Setting up Ubuntu machine within VMBOX

Download Oracle VMBOX (as per your OS) from

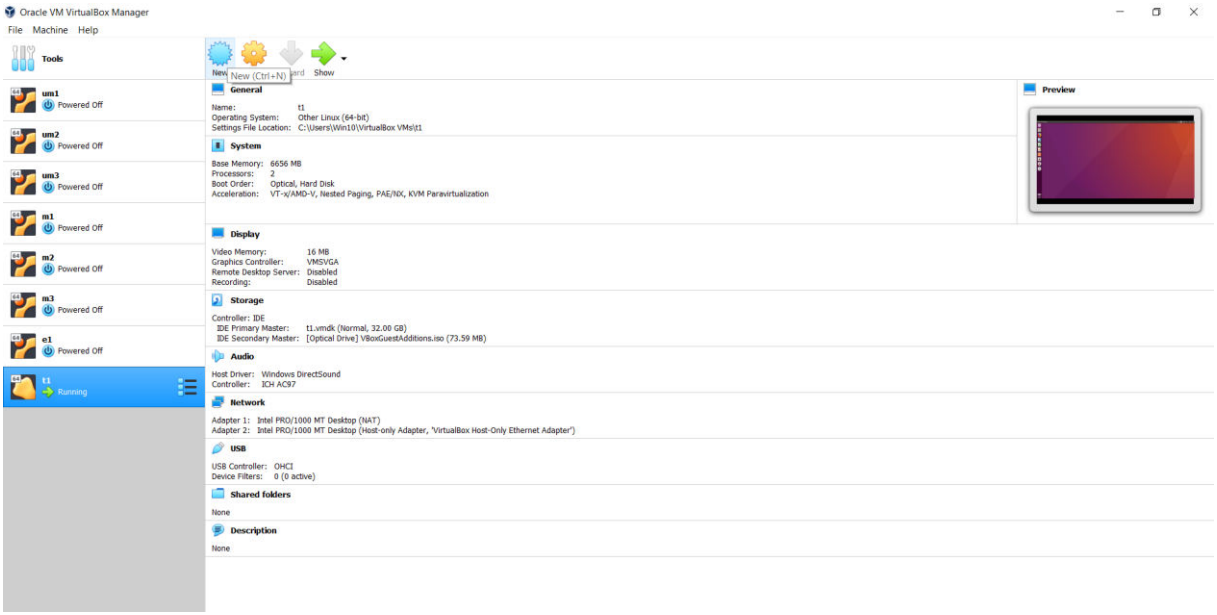
https://www.virtualbox.org/wiki/Downloads

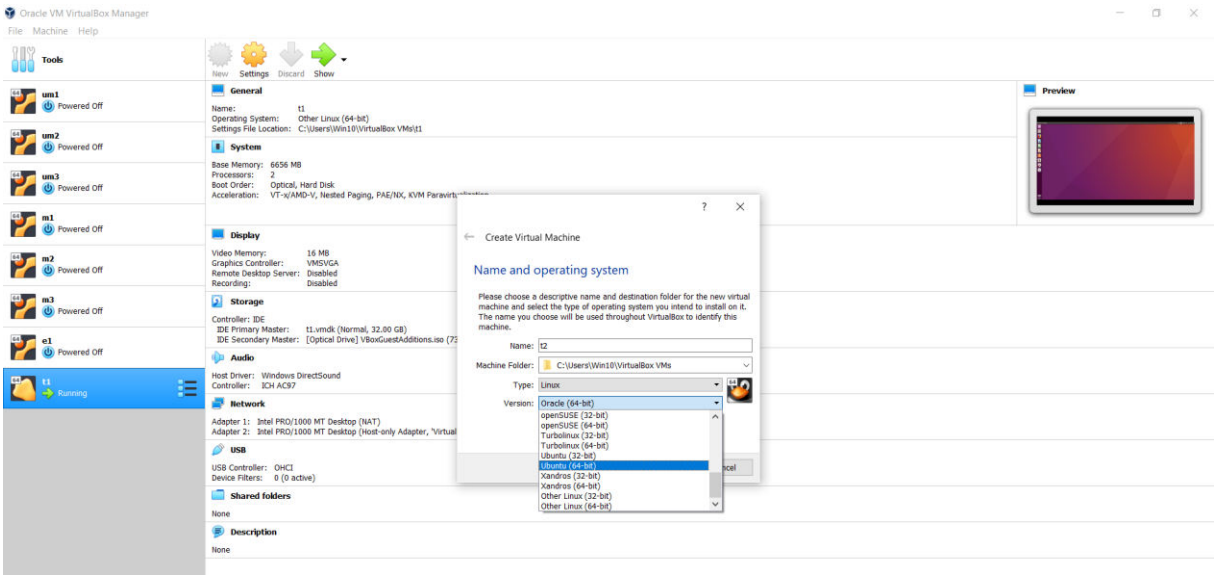
Download ubuntu 16.04 disc image iso (amd64-desktop image) from

http://releases.ubuntu.com/16.04/

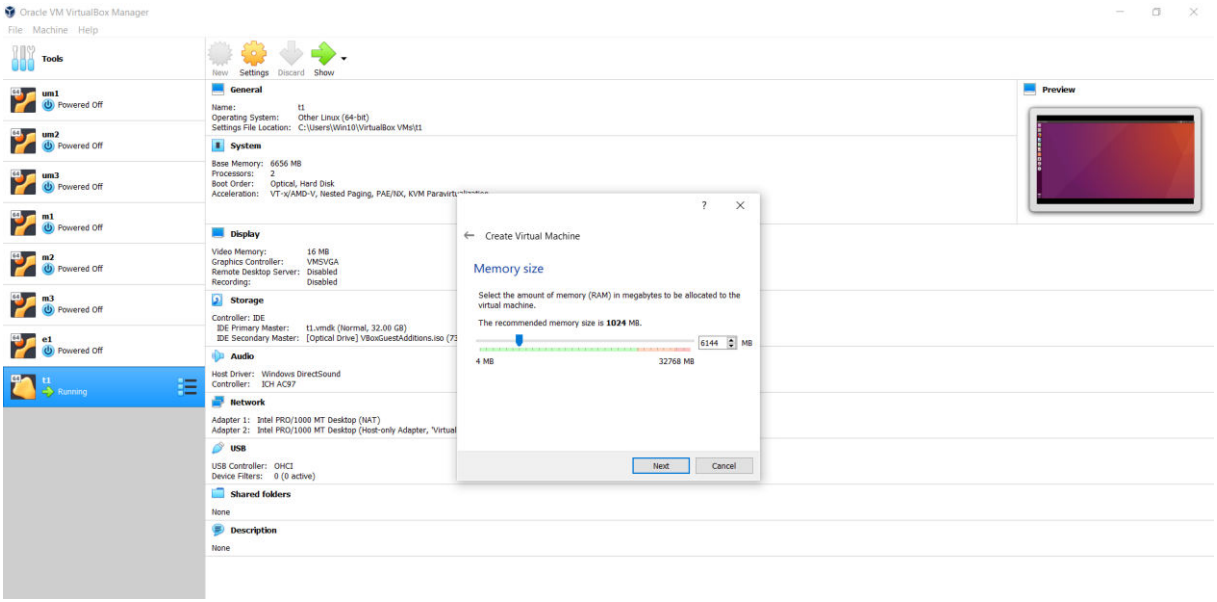
Adding an empty machine to VMBOX

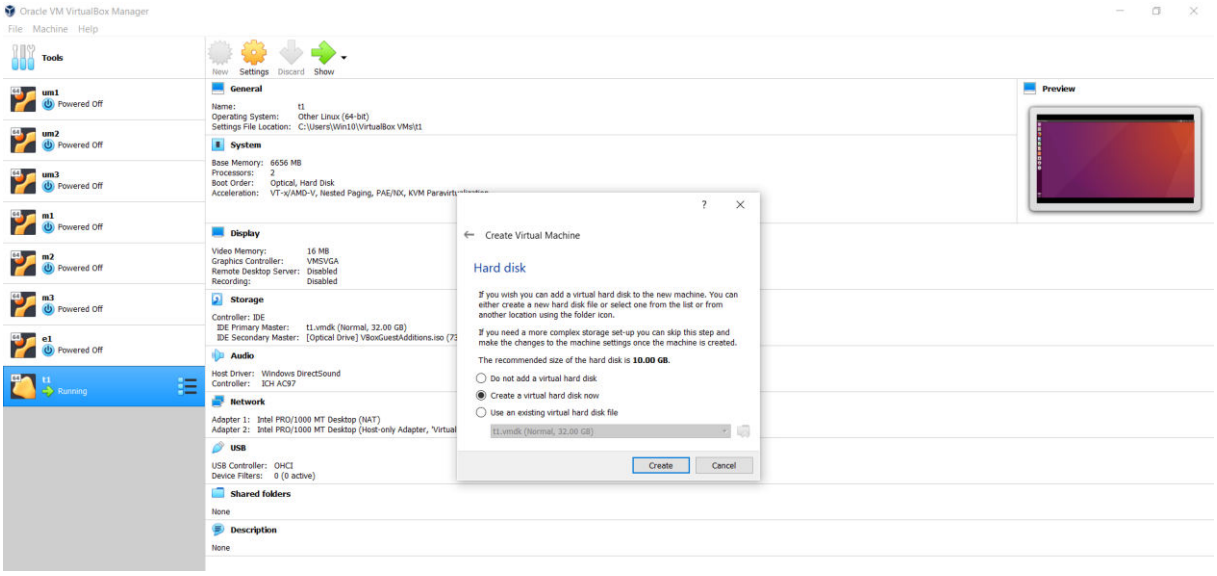
Open VMBOX > click on new





Choose ram as per your machine's configuration


Oracle VM VirtualBox Manager
File Machine Help
Tools
um1 Powered Off
um2 Powered Off
um3 Powered Off
m1 Powered Off
m2 Powered Off
m3 Powered Off
e1 Powered Off
t1 Running
New Settings Discard Show
General
Name: t1
Operating System: Other Linux (64-bit)
Settings File Location: C:\Users\Win10\VirtualBox VMs\t1
System
Base Memory: 6656 MB
Processors: 2
Boot Order: Optical, Hard Disk
Acceleration: VT-x/AMD-V, Nested Paging, PAE/NX, KVM Paravirt
Display
Video Memory: 16 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled
Storage
Controller: IDE
IDE Primary Master: t1.vmdk (Normal, 32.00 GB)
IDE Secondary Master: [Optical Drive] VBoxGuestAdditions.iso
Audio
Host Driver: Windows DirectSound
Controller: ICH AC97
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
Adapter 2: Intel PRO/1000 MT Desktop (Host-only Adapter,
USB
USB Controller: OHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
None
Preview
Create Virtual Machine
Memory size
Select the amount of memory (RAM) in megabytes to be allocated to the virtual machine.
The recommended memory size is 1024 MB.
6144 MB
4 MB
32768 MB
Next
Cancel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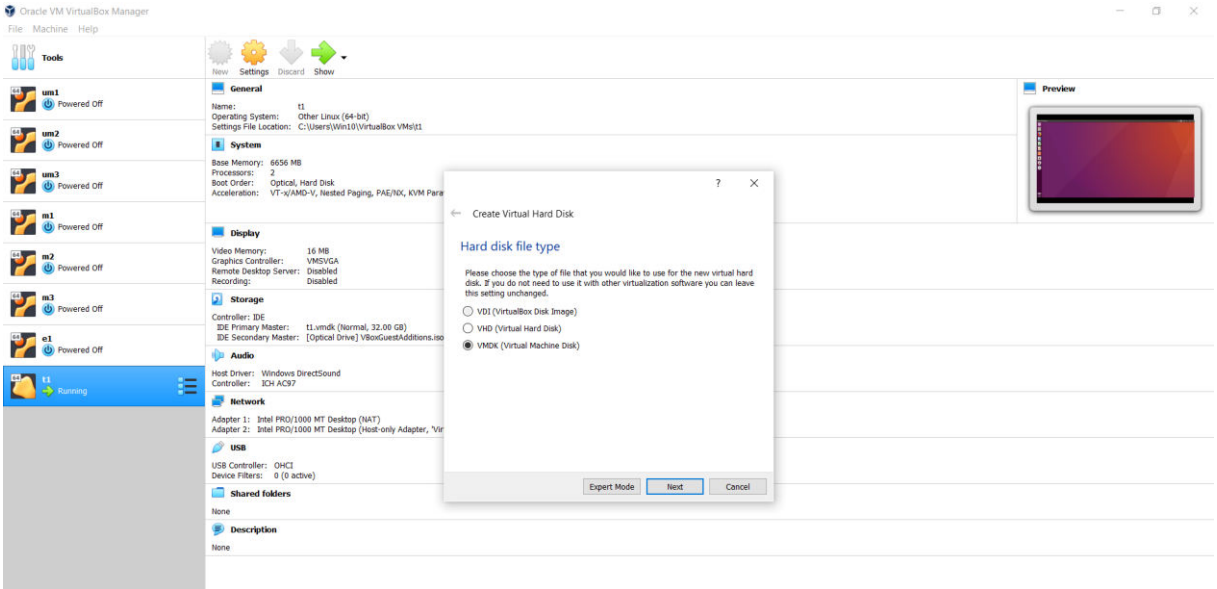
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
Adapter 2: Intel PRO/1000 MT Desktop (Host-only Adapter,
USB
USB Controller: OHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
None
Preview
Create Virtual Machine
Hard disk
If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select one from the list or from another location using the folder icon.
If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.
The recommended size of the hard disk is 10.00 GB.
Do not add a virtual hard disk
Create a virtual hard disk now
Use an existing virtual hard disk file
t1.vmdk (Normal, 32.00 GB)
Create
Cancel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m2 Powered Off
m3 Powered Off
e1 Powered Off
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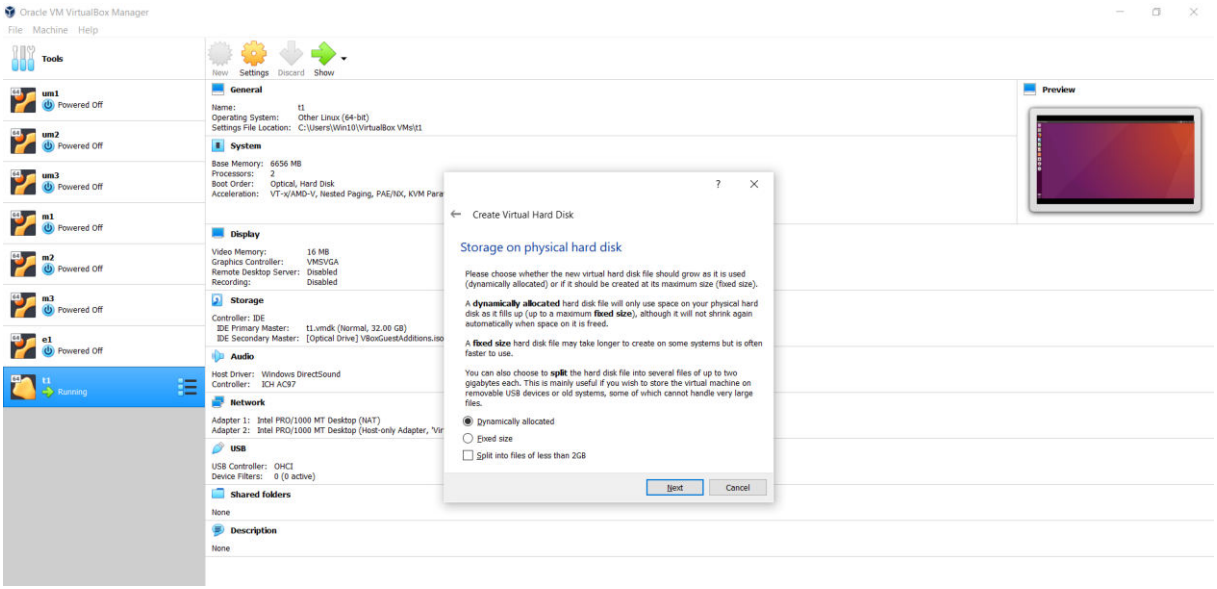
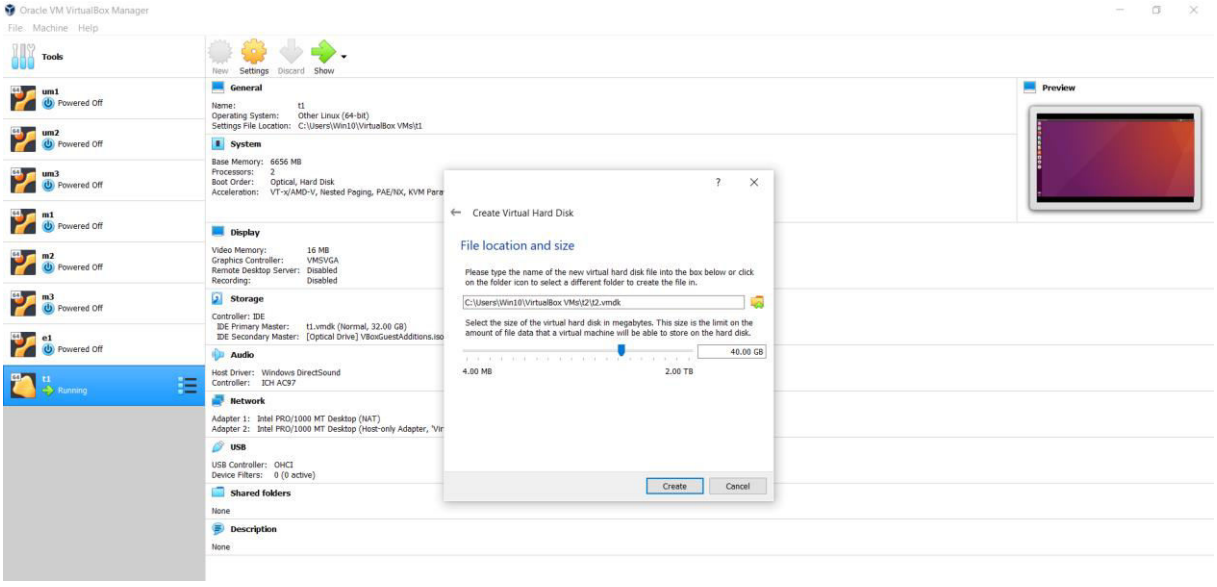
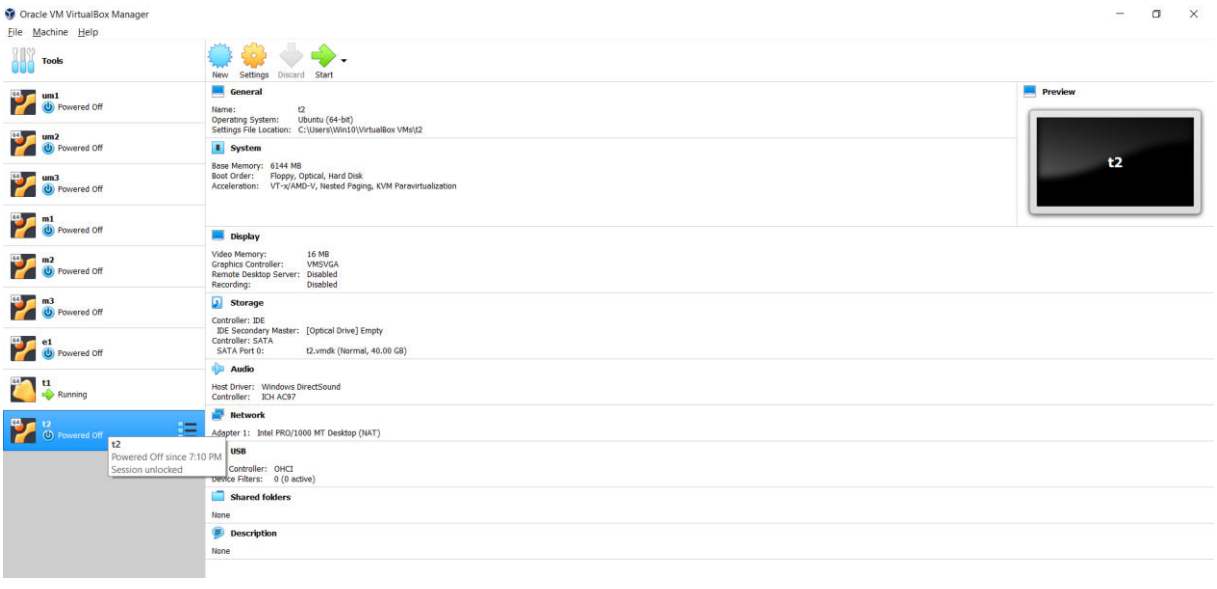
Processors: 2
Boot Order: Optical, Hard Disk
Acceleration: VT-x/AMD-V, Nested Paging, PAE/NX, KVM Para
Display
Video Memory: 16 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled
Storage
Controller: IDE
IDE Primary Master: t1.vmdk (Normal, 32.00 GB)
IDE Secondary Master: [Optical Drive] VBoxGuestAdditions.iso
Audio
Host Driver: Windows DirectSound
Controller: ICH AC97
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
Adapter 2: Intel PRO/1000 MT Desktop (Host-only Adapter, 'Vir
USB
USB Controller: OHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
None
Preview
Create Virtual Hard Disk
Hard disk file type
Please choose the type of file that you would like to use for the new virtual hard disk. If you do not need to use it with other virtualization software you can leave this setting unchanged.
VDI (VirtualBox Disk Image)
VHD (Virtual Hard Disk)
VMDK (Virtual Machine Disk)
Expert Mode
Next
Cancel

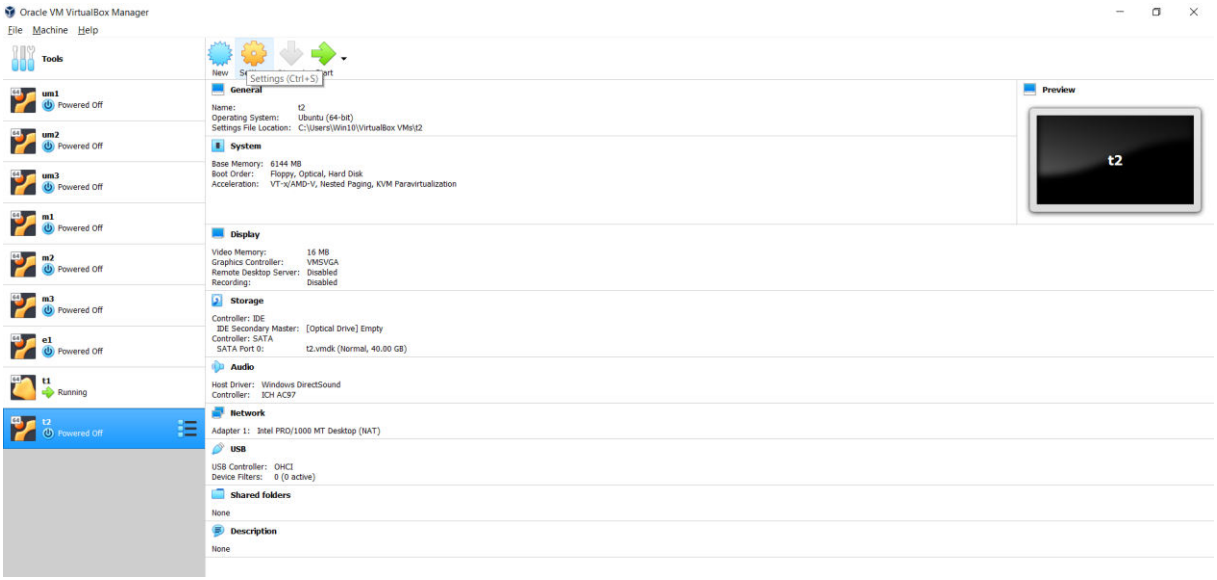




Now machine is created.

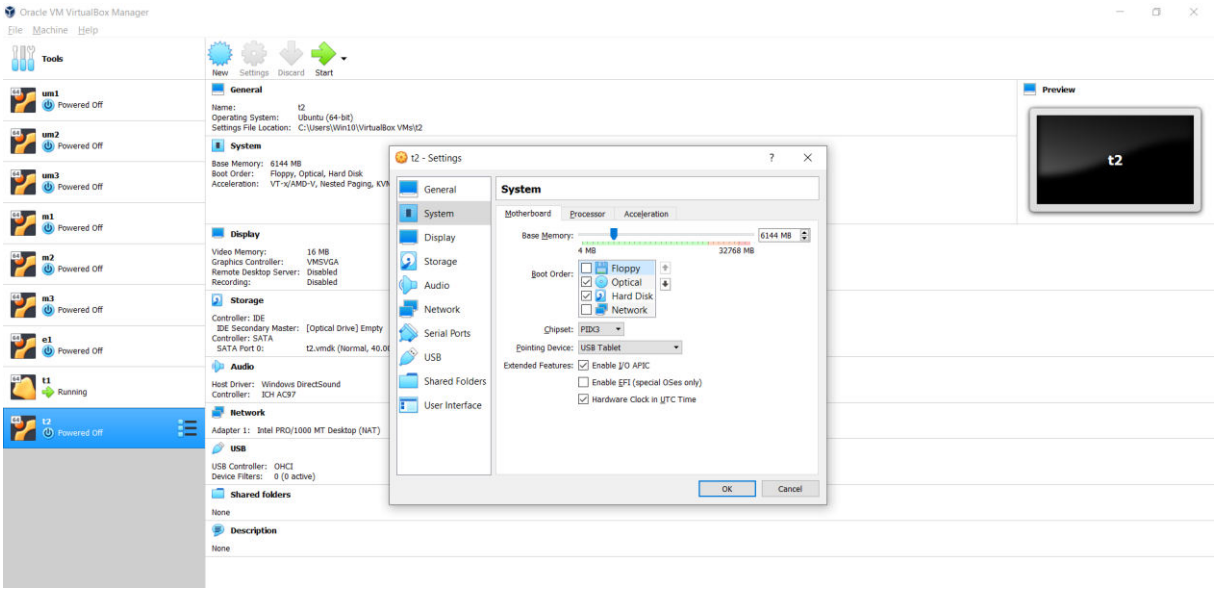


Changing settings for your newly added machine to install Ubuntu.

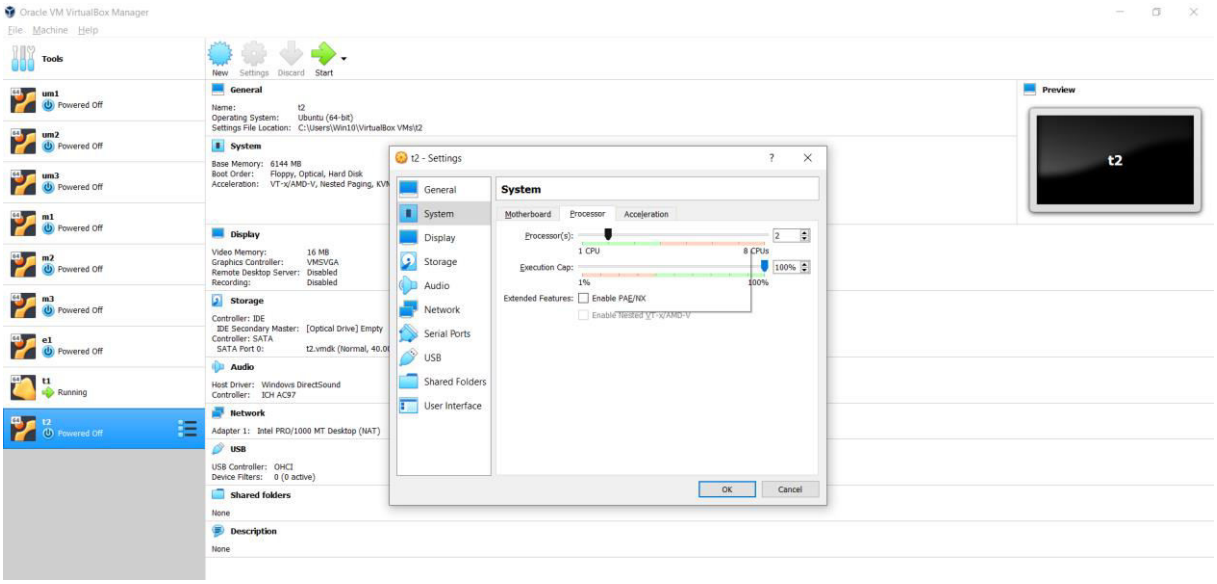


System > Motherboard (tab) > uncheck Floppy

>increase/decrease ram



> Processor > increase/decrease CPU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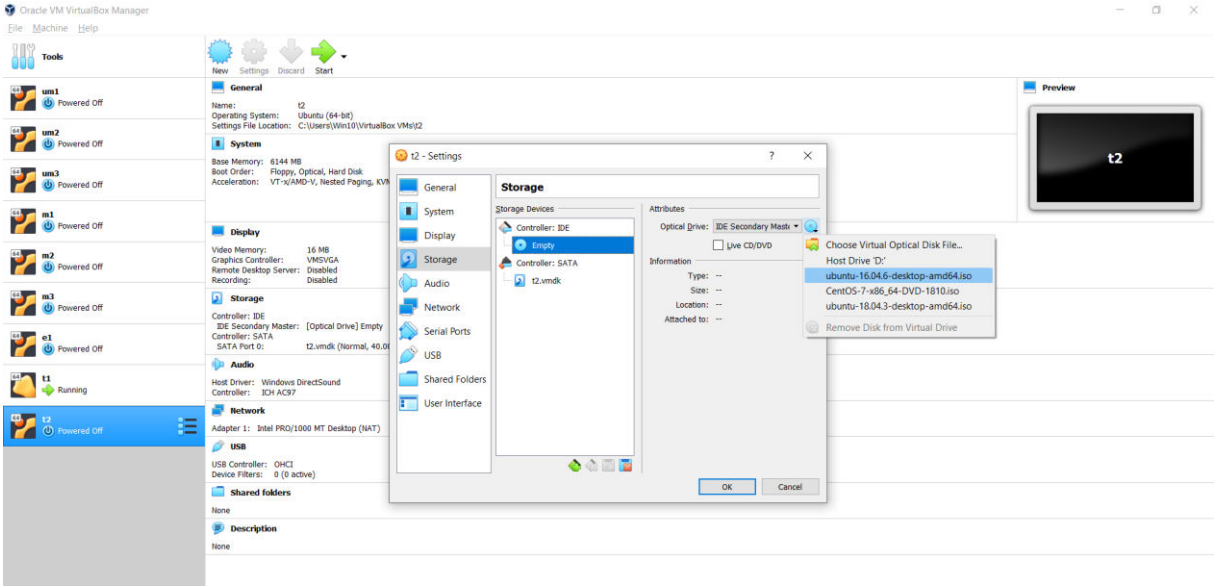
um2 Powered Off
um3 Powered Off
m1 Powered Off
m2 Powered Off
m3 Powered Off
e1 Powered Off
t1 Running
t2 Powered Off
General
Name: t2
Operating System: Ubuntu (64-bit)
Settings File Location: C:\Users\Win10\VirtualBox VMs\t2
System
Base Memory: 6144 MB
Boot Order: Floppy, Optical, Hard Disk
Acceleration: VT-x/AMD-V, Nested Paging, KVM
Display
Video Memory: 16 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled
Storage
Controller: IDE
IDE Secondary Master: [Optical Drive] Empty
Controller: SATA
SATA Port 0: t2.vmdk (Normal, 40.0
Audio
Host Driver: Windows DirectSound
Controller: ICH AC97
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
USB
USB Controller: OHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
None
Preview
t2
t2 - Settings
General
System
Display
Storage
Audio
Network
Serial Ports
USB
Shared Folders
User Interface
Motherboard
Processor
Acceleration
Processor(s): 2
1 CPU
8 CPUs
Execution Cap: 100%
1%
100%
Extended Features: Enable PAE/NX
Enable Nested VT-x/AMD-V
OK
Cancel

Storage >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Recording: Disabled
Storage
Controller: IDE
IDE Secondary Master: [Optical Drive] Empty
Controller: SATA
SATA Port 0: t2.vmdk (Normal, 40.0
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USB
USB Controller: OHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
None
Preview
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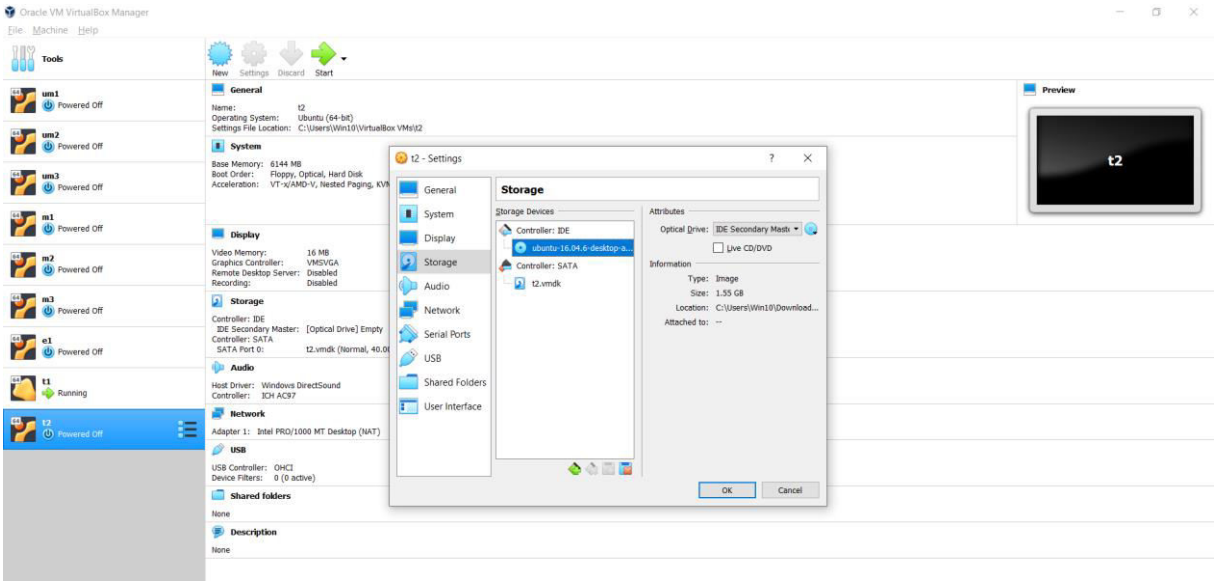
General
System
Display
Storage
Audio
Network
Serial Ports
USB
Shared Folders
User Interface
Storage Devices
Controller: IDE
Empty
Controller: SATA
t2.vmdk
Attributes
Optical Drive: IDE Secondary Maste
Live CD/DVD
Information
Type: --
Size: --
Location: --
Attached to: --
Choose Virtual Optical Disk File...
Host Drive 'D:'
ubuntu-16.04.6-desktop-amd64.iso
CentOS-7-x86_64-DVD-1810.iso
ubuntu-18.04.3-desktop-amd64.iso
Remove Disk from Virtual Drive
OK
Cancel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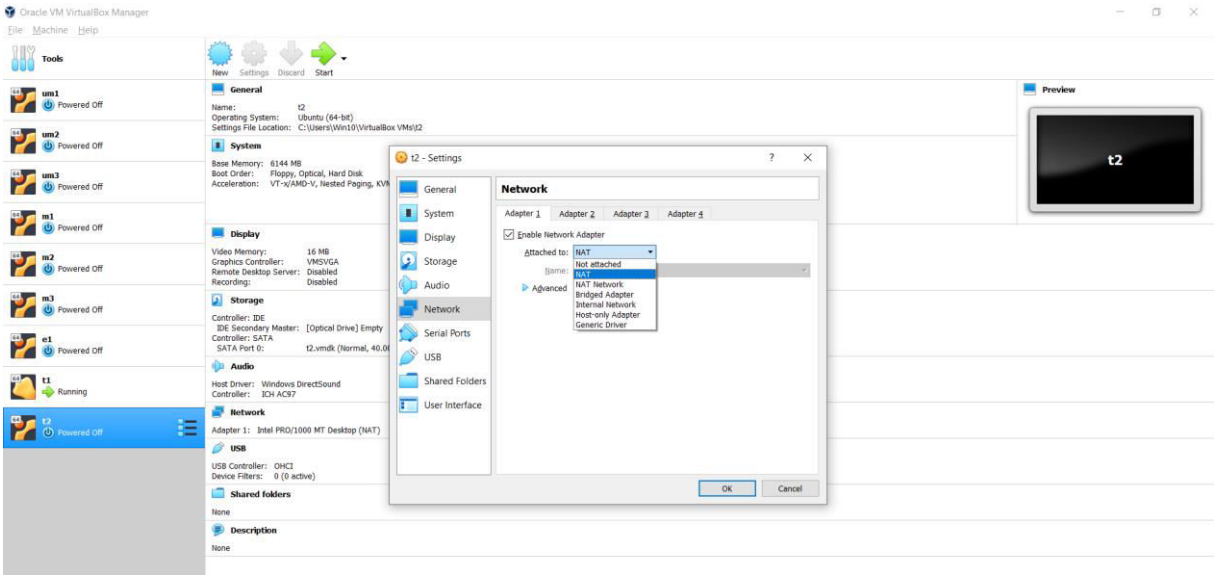
USB
Shared Folders
User Interface
Storage Devices
Controller: IDE
ubuntu-16.04.6-desktop-a...
Controller: SATA
t2.vmdk
Attributes
Optical Drive: IDE Secondary Maste
Live CD/DVD
Information
Type: Image
Size: 1.55 GB
Location: C:\Users\Win10\Download...
Attached to: --
OK
Cancel

Network >



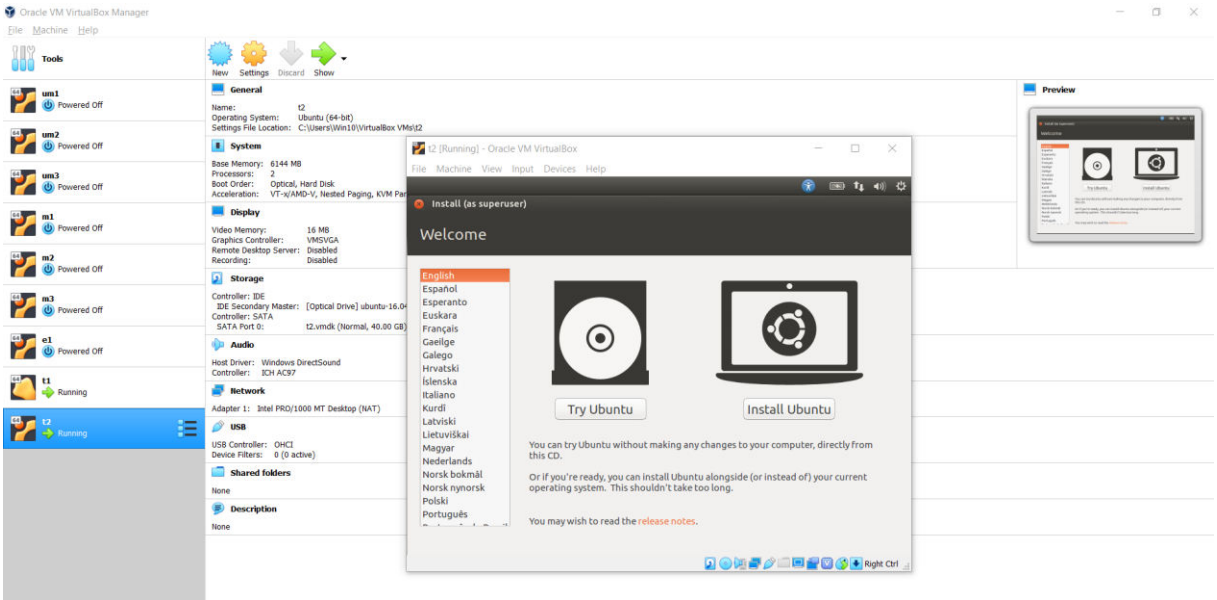
We can use

1. **NAT (if we intend to use only one machine)**
2. **BRDIGED ADAPTER (if we want each machine to have a different IP Address)**
3. **Or (NAT + Host Only Adapter)**

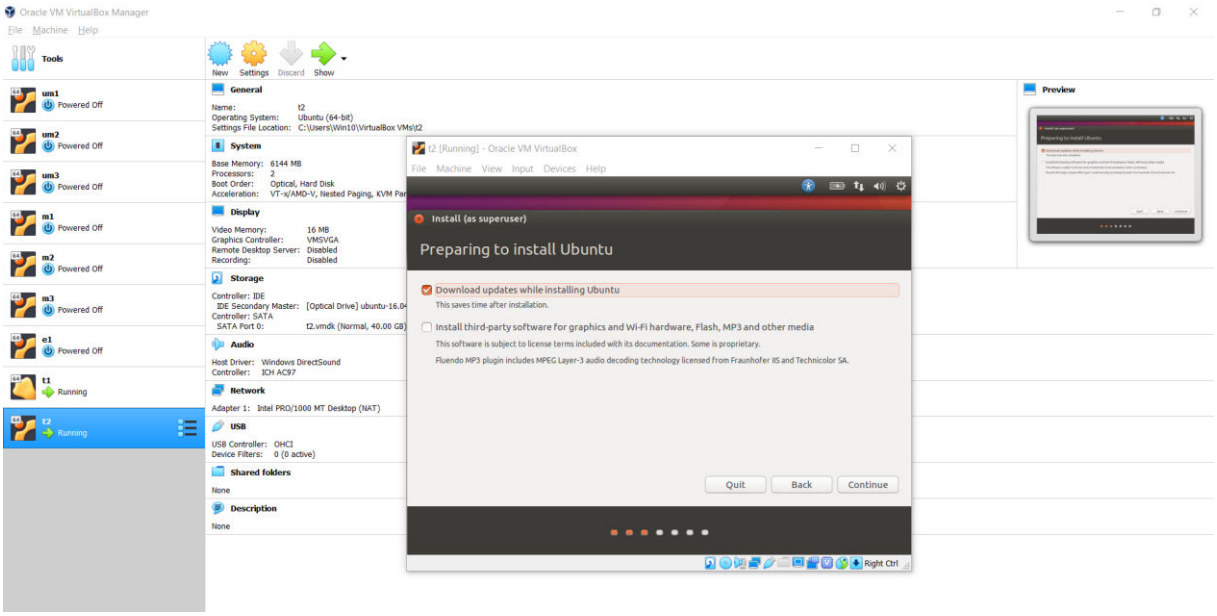
Note For Host Only Adapter, there are additional steps required. Scroll to the end of document and look for section “using host only adapter”**

For now, I will use NAT

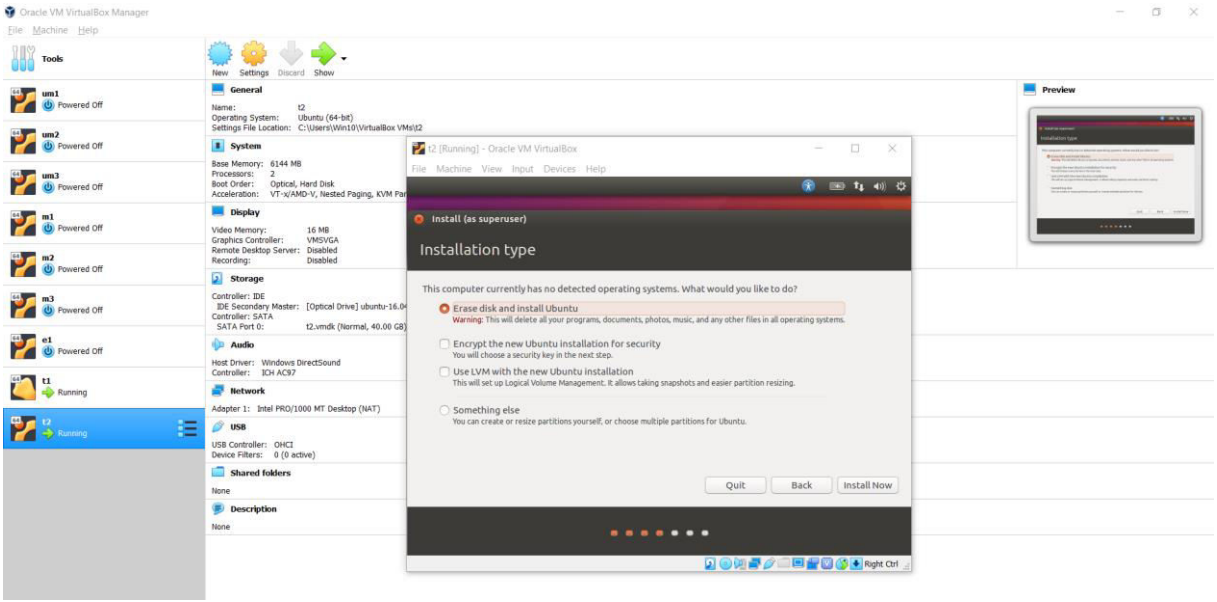
Start your machine…



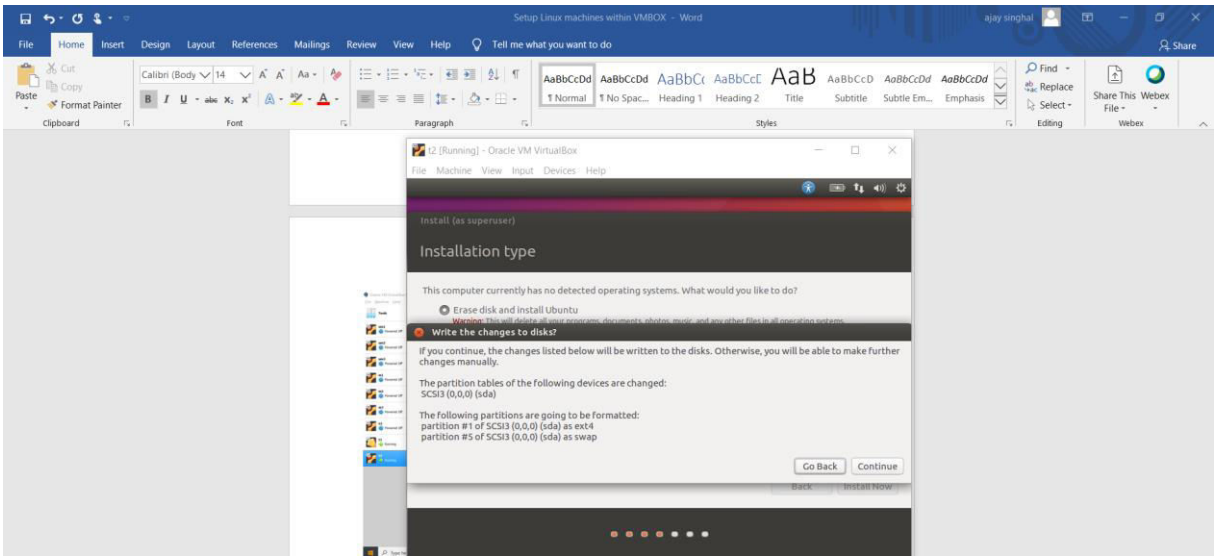
Click on Install Ubuntu



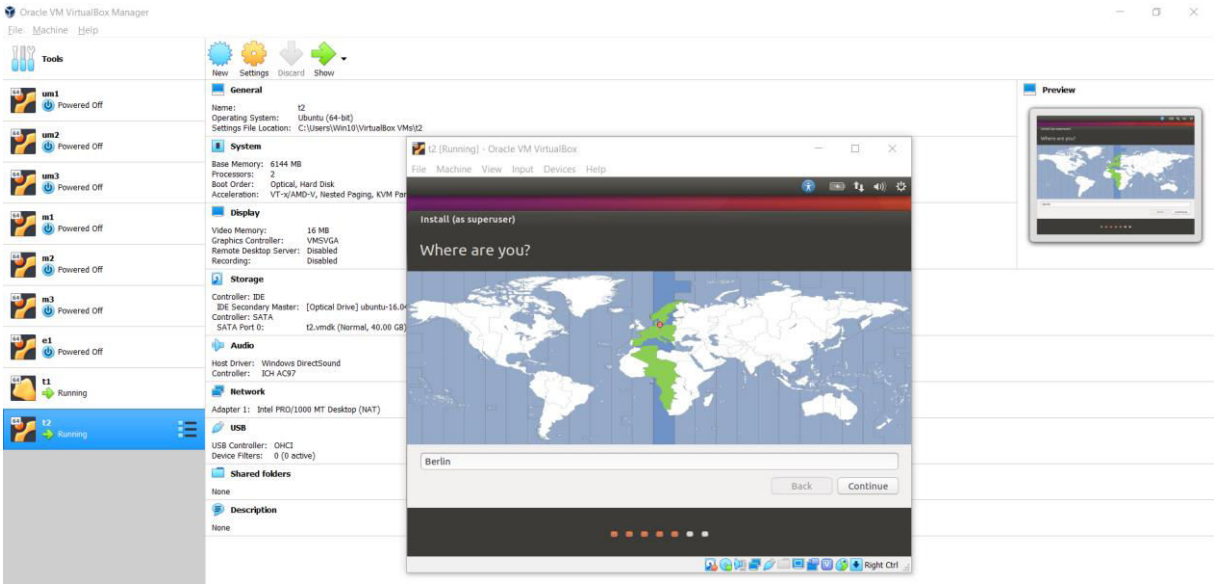
Continue



Install now

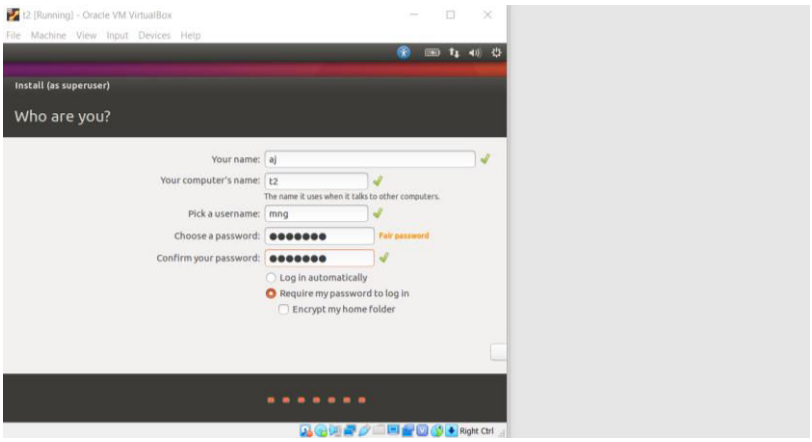


Continue



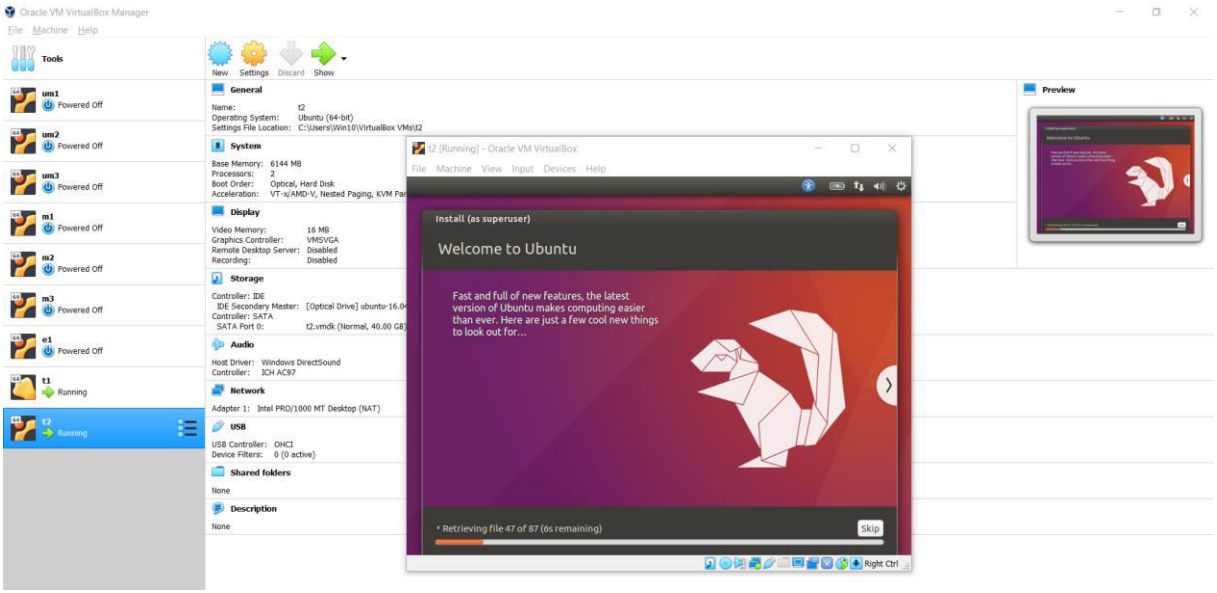
Continue

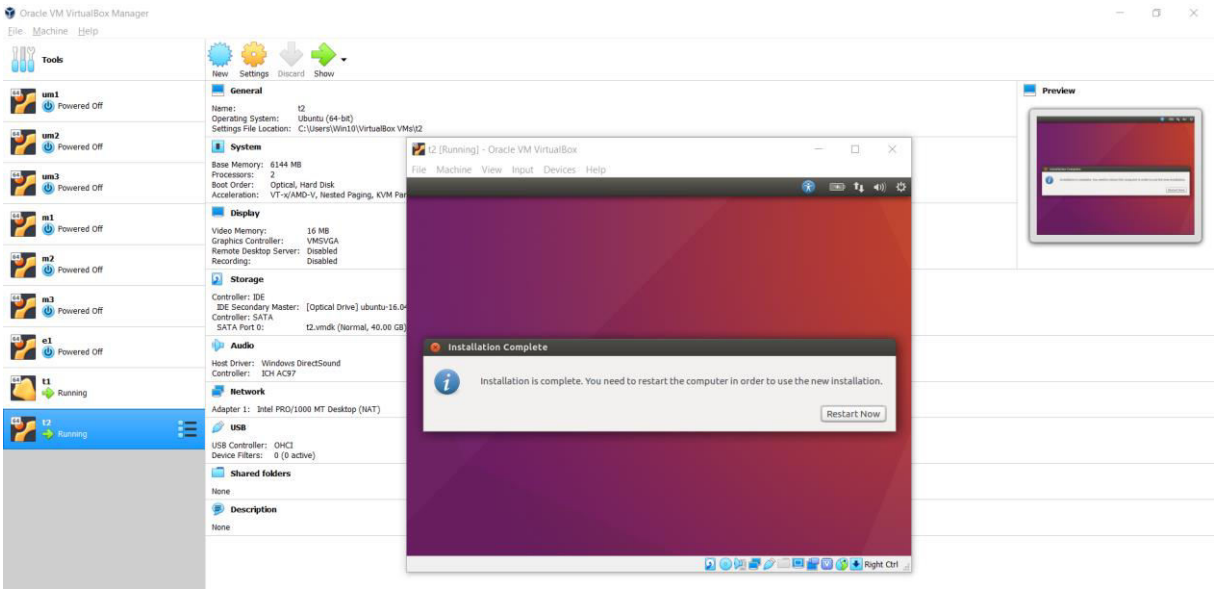
On screen when it shows languages, hit <tab> for 5 times + <enter>

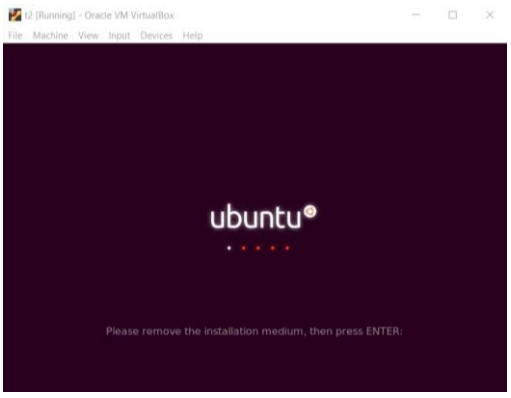


Give details and hit <tab> for 4 times + <enter>

Now your installation starts, wait for it to complete and restart your machine.



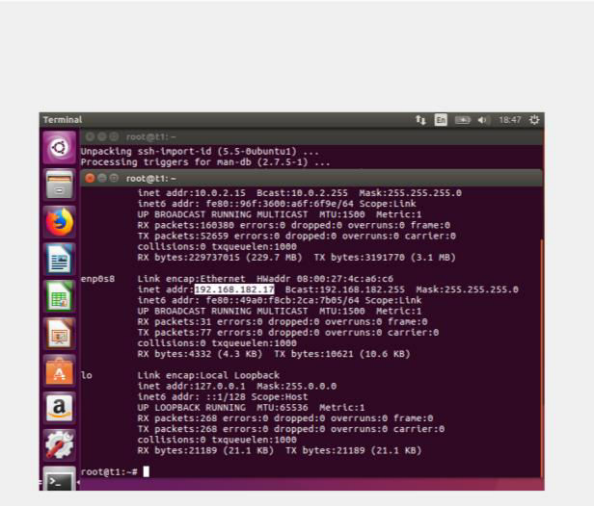




Once machine is restarted…follow the steps below to "Setup Ubuntu Linux within Oracle VMBOX"

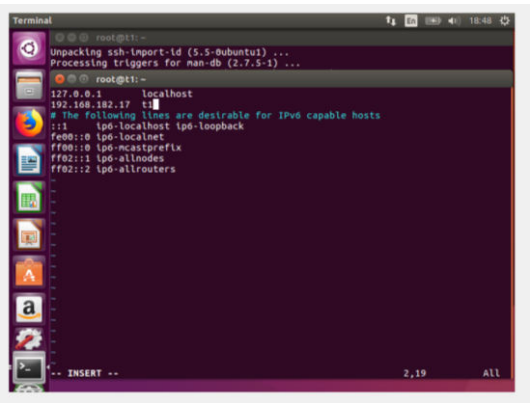
Login as root – “sudo su”

$ifconfig (to check your ipaddress)



Update /etc/hosts for host to IP resolution (if you don’t have a DNS)

vi /etc/hosts

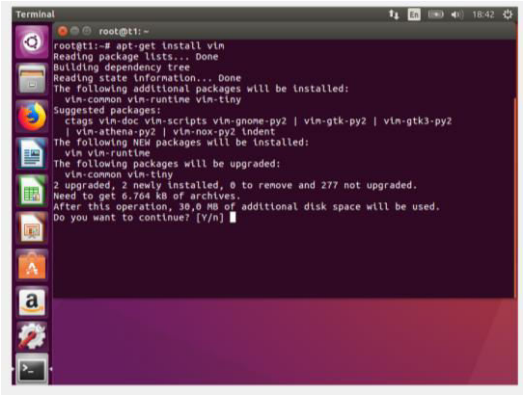


<esc>

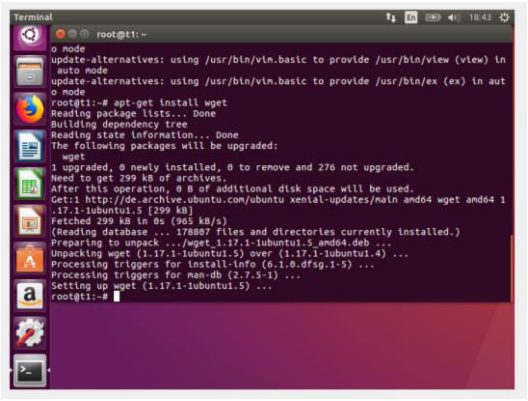
<shift+:+wq>

Install Packages

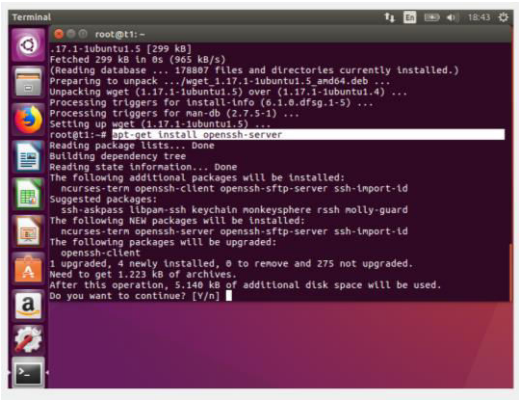
vim



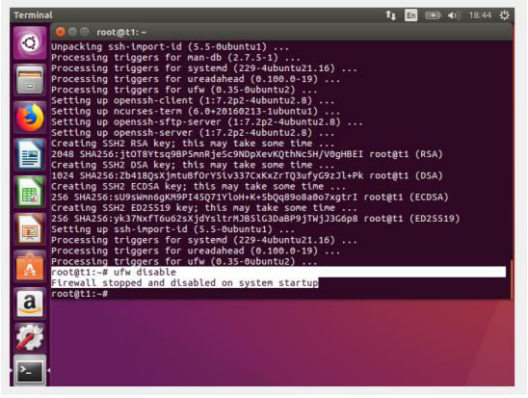
wget



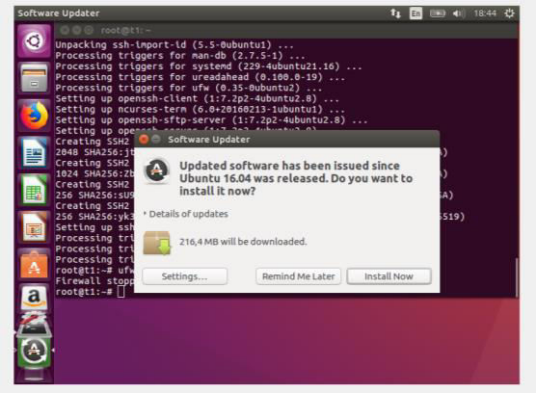
openssh-server



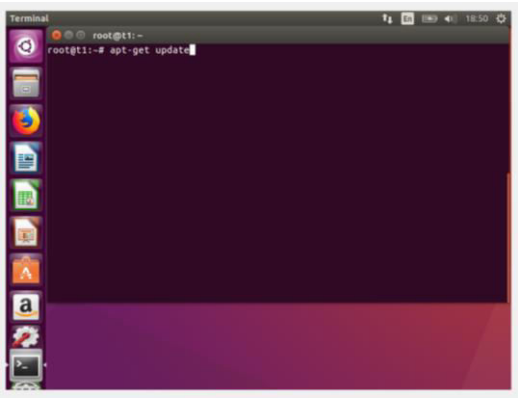
Disable firewall



Update Packages

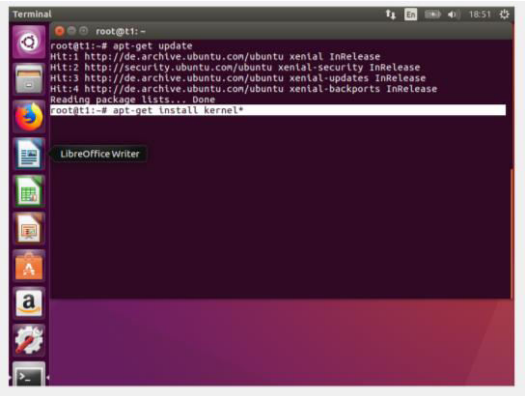


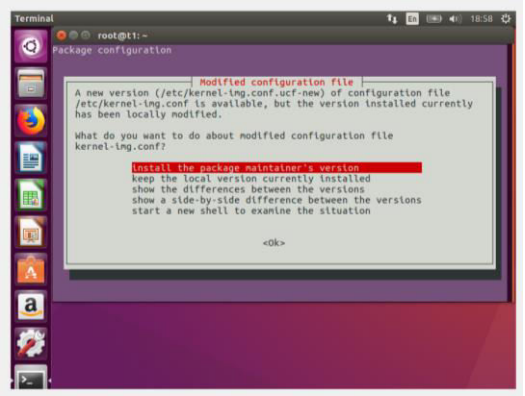
Once done,



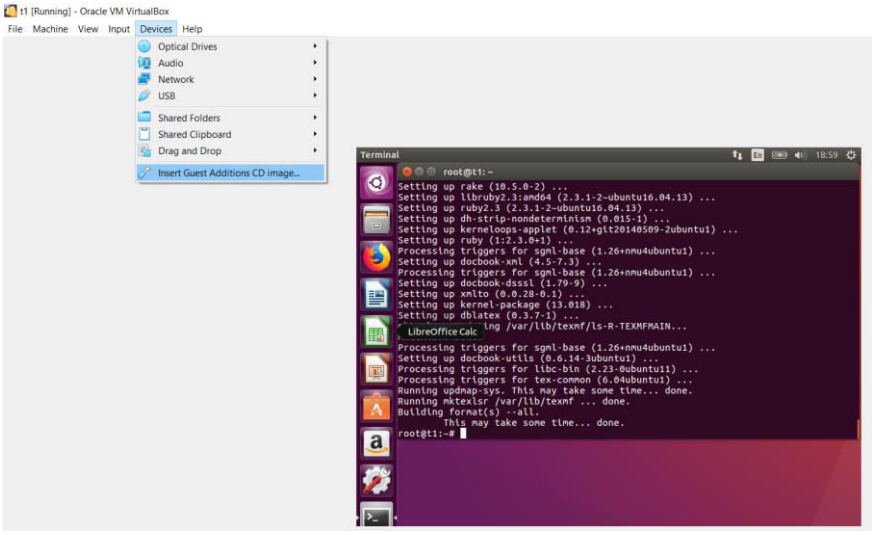
Now let's install packages for kernel to make your screen full screen.

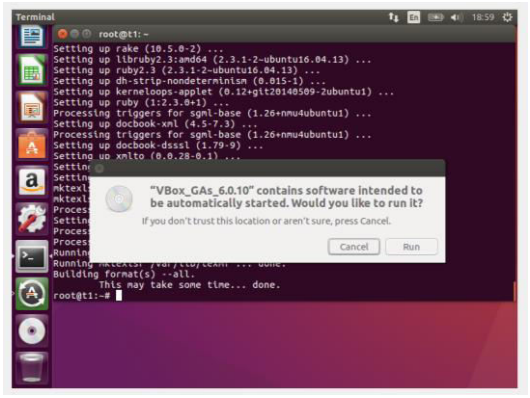
[This would not be required from Ubuntu 18.x onwards]

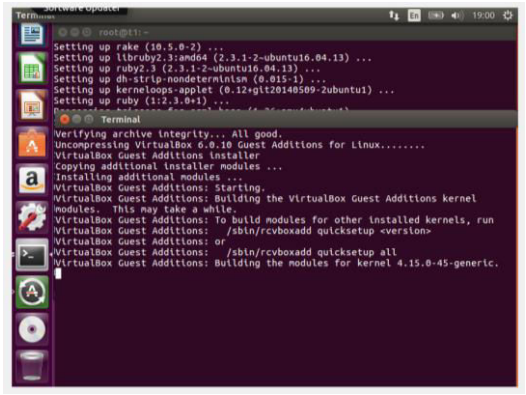




Once done, Now let's add the Guest Addition

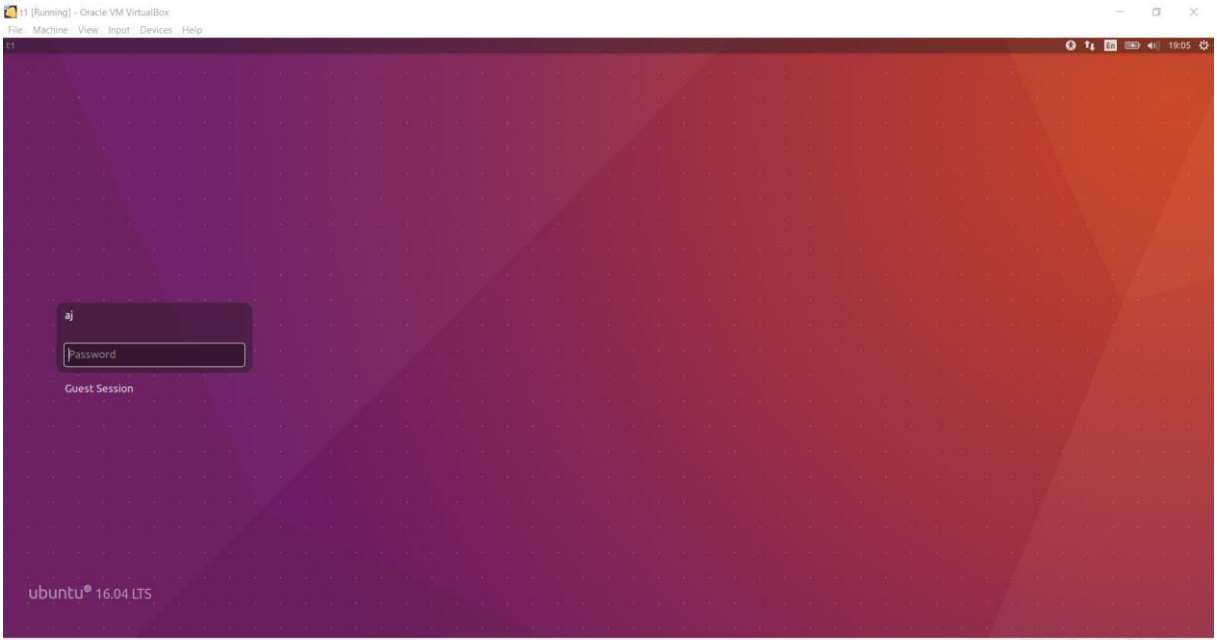






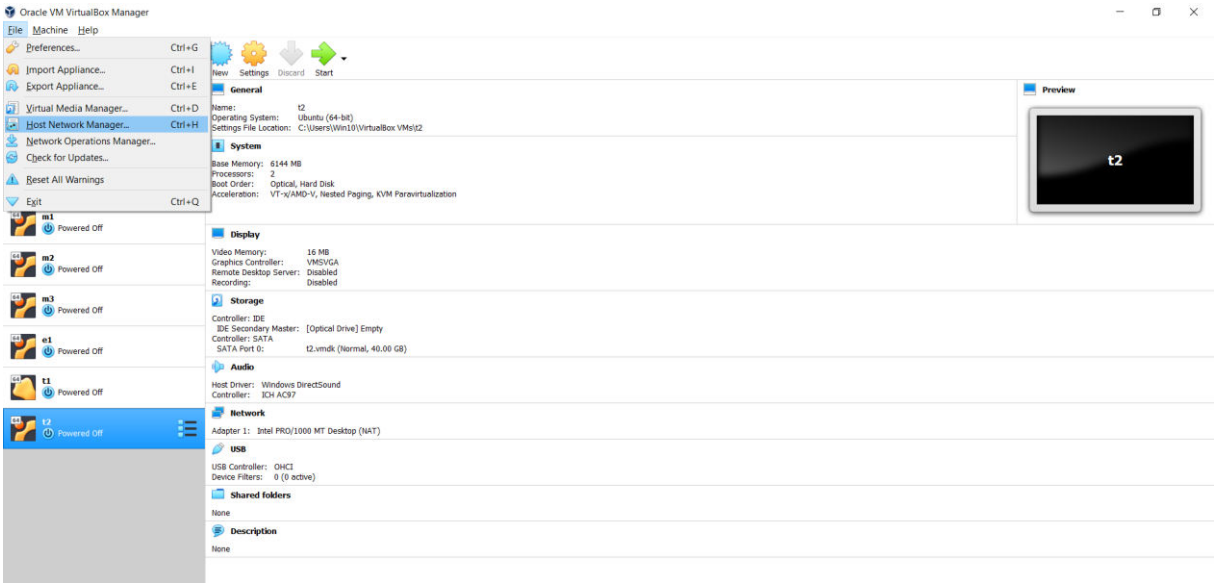
Wait for this to complete and then Restart your machine.

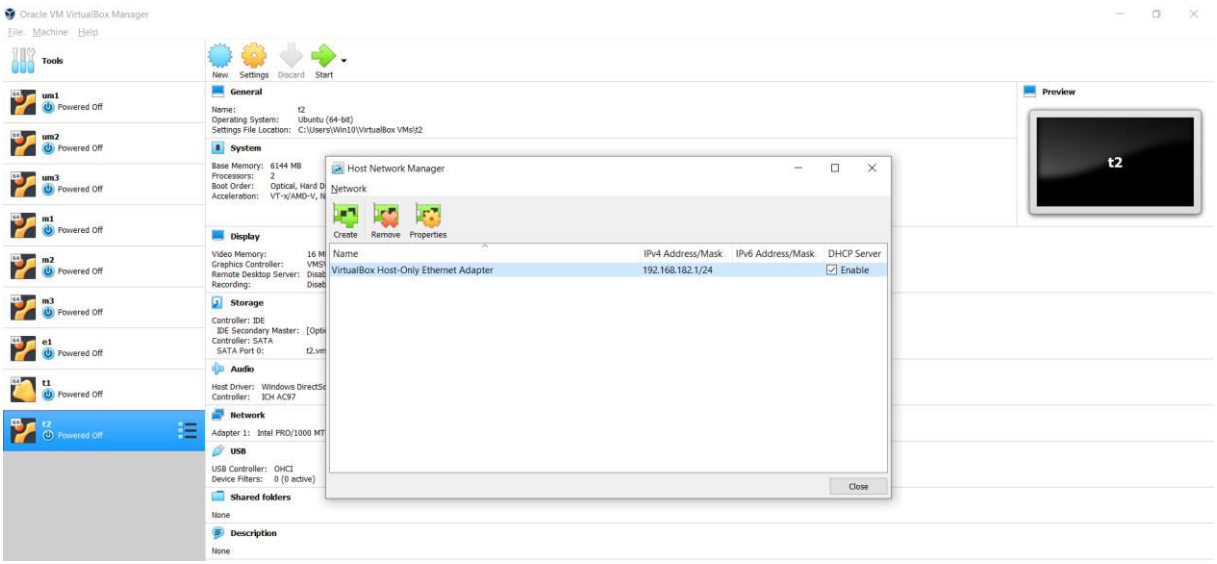
Now the machine is converted to FULL SCREEN MODE



Using host only adapter

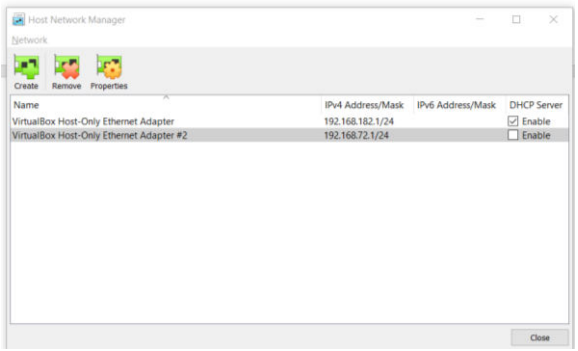
To setup network using NAT + Host Only Adapter.





If it shows as in above screen, select it and click on remove.

Click on create

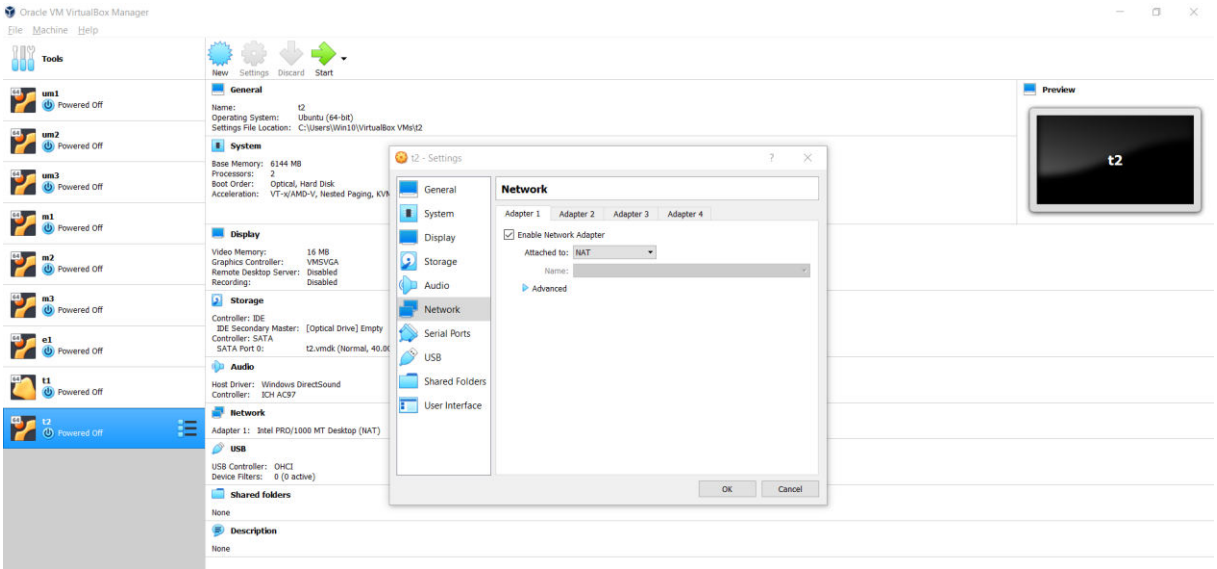


Note In my case, there was an Adapter thus it created one more.**

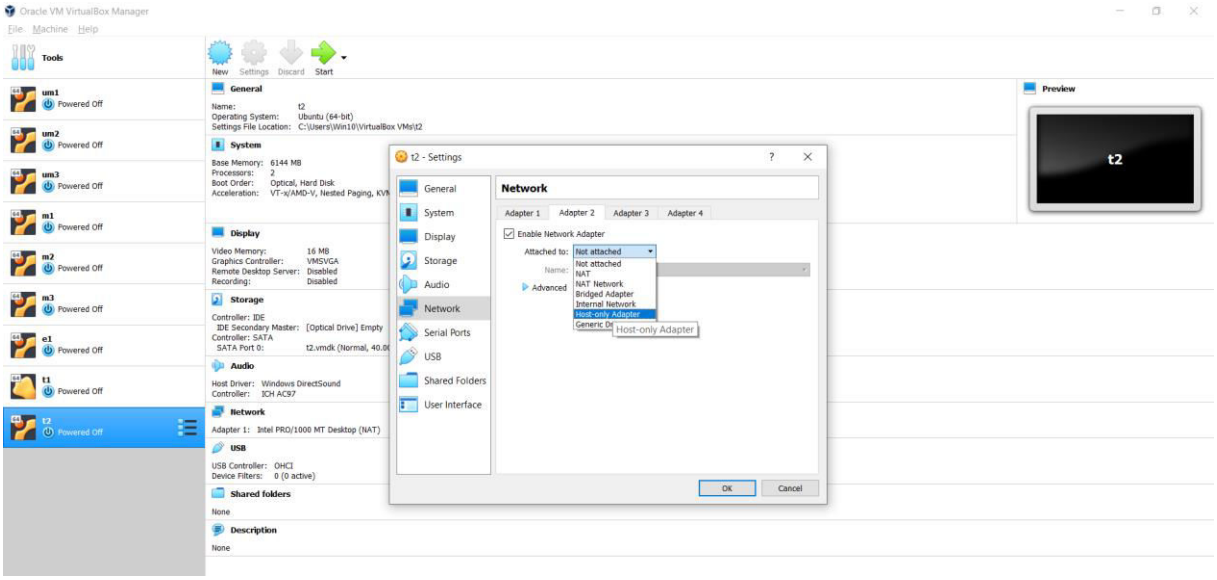
Enable the host only adapter created.

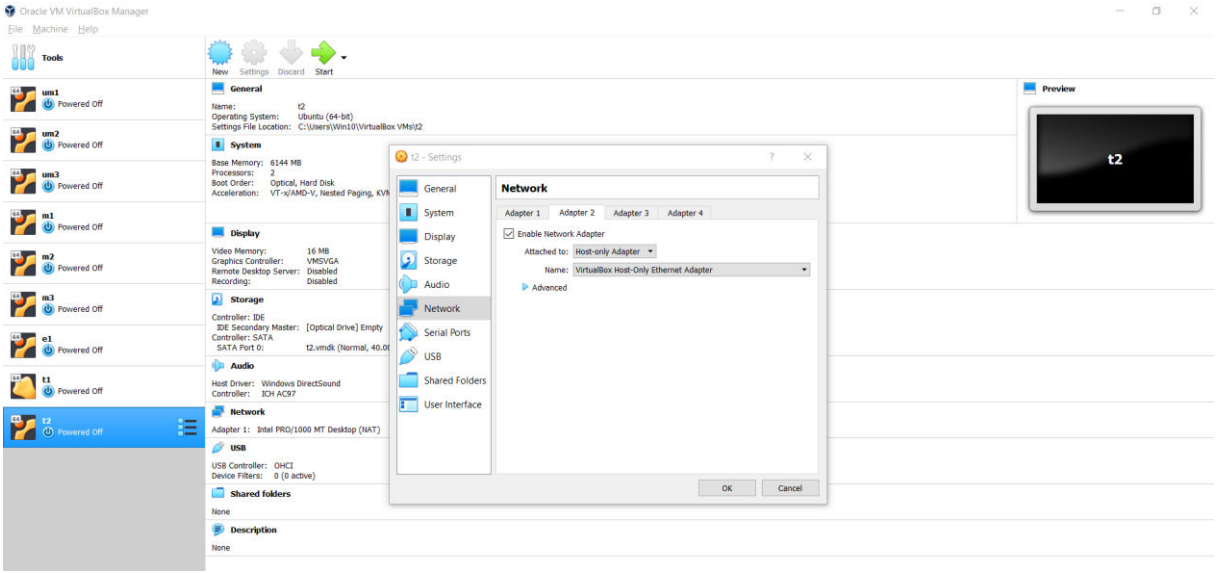
Now for your machine

Let your Adapter 1 be NAT



Adapter 2





<ok>

When machine is restarted, check your Ip-addresses using ‘ipconfig’.

Its should now show NAT and Host Only Adapter based, Ip-Addresses.