



## SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY

### Enterprise Standards and Best Practices for IT Infrastructure

4th Year 2nd Semester 2014

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SLIIT ID: IT13022570

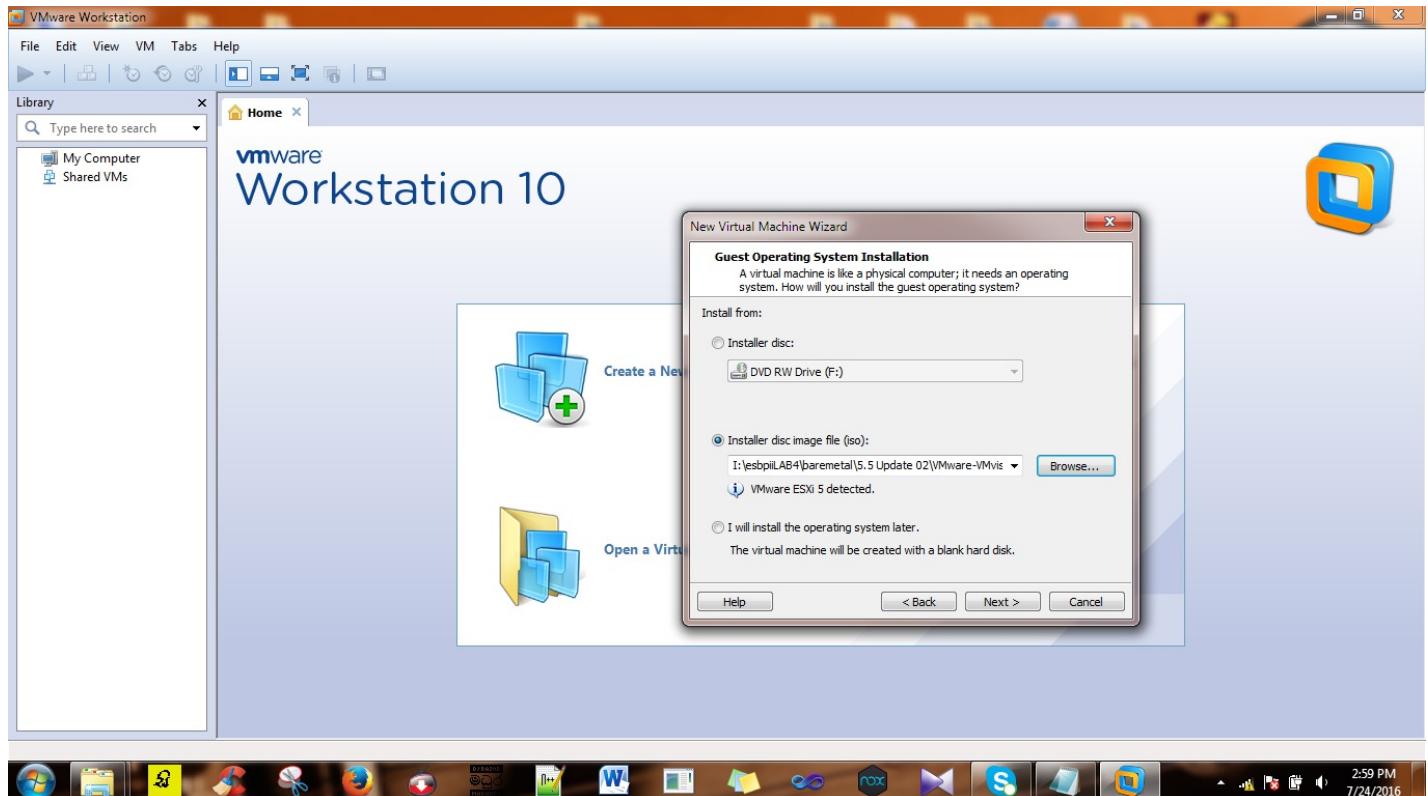
Practical Session: WD Friday

Practical Number: Lab 4

### Getting started with ESXi 5

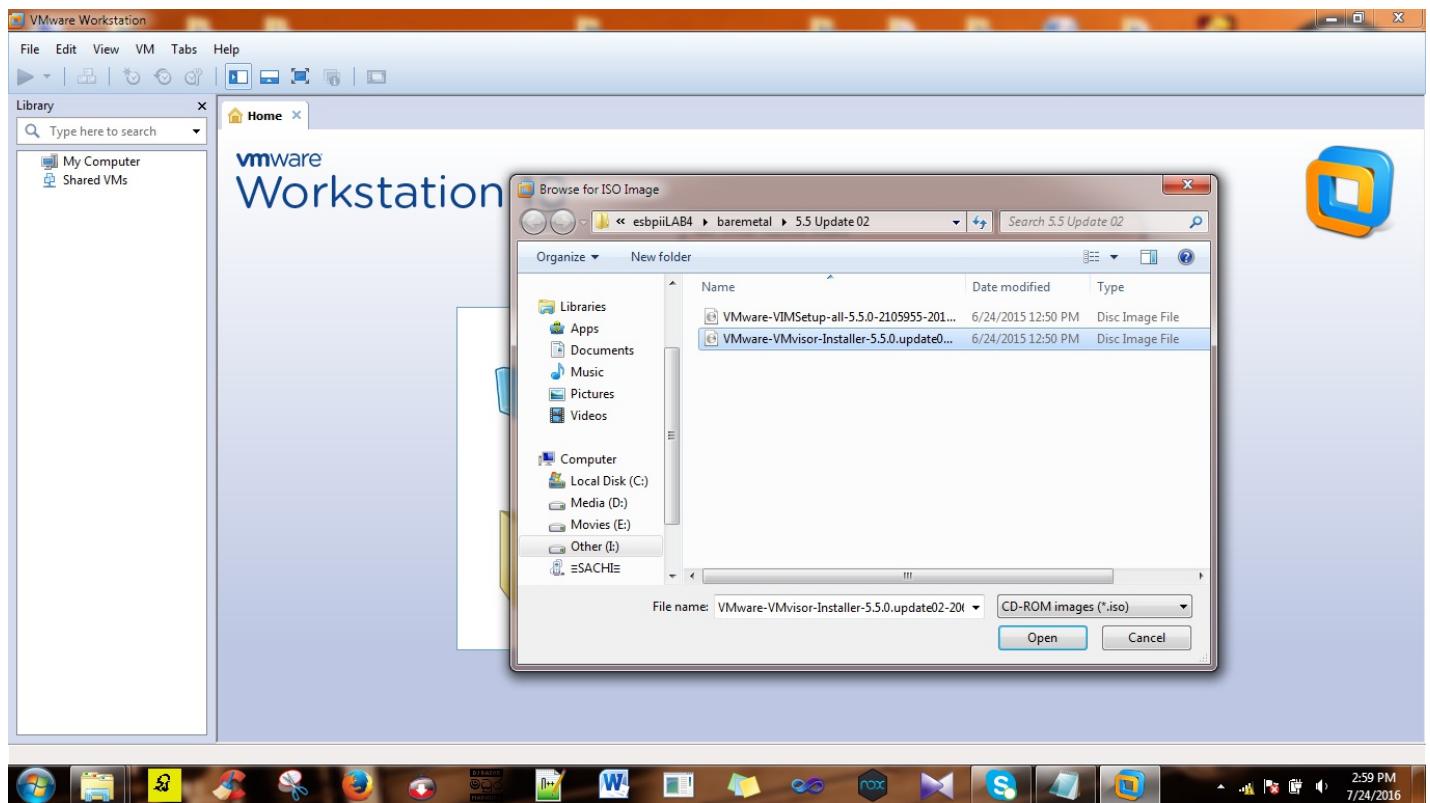
01. First need to add a new virtual machine on the top of current Operating System.

02. Then we need to install the baremetal installer.

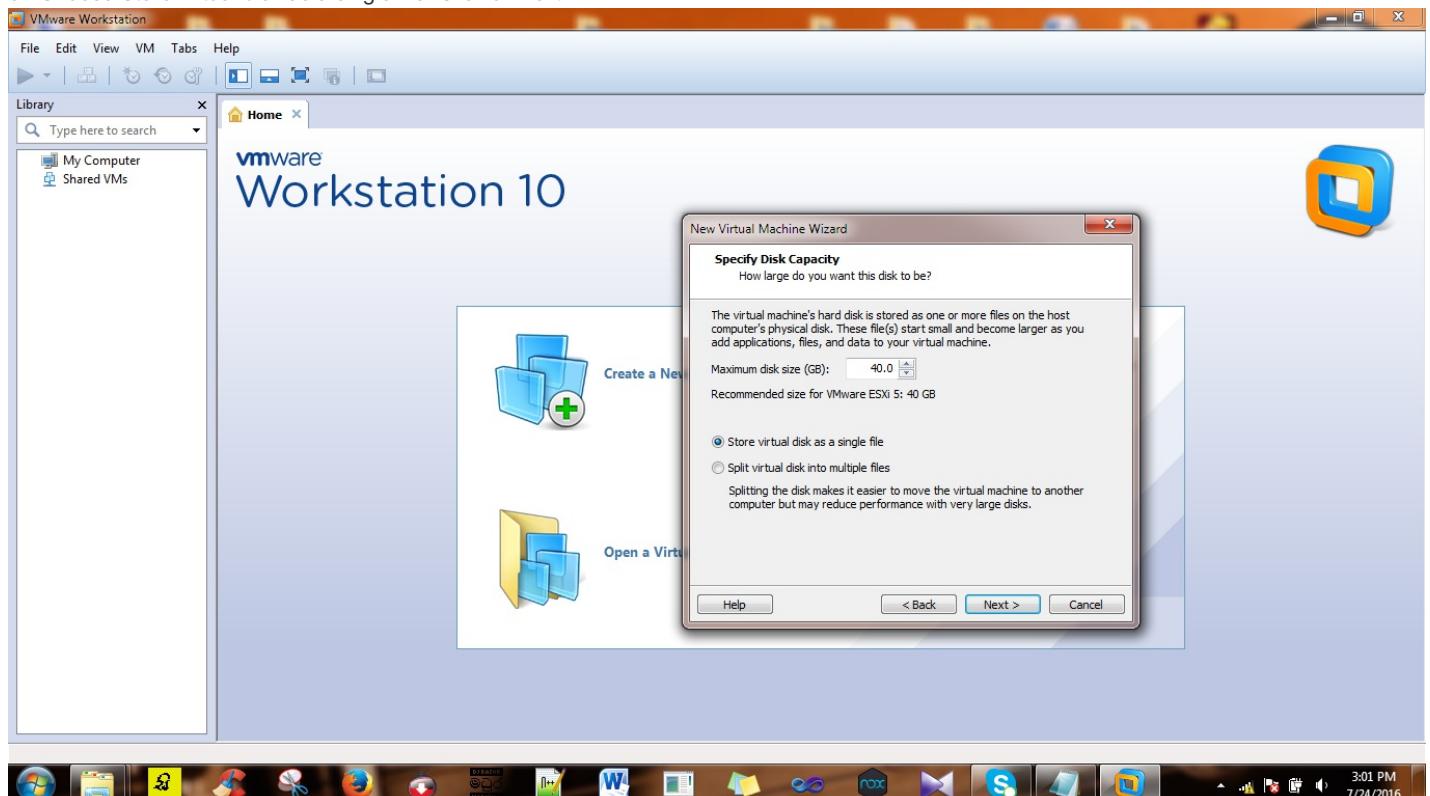


03. Then need to install the baremetal OS.

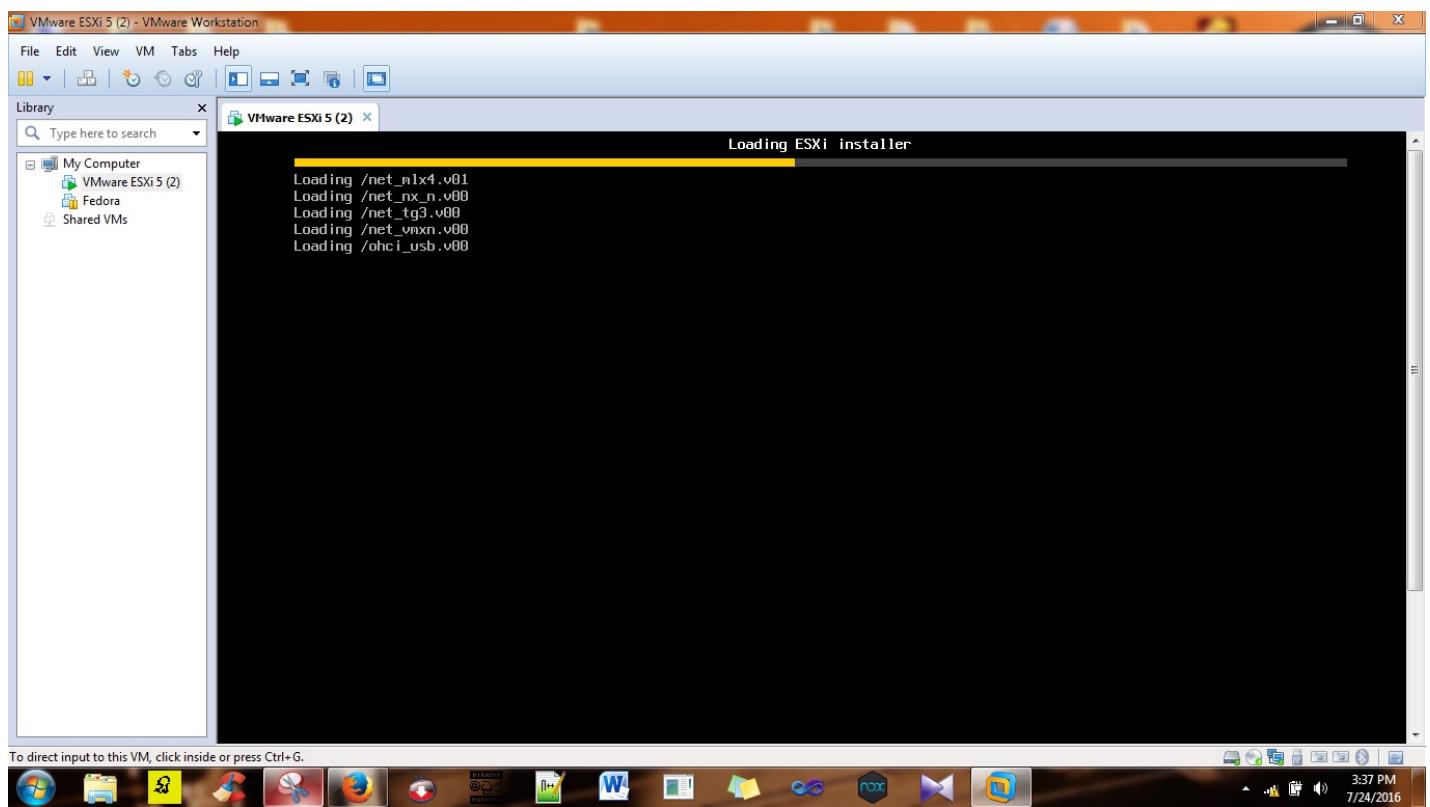
Browse the baremetal installer to the installer disk image file.



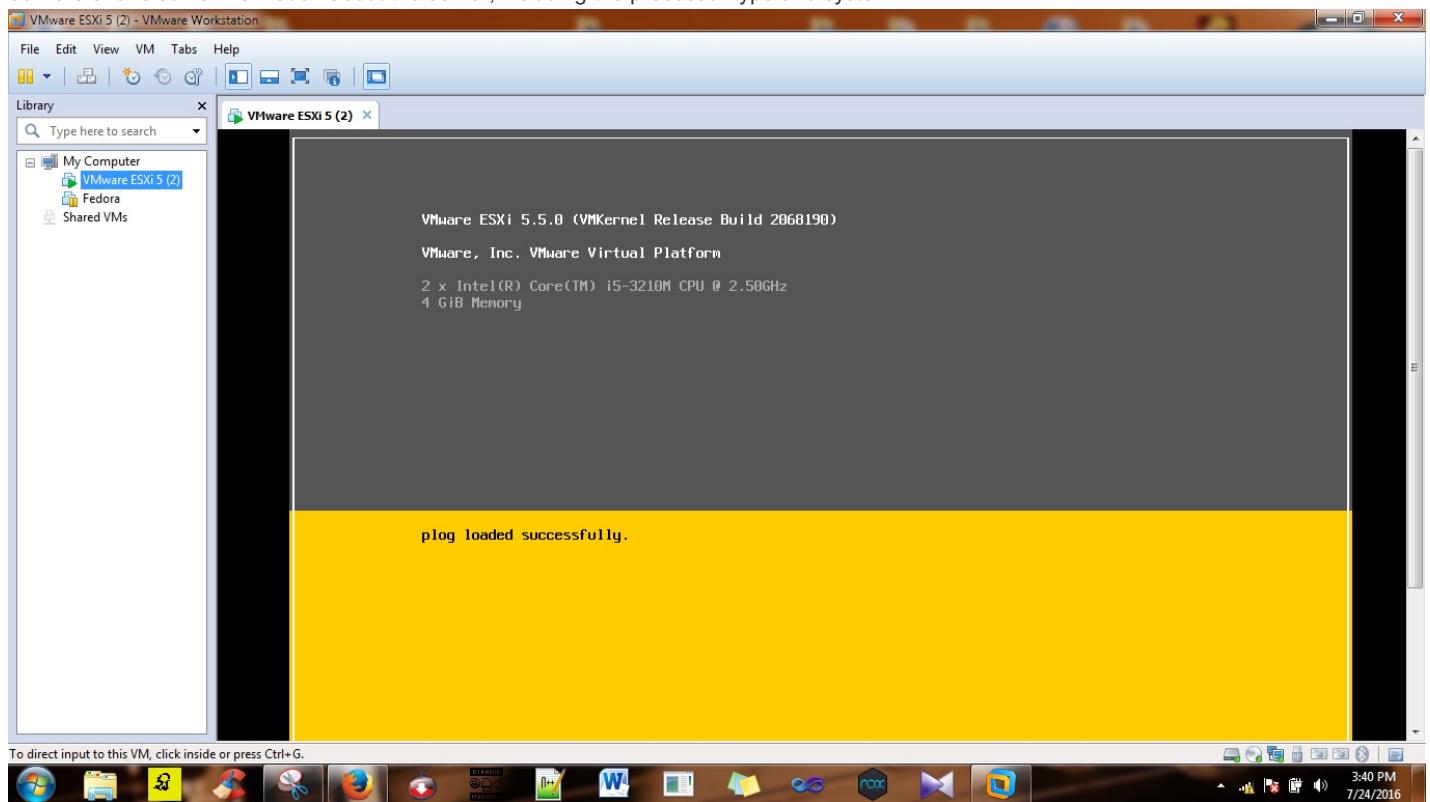
04. Choose Store virtual disk as a single file. Click on next.



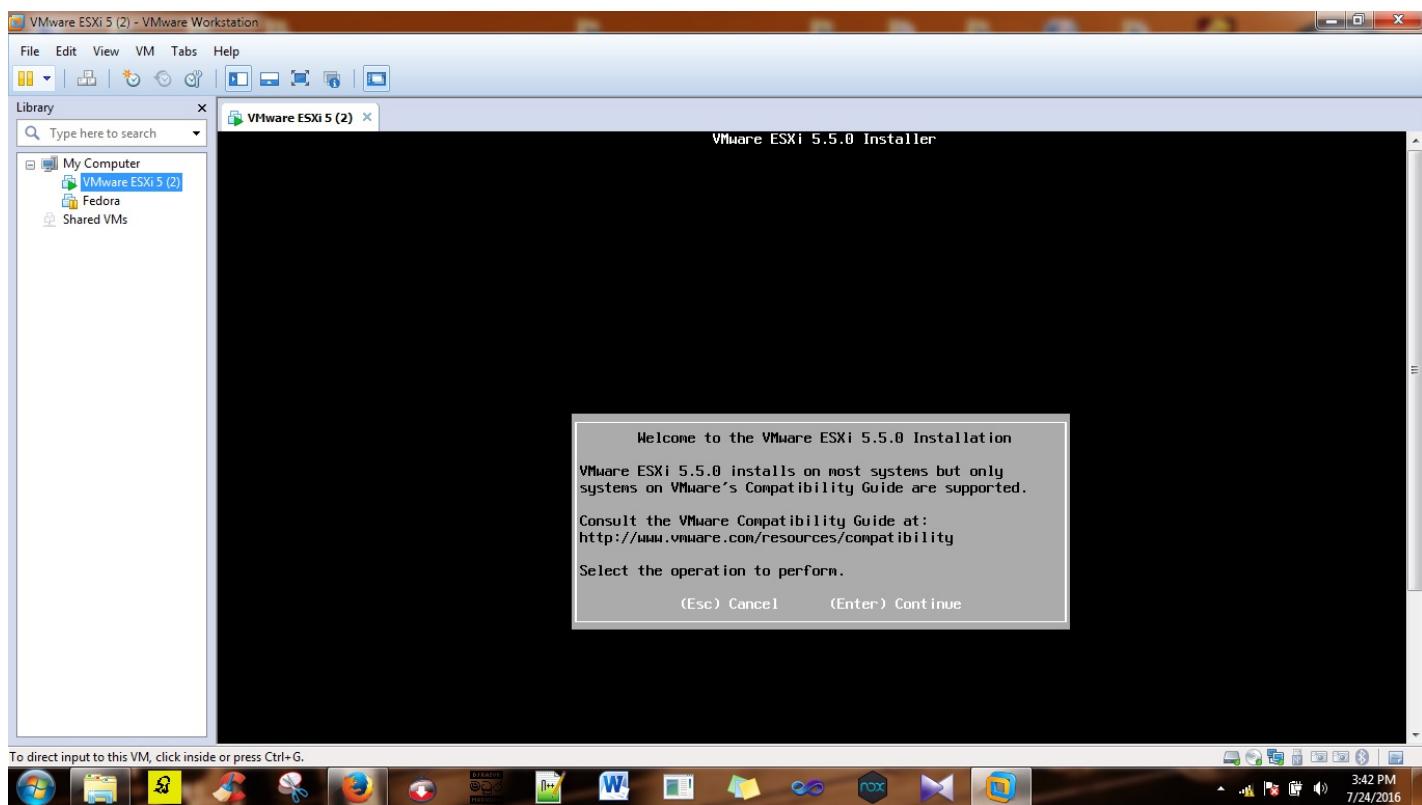
05. Then you have to start the ESXi 5 installer. Then the installer gives you the details the status of each file that need to be loaded.



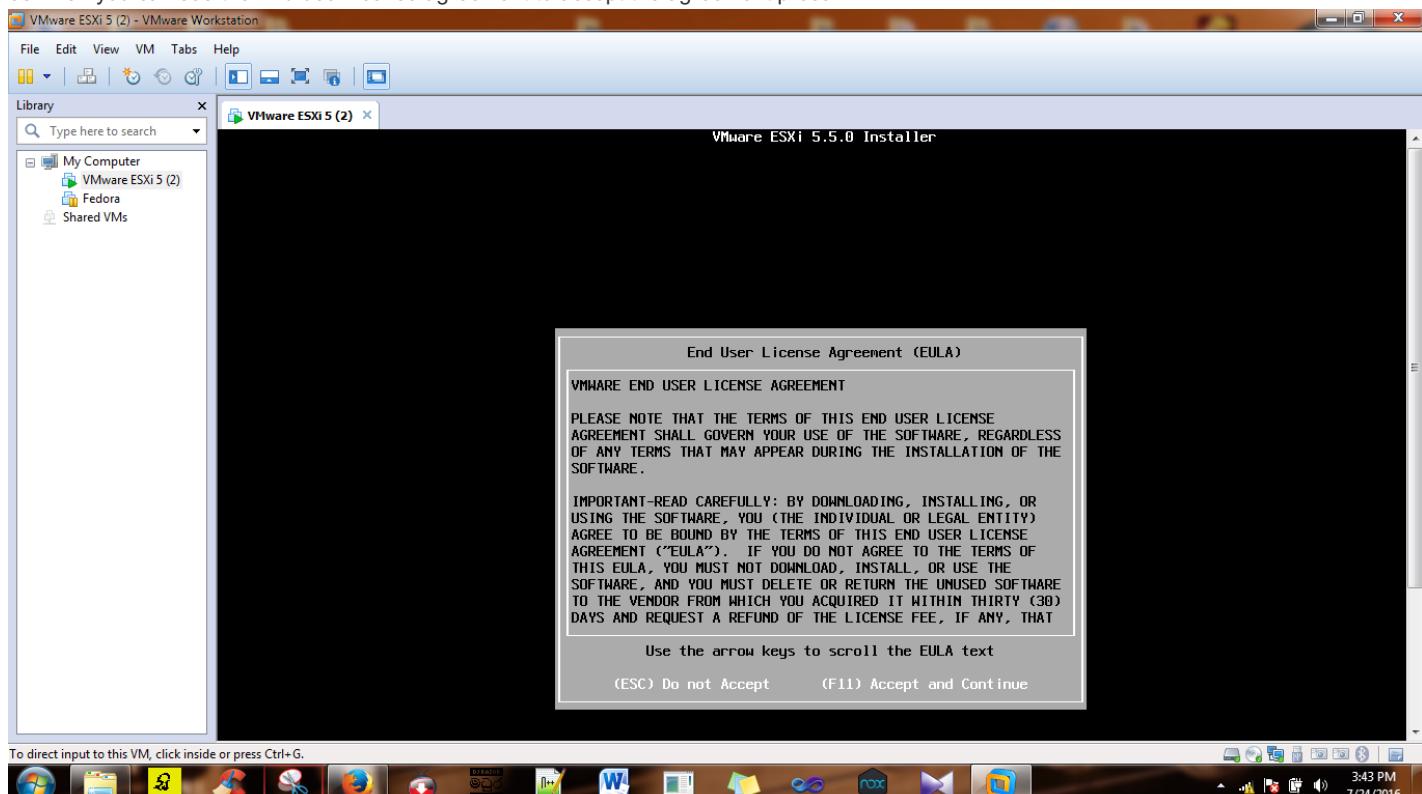
06. Here shows some information about the server, including the processor type and system RAM.



07. Then appears a dialog Welcome to the VM ware ESXI Installation and to continue with the installation, press Enter on the keyboard.

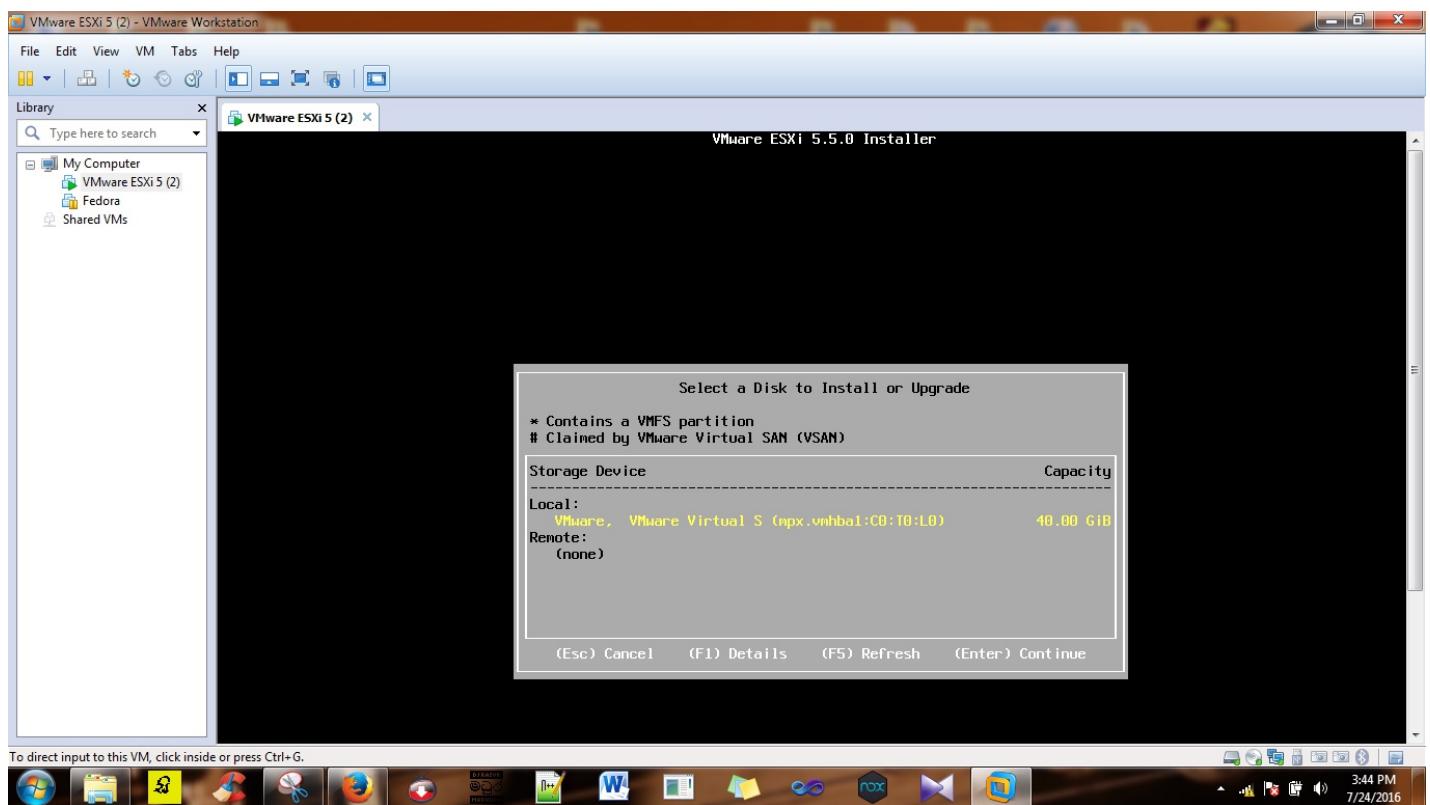


08.Then you can see the End user license agreement to accept the agreement press F11



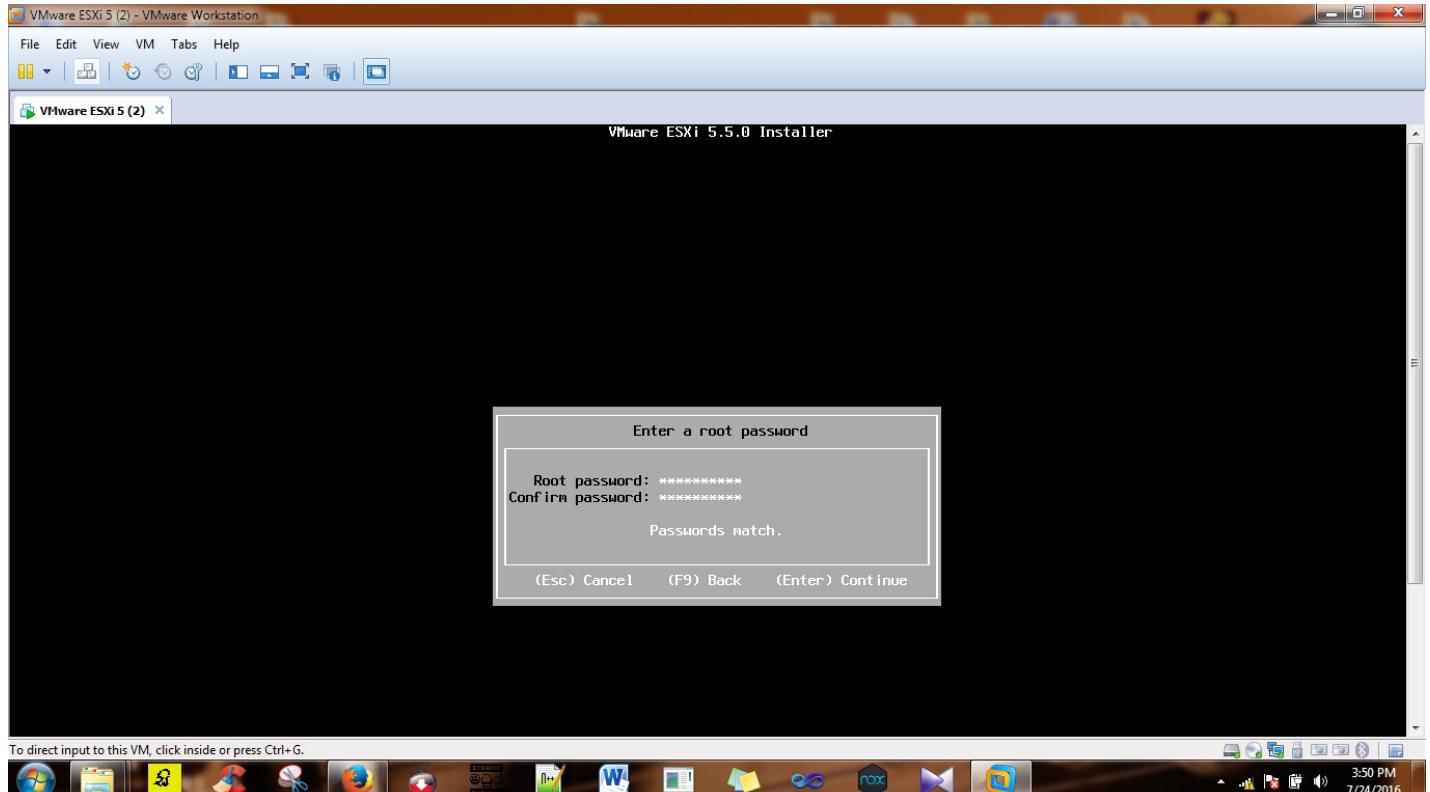
09.Then we have to choose a location to install ESXi 5.

Then press Enter.

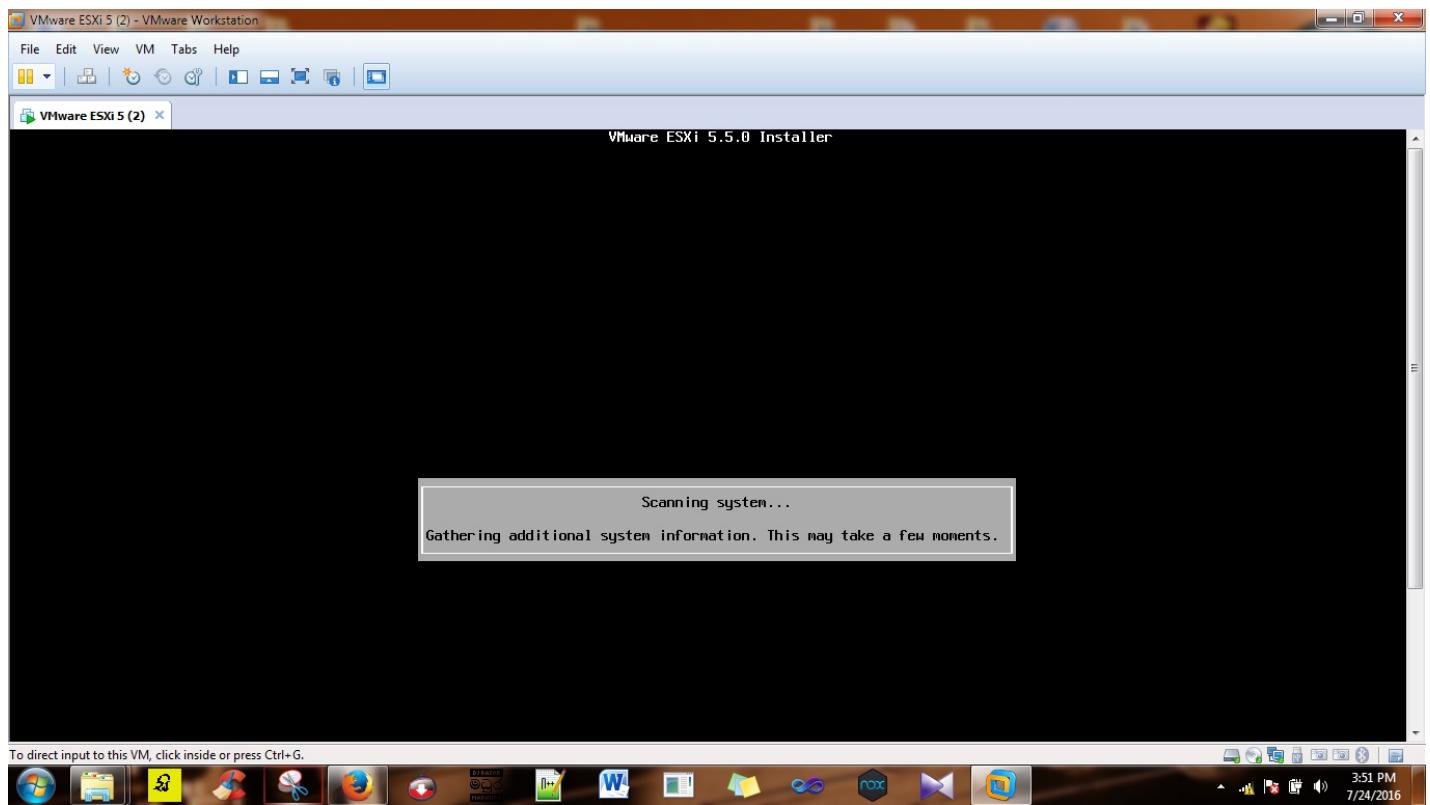


10.Then provide a password for the root user account.

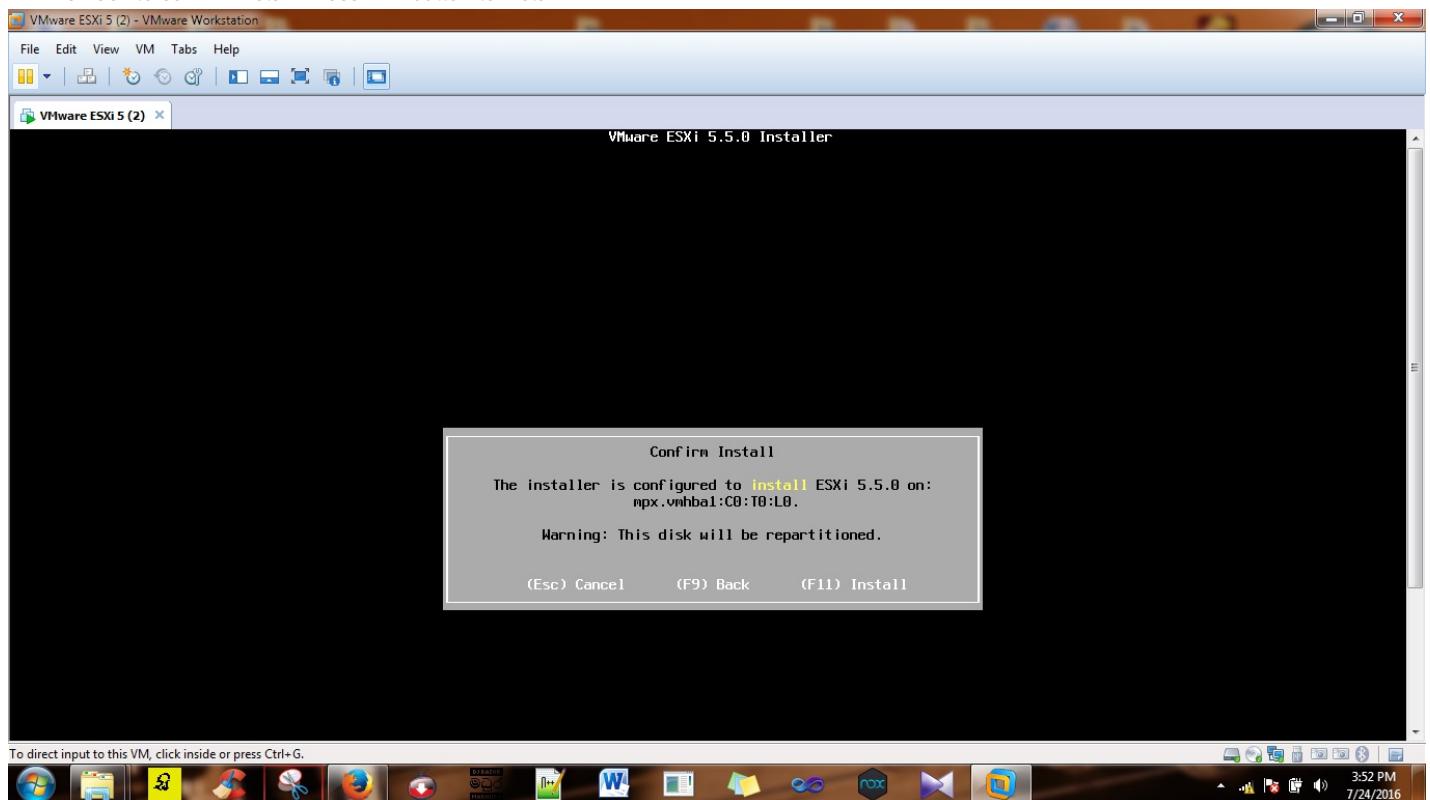
Press Enter



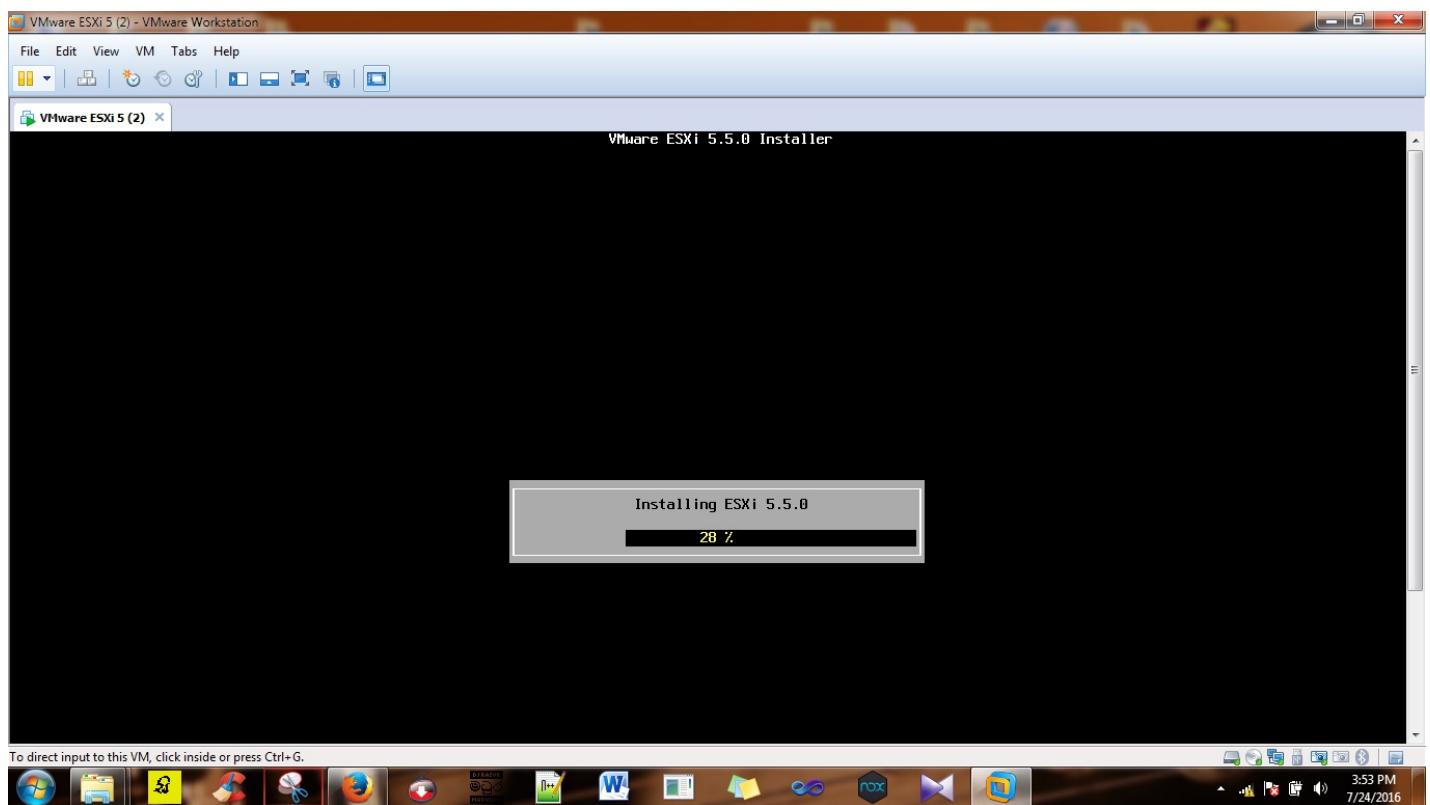
11.Then the ESXi installer scans the system to get additional information.



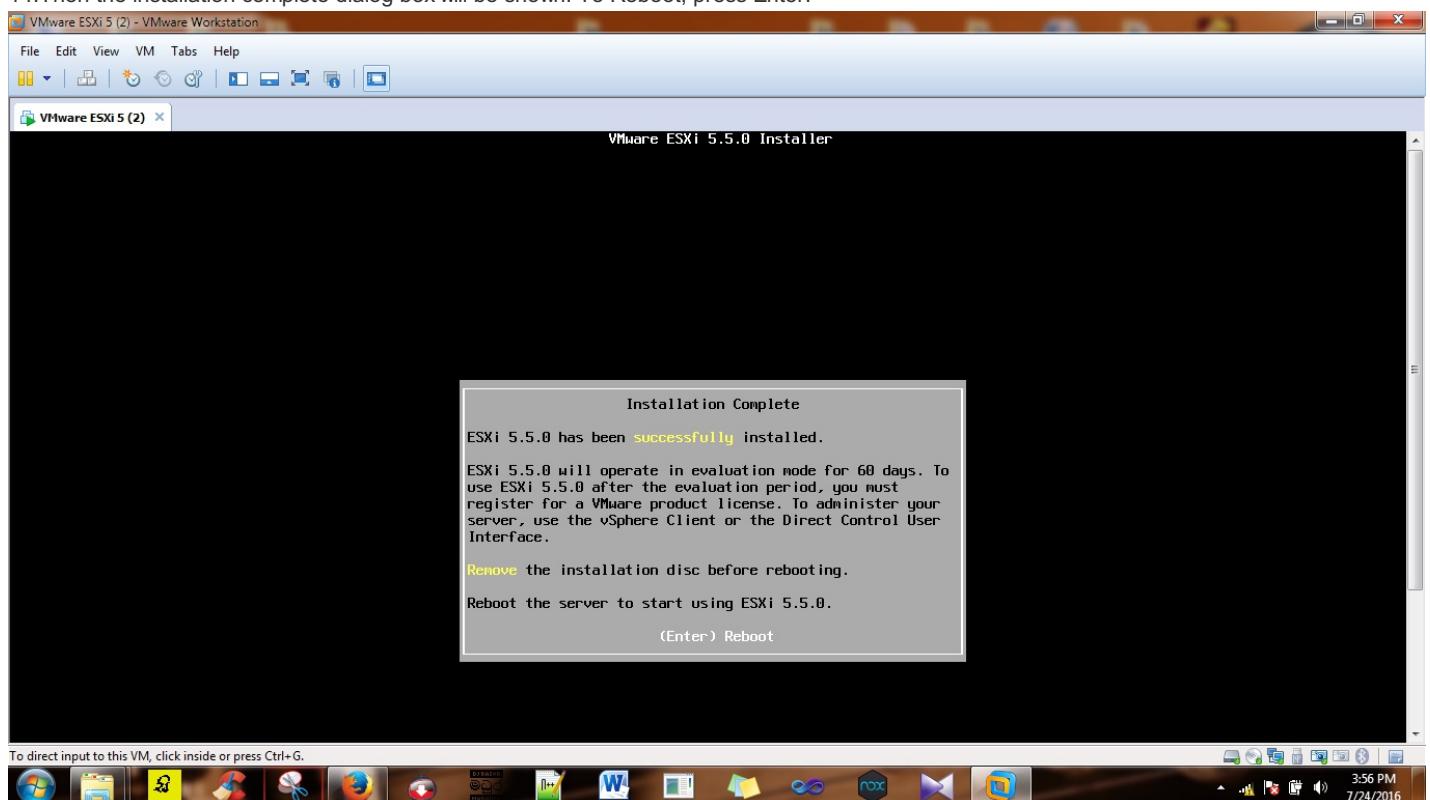
12.Then ask to confirm install. Press F11 button to install.



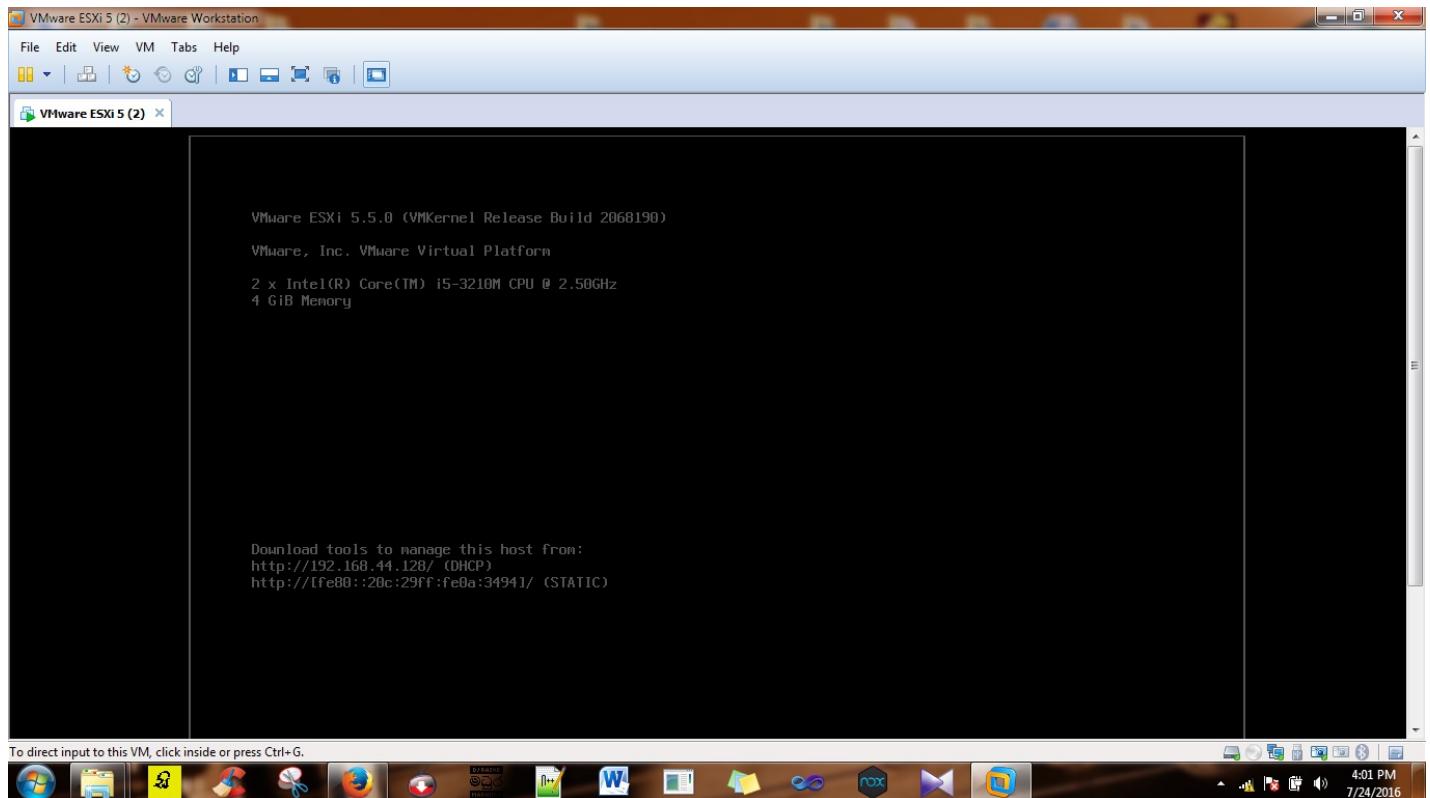
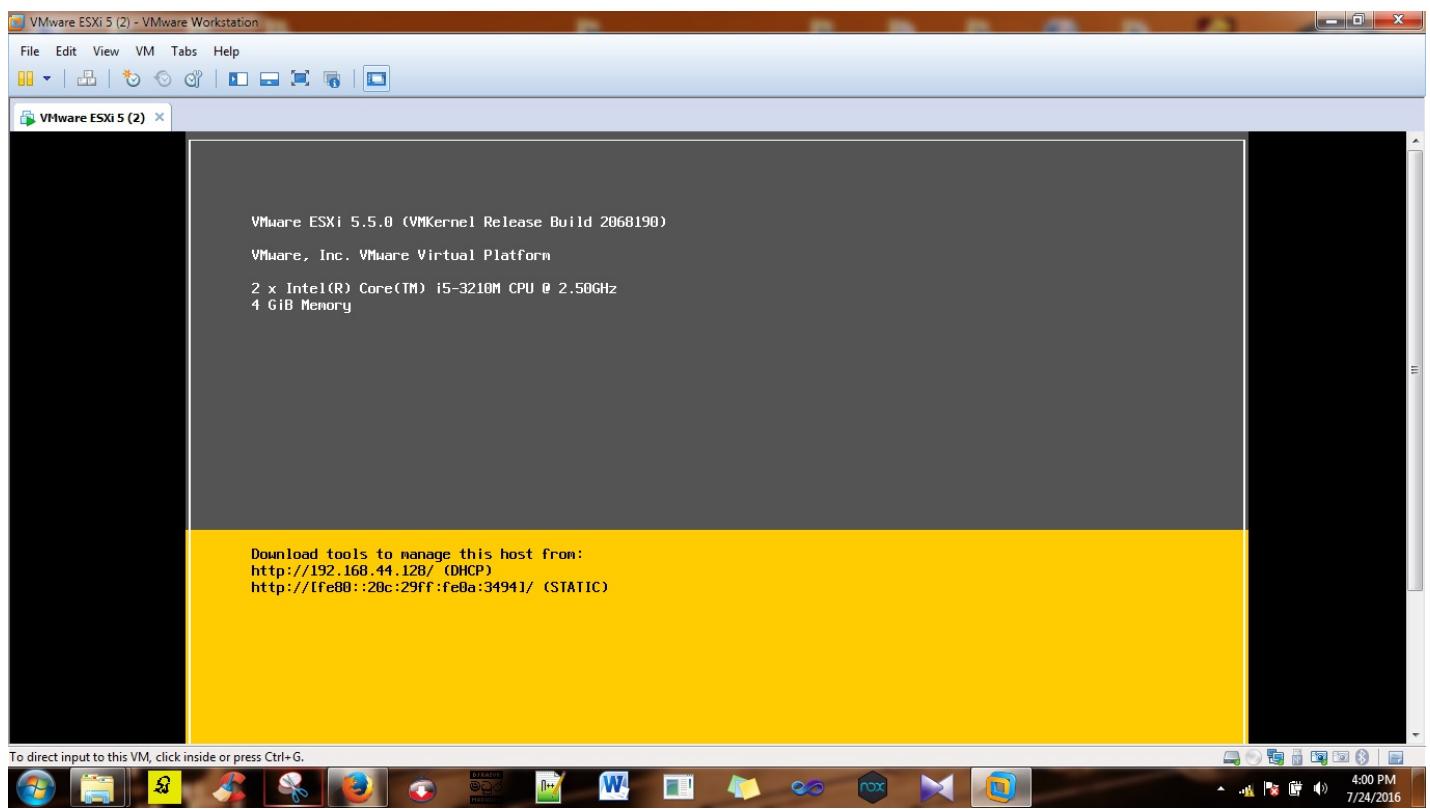
13.Installation status.



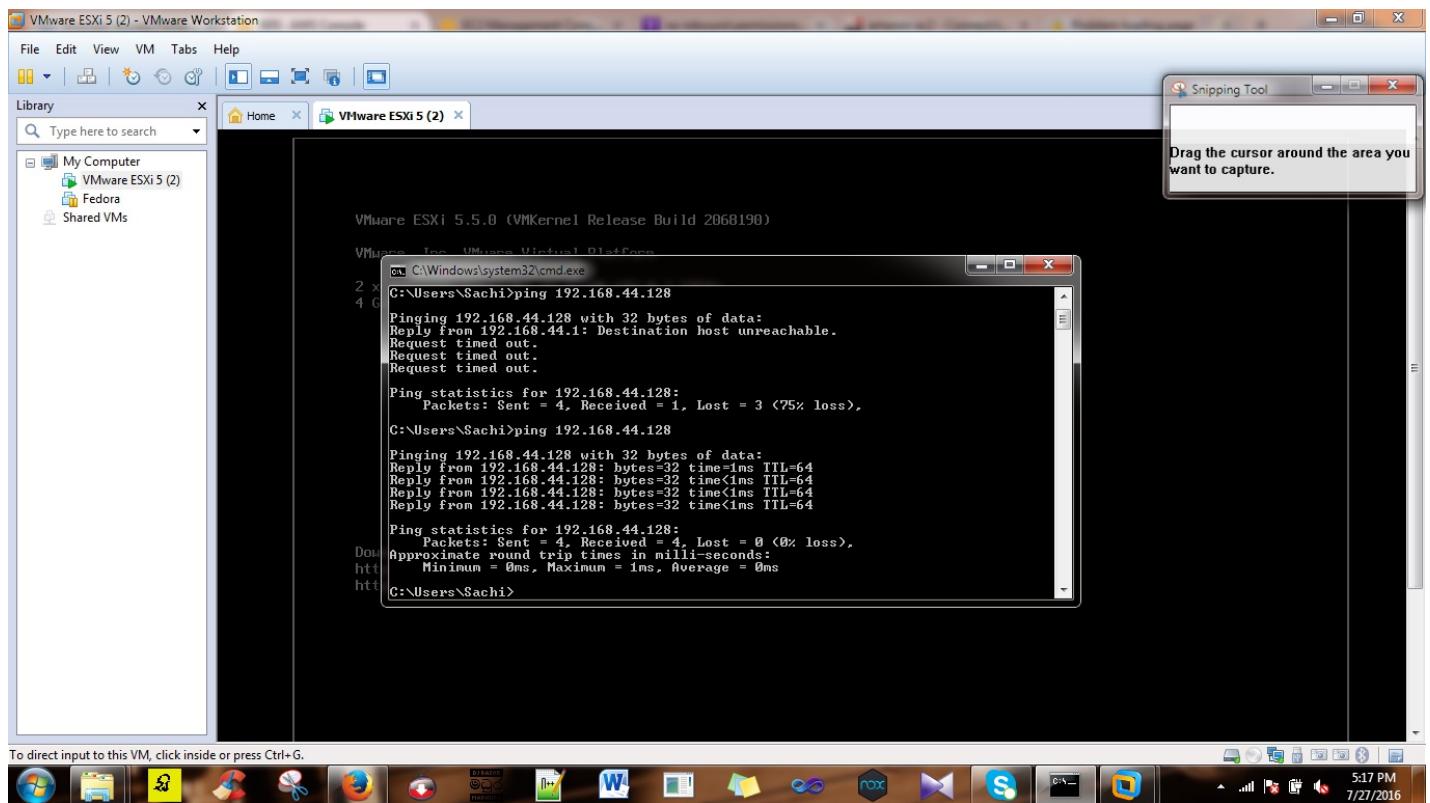
14. Then the installation complete dialog box will be shown. To Reboot, press Enter.



15. Get the IP address.



16.Get the command prompt and type ping 192.168.44.128



## Install the vSphere Client

01.Get the IP address and search in a web browser. There you can download the vSphere client.

The screenshot shows a web browser displaying the 'Welcome' page for VMware ESXi. The page includes sections for 'Getting Started', 'For Administrators', and 'For Developers'.

**Getting Started**

If you need to access this host remotely, use the following program to install vSphere Client software. After running the installer, start the client and log in to this host.

Please note that the traditional vSphere Client does not support features added to vSphere in the 5.1 and 5.5 releases. The traditional vSphere Client is intended for use if you need to connect directly to an ESXi host, are performing certain vSphere Update Manager operations, or are running vCenter Plug-ins that support only the vSphere Client such as vCenter Site Recovery Manager or vCenter Multi-Hypervisor Manager.

You can take advantage of the fullest range of functionality introduced or updated in this release by using the vSphere Web Client.

- [Download vSphere Client](#)

To streamline your IT operations with vSphere, use the following program to install vCenter. vCenter will help you consolidate and optimize workload distribution across ESX hosts, reduce new system deployment time from weeks to seconds, monitor your virtual computing environment around the clock, avoid service disruptions due to planned hardware maintenance or unexpected failure, centralize access control, and automate system administration tasks.

- [Download VMware vCenter](#)

If you need more help, please refer to our documentation library:

**For Administrators**

**vSphere Remote Command Line**

The Remote Command Line allows you to use command line tools to manage vSphere from a client machine. These tools can be used in shell scripts to automate day-to-day operations.

- [Download the Virtual Appliance](#)
- [Download the Windows Installer \(.exe\)](#)
- [Download the Linux Installer \(tar.gz\)](#)

**Web-Based Datastore Browser**

Use your web browser to find and download files (for example, virtual machines and virtual disk files).

- [Browse datastores in this host's inventory](#)

**For Developers**

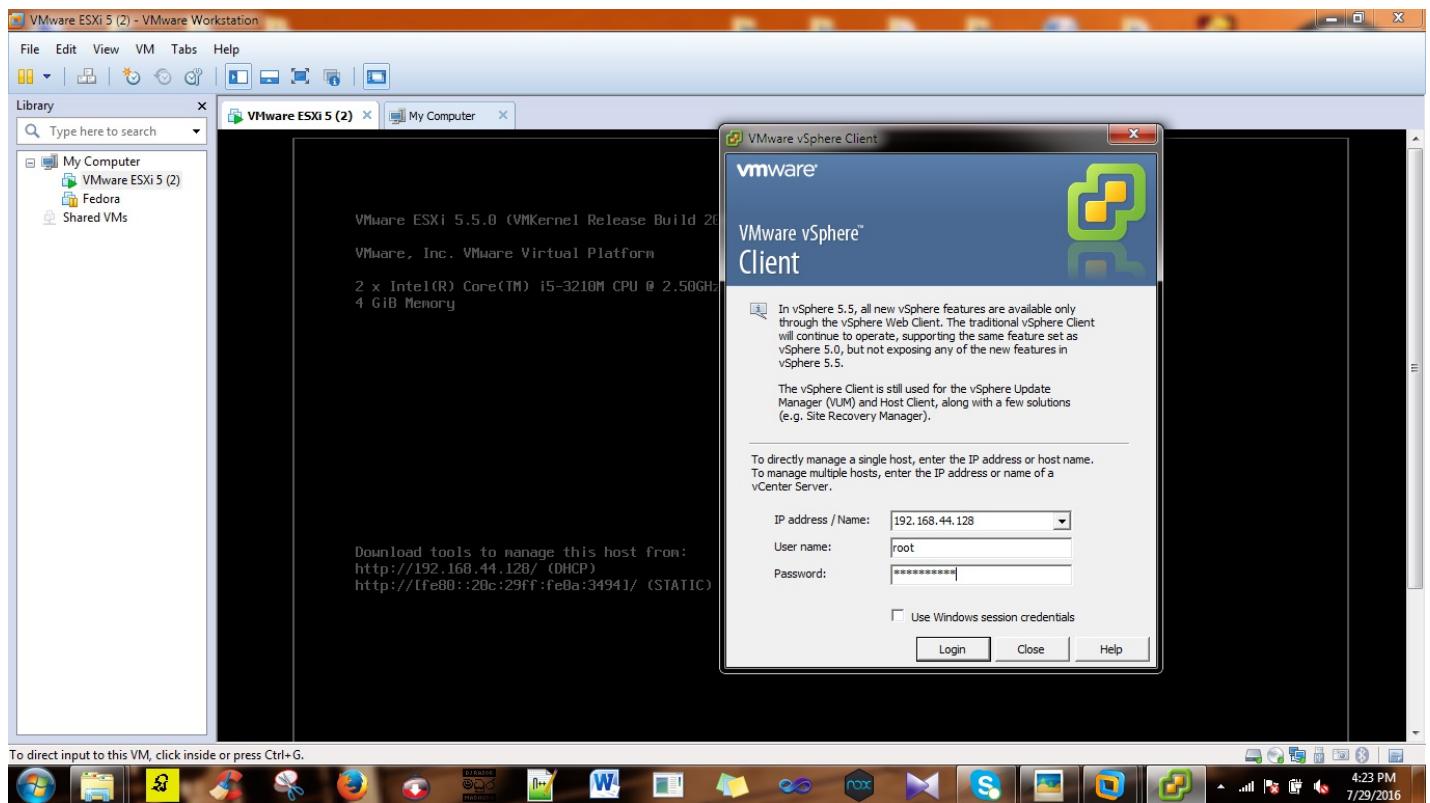
**vSphere Web Services SDK**

Learn about our latest SDKs, Toolkits, and APIs for managing VMware ESX, ESXi, and VMware vCenter. Get sample code, reference documentation, participate in our Forum Discussions, and view our latest Sessions and Webinars.

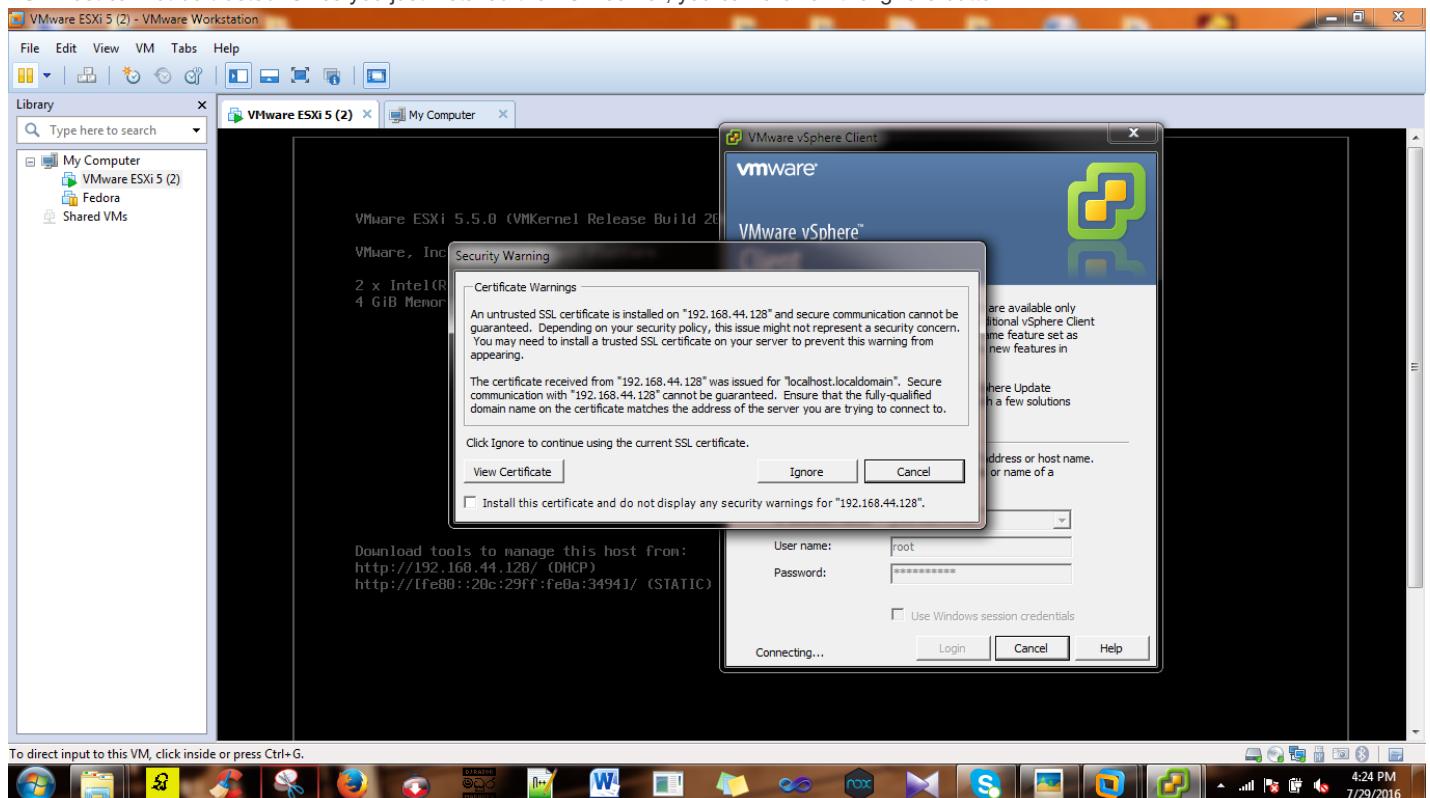
- [Learn more about the Web Services SDK](#)
- [Browse objects managed by this host](#)

02.Execute the client software installation routine

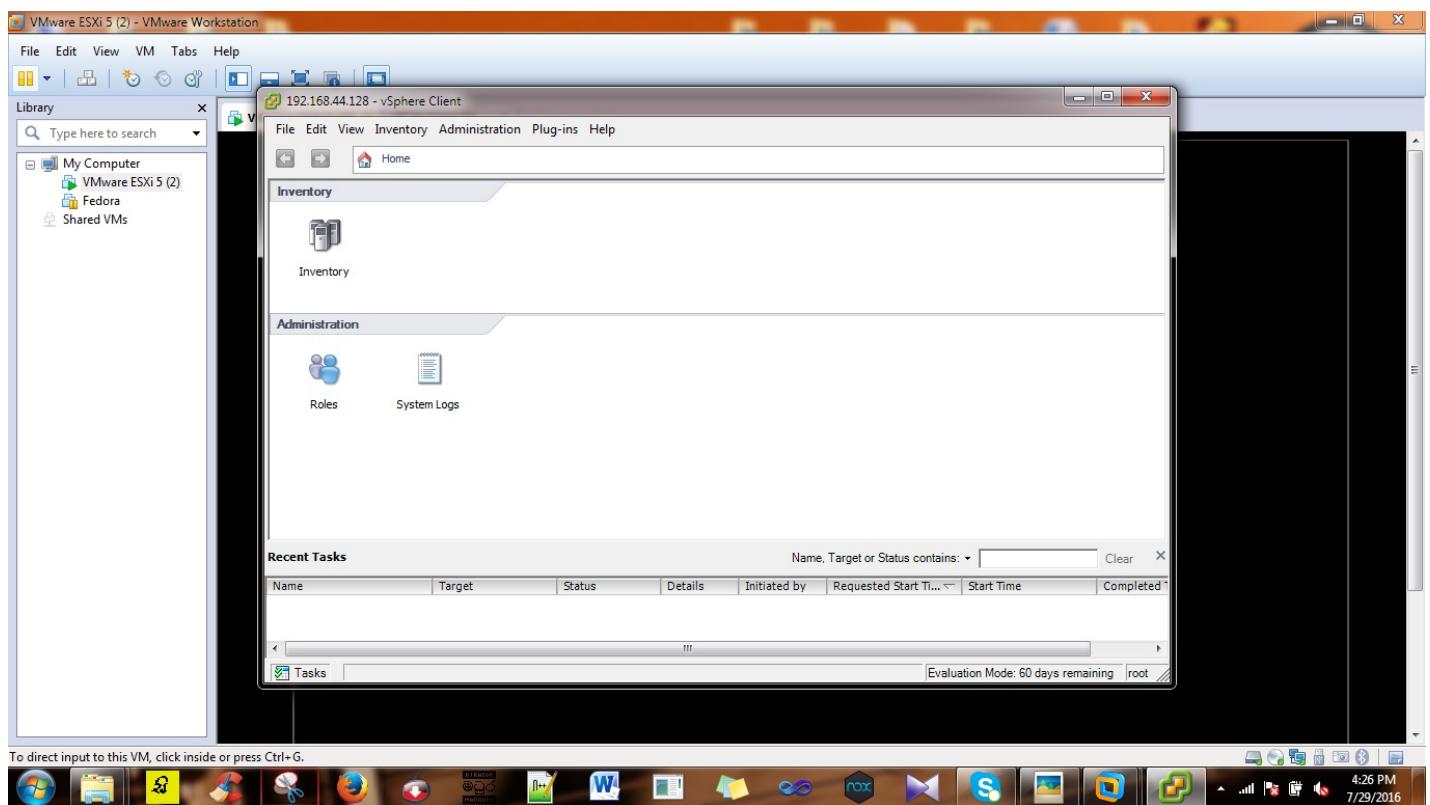
03.You have installed the hyper visor – ESX5 and a management tool – v Sphere Client. Start the vSphere client. Then provide the IP address for your ESX5 host and also provide the root user name and password that you specified during the setup of your server.



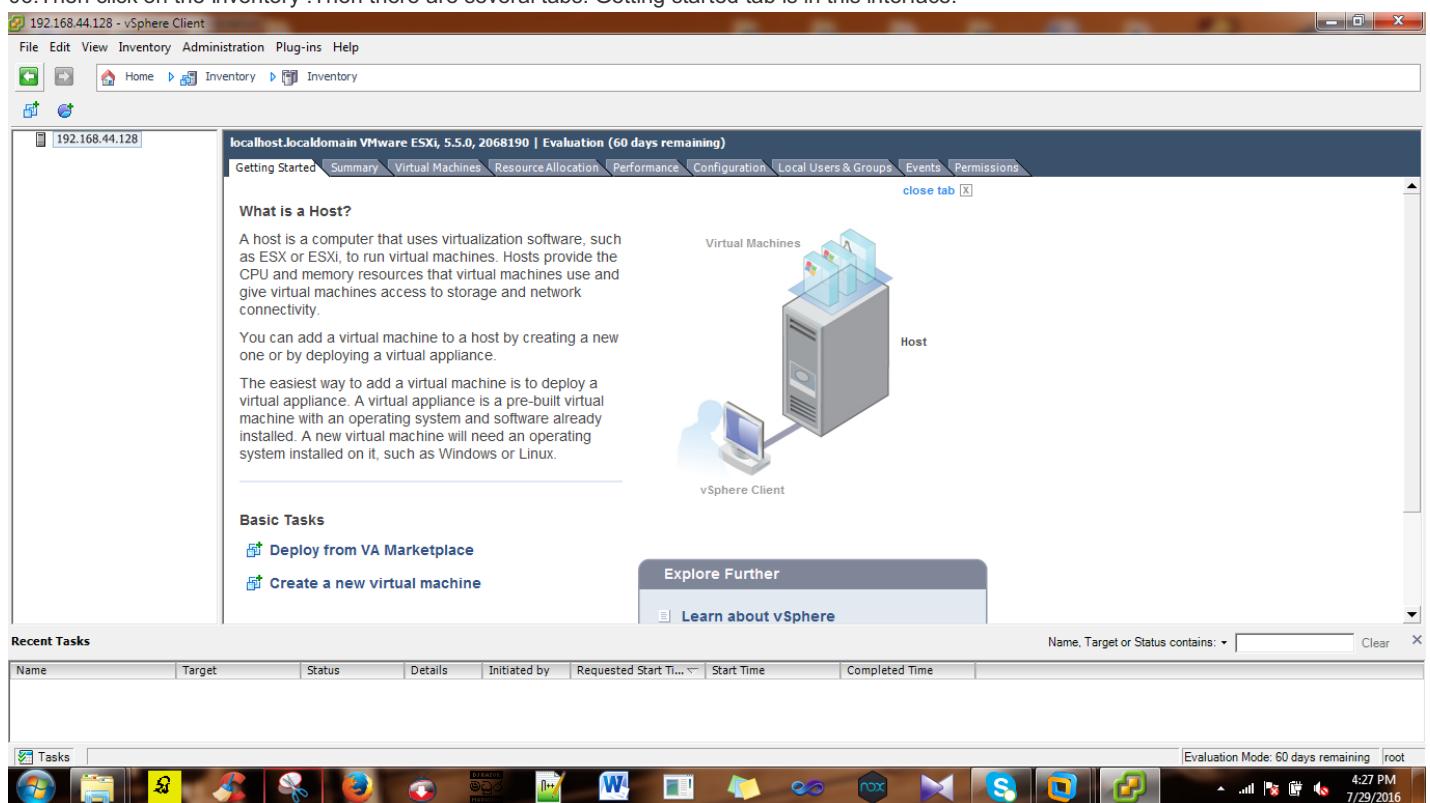
04.After login to the VMware vSphere client you can get a security warning.This is basically telling you that the SSL certificate being used by the ESXi host cannot be trusted. Since you just installed the ESXi server, you can click on the ignore button.



05.This is the interface then you get.



06.Then click on the Inventory .Then there are several tabs. Getting started tab is in this interface.



192.168.44.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

**General**

Manufacturer:	VMware, Inc.
Model:	VMware Virtual Platform
CPU Cores:	2 CPUs x 2,494 GHz
Processor Type:	Intel(R) Core(TM) i5-3210M CPU @ 2.50GHz
License:	Evaluation Mode -
Processor Sockets:	2
Cores per Socket:	1
Logical Processors:	2
Hyperthreading:	Inactive
Number of NICs:	1
State:	Connected
Virtual Machines and Templates:	0
vMotion Enabled:	N/A
VMware EVC Mode:	Disabled
vSphere HA State:	② N/A
Host Configured for FT:	N/A
Active Tasks:	
Host Profile:	N/A
Image Profile:	ESXi-5.5.0-20140902001-st...

**Resources**

CPU usage: 92 MHz	Capacity 2 x 2,494 GHz
Memory usage: 1150.00 MB	Capacity 4095.49 MB
Storage	Drive Type Capacity
datastore1	Non-SSD 32.50 GB 3:
Network	Type
VM Network	Standard port group

**Fault Tolerance**

Fault Tolerance Version:	5.0.0-5.0.0-5.0.0
Refresh Virtual Machine Counts	
Total Primary VMs:	0
Powered On Primary VMs:	0
Total Secondary VMs:	0
Powered On Secondary VMs:	0

Recent Tasks

Name	Target	Status	Details	Initiated by	Requested Start Ti...	Start Time	Completed Time
No tasks found.							

Name, Target or Status contains: ▾ Clear ×

Tasks Evaluation Mode: 60 days remaining root 4:28 PM 7/29/2016

192.168.44.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

Name, State or Guest OS contains: ▾ Clear

Name	State	ProvisionedSpace	Used Space	Host CPU - MHz	Host Mem - MB	Guest Mem - %	Notes
No virtual machines found.							

Recent Tasks

Name	Target	Status	Details	Initiated by	Requested Start Ti...	Start Time	Completed Time
No tasks found.							

Name, Target or Status contains: ▾ Clear ×

Tasks Evaluation Mode: 60 days remaining root 4:28 PM 7/29/2016

192.168.44.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

CPU

Total Capacity:	<b>2892 MHz</b>	Total Capacity:	<b>1336 MB</b>
Reserved Capacity:	<b>0 MHz</b>	Reserved Capacity:	<b>0 MB</b>
Available Capacity:	<b>2892 MHz</b>	Available Capacity:	<b>1336 MB</b>

Memory

Name	Reservation - MHz	Limit - MHz	Shares	Shares Value	% Shares	Type
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Recent Tasks

Name Target Status Details Initiated by Requested Start Ti... Start Time Completed Time

Tasks

Evaluation Mode: 60 days remaining root 4:29 PM 7/29/2016

192.168.44.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

CPU/Real-time, 7/24/2016 8:44:27 PM - 7/24/2016 9:44:27 PM Chart Options...

Graph refreshes every 20 seconds

Switch to:

192.168.44.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

**Hardware**

- Health Status
- Processors
- Memory
- Storage
- Networking
- Storage Adapters
- Network Adapters
- Advanced Settings
- Power Management

**Software**

- Licensed Features
- Time Configuration
- DNS and Routing
- Authentication Services
- Virtual Machine Startup/Shutdown
- Virtual Machine Swapfile Location
- Security Profile
- Host Cache Configuration
- System Resource Allocation

Sensor Status Reading

Sensor	Status	Reading
VMware, Inc. VMware Virtual Platform	Normal	

Reset Sensors Refresh

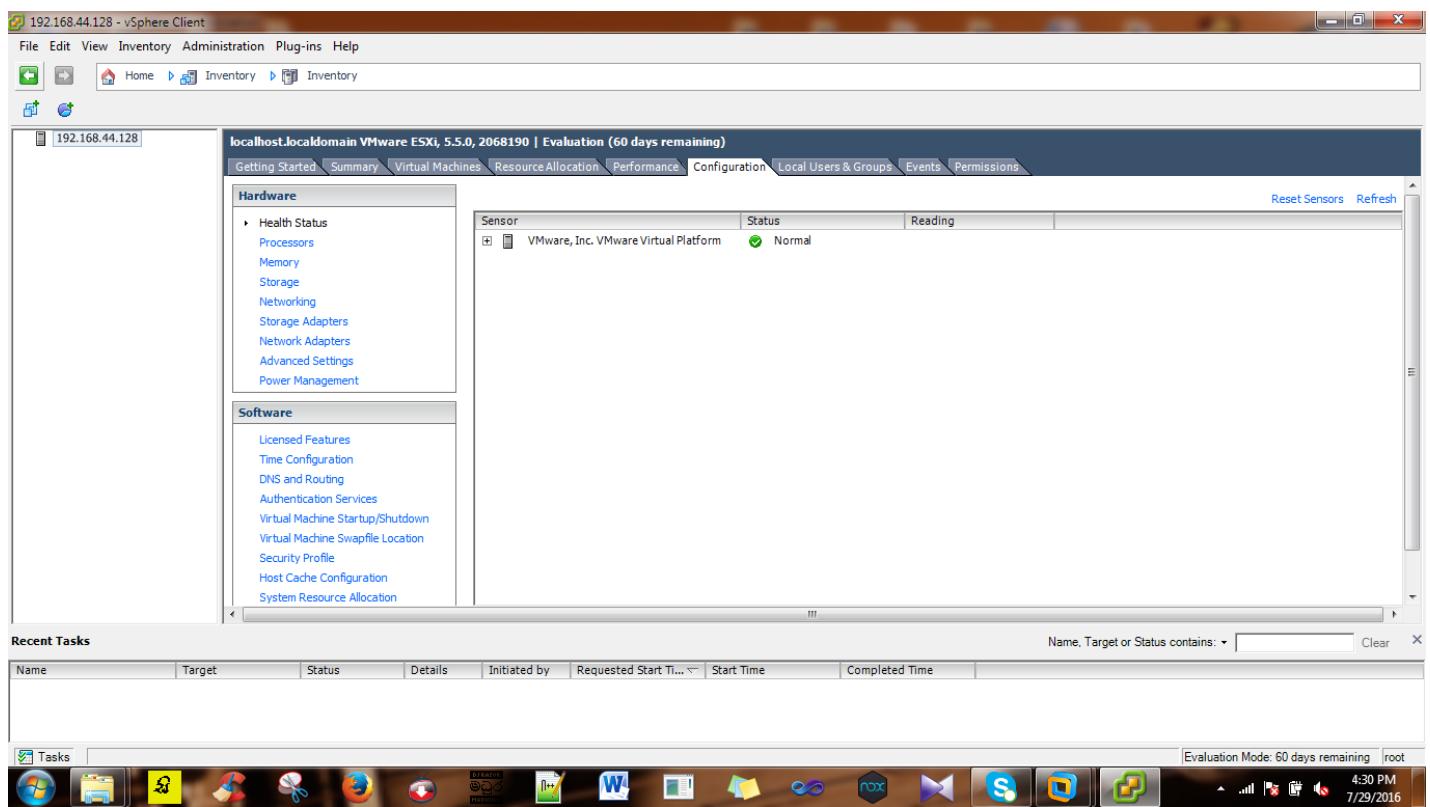
Recent Tasks

Name Target Status Details Initiated by Requested Start Ti... Start Time Completed Time

Tasks

Evaluation Mode: 60 days remaining root

4:30 PM 7/29/2016



192.168.44.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

**View:** Users Groups

UID	User	Name
0	root	Administrator
500	vpxuser	VMware VirtualCenter administration account
100	dcui	DCUIUser

Full-screen Snip Refresh

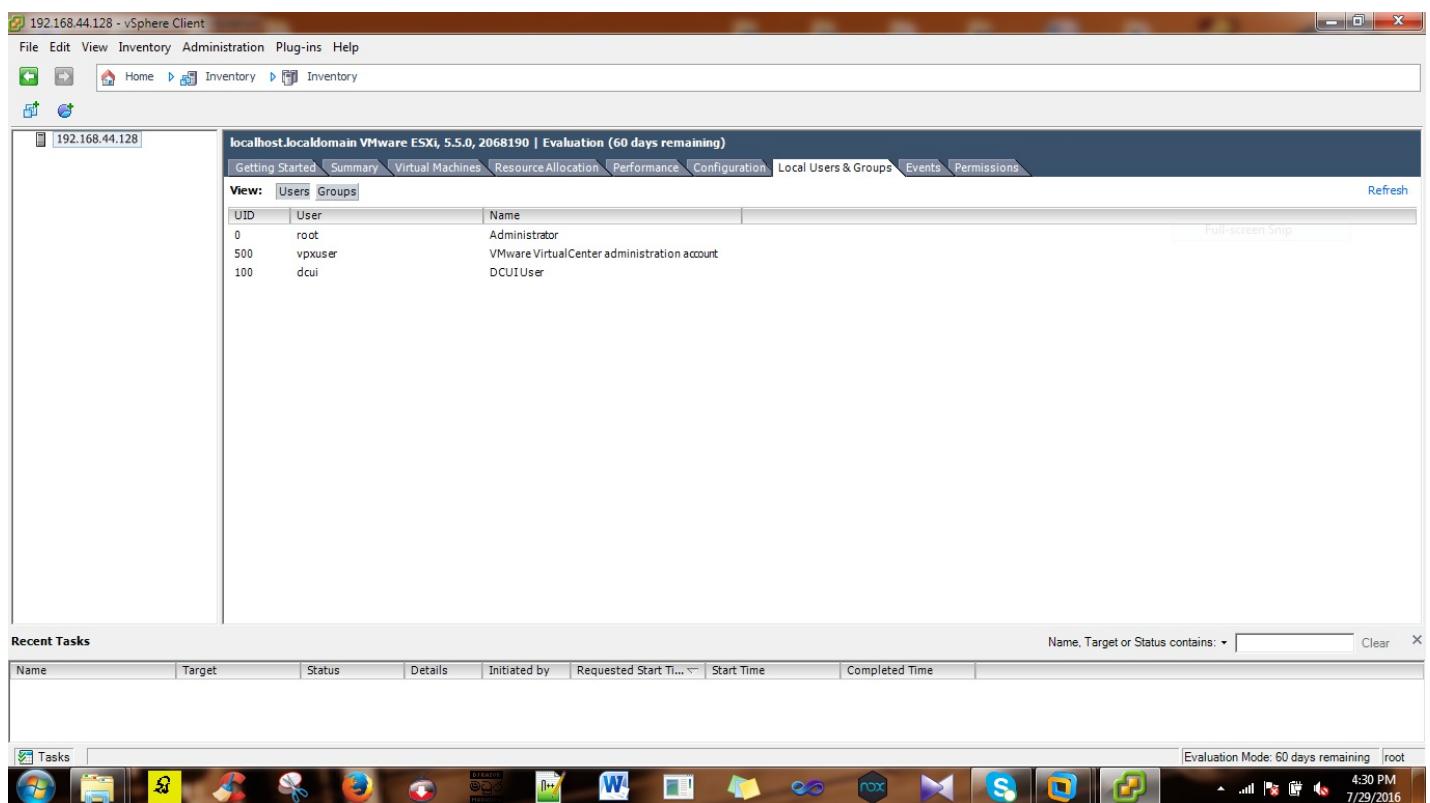
Recent Tasks

Name Target Status Details Initiated by Requested Start Ti... Start Time Completed Time

Tasks

Evaluation Mode: 60 days remaining root

4:30 PM 7/29/2016



192.168.44.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

Show all entries ▾

Description	Type	Date Time	Task	Target	User
User root@192.168.44.1 logged in as VMware VI Client/4.0.0	info	7/24/2016 9:42:58 PM			root
The DCUI has been enabled.	info	7/24/2016 9:30:54 PM		localhost.localdomain	
At least one coredump target has been configured. Host core dumps will be saved.	info	7/24/2016 9:30:54 PM		localhost.localdomain	
Port vmk0 is now protected by Firewall.	info	7/24/2016 9:30:54 PM		localhost.localdomain	
Firewall configuration has changed. Operation 'enable' for rule set ipfam succeeded.	info	7/24/2016 9:30:54 PM		localhost.localdomain	
Firewall configuration has changed. Operation 'add' for rule set ipfam succeeded.	info	7/24/2016 9:30:54 PM		localhost.localdomain	
Firewall configuration has changed. Operation 'enable' for rule set rabbitmqproxy succeeded.	info	7/24/2016 9:30:54 PM		localhost.localdomain	

Event Details

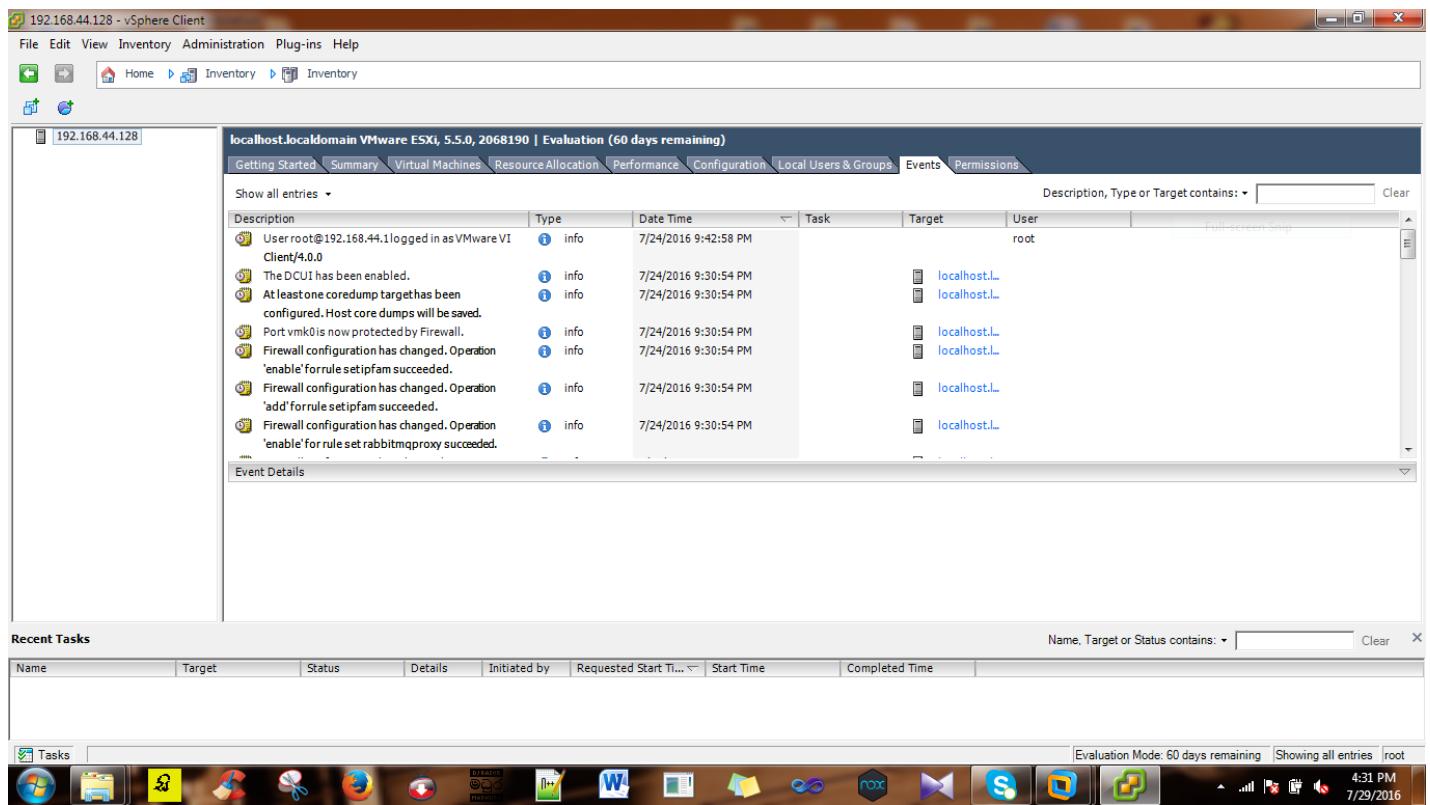
Recent Tasks

Name, Target or Status contains: ▾ Clear X

Name	Target	Status	Details	Initiated by	Requested Start Ti...	Start Time	Completed Time

Tasks Evaluation Mode: 60 days remaining Showing all entries root

4:31 PM 7/29/2016



192.168.44.128 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory

localhost.localdomain VMware ESXi, 5.5.0, 2068190 | Evaluation (60 days remaining)

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

User/Group Role Defined in

vpxuser	Administrator	This object
dcui	Administrator	This object
root	Administrator	This object

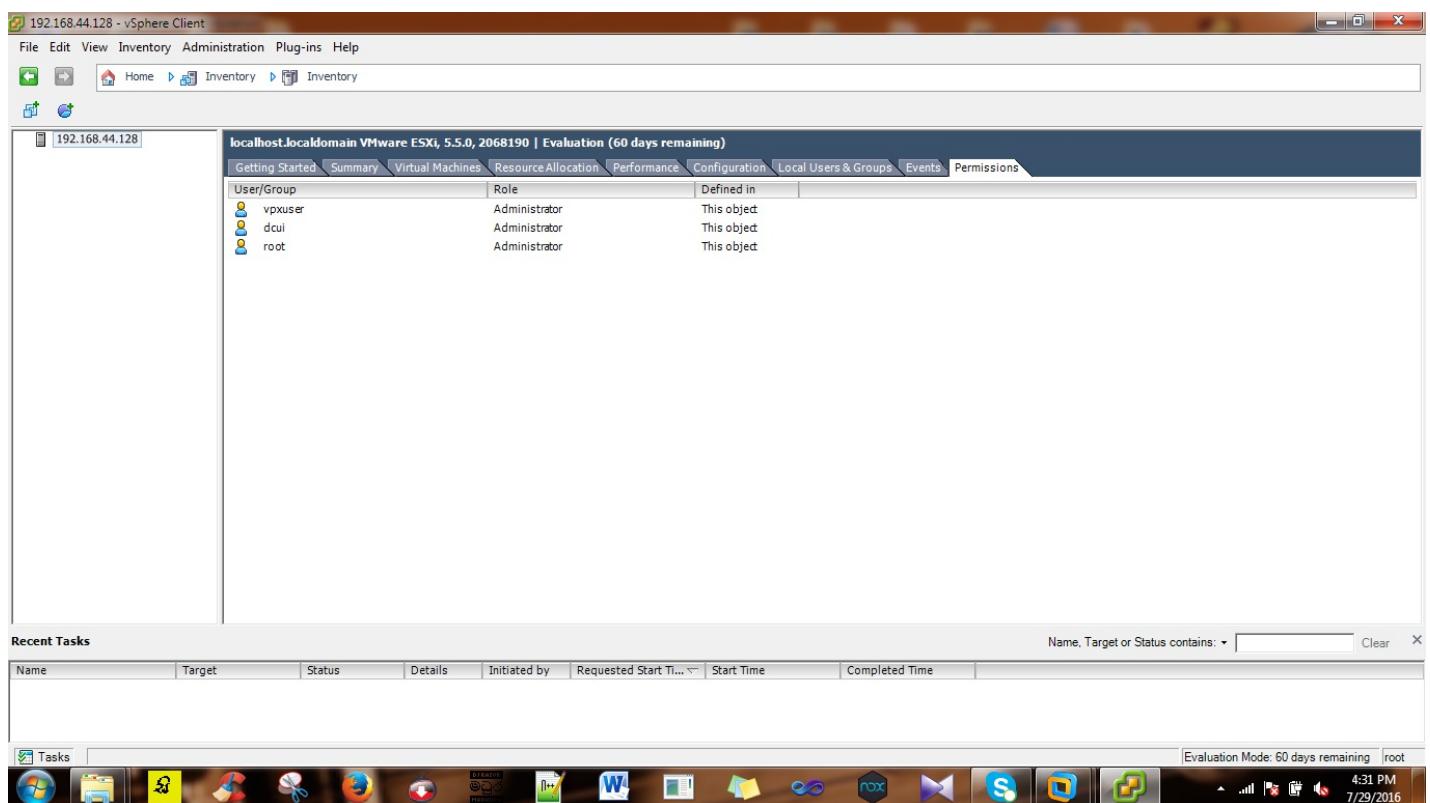
Recent Tasks

Name, Target or Status contains: ▾ Clear X

Name	Target	Status	Details	Initiated by	Requested Start Ti...	Start Time	Completed Time

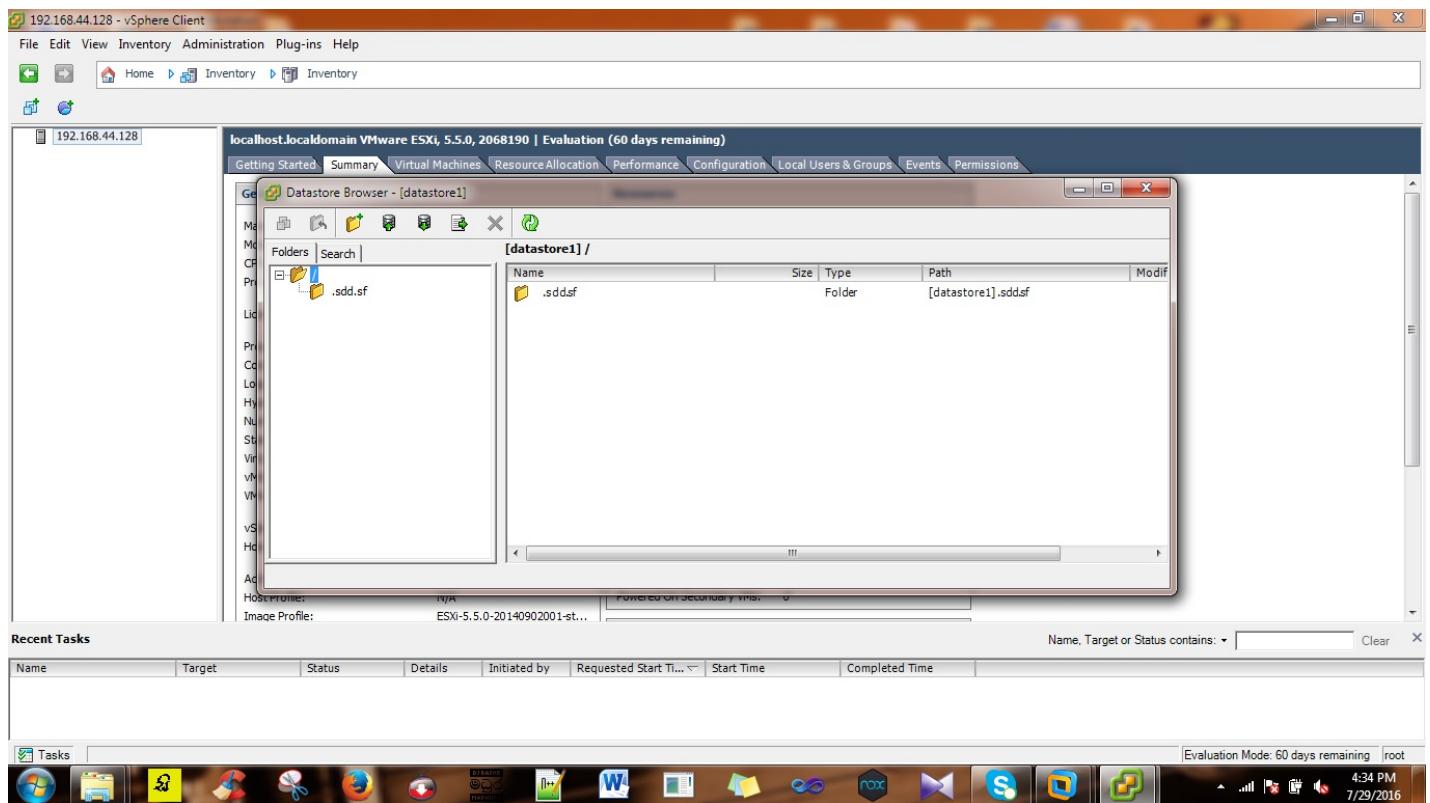
Tasks Evaluation Mode: 60 days remaining root

4:31 PM 7/29/2016

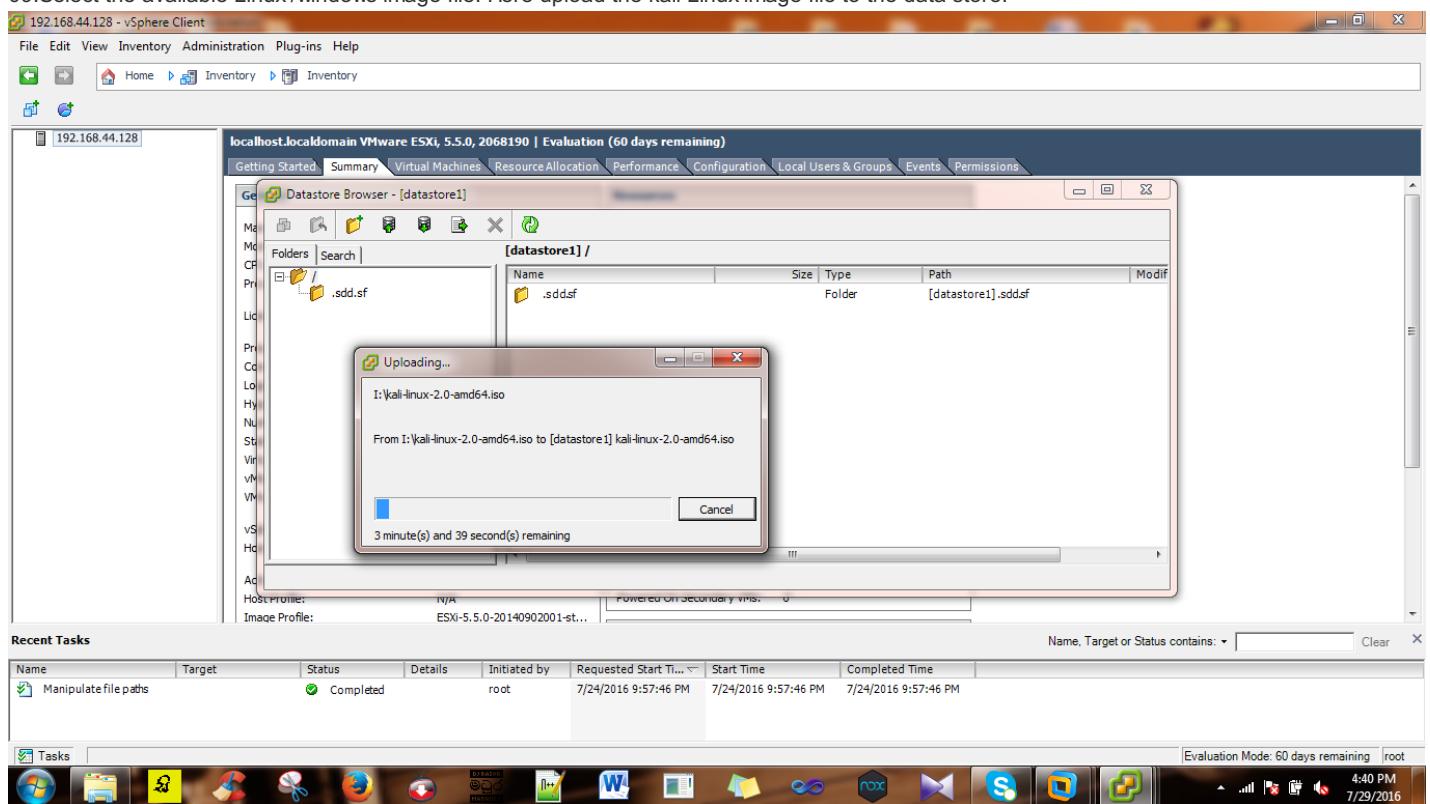


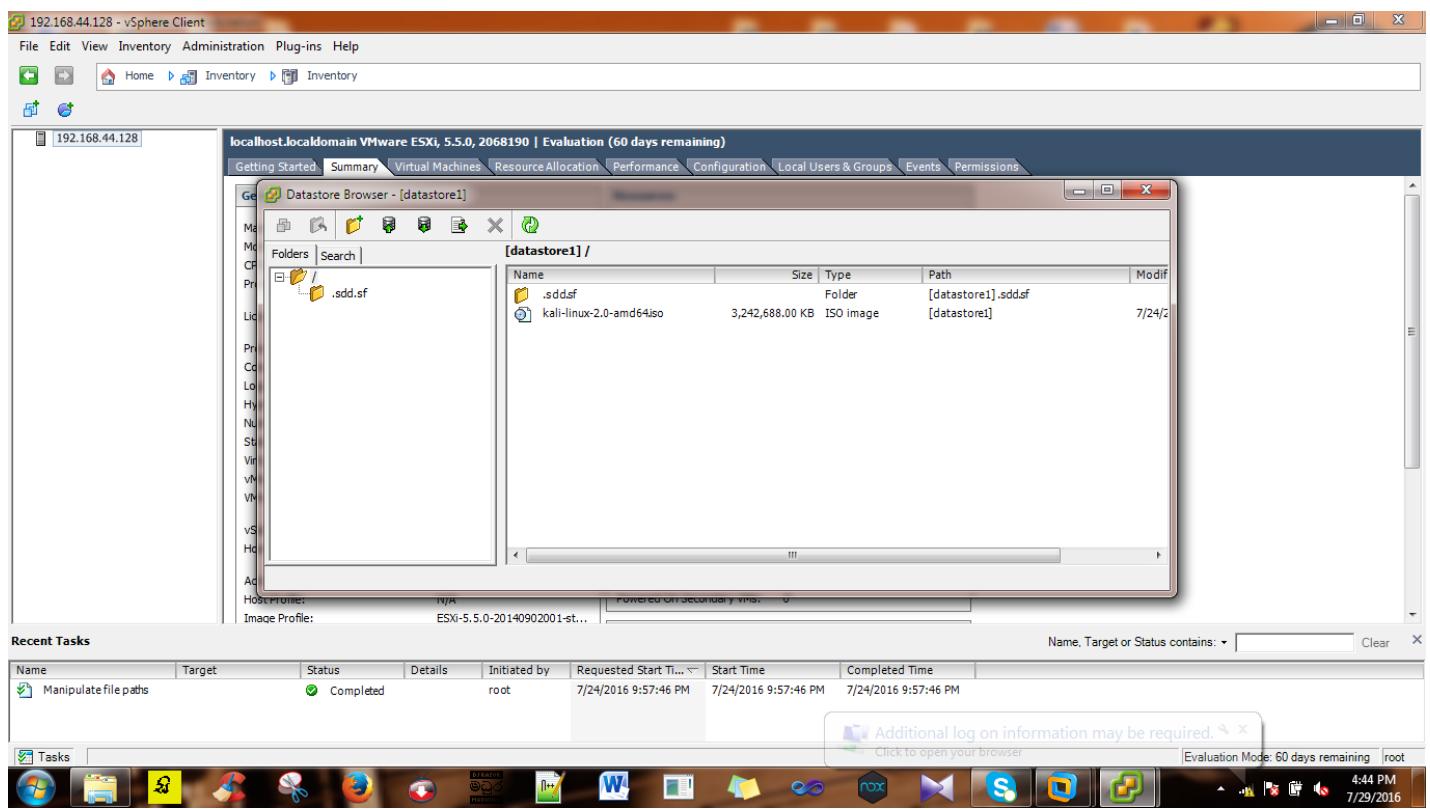
07.In summary tab, there is a resource called storage. Right click on the database and select Browse data store.

08.In data store browser, there is an icon in navigation pane.(4th icon).Click on that icon and select Upload File.



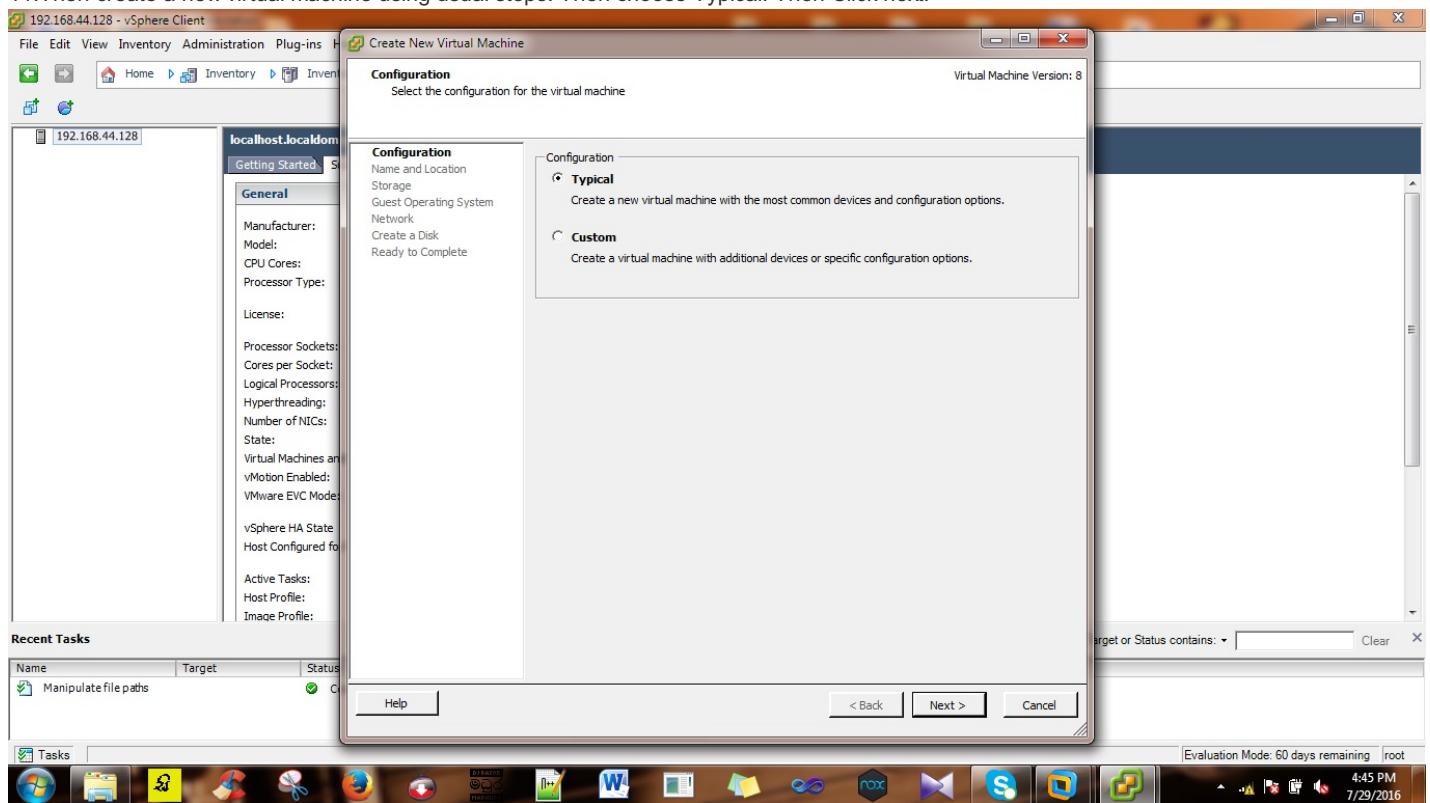
09. Select the available Linux/windows image file. Here upload the kali Linux image file to the data store.



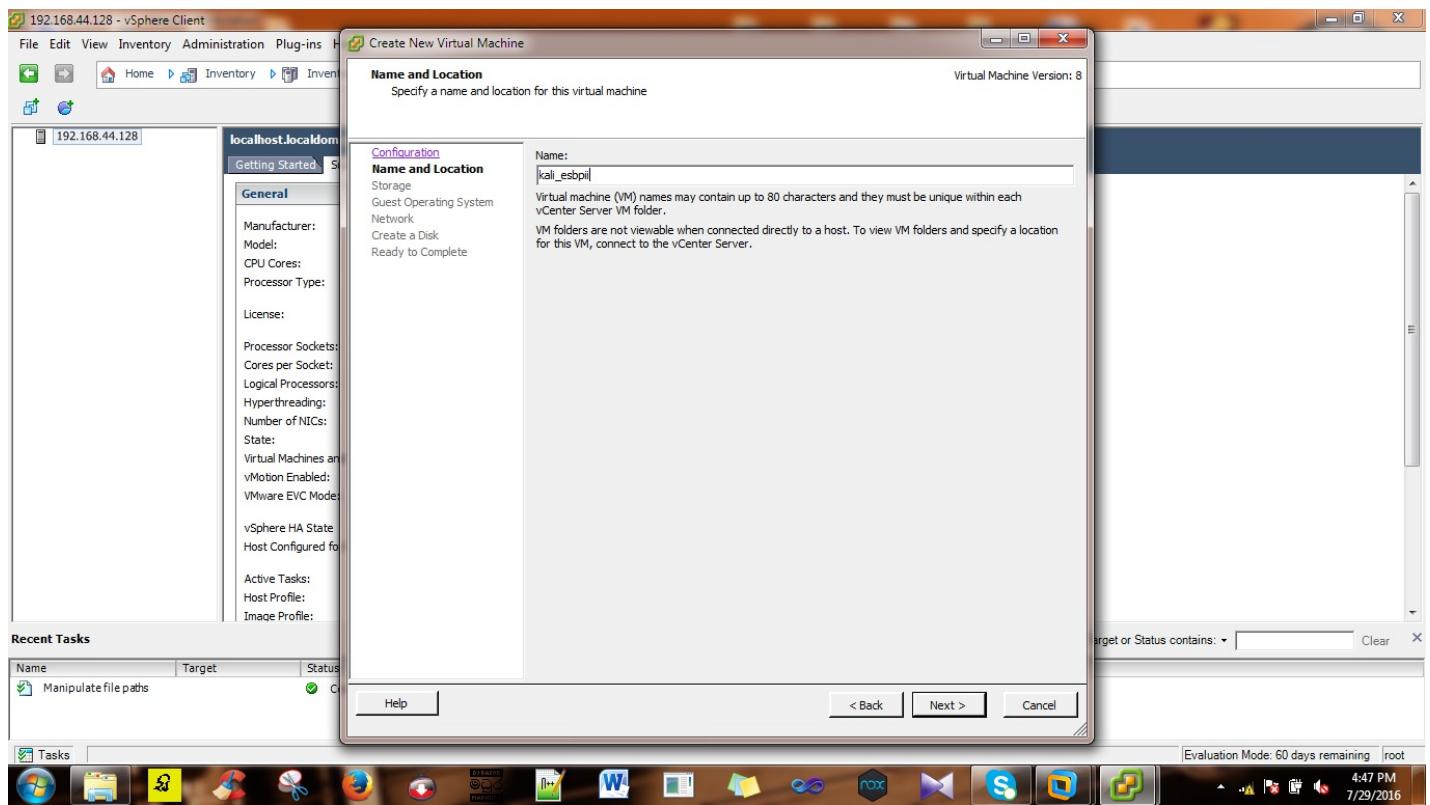


10. Then right click on the IP address shown in the top left corner. Select new virtual Machine.

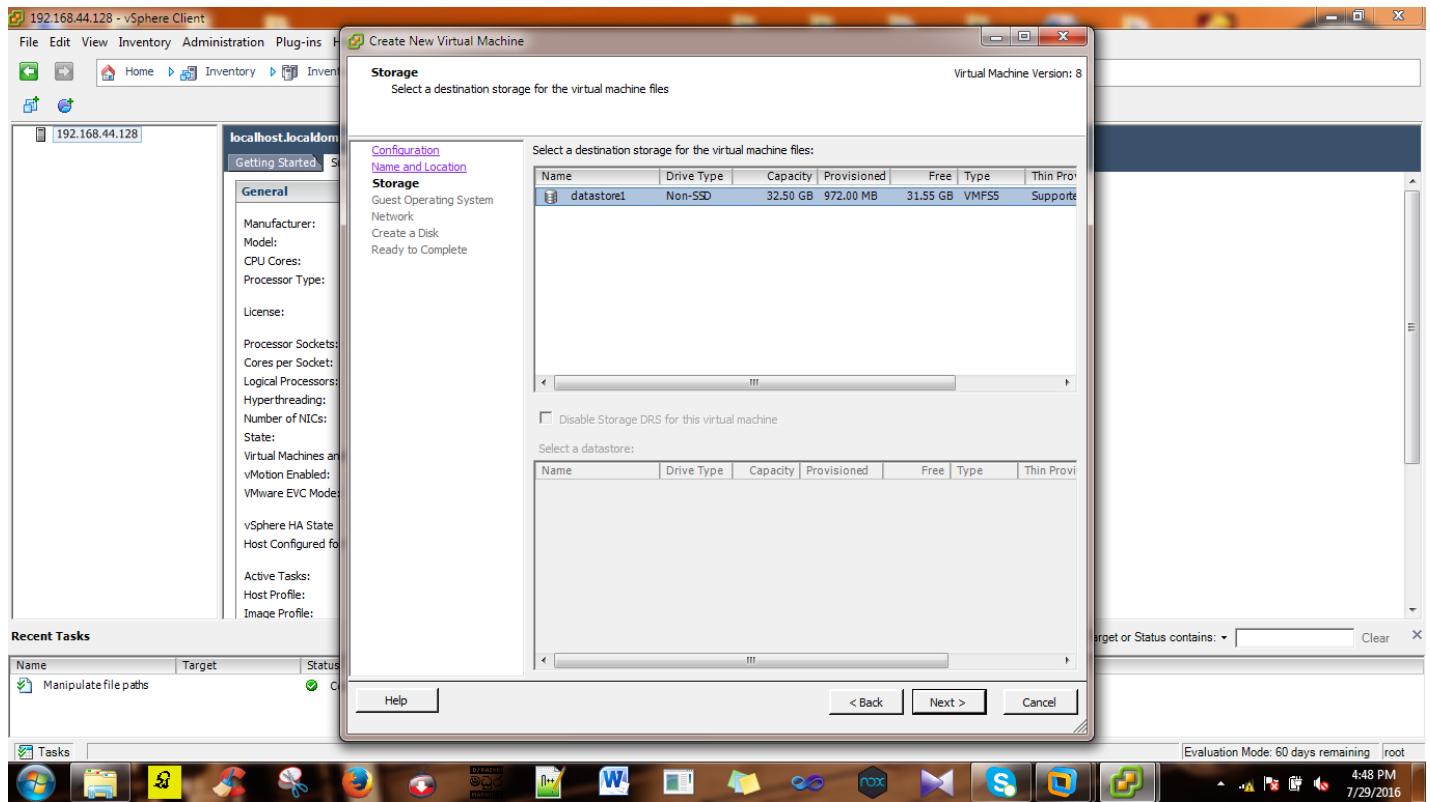
11. Then create a new virtual machine using usual steps. Then choose Typical. Then Click next.



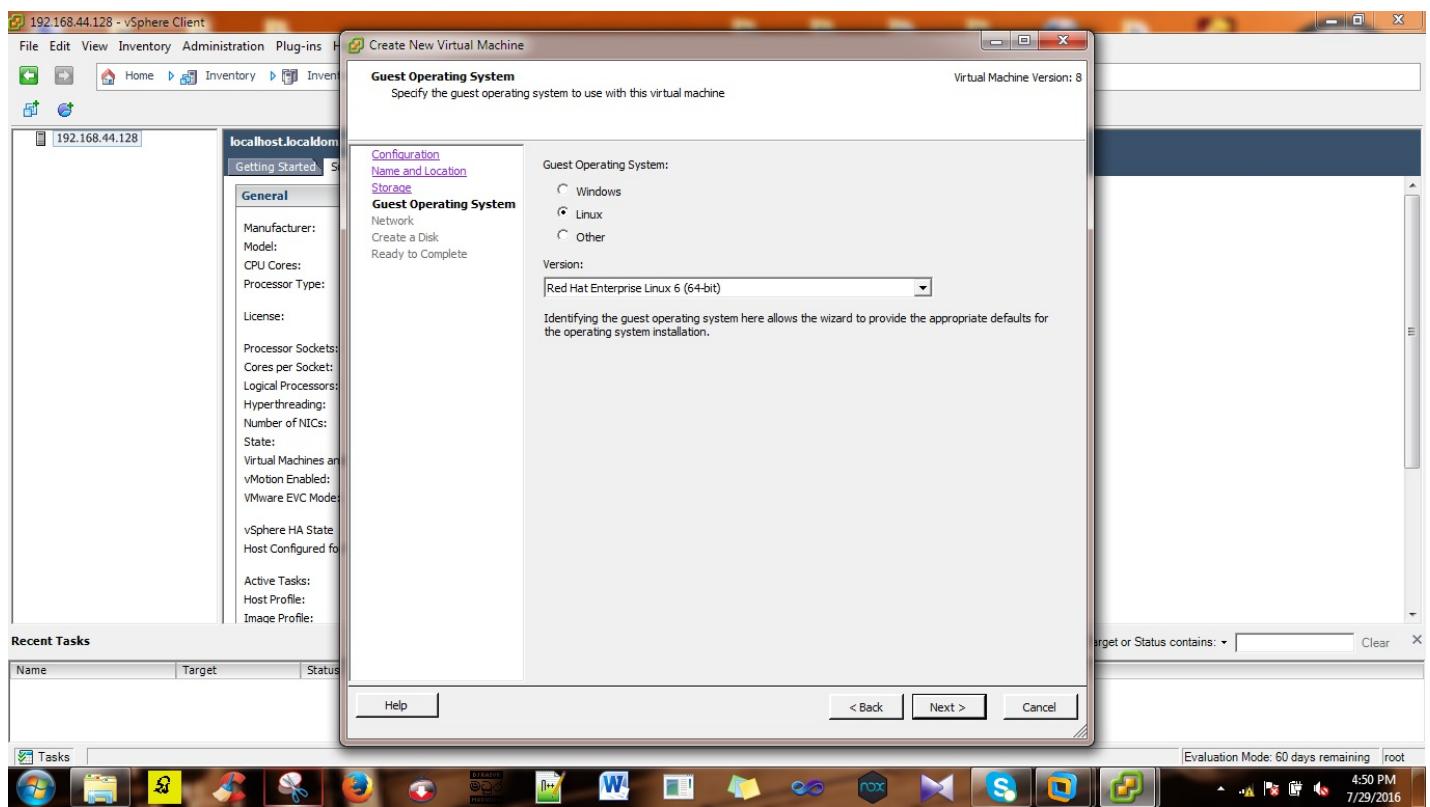
12. Give a specific name for this virtual machine.



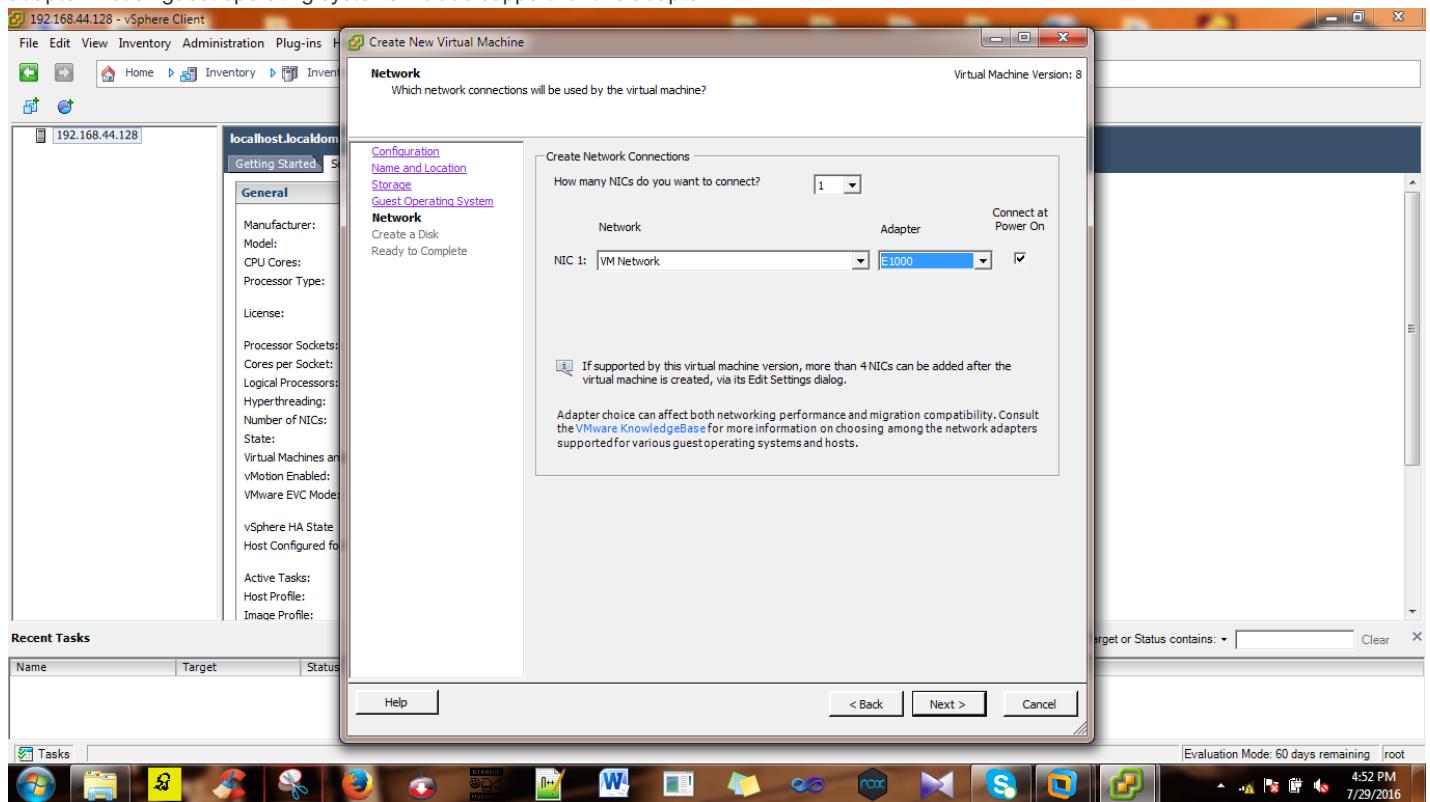
13.Then choose the data store. Then click next.



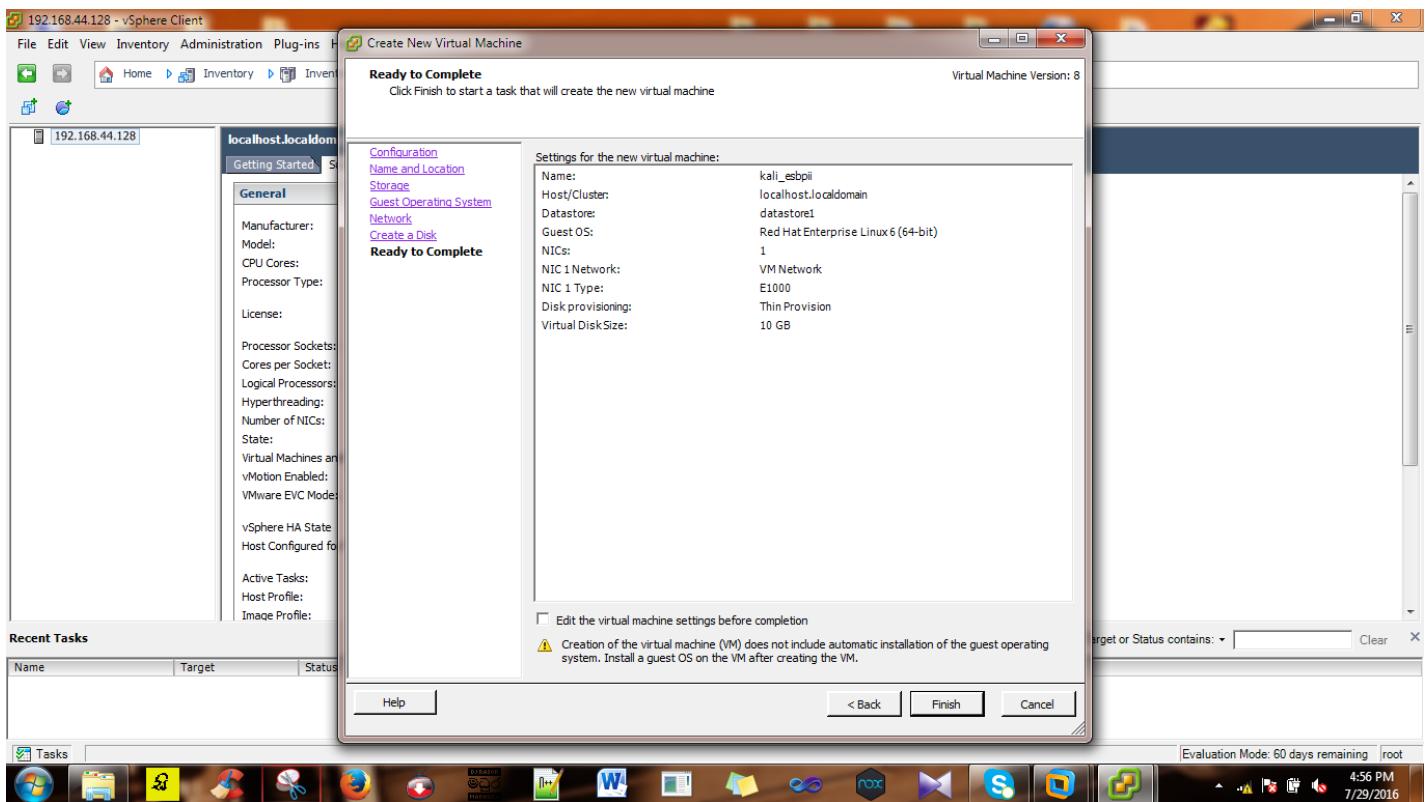
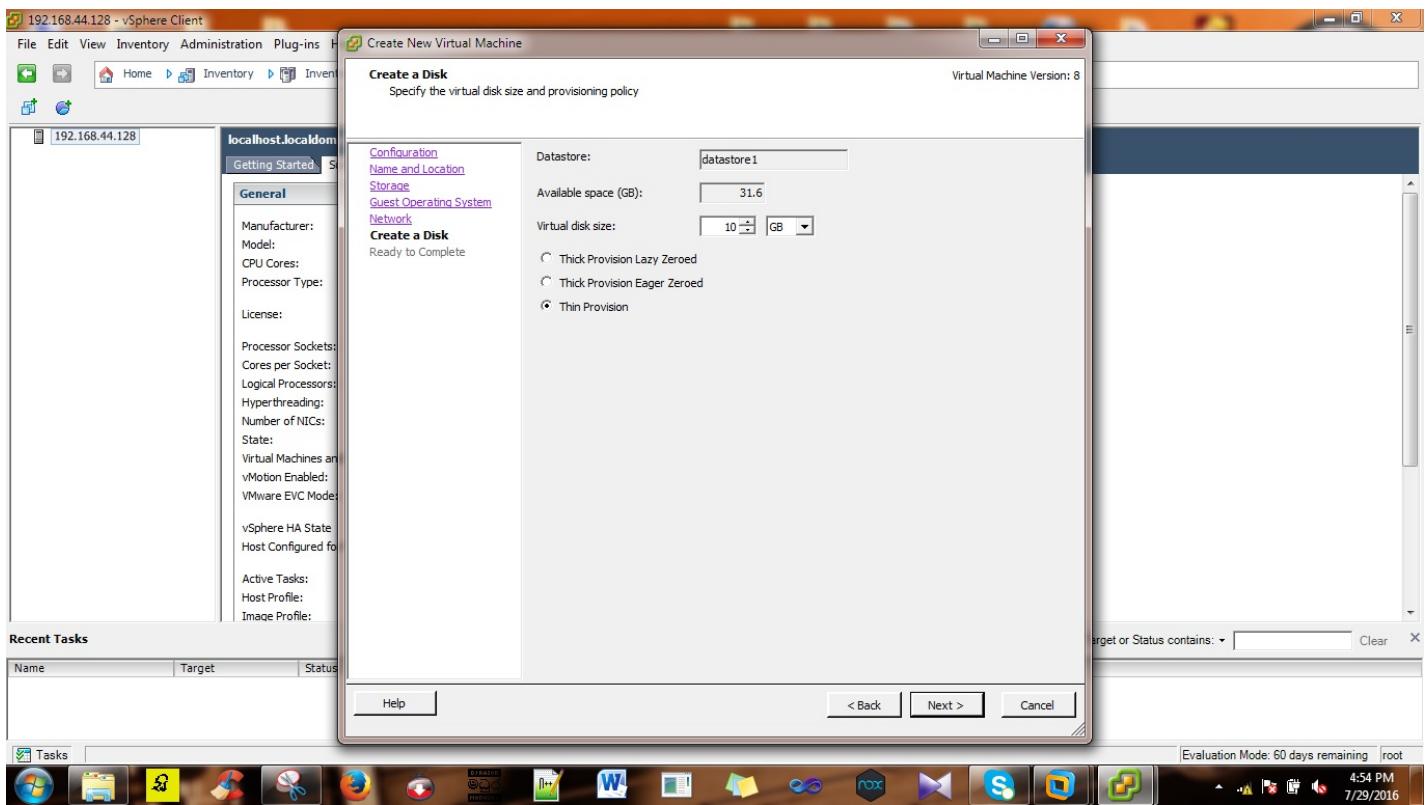
14.Specify the guest operating system to use with this virtual machine. Here choose the Linux because before chose the kali Linux image file. Then click next



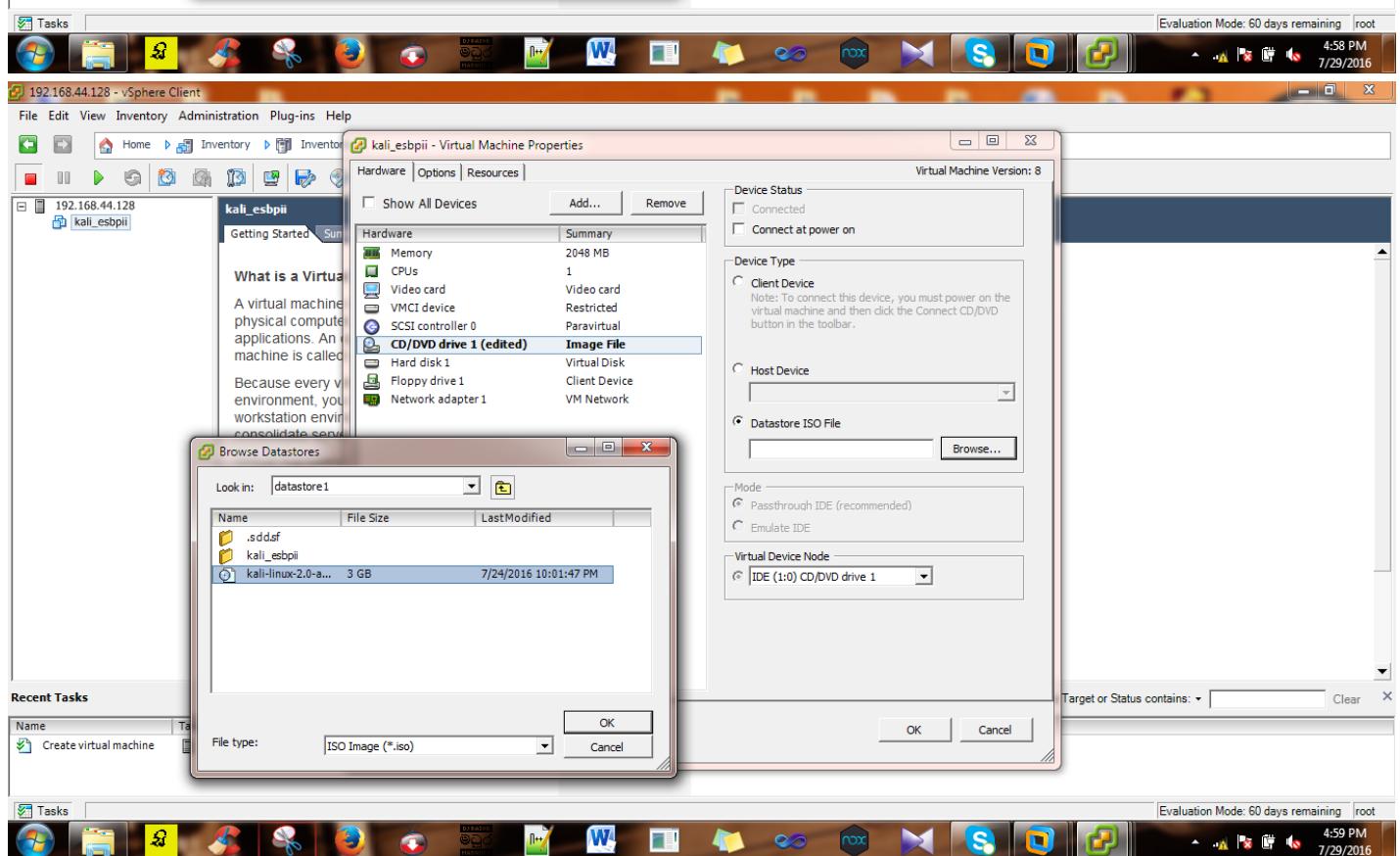
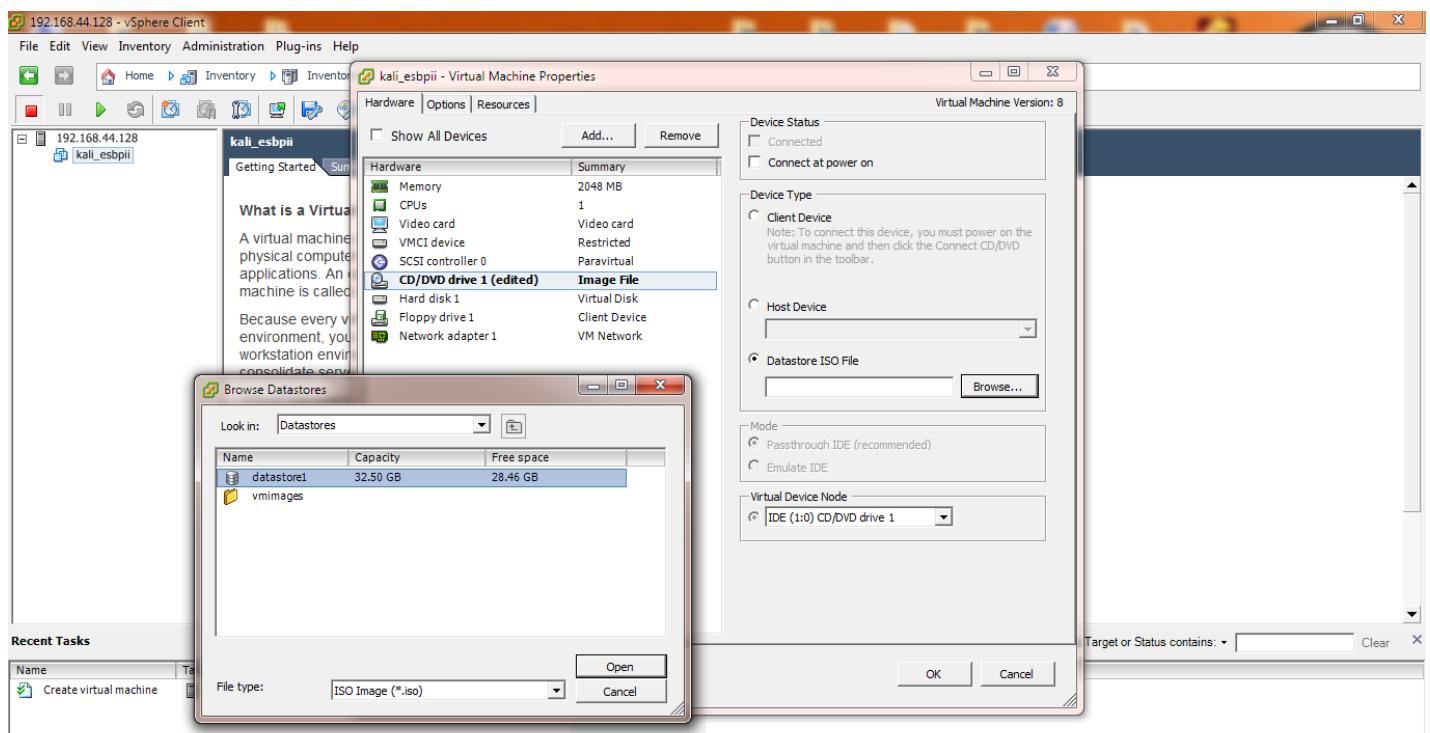
15.Specify the Adapter as E1000 and tick the Connect at power on. The E1000 is an emulated version of the Intel 82545EM Gigabit Ethernet adapter. Not all guest operating systems include support for this adapter.

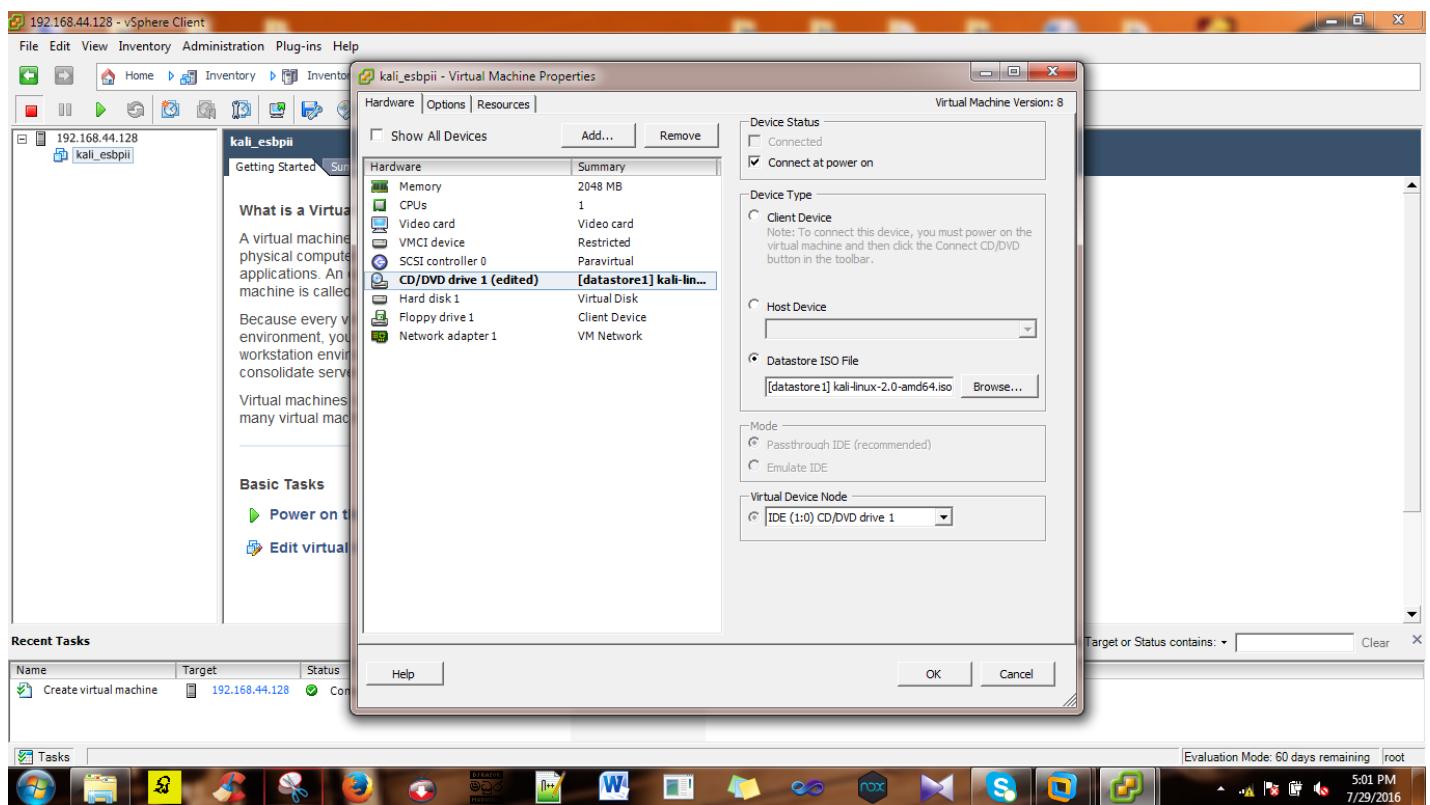


16.Specify the virtual disk size and provisioning policy. As the Provision here selected the Thin provision. Then click next.



17. Then you can see the kali\_linux instance has been created under the IP address top left corner. Right click on that instance and go to Edit Settings.
18. Then click on the CD/DVD drive 1. In the right side you can see the Data store ISO file . Tick on that and browse the kali Linux image file inside the data store 1.





19.Then go to Getting started tab and Start the virtual machine .Then go to Console tab. Then you can see the kali\_linux virtual machine is getting started

