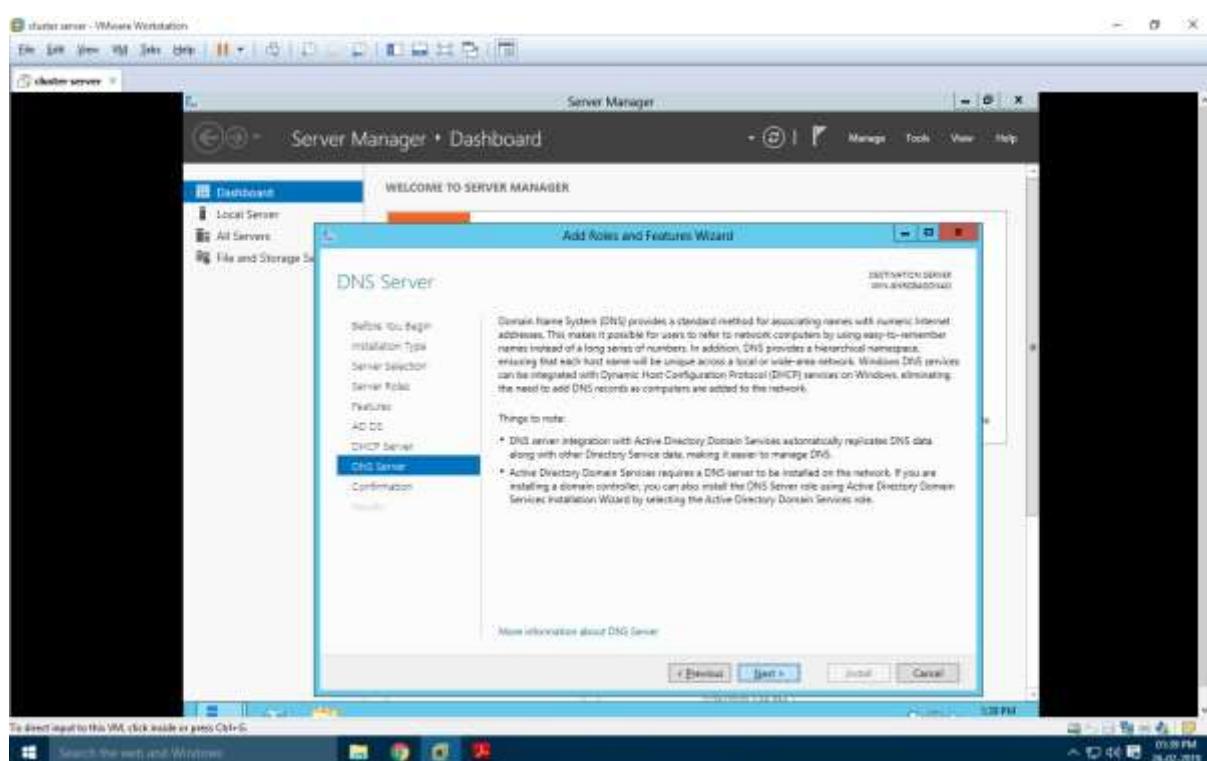
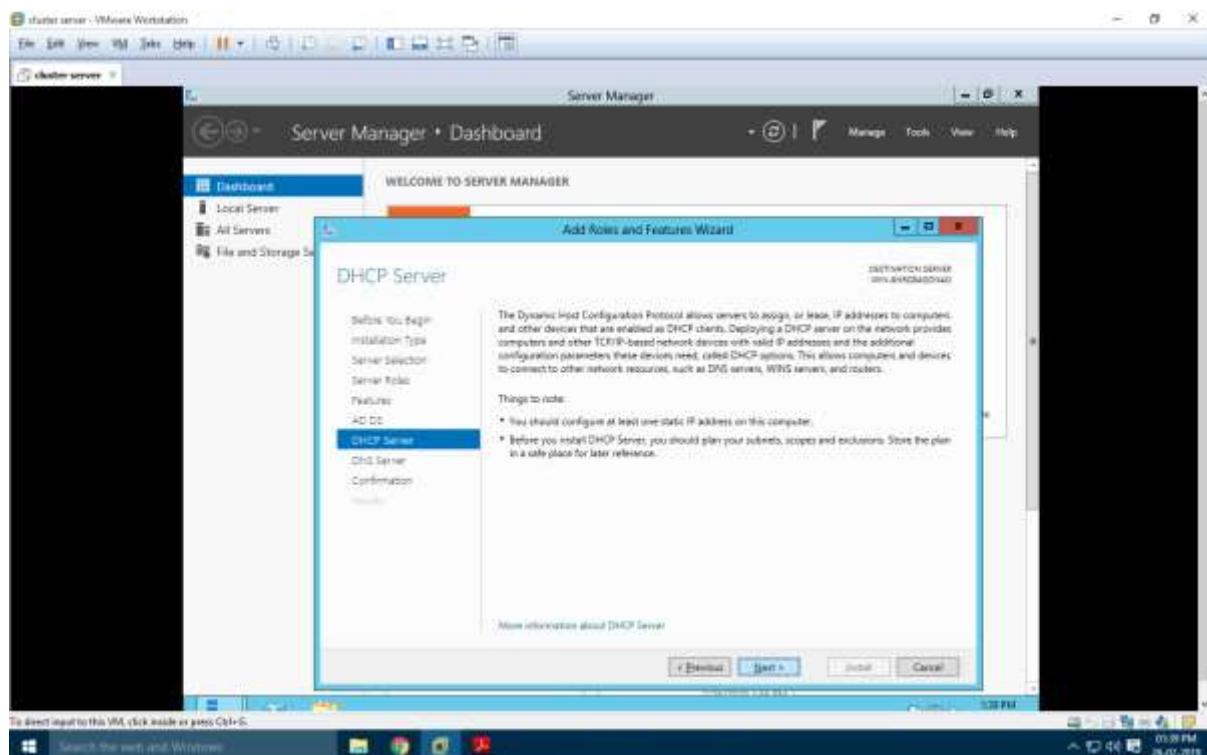


Under "Select Features" select "Failover Clustering" and ".NET Framework 3.5 Features" and click "Next".

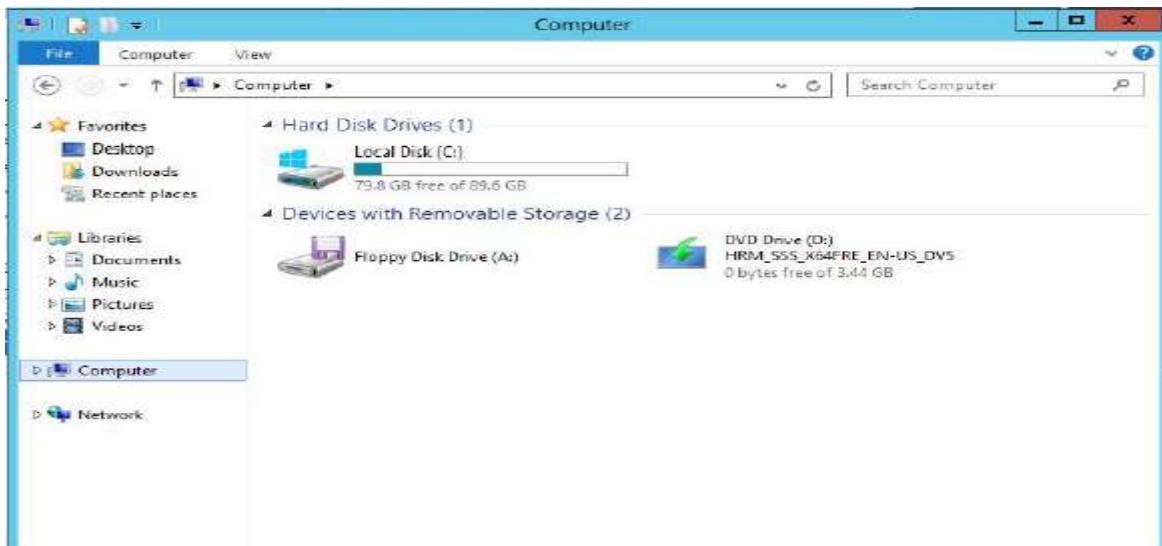


You will see the "Confirm Installation selections" then click on link "specify an alternate path". As shown in below two screens.

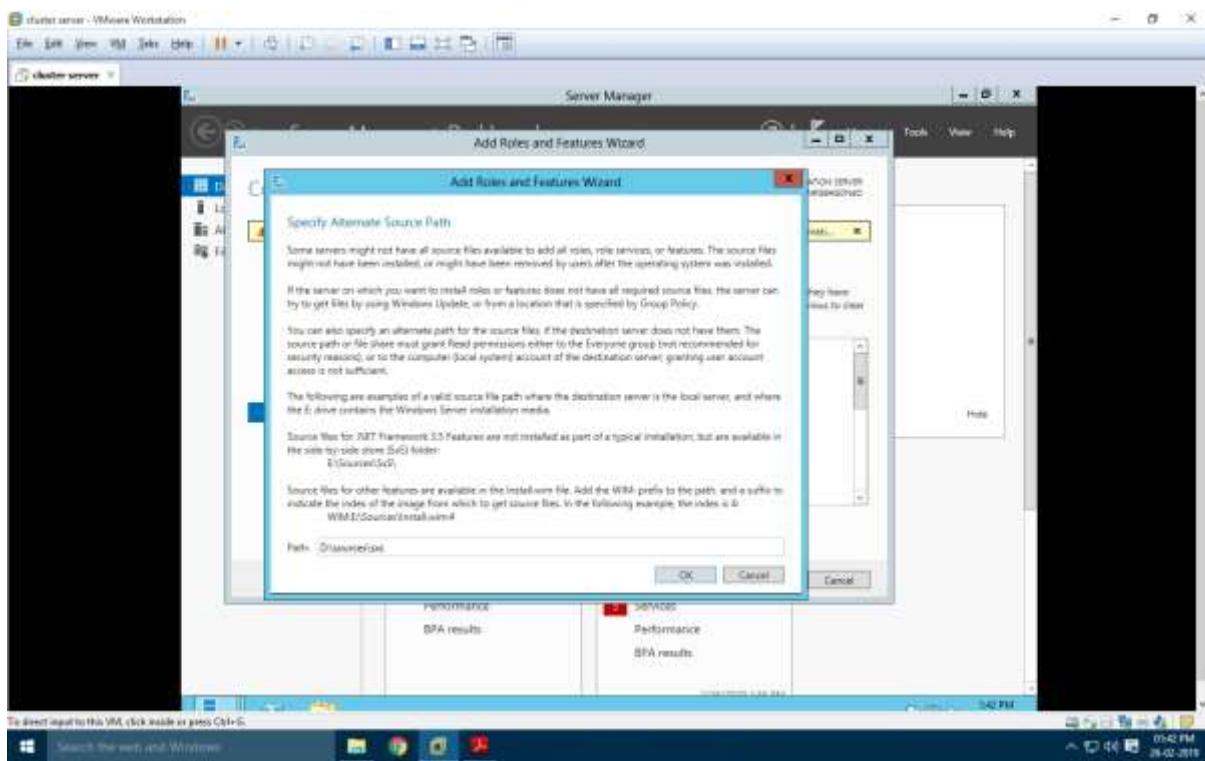




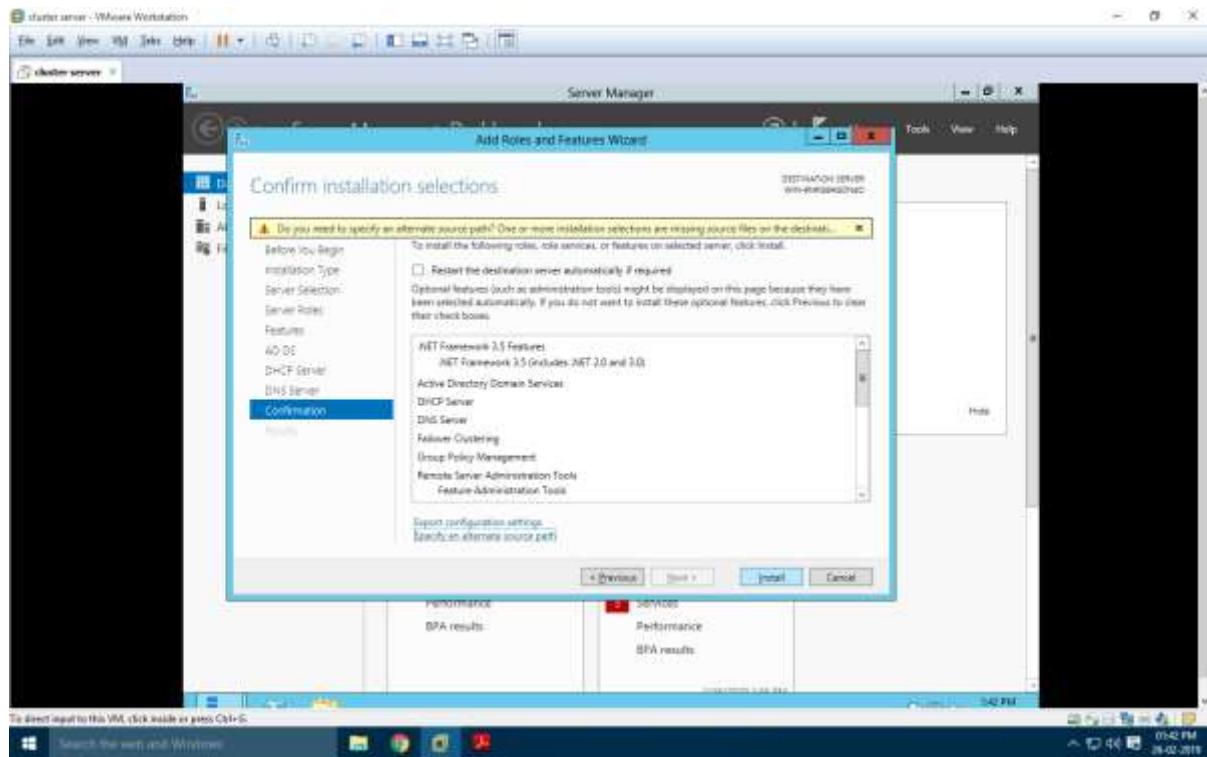
Now, For path specification Go to menu VM->use Iso image file of windows server 2012->Ok Then, Go to File Explorer->Computer -> select the DVD->VIEW FILE-> SOURCES->SXS:



Paste the path Here,

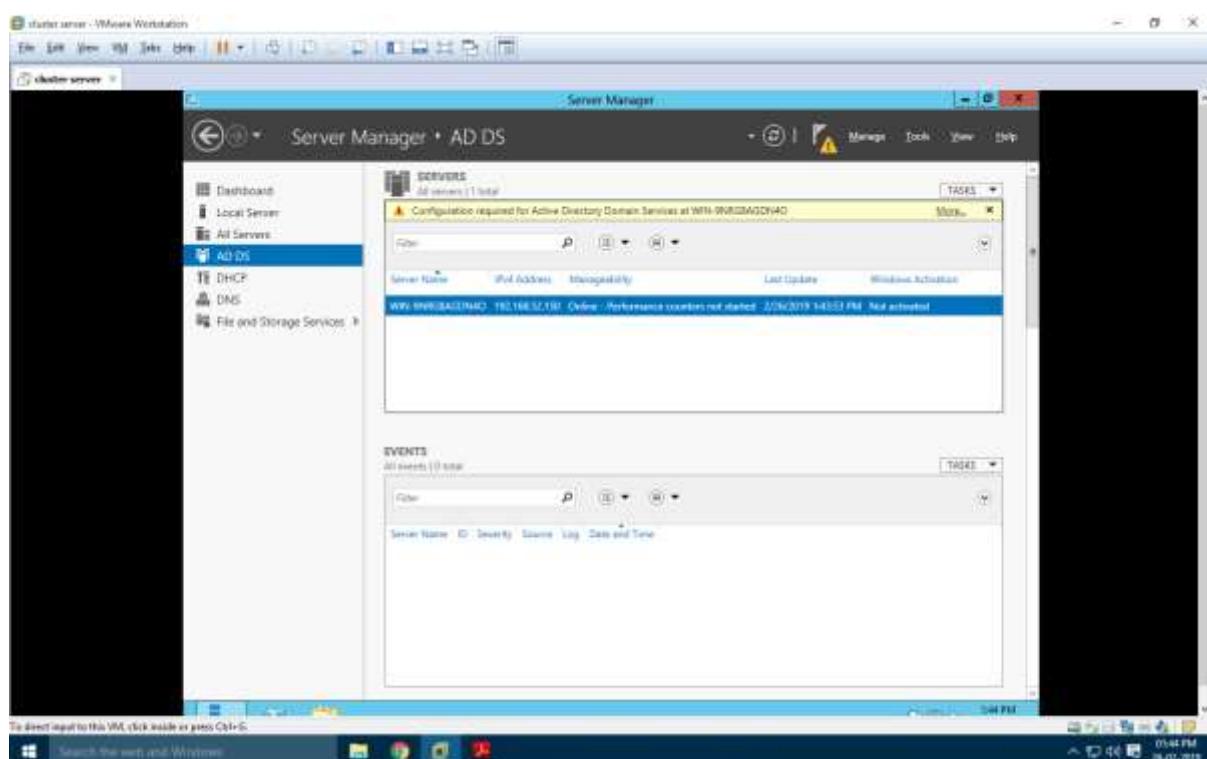


Now, Click on ok and Install button

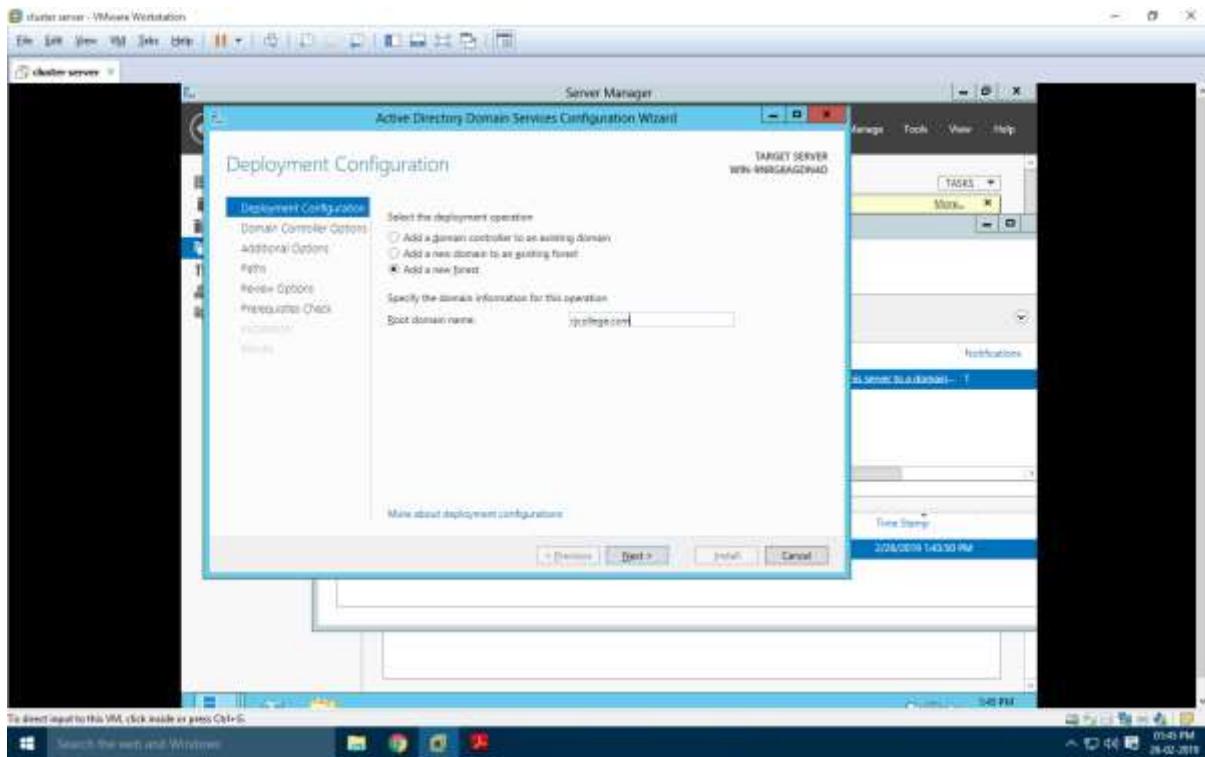


### PROMOTING AS DOMAIN CONTROLLER

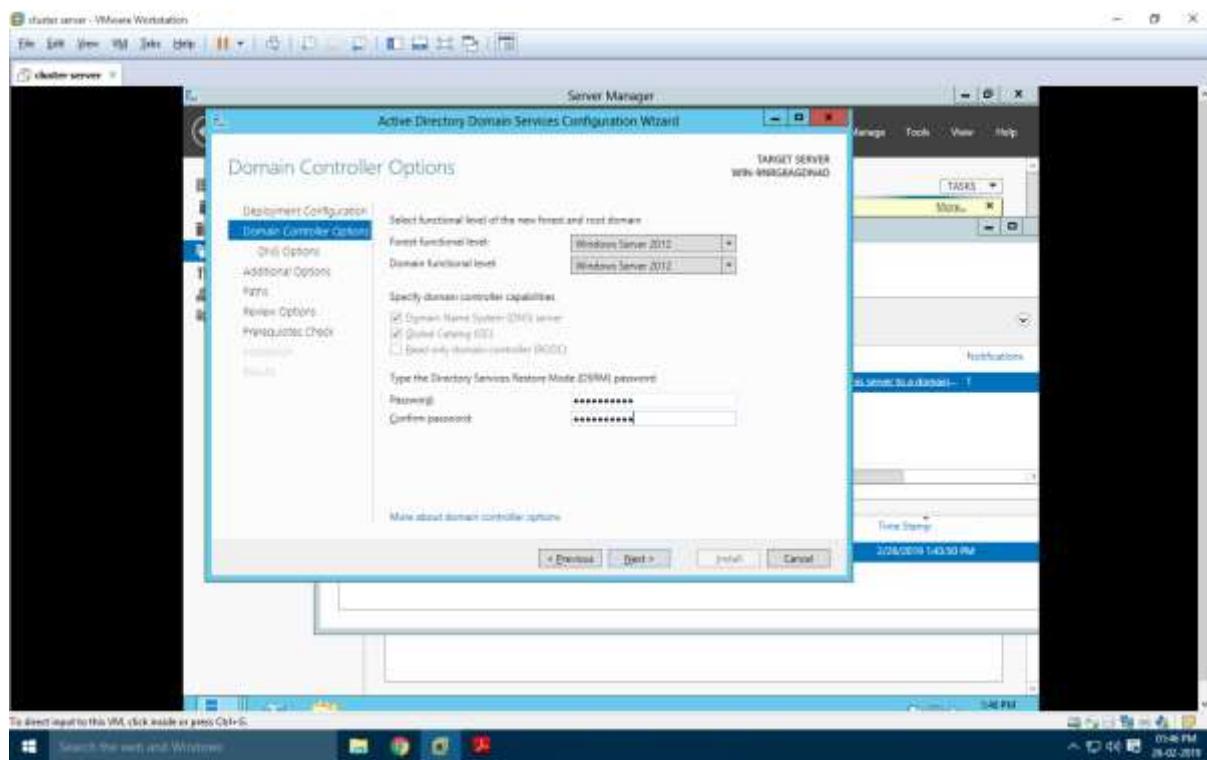
After installation Go to the "ADDS" shown on the left side in the server Manger Dashboard as shown in next screen and click on More, then Click on "Promote this server to a domain controller".



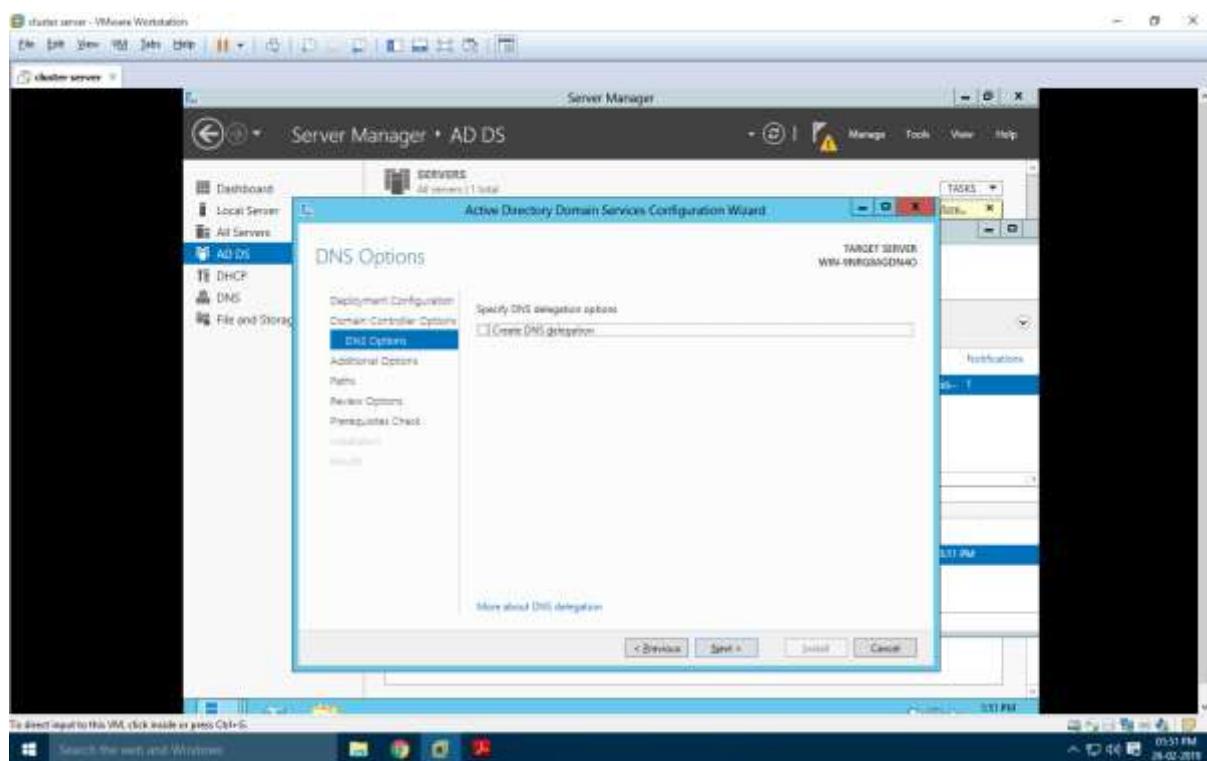
Choose "Add a new forest" option in the "Active Directory Domain services Configuration Wizard" window. Enter the Domain Name "rjcollege.com" as shown in the screen and click "Next".



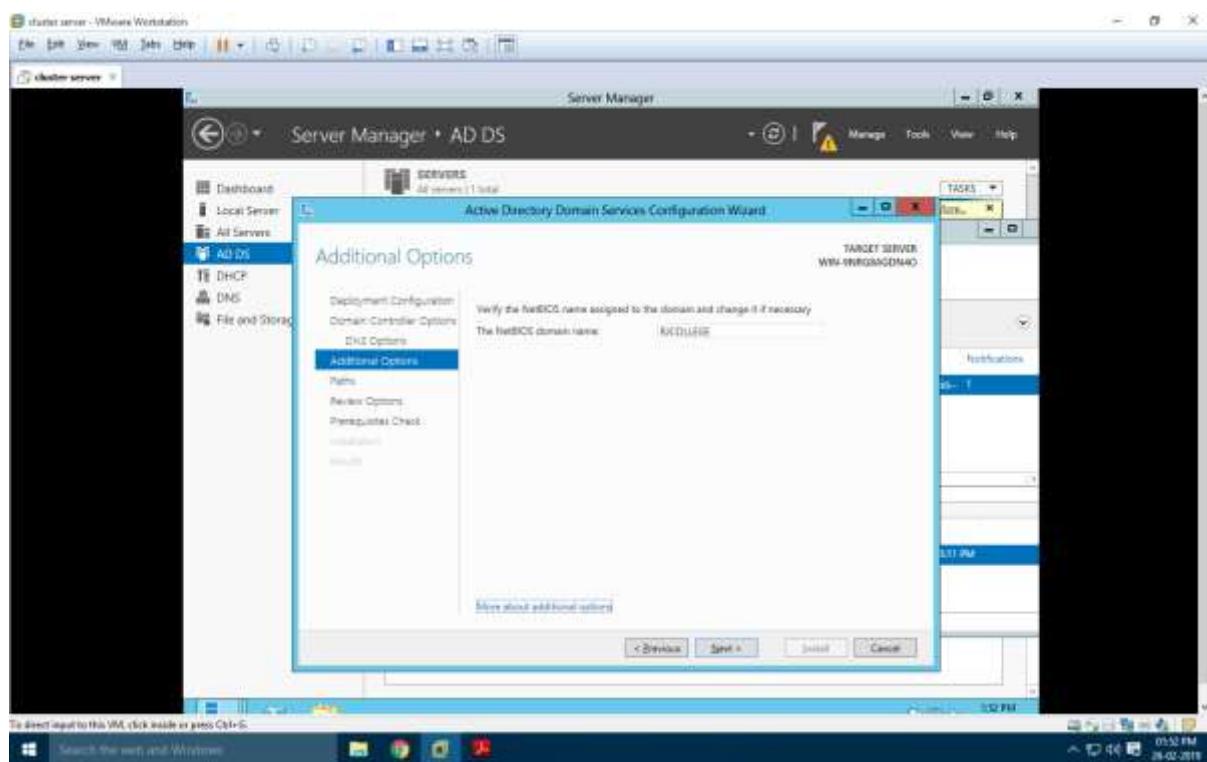
Under "Domain Controller Options" enter the alphanumeric password for the "Directory Services Restore Mode (DSRM) PASSWORD". Preferably use the password given to the Administrators account.



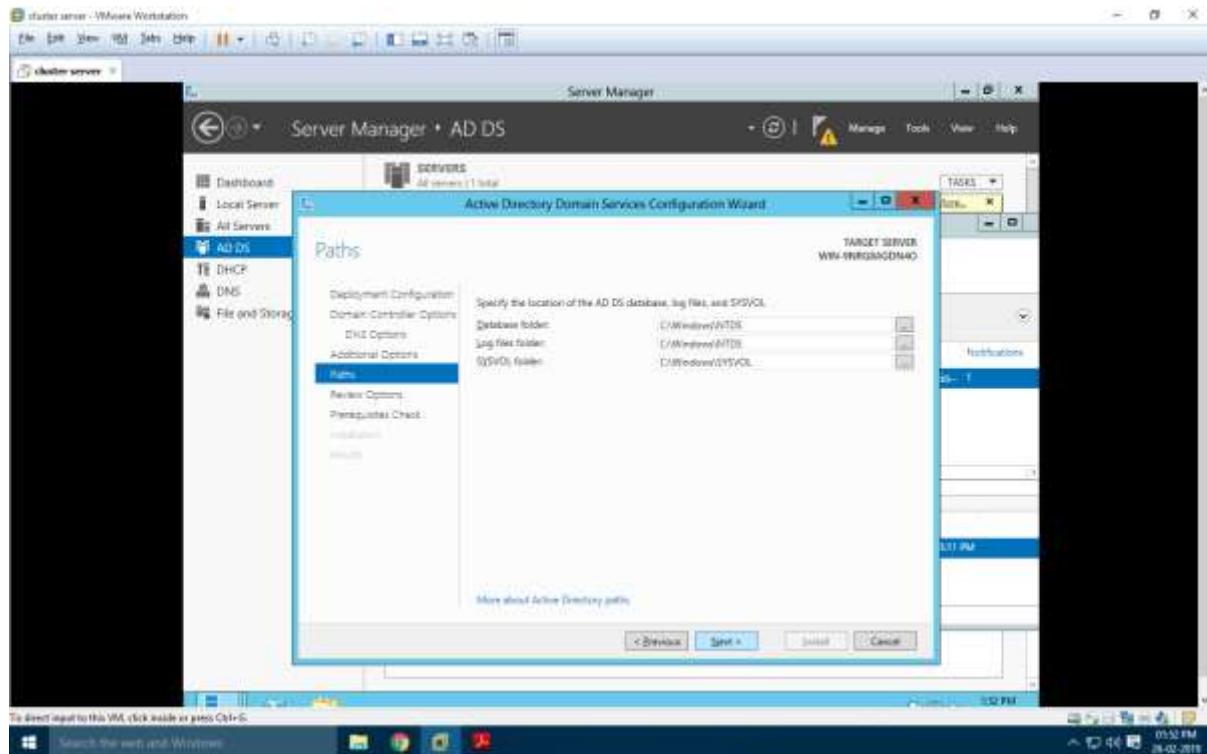
Click "Next"



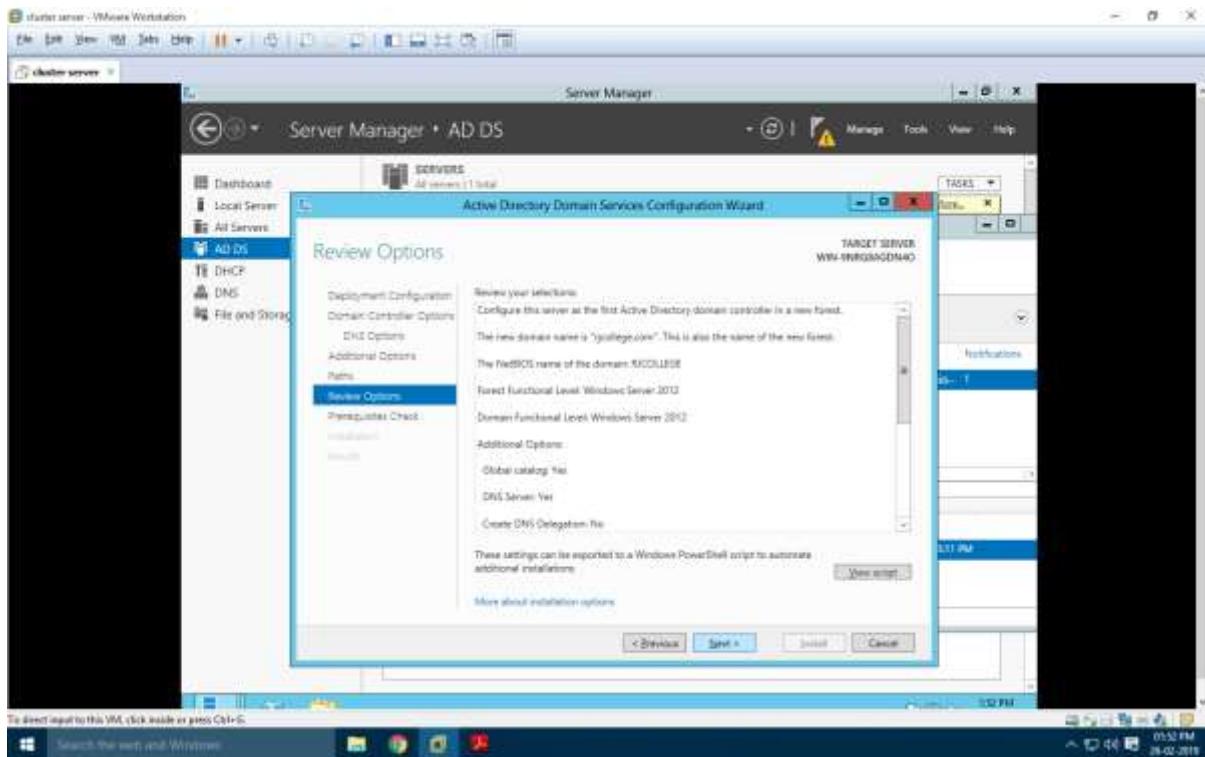
The NetBIOS Domain Name appears here automatically. Click "Next".



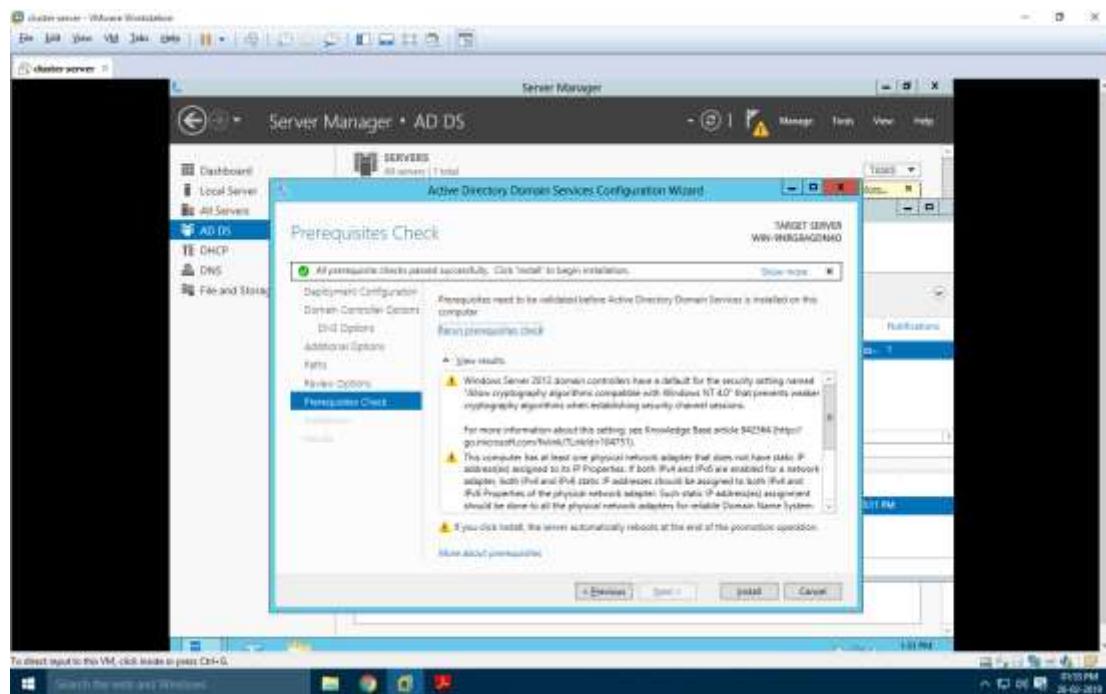
Click "Next"



Under "Review Options" it shows us whatever we have selected for the Domain Controller.

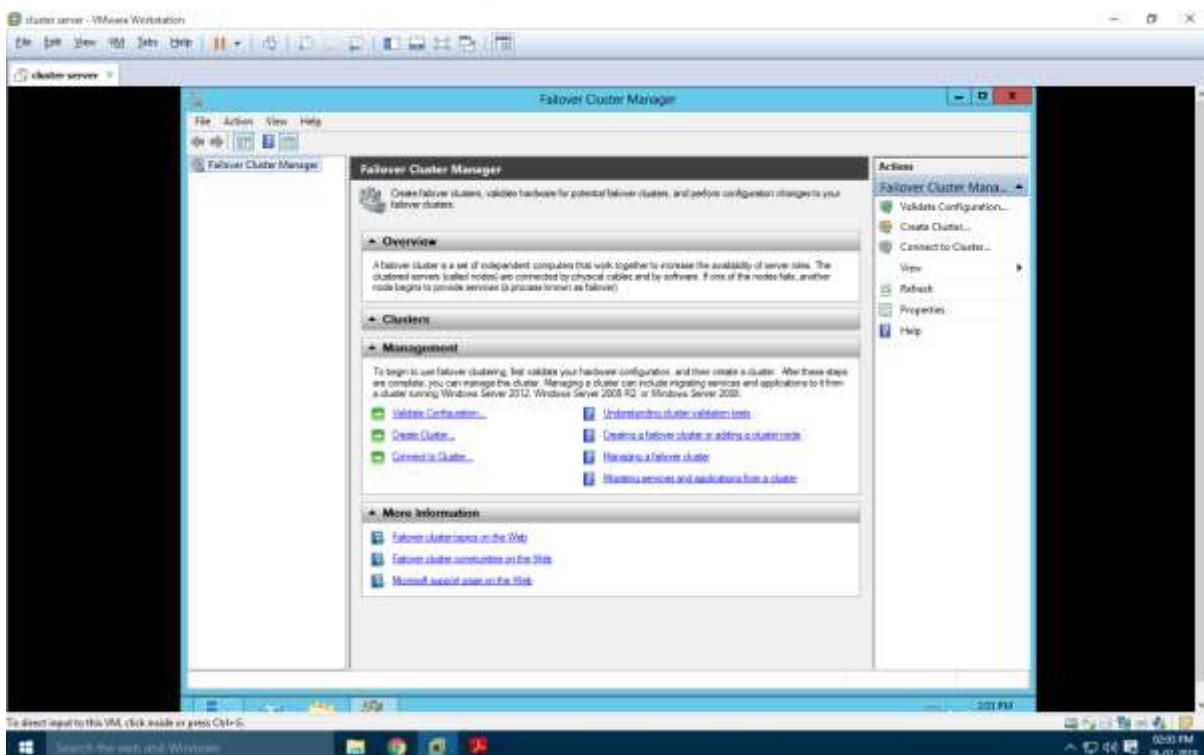
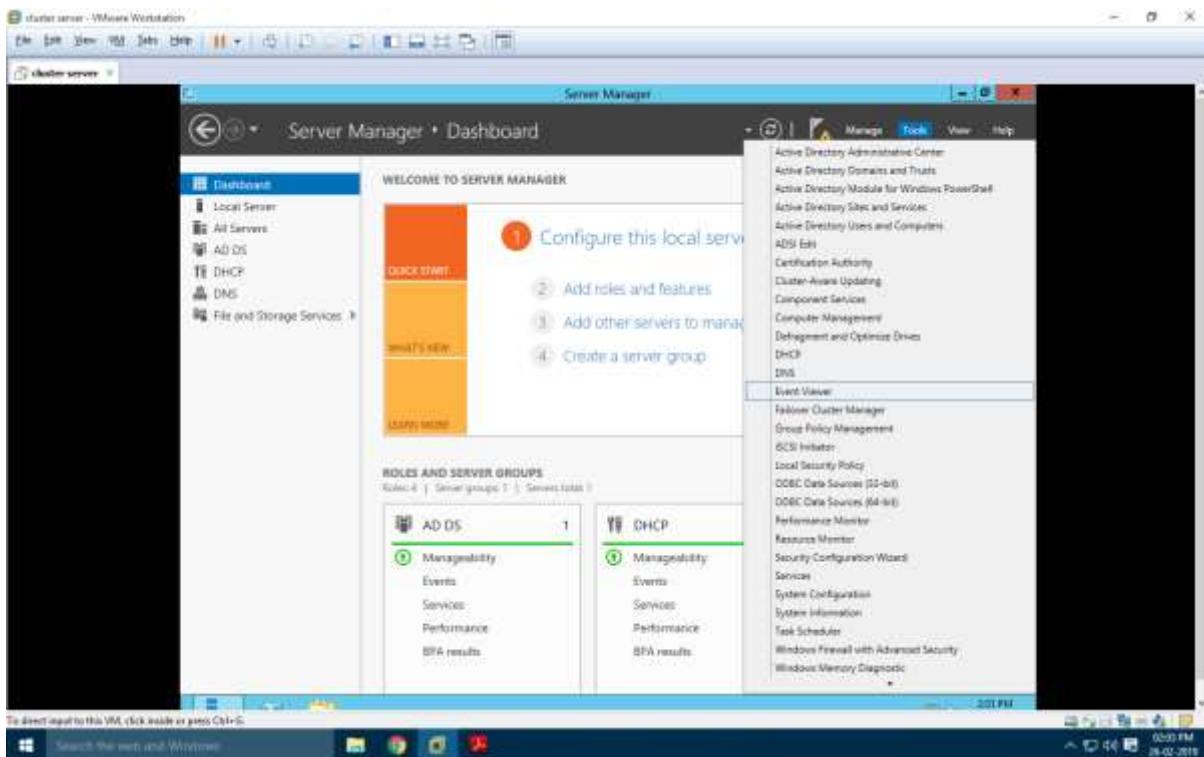


It checks for all the Prerequisites required to create a Domain Controller under "Prerequisites Check". Click on "Install" button.

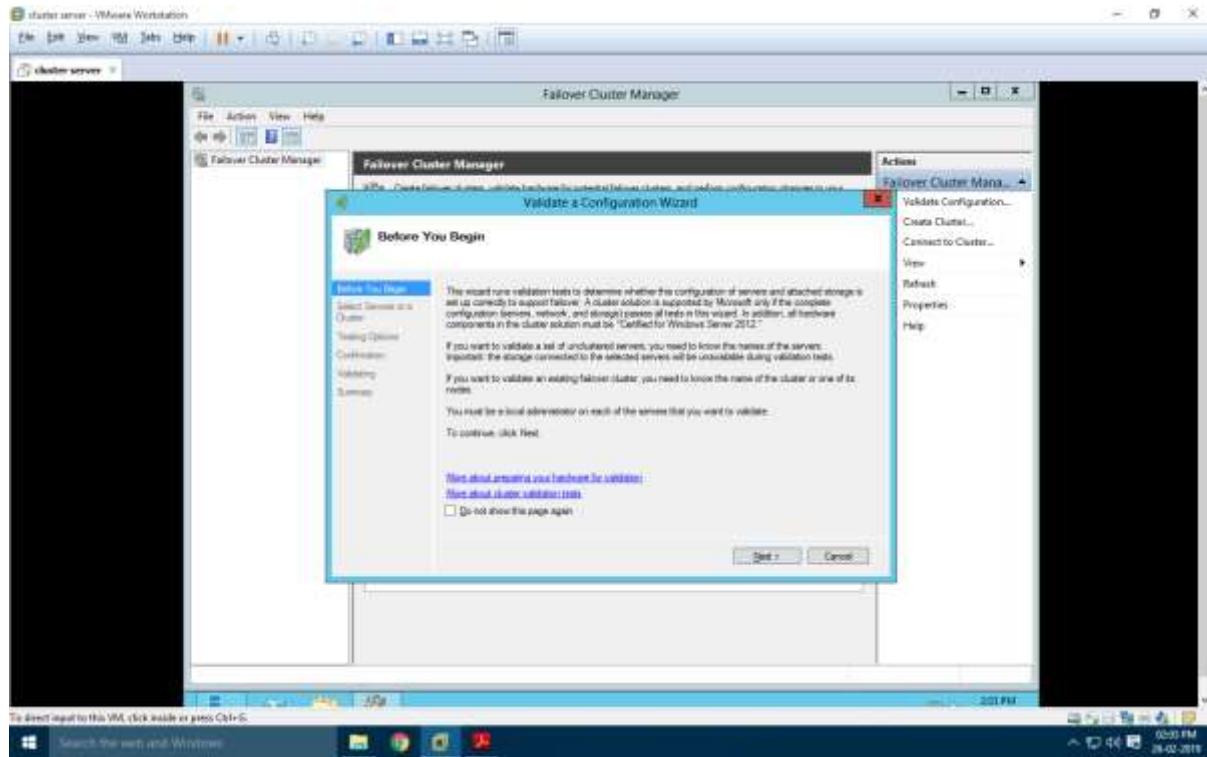


## CREATING FAILOVER CLUSTER

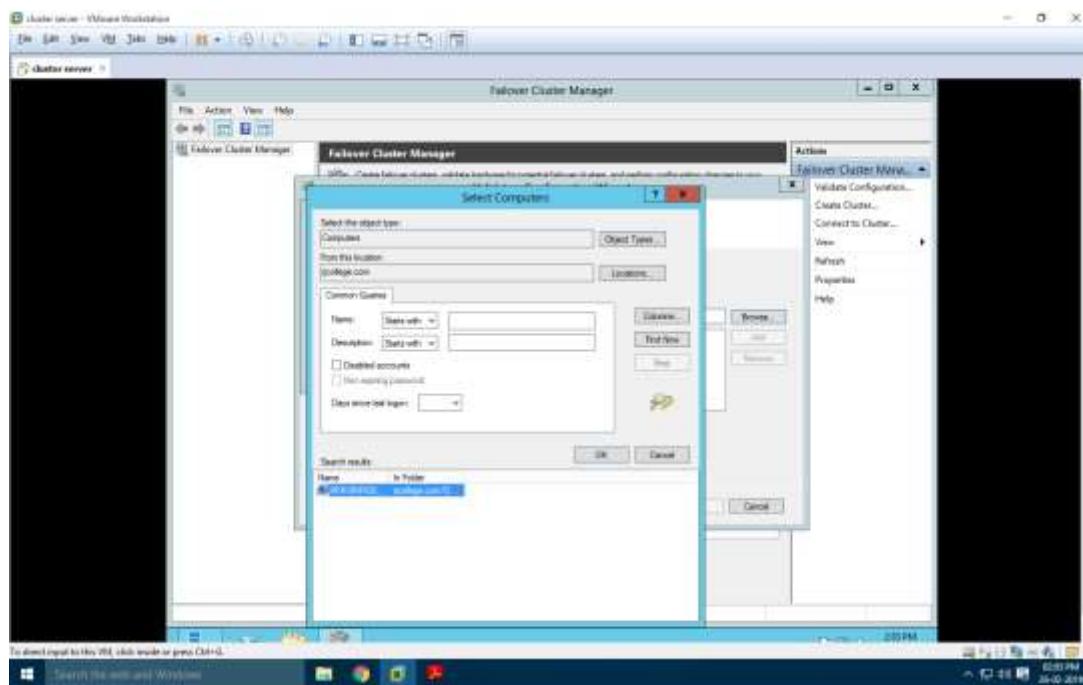
Click on the "Failover Cluster Manger" under the tools menu to get the following screen.



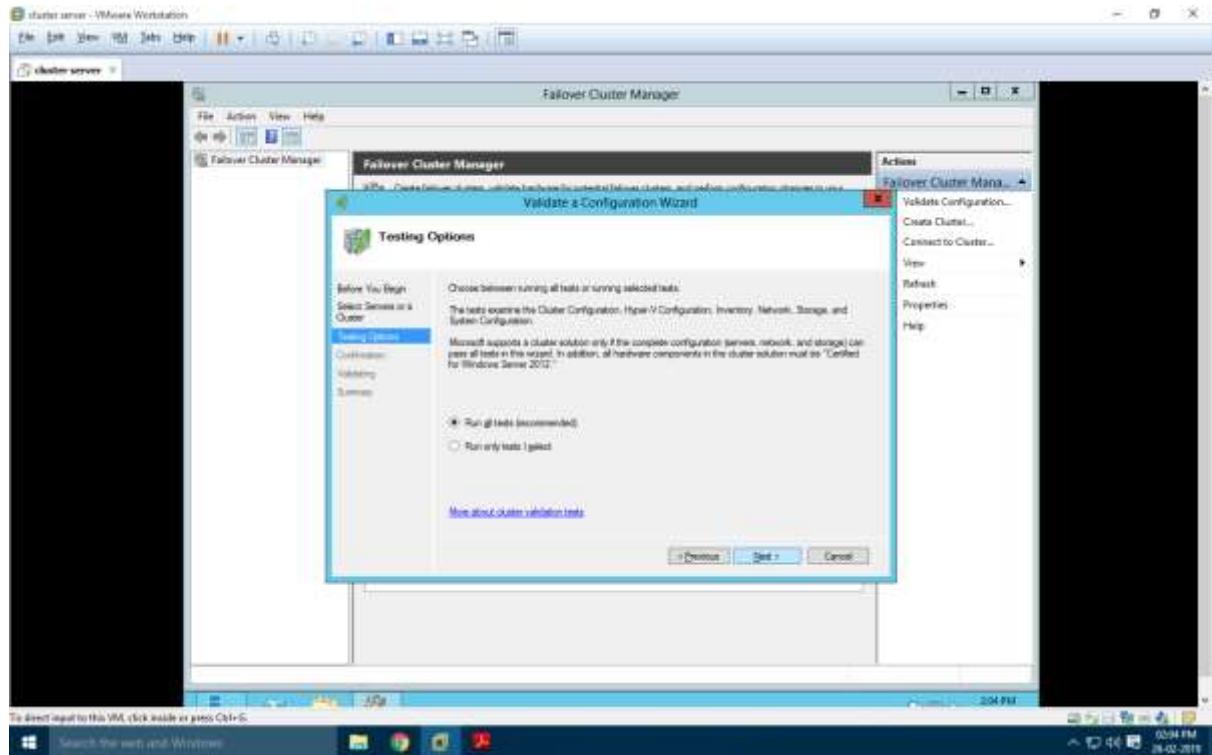
Click on "Validation Configuration" to open the "Validate a Configuration Wizard" by clicking on the "Validate Configuration" under the Management section at the bottom or right side of the screen. The nodes to be added must be validated prior to add in the cluster. Click "Next".



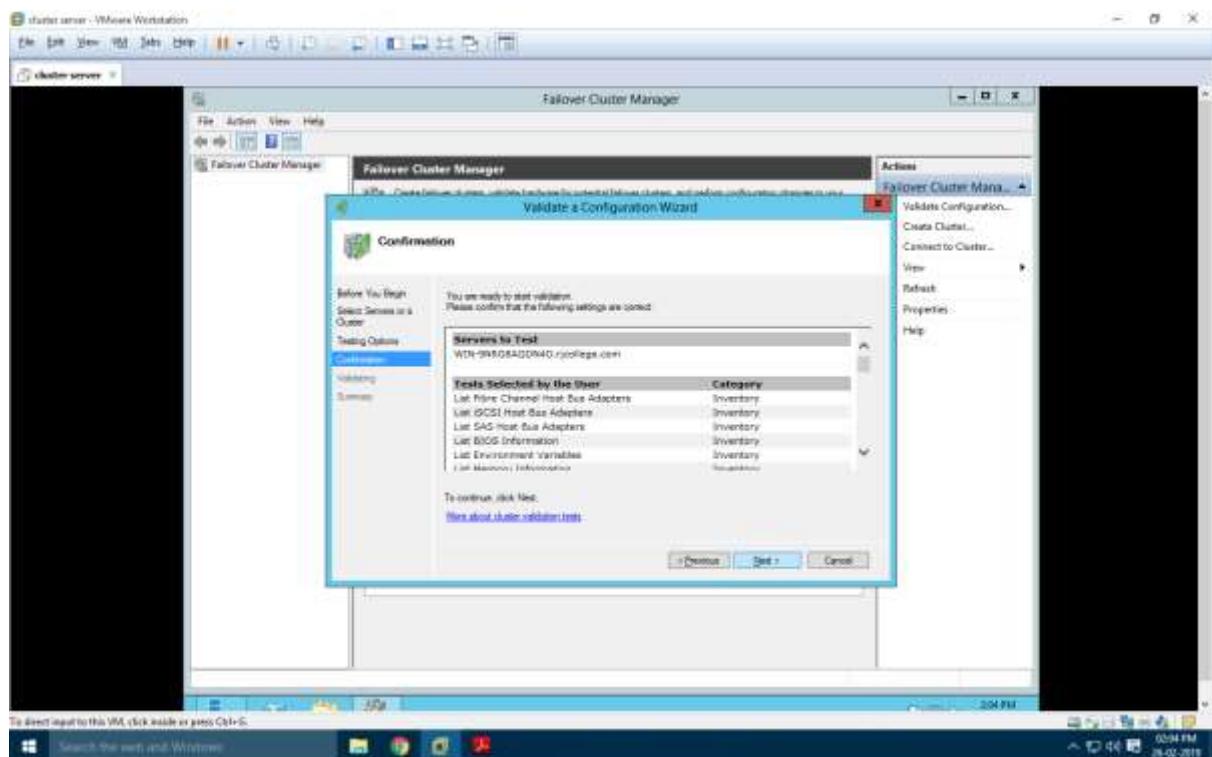
In this screen, click on Browse button and then Advanced for finding the domain node. As shown in below screens.



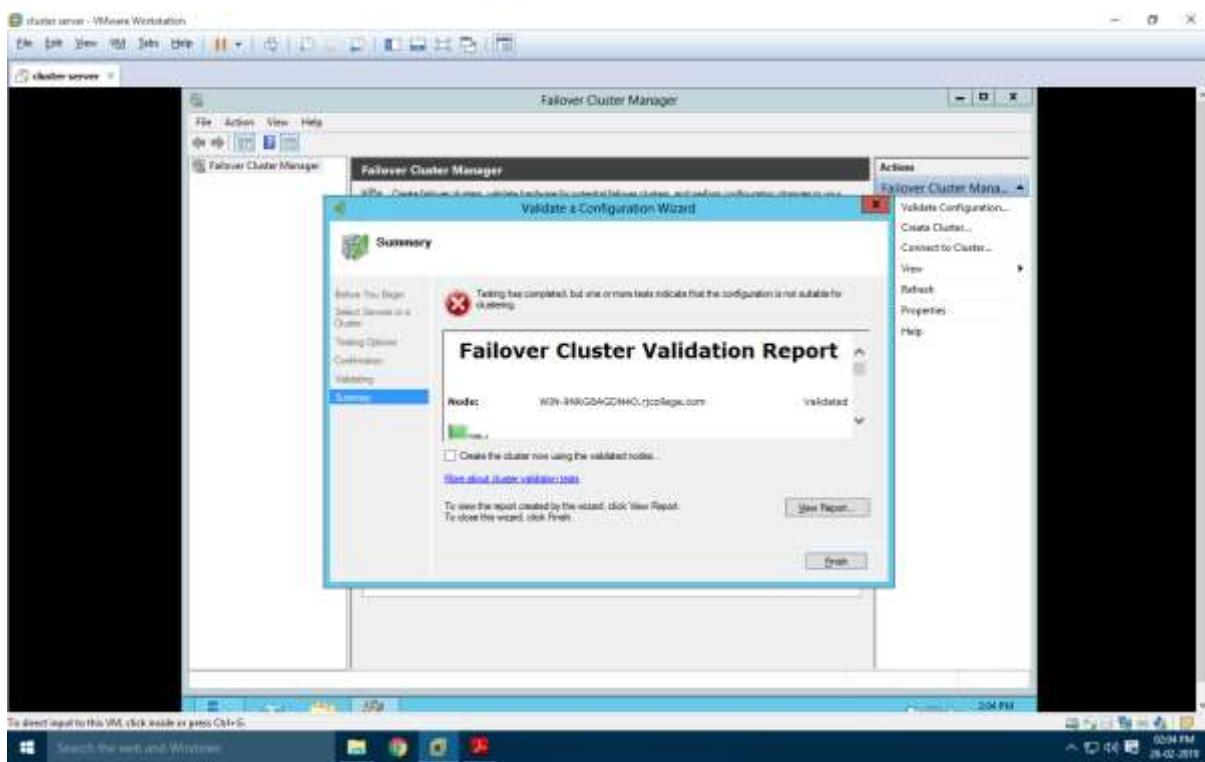
Click on run all test



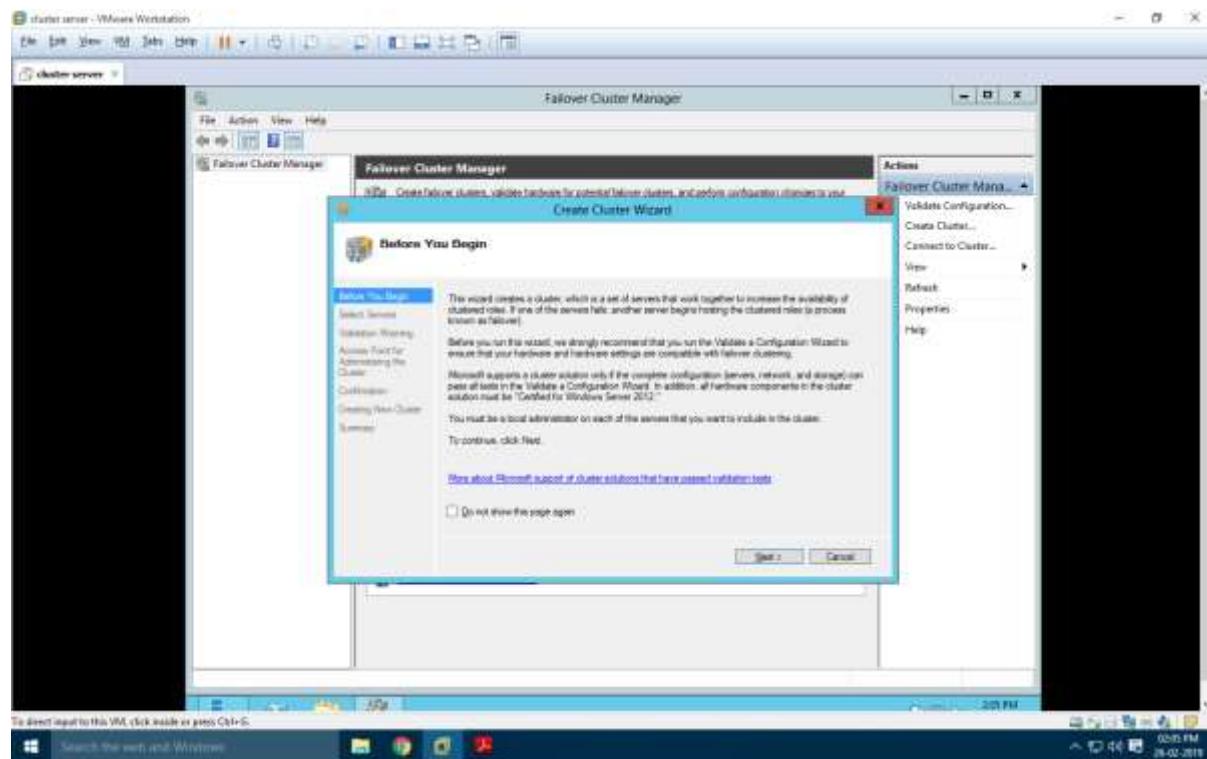
Choose "Run all the tests(recommended)" and click "Next" and then it will ask for the confirmation click "Next". It will start all test validation.



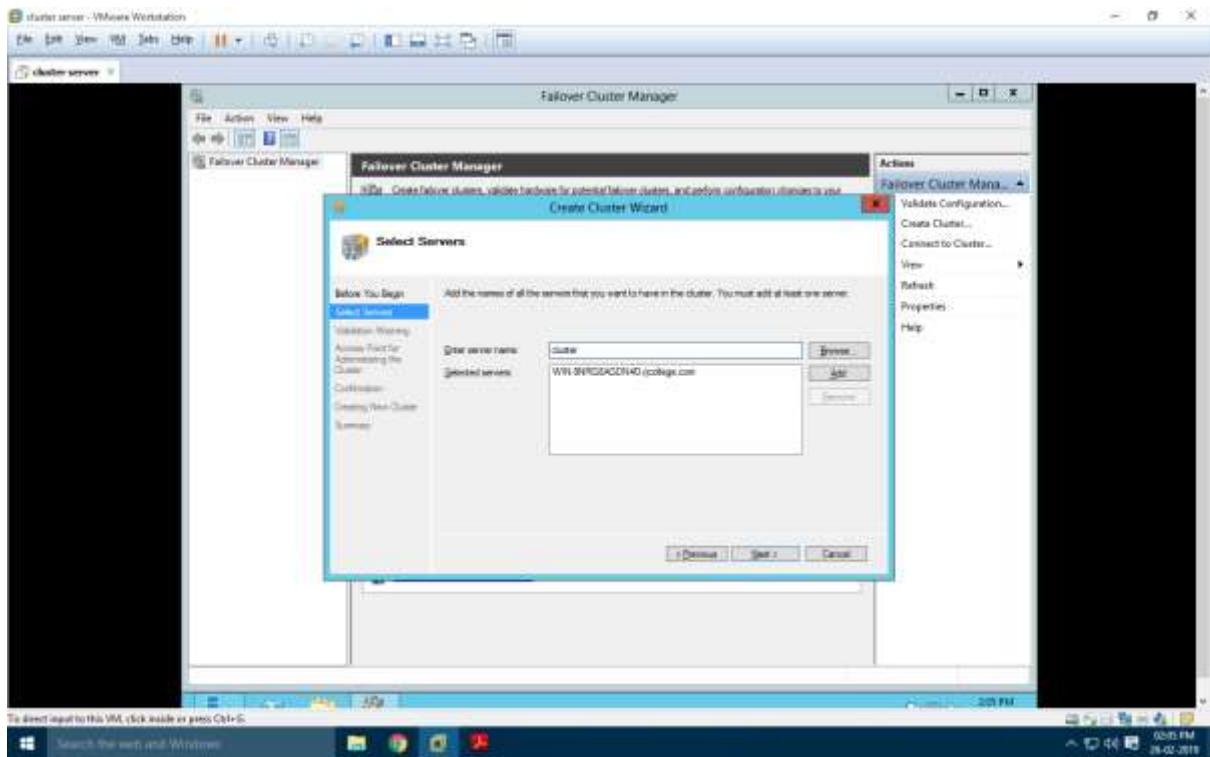
After completion it will display the summary report as shown below. If there are any errors can be seen here and you will not be allowed to create the cluster. As shown in the screen we can see that the nodes are validated. Click on finish.



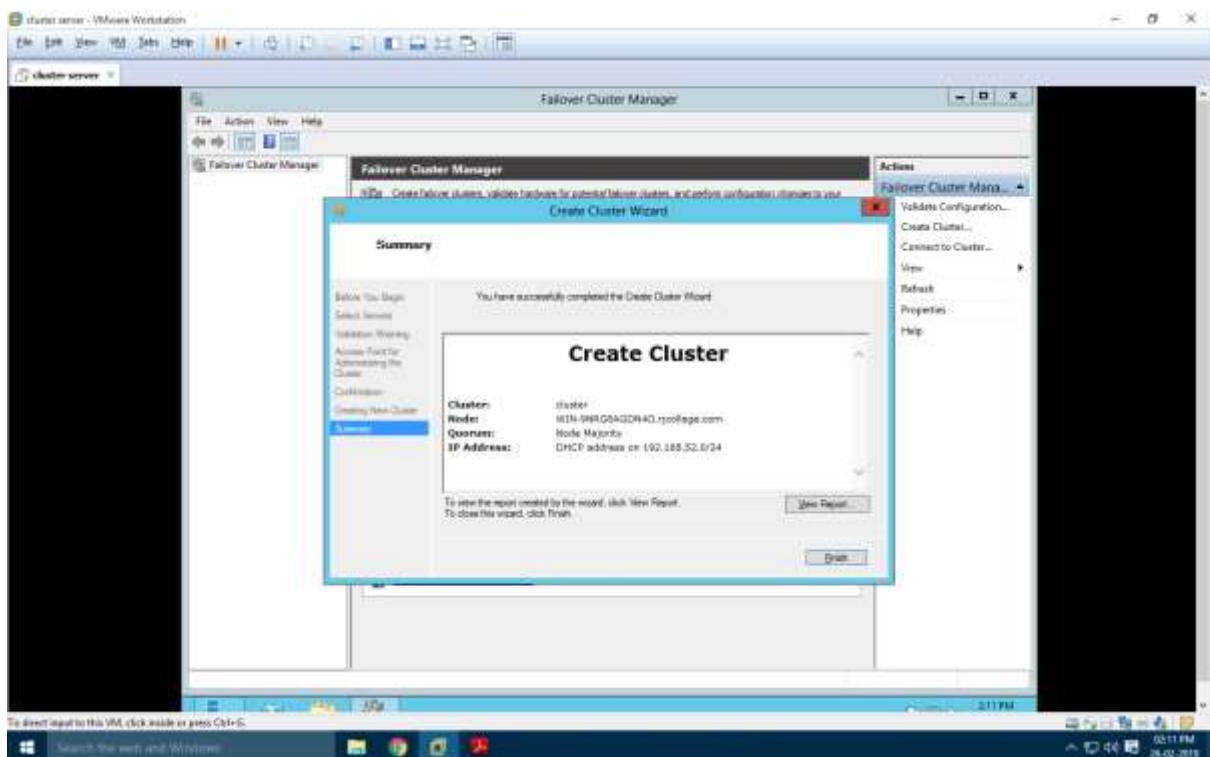
After validation completion you will create the "Create Cluster Wizard" click Next.



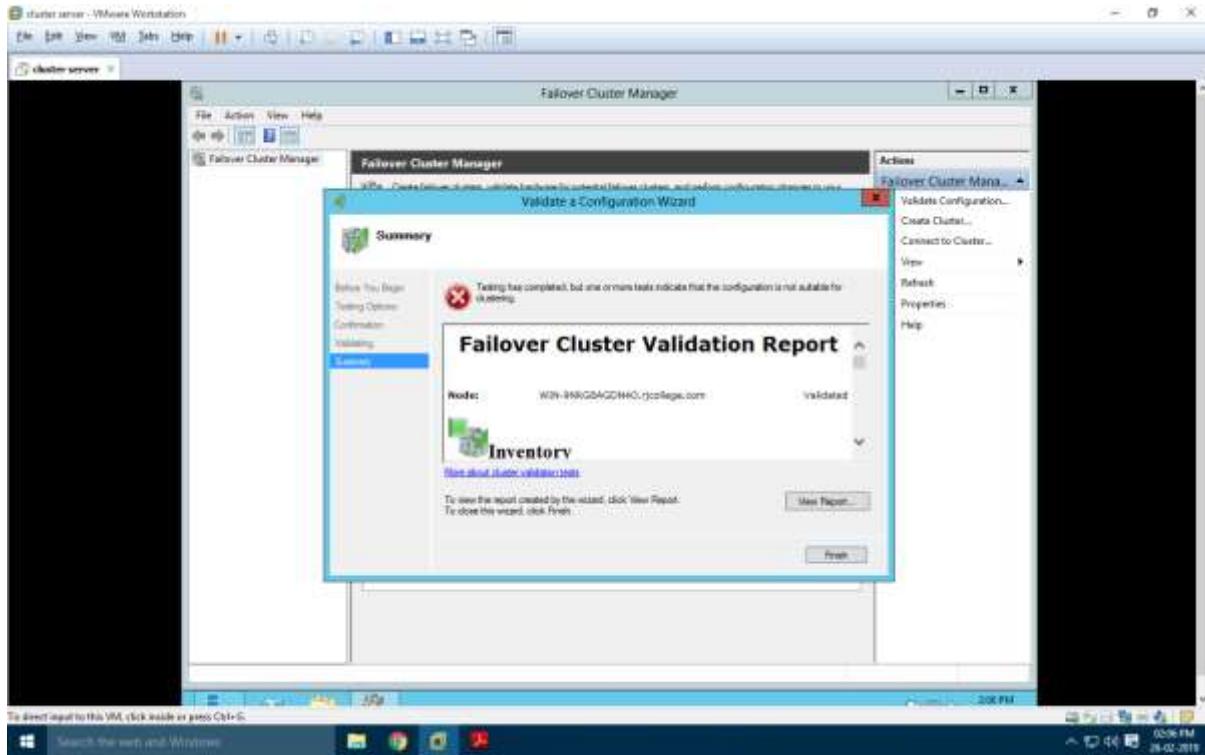
Specify the Cluster name. Cluster name here should be the NetBIOS name of the Domain Controller, so here it is RJC\_Node. Click next



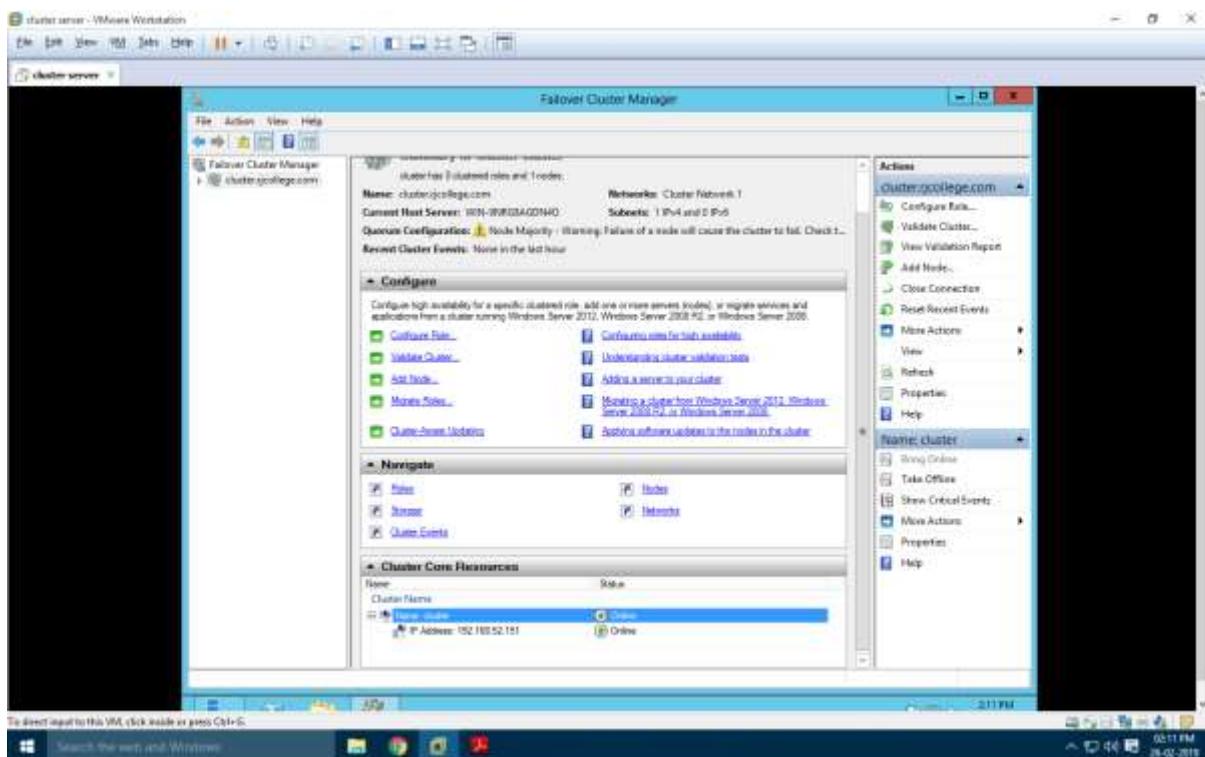
It will ask for the confirmation of cluster Creation. Click "Next".



If the Cluster creation is successful you should see the following screen that shows a message "You have successfully completed the Create Cluster Wizard"



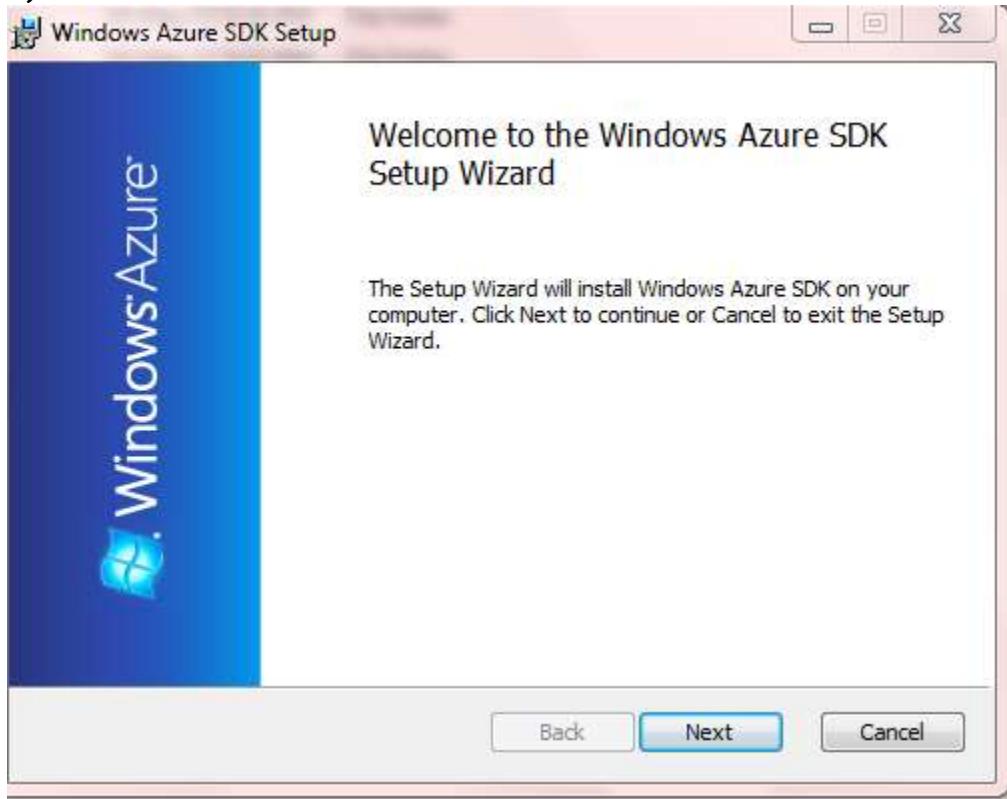
After cluster gets created you can see the cluster on the left side as shown in the screen below.



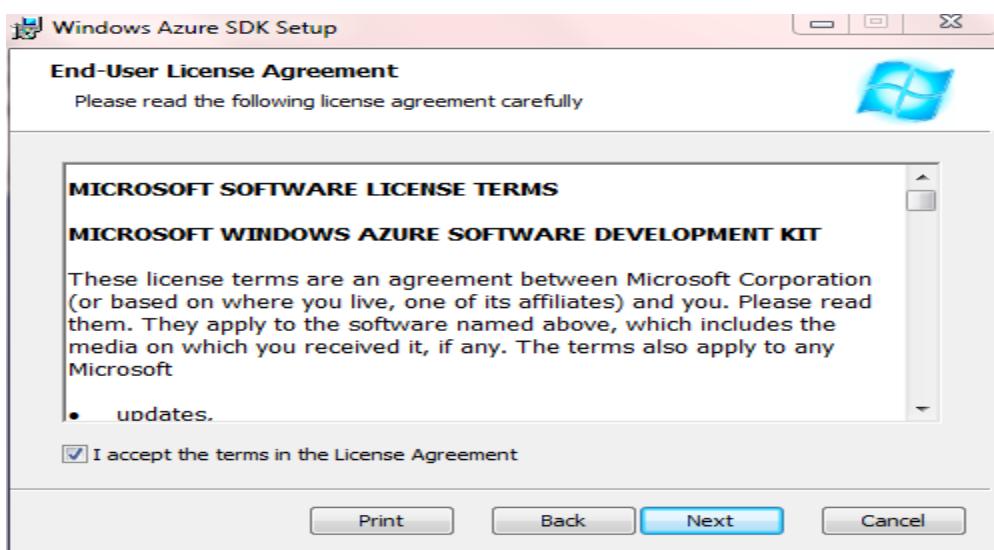
**PRACTICAL: 2**  
**DEVELOPING APPLICATION FOR WINDOWS AZURE**

**Step 1:**

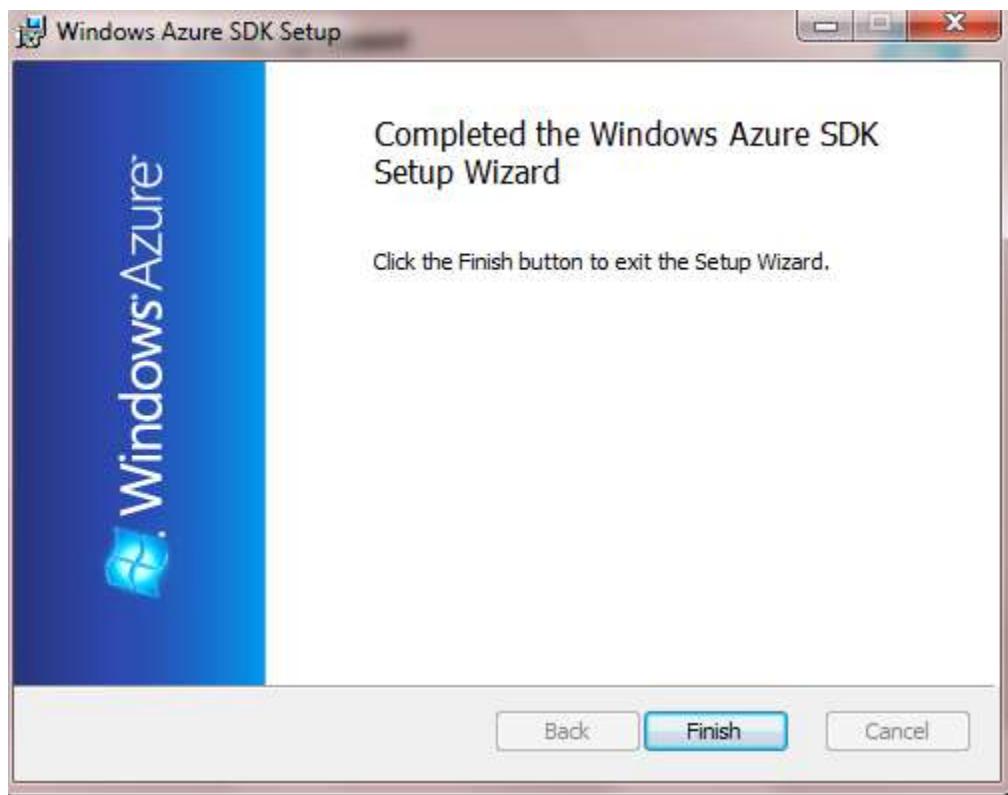
To develop an application for Windows Azure on Visual Studio install the "Microsoft Azure SDK for .NET (VS 2010) - 2.8.2.1"



Accept the license and Click on Next.



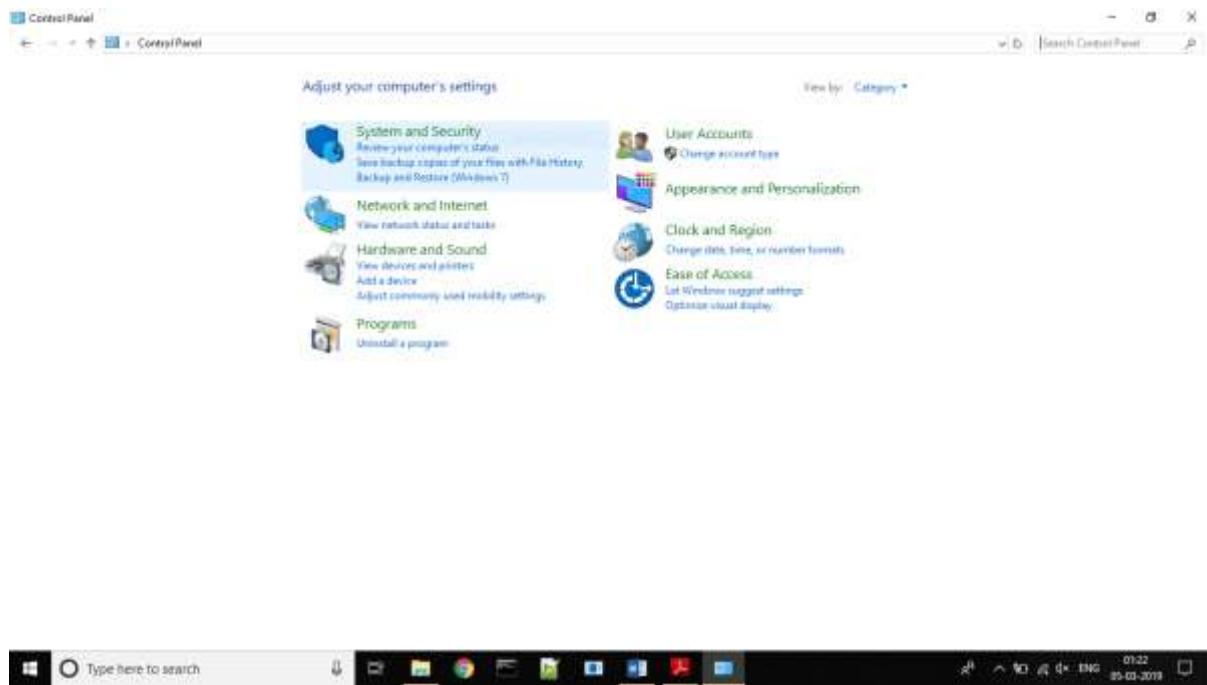
Click on Finish



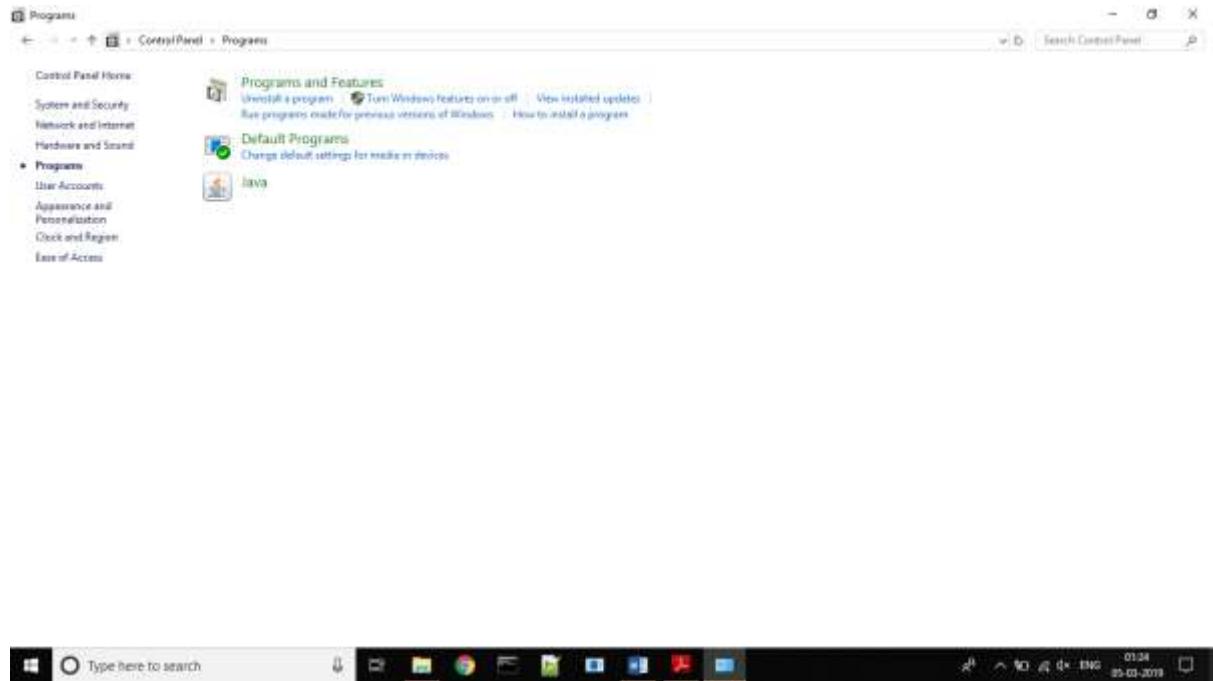
## Step2:

#### Turn windows Features ON or OFF:

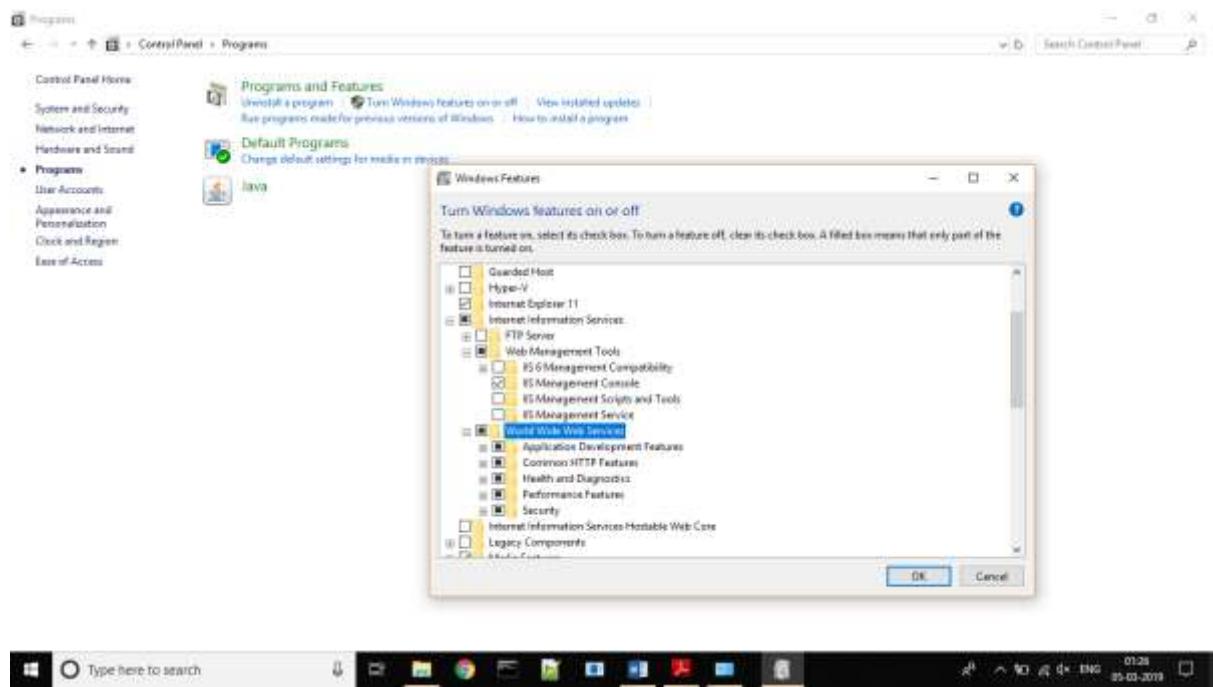
**Go to Control panel and click on programs.**



Turn Windows features on or off.

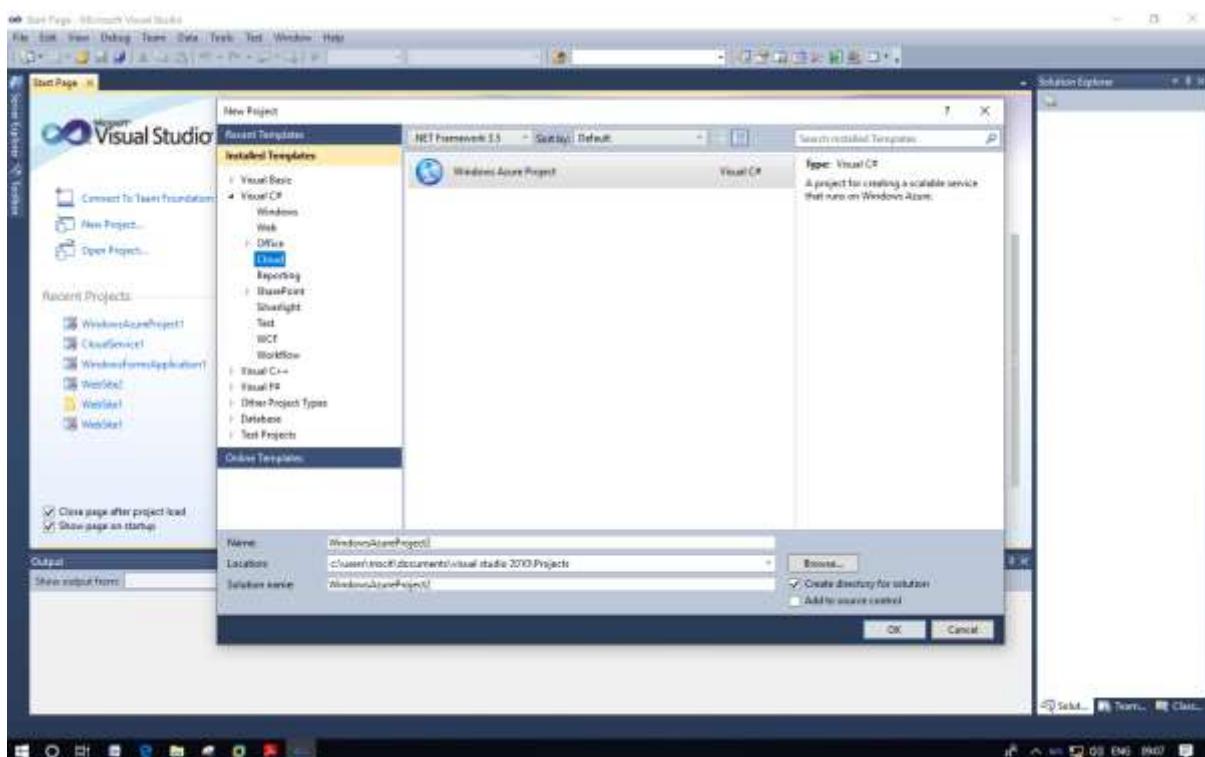


Expand the internet information services and select the following checkbox.

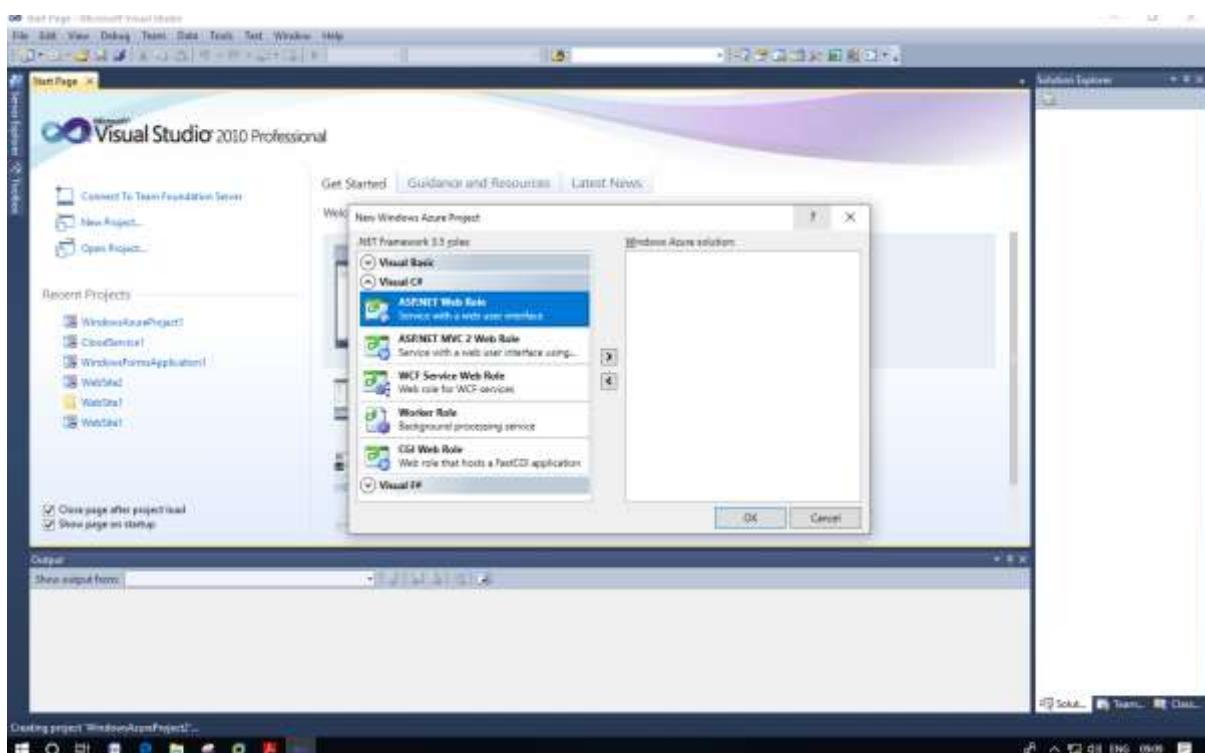


#### Step4:

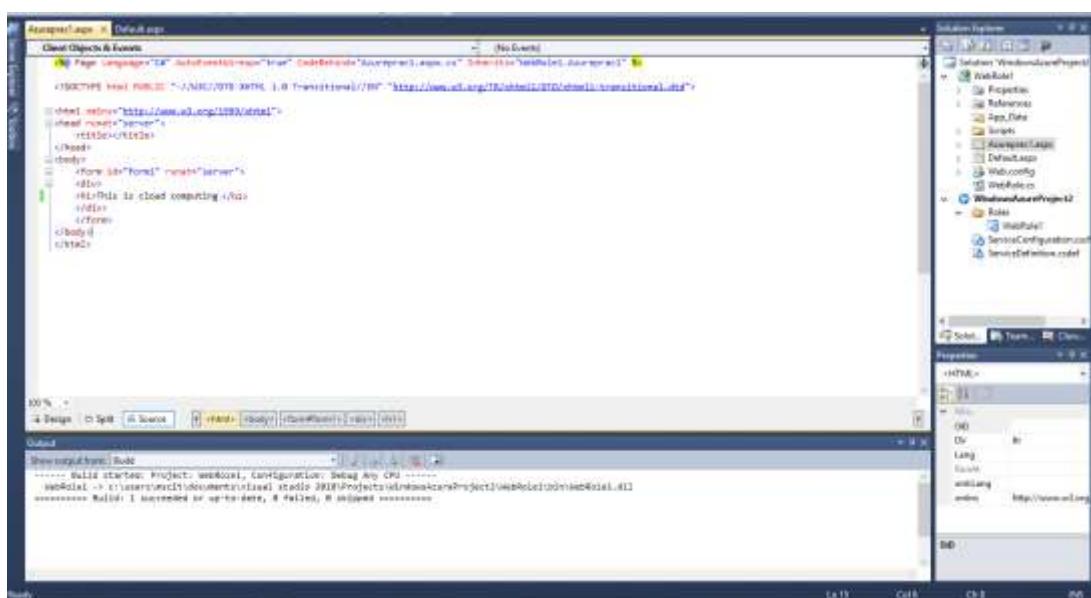
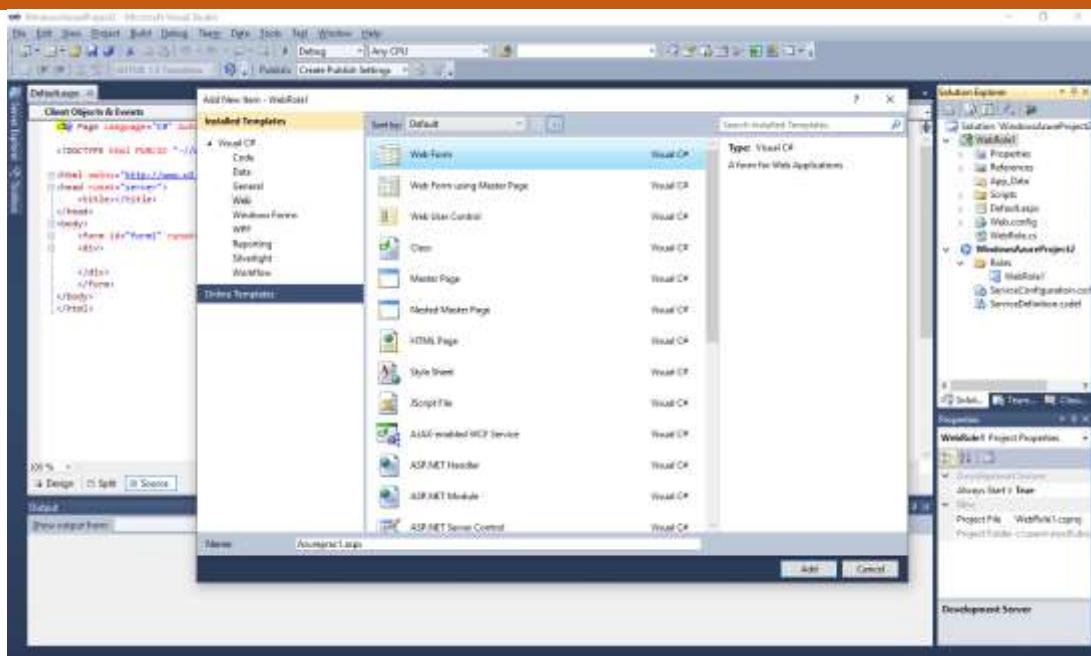
Now, Start the visual studio 2010 and Go To File->New->Project



## Add asp.net roles



## Create a web form



Run the website



**This is cloud computing**

## PRACTICAL: 3

### IMPLEMENTING PRIVATE CLOUD WITH XEN SERVER

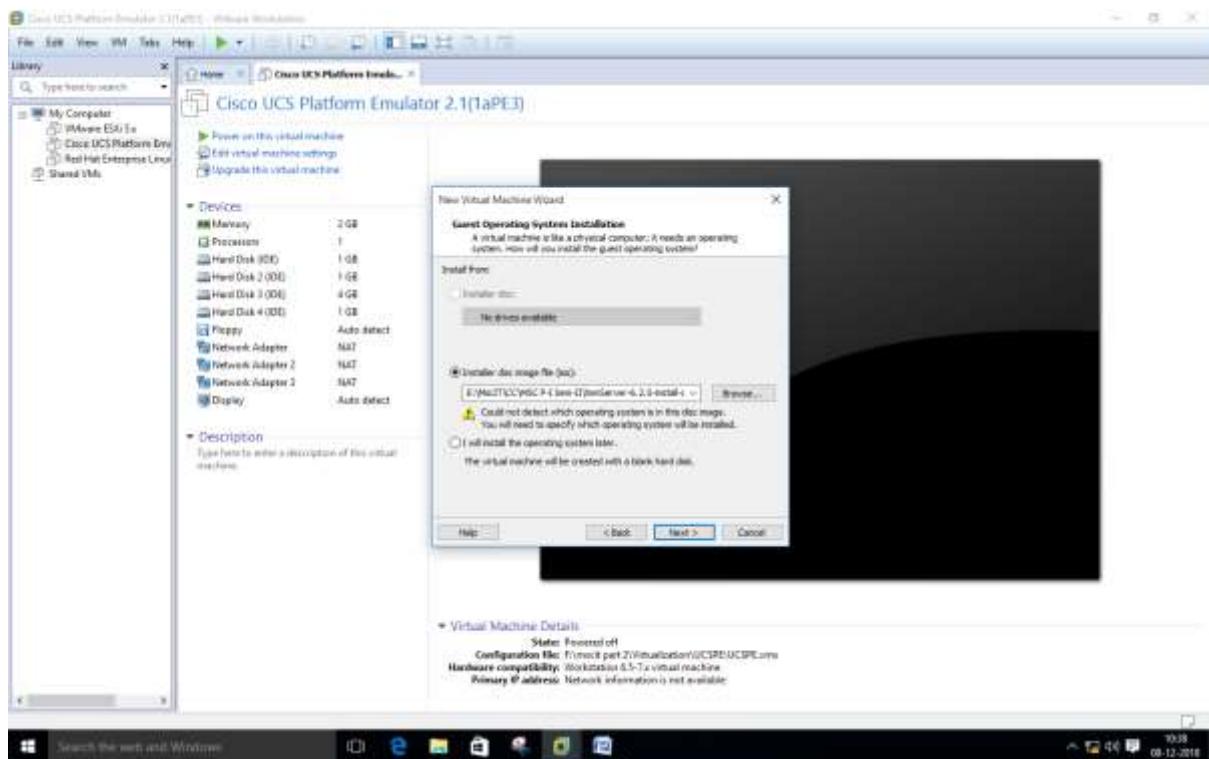
Open VMware Workstation - And select Create a New Virtual Machine



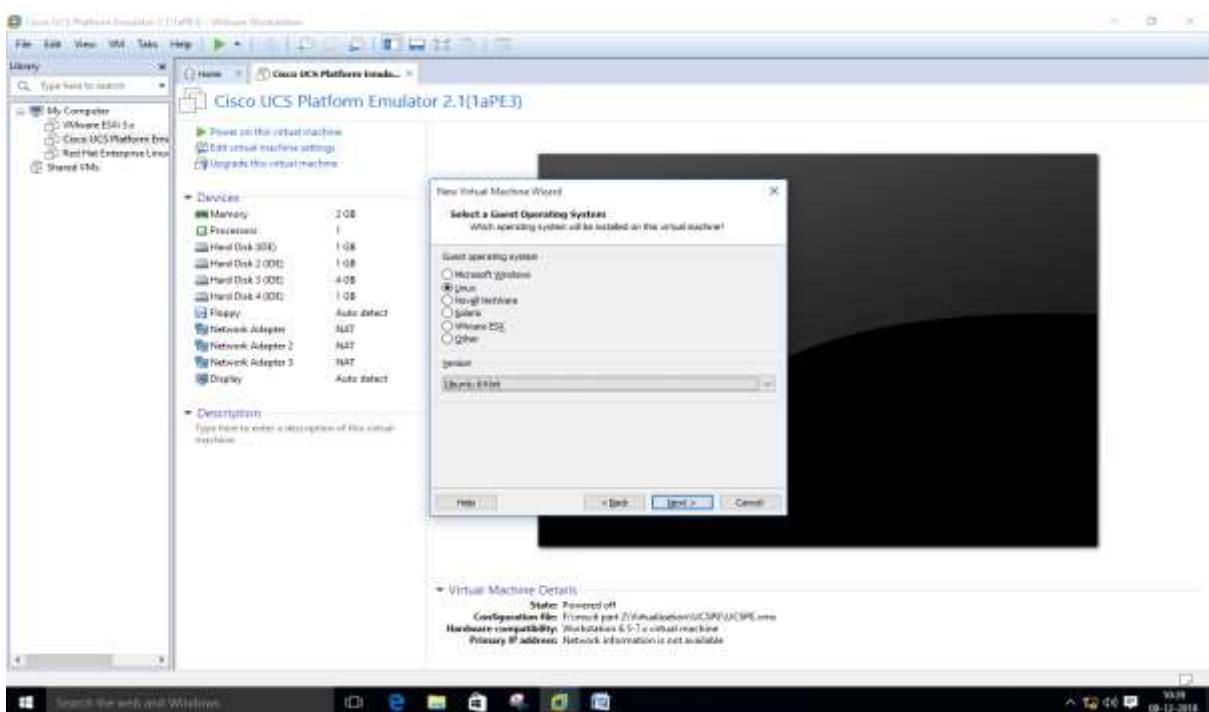
Select Typical and click Next



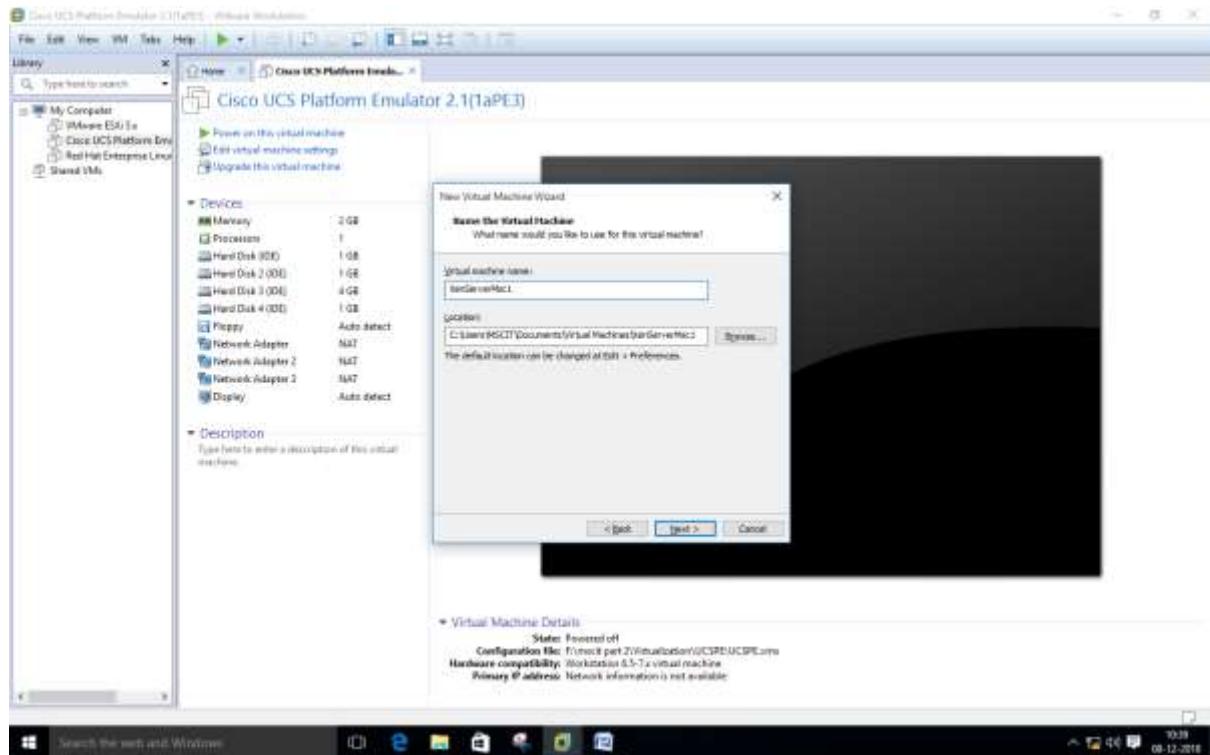
Select Installer disc\_image file(ISO). Click Browse - XenServer Iso File - For Example "D:\ccpraxrj\XenServer-6.2.0-install-cd.iso"  
And click on next



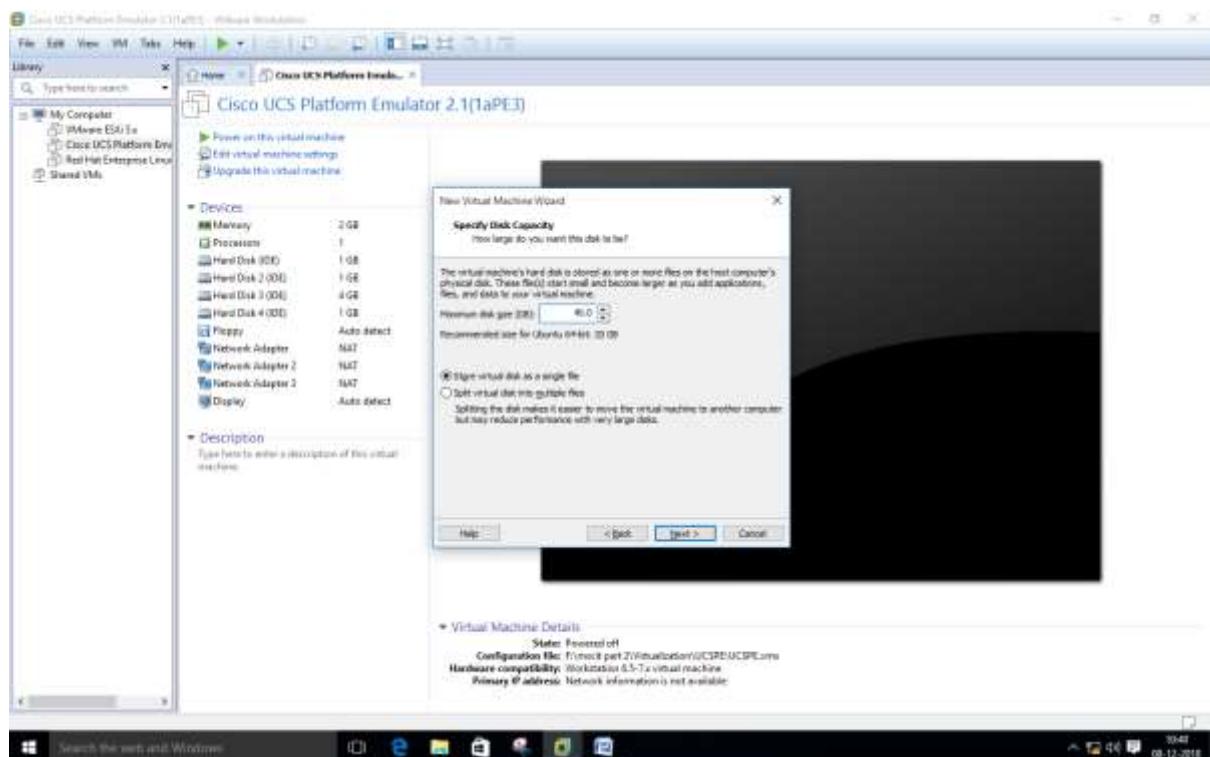
Select Guest Operating system as Linux. Version as Ubuntu. Click Next.



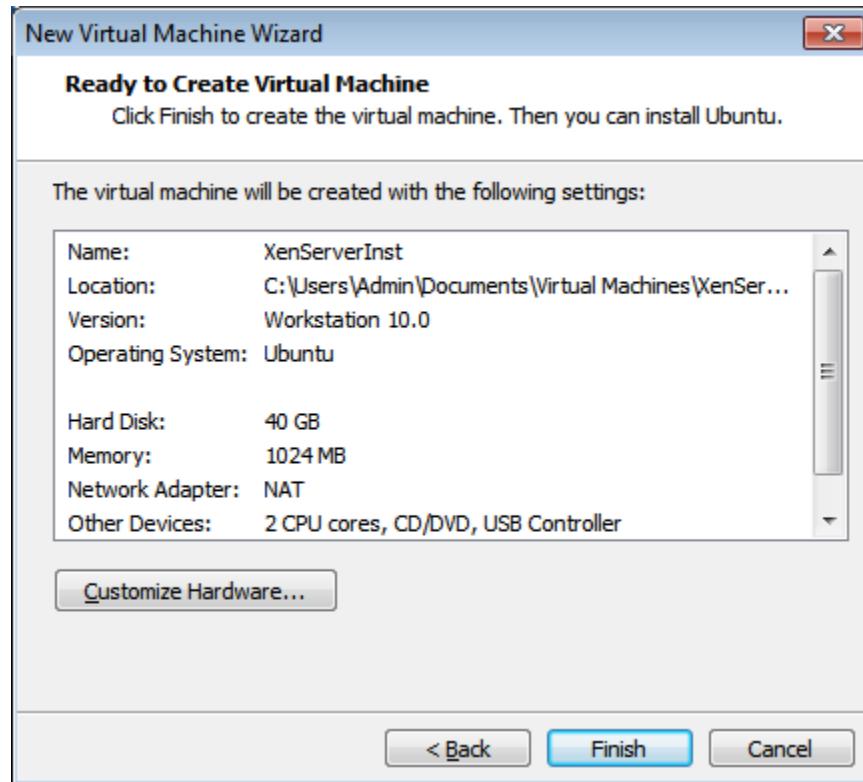
Give Virtual name - for Example "XenServerInst" and click on next



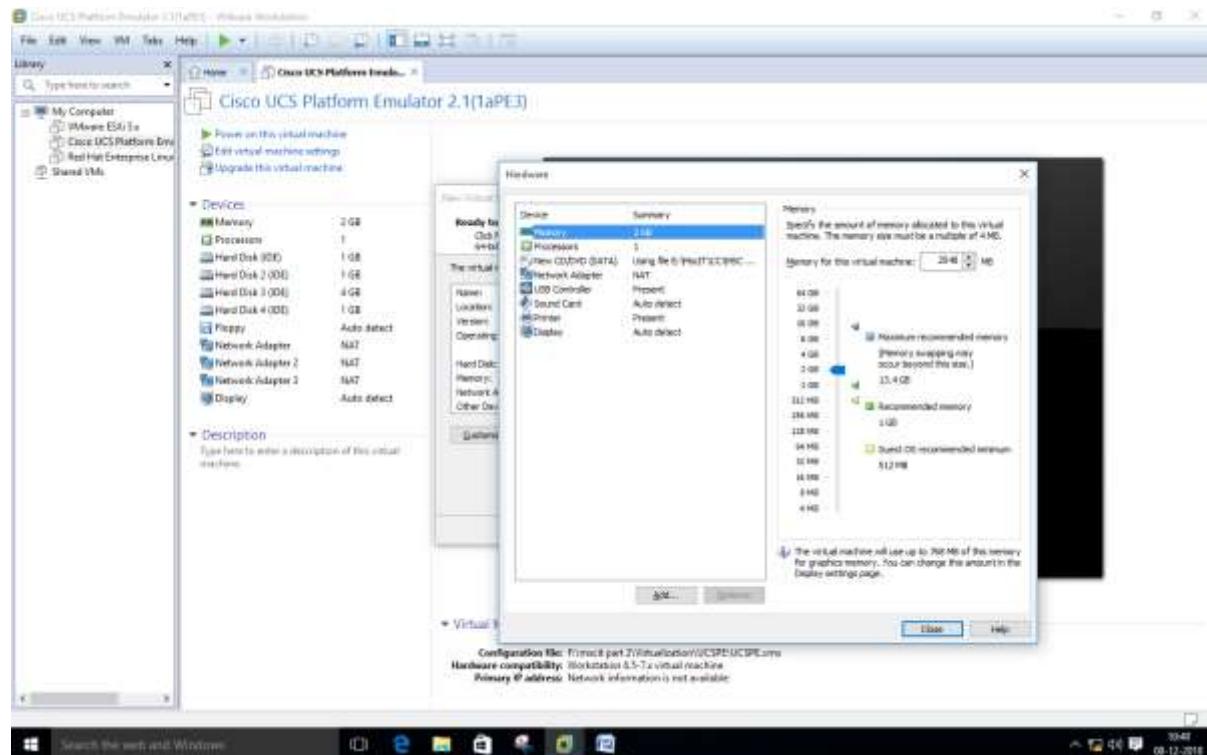
Change maximum disk size to 40 GB and check -Store virtual disk as single file



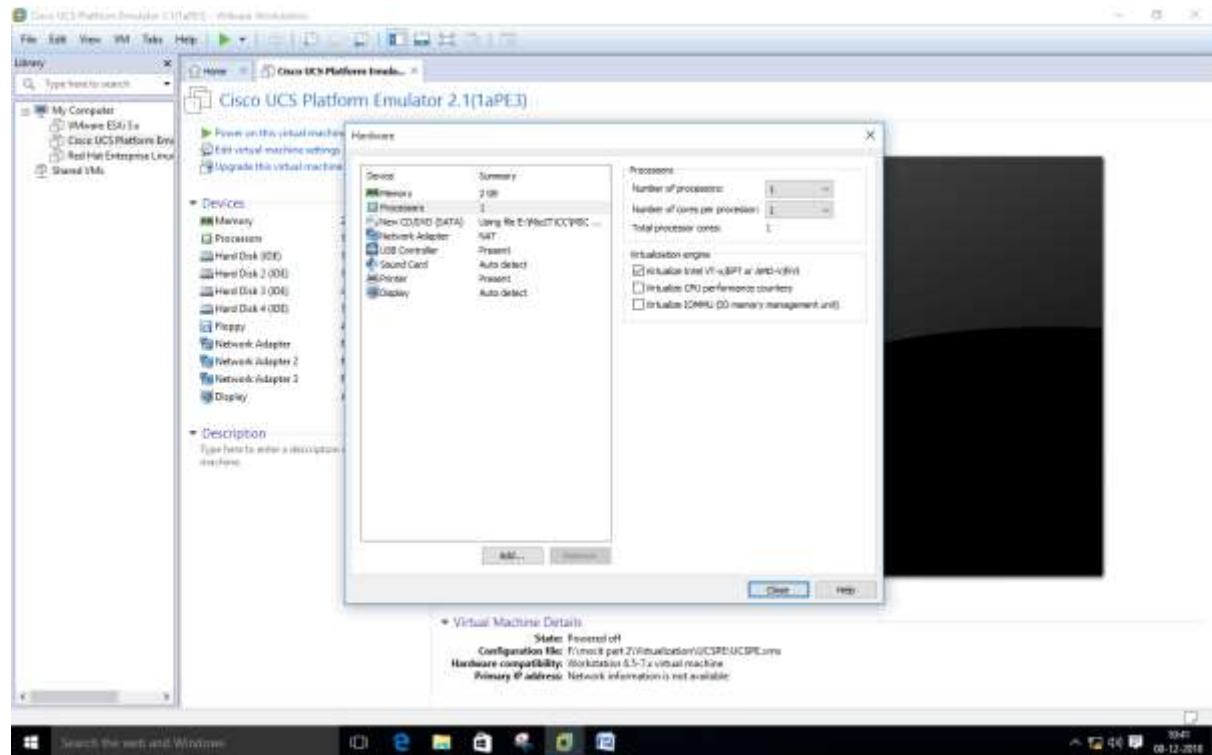
Click on Customize Hardware option



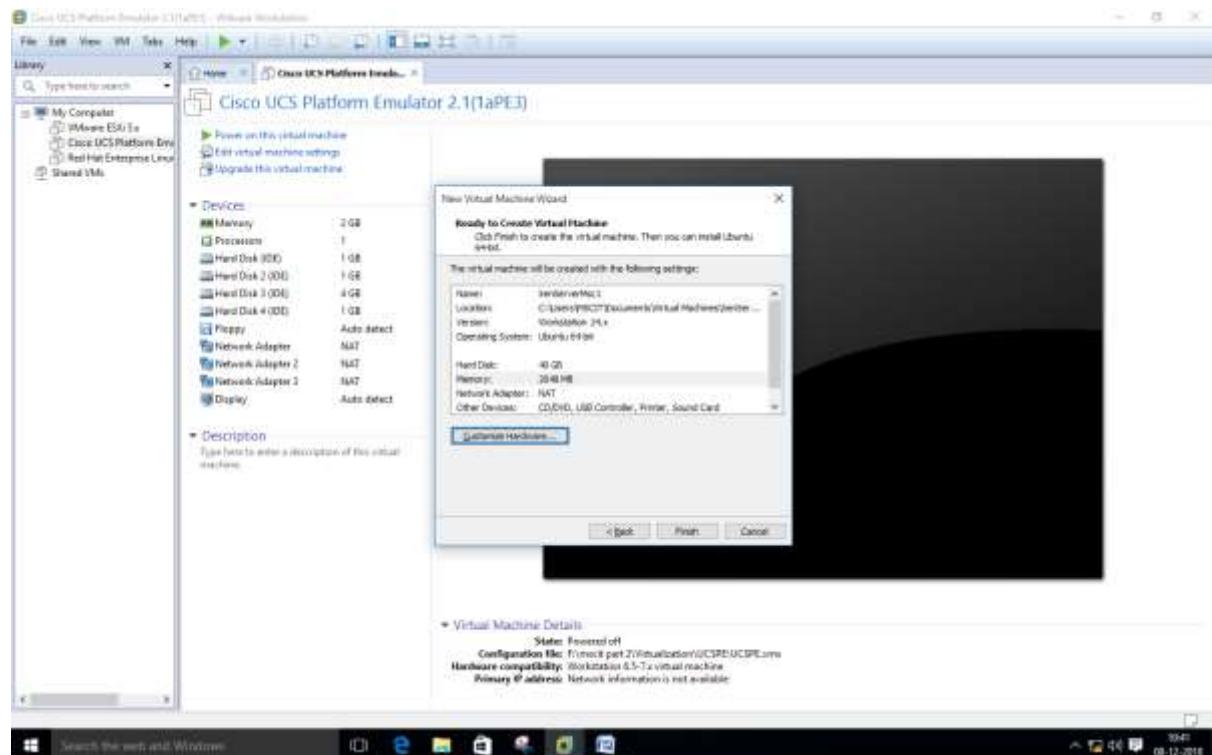
Change - Memory for this virtual machine to 2 GB and click on close



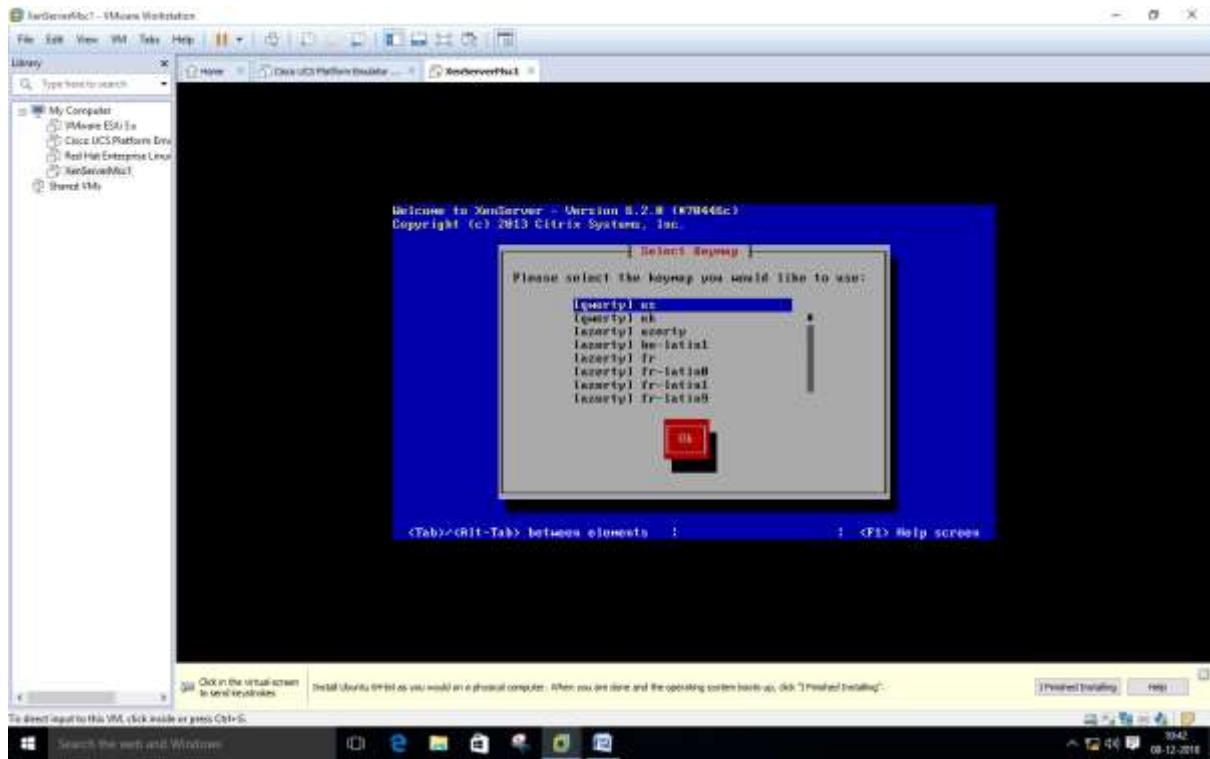
Click on Processor and select virtualize Intel VT



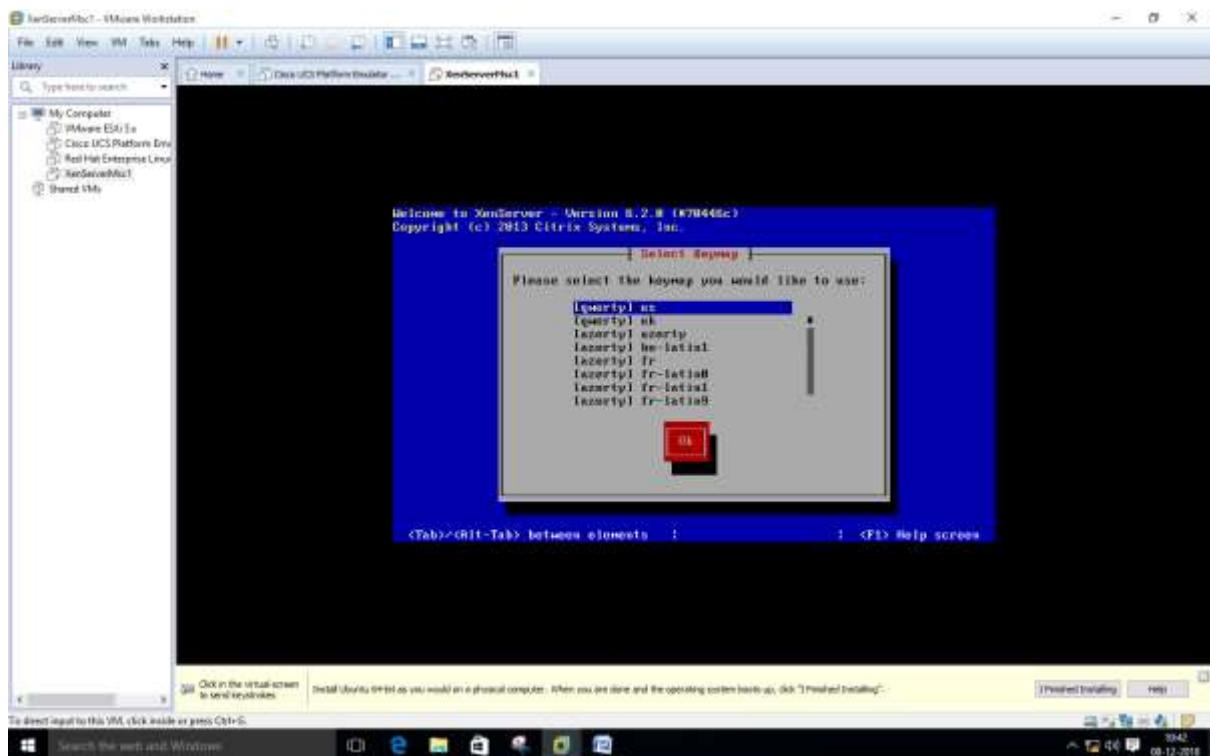
Click on Finish -



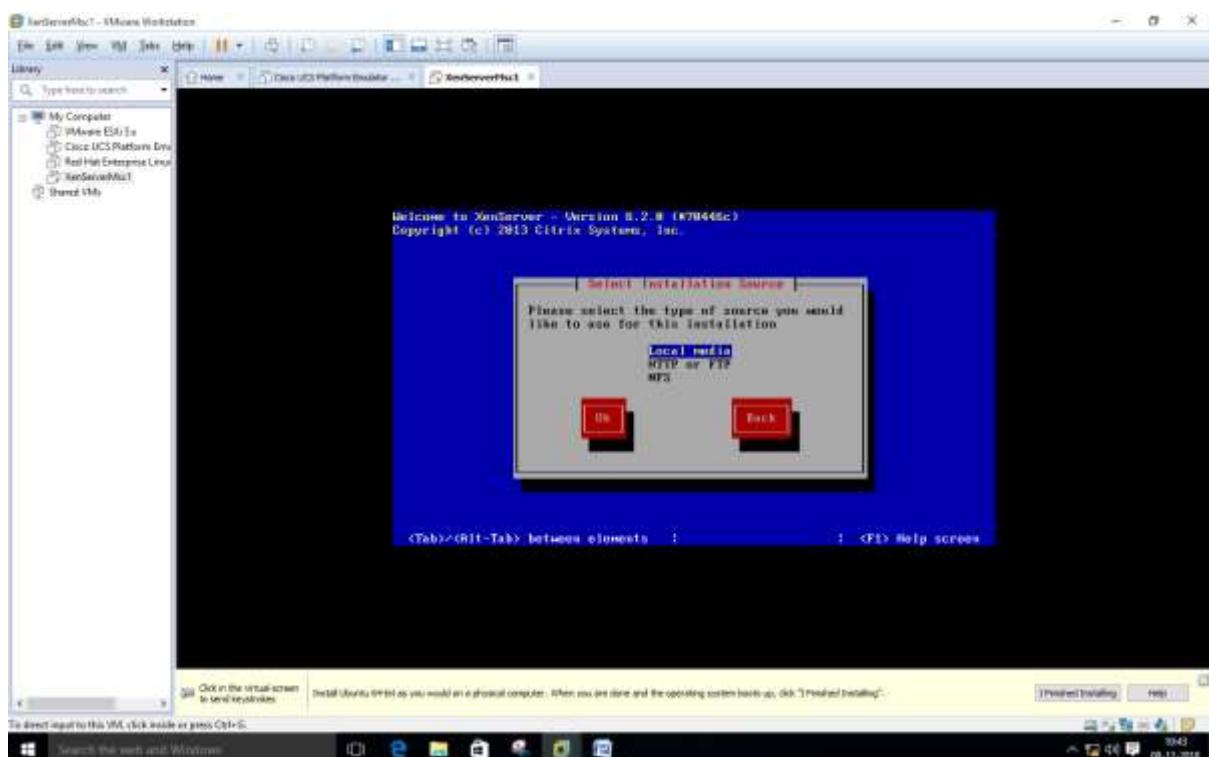
Now Power on newly created Virtual machine -  
Now select US and click on OK



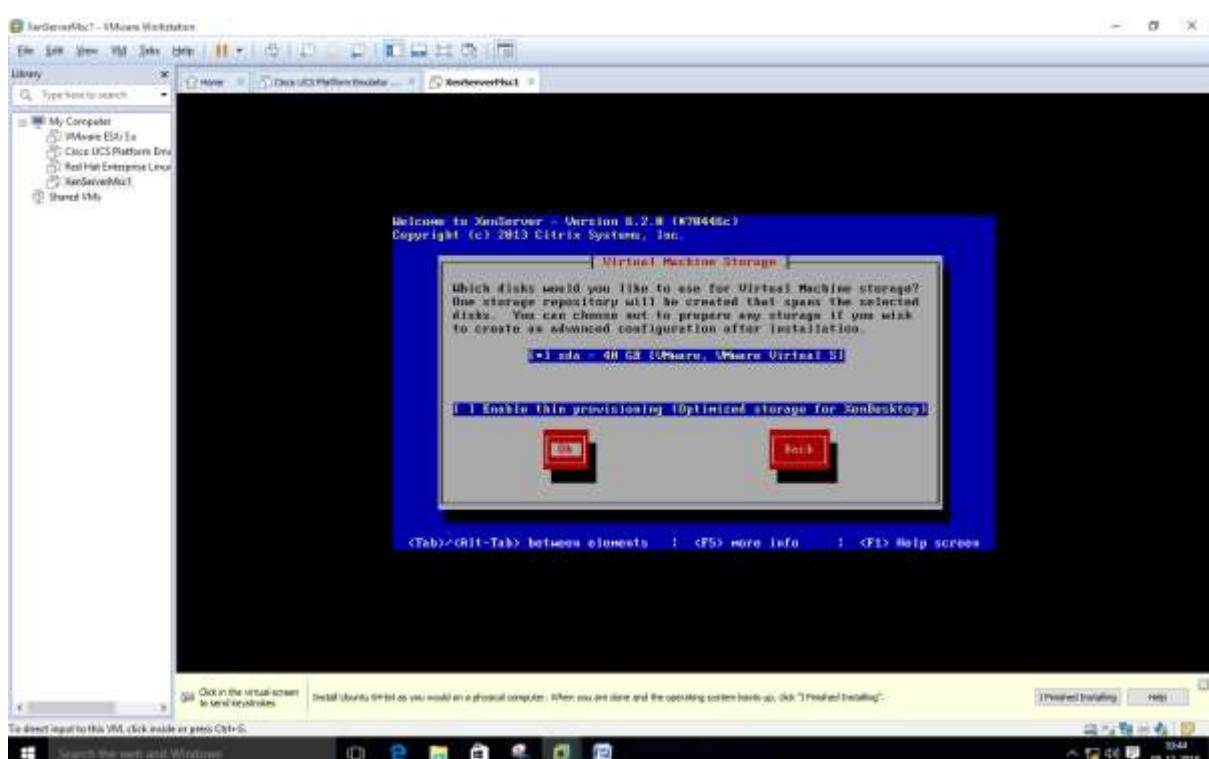
Click on OK as seen in below screenshot -



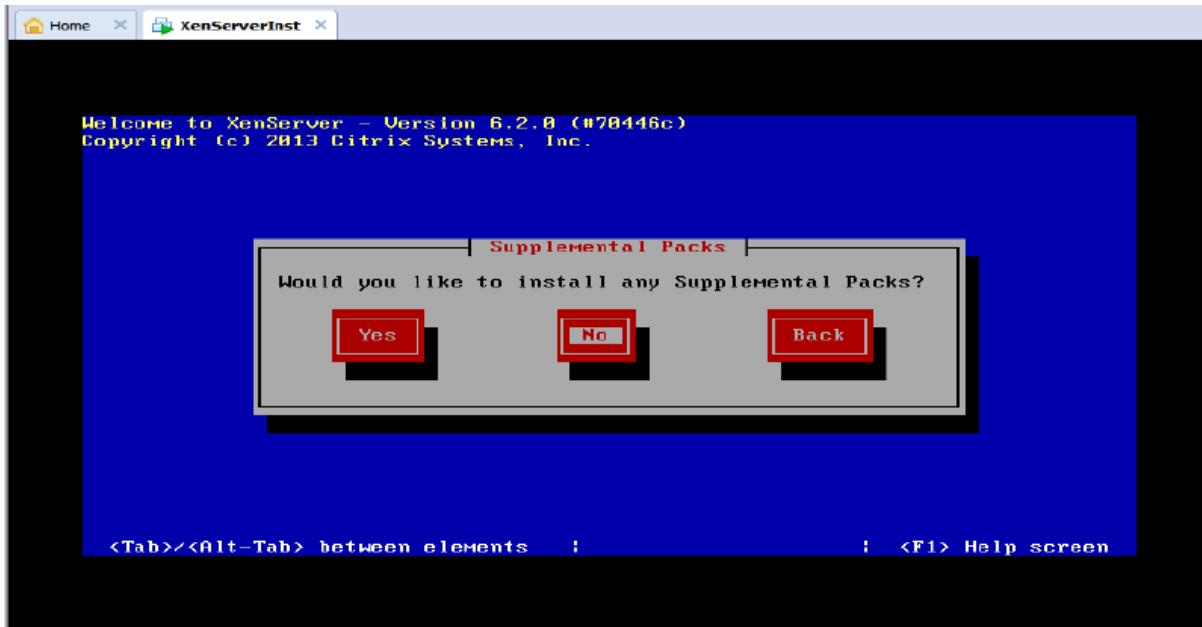
## Select Local media and ok



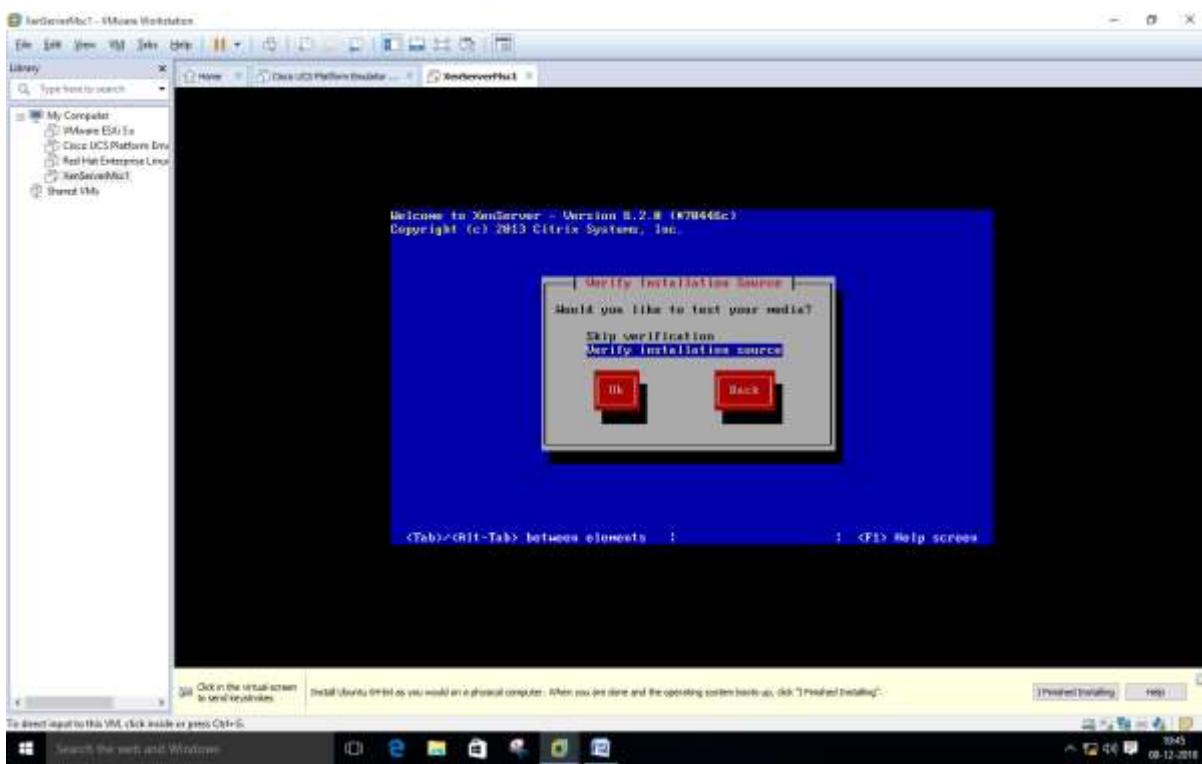
Click ok



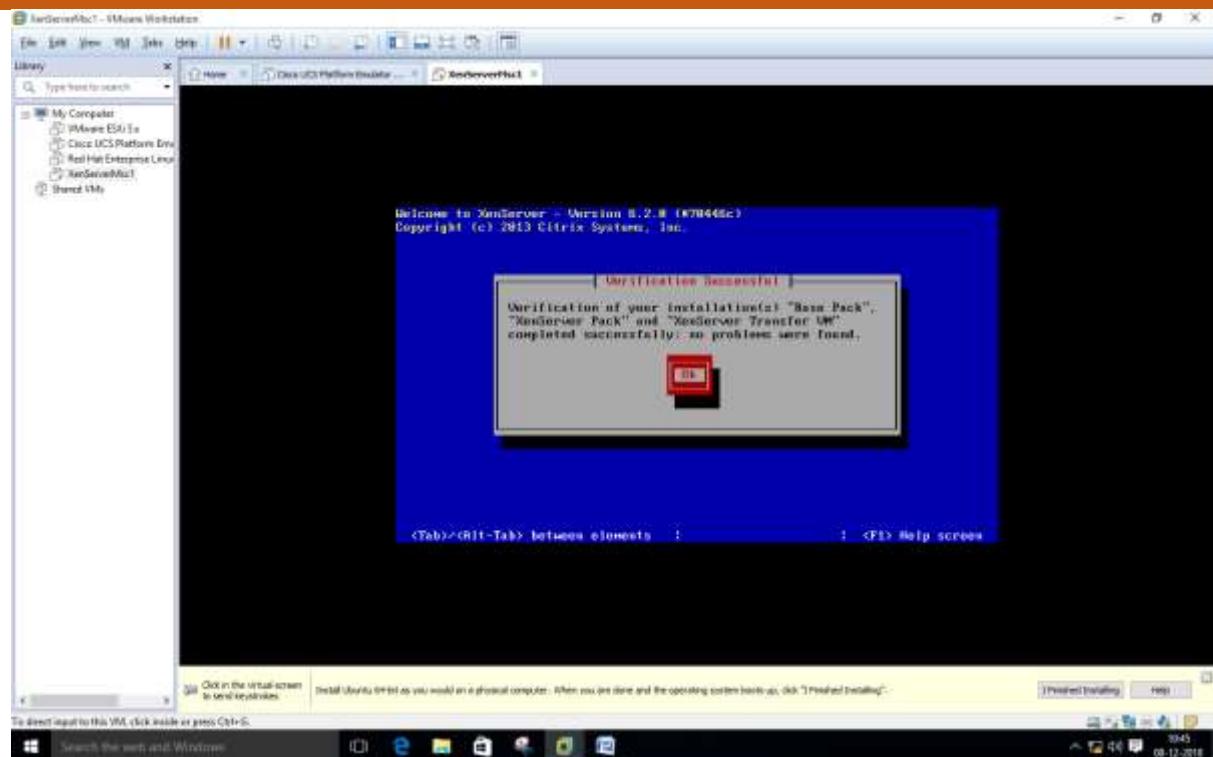
Click No



Here click verify installation

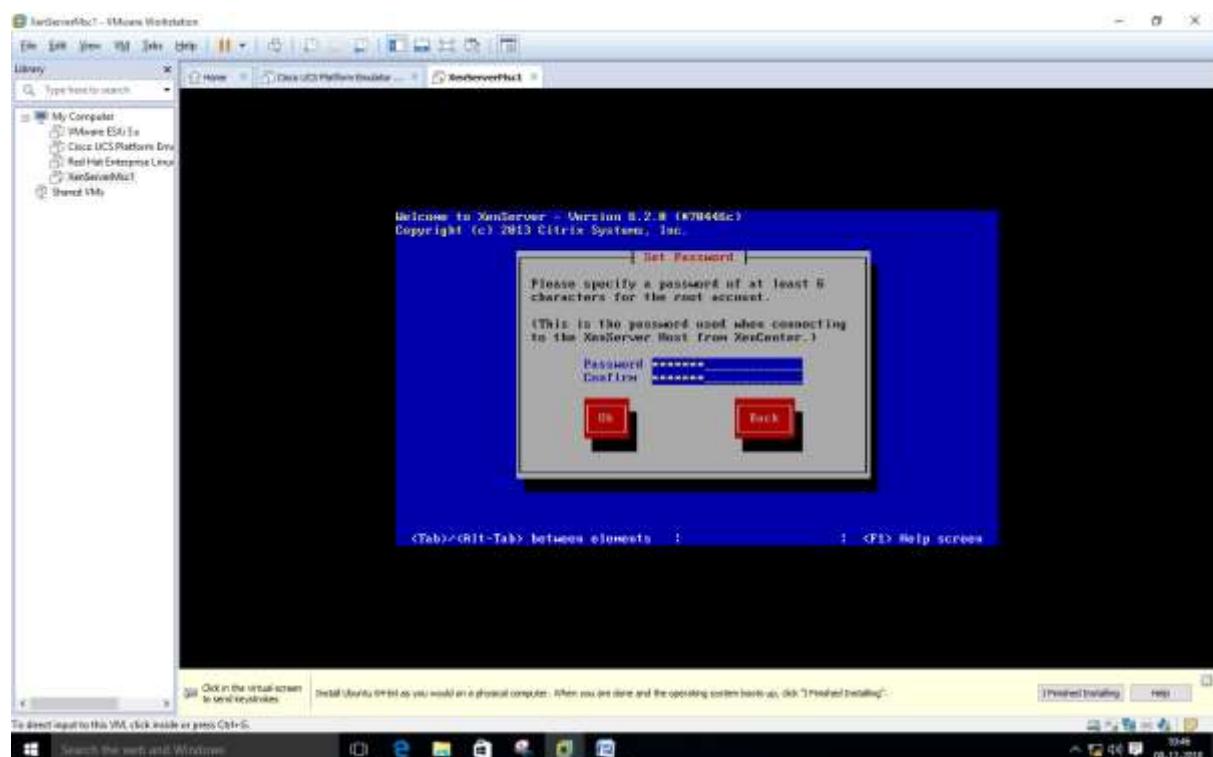


Click ok

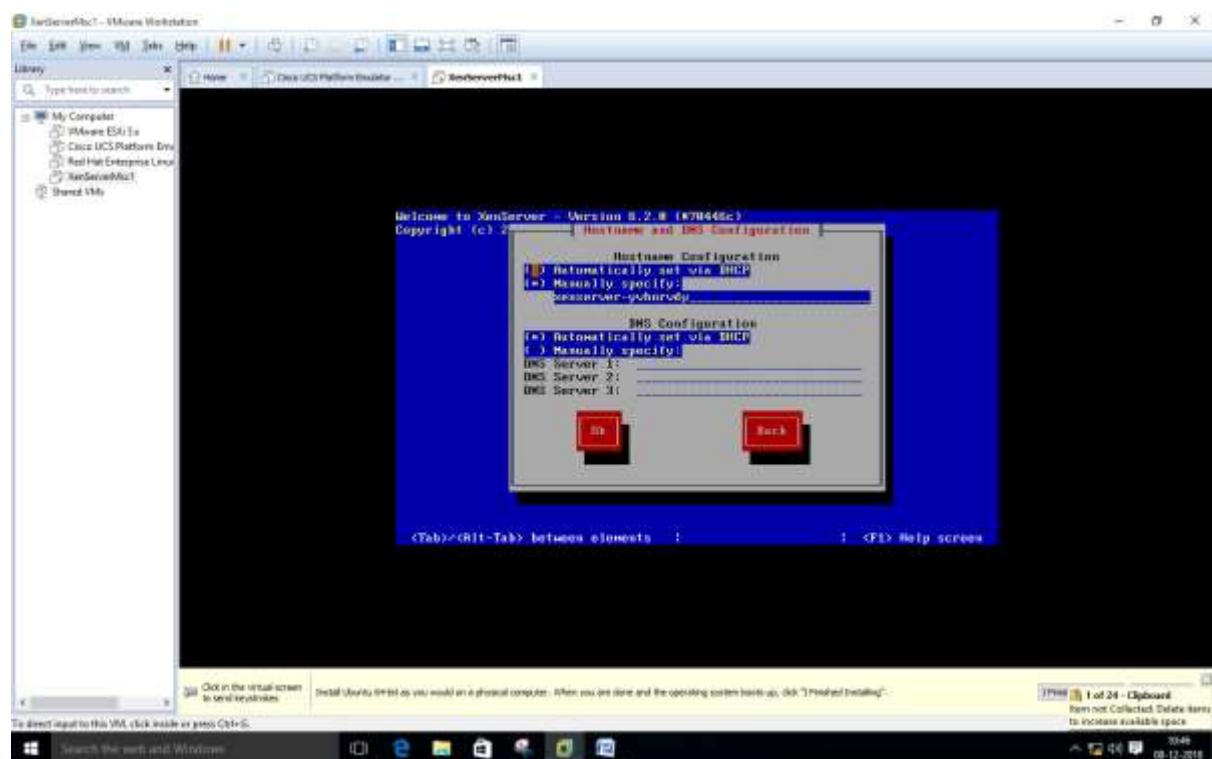
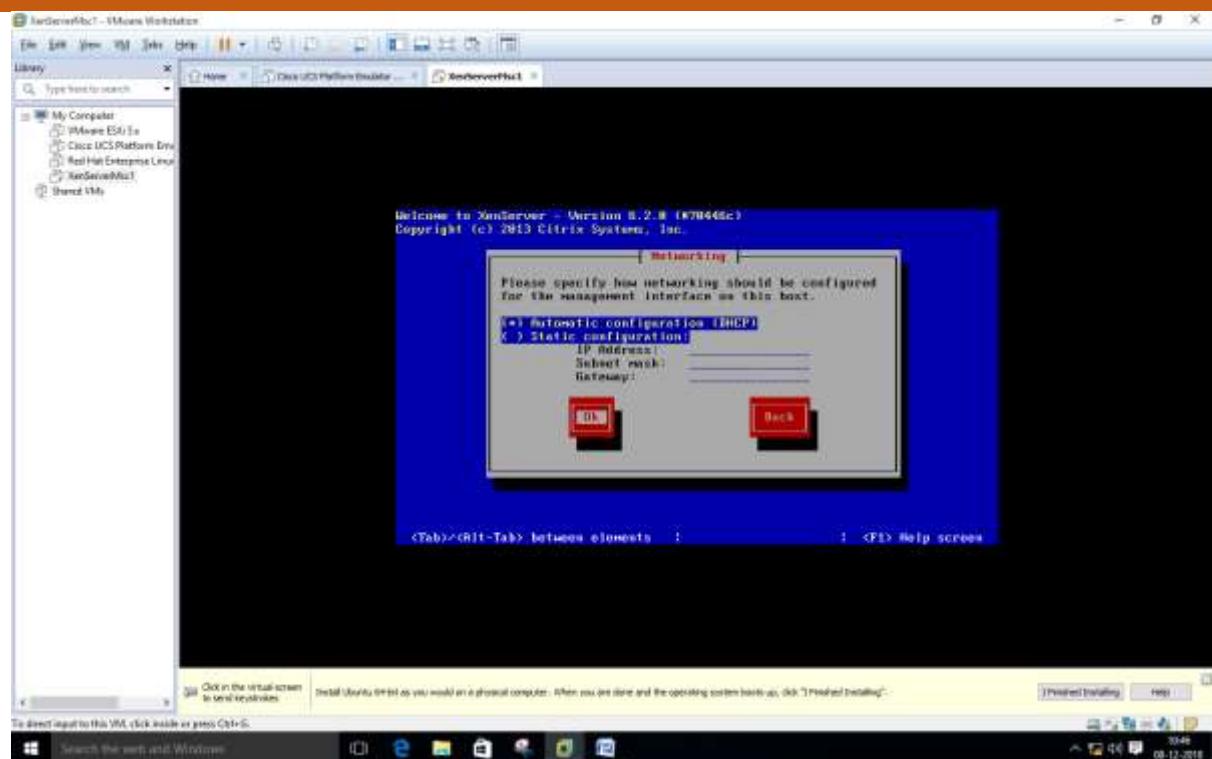


Insert password (Remember password entered) and click on Ok -

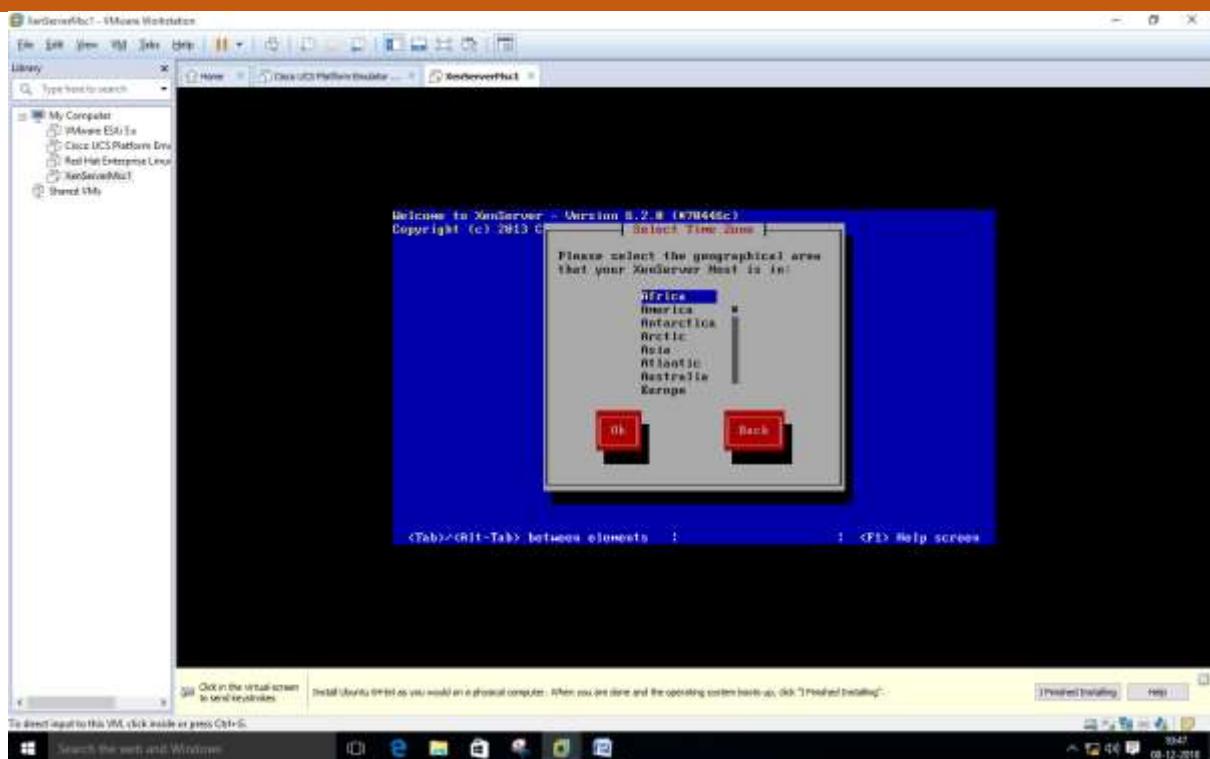
Password:root123



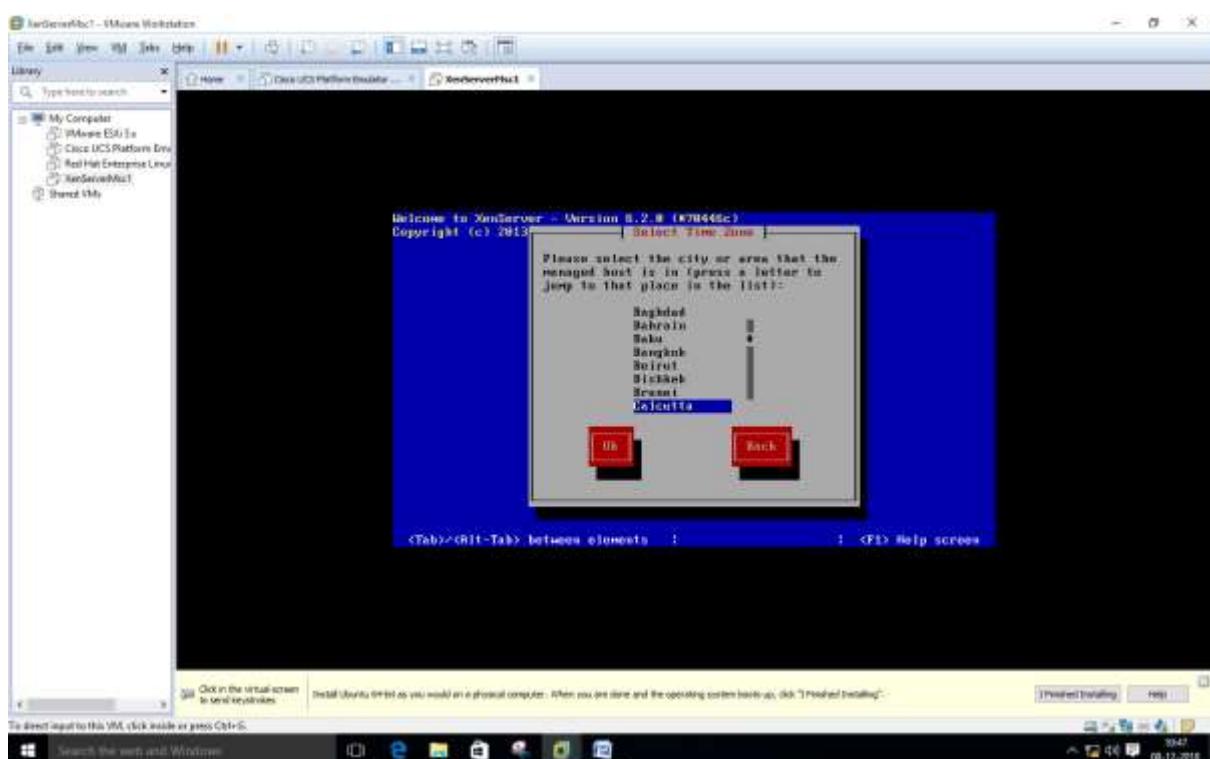
Select Automatically set via DHCP and click on OK



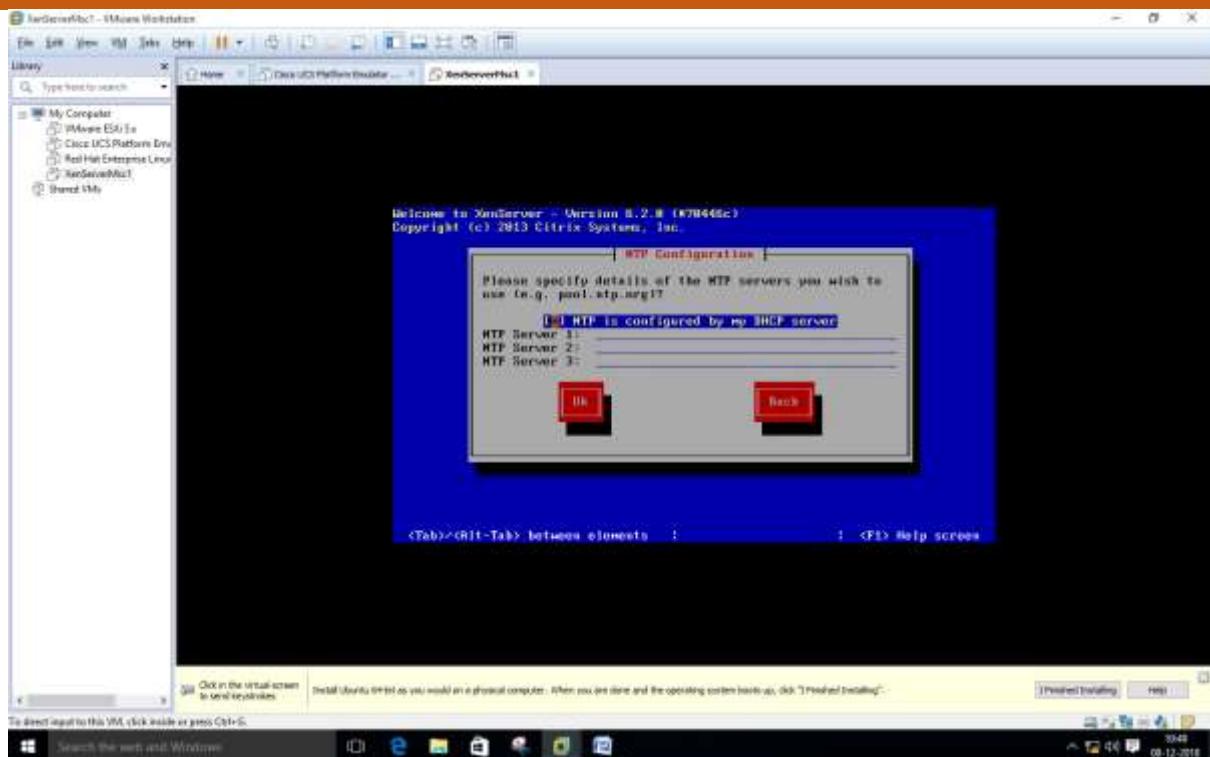
Select Asia and click on OK -



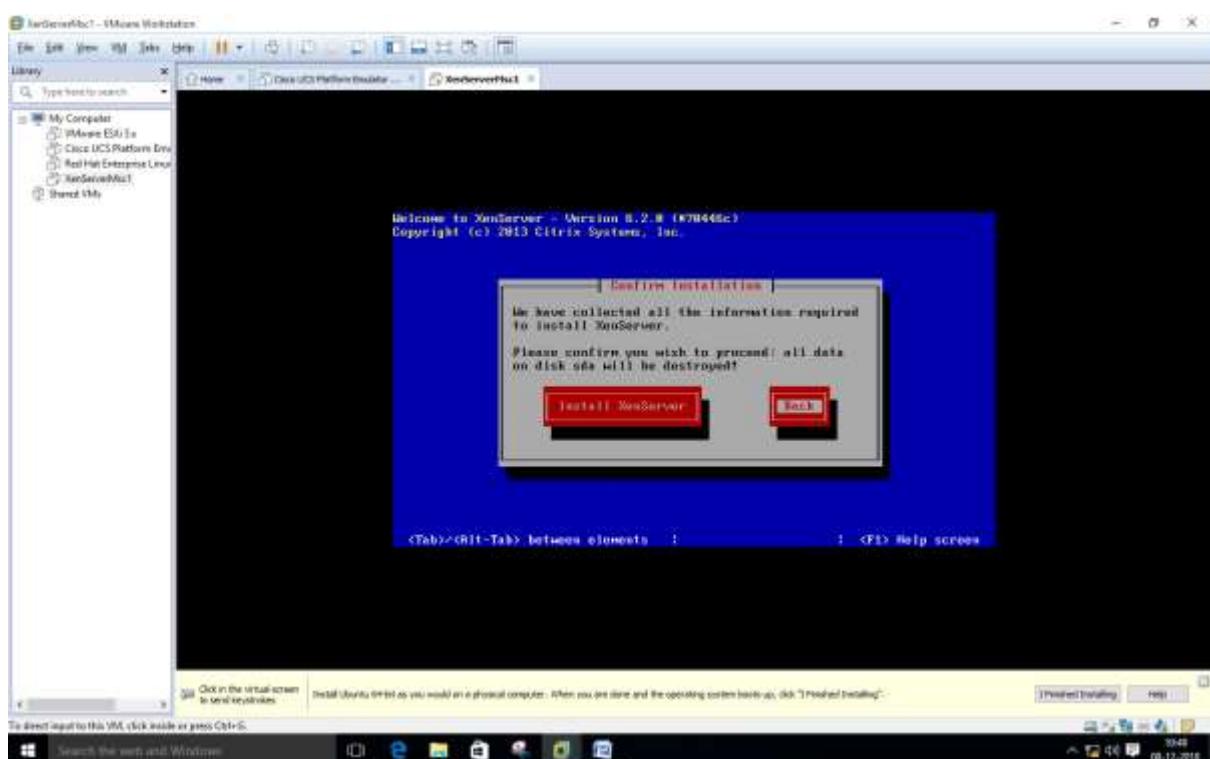
Select Calcutta

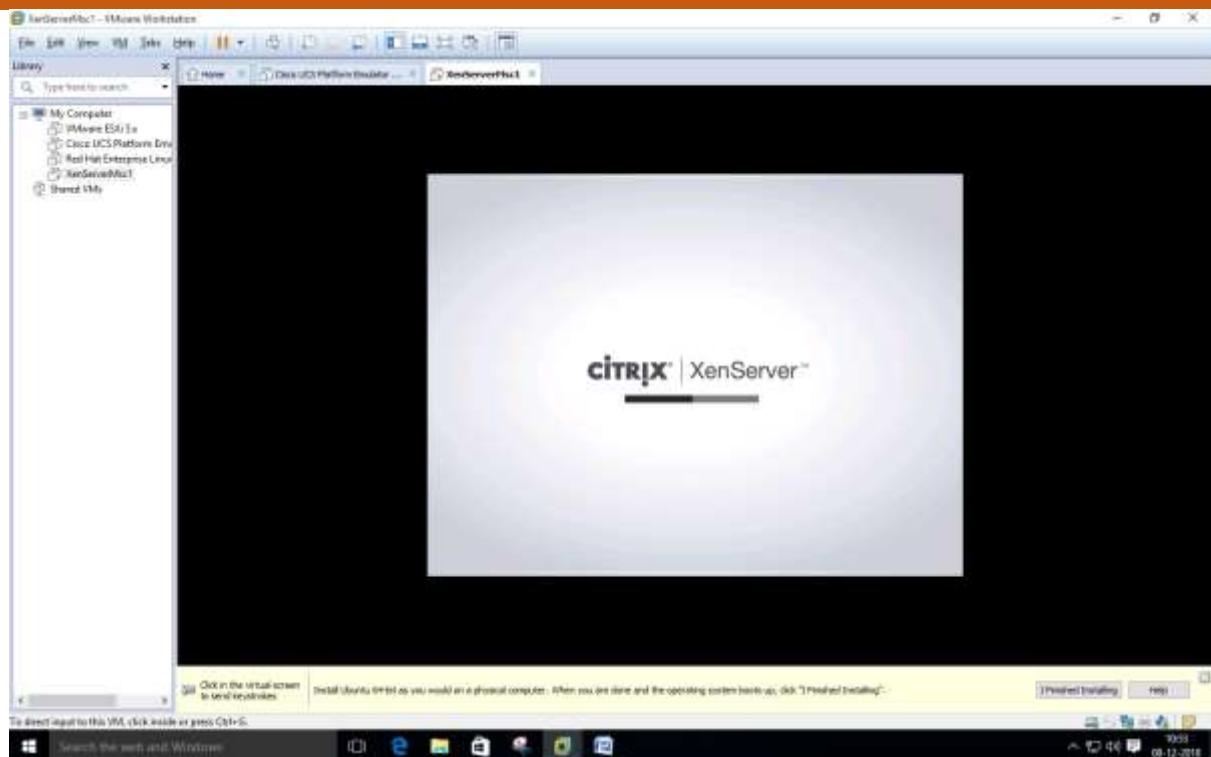


Select "Using NTP" and click on OK

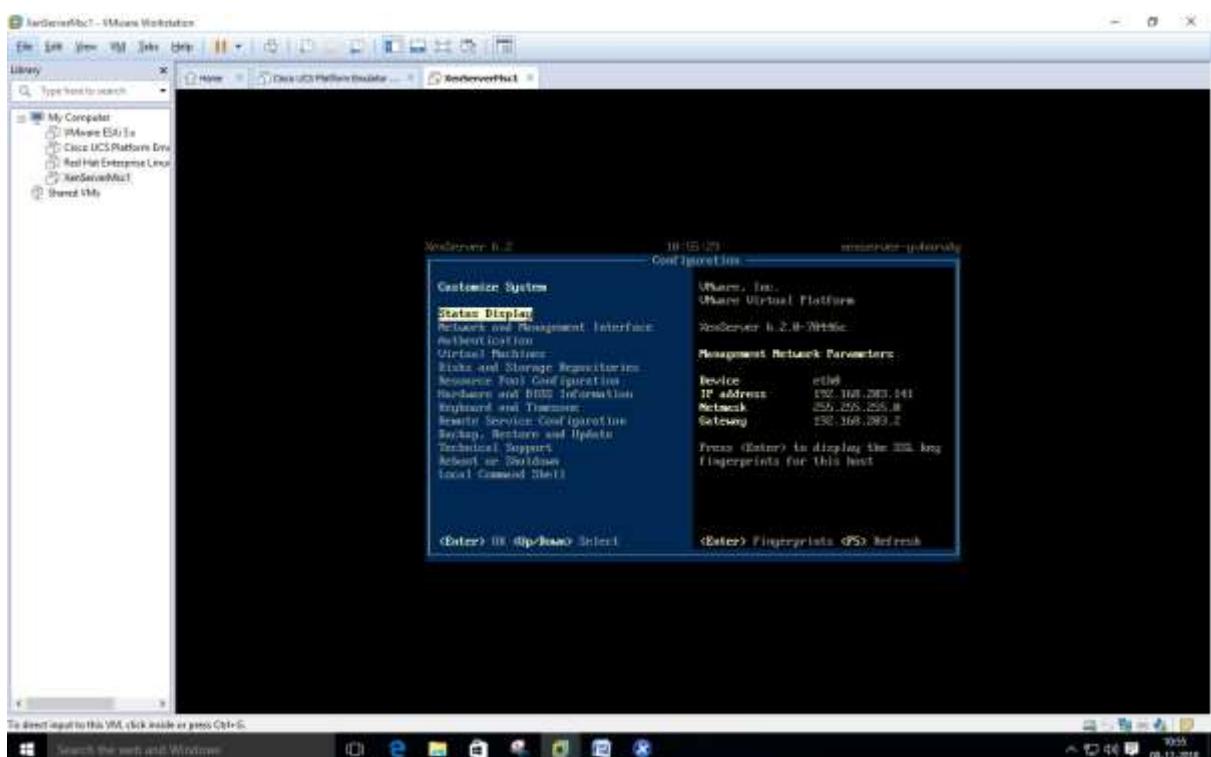


Click Install Xen server

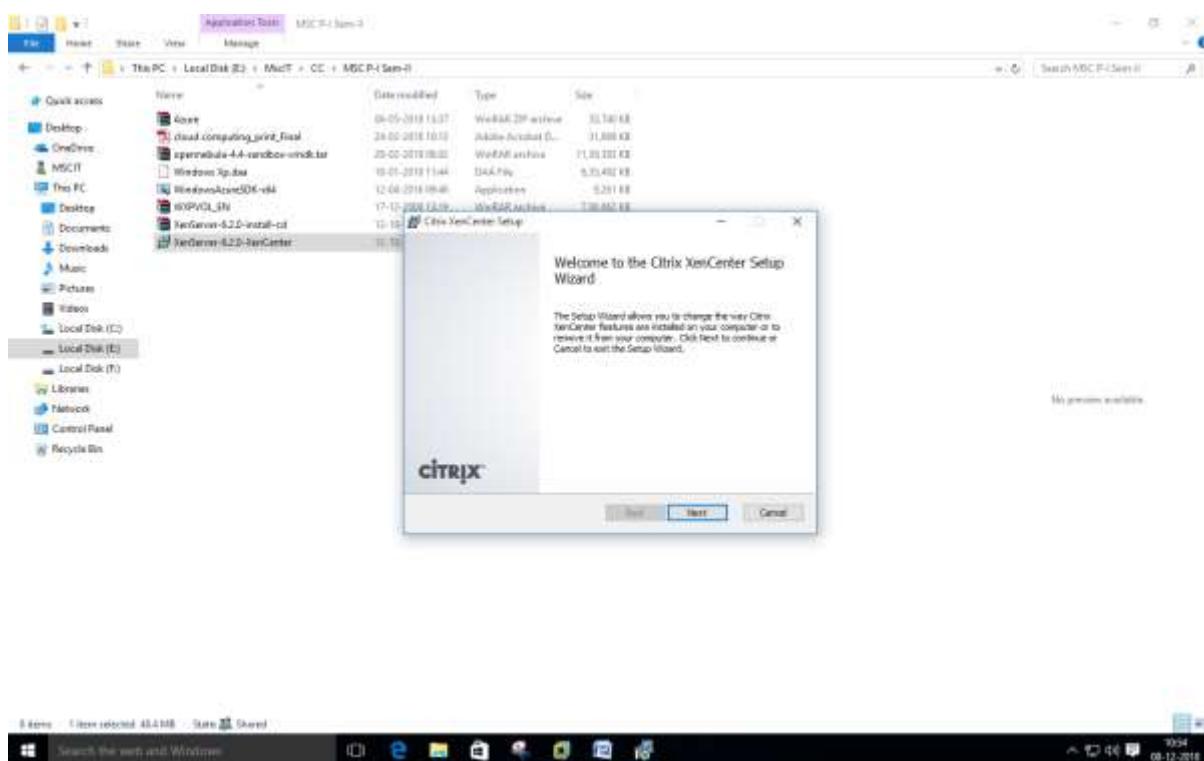




Note IP Address - "192.168.283.141" ping it from command prompt



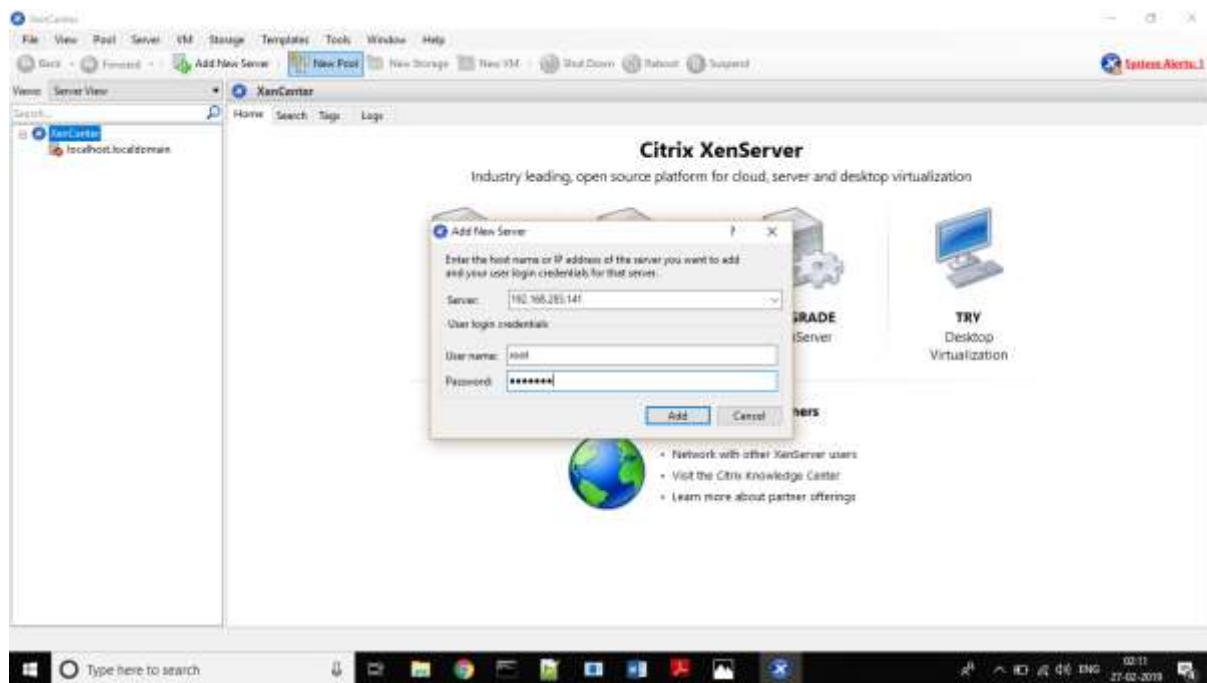
Now Install Citrix App if not installed -



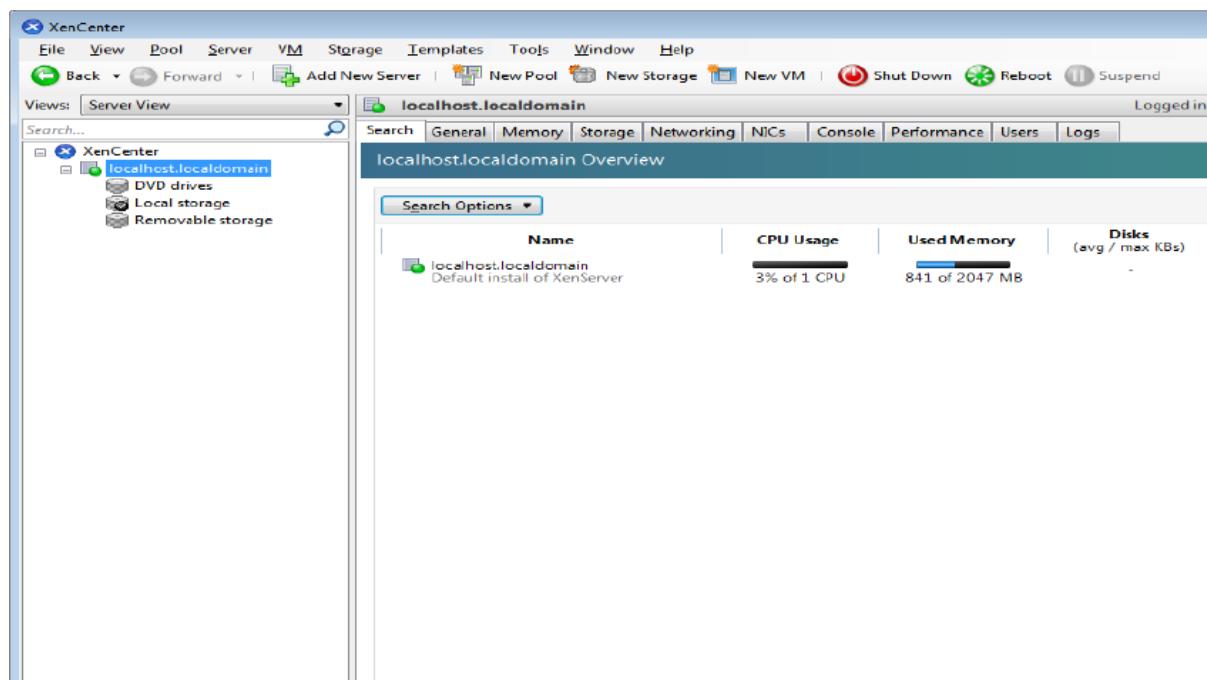
Now Open Citrix XenCenter - and Click and Add Server4



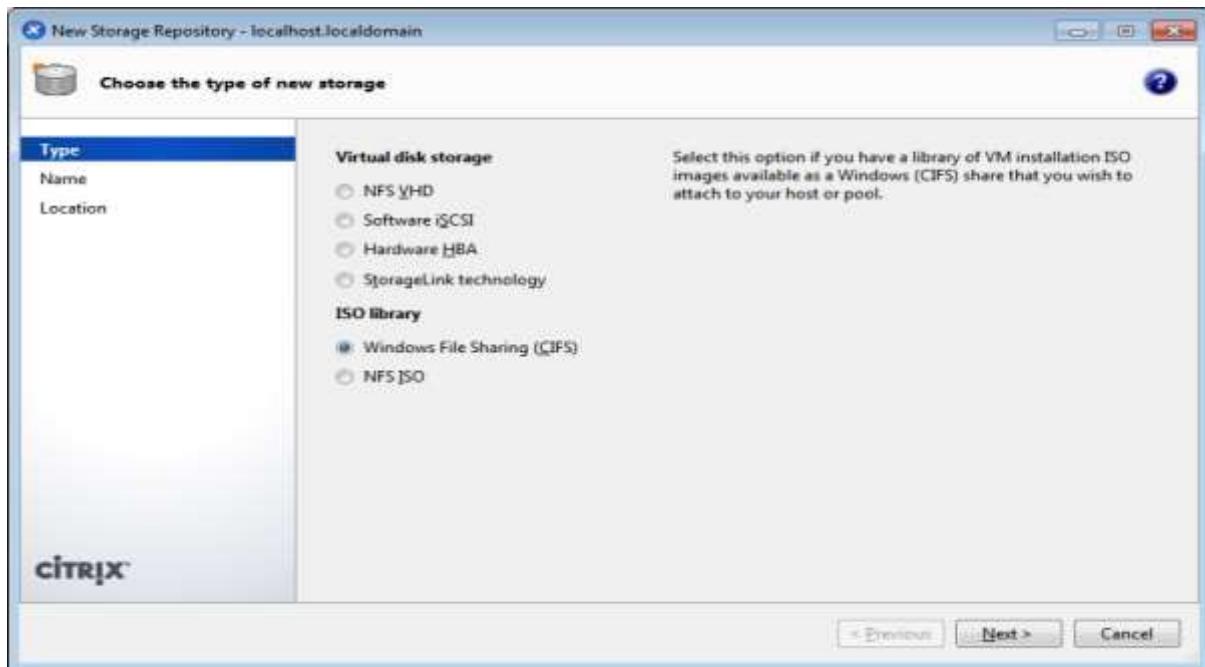
Fill IP address copied from Installation and User name as "root" and Password as "root123" which we had given during installation and Click on Add



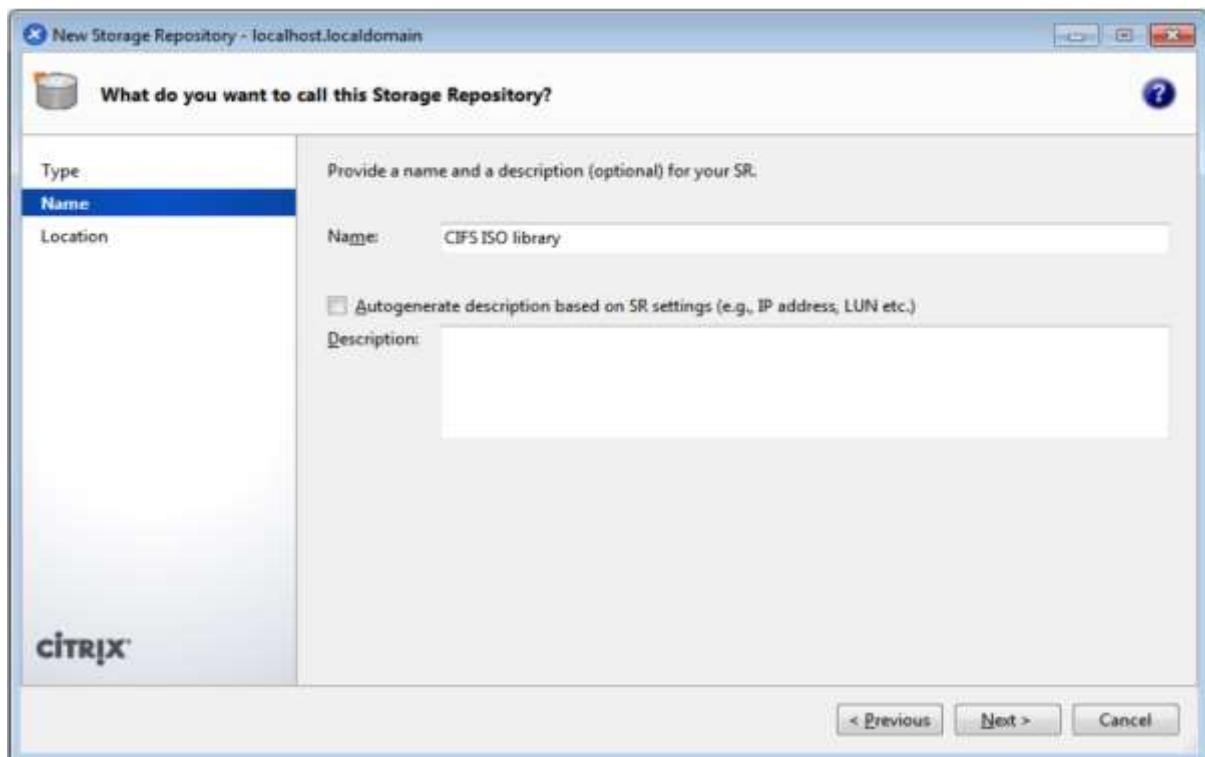
Now Click on New Storage -



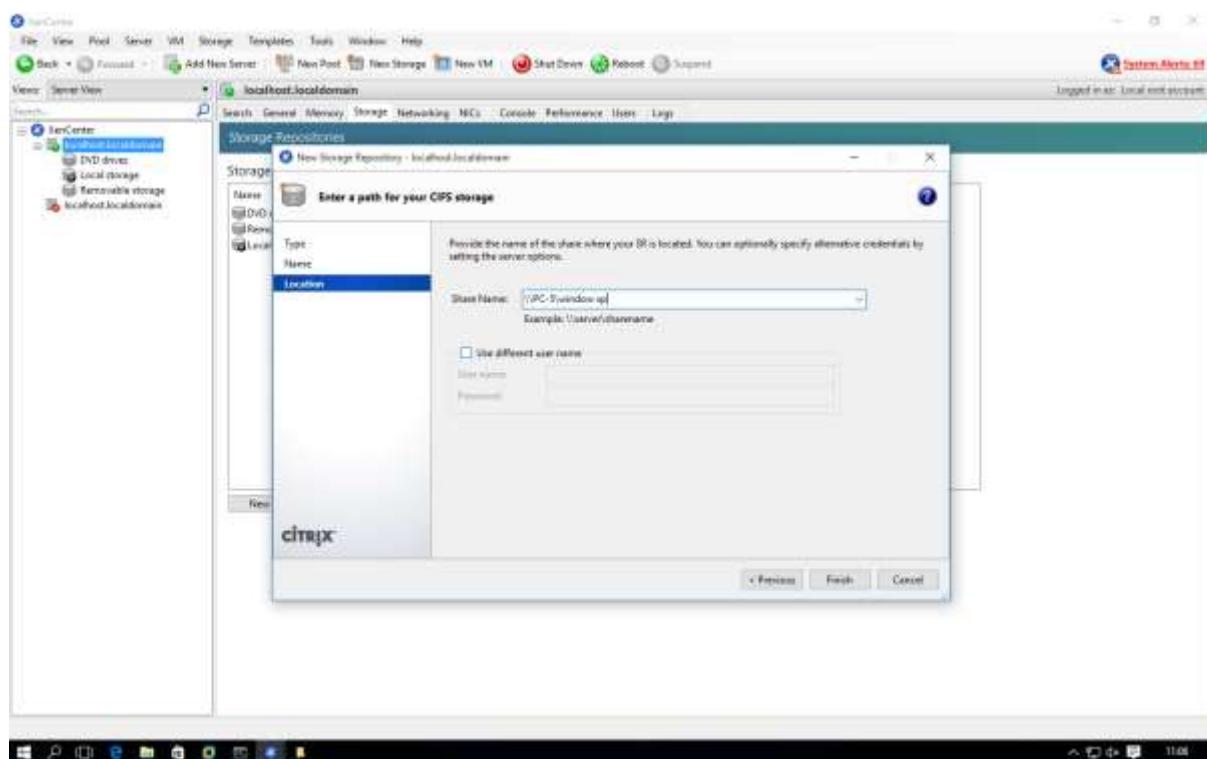
Select Window File Sharing (CIFS) and click on next -



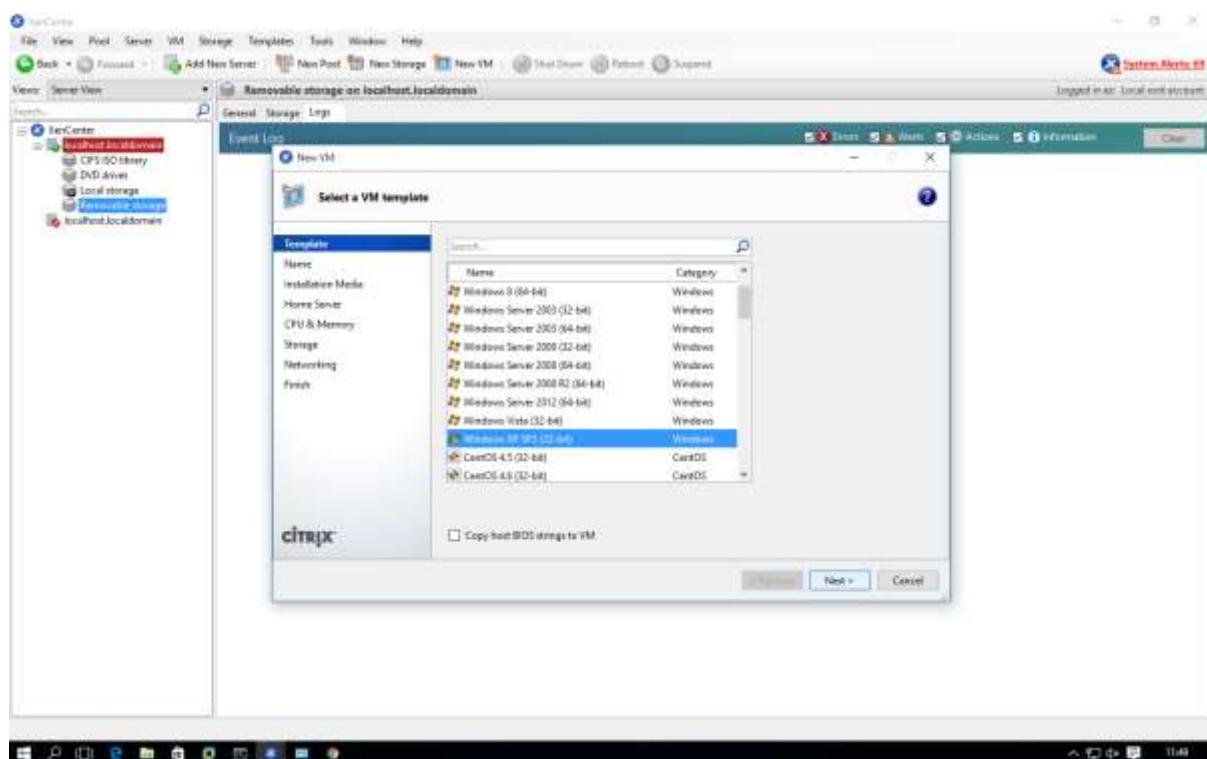
Uncheck Auto generate option Click on Next



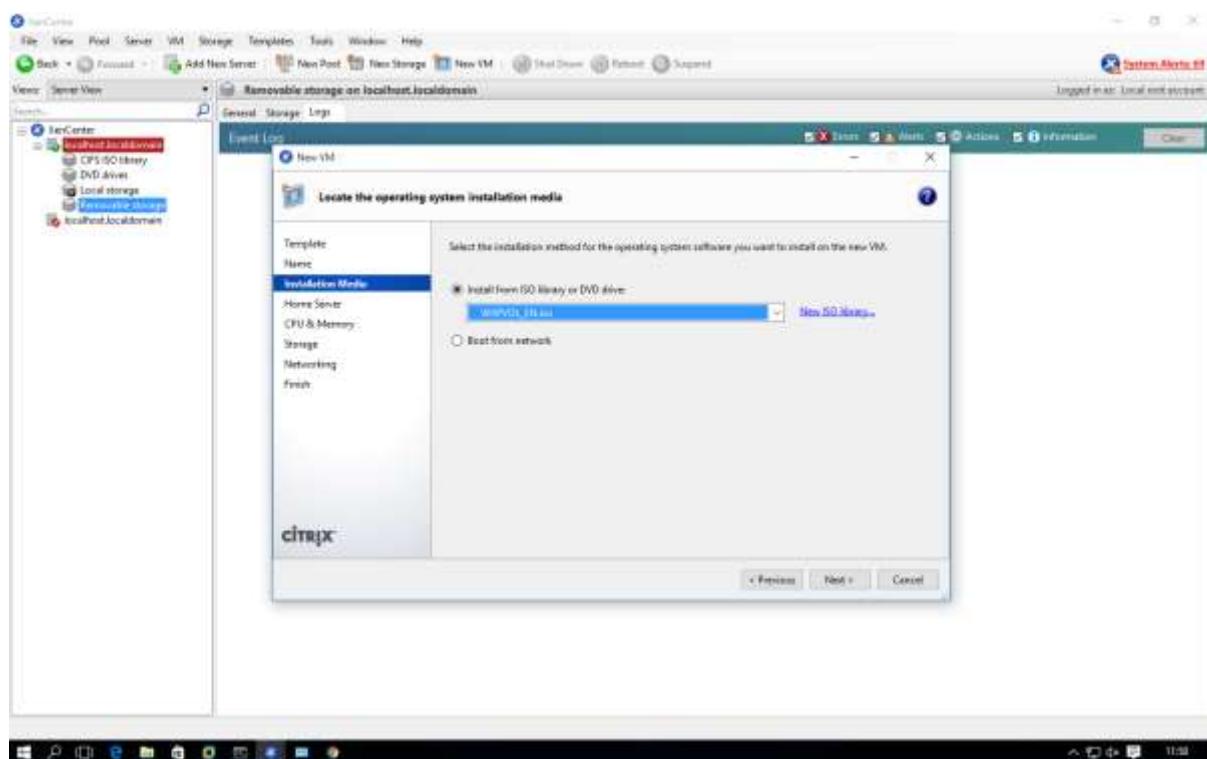
Provide the path of shared windows XP image and enter local pc credential , click on Finish



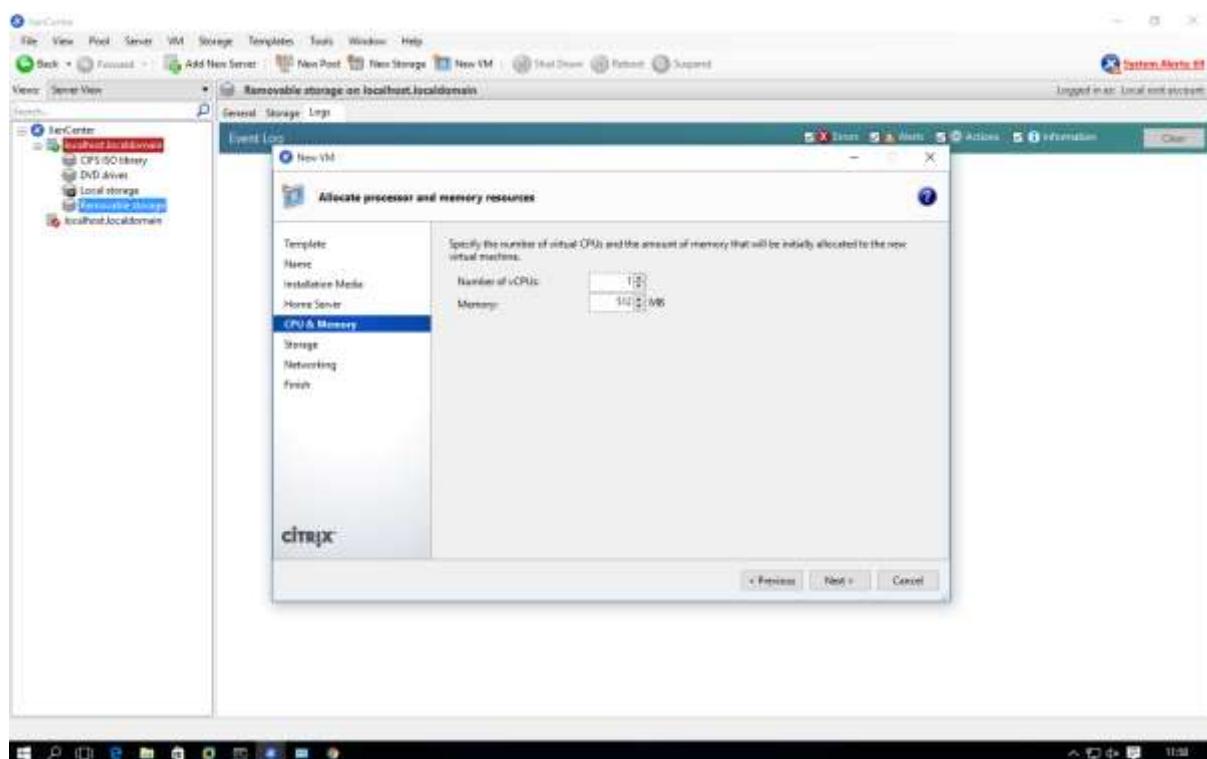
Click on New VM - and Windows XP SP3



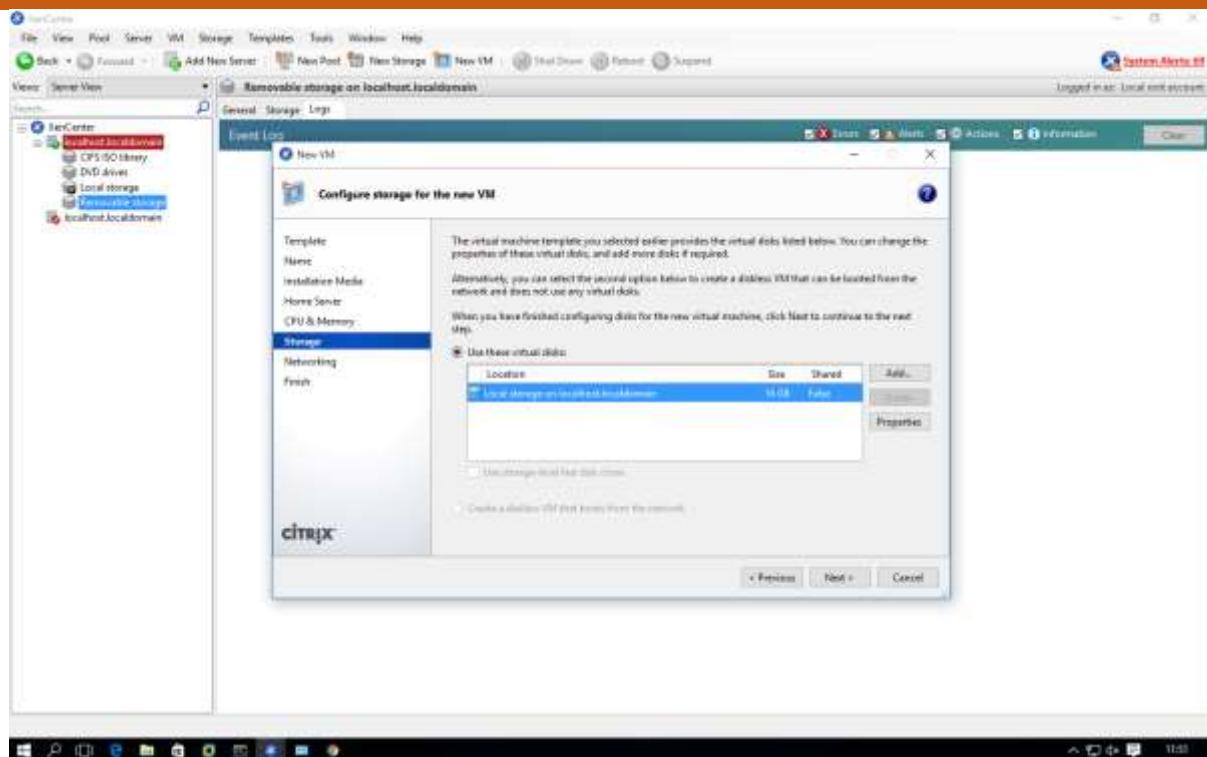
Select ISO file and click on next -



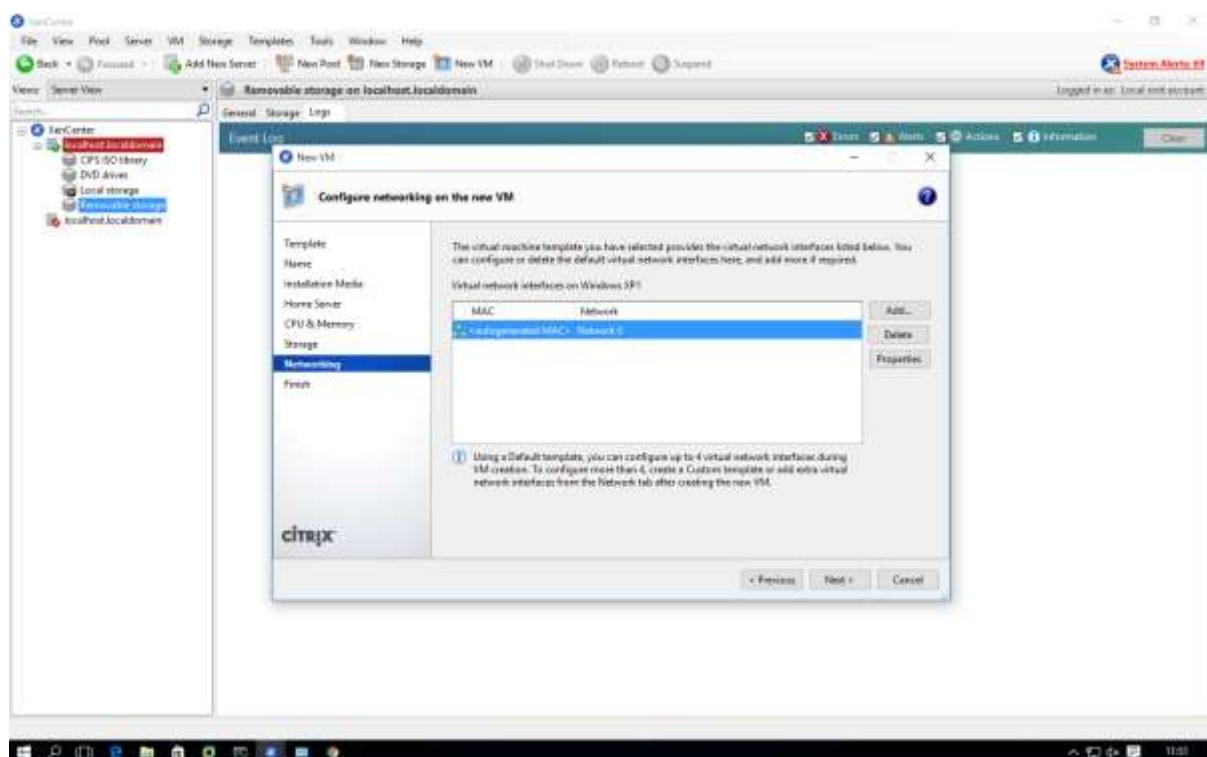
Next -



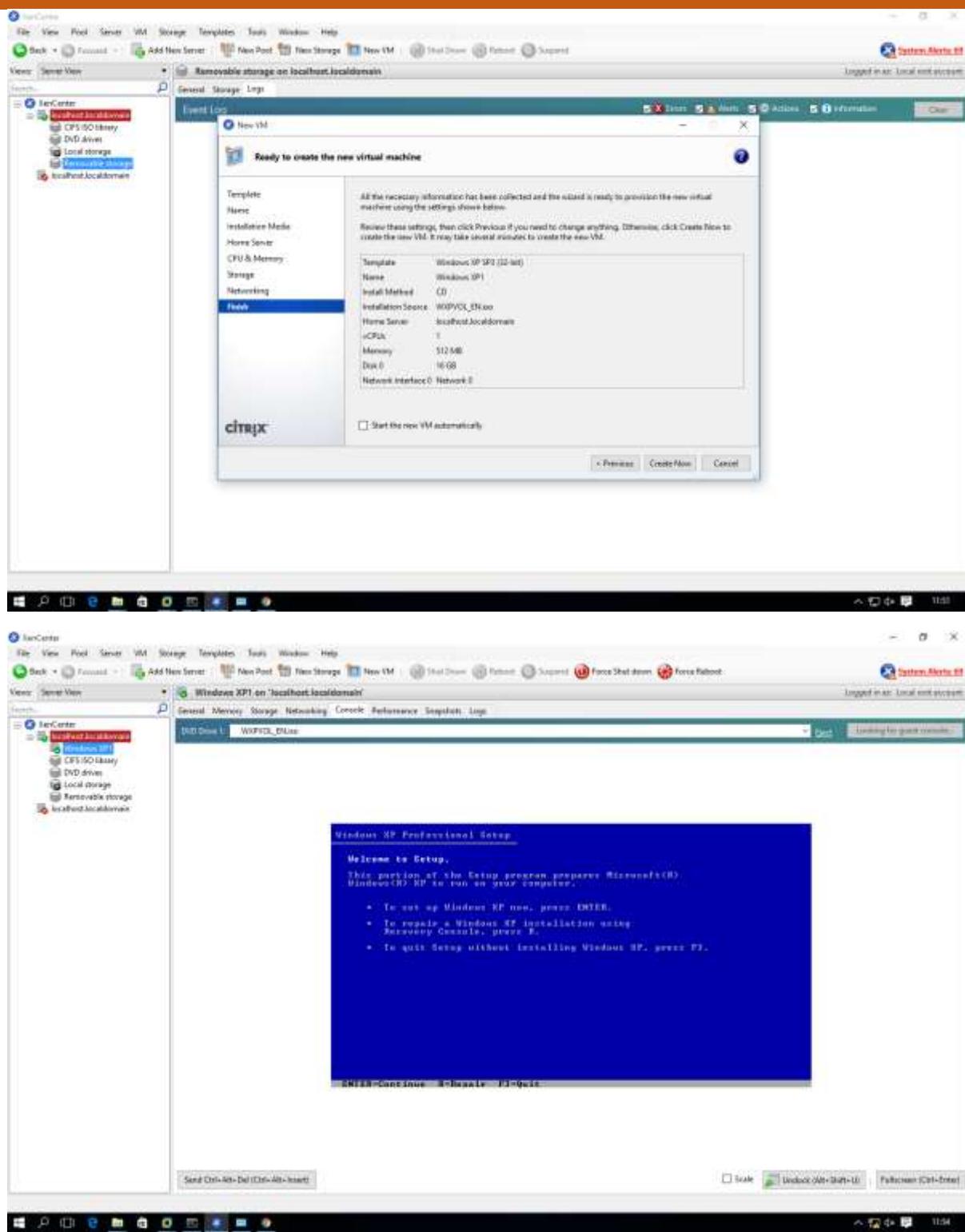
Next-



Next-

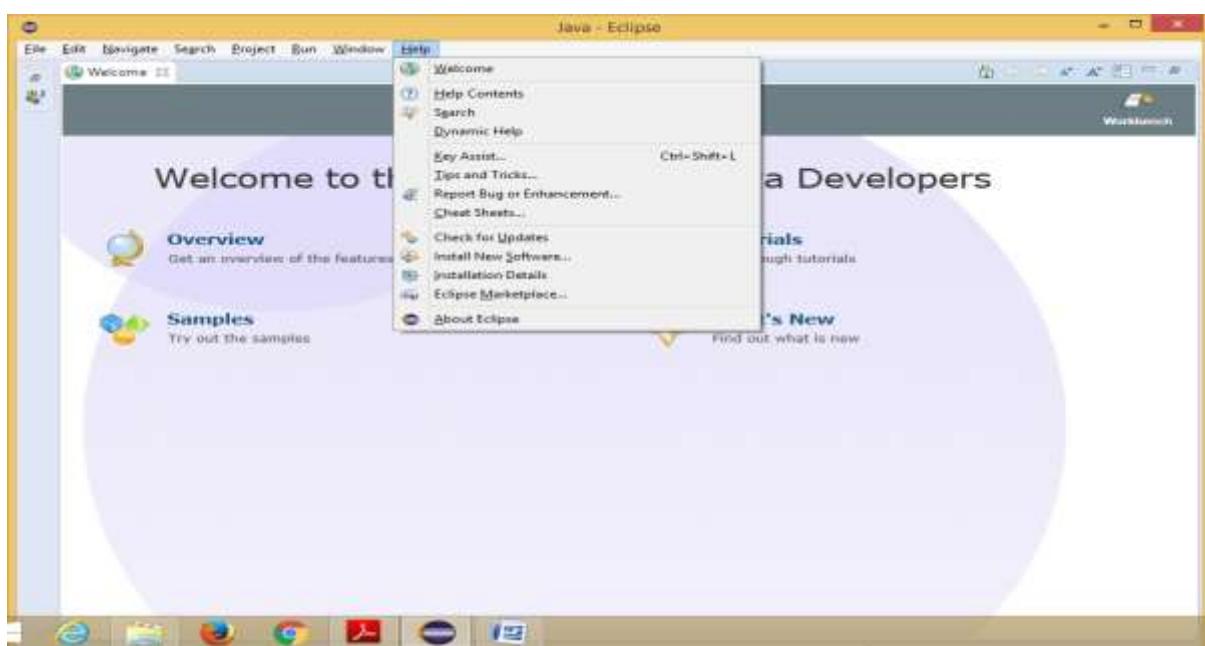


Uncheck - Start the new VM and click on create now



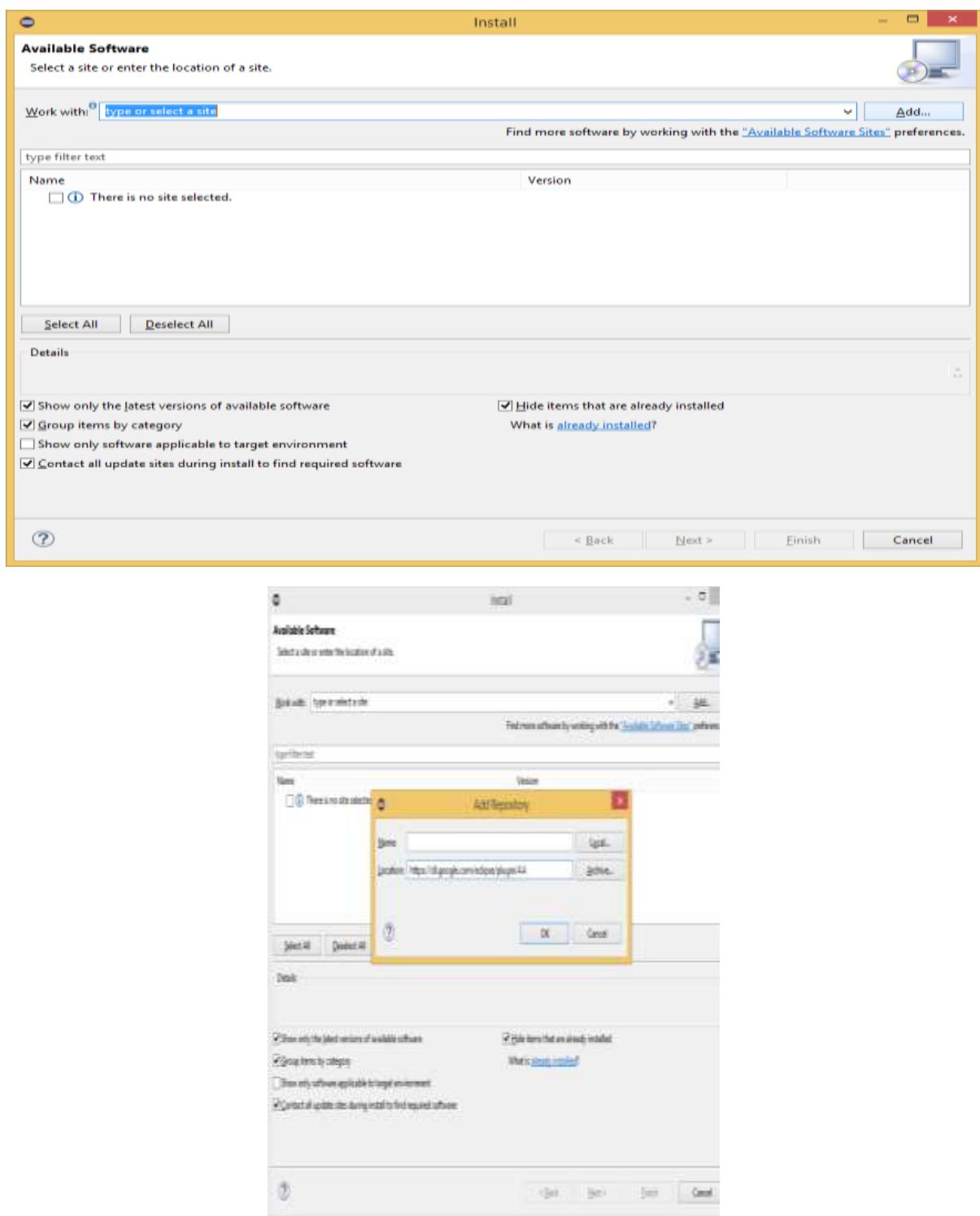
**PRACTICAL: 4**  
**IMPLEMENT SEARCH ENGINE \_ GOOGLE APP ENGINE (GAE)**

Open Eclipse Luna. Go to Help Menu Install New Software...-----

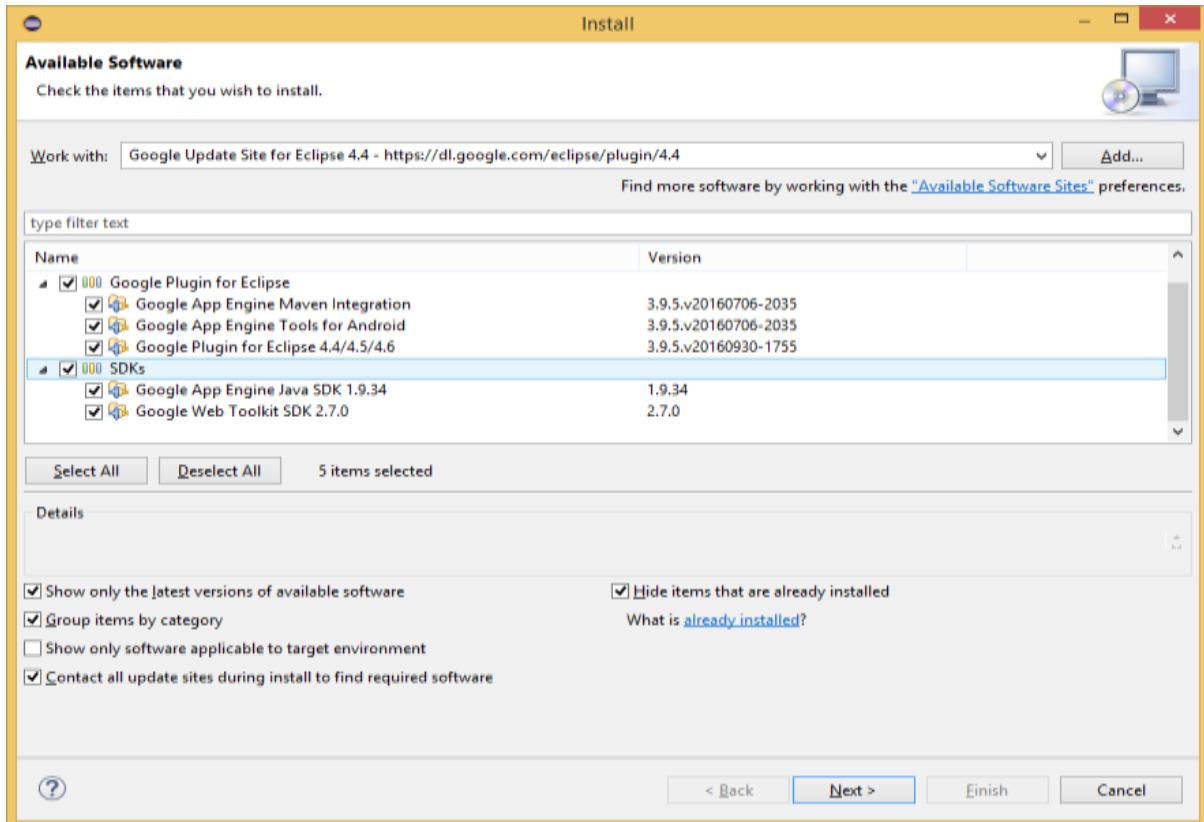


In Install window Click on the "Add" button besides the Work with textbox. Add Repository

window appears. Enter the Location as "https://dl.google.com/eclipse/plugin/4.4" and click on "OK" button.



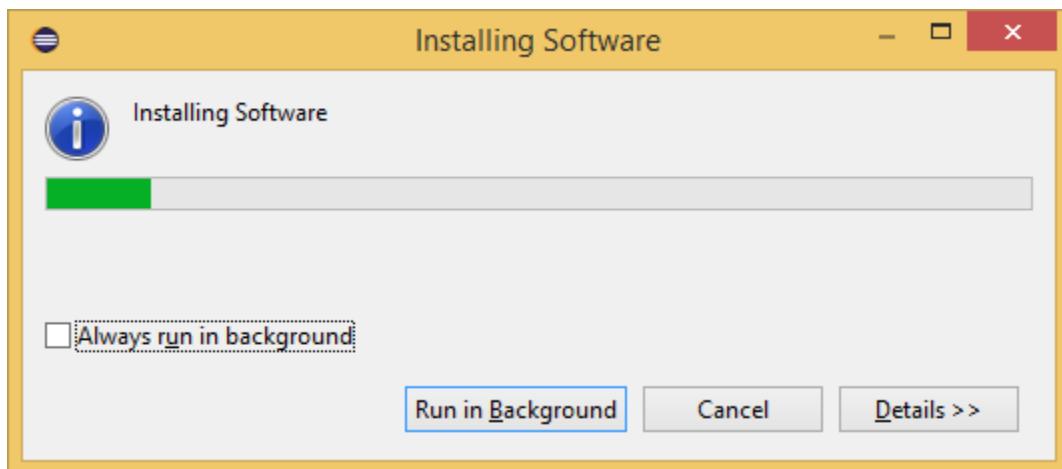
From the available software, select the required software and tools as shown in the below image for the GAE. Then click on the "Next" button.



In the Install Details window click on "Next" button.

In the Next Window "Review the Items to be Installed" then click on "Next"

In the next window for Review Licenses select the option "I accept....." and click on "Finish" button.

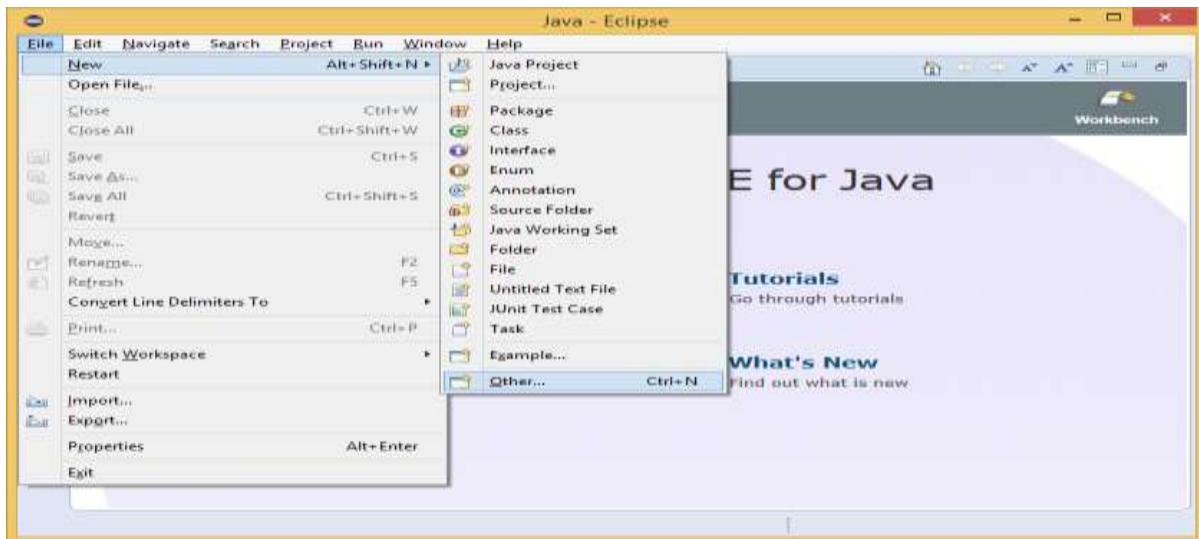


The installation is in progress...

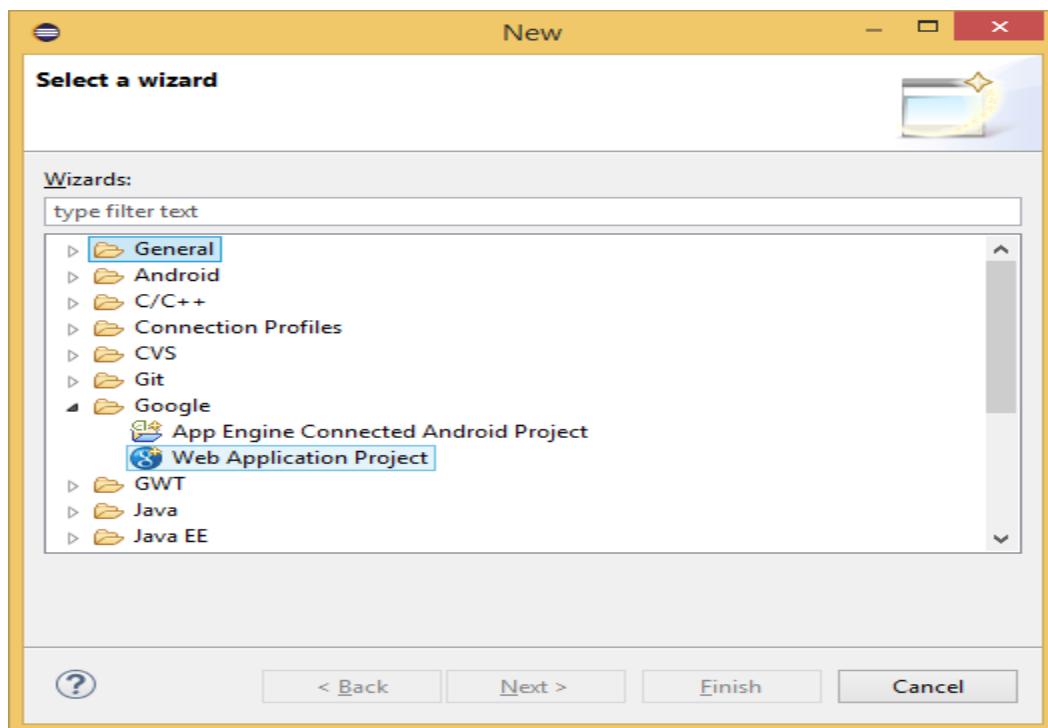
After Installation you will get option to "Restart Eclipse", click on Yes.

So that the software you selected gets updated...

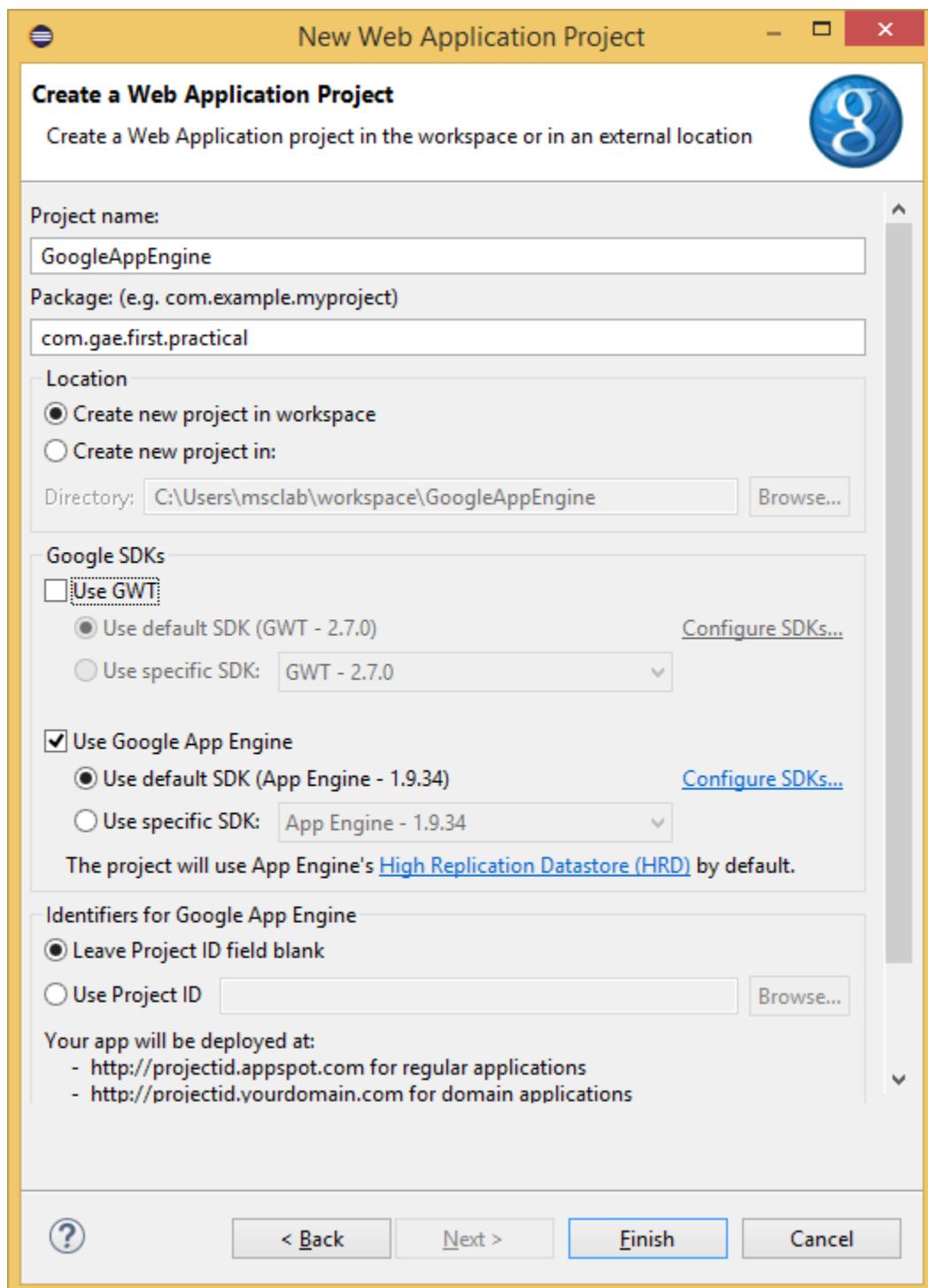
Now, go to FileMenu->New->Other



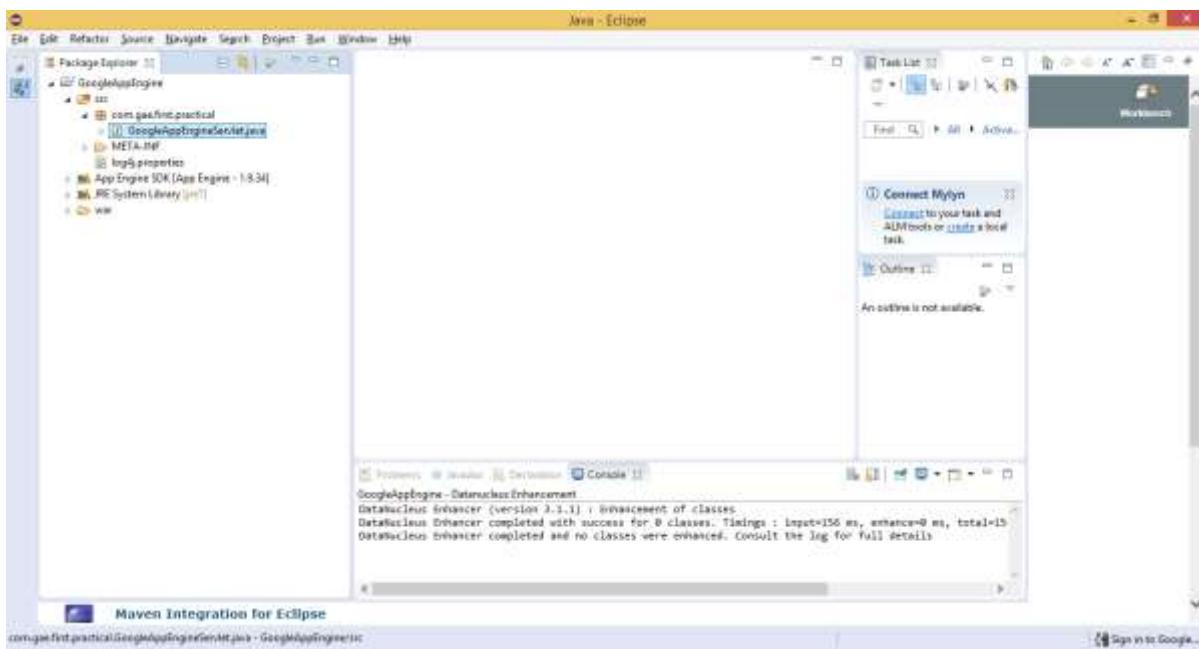
In the New window select Google\_Web Application Project and click on "Next" button.



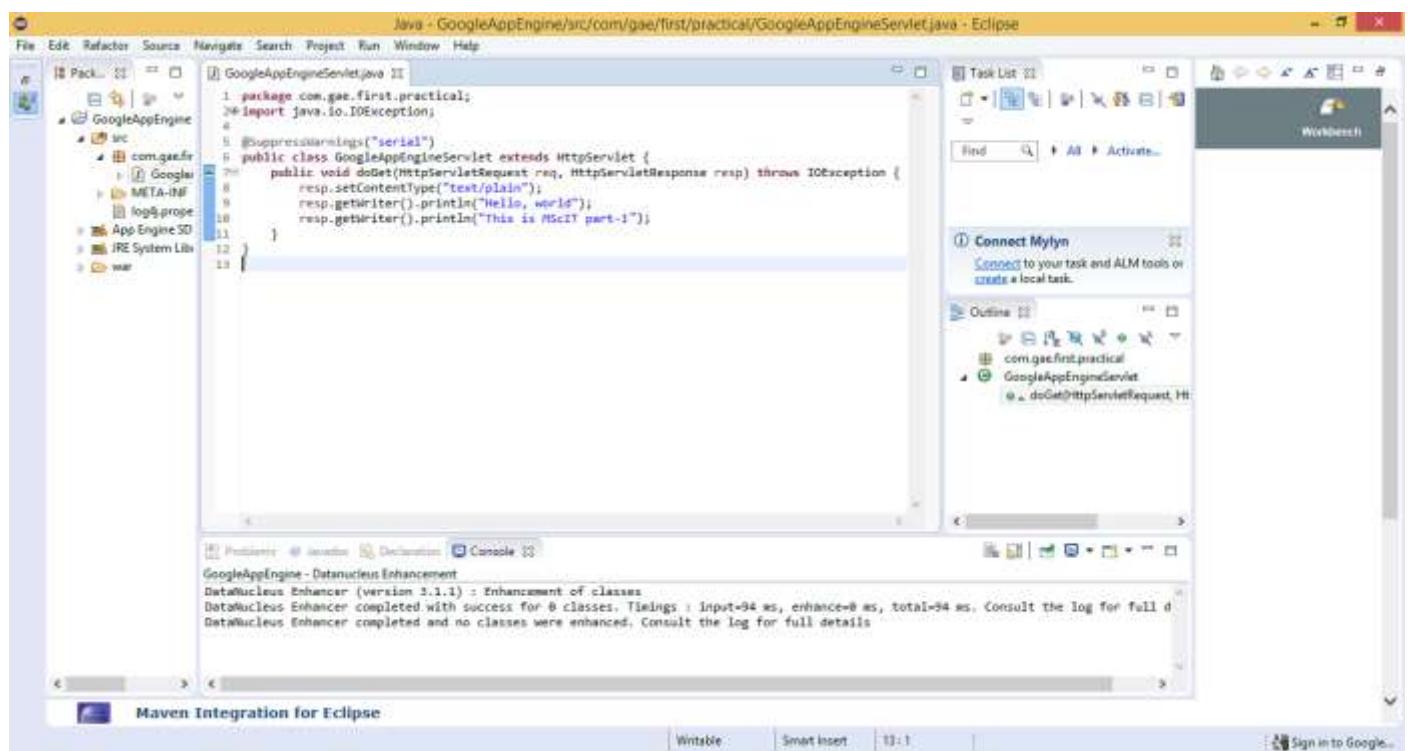
Enter the details for the new Web application project. Deselect the Use Google Web Toolkit option under the section Google SDKs. Click on the "Finish" button.



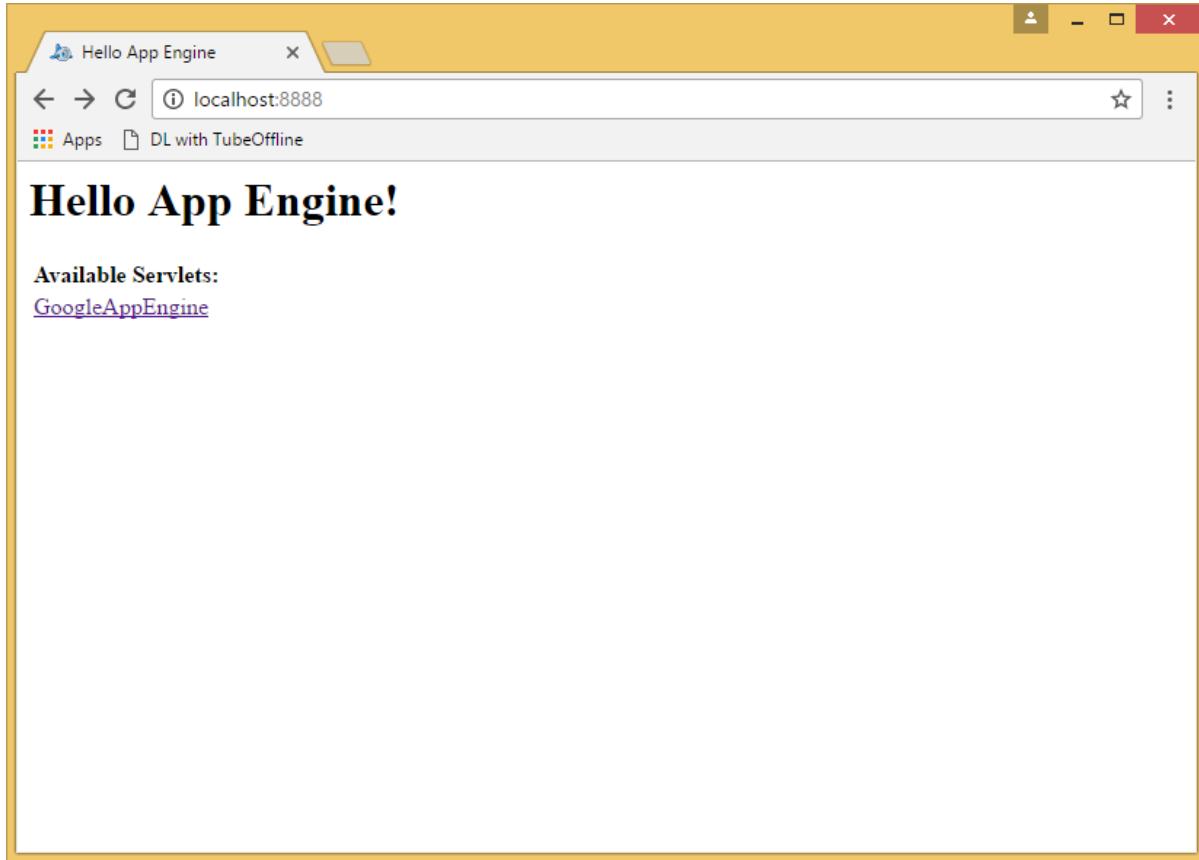
From the Package Explorer open the .java file (Here it is "Google\_App\_EngineServlet.java").



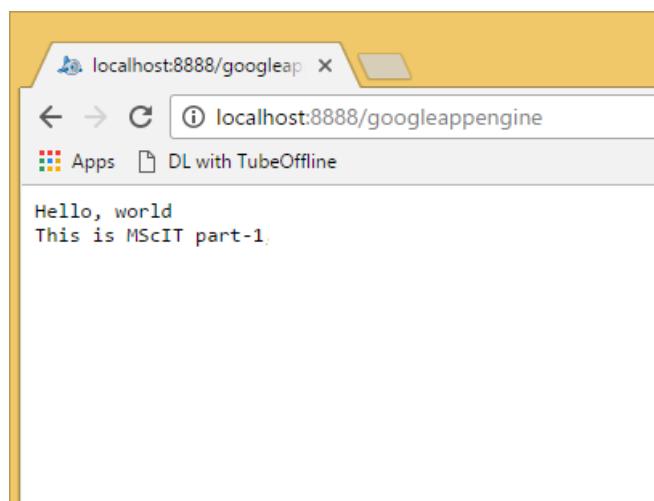
Edit the file as required (Unedited file too can be used). Here the editing is done to "what should be displayed" on the browser). Save the file. Click on the Run option available on the Tools bar.



In the browser (Here, Google Chrome) type the address as "localhost:8888" which is "Default".



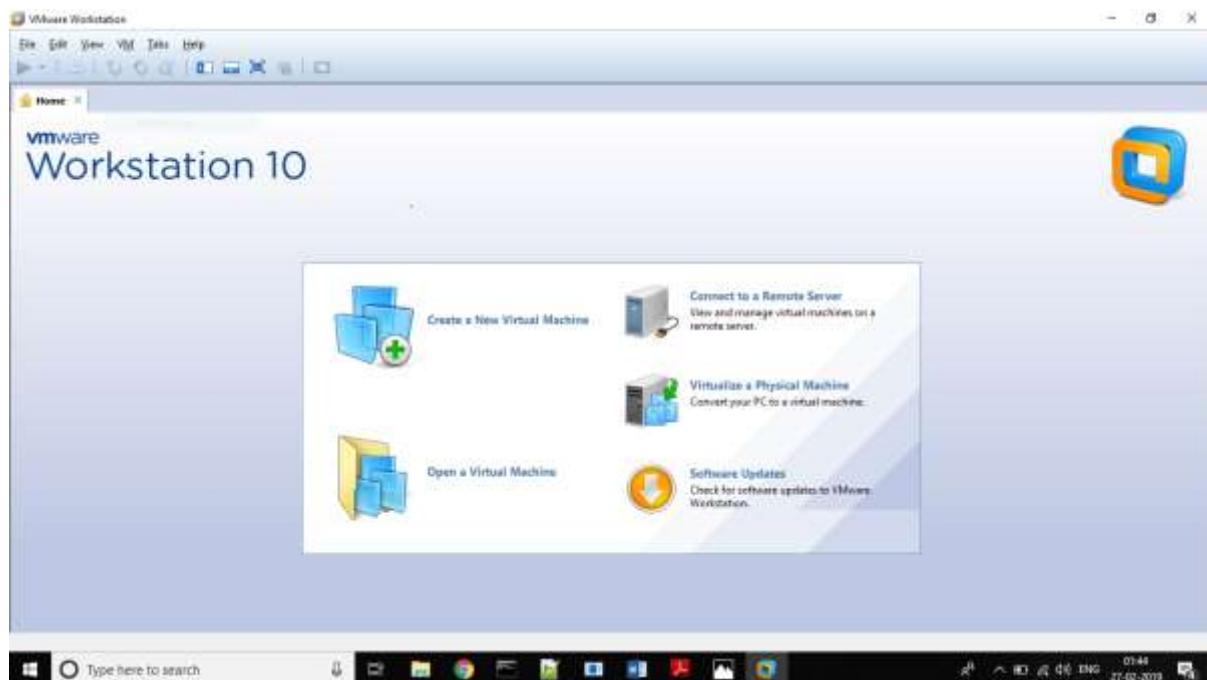
In localhost:8888 link to the `Google_App_EngineServlet.java` file as `Google_App_Engine` is displayed. Click on this link. It will direct you to "localhost:8888/Google\_App\_Engine".



The output text entered in the java program is displayed as the output when clicked the link "Google\_App\_Engine".

## PRACTICAL: 5 IMPLEMENT ESXi SERVER

**Steps:** Open VMware Workstation - And select Create a New Virtual Machine

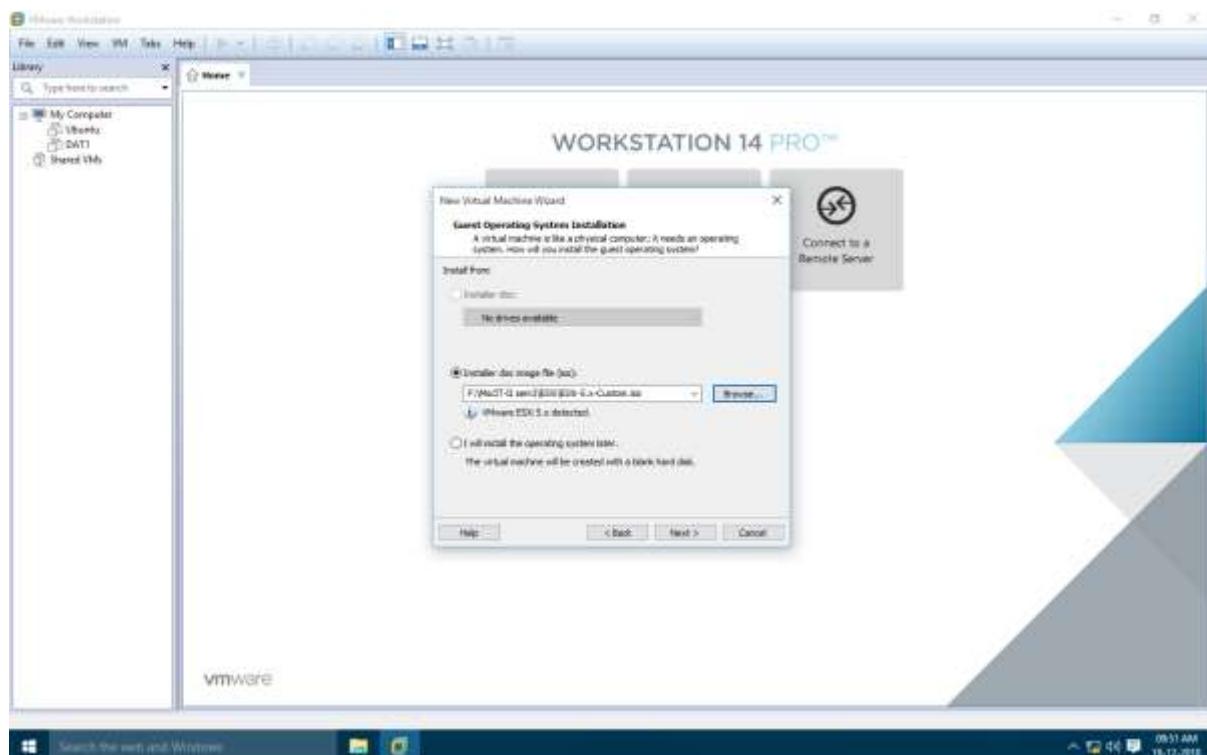


Select Typical and click Next

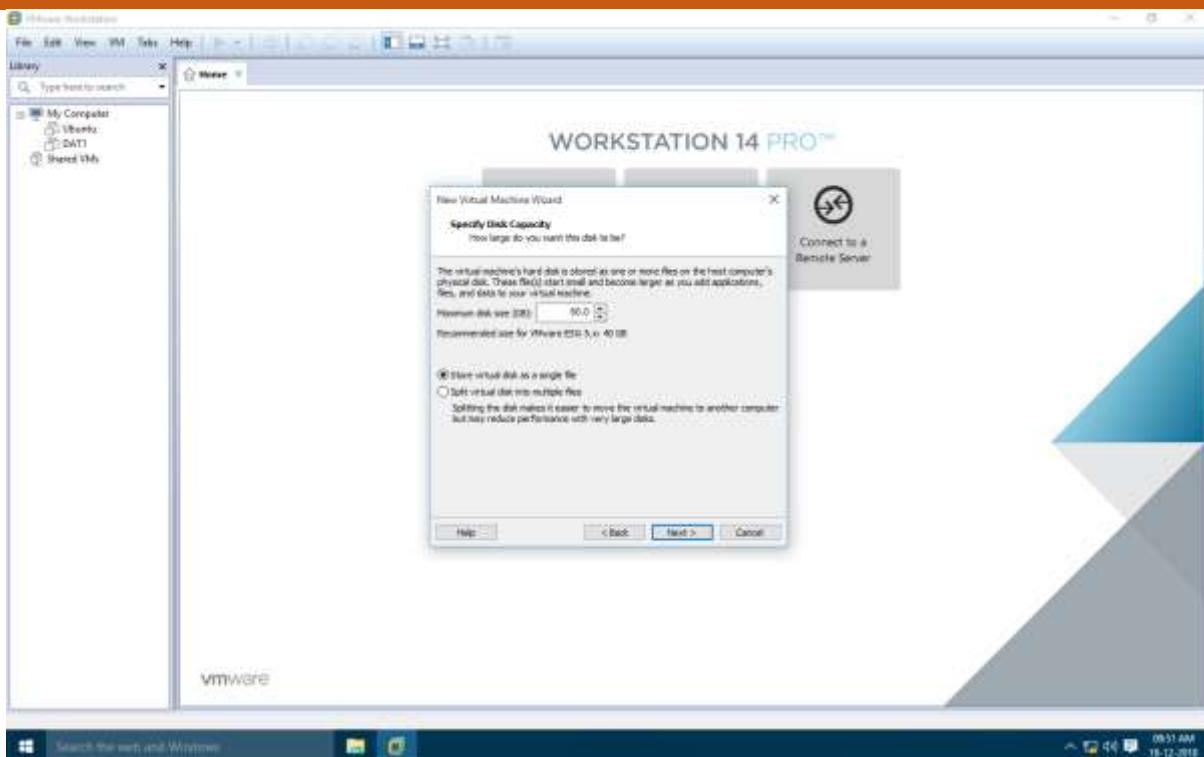


Select Installer disc\_image file(ISO). Click Browse -ESXi-5.x-Custom.iso Iso File - For Example "D:\ccpraxrj\ESXi-5.x-Custom.iso"

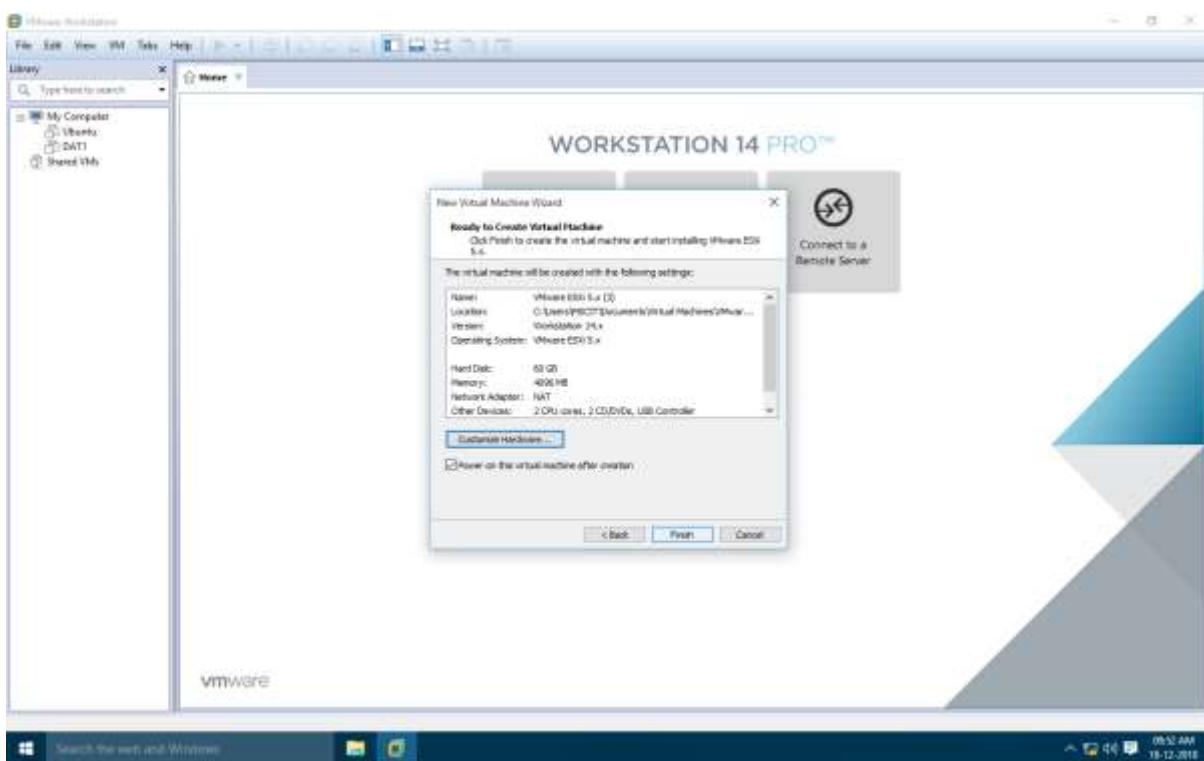
And click on next



Change maximum disk size to 60 GB and check -Store virtual disk as single file

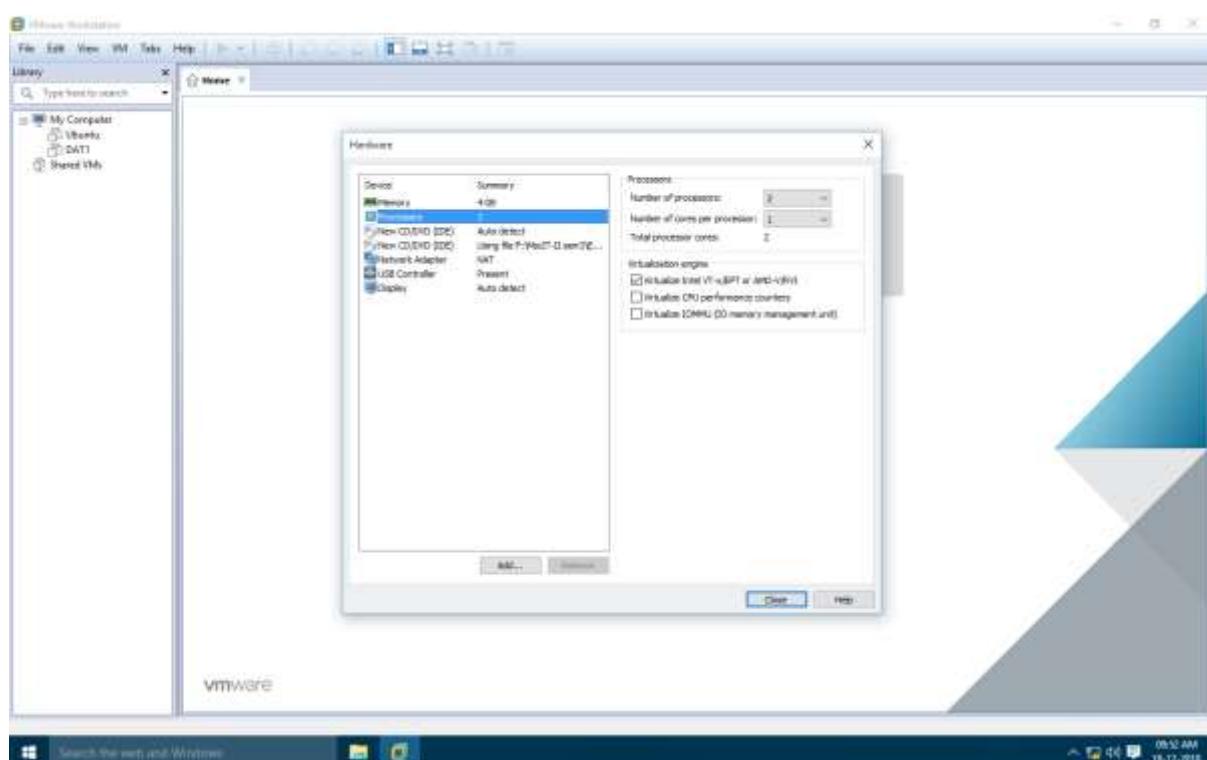


Click on Customize Hardware option

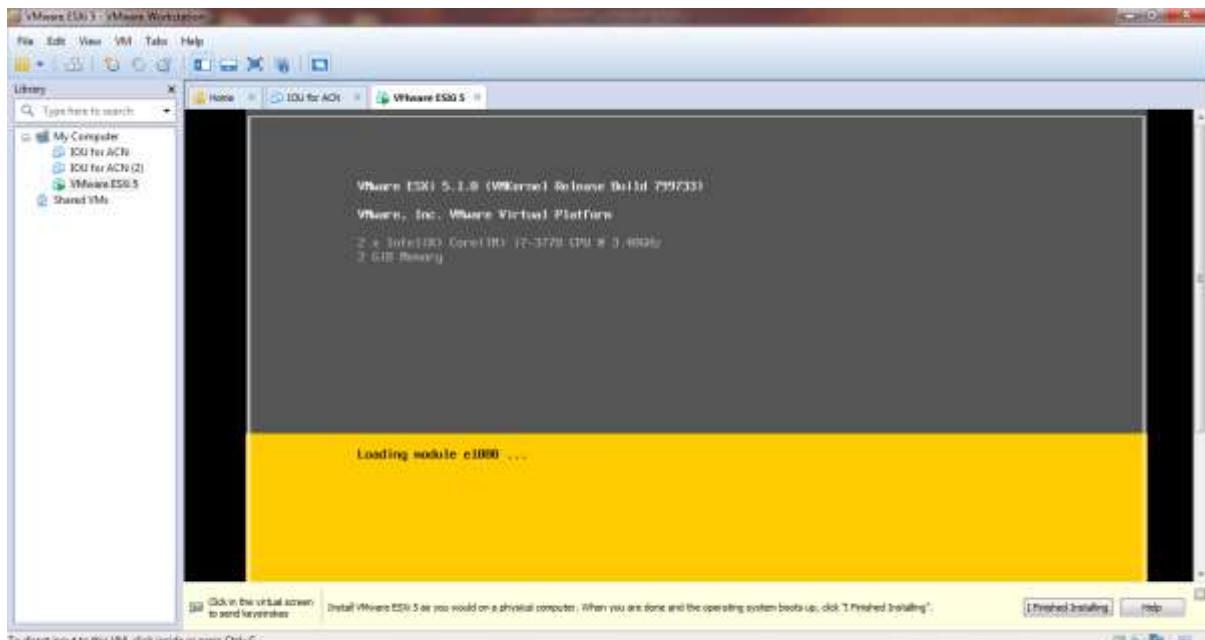


Change - Memory for this virtual machine to 4 GB and Click on Close.

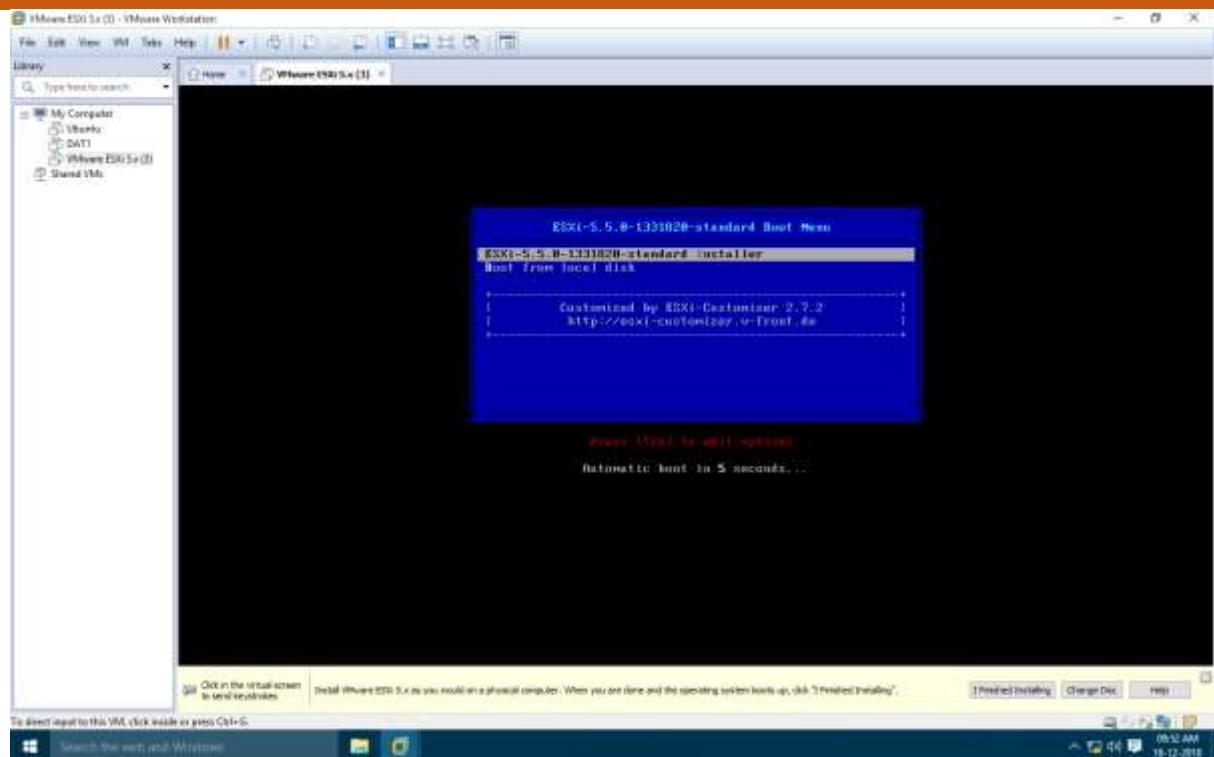
Click on Processor and select virtualize Intel VT



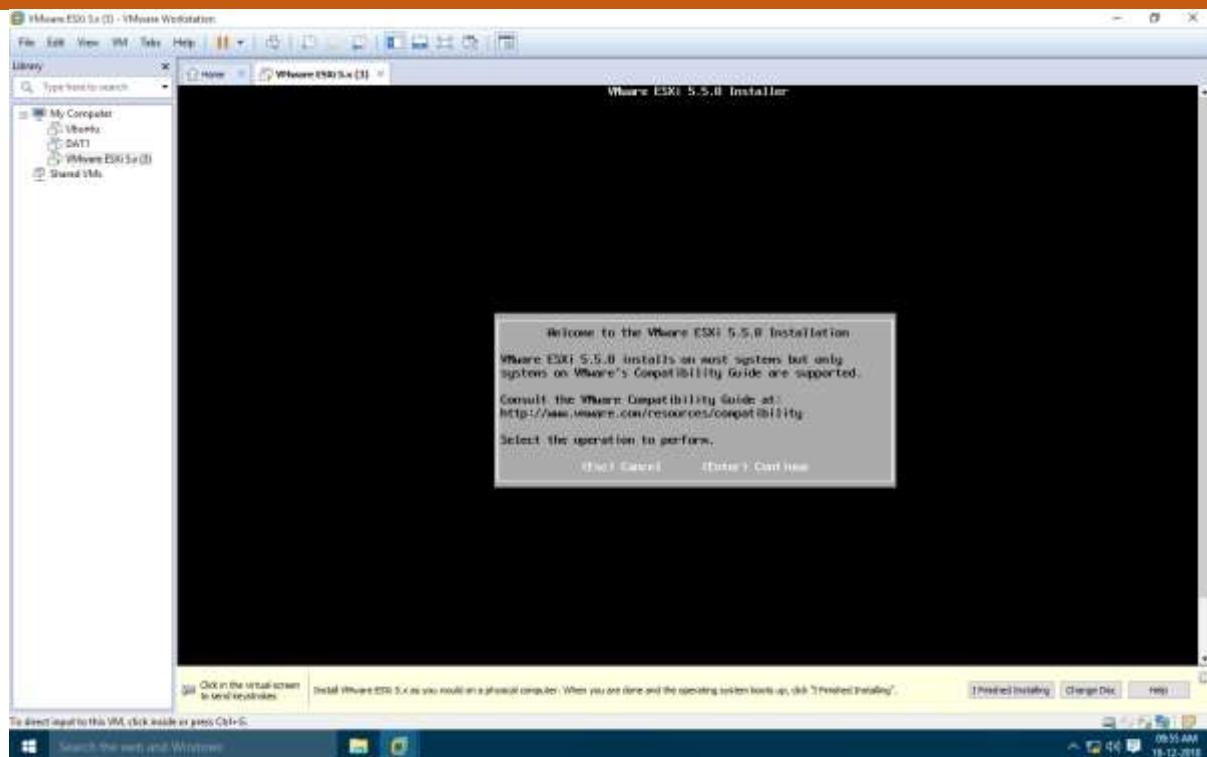
Now Power on newly created Virtual machine -



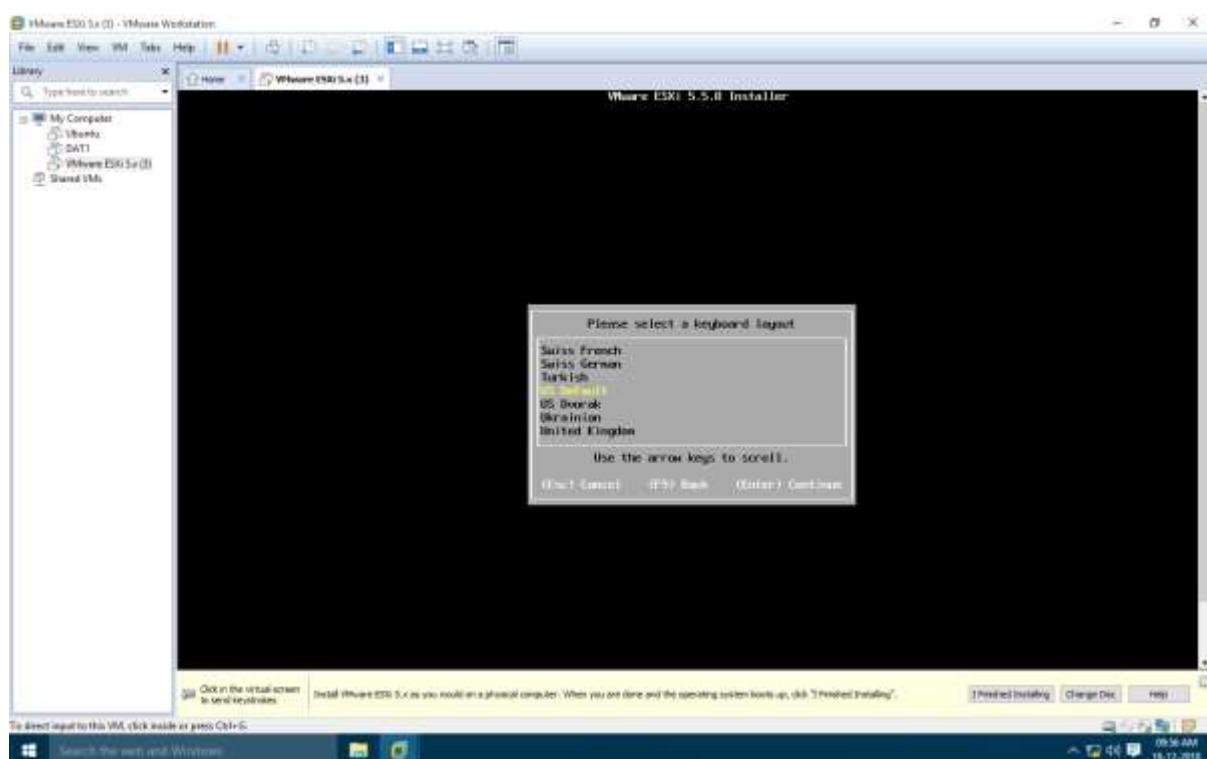
Click on install EXSi server



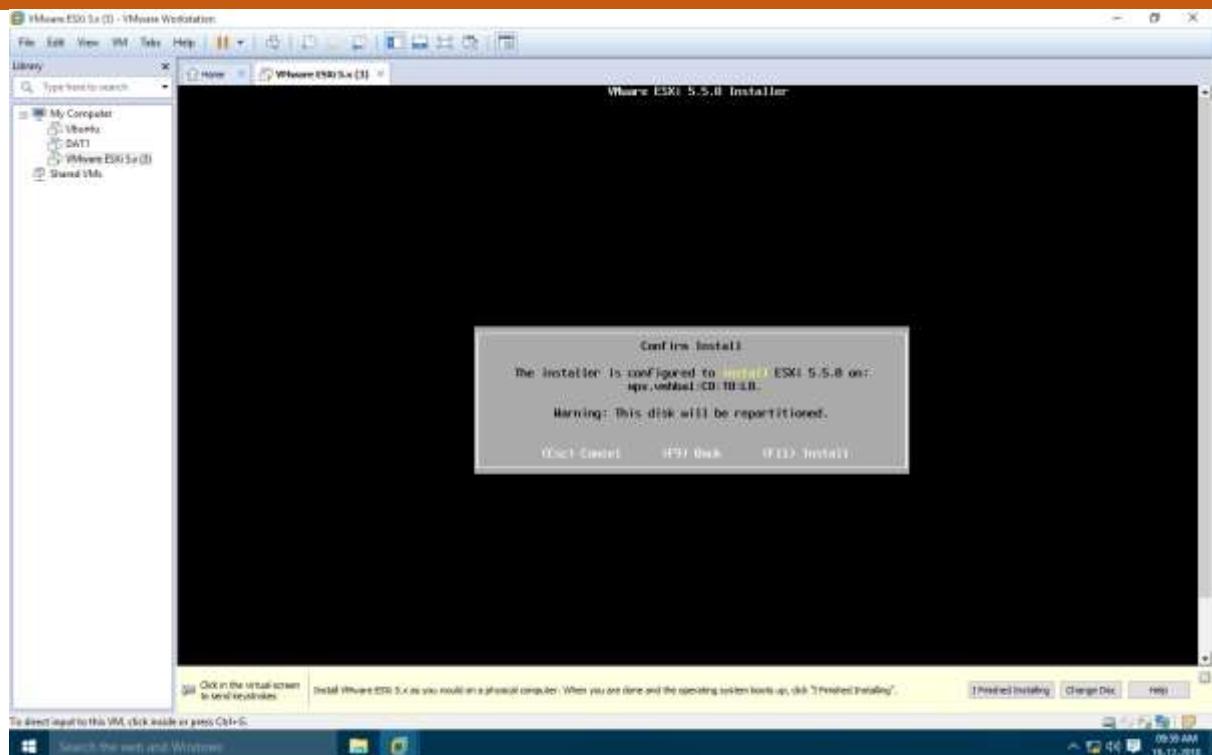
Press enter



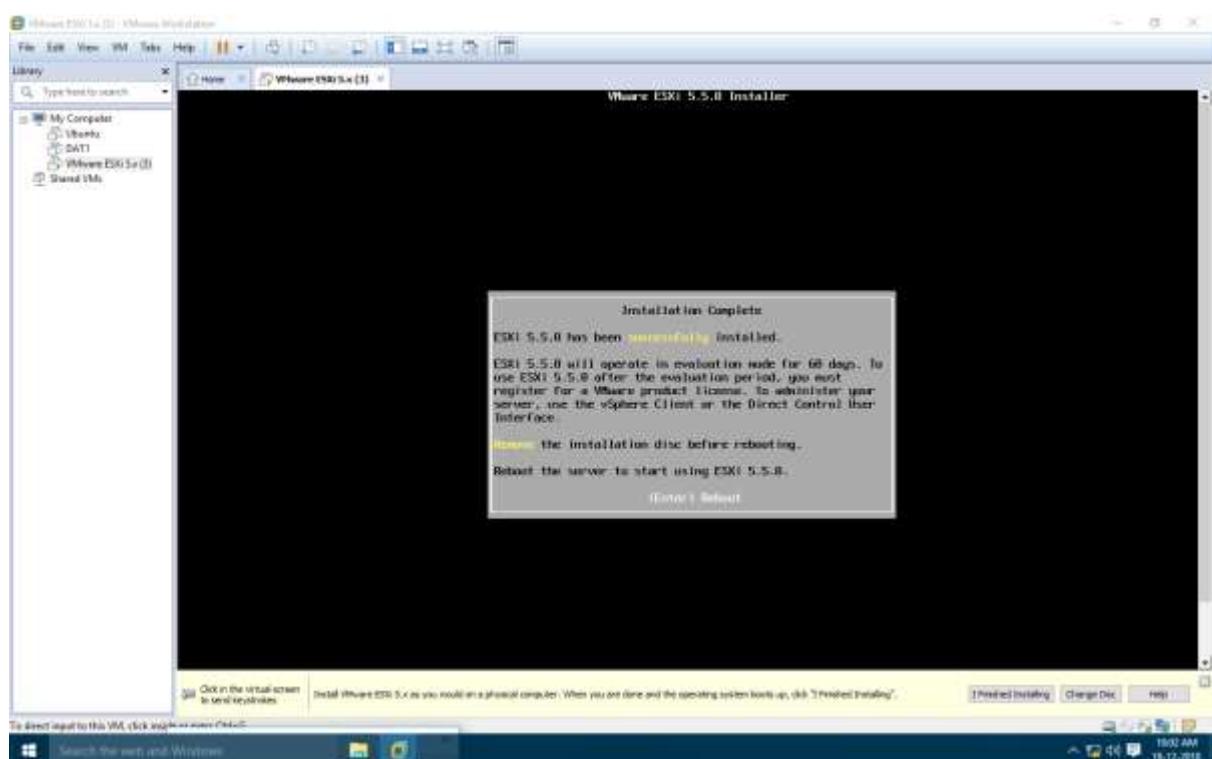
Select us default and click enter

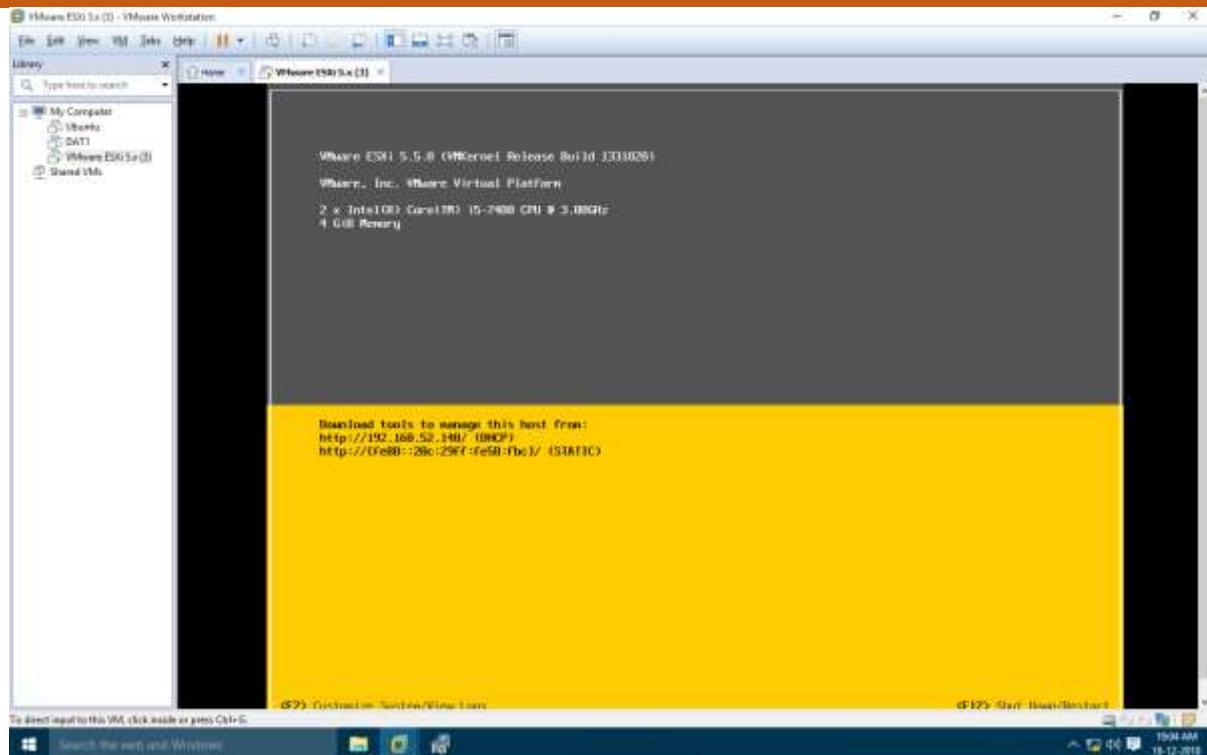


Click install

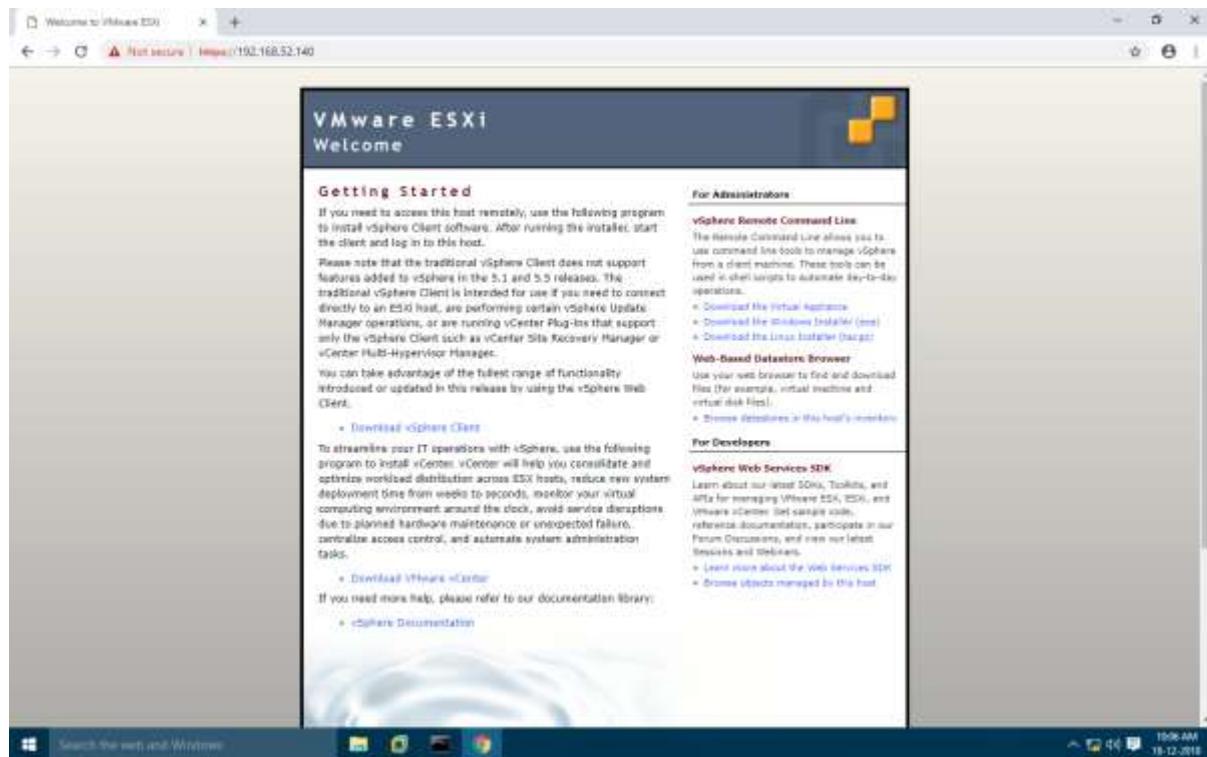


Press enter to reboot the system





Open Browser & type respective IP Address

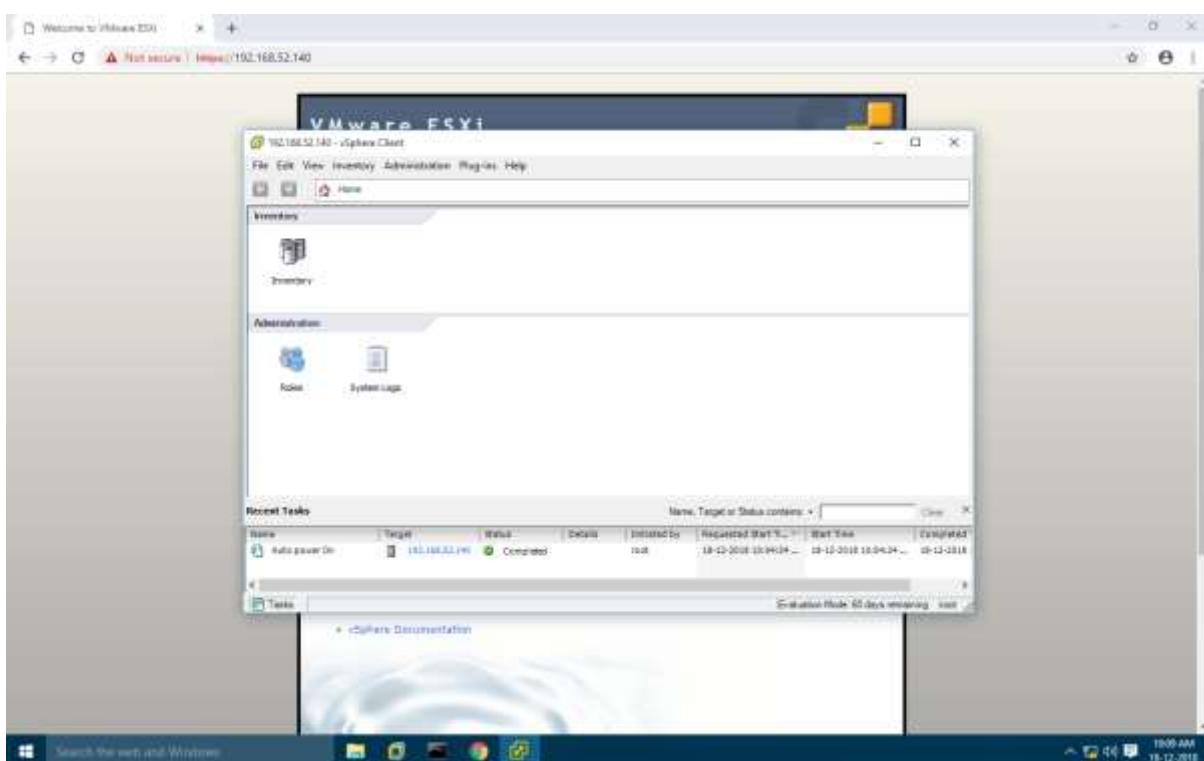
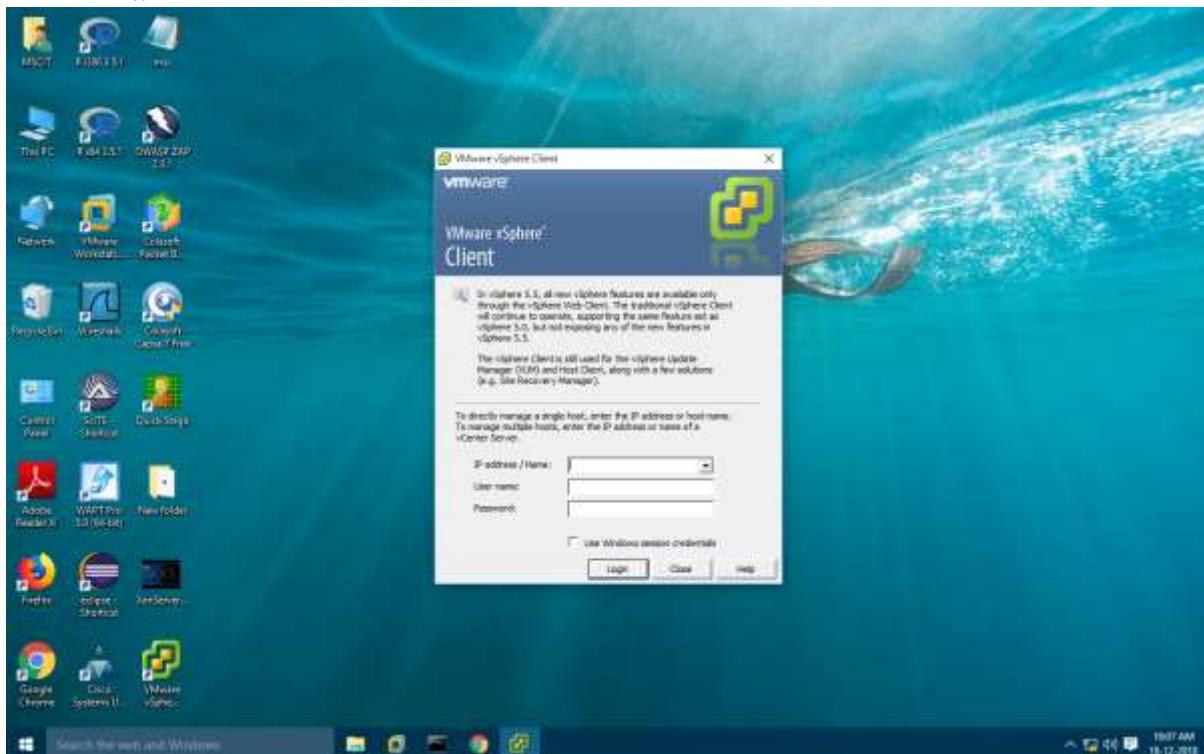


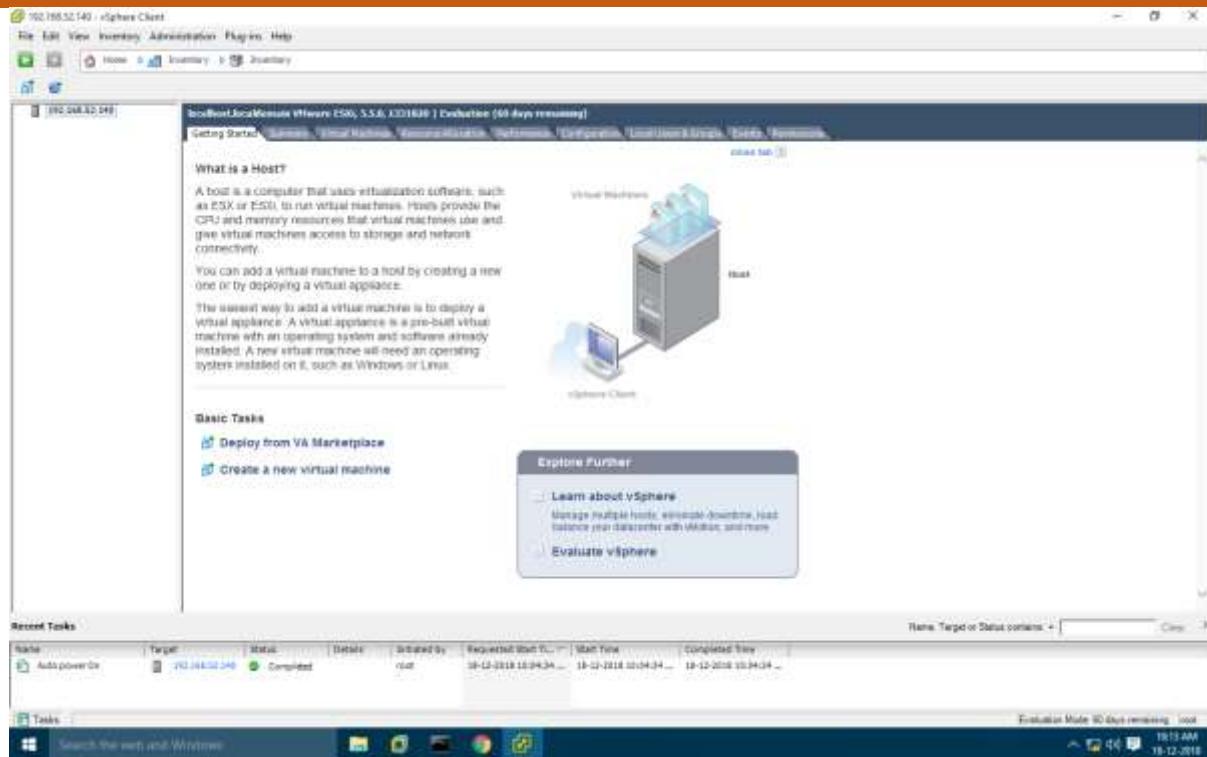
(since we already have vsphereclient so we are not going to download it, first install and open vsphereclient)

VMware vSphere Client

□ Enter IP address (Which was assigned dynamically)

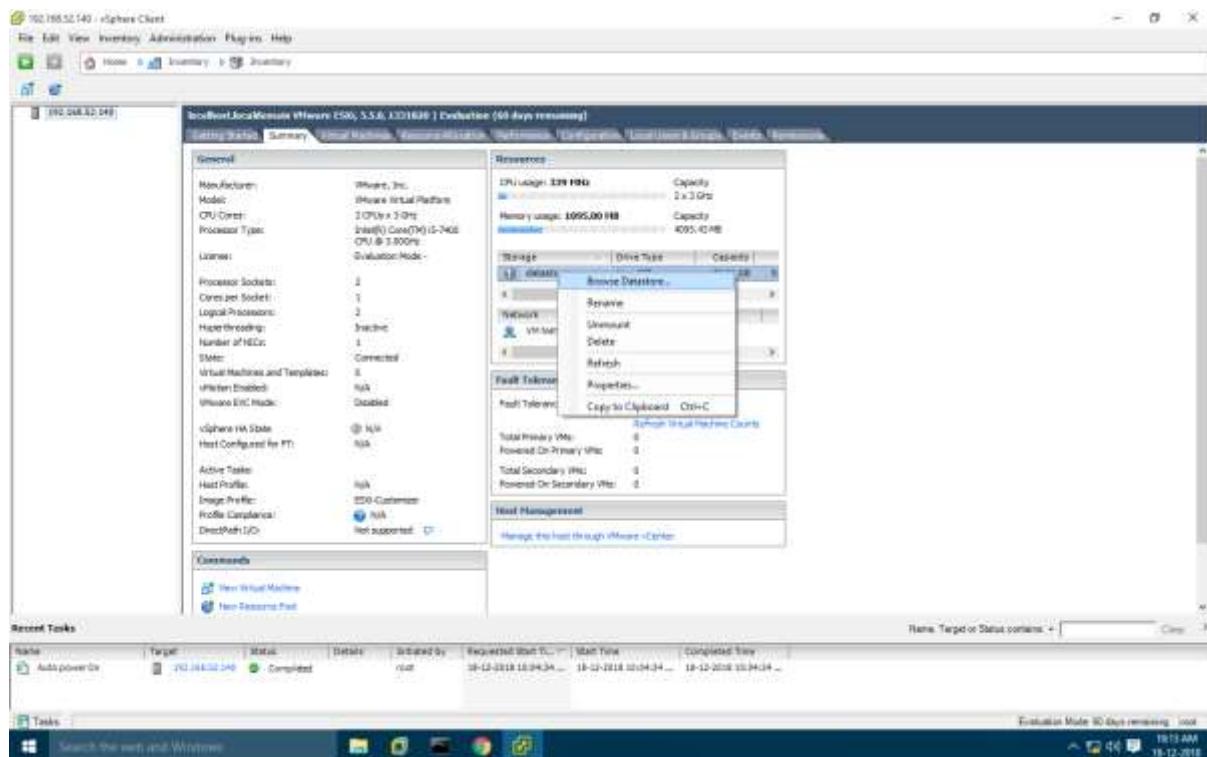
□ Enter Username and Password



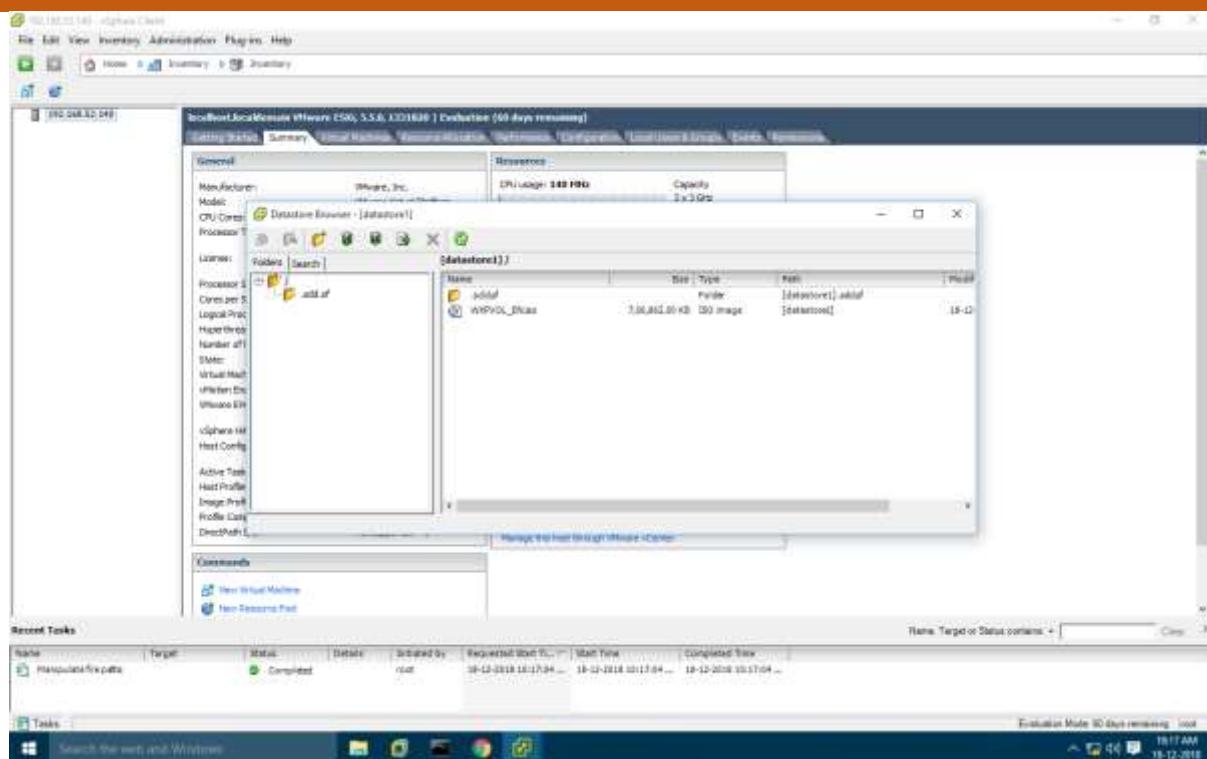


Select Summary tab.

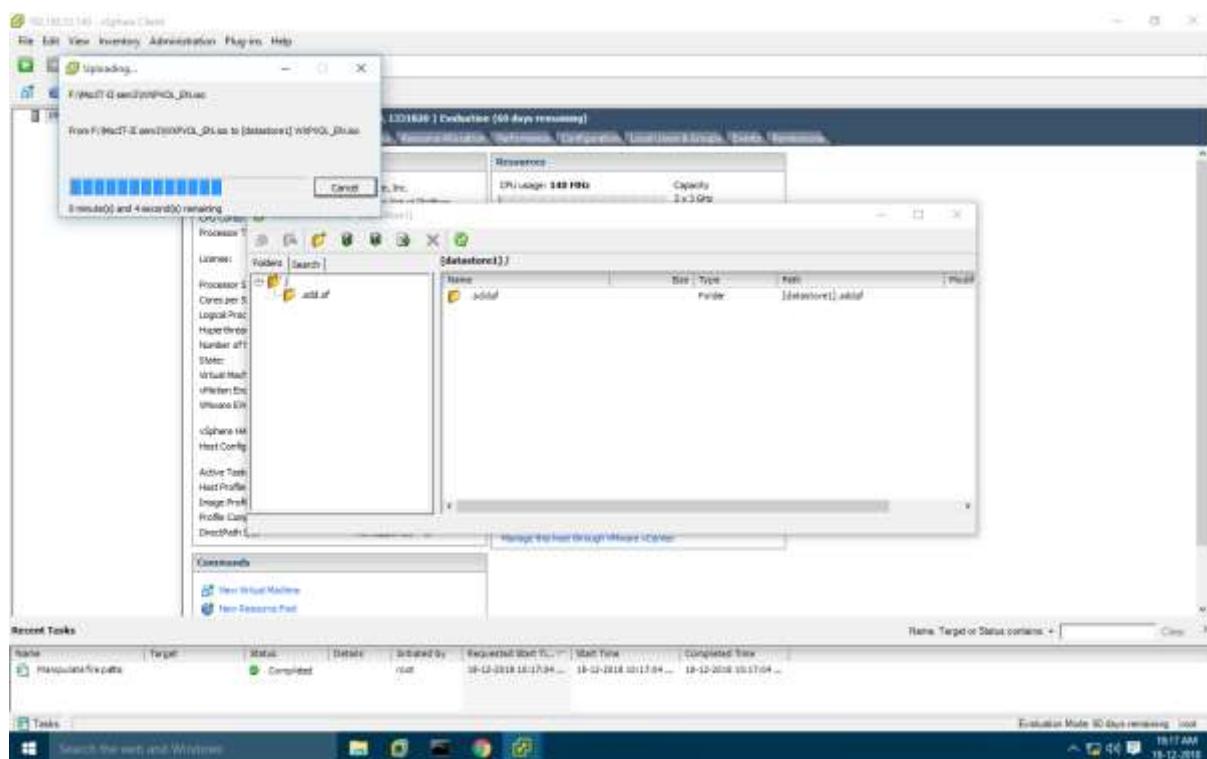
In Storage section, Select on datastore1 and Right-click on Browse Datastore to add iso image of Windows XP in Datastore.



Click on Upload Icon and Select Upload File.

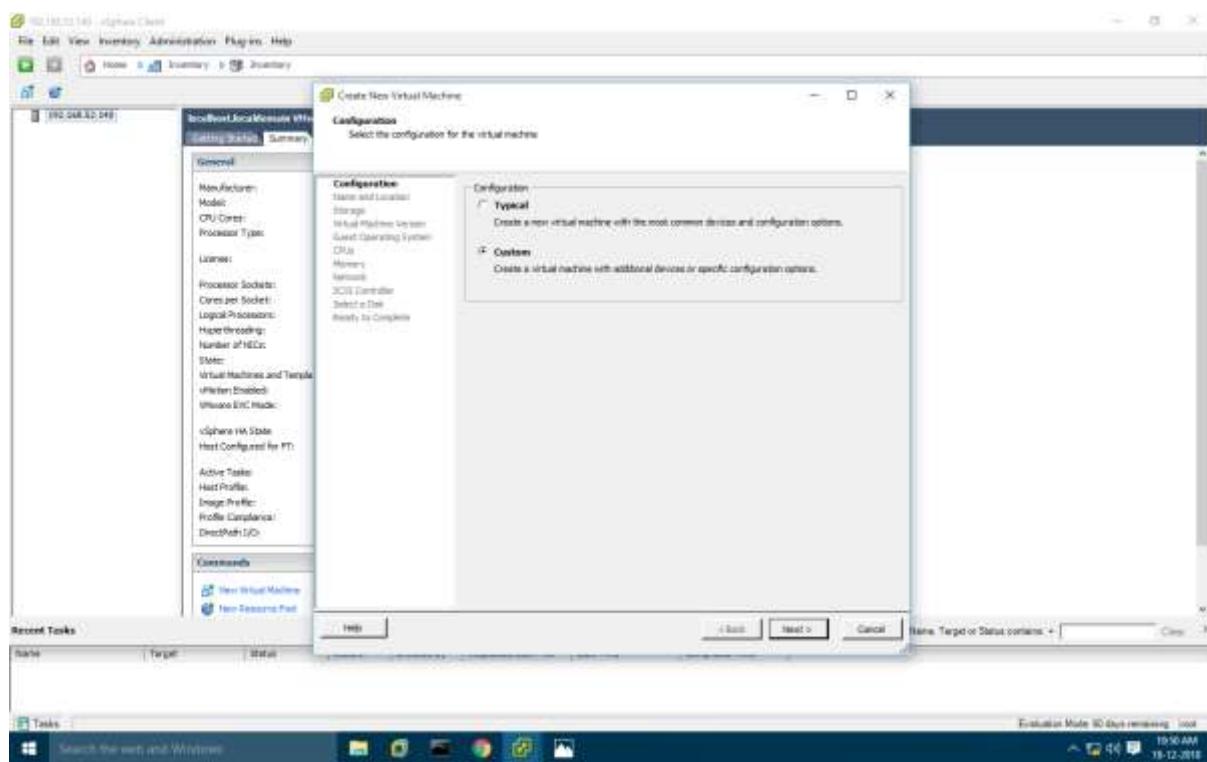


Click on Yes

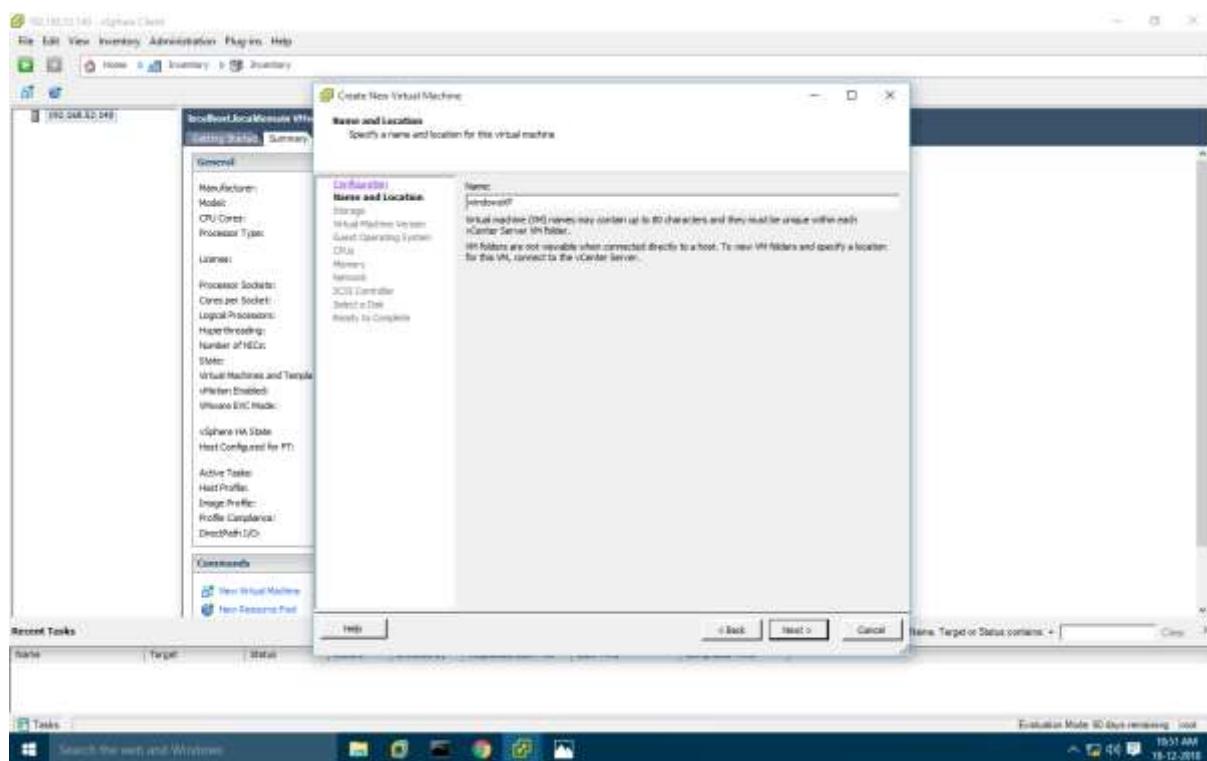


Click on File > New > Virtual Machine.

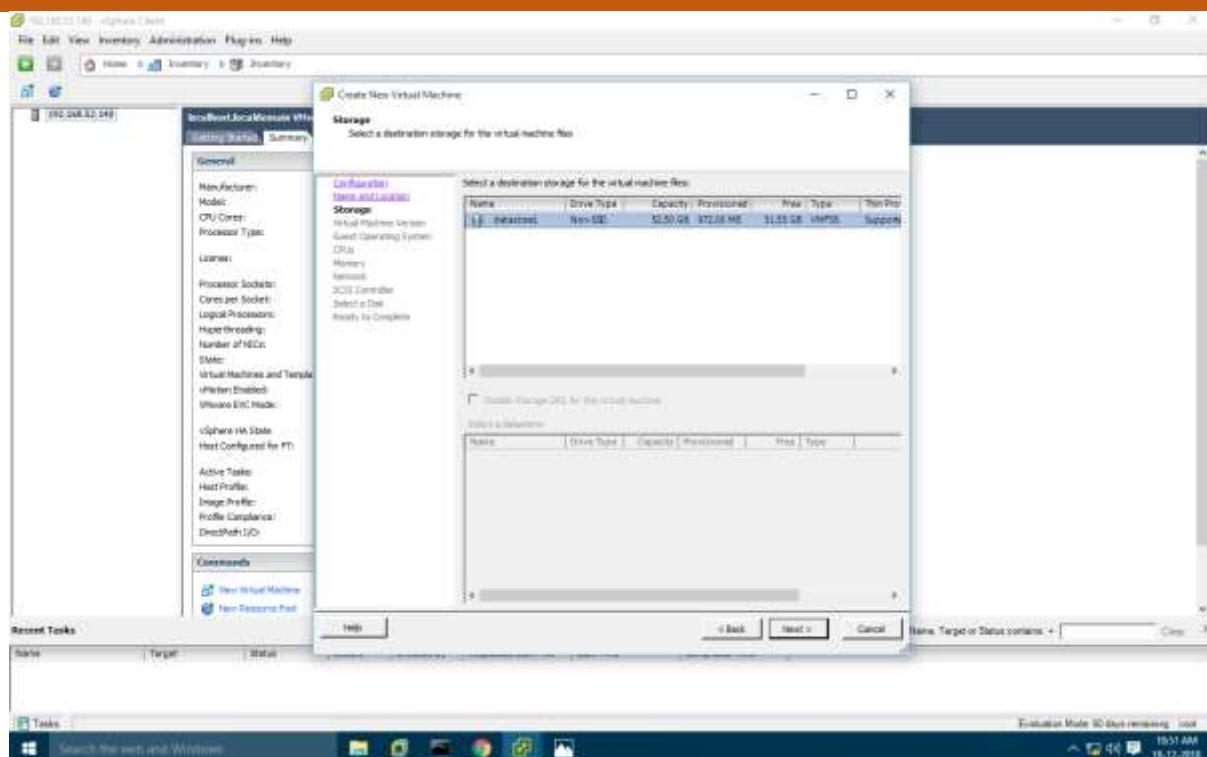
## Configuration : Select Custom configuration.



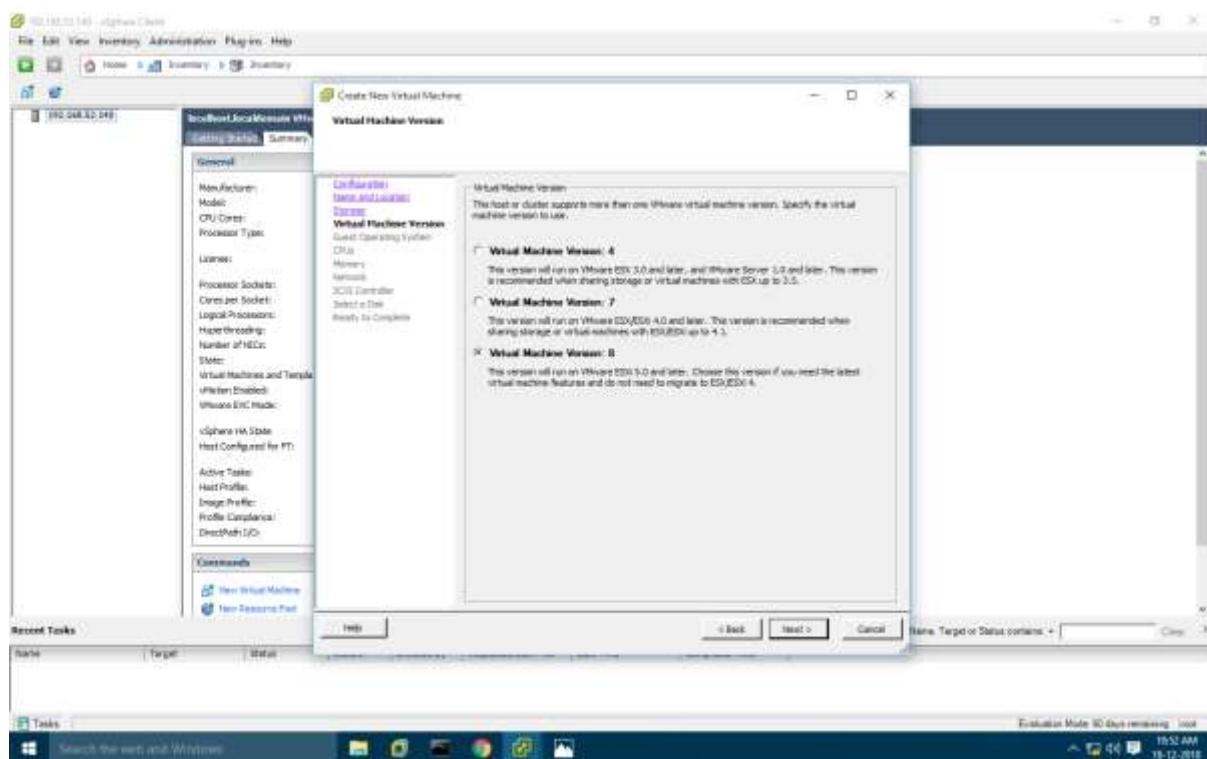
Name and Location: Give name to a Virtual Machine(Windows XP)



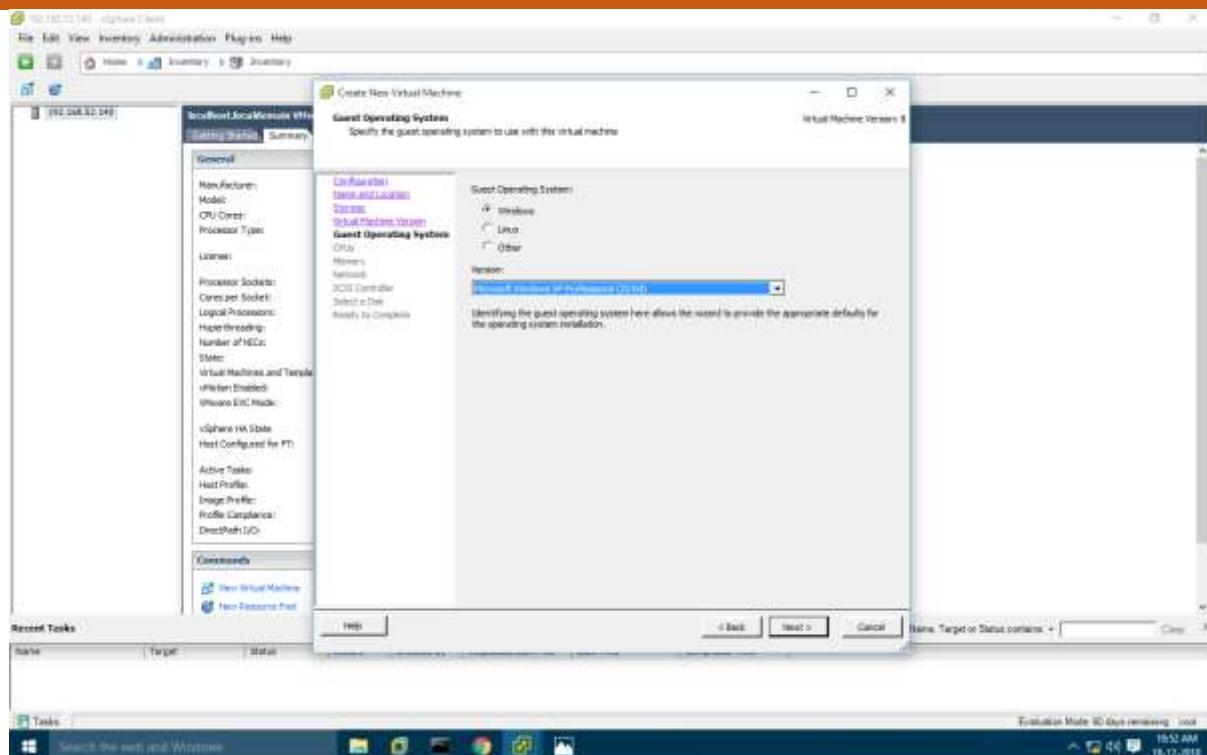
Storage:Select datastore1 and click Next



### Virtual Machine version : Select Virtual Machine version 8



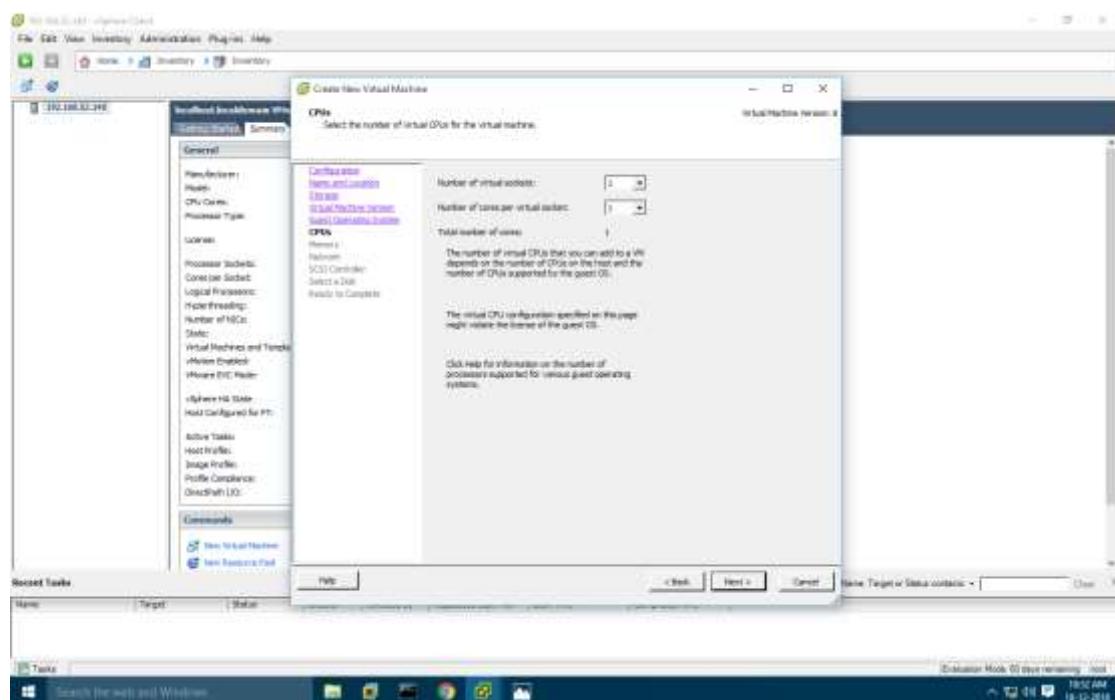
**Guest Operating System: Windows  
Version: Microsoft windows XP Professional (32-bit)**



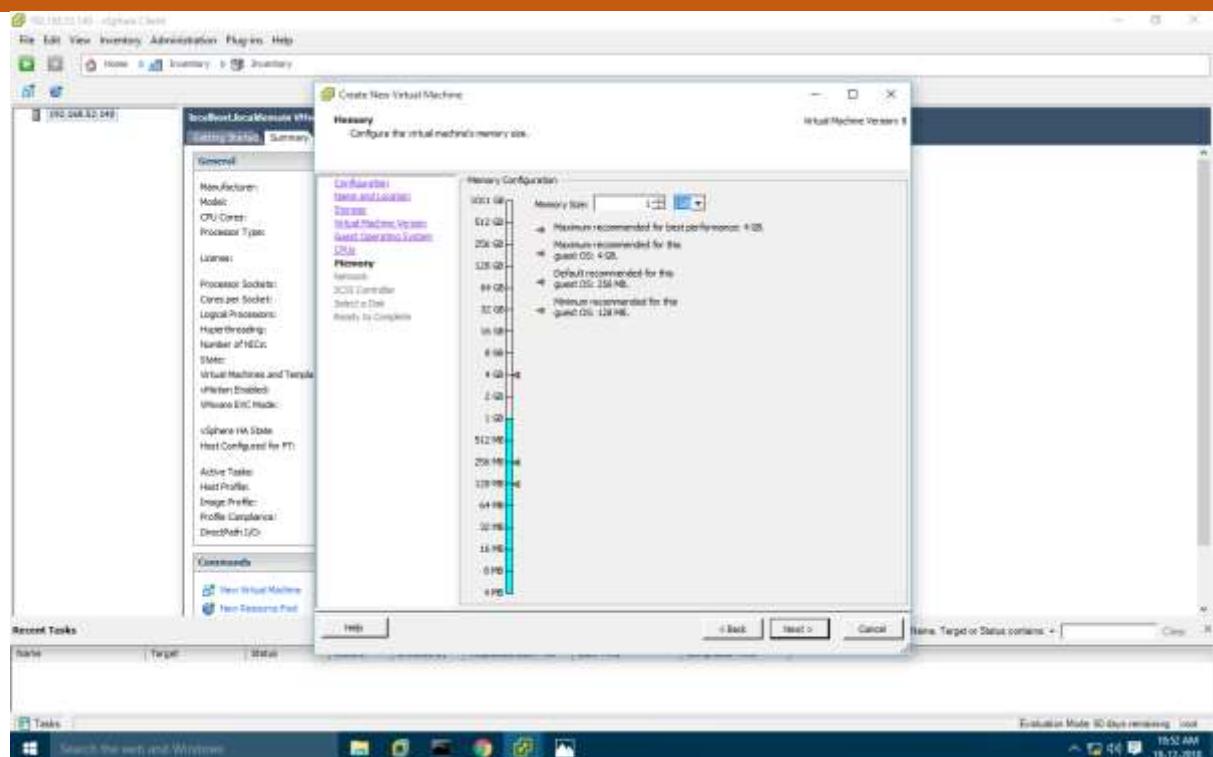
CPUs :

Number of virtual sockets : 1

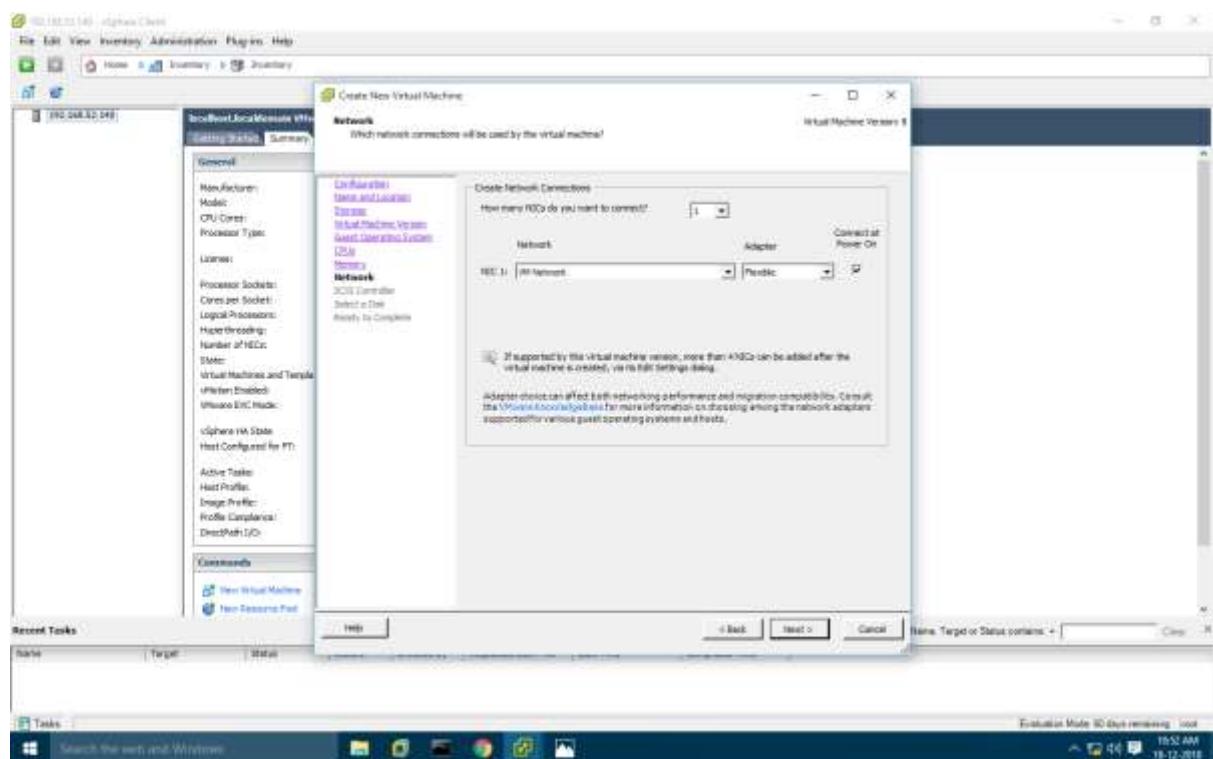
Number of cores per virtual socket: 1

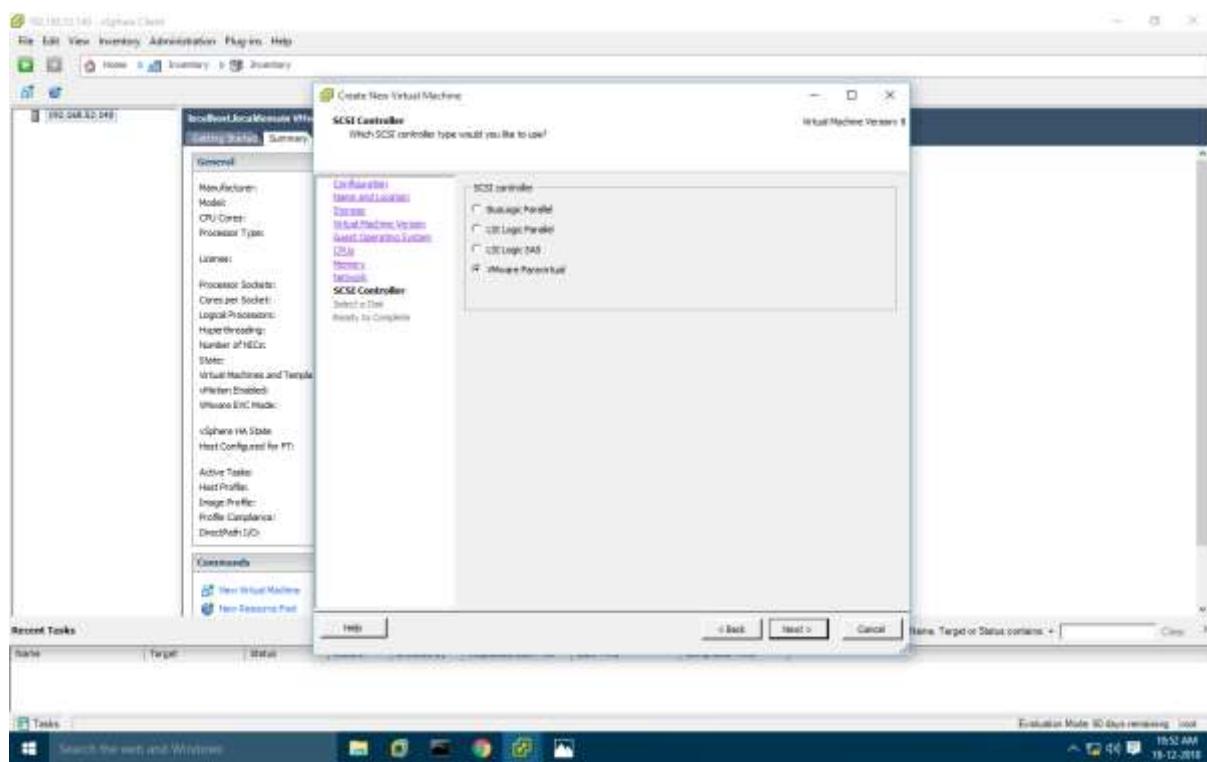


Memory: Memory Size : 1 GB

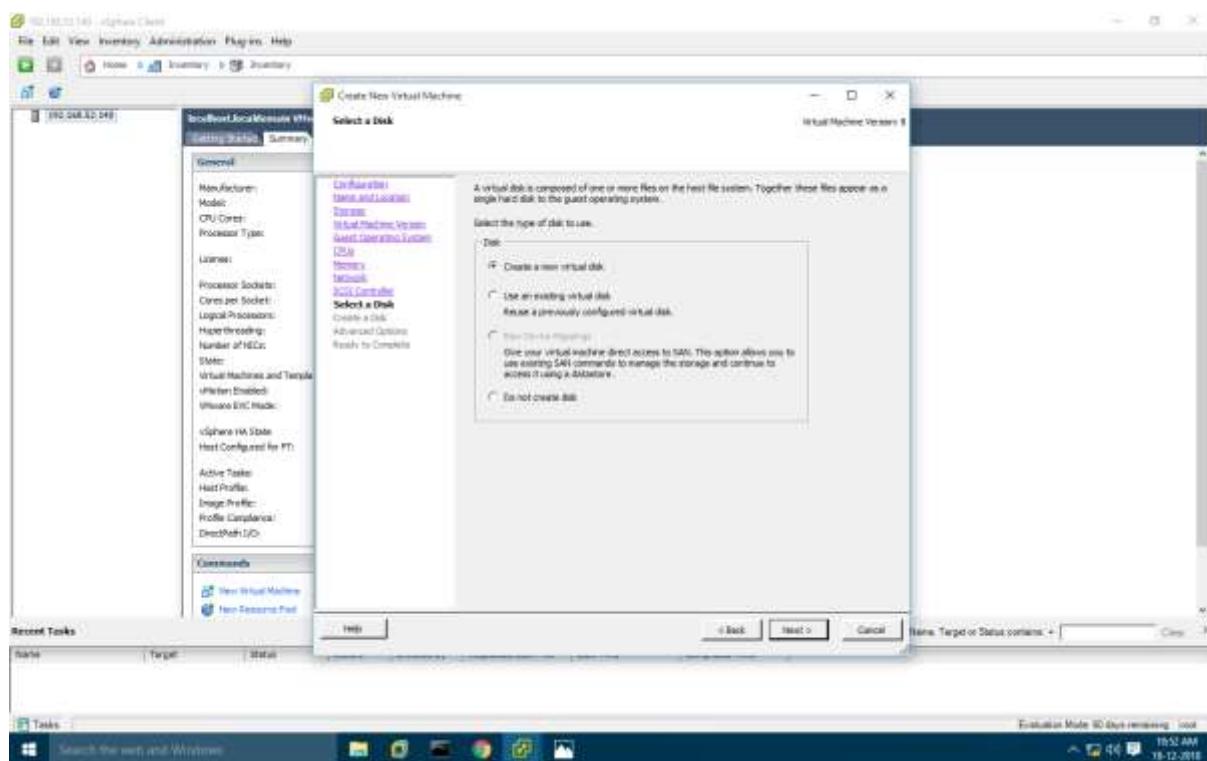


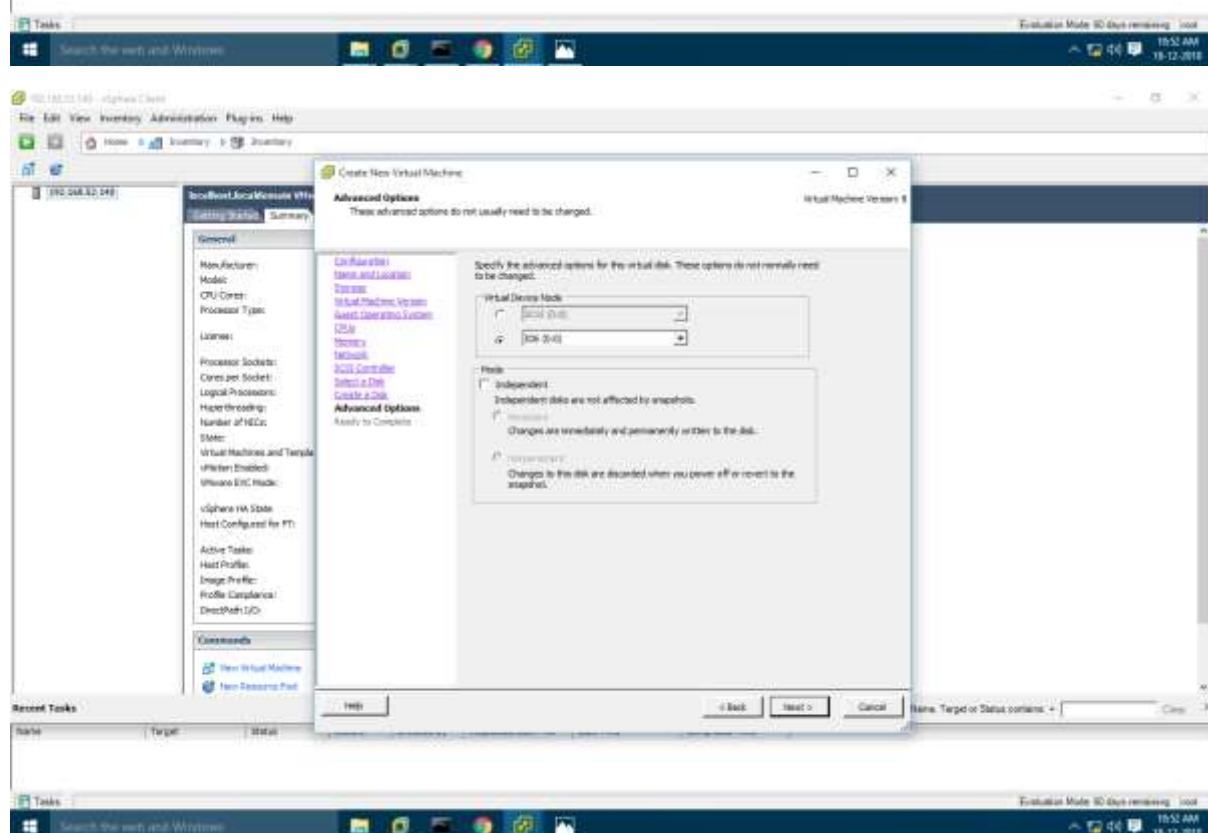
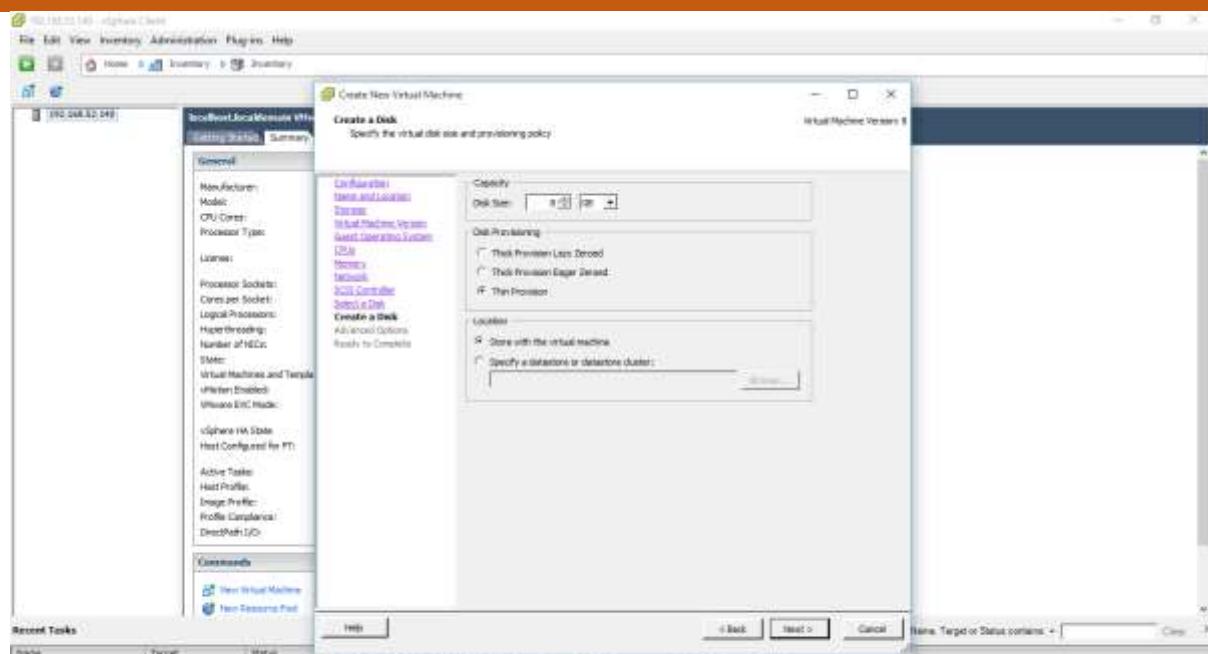
## Network: Number of NICs : 1



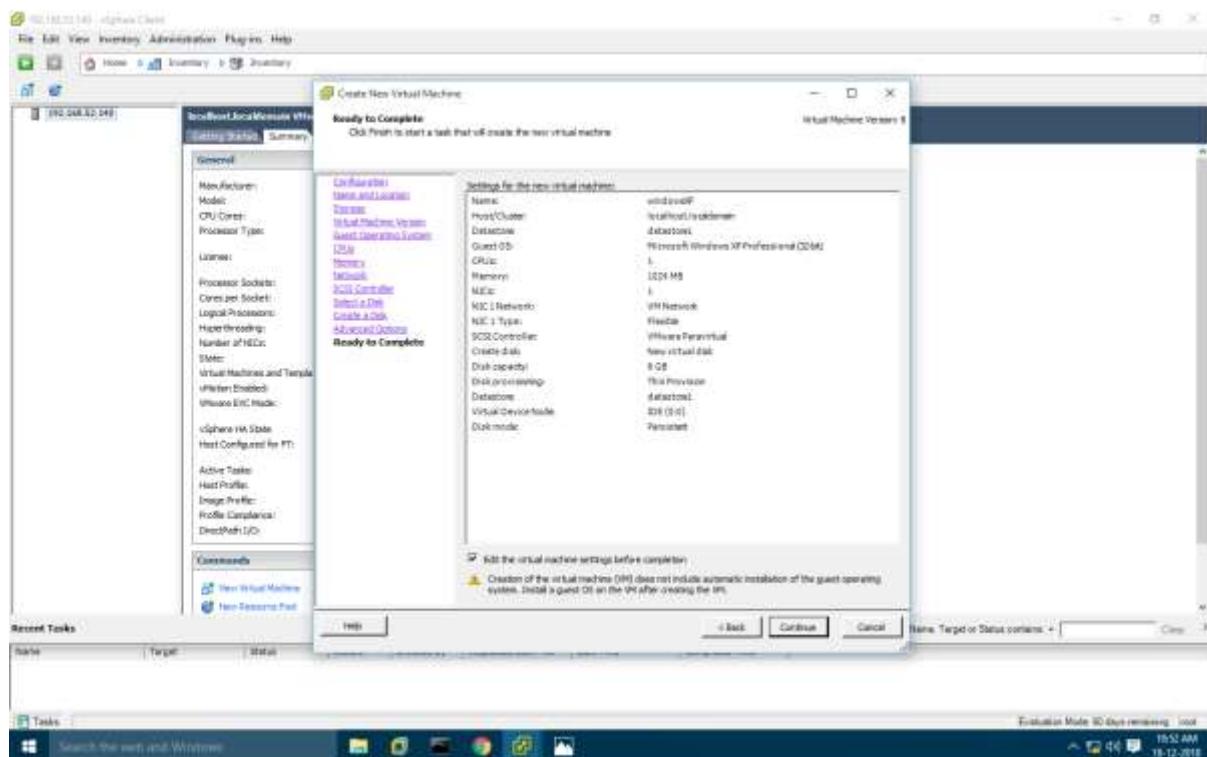
**SCSI Controller : VMware Paravirtual**

Select a Disk: create new virtual disk.

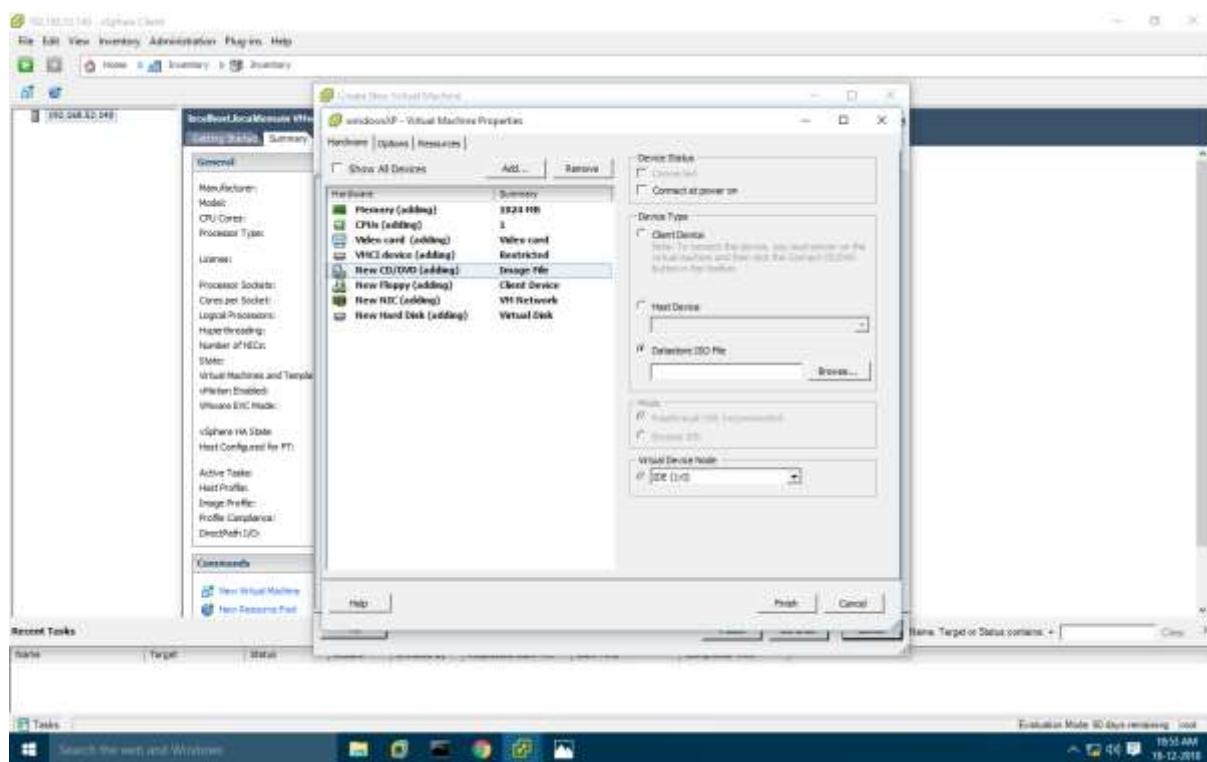


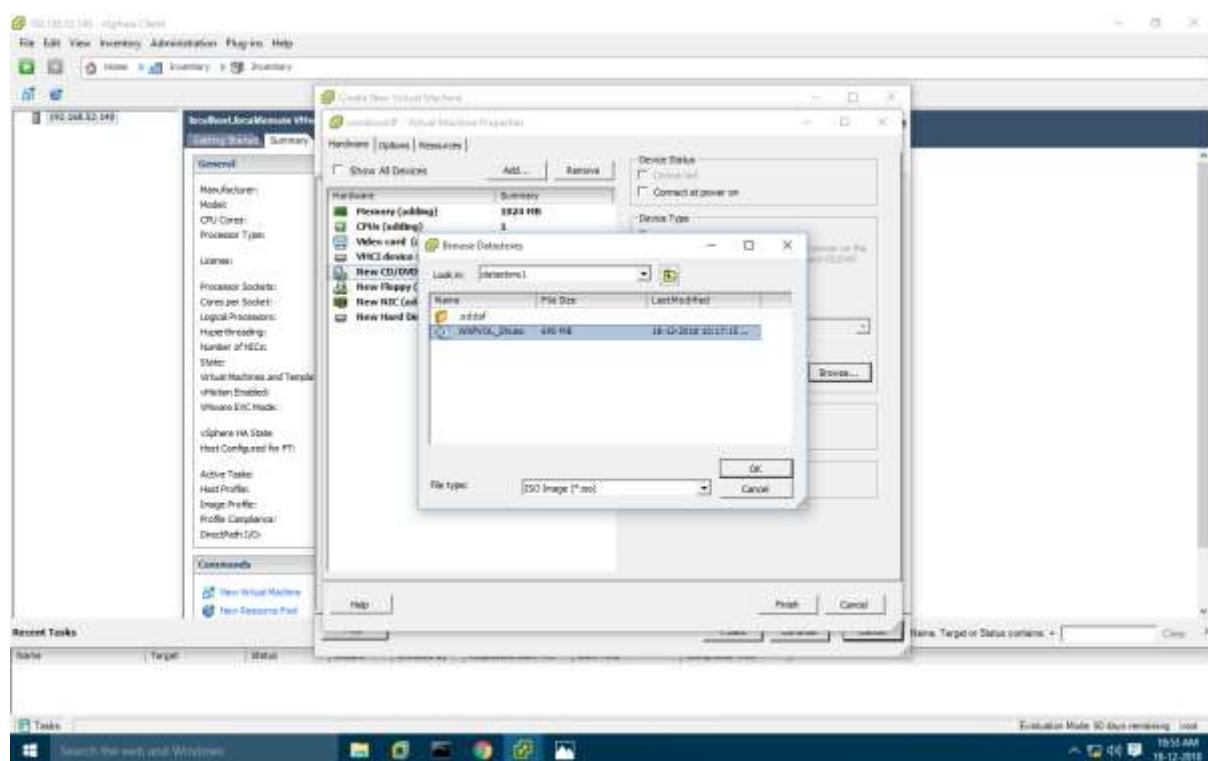
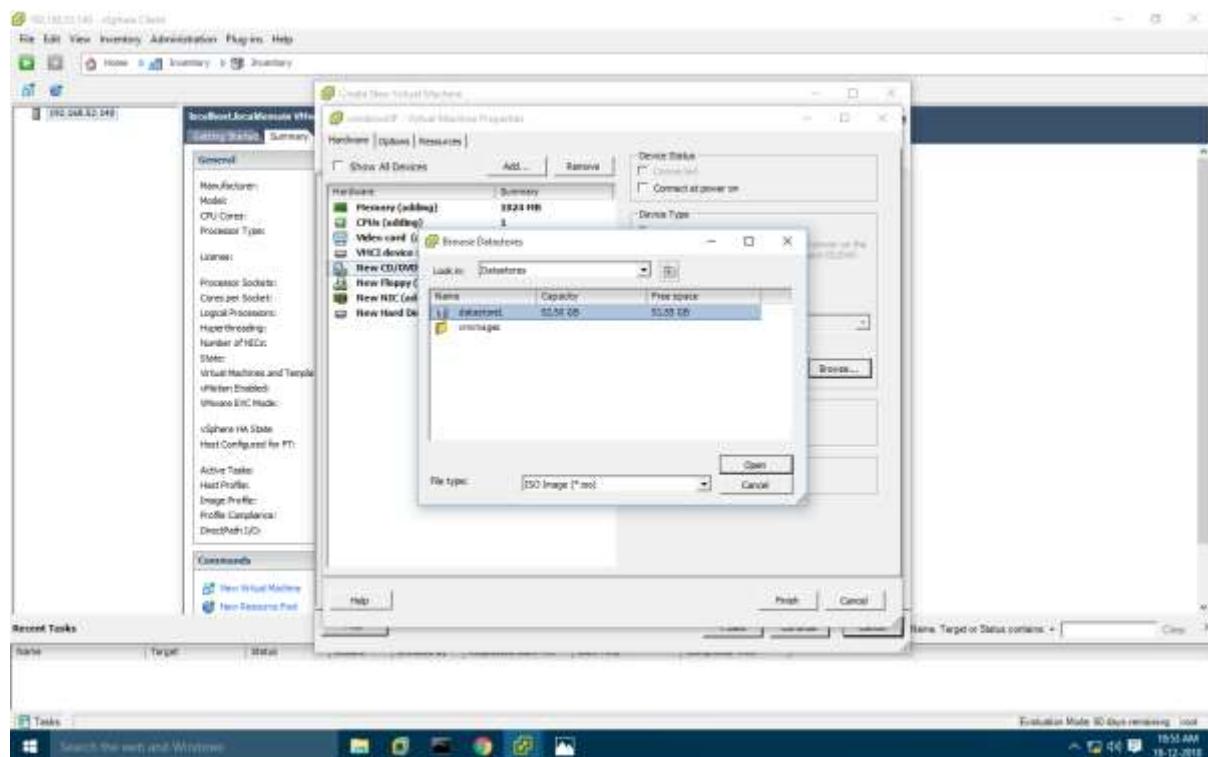


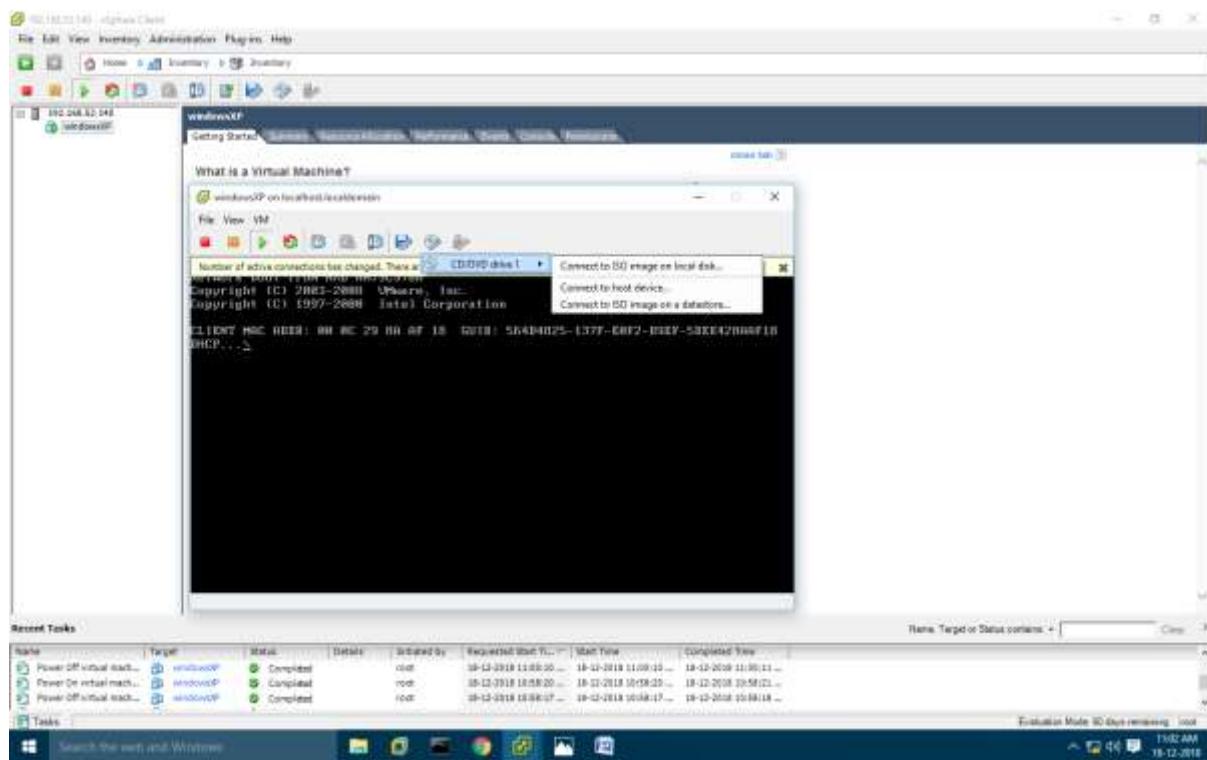
**Click edit**



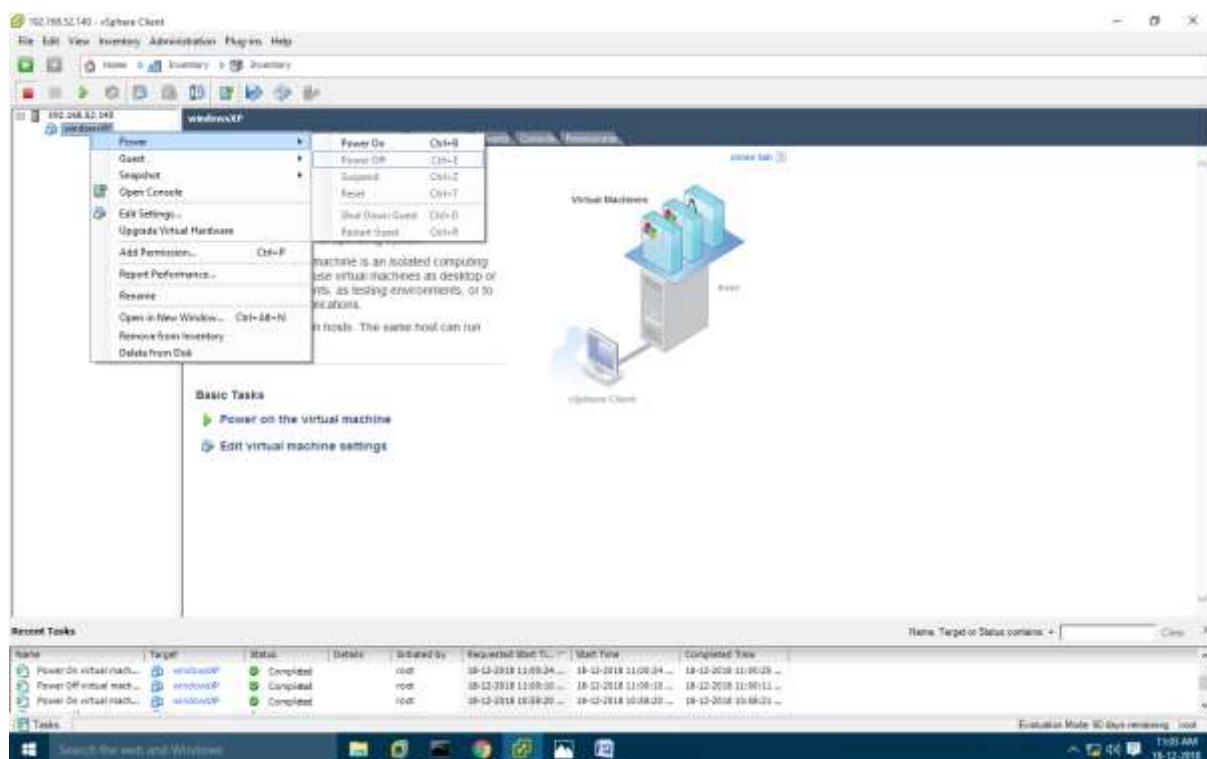
Click on datastore

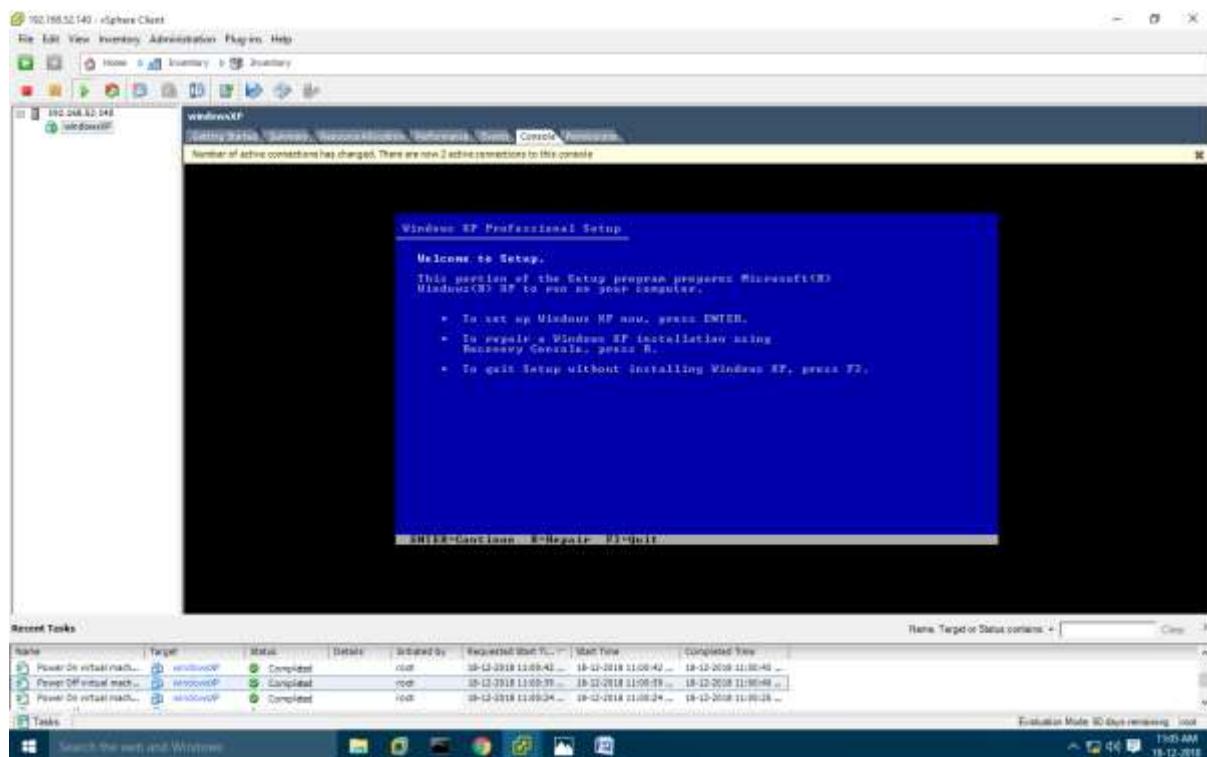






**Right Click on Windows XP >> Power >> Power On**



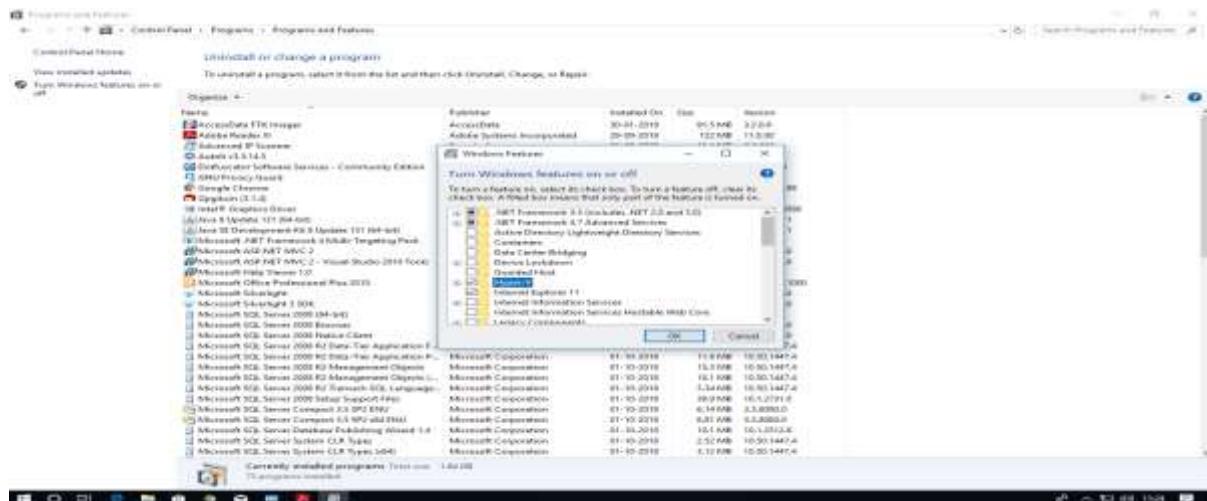


## PRACTICAL: 6

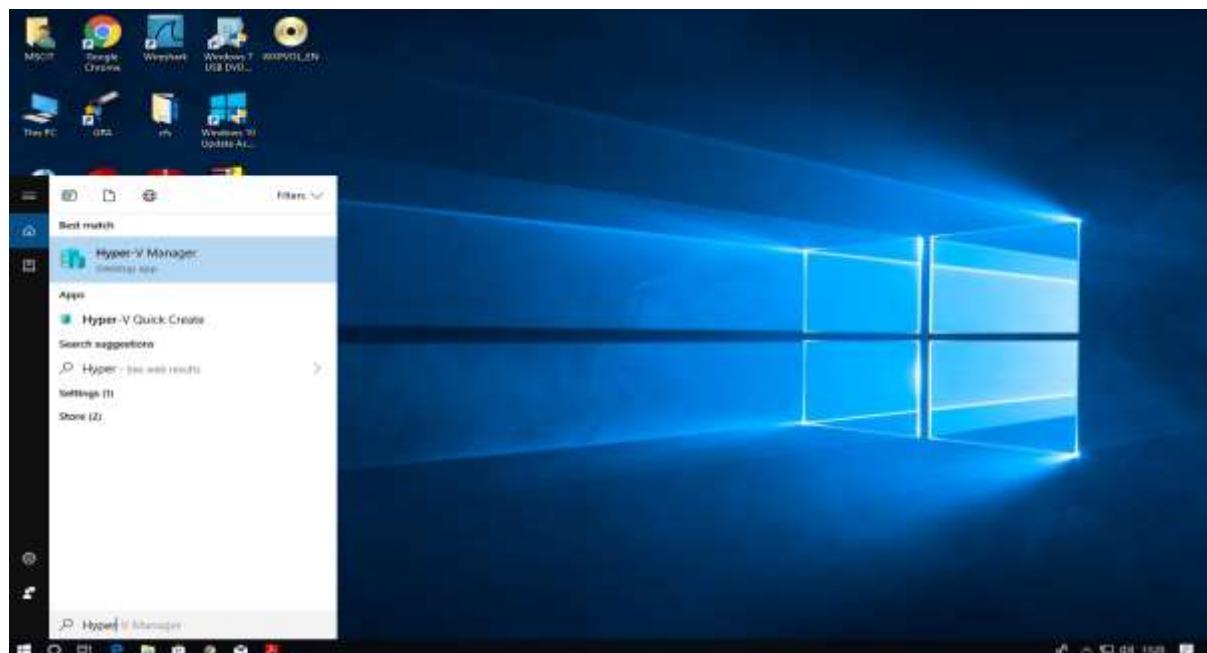
### NATIVE VIRTUALIZATION USING Hyper-V

First we have to uninstall vmware software if already installed on computer because the VMware Workstation installer does not support running on a Hyper-V virtual machine.

After uninstalling VMware, we can proceed to next step - go to control panel and click on uninstall a program

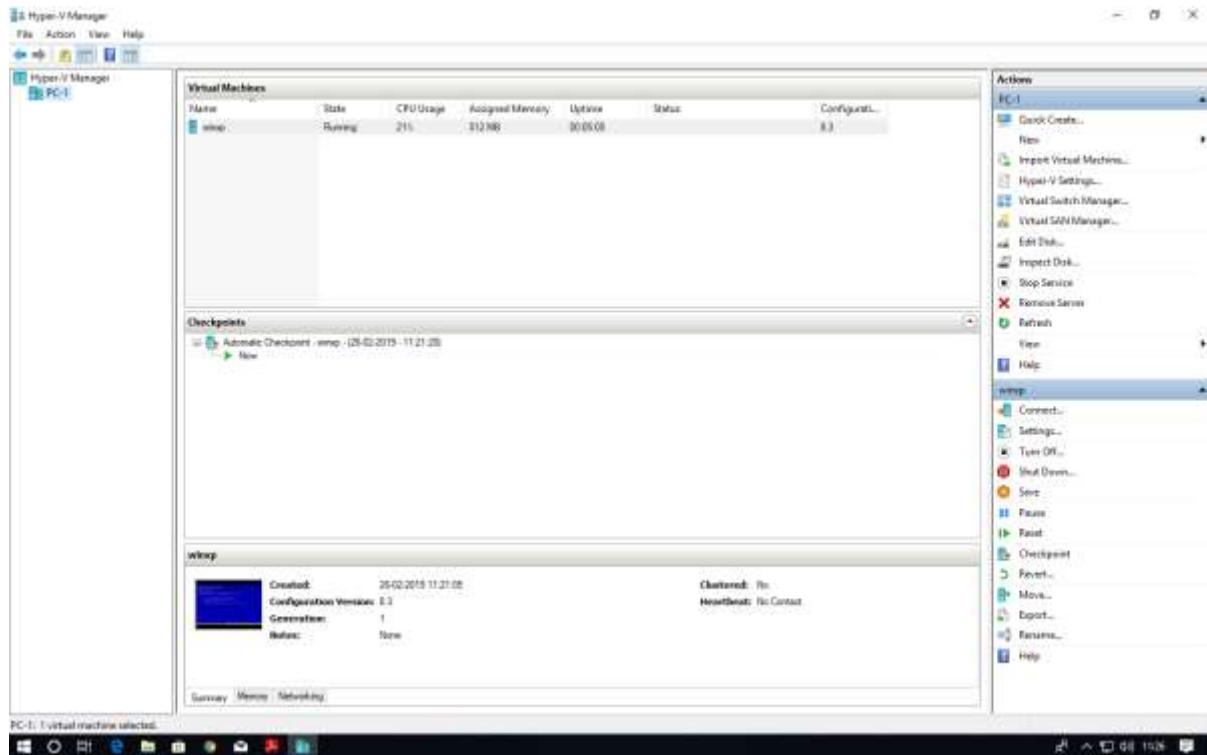


After Restart Search for hyper-v manager in search box and click on that

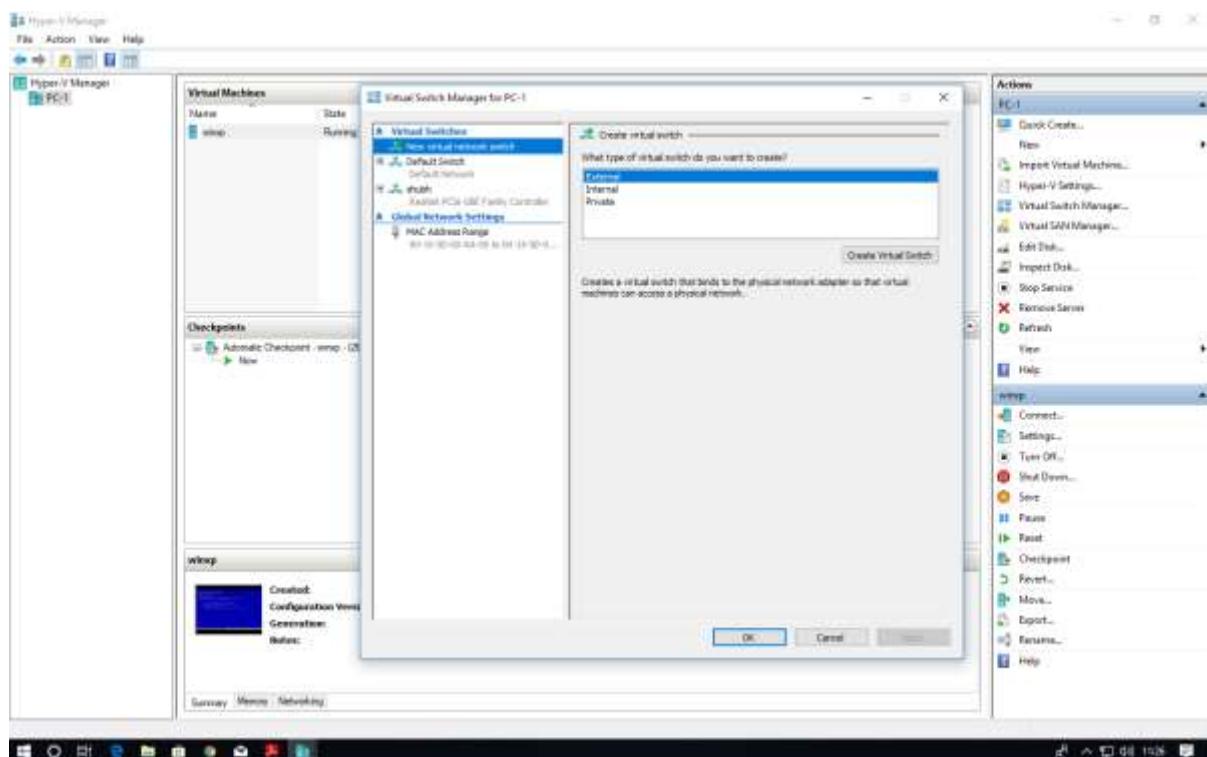


for creating virtual machine first we have to create virtual switch

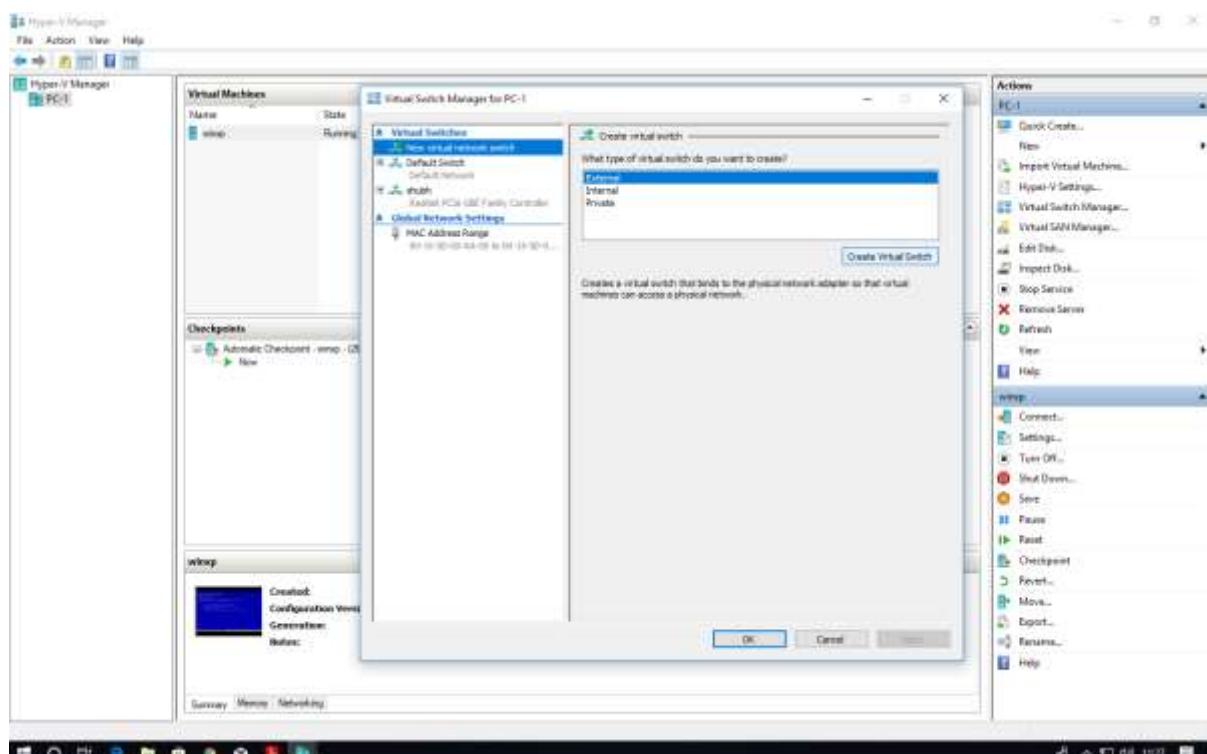
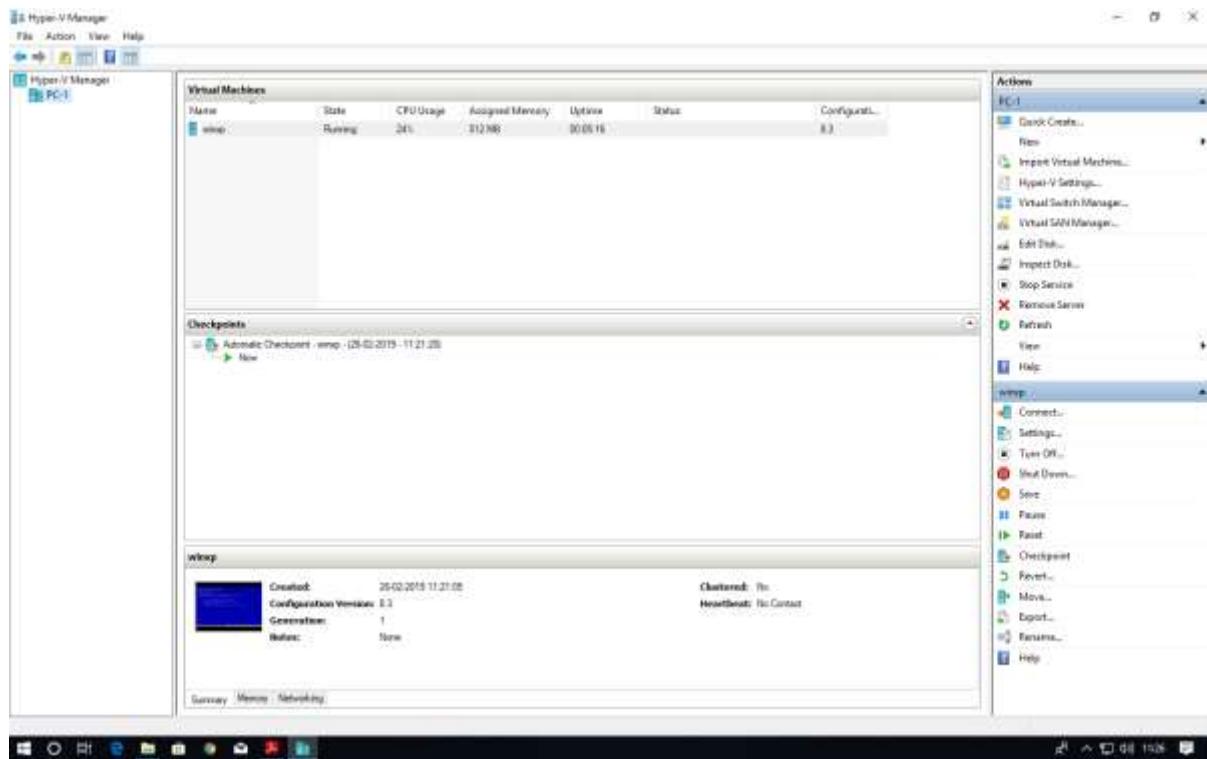
click on virtual switch manager option

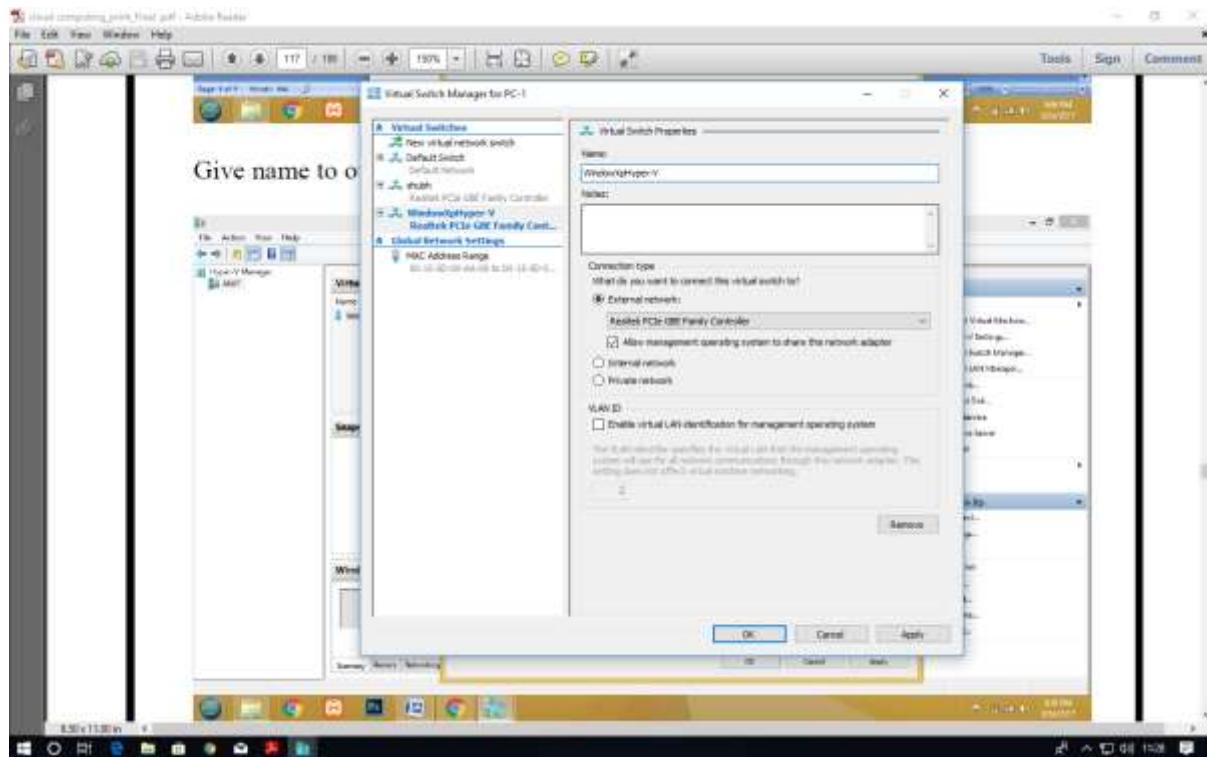


Select External as a connection type and then click on create virtual switch

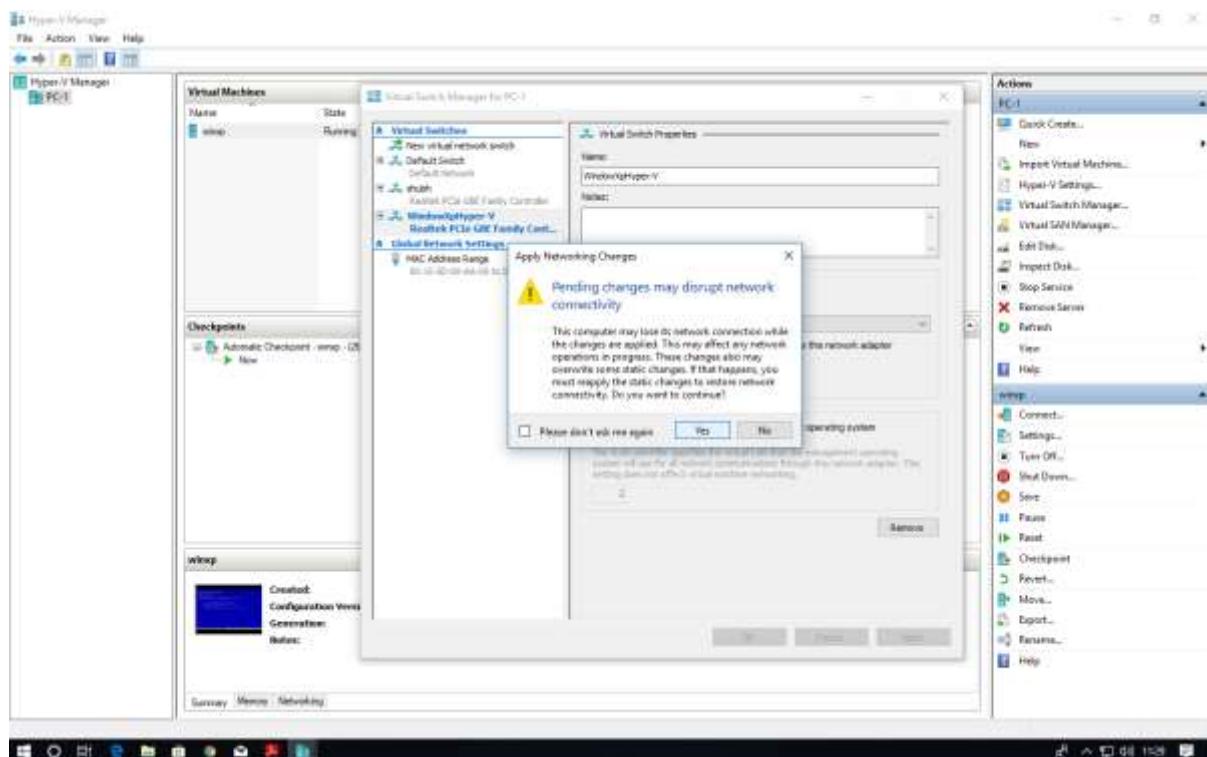


Give name to our virtual switch then click on apply button

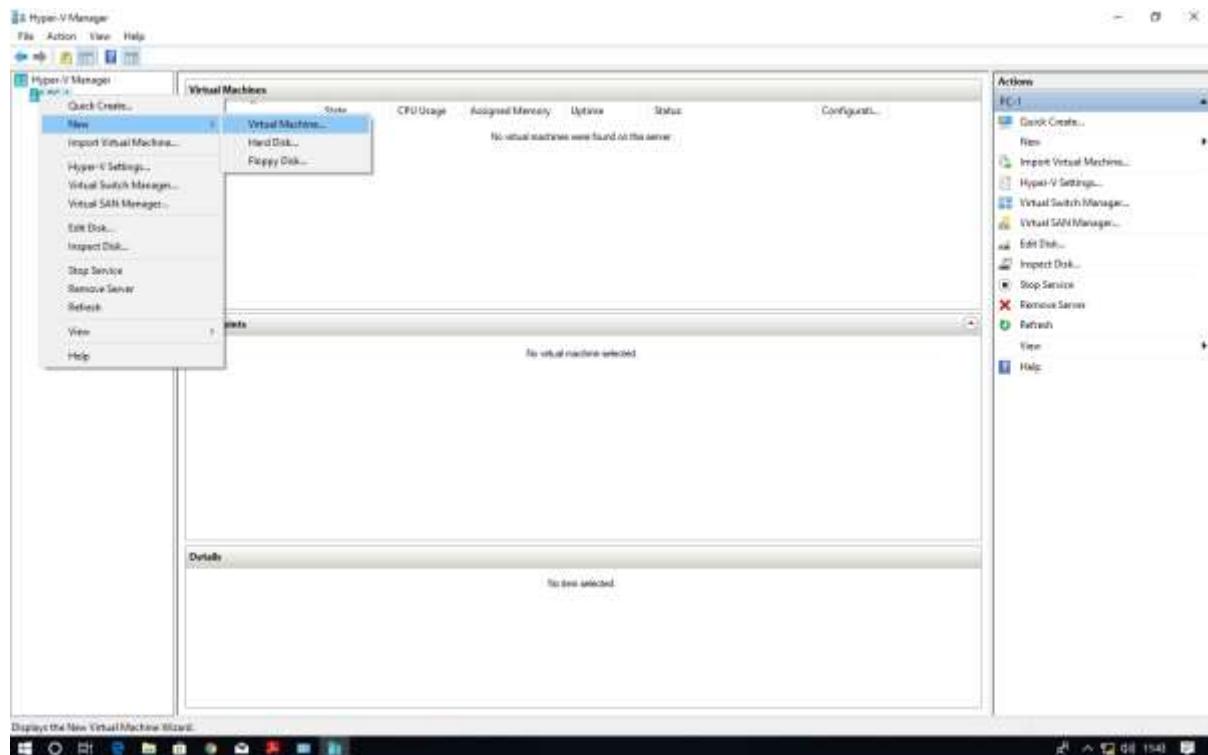




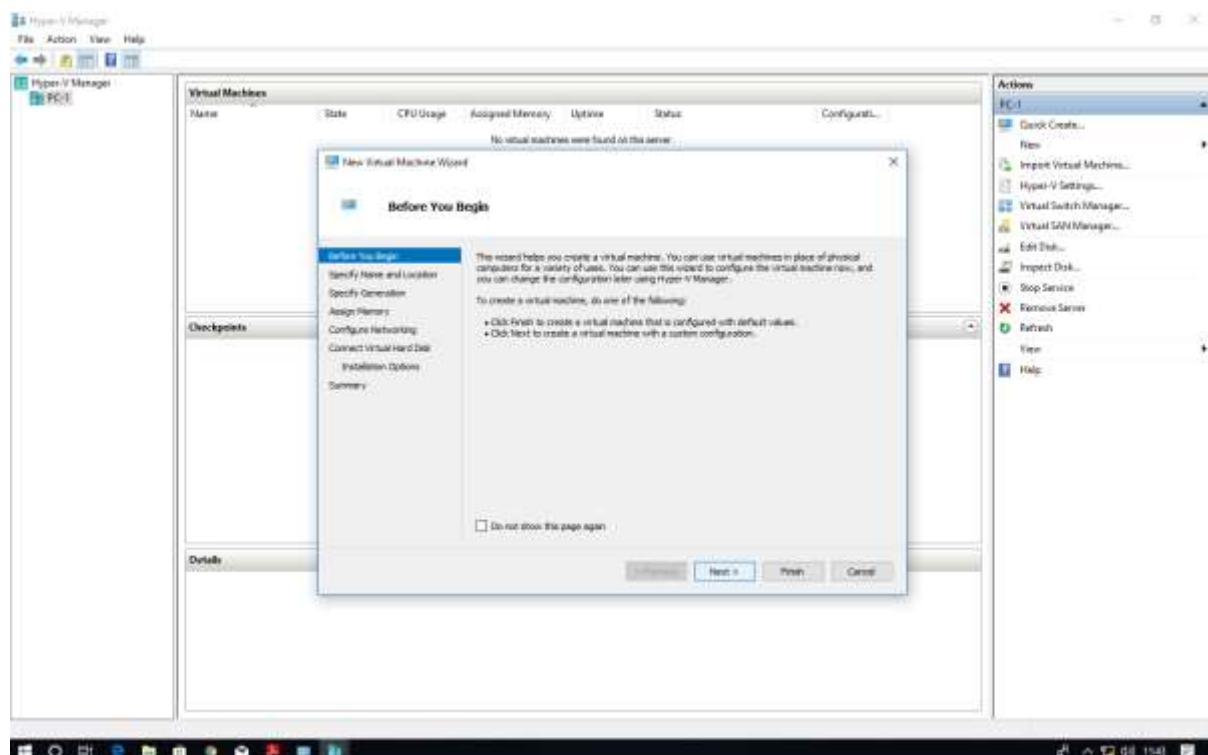
after click on Apply button it will show warning about our connection  
click on yes



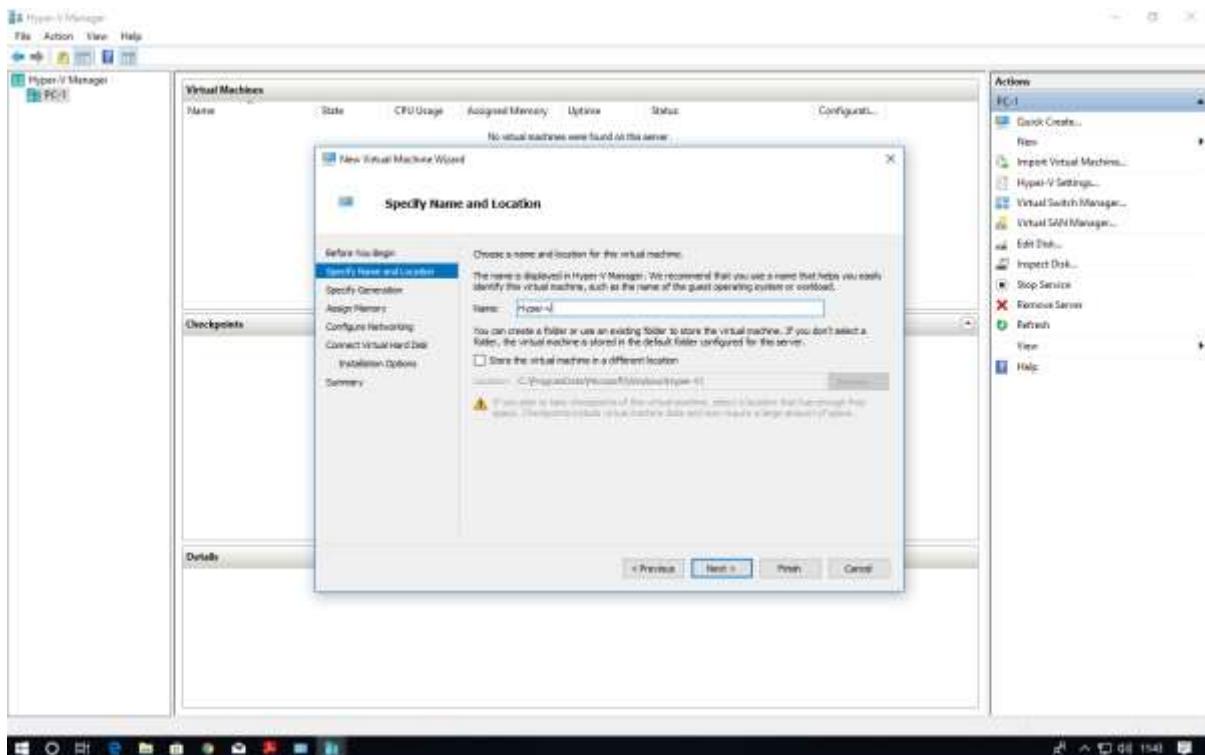
Now right click on server and select new virtual machine



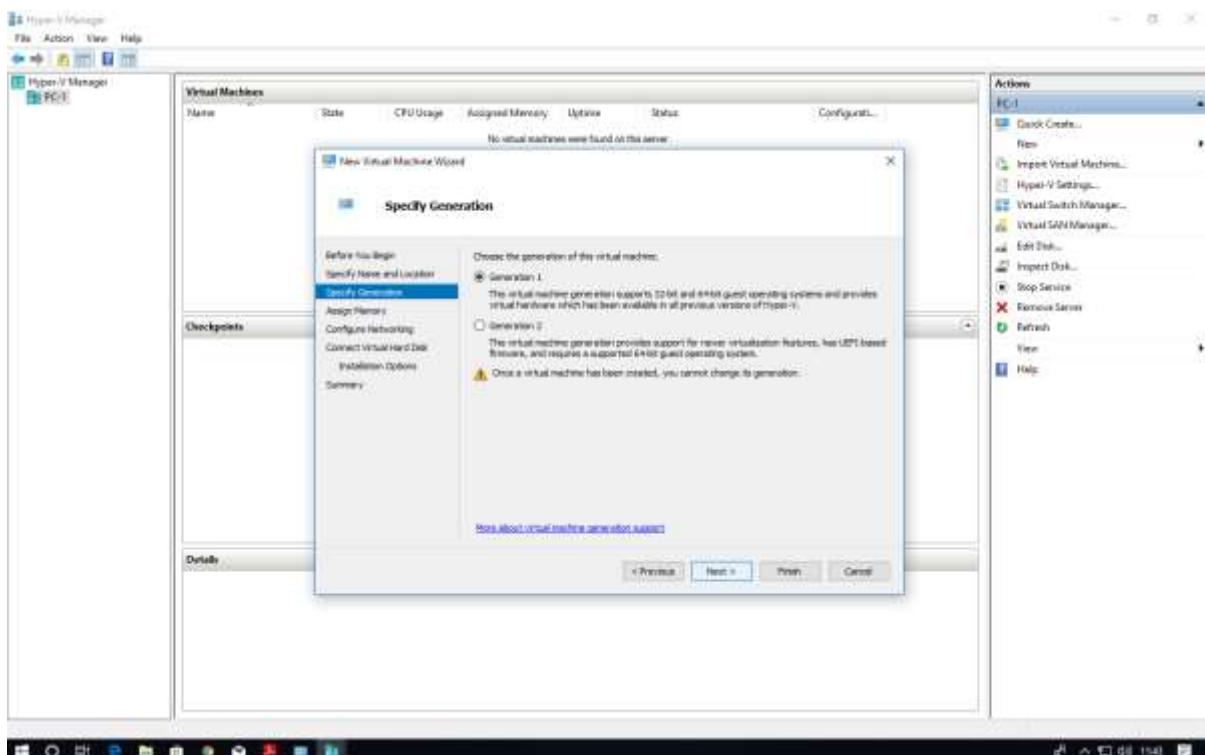
click on next button



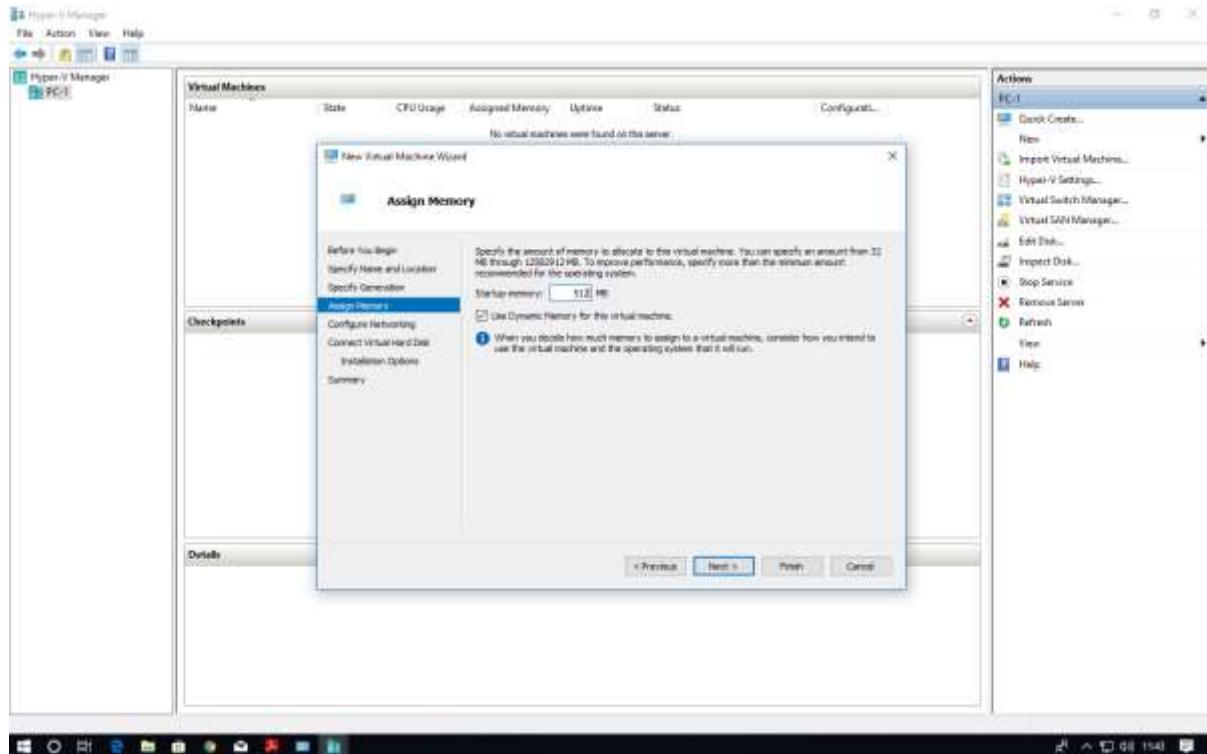
Provide name to virtual machine then click on Next button



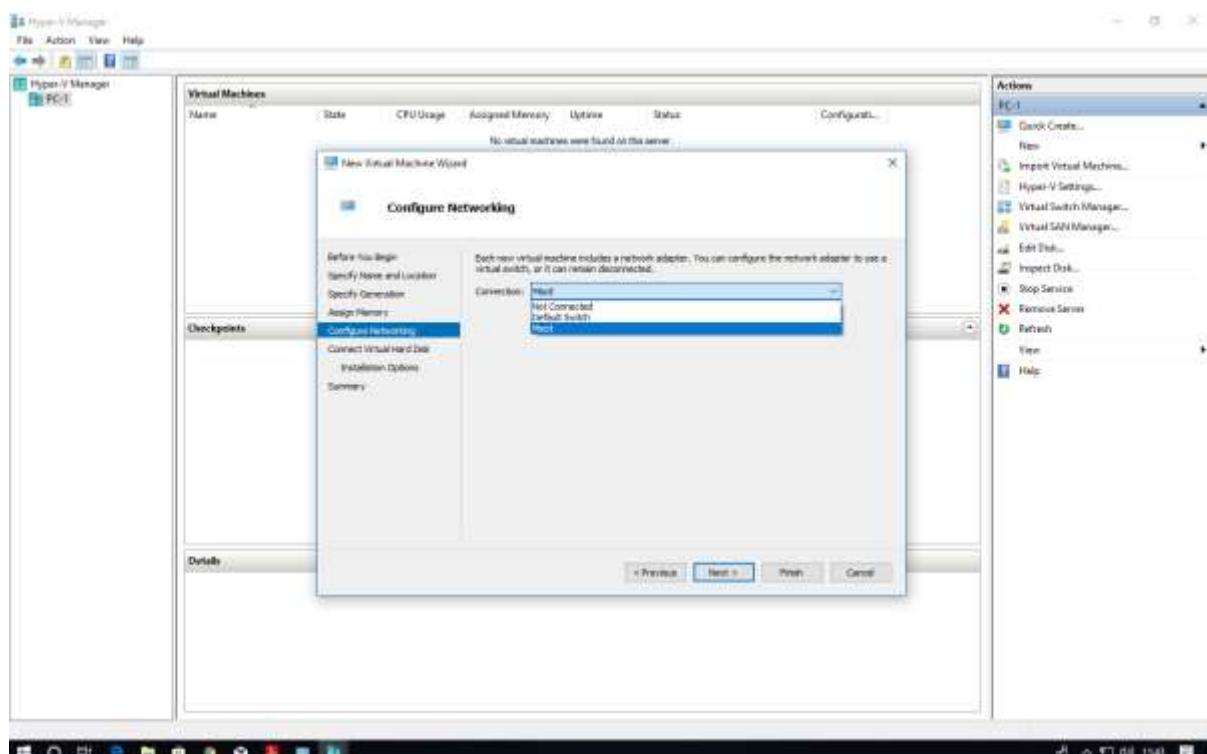
Specify generation : generation 1



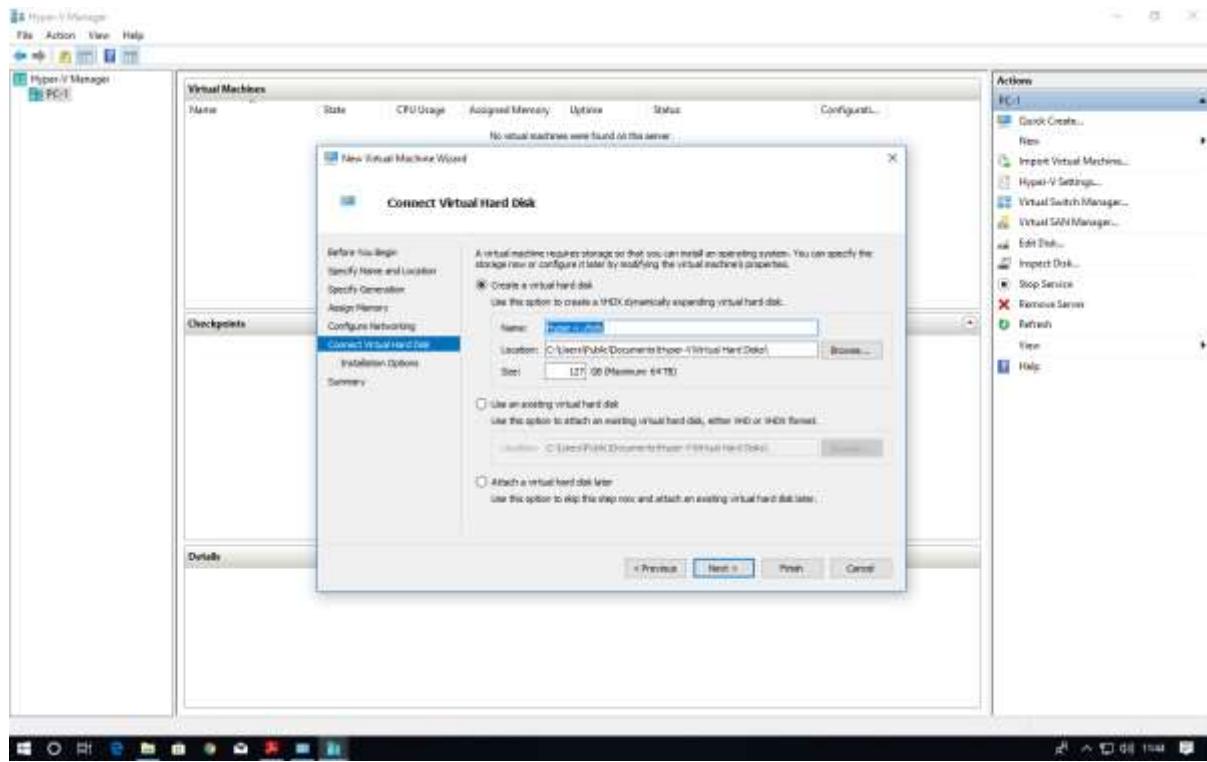
tick on use dynamic memory for this virtual machine



Select switch which we created earlier for our virtual machine from drop-down list and then click on next

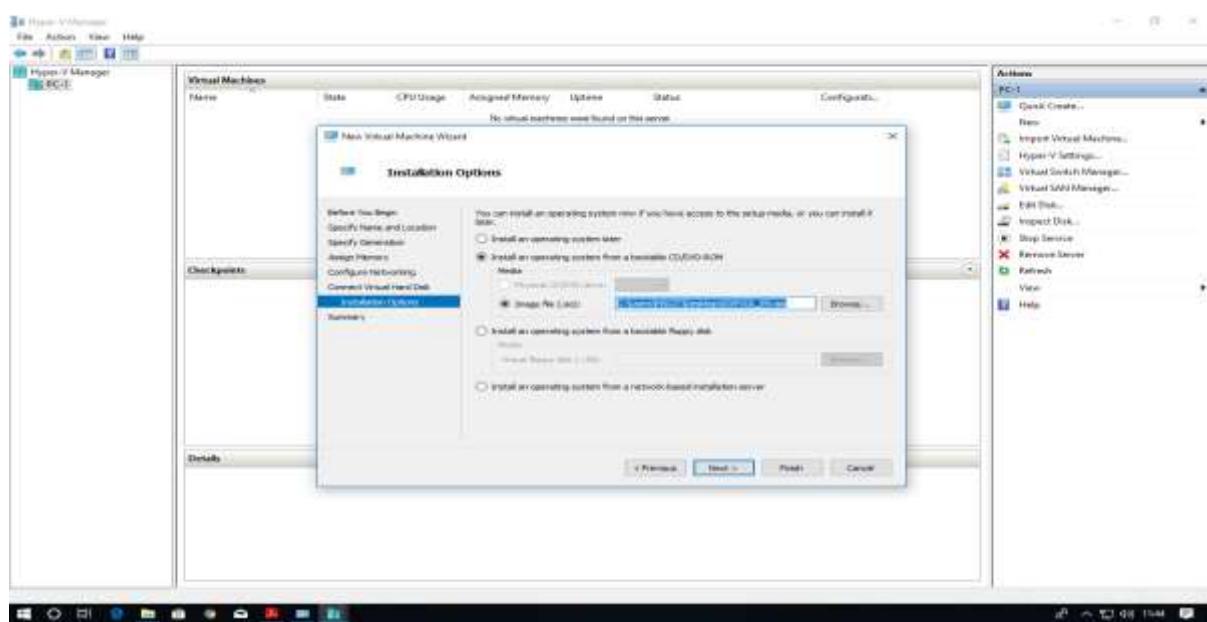


Description of virtual machine and location where it will store virtual machine related files and size require for this machine click on next

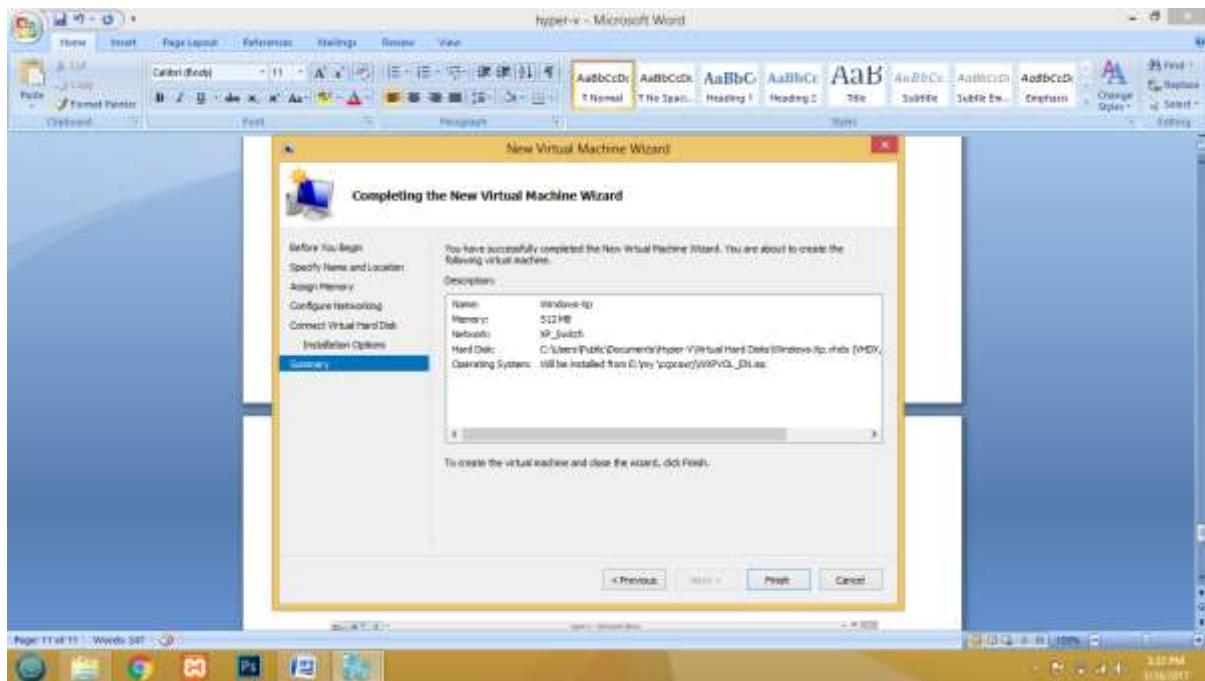


New virtual machine wizard panel will appear, where we will choose operating system which we want to install on virtual machine

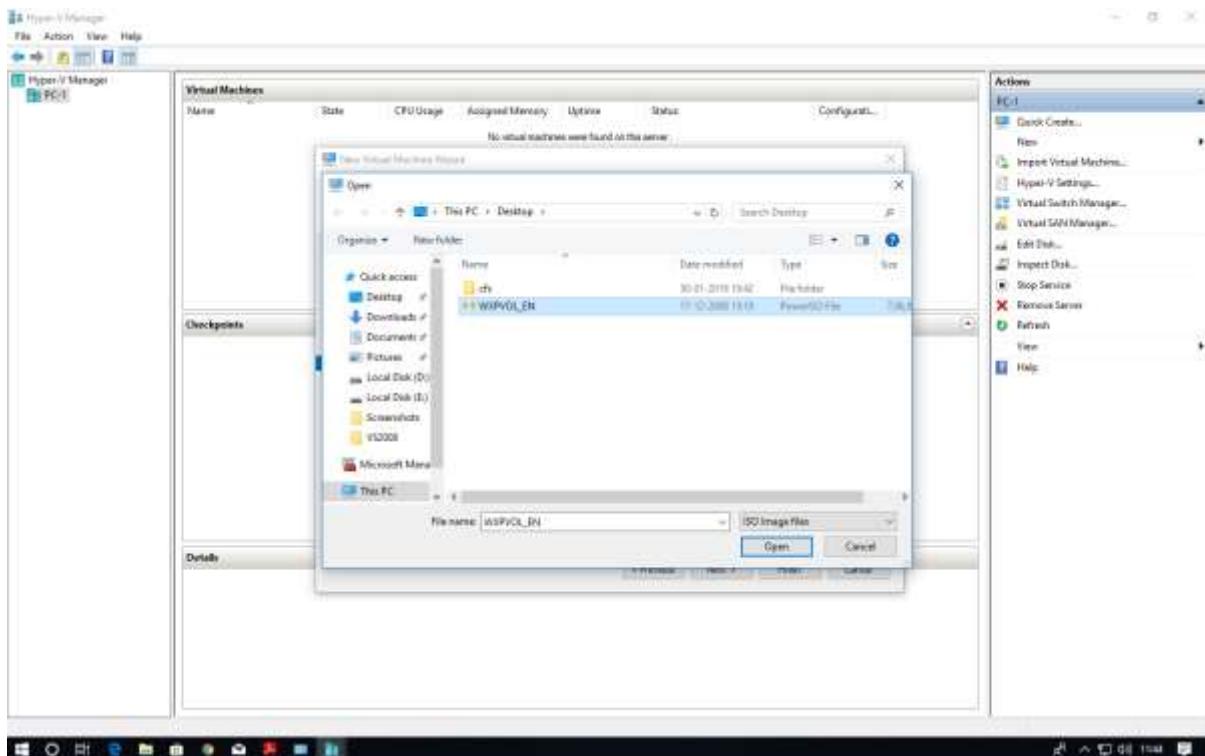
select install an operating system from boot CD/DVD-ROM and then select Image file(.iso) and browse our OS iso file then click on next button



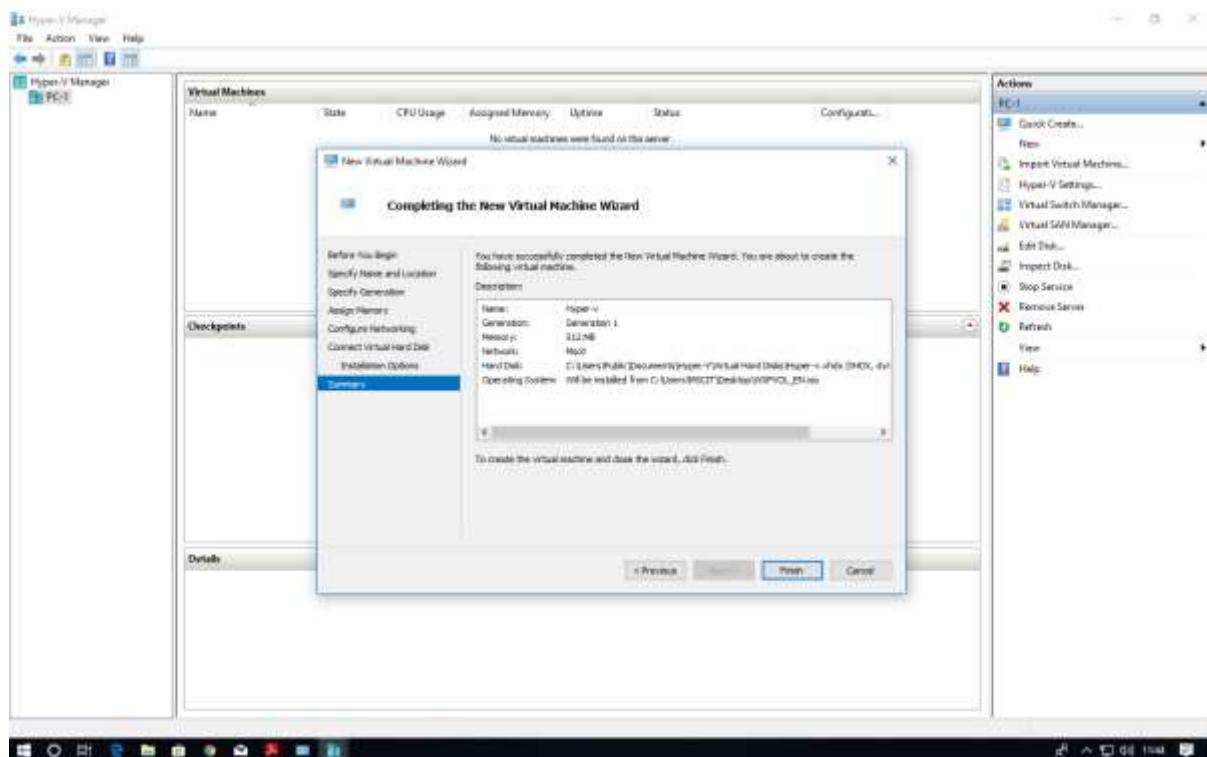
Summary report will be generated about virtual machine then click on Finish button



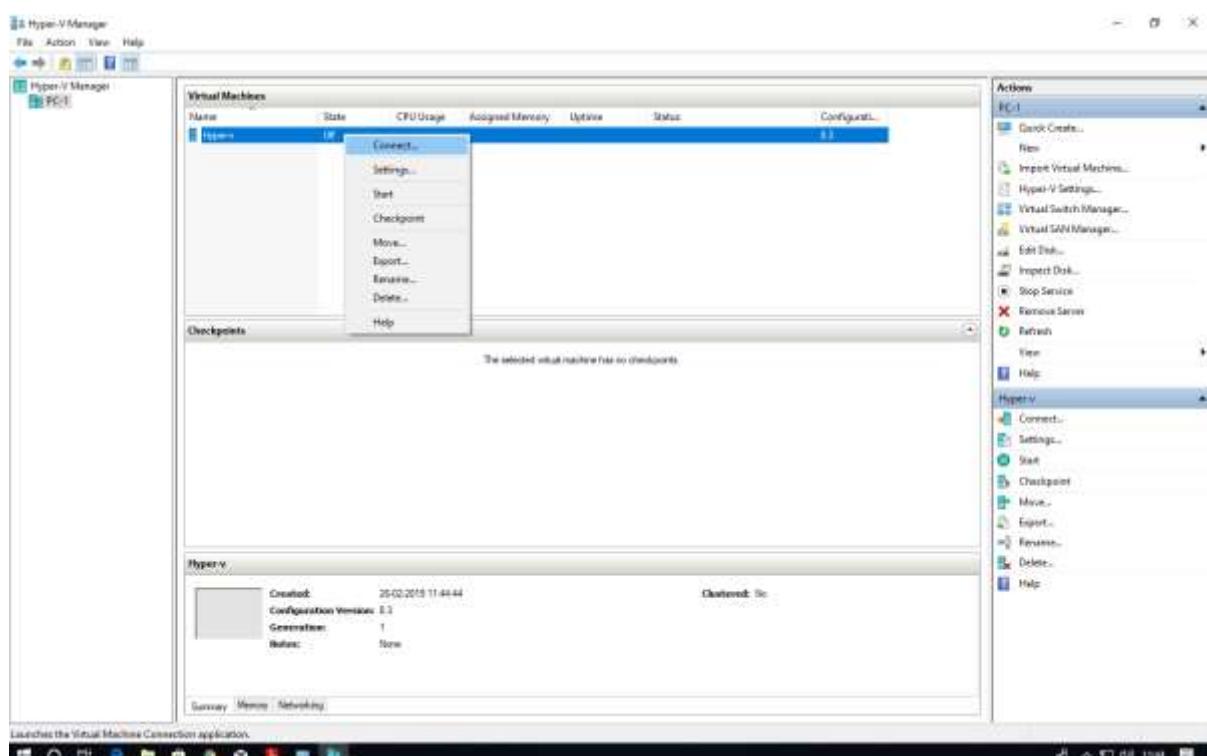
In virtual machine panel our virtual machine will appear which has off state



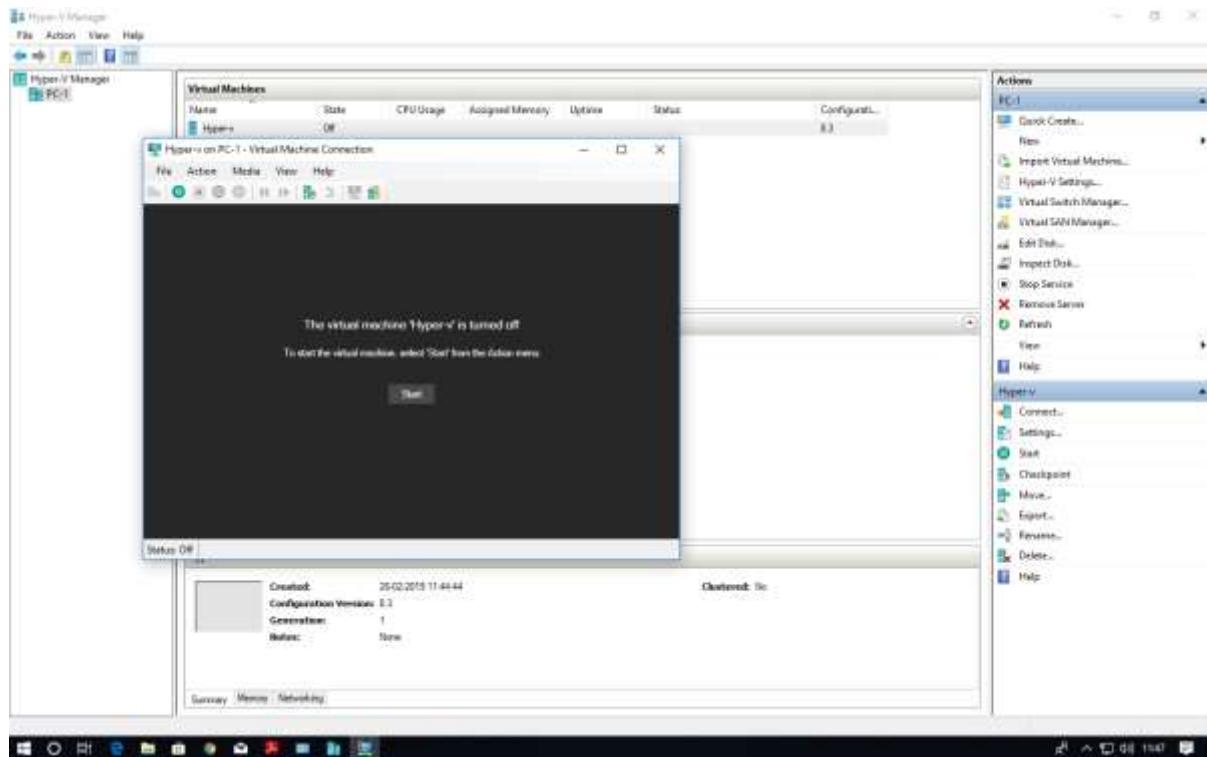
Click finish



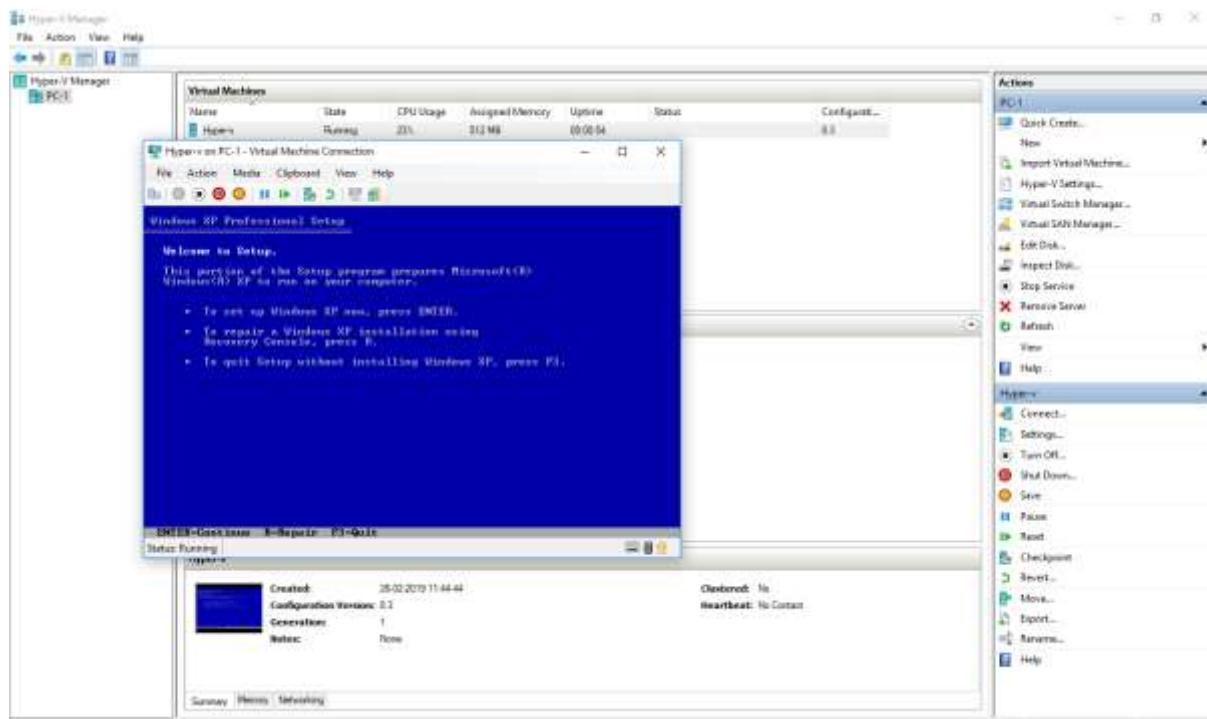
Right click on virtual machine and click on connect option



Now turn on virtual machine on



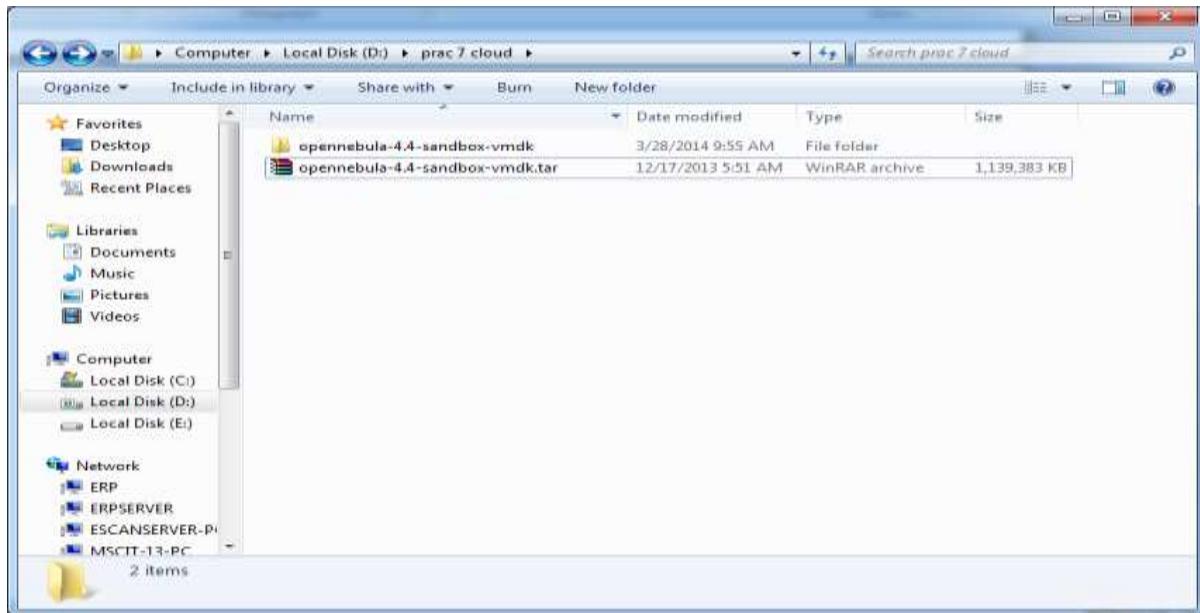
Virtual machine will start with below screen



## PRACTICAL: 7

### IMPLEMENT OPENNEBULA

Client configuration software needed (Download Opennebula sandbox software from open nebula.org)



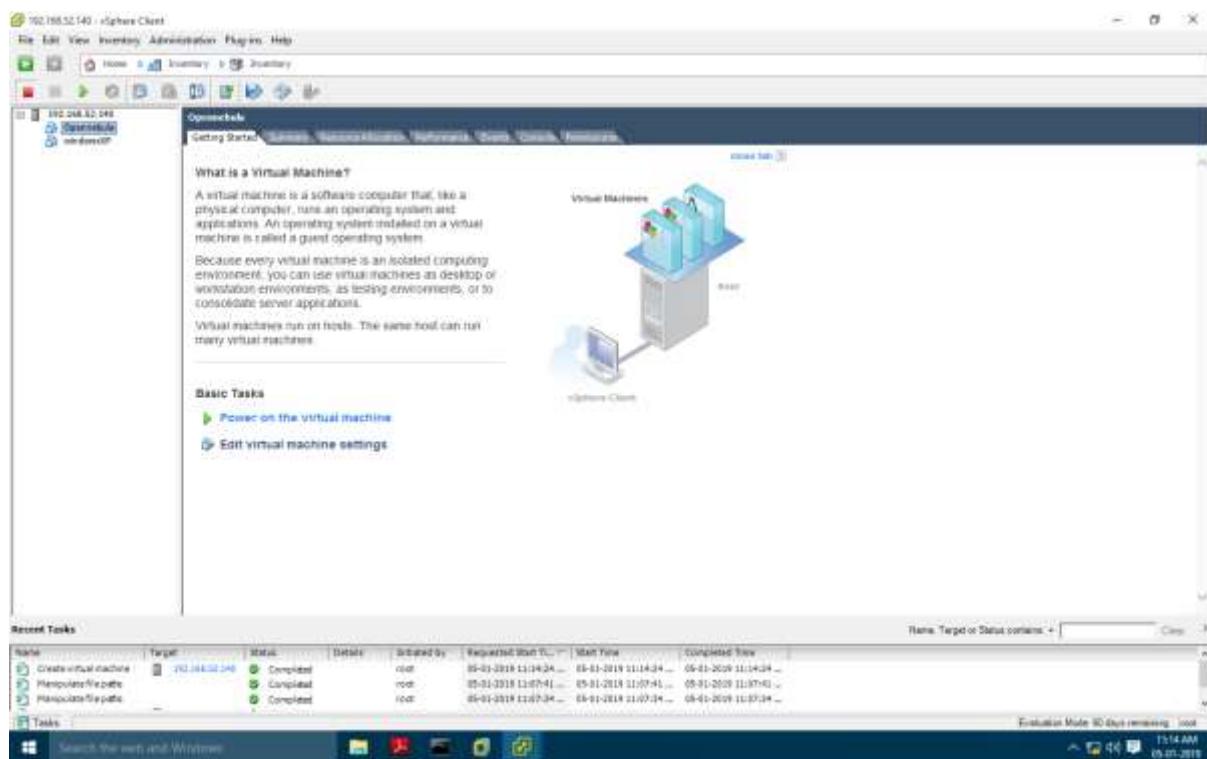
Start vSphere Client.

Enter Static IP address

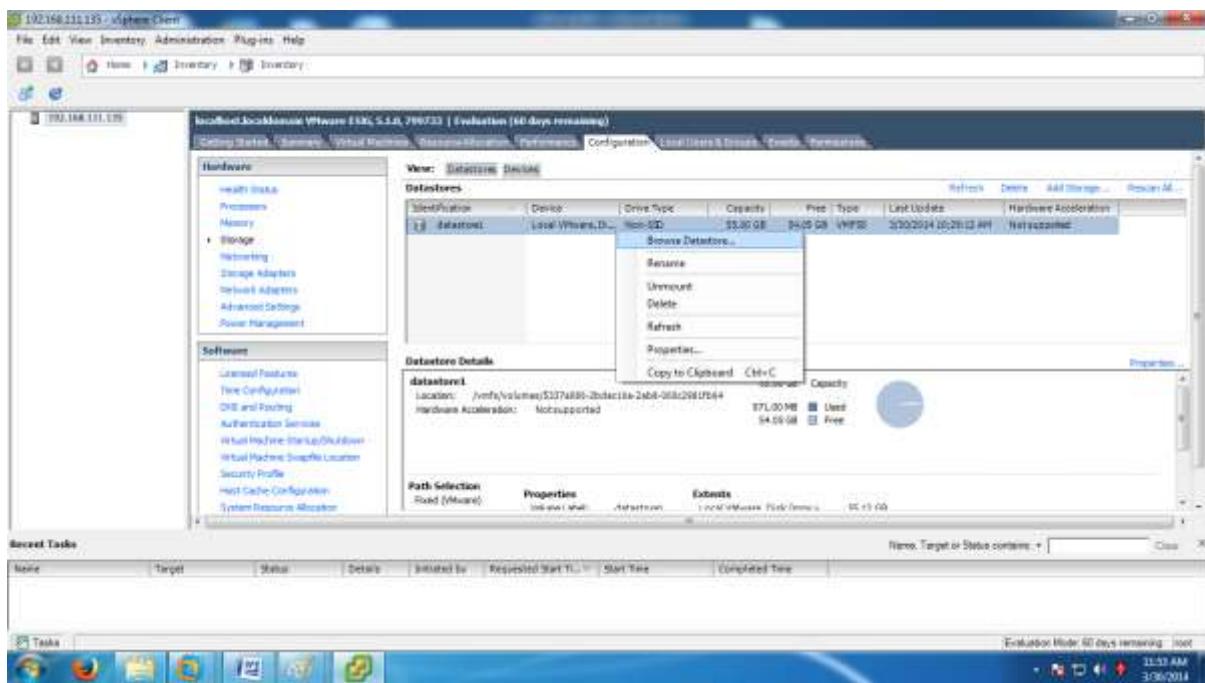
Enter Username and Password. Click Login.



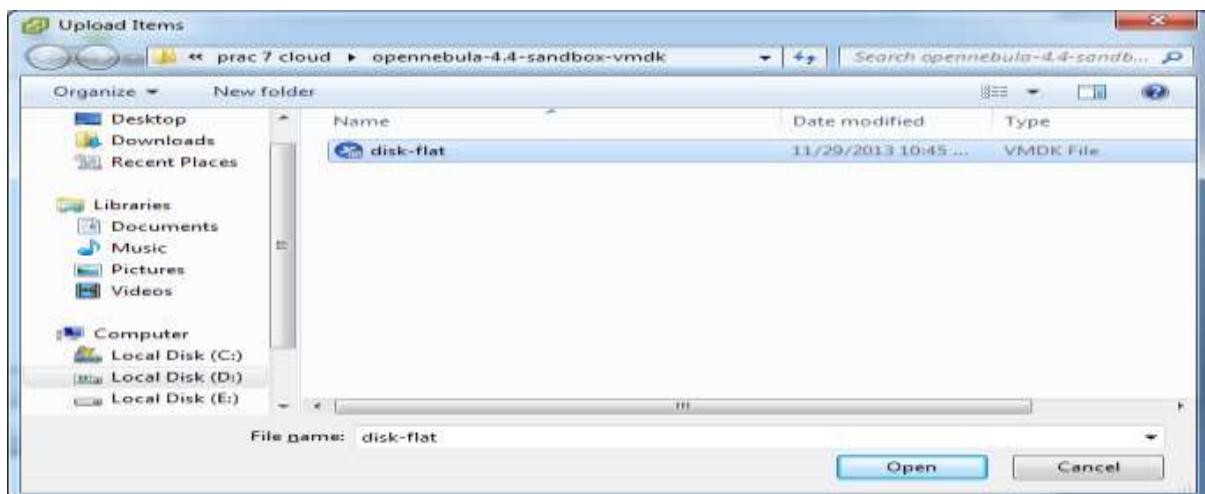
Click on ignore



Go to Configuration tab select storage and right click on data store1 and select Browse Datastore.

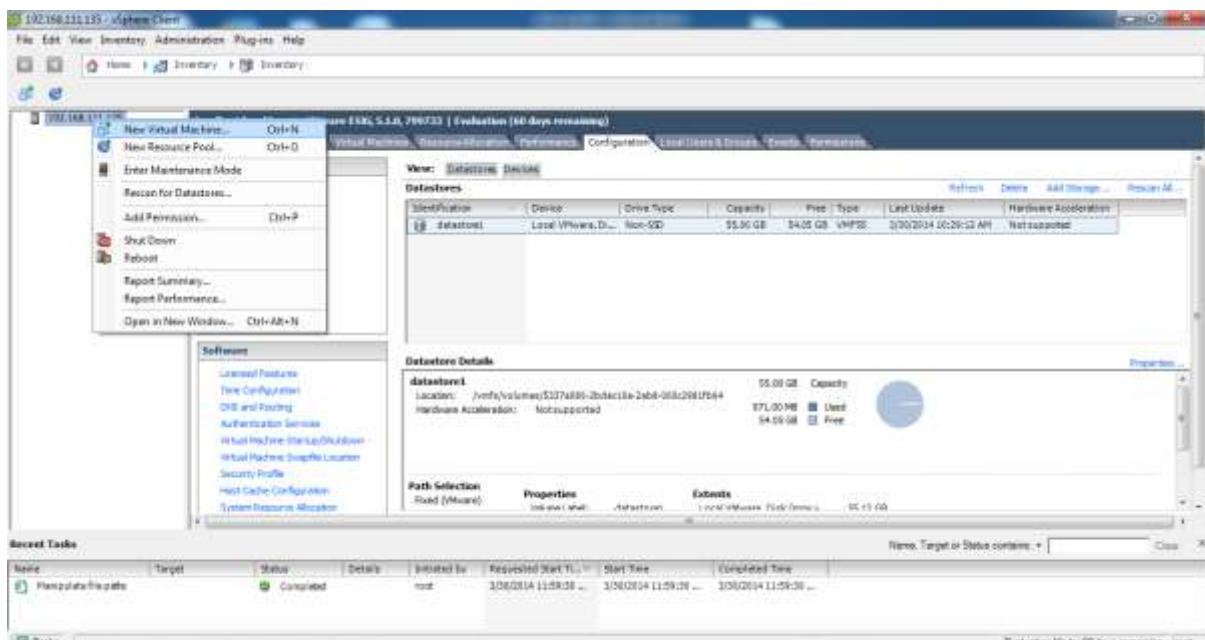


Go in this particular folder opennebula-4.4-sandbox-vmdk and select disk-flat file.

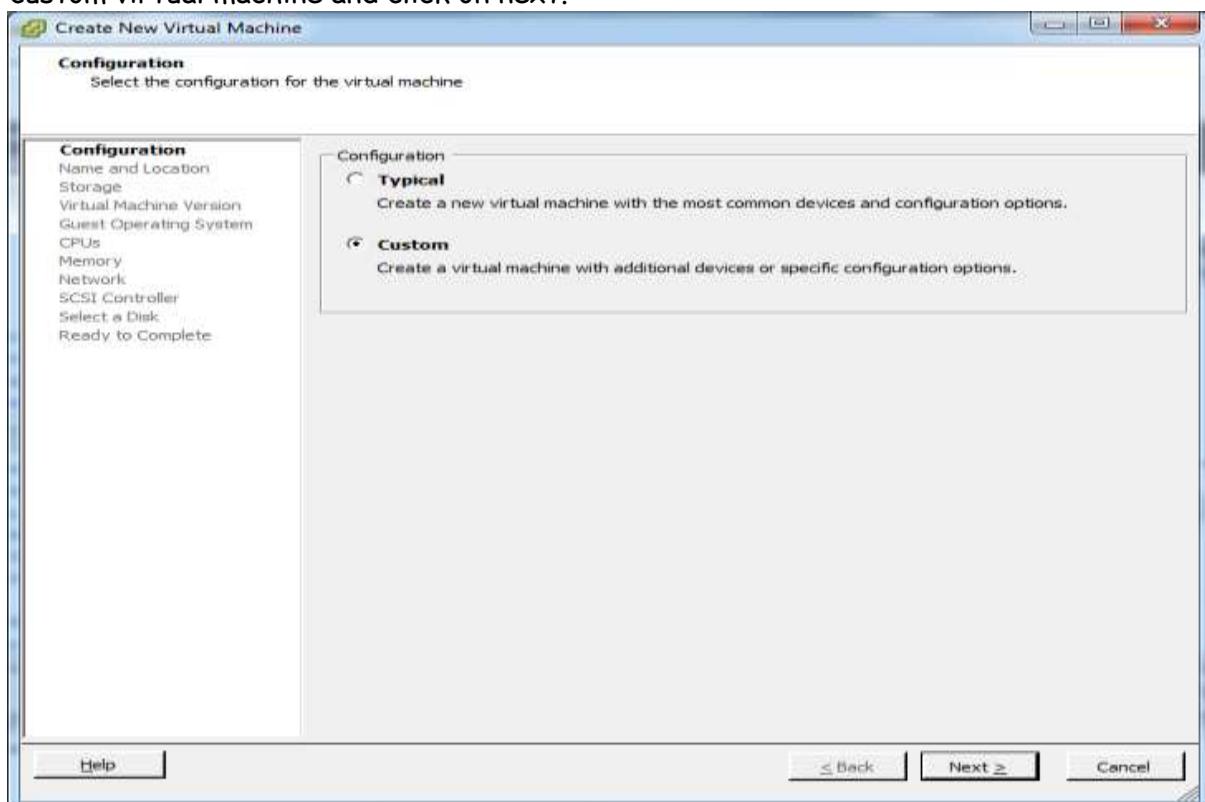


Create a new virtual machine.

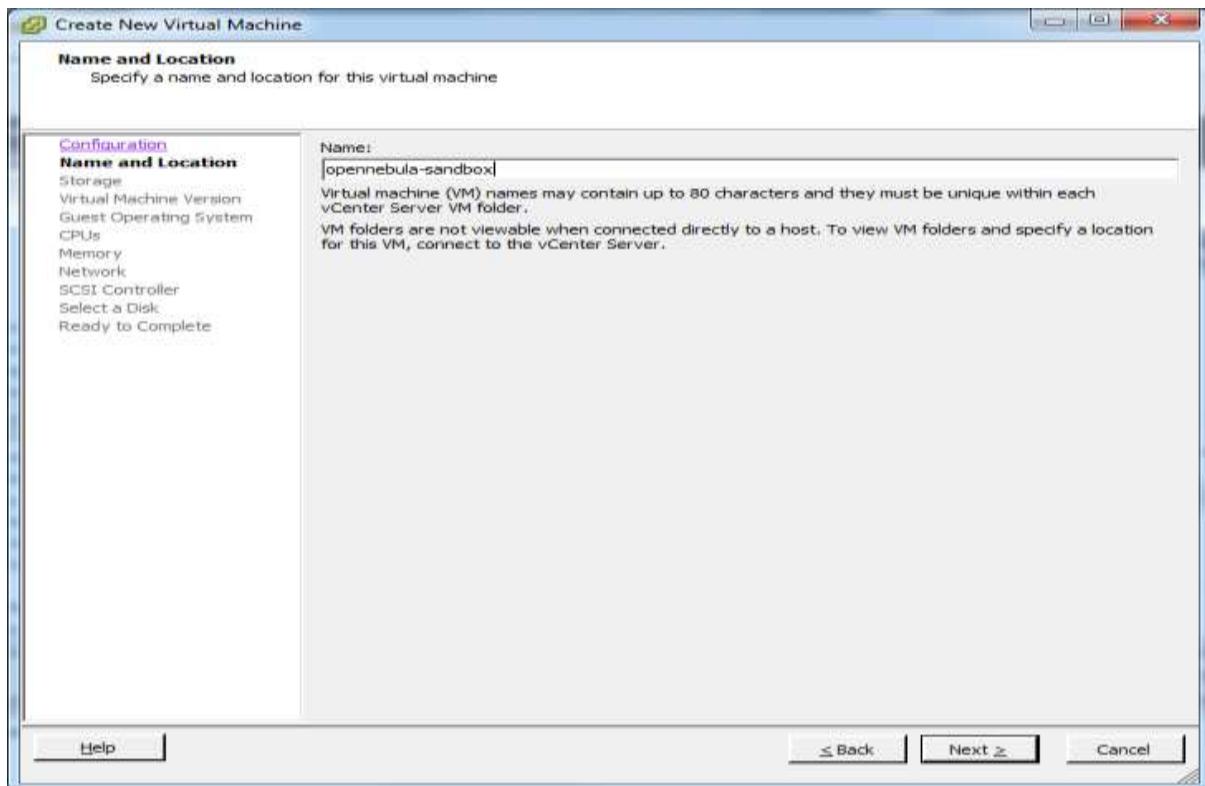
On the VI client click on the (new virtual machine) icon



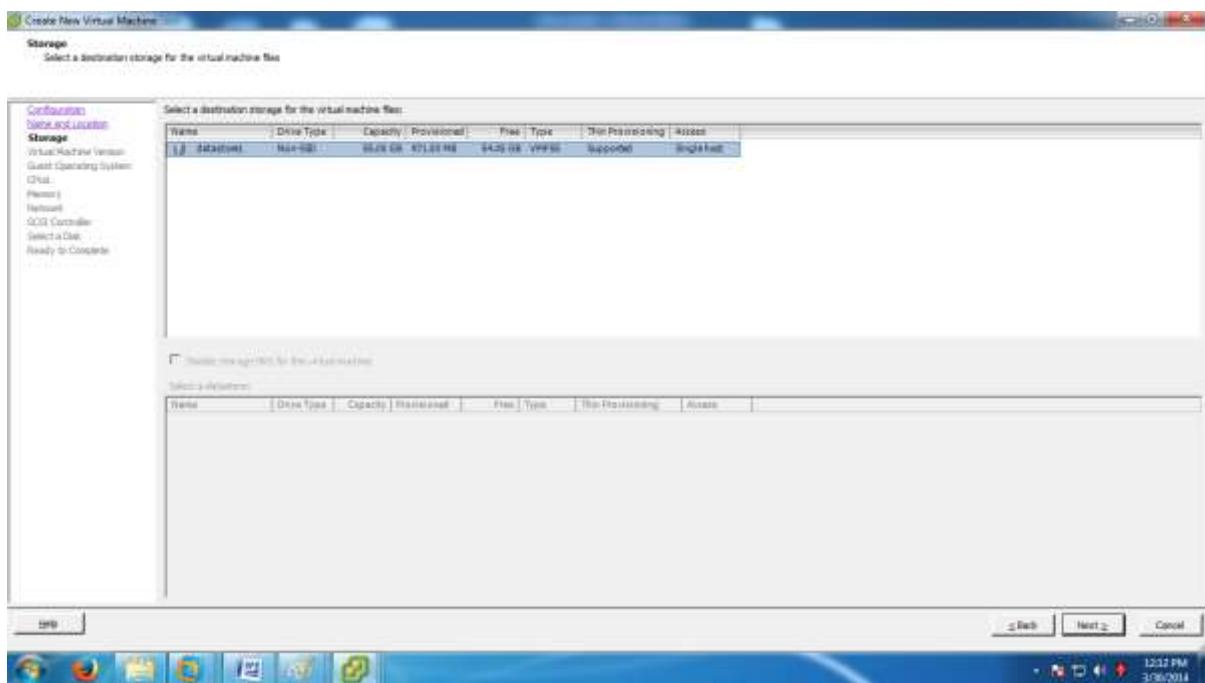
Select custom virtual machine and click on next.



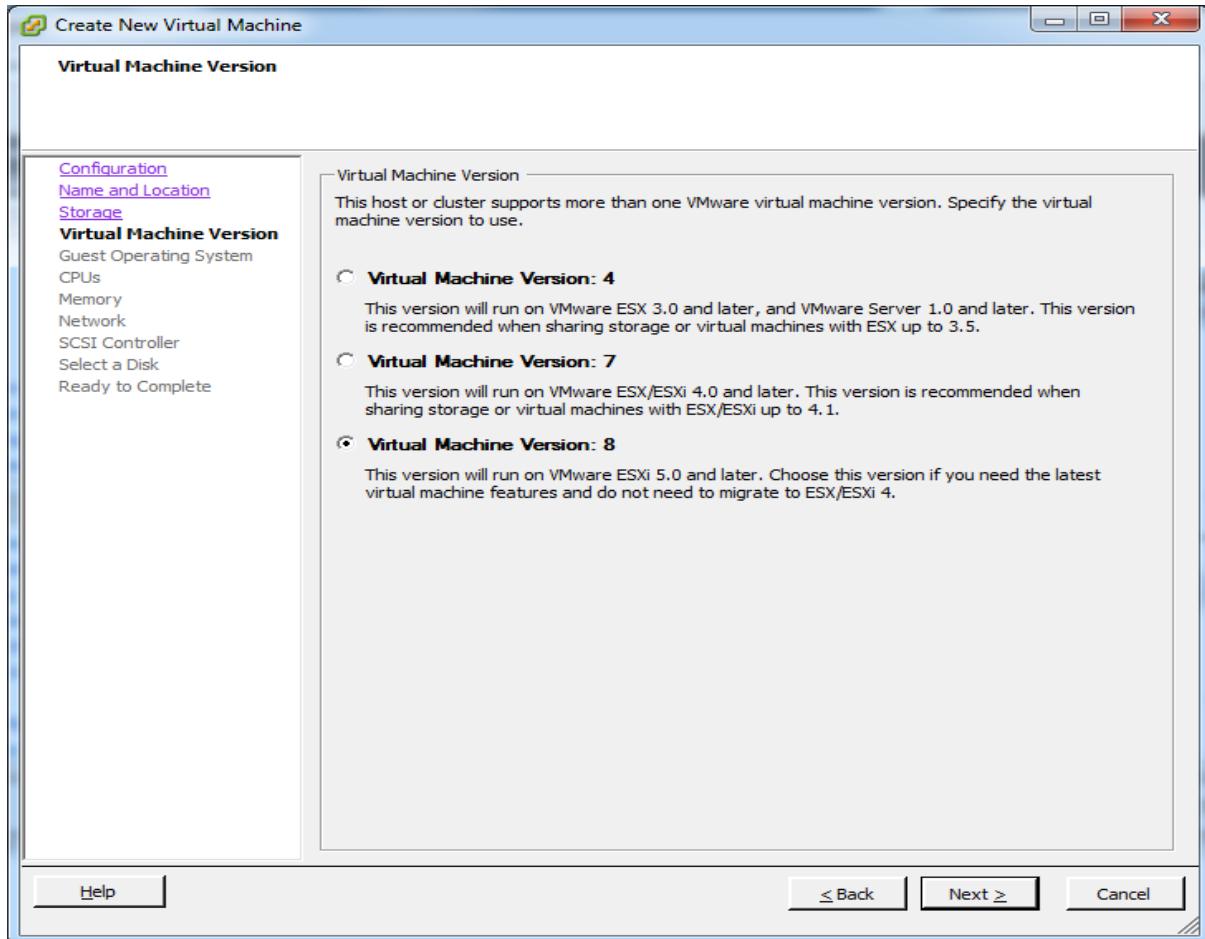
Name : Opennebula-sandbox and click on next.



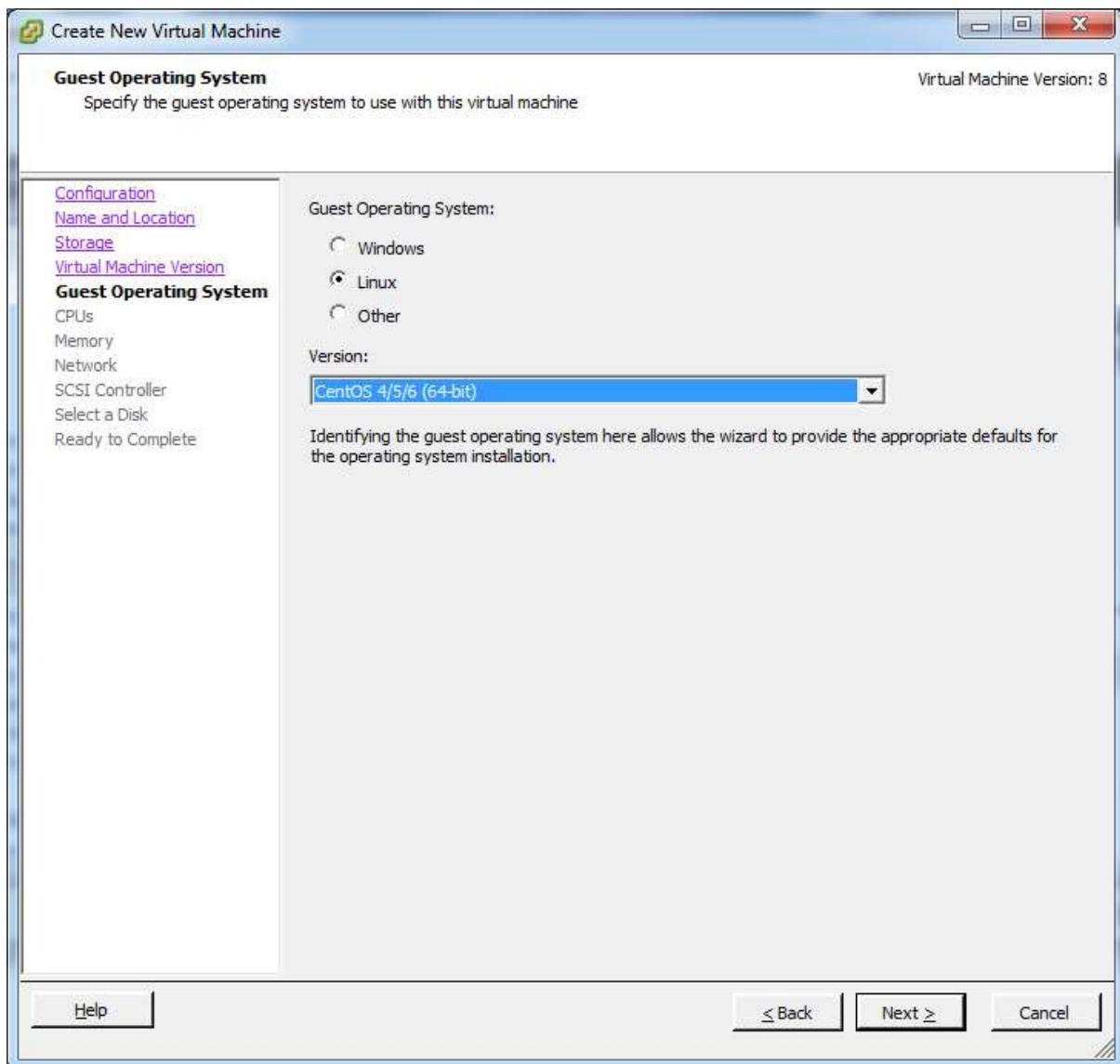
Select the same data store as in the screen and click on next.



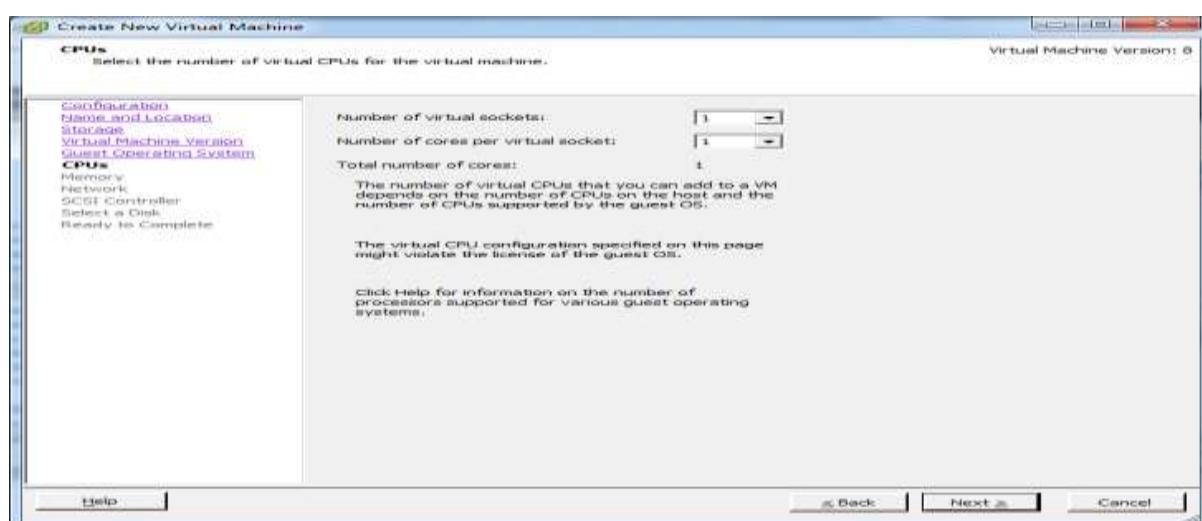
Select virtual machine version 8 and click on next.



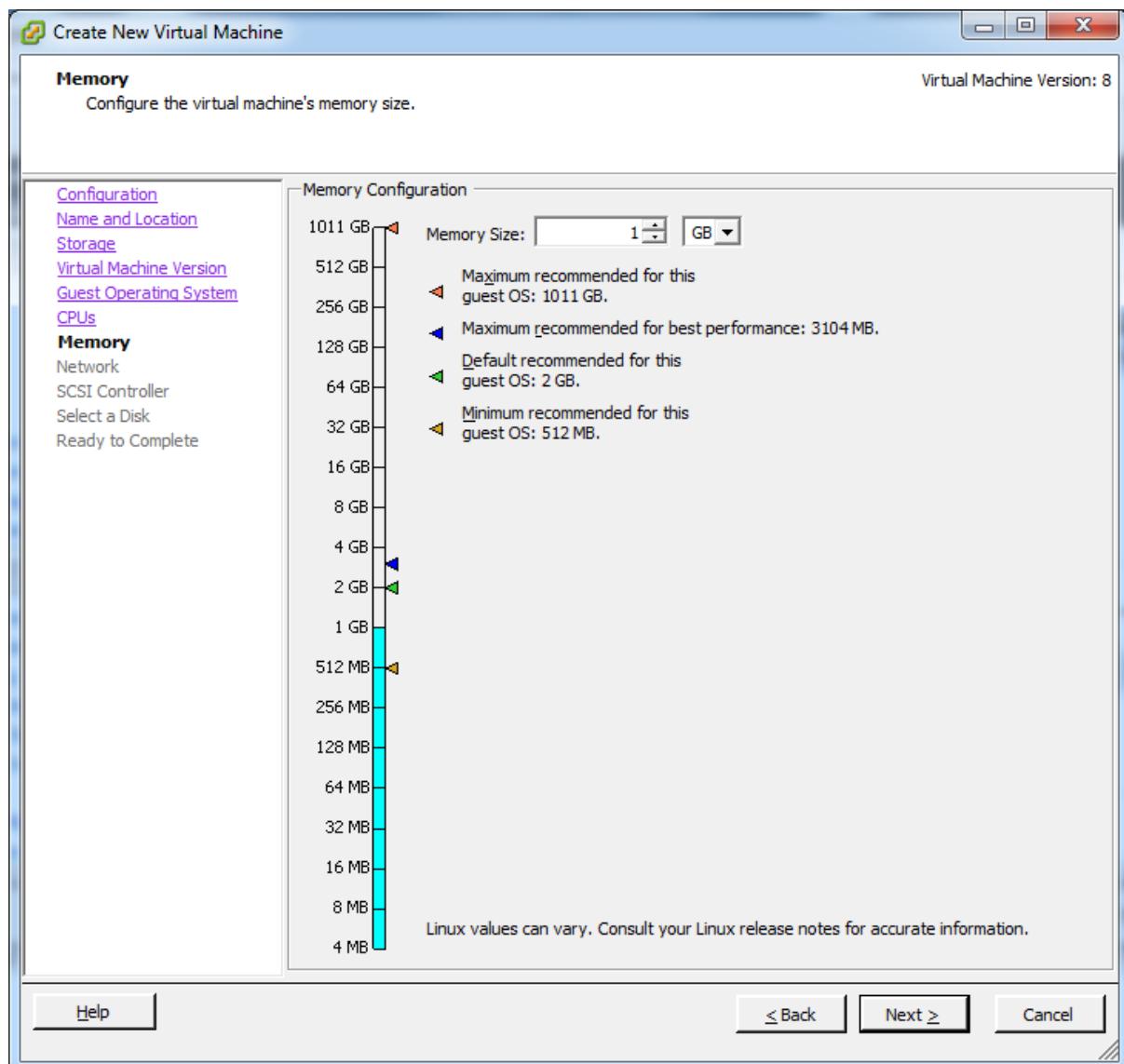
Select linux option-->and then select CentOS 4/5/6(64-bit) and click on next.



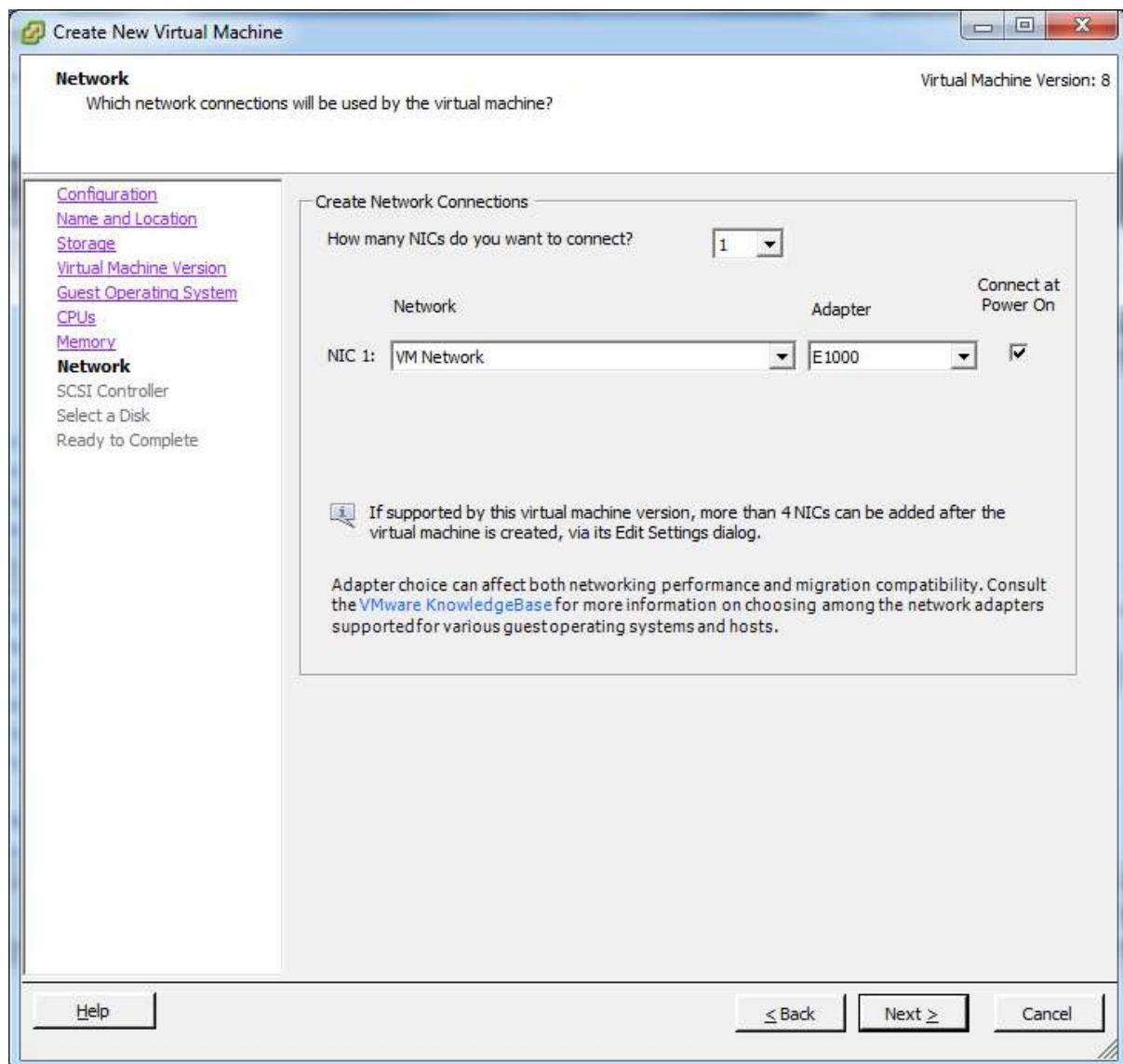
CPUs: Accept the defaults and click next.



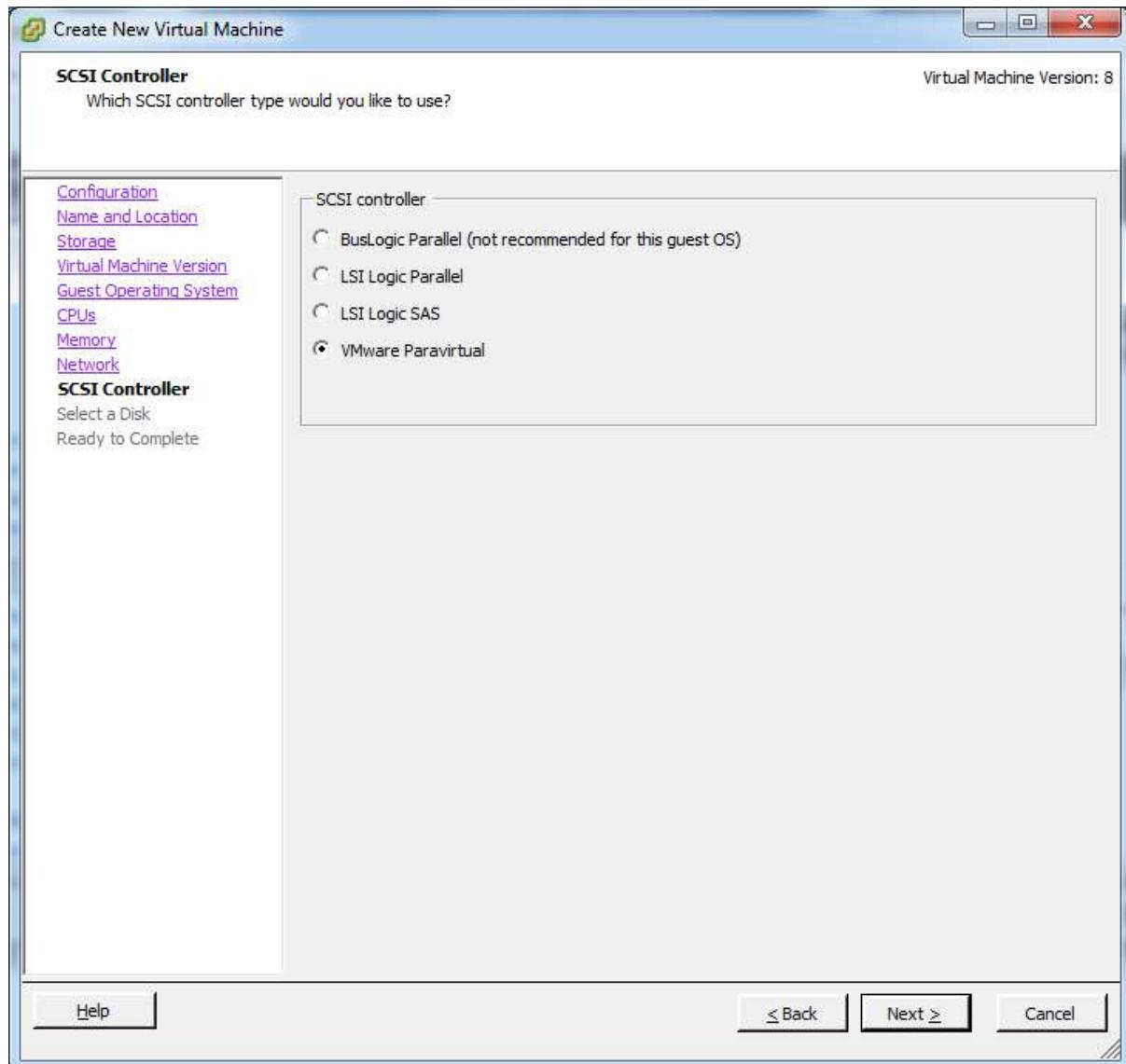
Select memory as 1 GB and click next



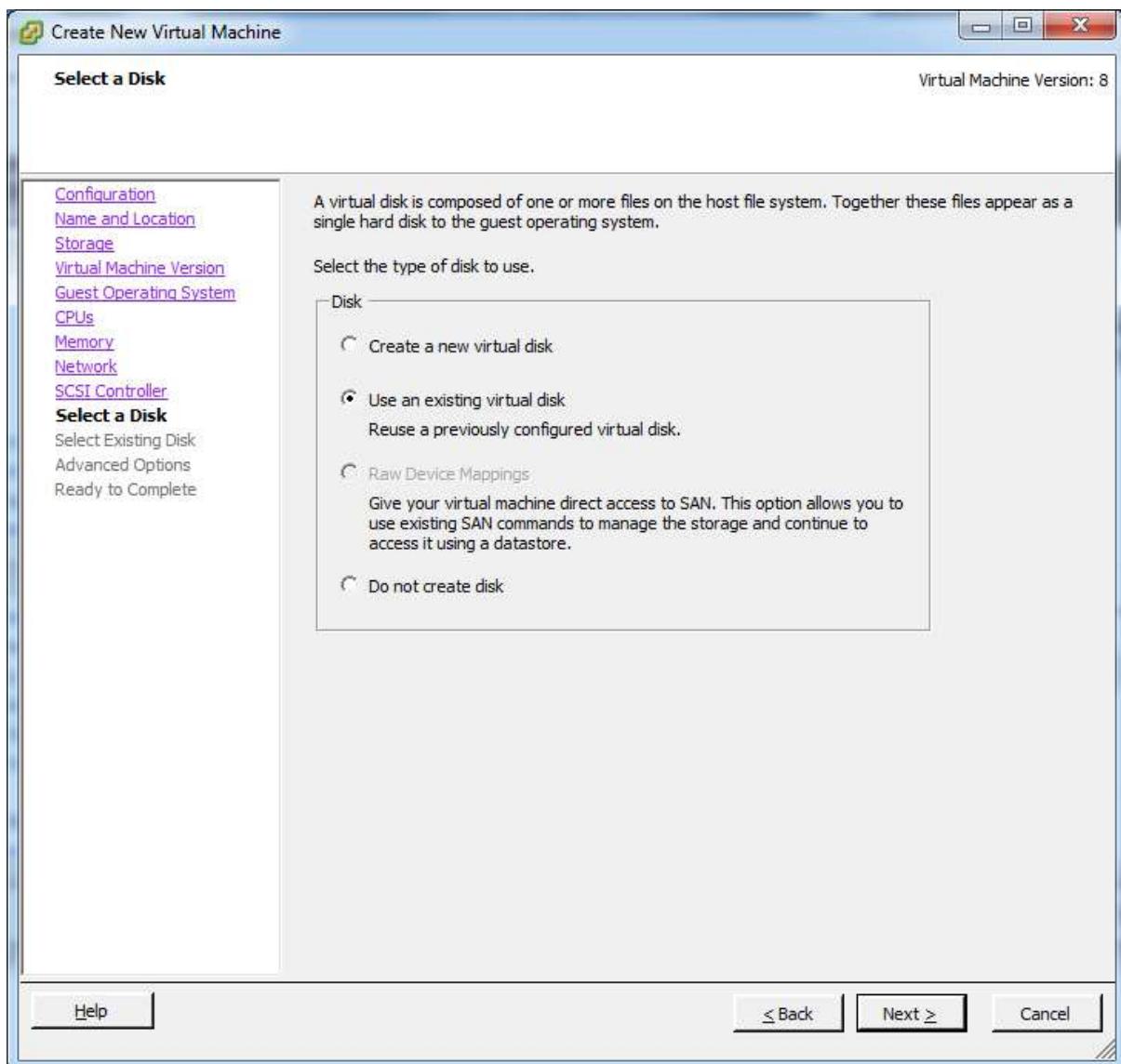
Select it as default and click next



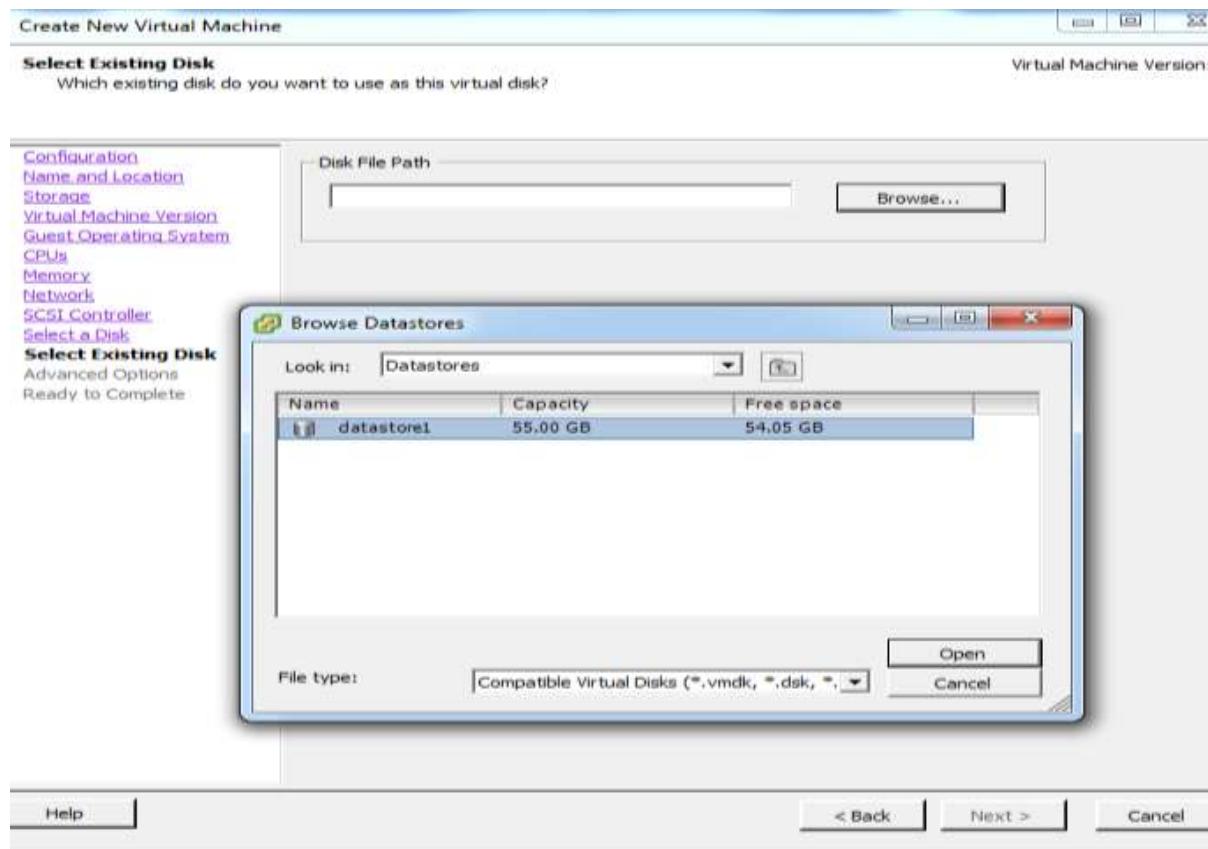
In the SCSI controller select as VMware Paravirtual and click next.



Select disk --> use an existing virtual disk and click next.

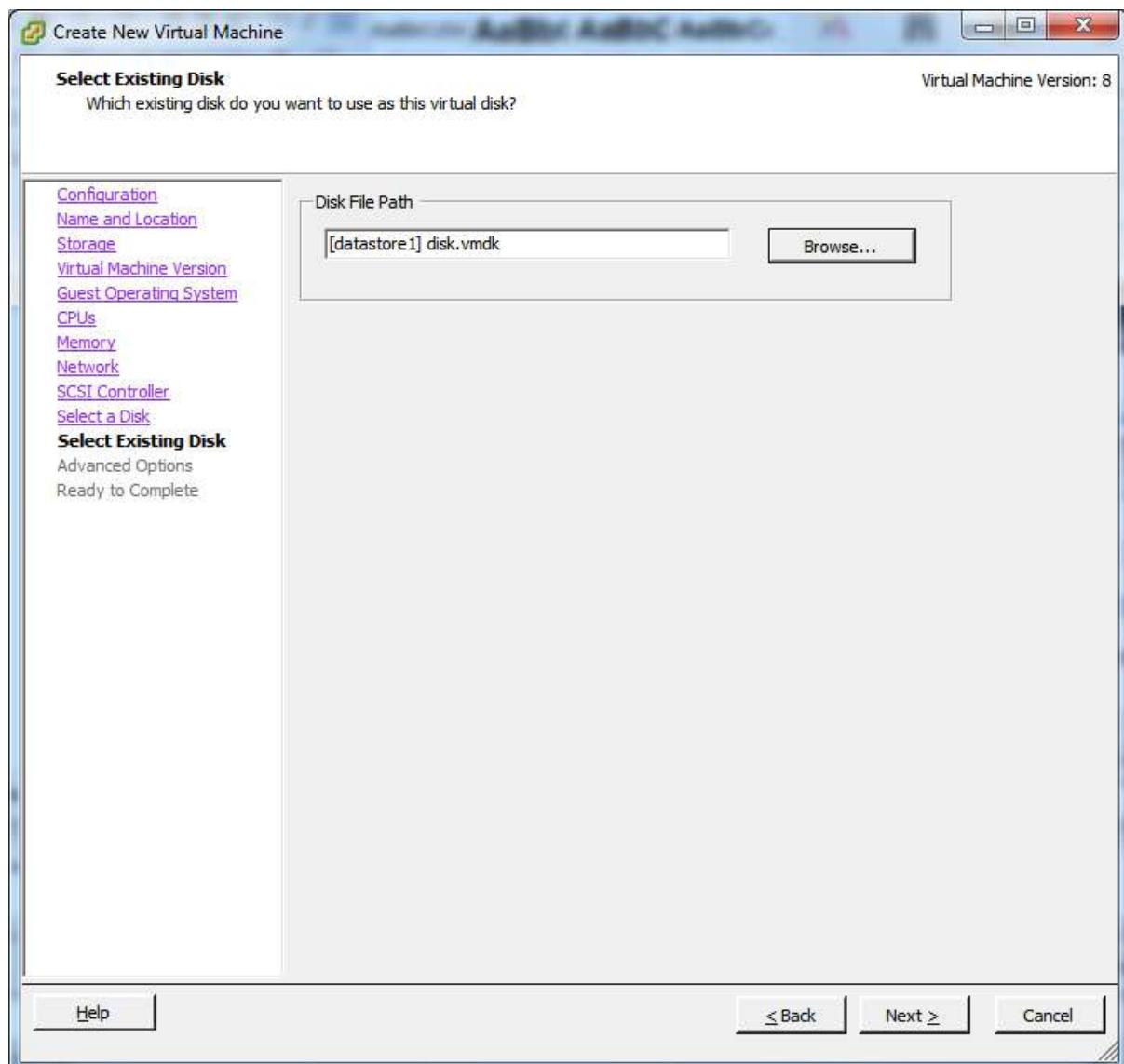


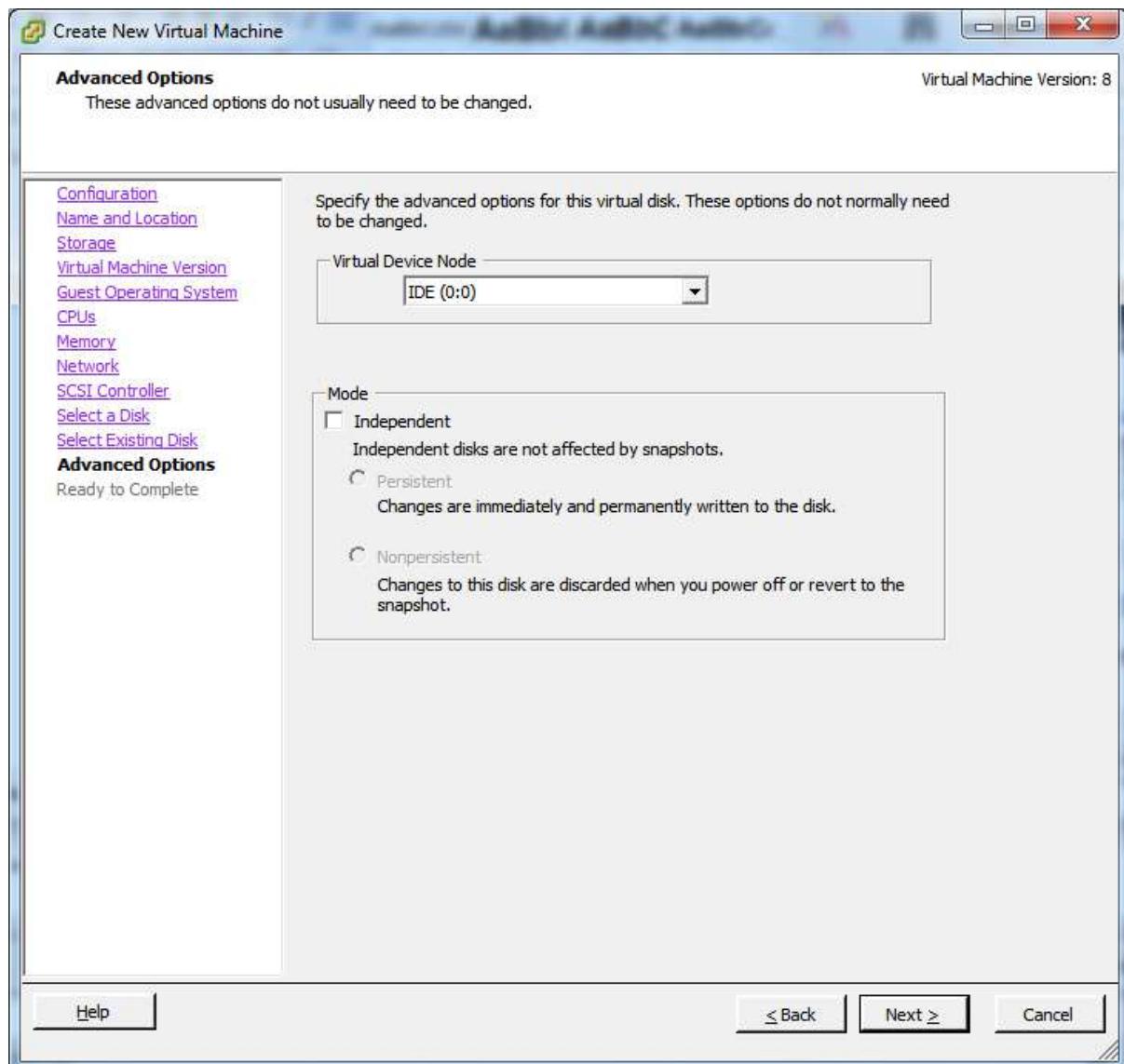
Click on browse and select data store1



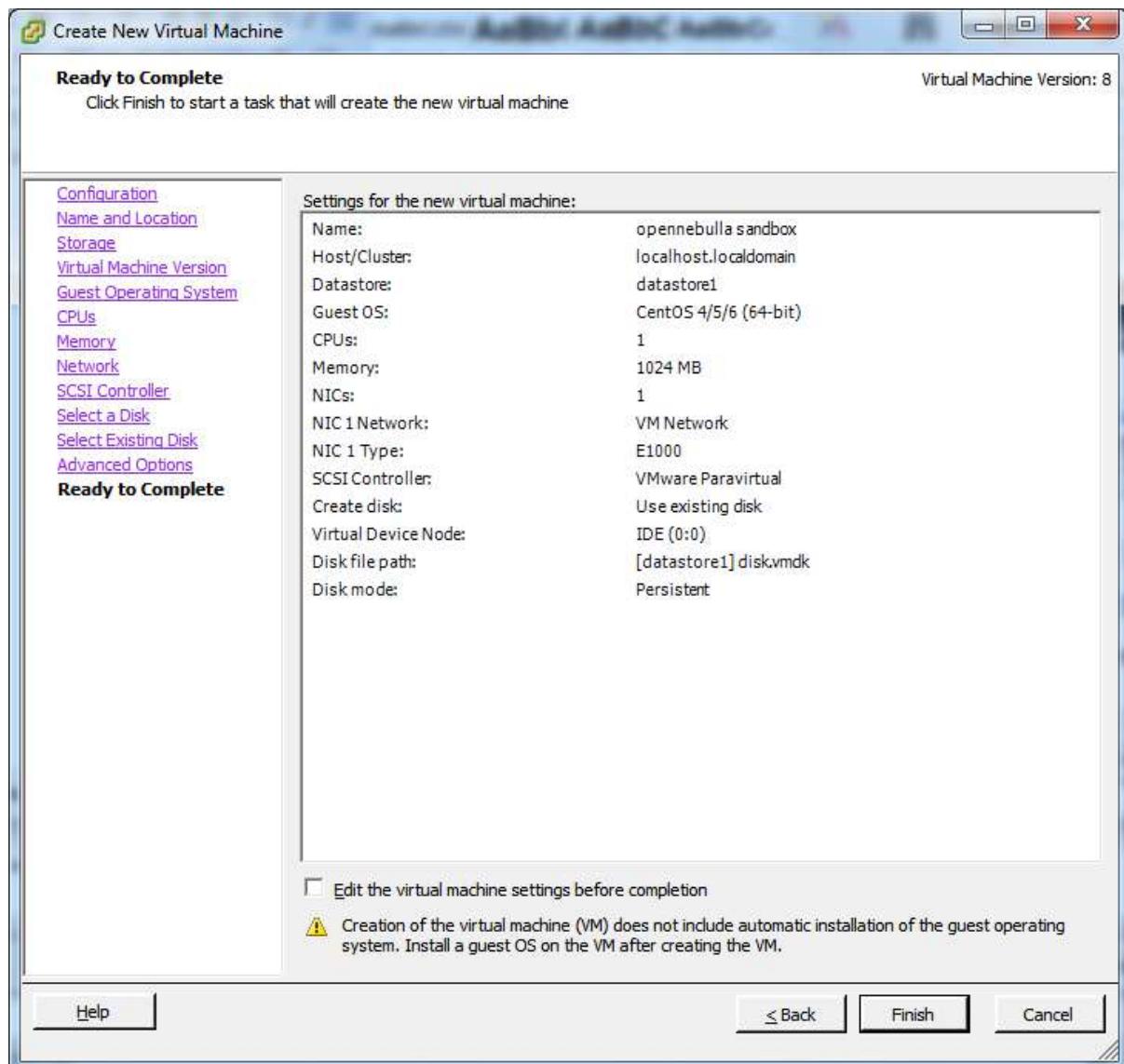
Double click on datastore1 --

You will get disk.vmdk file & click on OK

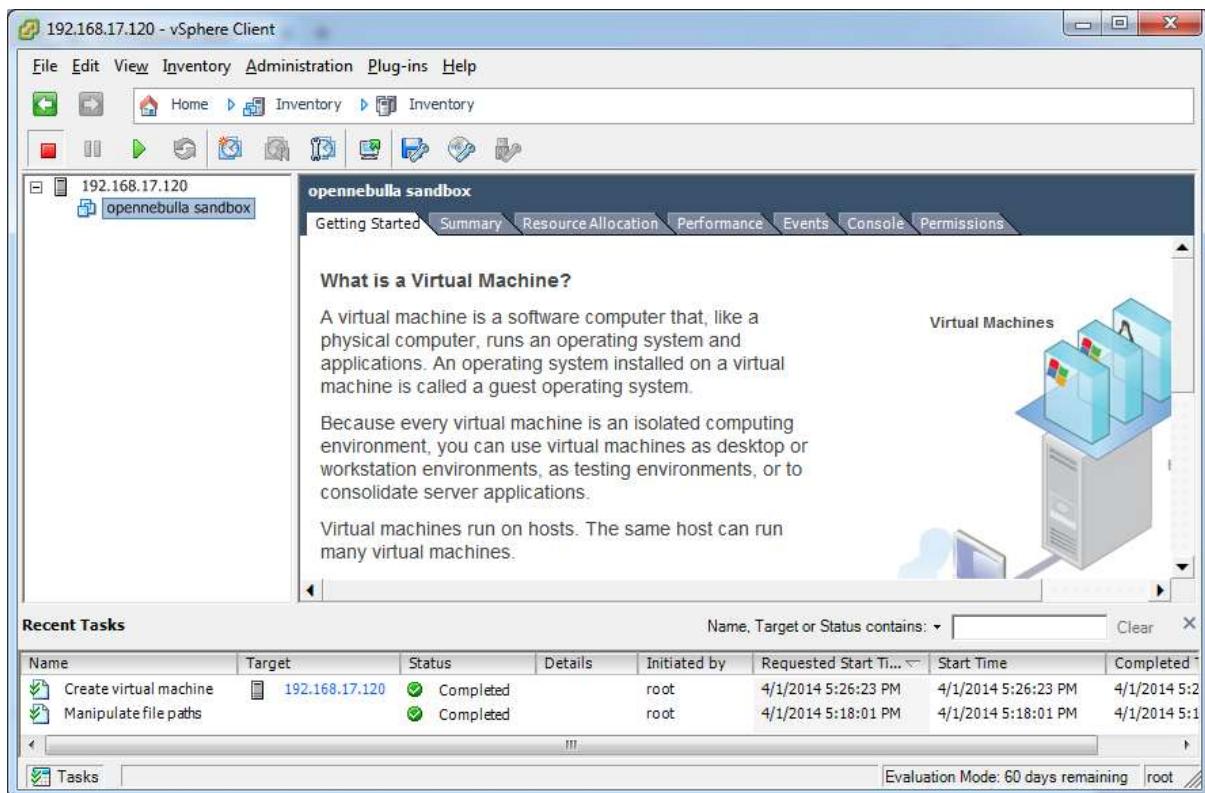




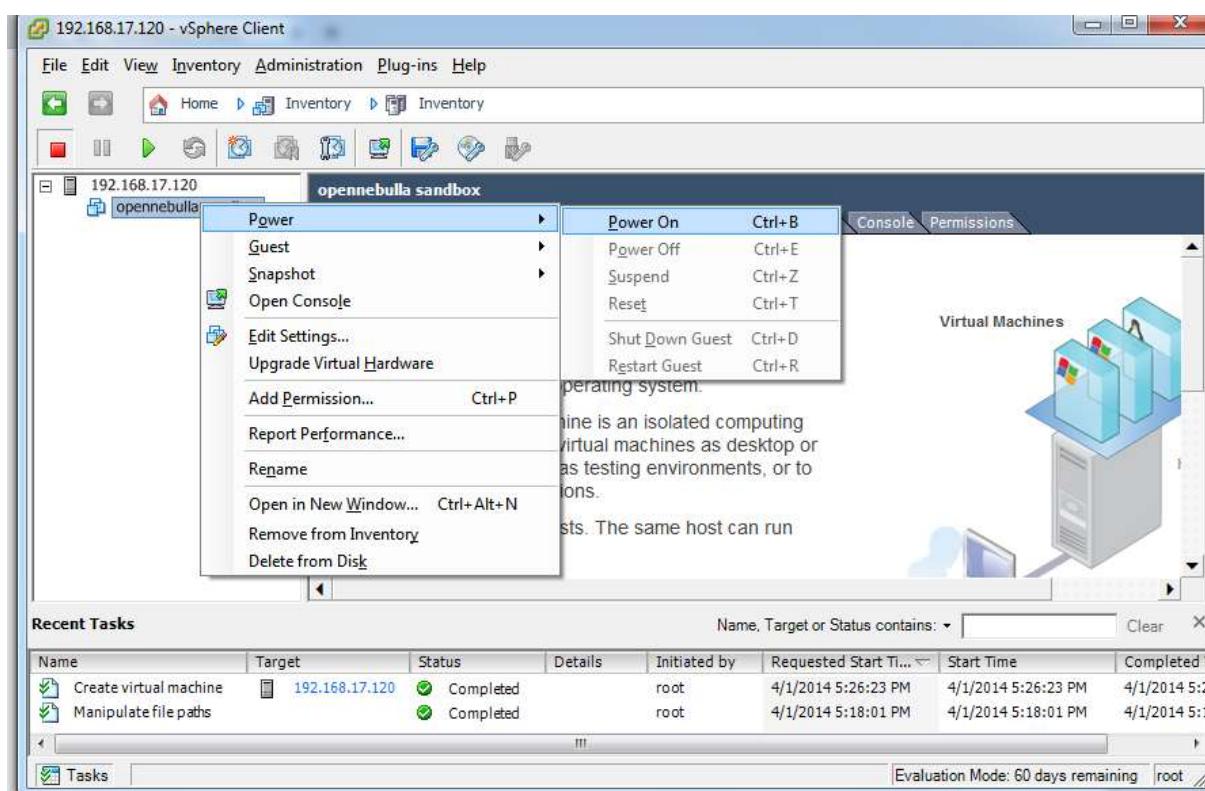
Click on next



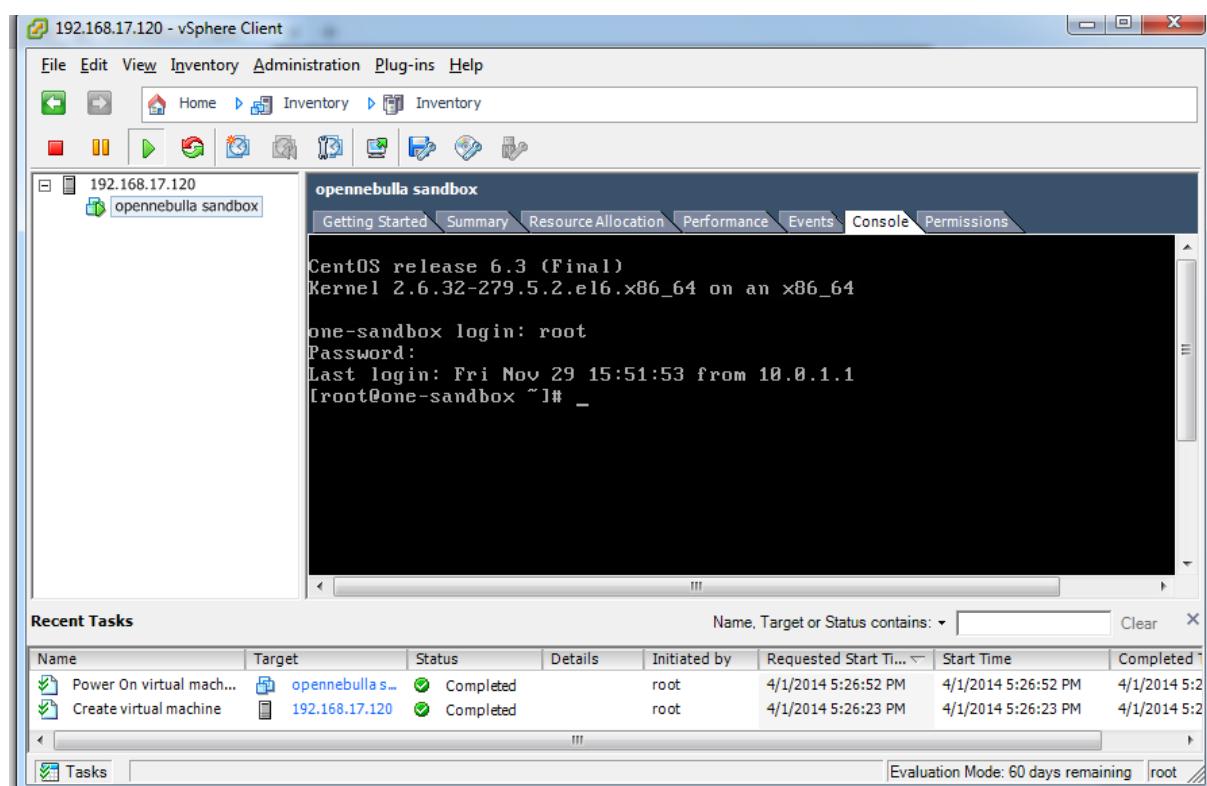
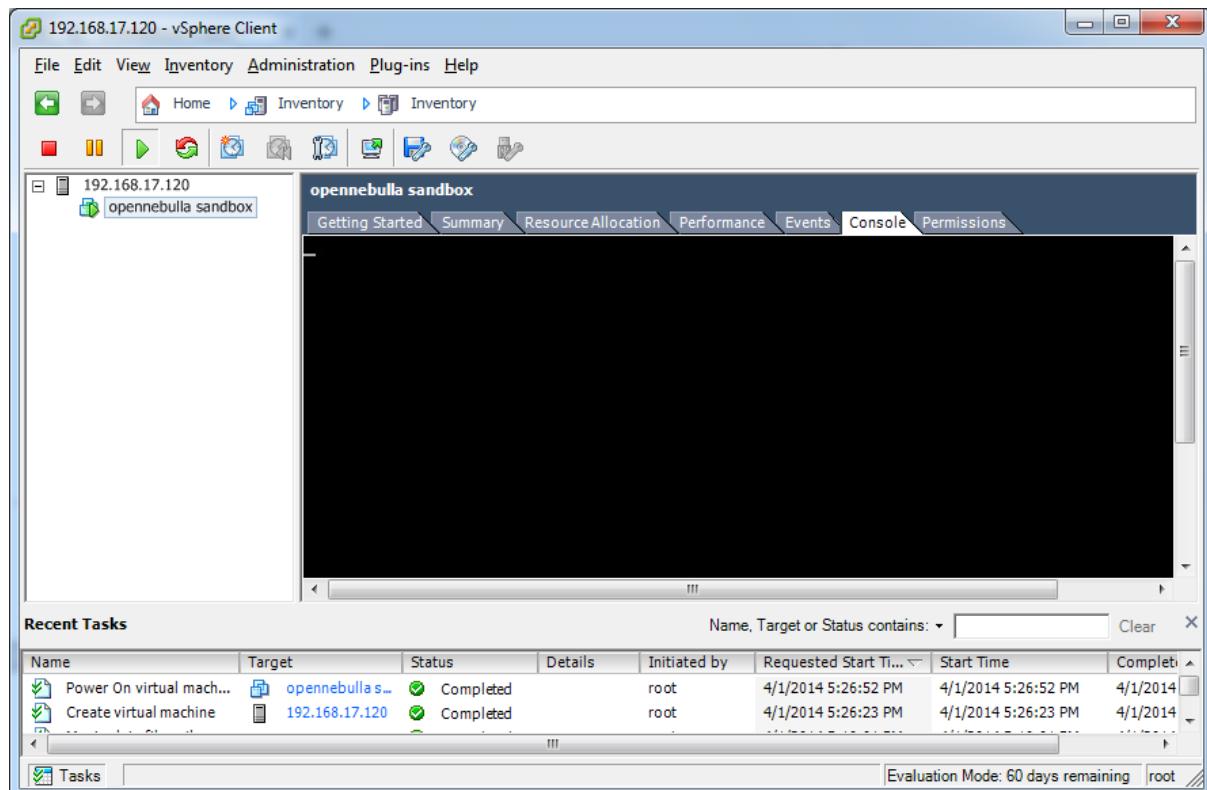
Click on finish



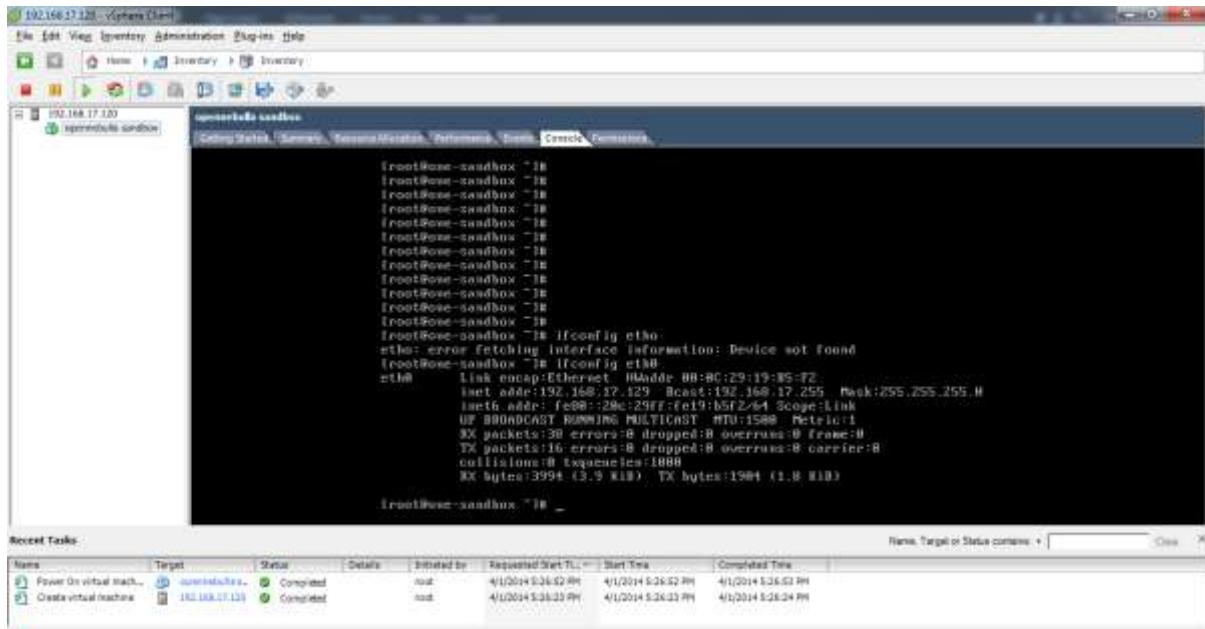
## Power on the virtual machine



Click on console tab

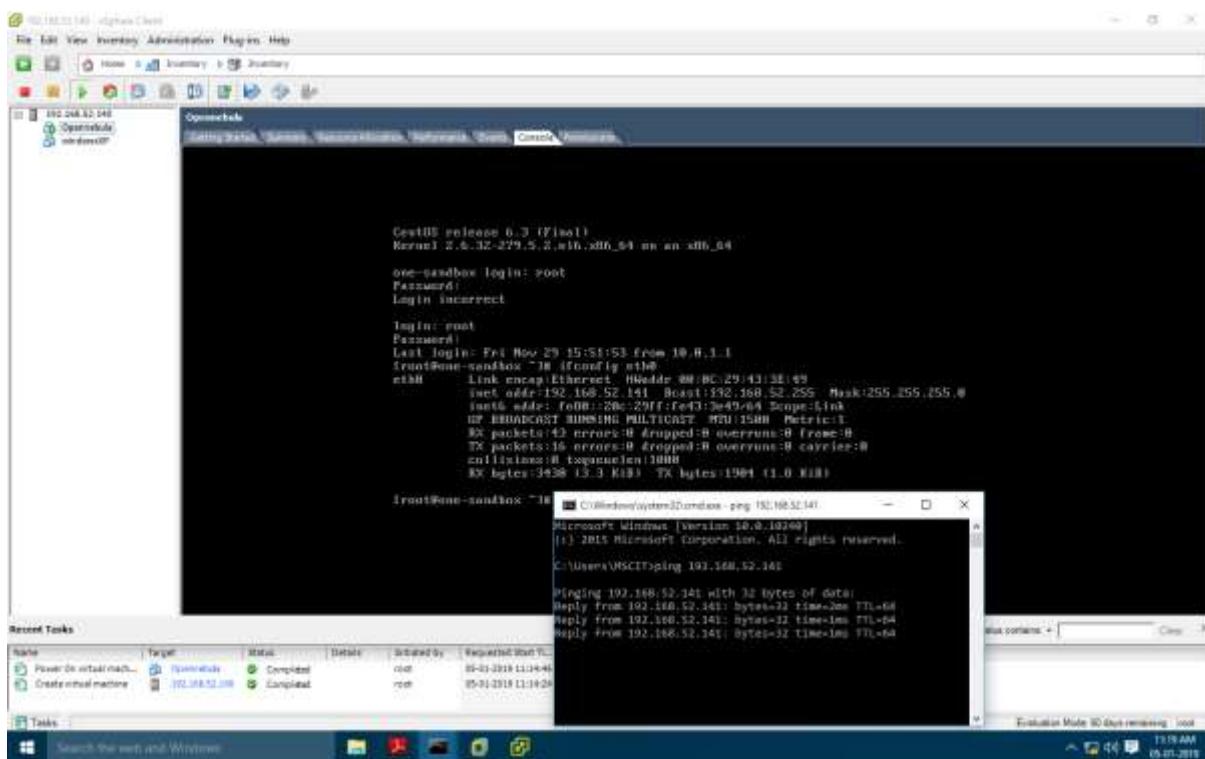


Type ifconfig eth0 command to check ip address of linux centos machine

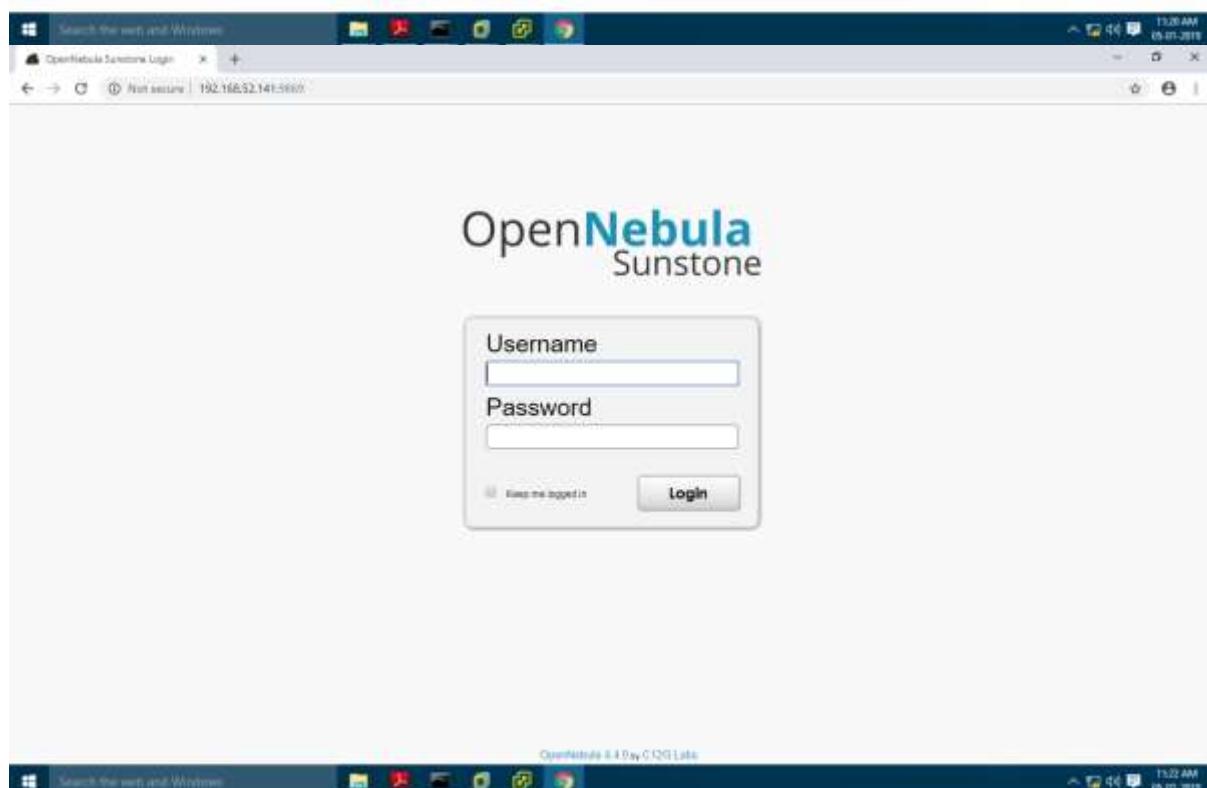
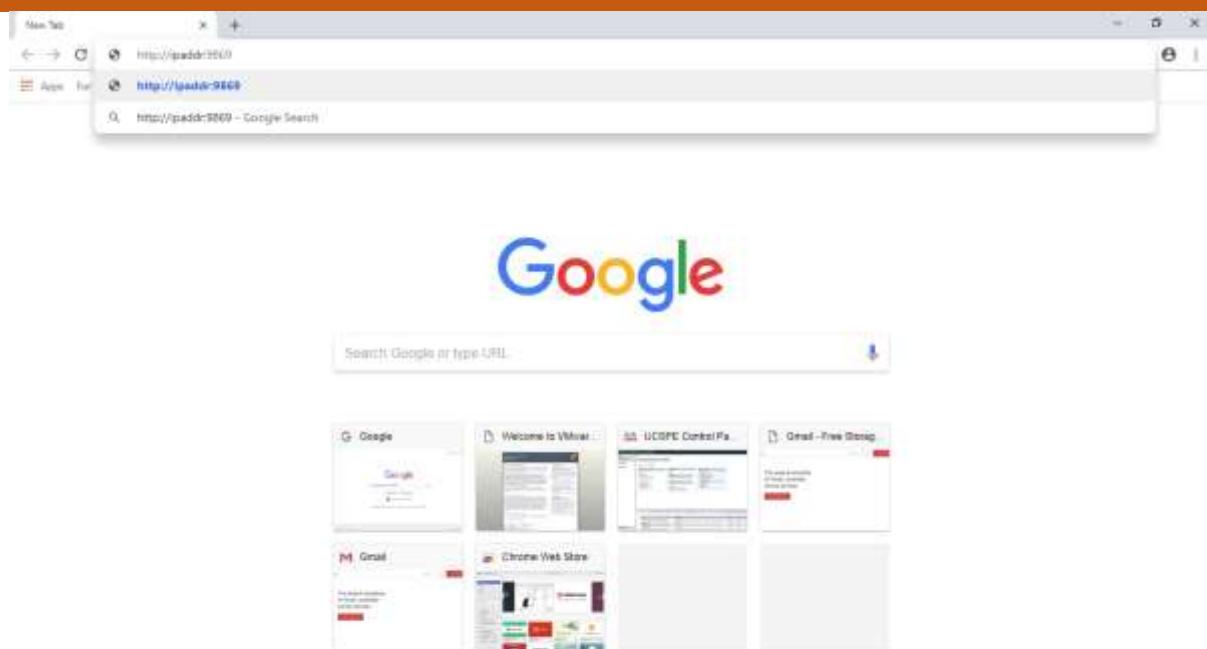


Since ip address of openebula is 192.168.17.129

Now try to ping 192.168.17.129 openebula on host OS



Go to Browser copy the http path and paste it.



```
type username : oneadmin  
password : Opennebula
```

OpenNebula Sunstone Login

Not secure | 192.168.52.141:5680

OpenNebula Sunstone

Username  
oneadmin

Password  
\*\*\*\*\*

Keep me logged in

Login

Invalid username or password.

OpenNebula Sunstone Cloud Dashboard

OpenNebula Sunstone

Search the web and Windows

OpenNebula Sunstone Cloud Dashboard

Not secure | 192.168.52.141:5680

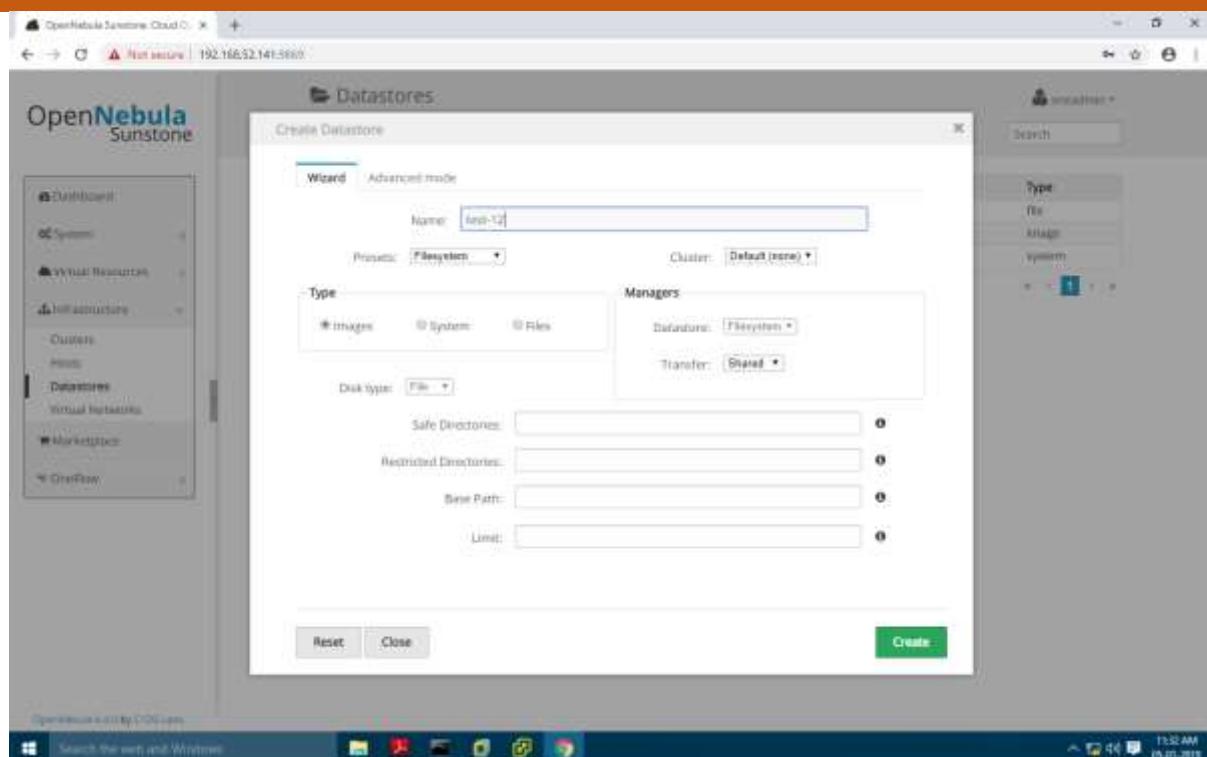
Datastores

Create

ID	Owner	Group	Name	Capacity	Cluster	Type
2	oneadmin	oneadmin	file	1.3GB / 4.8GB (19%)	-	File
1	oneadmin	oneadmin	default	1.3GB / 3.8GB (19%)	-	Image
0	oneadmin	oneadmin	system	1.3GB / 3.8GB (19%)	-	System

Showing 1 to 3 of 3 entries.

click on "create"  
type name test-12 and click on "create"



**DATASTORE is created**

ID	Owner	Group	Name	Capacity	Cluster	Type
100	oneadmin	oneadmin	test-12	9.8GB / 9.8GB (100%)	-	Image
2	oneadmin	oneadmin	files	9.8GB / 9.8GB (100%)	-	File
1	oneadmin	oneadmin	default	9.8GB / 9.8GB (100%)	-	Image
0	oneadmin	oneadmin	system	9.8GB / 9.8GB (100%)	-	System

now we will create "Virtual Network"

The screenshot shows the OpenNebula Sunstone web interface. On the left, a sidebar navigation includes Dashboard, System, Virtual Resources, Infrastructure (Clusters, Hosts, Datastores), Virtual Networks, Marketplace, and OneFlow. The main area displays a table of Virtual Networks with two entries:

ID	Owner	Group	Name	Cluster	Type	Leases
1	oneadmin	oneadmin	local_test12	-	FIXED	0
0	oneadmin	oneadmin	cloud	-	FIXED	0

A message at the bottom says "Showing 1 to 2 of 2 entries". Below this, a detailed view for 'local\_test12' is shown with tabs for Information and Lease management. The Information tab displays the following details:

ID	1
Name	local_test12
Cluster	-
Bridge	br0
VLAN	no
Physical device	-
VLAN ID	-

Permissions and Ownership sections are also present. A Configuration Attributes section with an 'Add' button is at the bottom.

click on "Create"

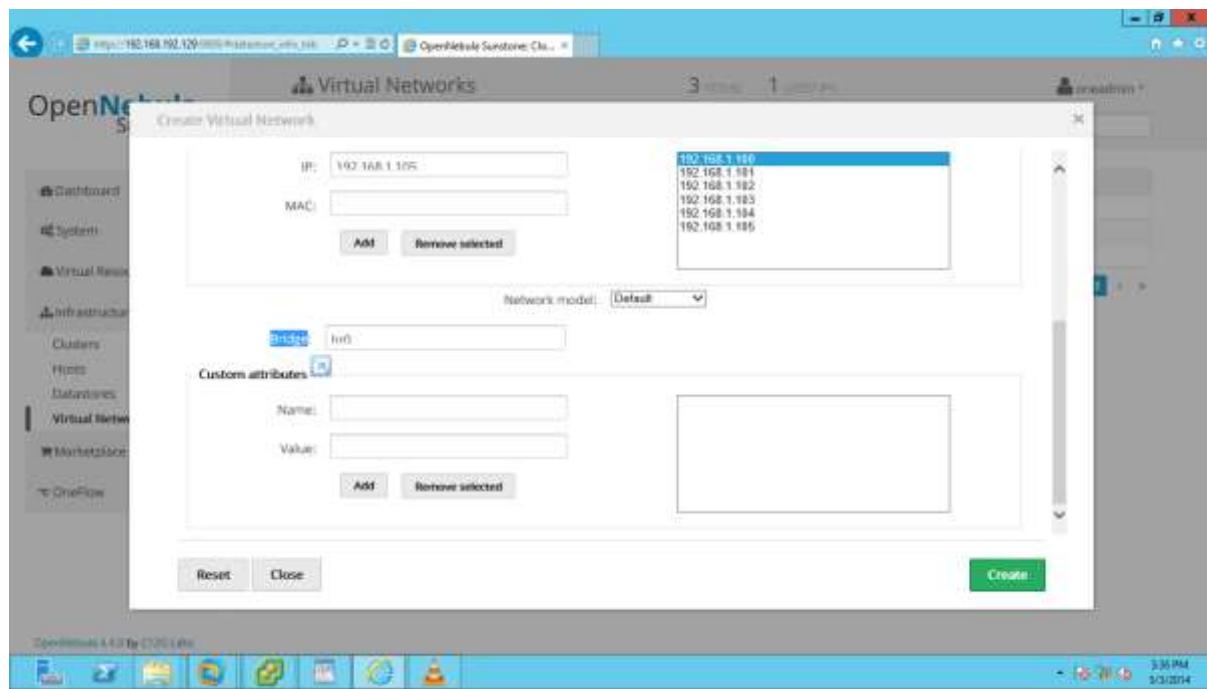
provide name as "local\_test12"

click on Fixed Network

provided ip address in range "192.168.1.100" to "192.168.1.106"

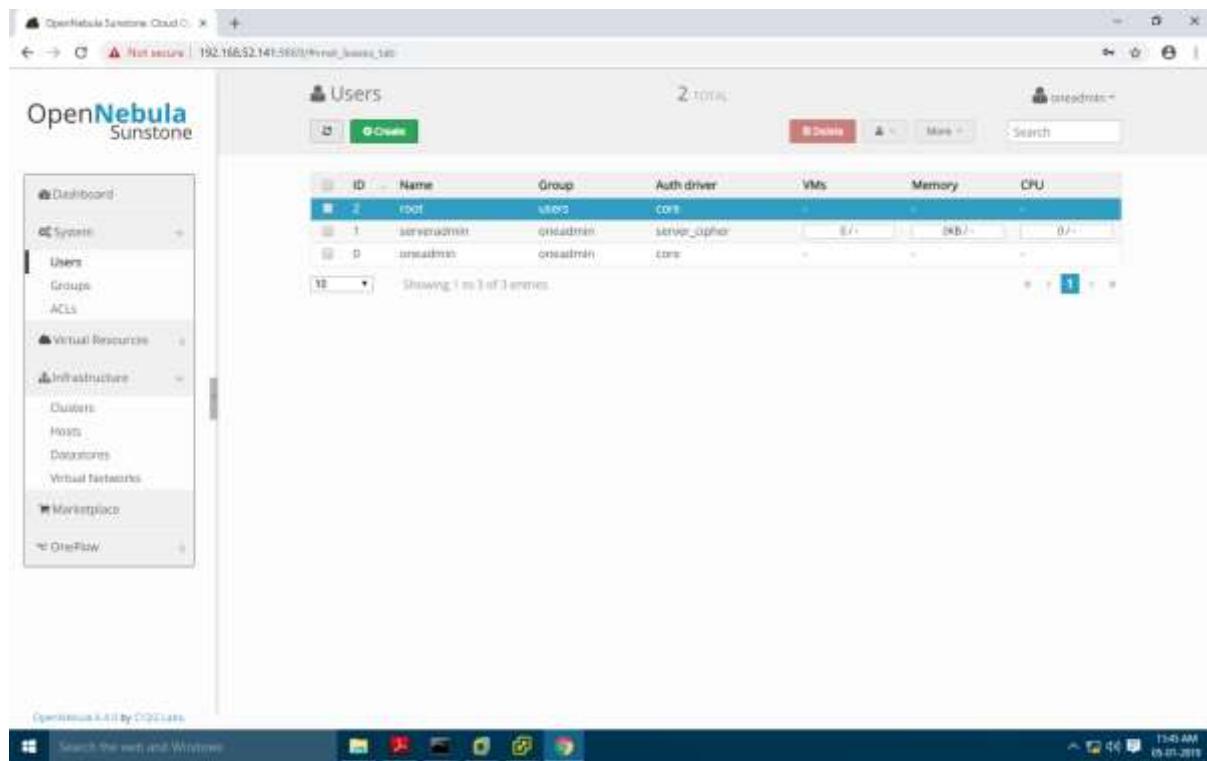
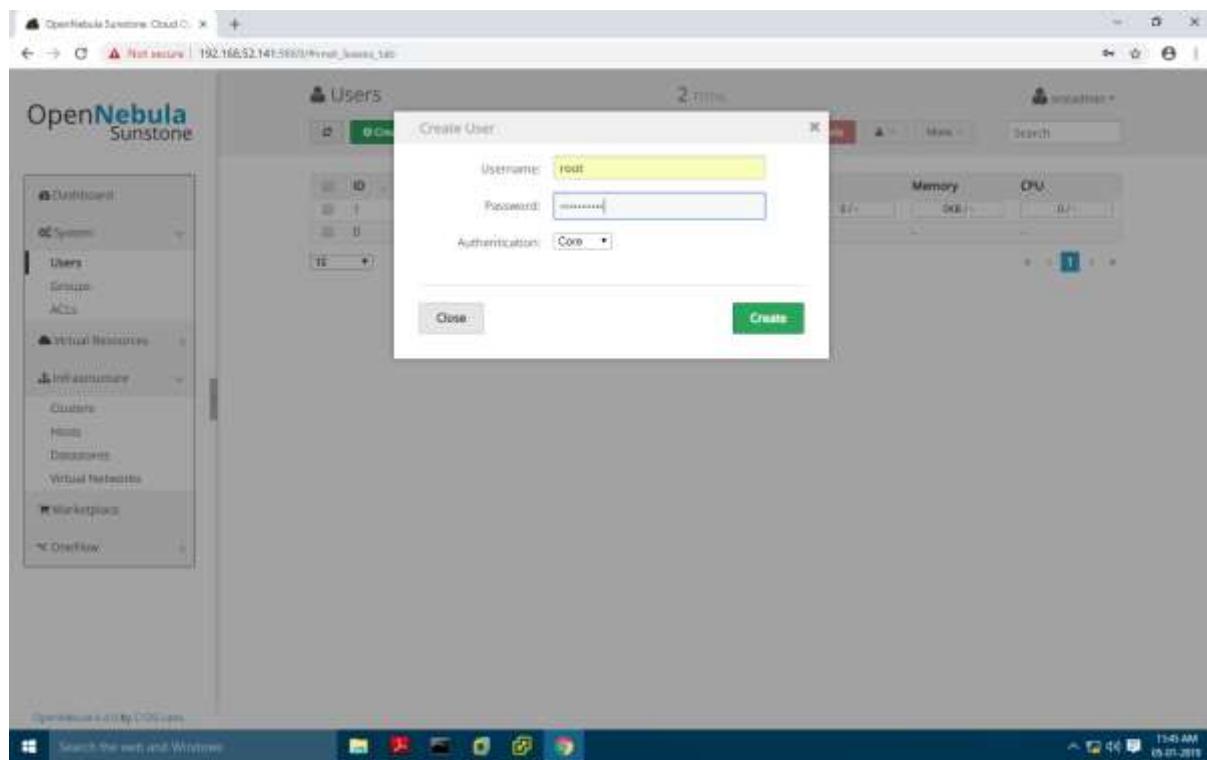
and also provide Bridge name :"br0"

The screenshot shows the 'Create Virtual Network' wizard in 'Wizard' mode. The 'Name' field is set to 'local\_test12'. Under the 'Type' section, 'IPv4' is selected. The 'IP Address' field contains '192.168.1.105'. The 'Gateway' field contains '192.168.1.106'. The 'MAC' field is empty. The 'Range' dropdown shows IP addresses from '192.168.1.100' to '192.168.1.106'. At the bottom are 'Reset' and 'Close' buttons, and a green 'Create' button.

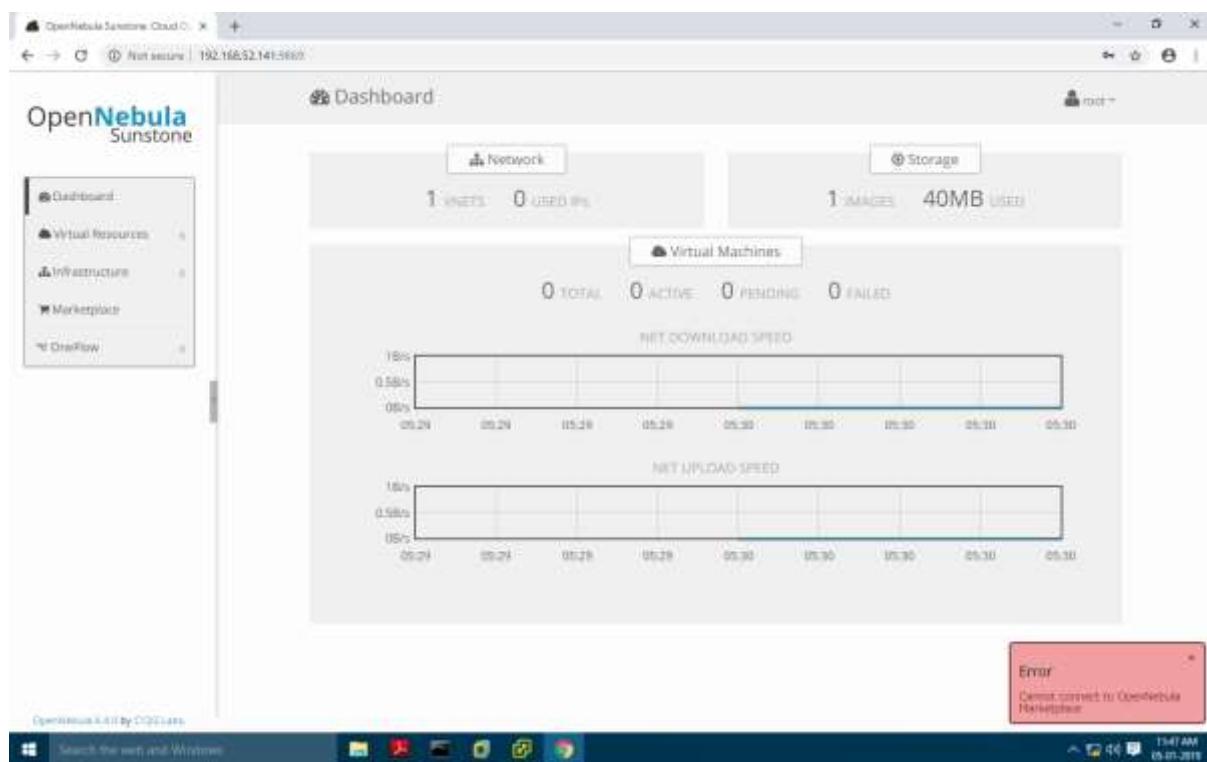
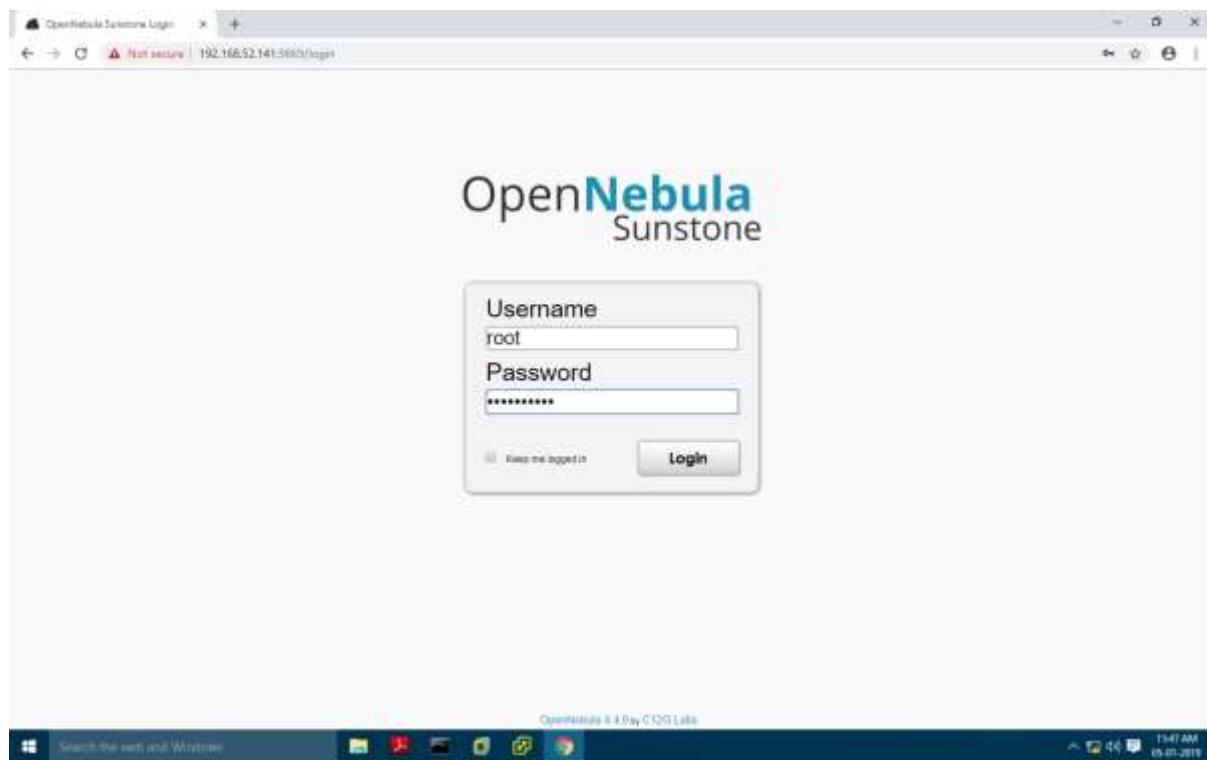


ID	Owner	Group	Name	Cluster	Type	Leases
1	oneadmin	oneadmin	local_test12	-	FIXED	0
0	oneadmin	oneadmin	cloud	-	FIXED	0

create new user  
name :root  
password : opnenebulal



now login again as  
username : root  
password : Opennebula



click on "Virtual Resources"  
and images

OpenNebula Sunstone Cloud C | Not secure | 192.168.52.141:5669

**OpenNebula Sunstone**

**Images**

1 TOTAL 40MB USED

ID Owner Group Name Datastore Type Status #VMS

0 sunadmin sunadmin myneu default OS READY 0

Showing 1 to 1 of 1 entries

Error  
Cannot connect to OpenNebula Host/cluster

OpenNebula Sunstone Cloud C | Not secure | 192.168.52.141:5669

**OpenNebula Sunstone**

**Create Image**

Wizard Advanced mode

Name: **myimg** Type: CDROM

Description:

Datastore: default (d1)

Persistence:

Image location:

Provide a path  Upload  Empty datastore

Choose File: No file chosen

Advanced options

Reset Close Create

Error  
Cannot connect to OpenNebula Host/cluster

now register blank img

OpenNebula Sunstone Cloud 0.4.0 | Not secure | 192.168.52.141:5669

## Images

ID	Owner	Group	Name	Datastore	Type	Status	#VMS
1	root	users	centos5	default	CDROM	READY	0
0	cloudadmin	cloudadmin	mylinus	default	OS	READY	0

Showing 1 to 2 of 2 entries

Error  
Cannot connect to OpenNebula Hostservice

click on template

OpenNebula Sunstone Cloud 0.4.0 | Not secure | 192.168.52.141:5669

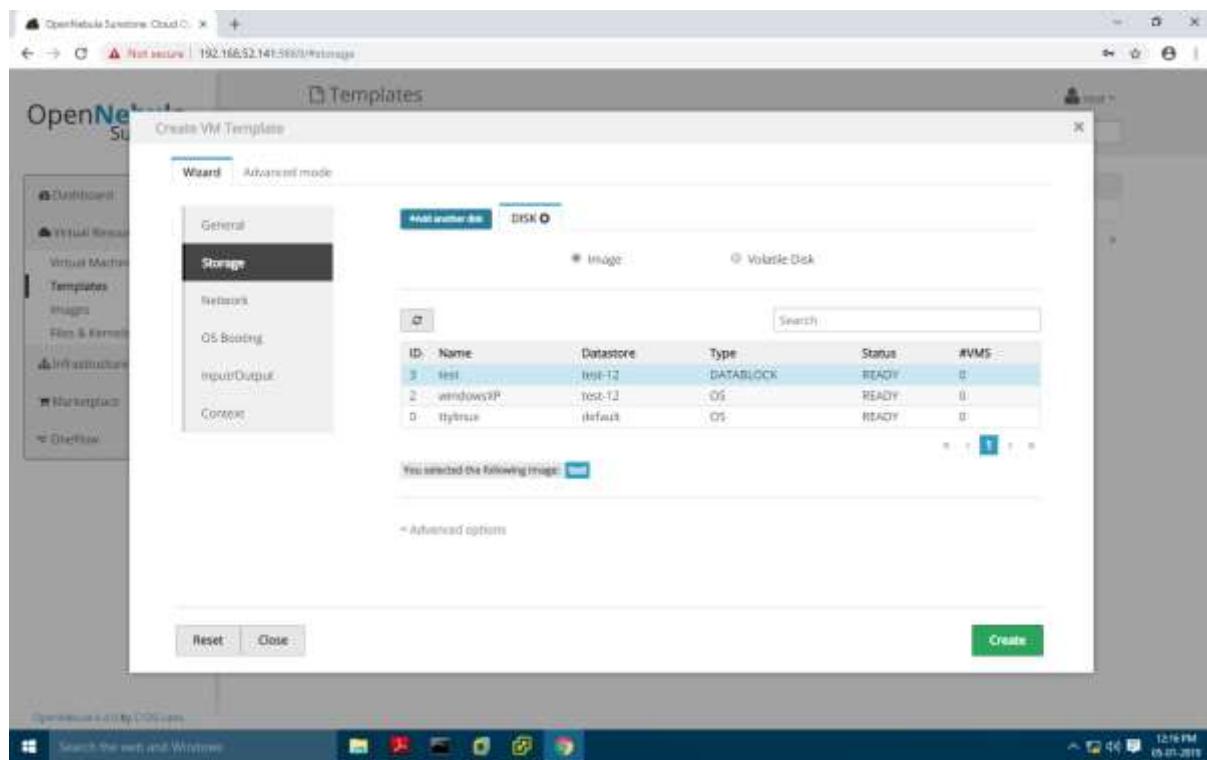
## Templates

ID	Owner	Group	Name	Registration time
0	cloudadmin	cloudadmin	mylinus	03:16:57 21/11/2012

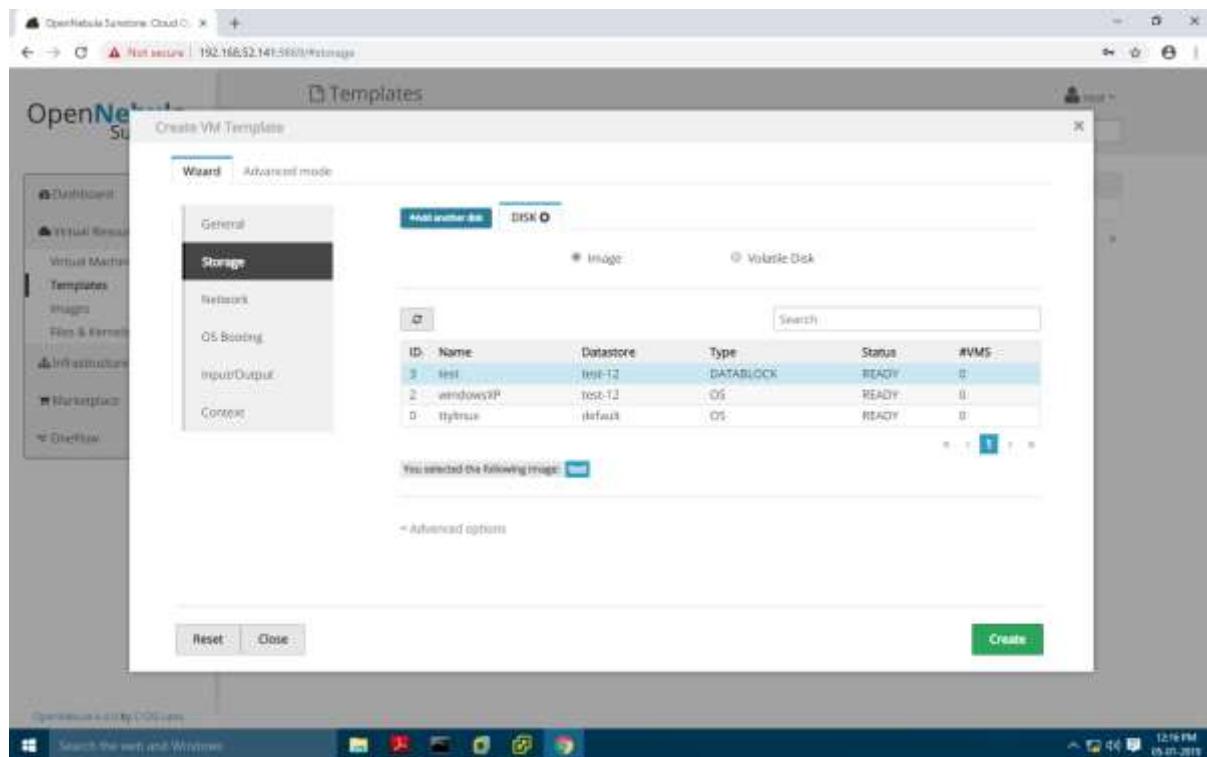
Showing 1 to 1 of 1 entries

Error  
Cannot connect to OpenNebula Hostservice

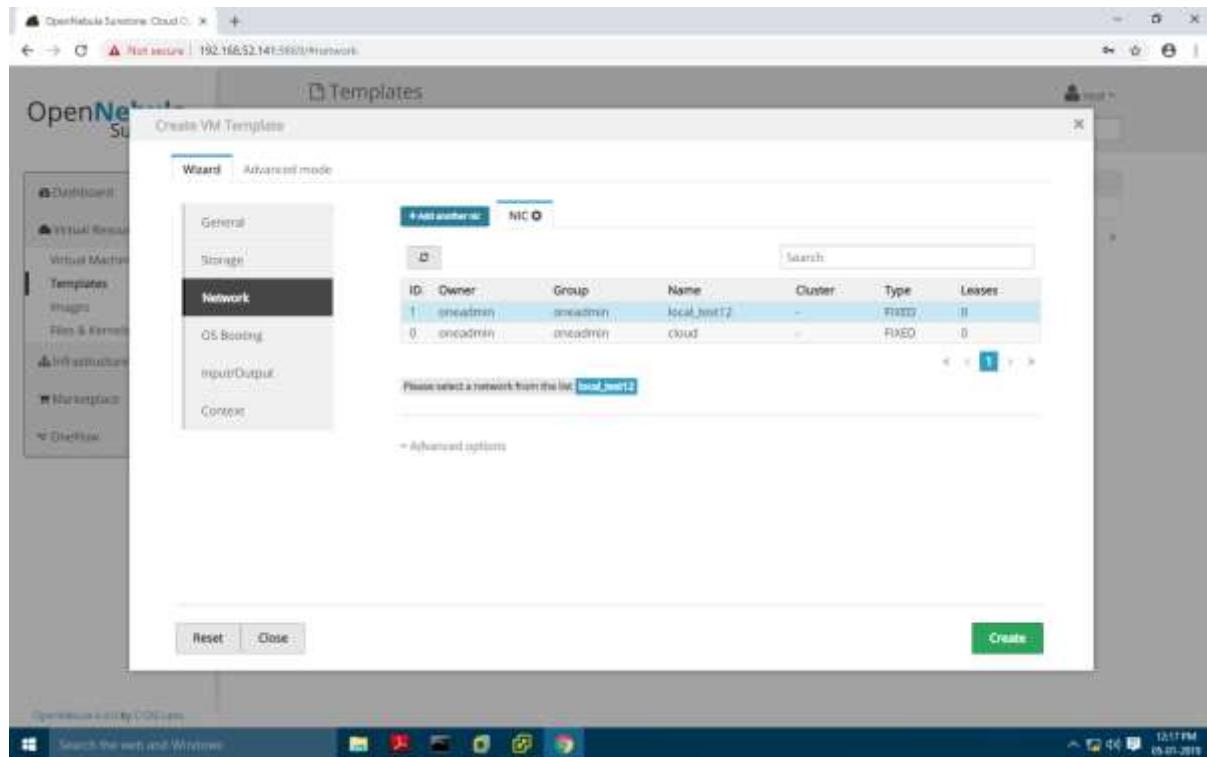
click on storage



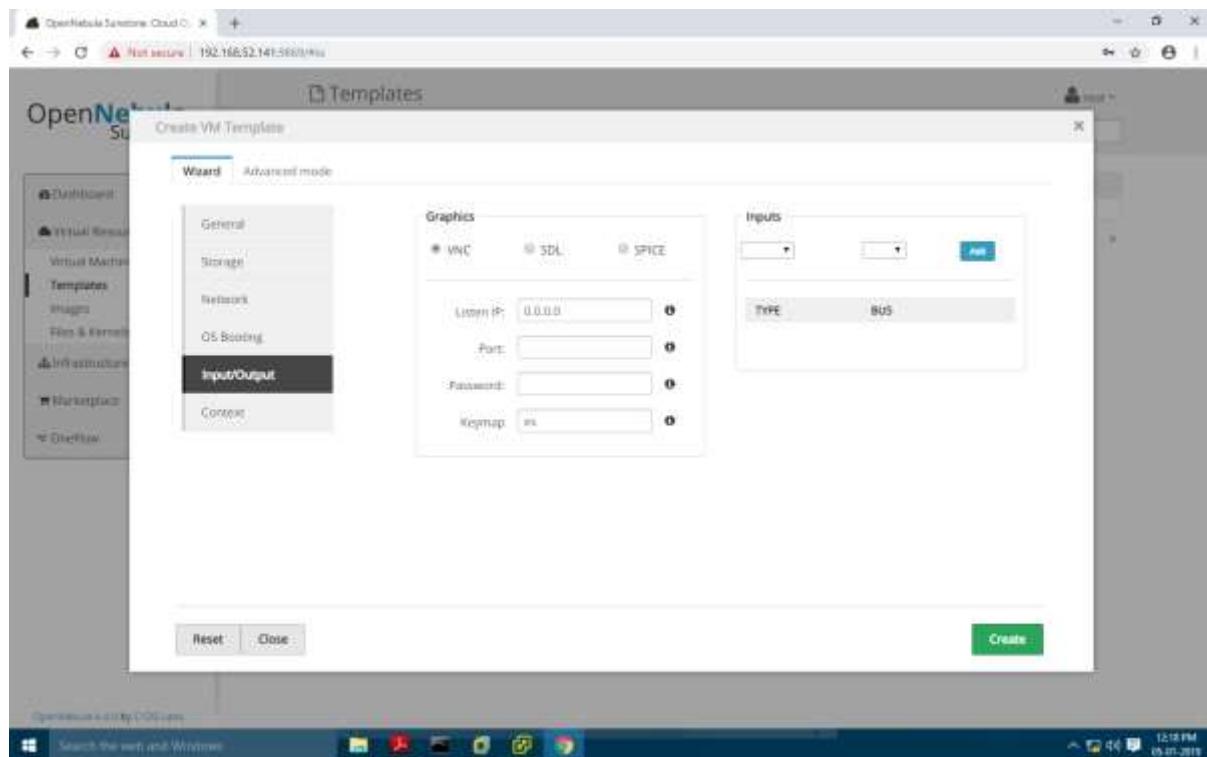
click on add another disk



click on "Network" and select network we have created



click on "INPUT/OUTPUT" SELECT "VNC"



The screenshot shows the OpenNebula Sunstone Cloud interface. On the left, there's a sidebar with navigation links: Dashboard, Virtual Resources (Virtual Machines, Templates, Images, Files & Kernels), Infrastructure, Marketplace, and OneFlow. The main area has a title 'Templates' with a 'Create' button. Below it is a table listing templates. The first row in the table is selected, showing details for 'new testvm'. A modal window titled 'Information' displays the template's ID (2), Name ('new testvm'), and Register time (12:18:30 05/01/2019). To the right of the table is a 'Permissions' table with columns for Owner, Group, and Other, and rows for Use, Manage, and Admin. The bottom of the screen shows a Windows taskbar with icons for File Explorer, Task View, Start, Taskbar settings, and a search bar.

NOW click on INSTANTIATE

This screenshot shows the same OpenNebula Sunstone interface as above, but with a modal dialog box in the foreground titled 'Instantiate VM Template'. It contains fields for 'VM Name' (set to 'OP testvm') and '# VMs' (set to 1). There are 'Close' and 'Instantiate' buttons. The background shows the same template list and permissions table as the previous screenshot. The Windows taskbar at the bottom is identical.

CLICK ON "VIRTUAL MACHINES"

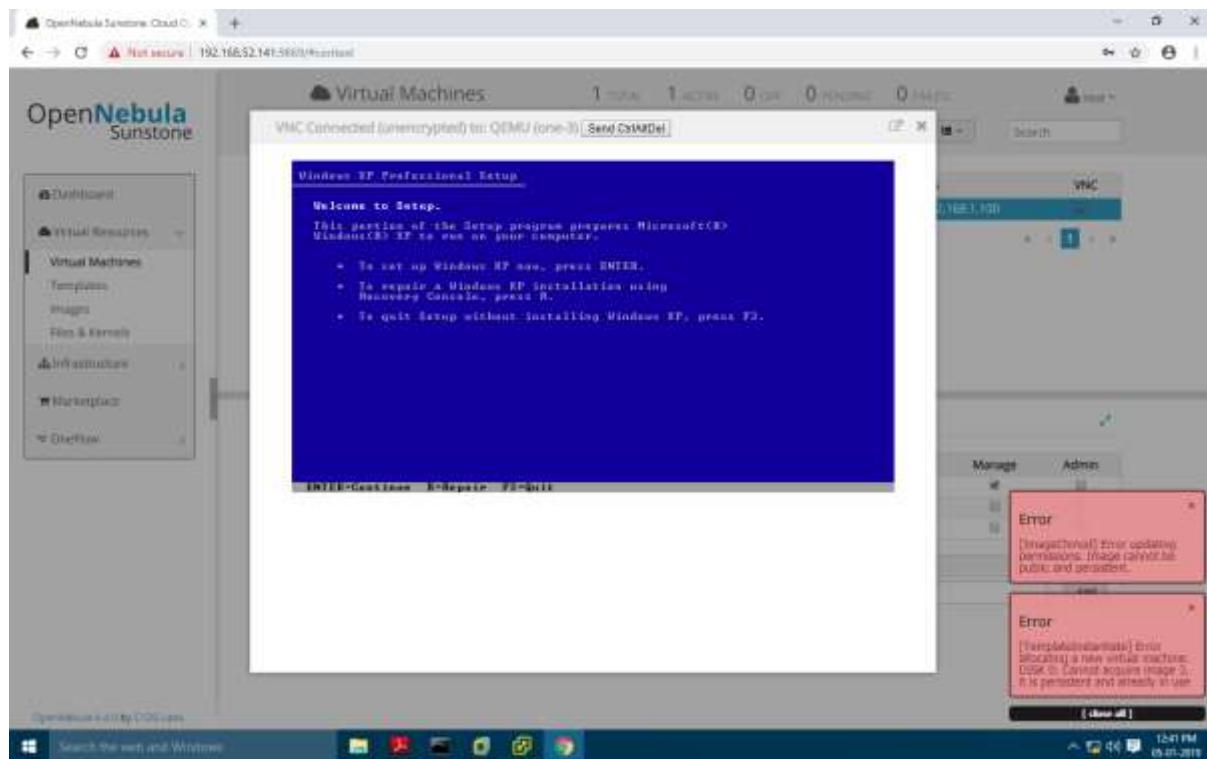
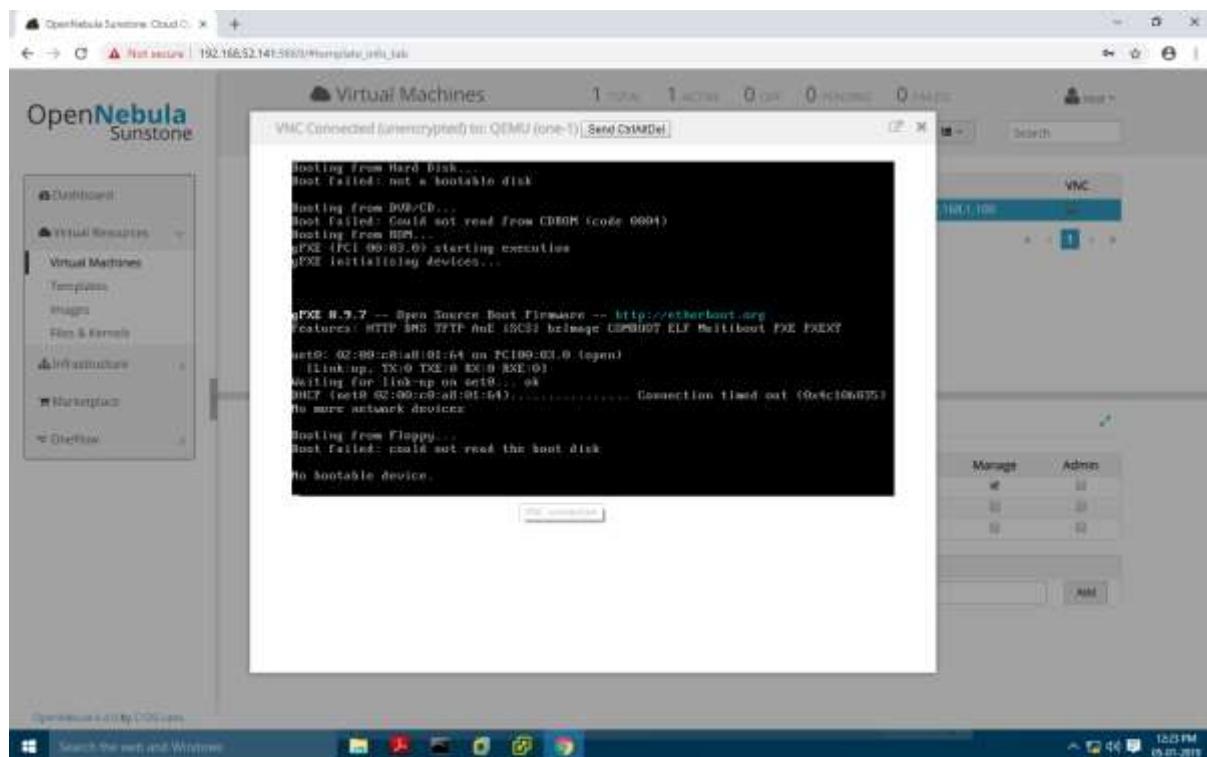
The screenshot shows the OpenNebula Sunstone Cloud interface. The title bar indicates the URL is 192.168.52.141:5660/Horizon/intf.html. The main area displays a table titled "Virtual Machines" with one entry:

ID	Owner	Group	Name	Status	Host	IPs	VNC
1	root	users	XP test12	RUNNING	one-sandbox	192.168.1.100	

The left sidebar has a "Virtual Resources" section with "Virtual Machines" selected, along with other options like Templates, Images, and Infrastructure. The status bar at the bottom shows "OpenNebula 4.4.0 by OCF Labs".

CLICK ON REFRESH ICON

This screenshot is identical to the one above, showing the same virtual machine entry in the table. The interface and sidebar are the same, and the status bar still displays "OpenNebula 4.4.0 by OCF Labs".



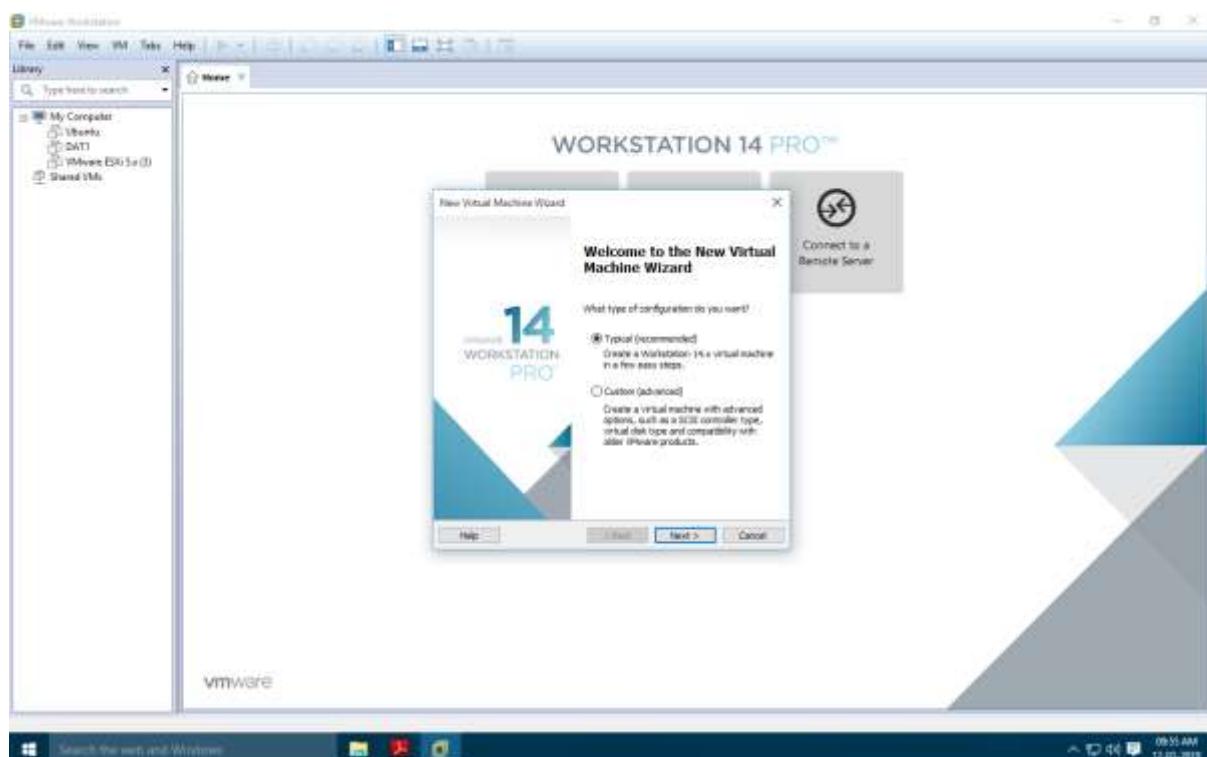
## PRACTICAL: 8

### IMPLEMENT IAAS USING EUCALYPTUS

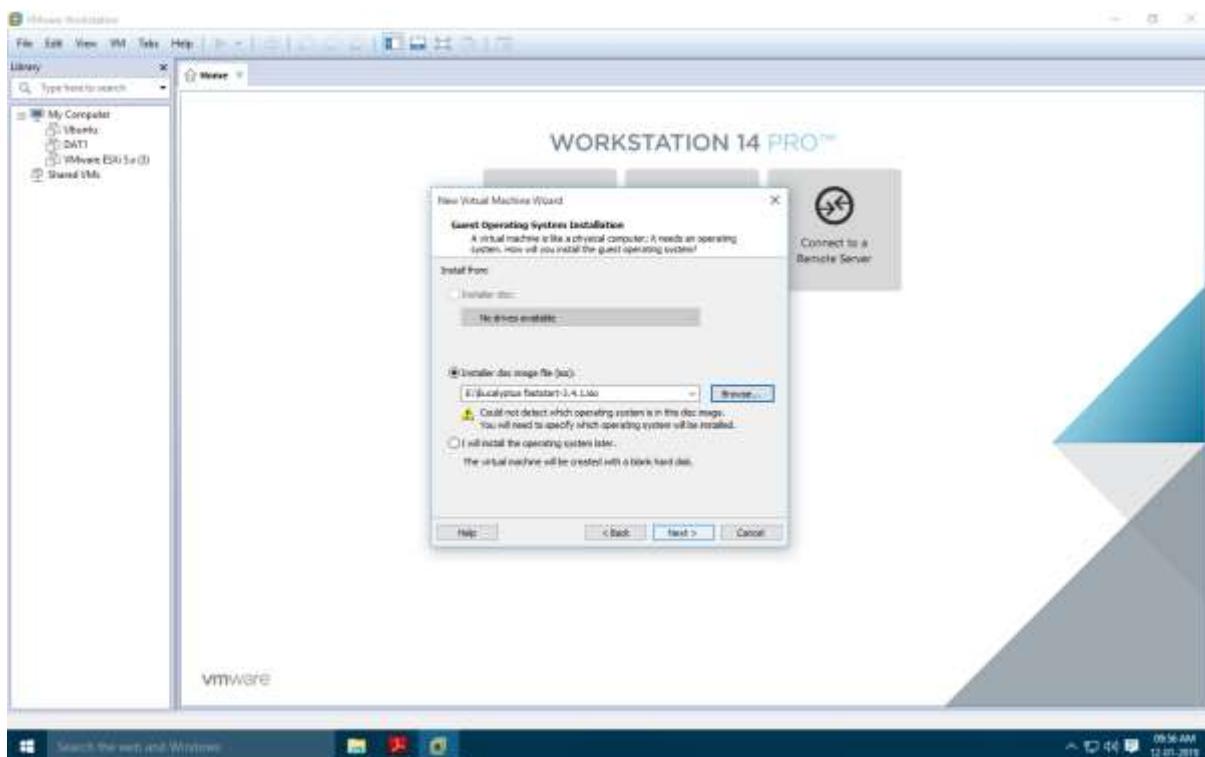
#### Steps:

Open Vmware Workstation 10 Go on File → New Virtual machine .

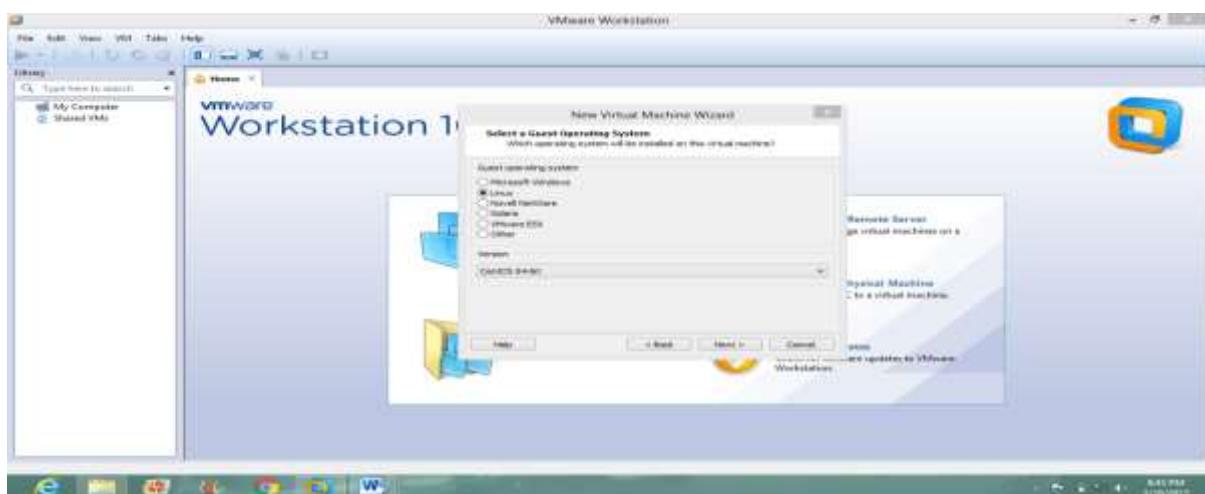
Select Type of Configuration "Typical"



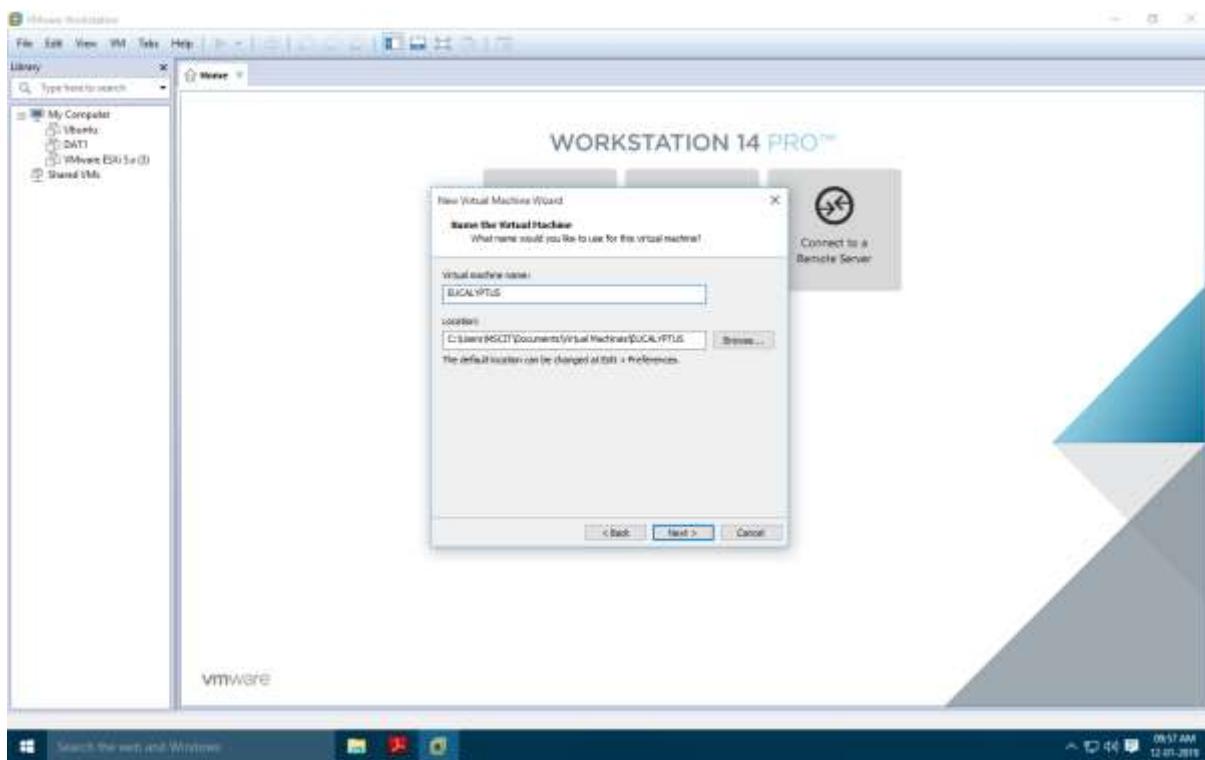
Select IOS image file browse the path of .iso file Next



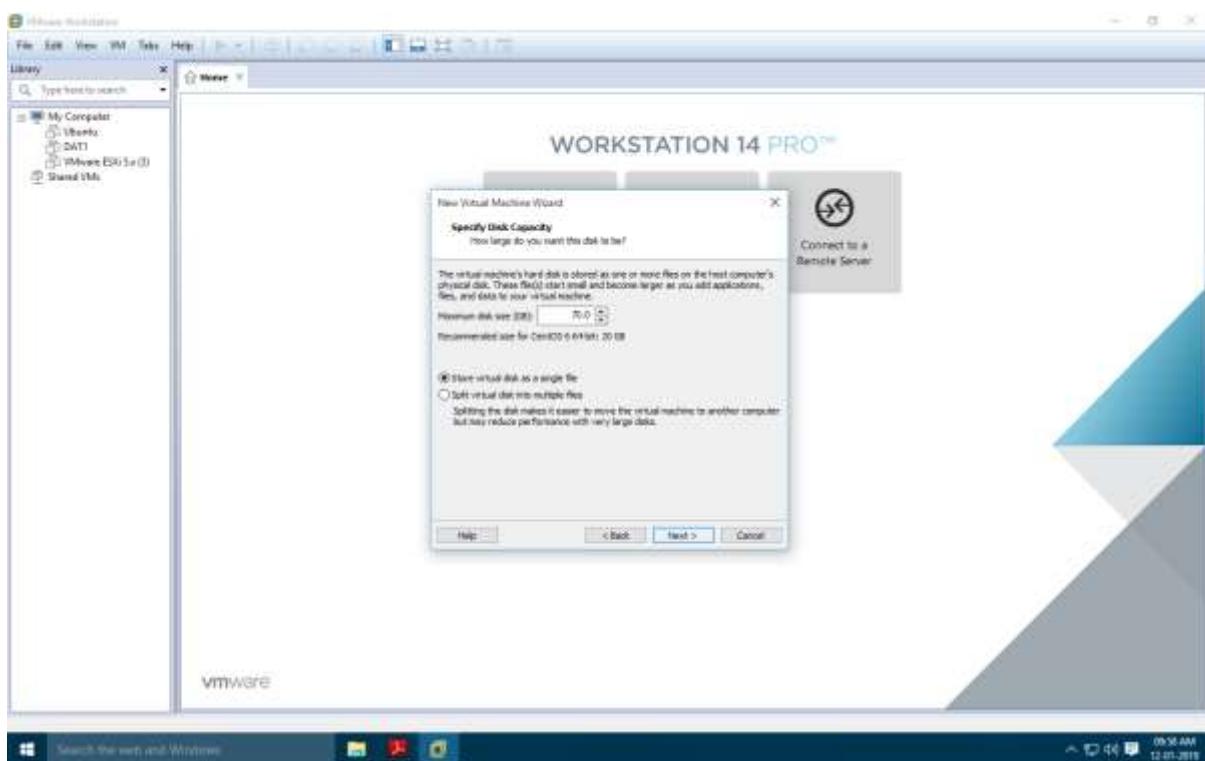
Select Guest Operating System "Linux" and version "CentOS 64-Bit"



Given the Virtual Machine Name Next



Set Memory disk size : 70 GB & Select Store virtual disk as a single file □Next.



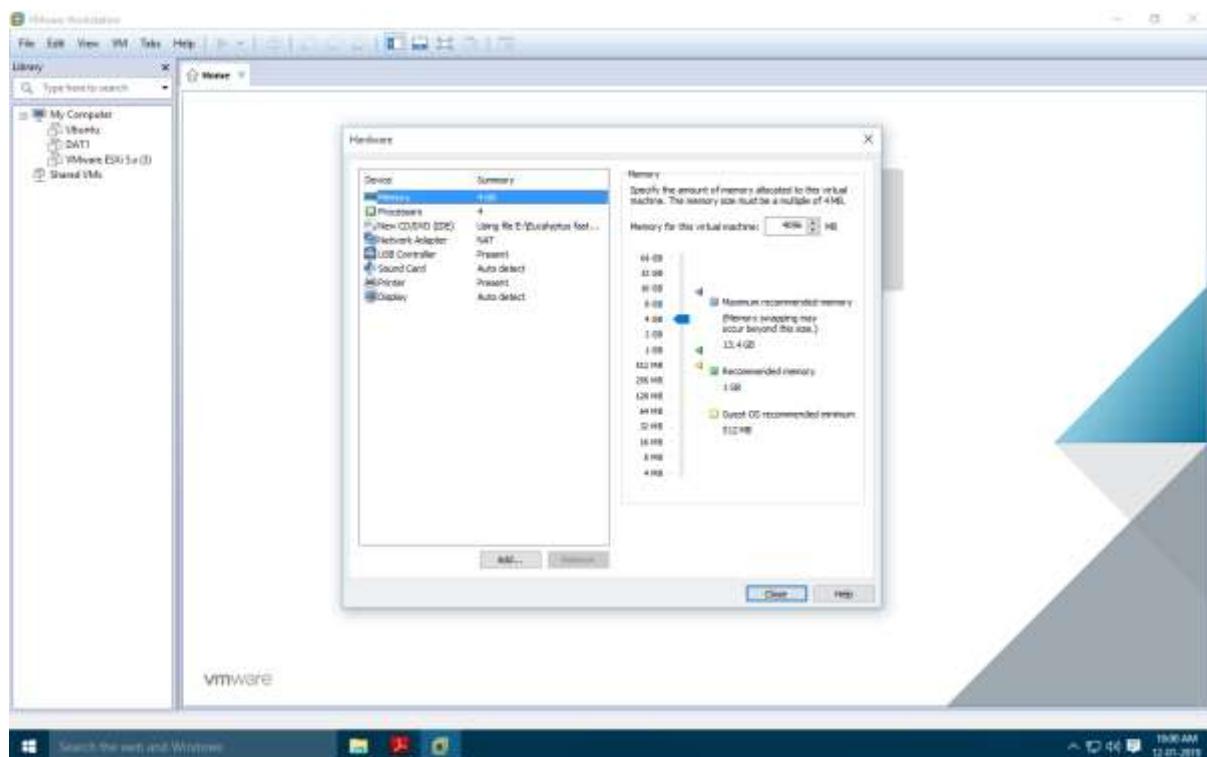
**Set below configuration setting**

RAM: 4 to 6 gb

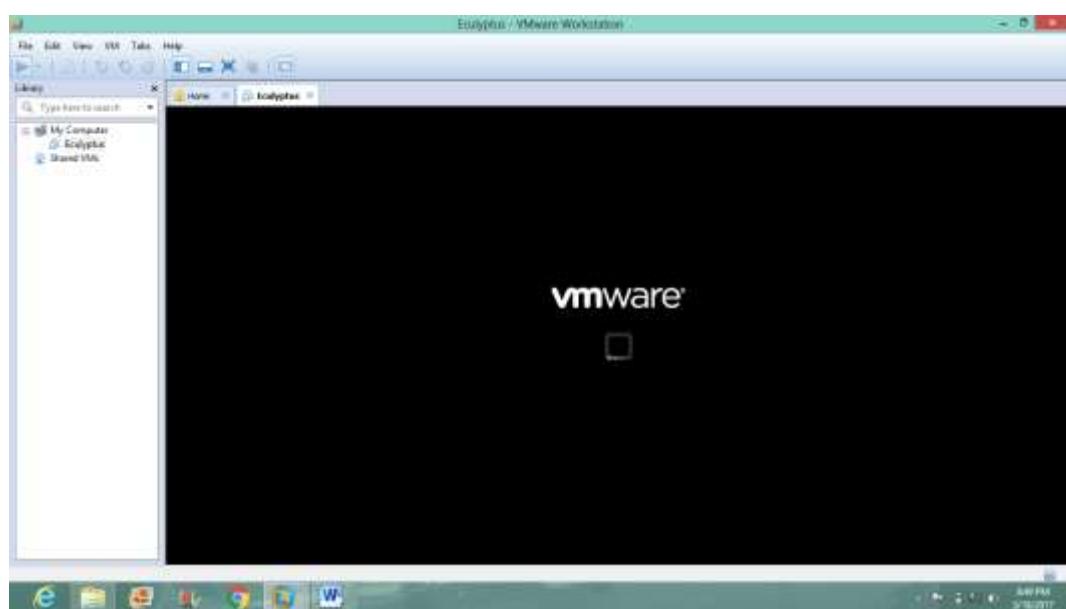
Processors : 2

No of core processors : 2

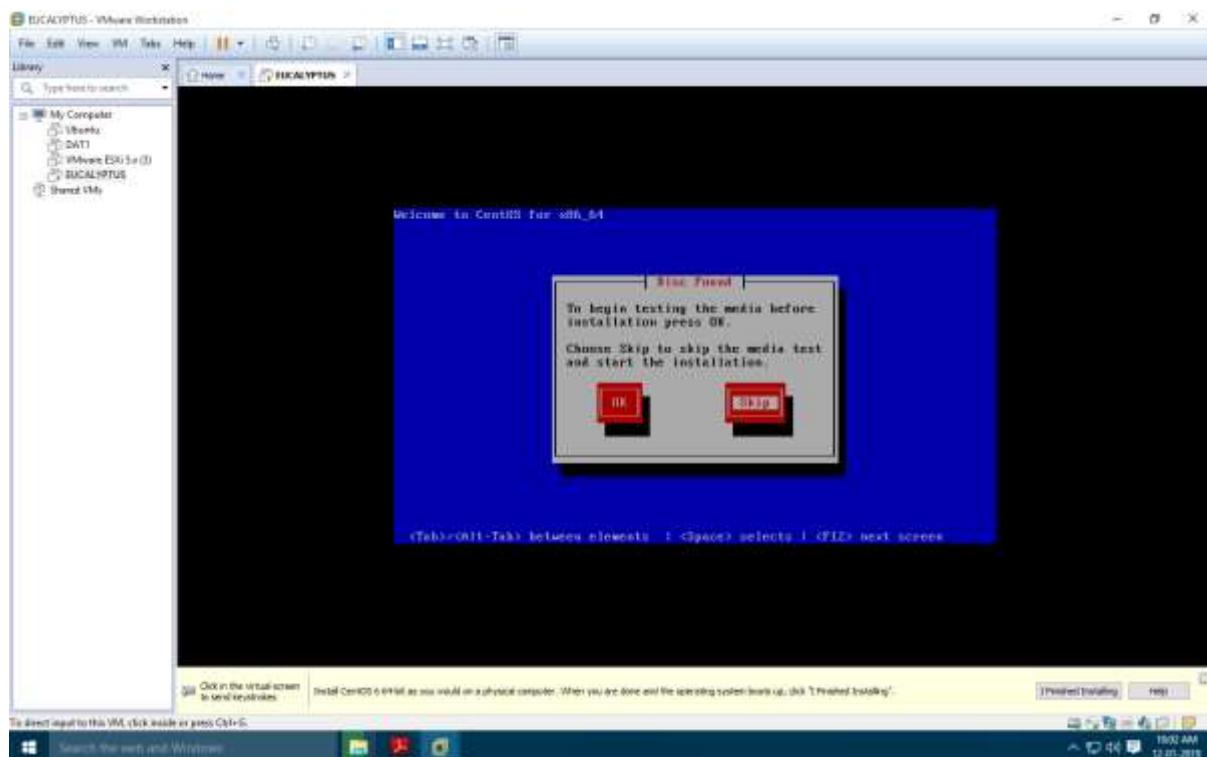
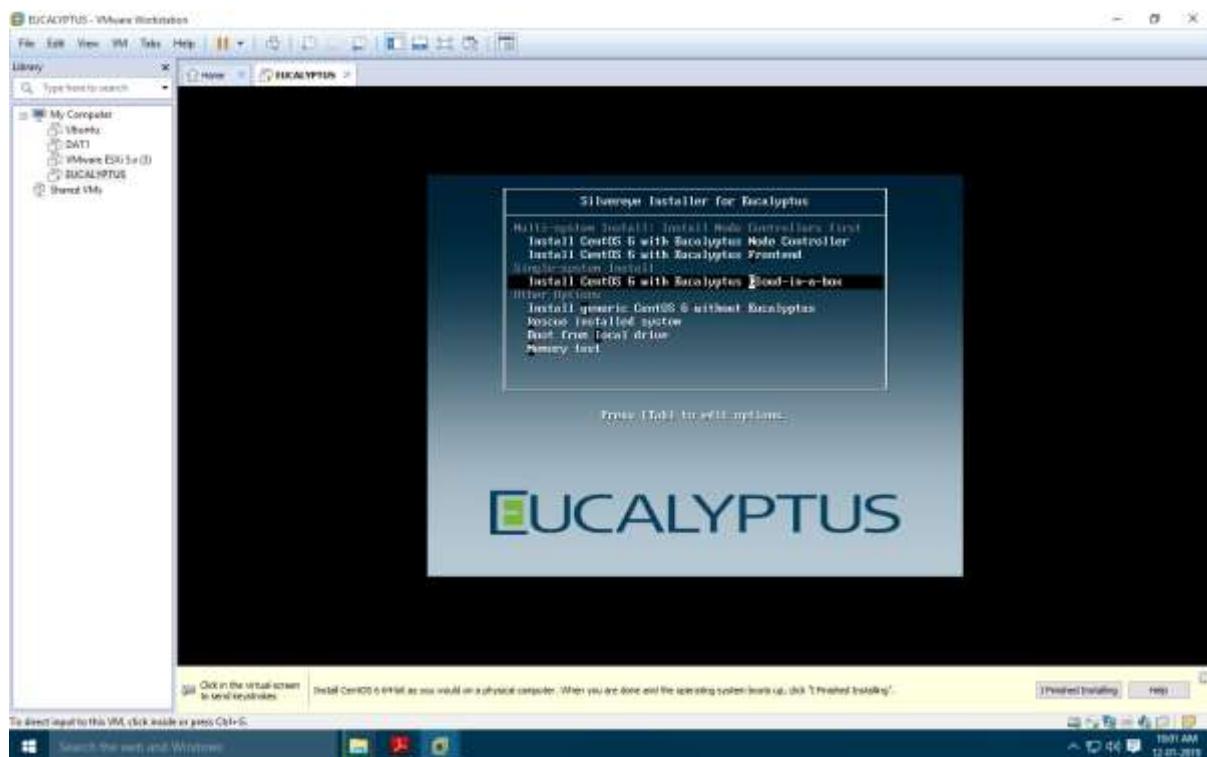
Select Virtualize Intel VT Click on Ok

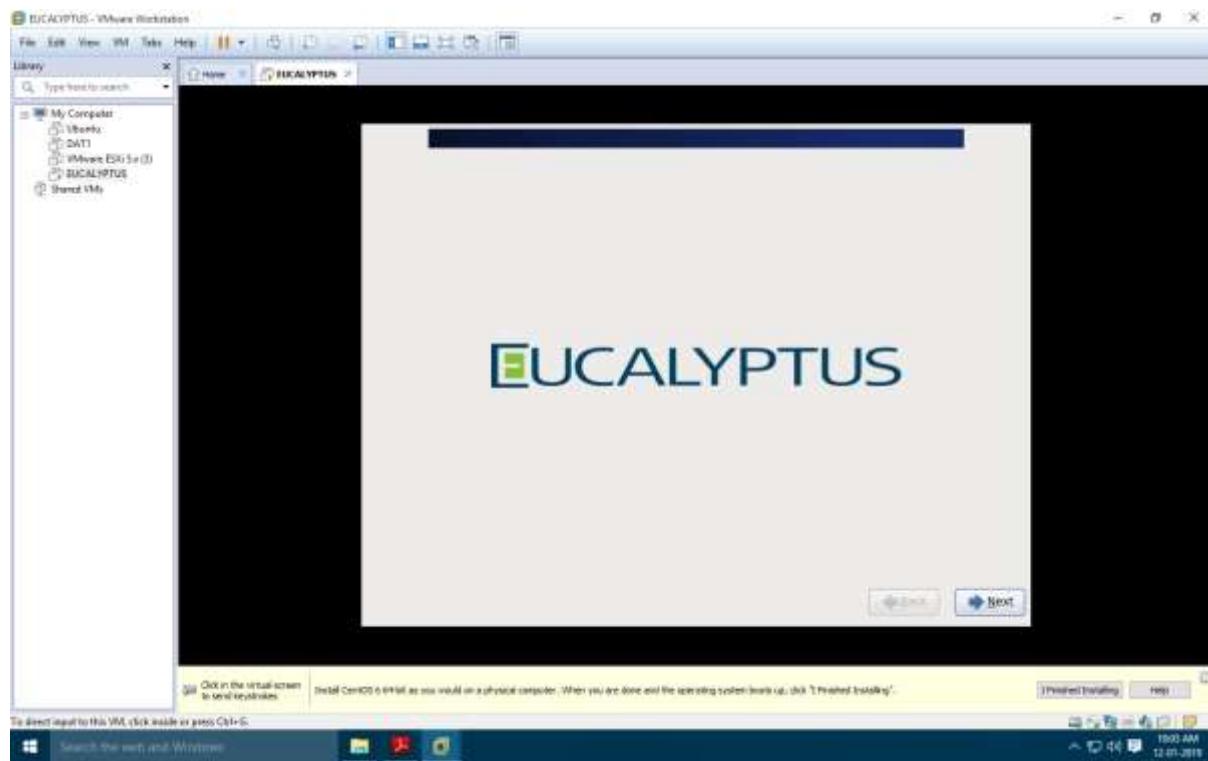
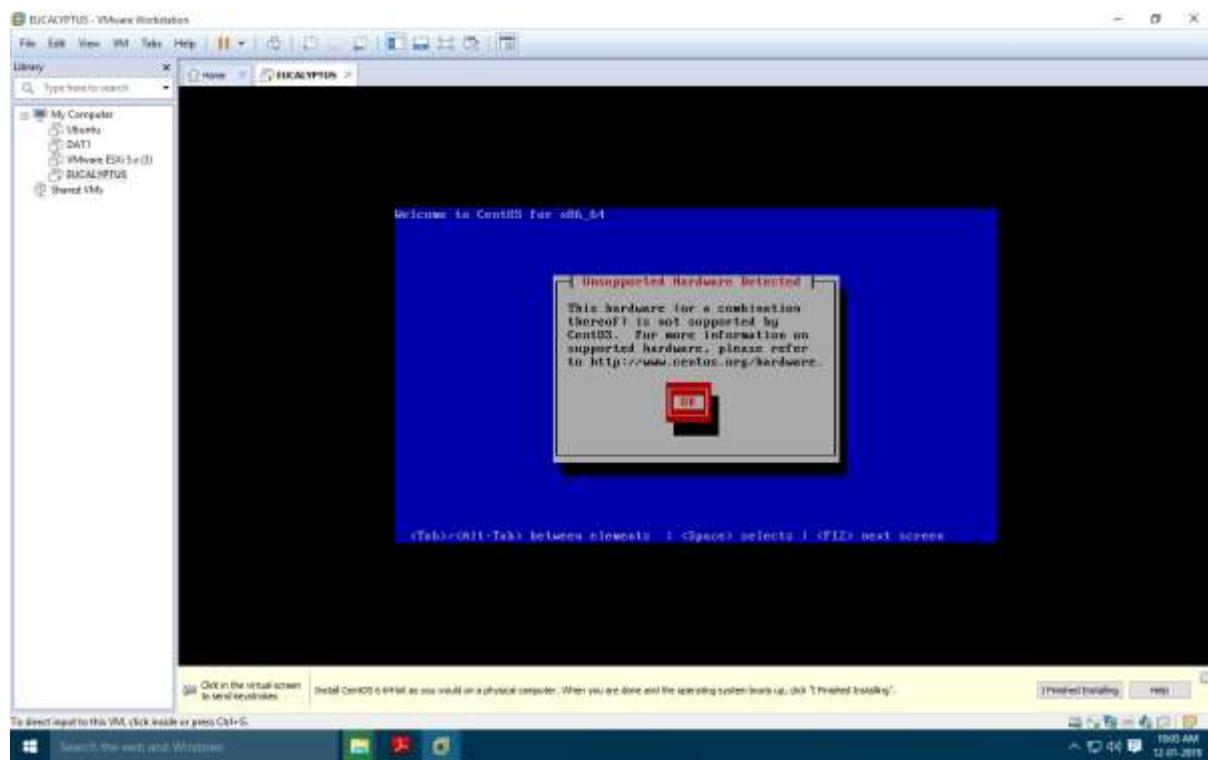


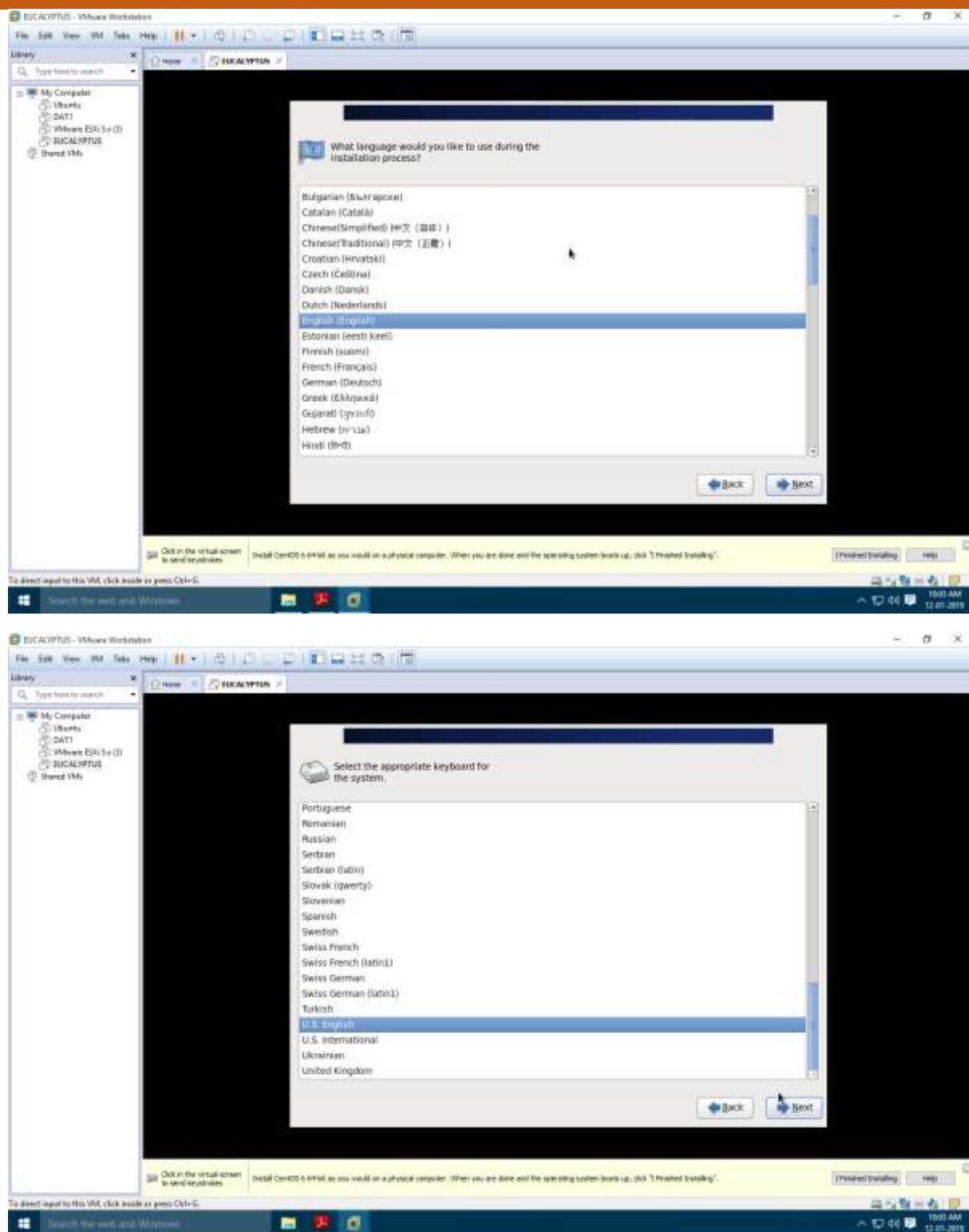
Power on virtual Machine.



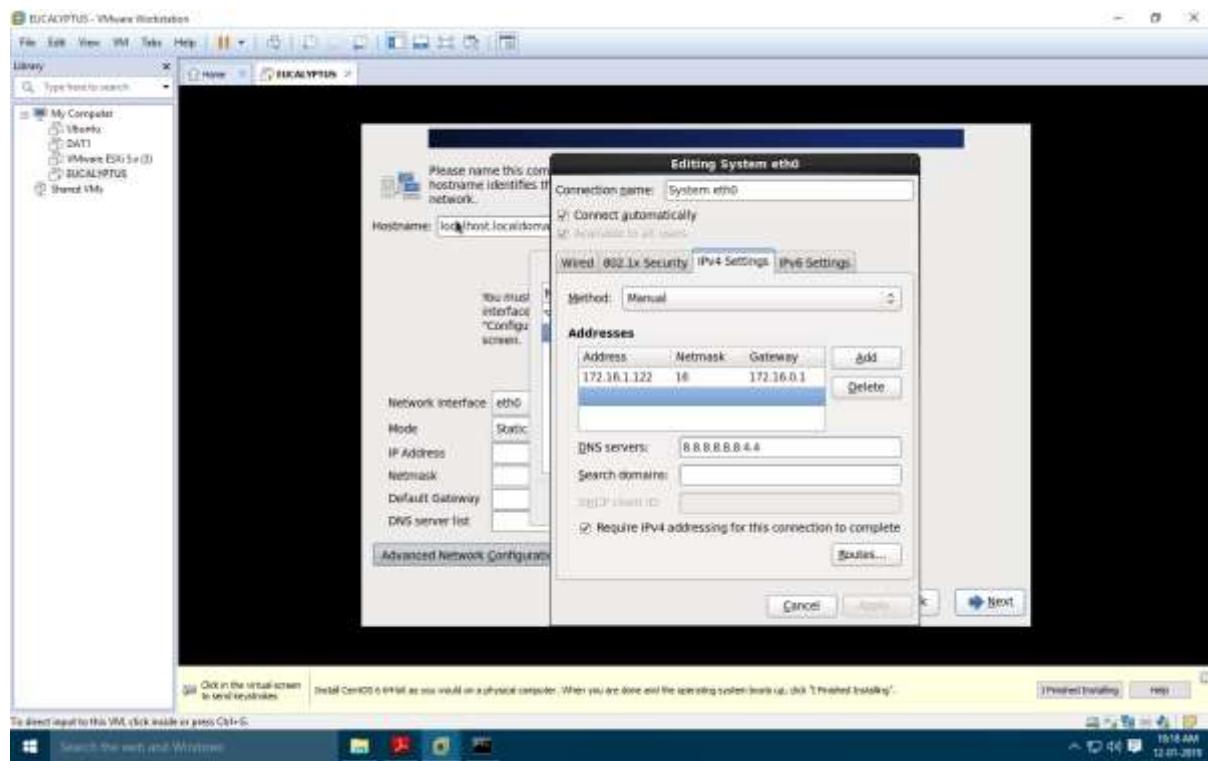
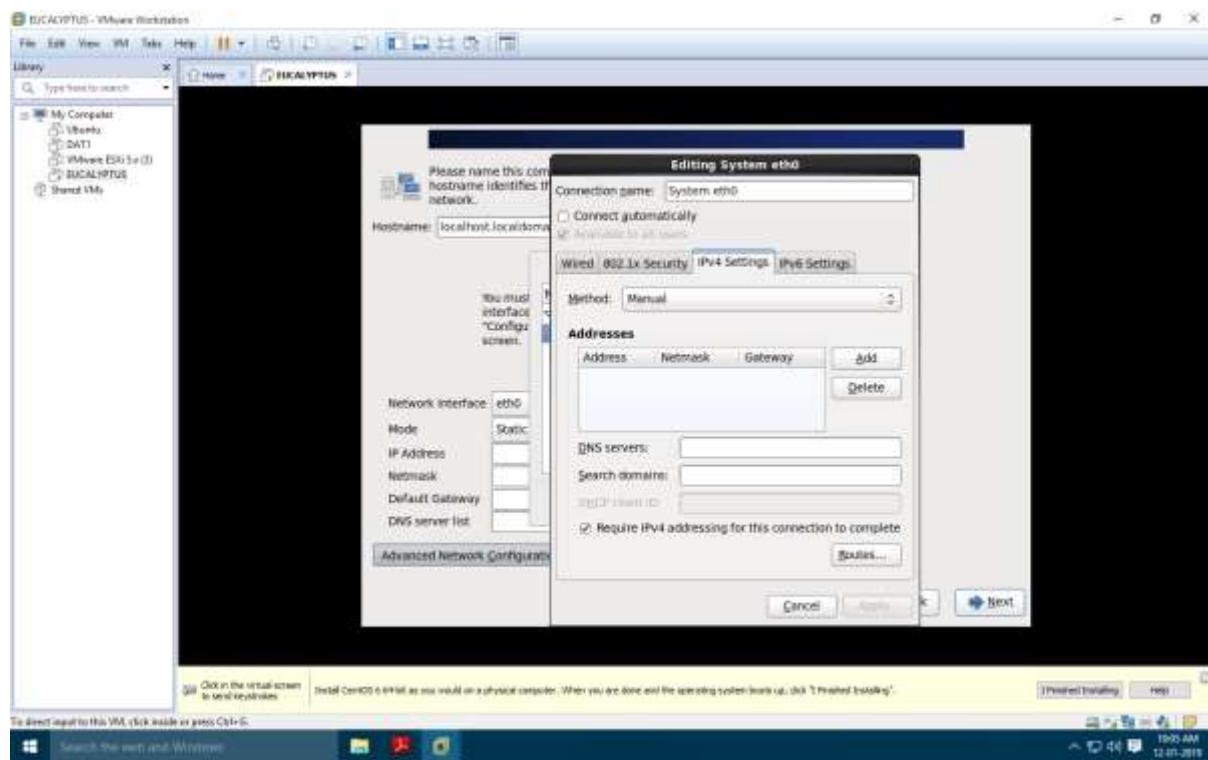
Select "Install CentOS 6 with Eucalyptus Cloud-in-a-box" Enter

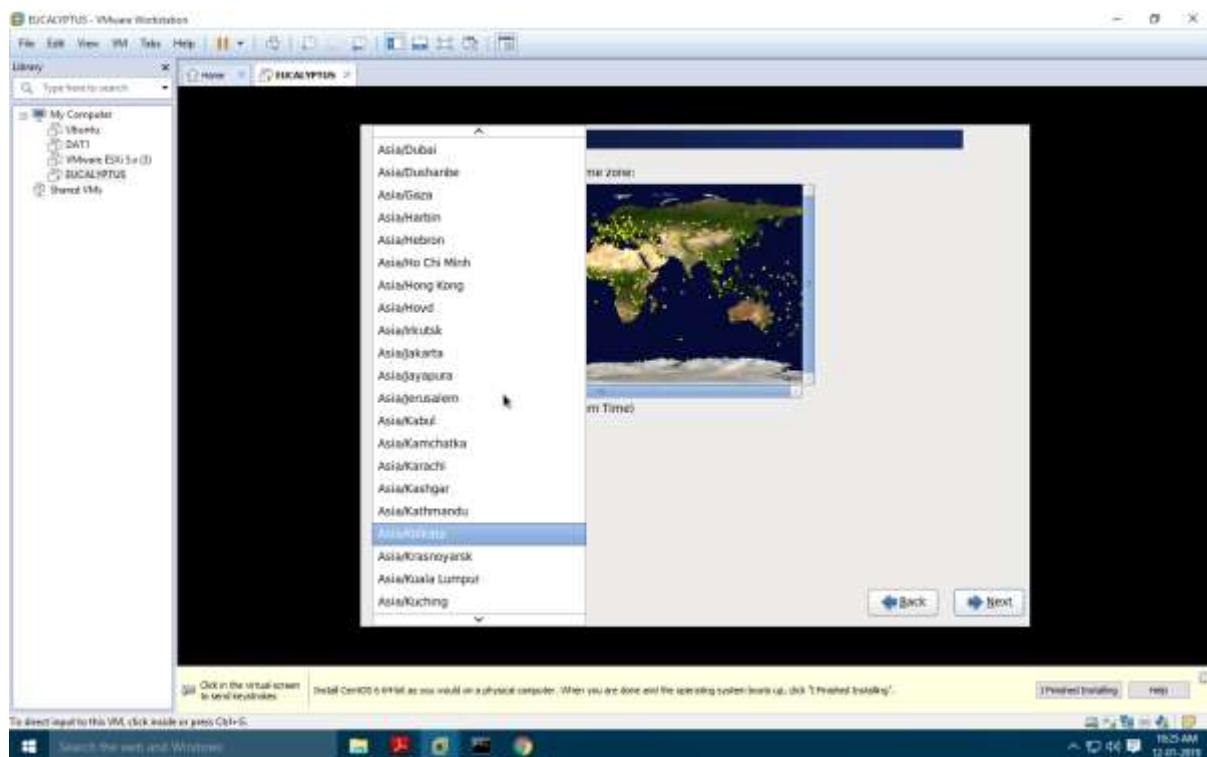






Configure the Network Settings with your System's IPV4 address





Enter the user name:root

Password:root123

