Installing Ubuntu on VirtualBox

A Guide to Setup a Linux Virtual Machine

edureka!

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Install VirtualBox

System Requirements

To run VirtualBox on your machine, you need at least:

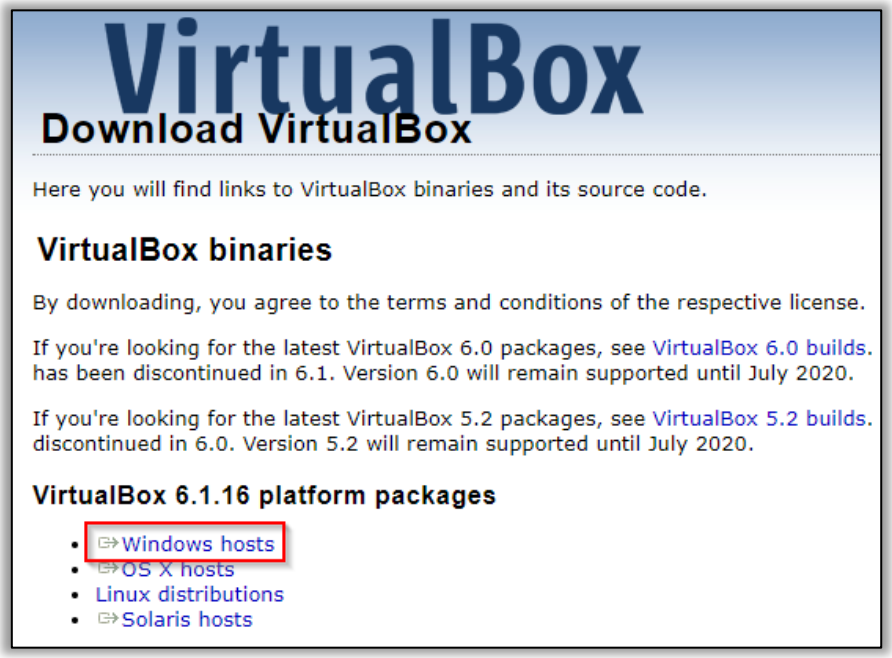
- Processor: 2 GHz Dual Core Processor
- System Memory: 4GB RAM (8GB recommended)
- Disc Space: Free Disk Space of 25GB
- Host OS: Any supported host OS (Windows, Mac OS and Linux are supported in addition to a few more. Check the following link for the complete list - https://www.virtualbox.org/manual/ch01.html#hostossupport)

Steps

Step 1: Download Virtual Box from any one of the links given below based on your Operating System

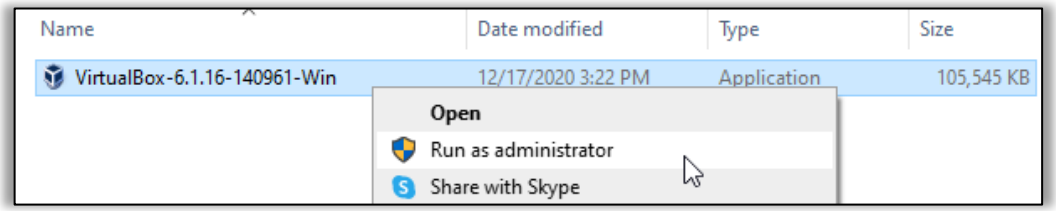
https://www.oracle.com/virtualization/technologies/vm/downloads/virtualbox-downloads.html
OR
https://www.virtualbox.org/wiki/Downloads

We have demonstrated the installation for VirtualBox-6.1.16, the same steps can be followed for the updated versions.



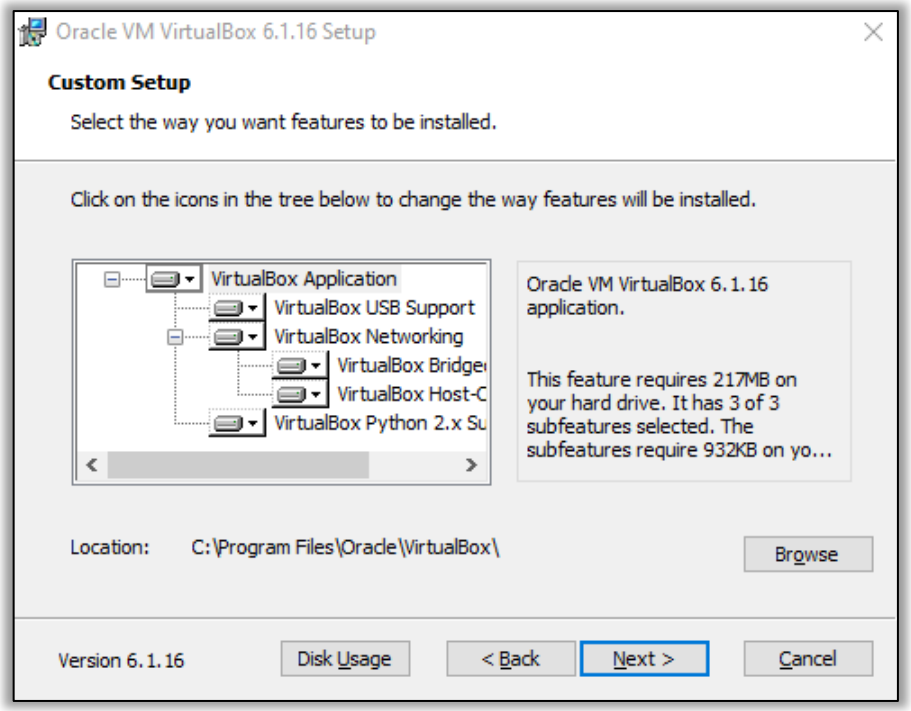
Clicking the desired OS link will download the .exe file to your machine.

Step 2: Select the .exe file that you have downloaded in the previous step and then click on ***Run as administrator***

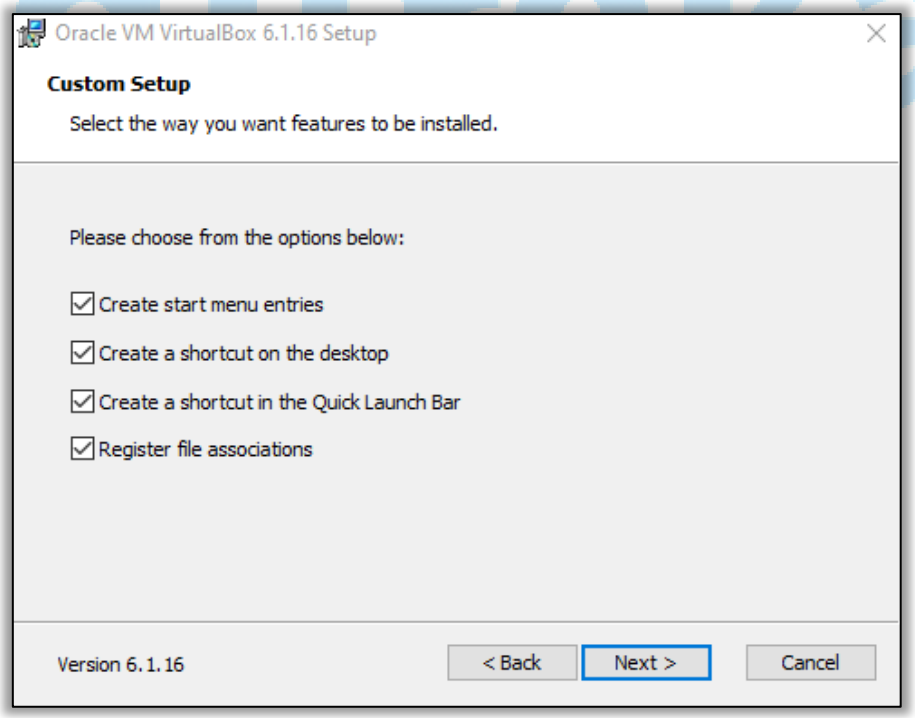


Step 3: Click **Next** on the Welcome Screen

Step 4: Select the way you want your features to be installed and click ***Next***. You can also change the location as per your will. (Note: You can go ahead with the default selection.)

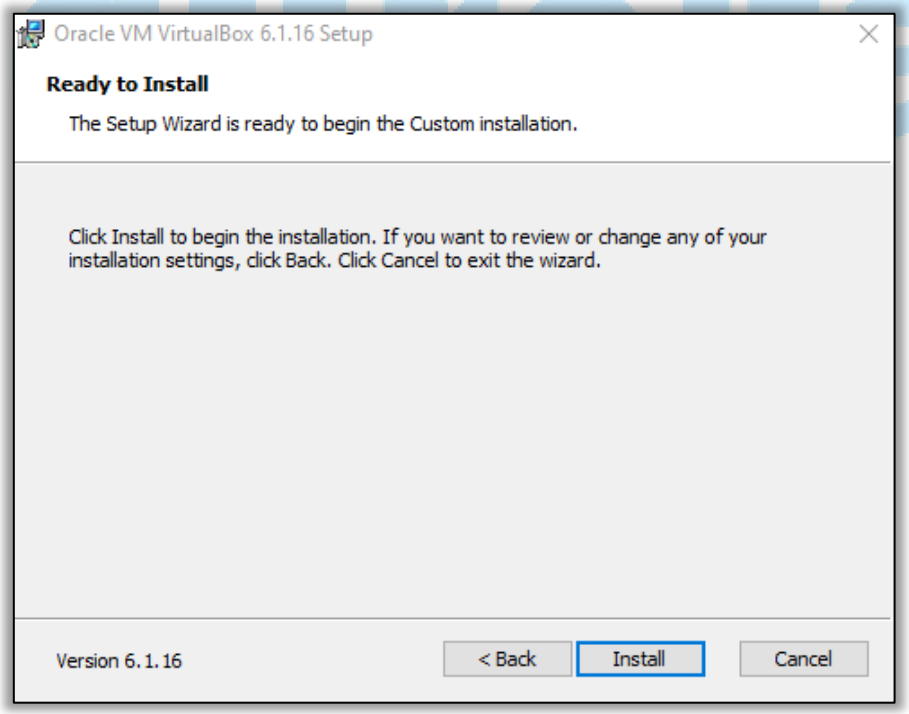


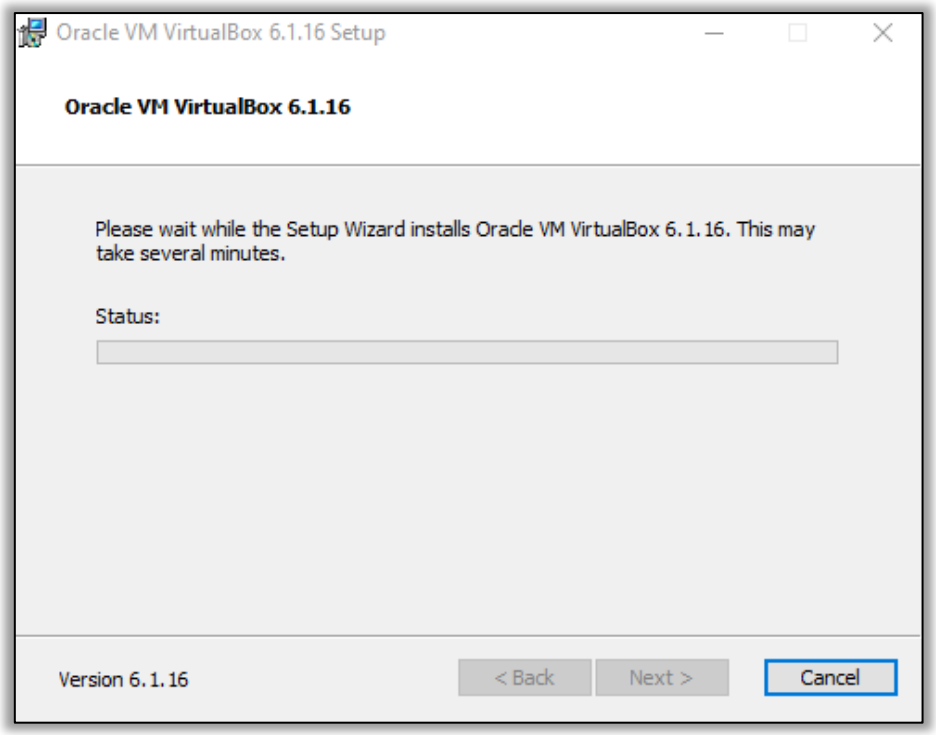
Step 5: Choose all the options and click ***Next***.



Step 6: Click ***Yes*** to install Virtual Box 6.1.16.

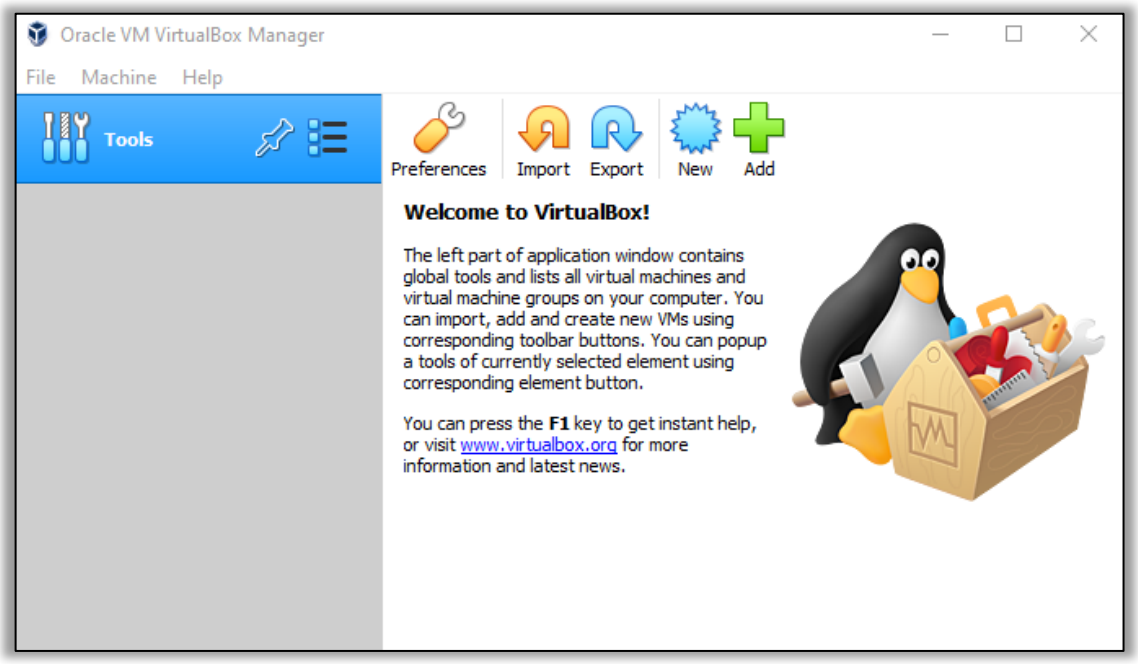
Step 7: Click ***Install*** to begin the installation.





Step 8: Click ***Finish*** and start the Virtual Box.

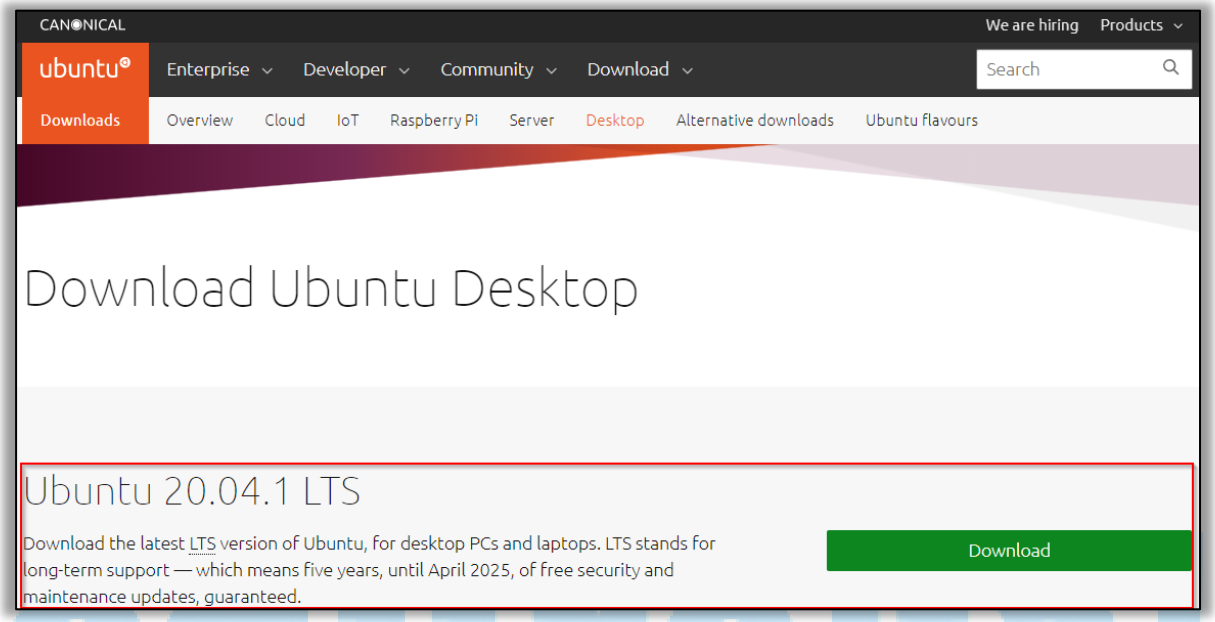
With this screen, your Oracle VM Virtual Box Manager has been downloaded and installed successfully. In your case, you might not have any VMs listed on VirtualBox window.



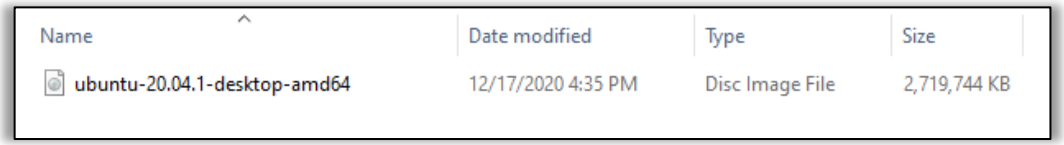
Download Ubuntu on Host Machine

Step 1: Download the latest version of Ubuntu for Desktop. Use the link provided below for downloading

https://ubuntu.com/download/desktop

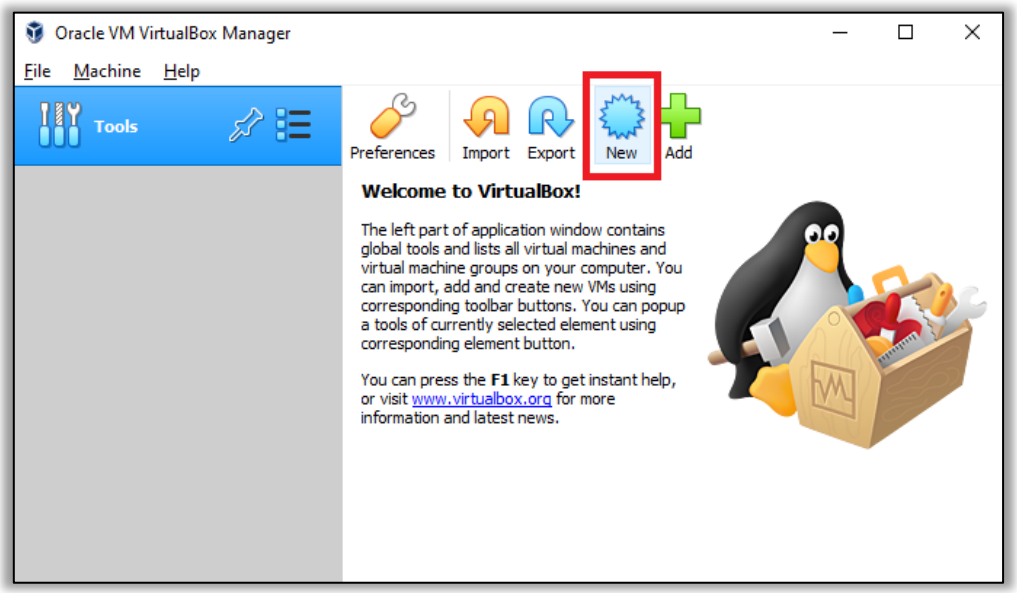


Step 2: Click on the ***Download*** button and save the ISO file.

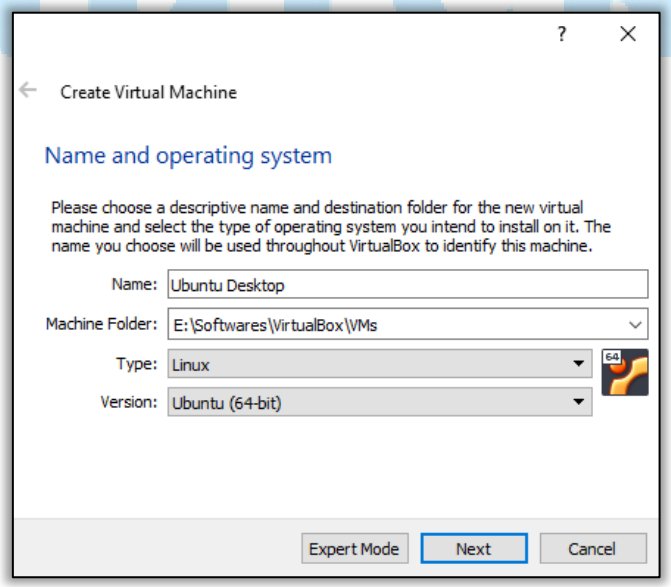


Create a new VM on VirtualBox

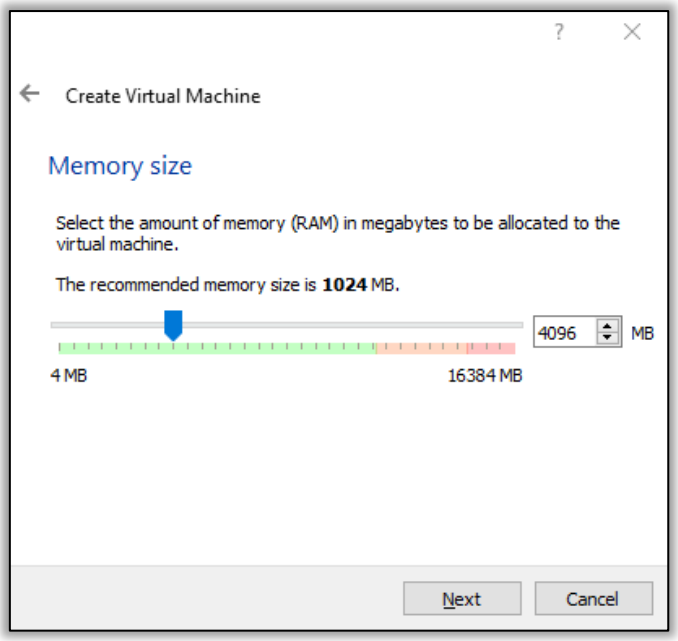
Step 1: To create a new virtual machine on VirtualBox, open VirtualBox and click on ***New (Machine > New)*** or press ***Ctrl+N.***



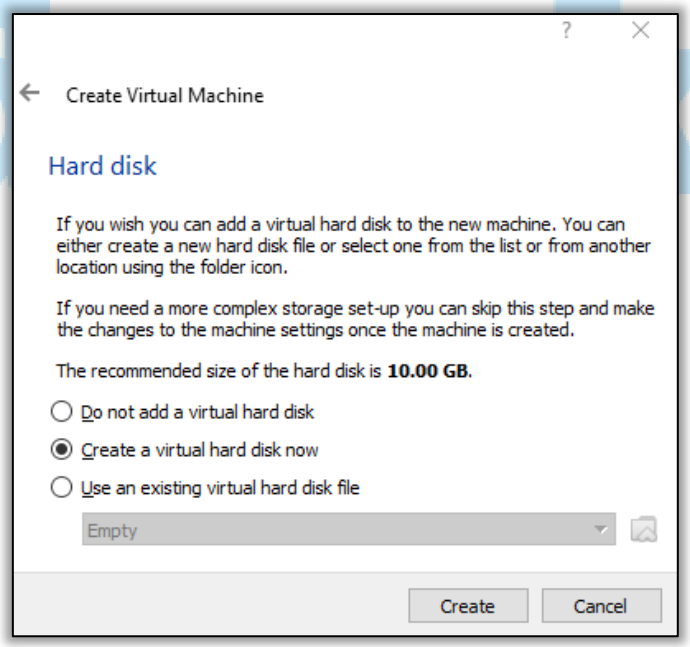
Step 2: In the ***Create Virtual Machine*** window, set the options for Ubuntu VM as shown below and then click ***Next.***



Step 3: Set the memory size to 4GB of RAM (Minimum 4GB recommended). Make sure to leave enough memory for your host operating system to behave normally. Then, click ***Next.***



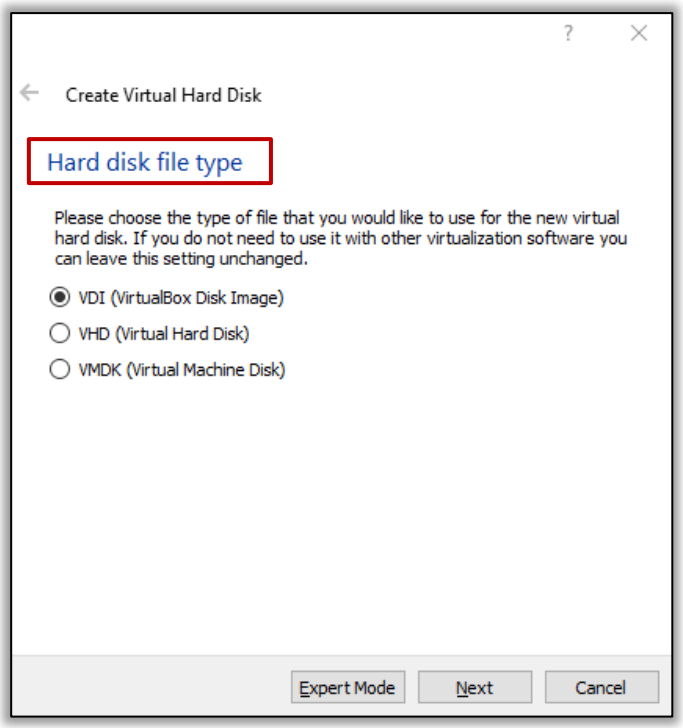
Step 4: Select the ***Create a virtual hard disk now*** option and click on ***Create***.

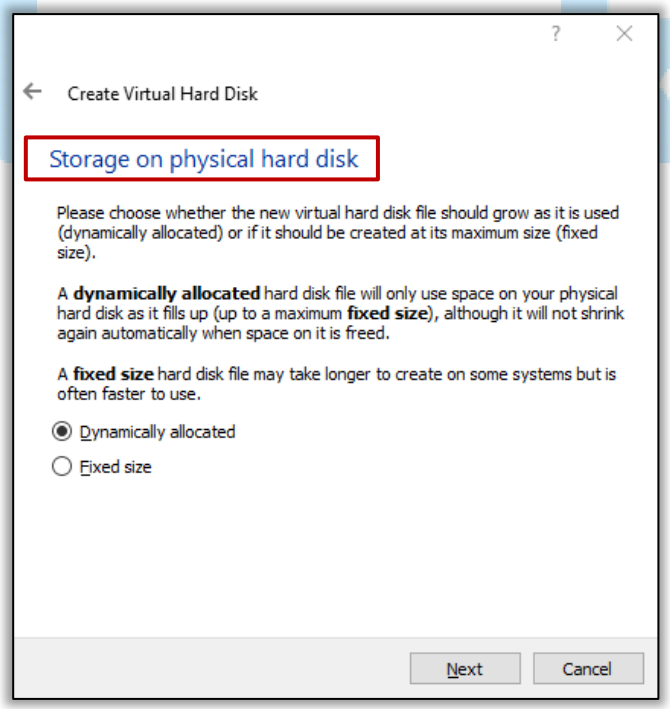


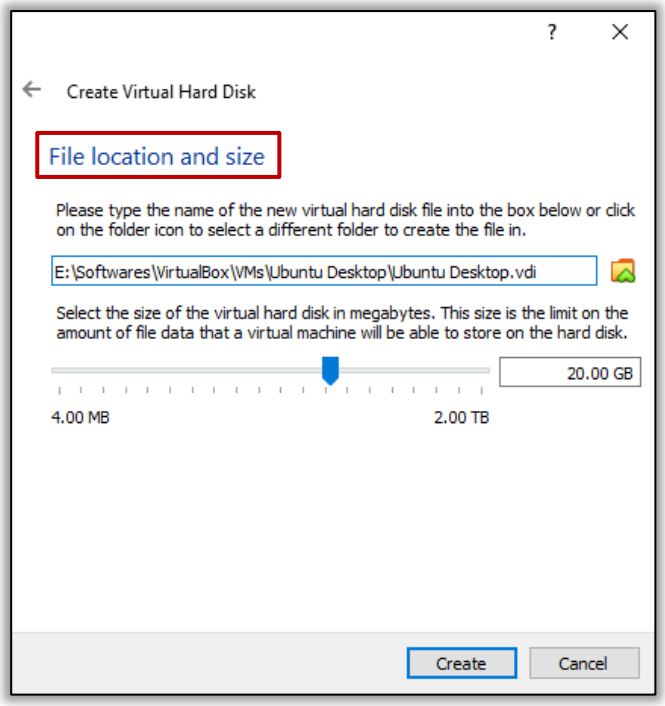
Step 5: On ***Create Virtual Hard Disk*** screen, choose the following options:

1. Hard disk file type: VDI (VirtualBox Disk Image). Click on ***Next***.
2. Storage on physical hard disk: Dynamically allocated. Click on ***Next***
3. File size: 20 GB or more.

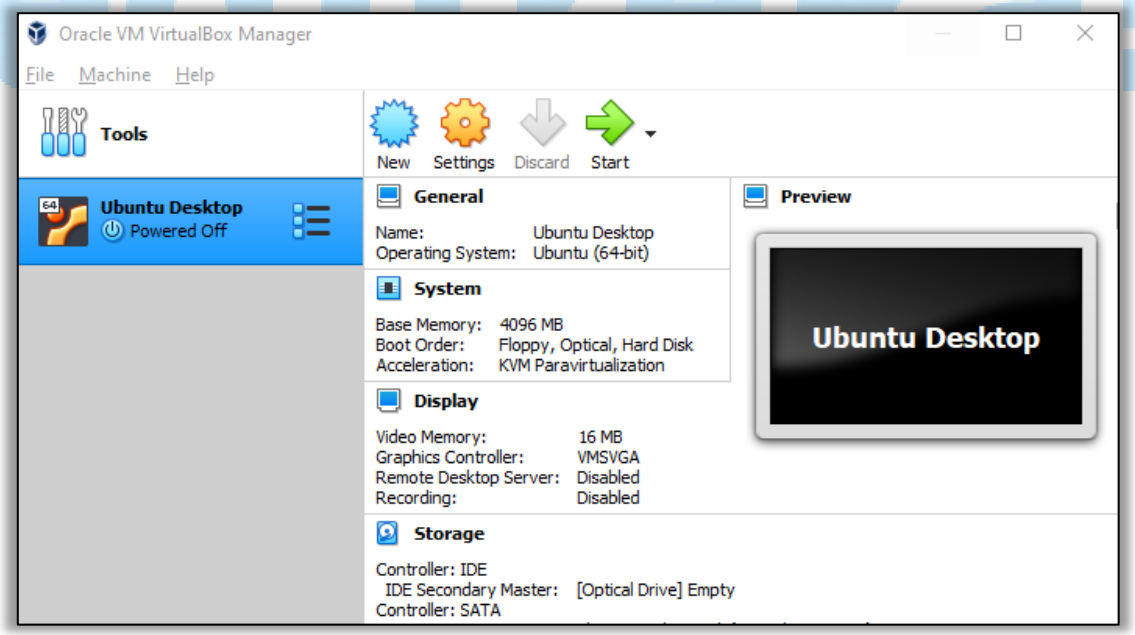
Finally, click on ***Create*** to finish creating a new VM to install Ubuntu on VirtualBox.


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

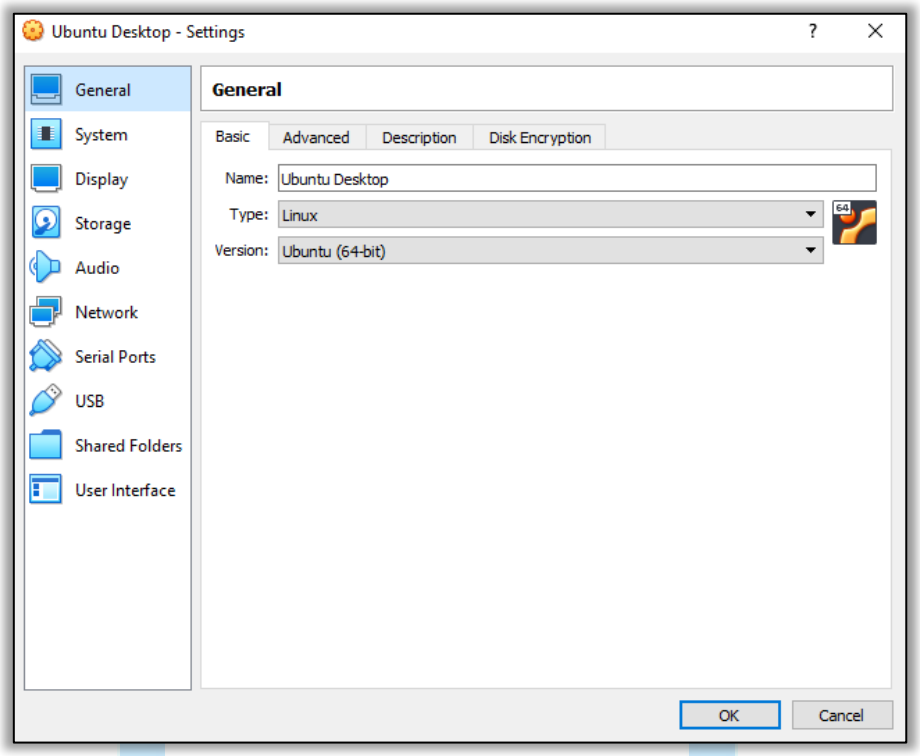

Create Virtual Hard Disk
Storage on physical hard disk
Please choose whether the new virtual hard disk file should grow as it is used (dynamically allocated) or if it should be created at its maximum size (fixed size).
A dynamically allocated hard disk file will only use space on your physical hard disk as it fills up (up to a maximum fixed size), although it will not shrink again automatically when space on it is freed.
A fixed size hard disk file may take longer to create on some systems but is often faster to use.
Dynamically allocated
Fixed size
Next
Cancel



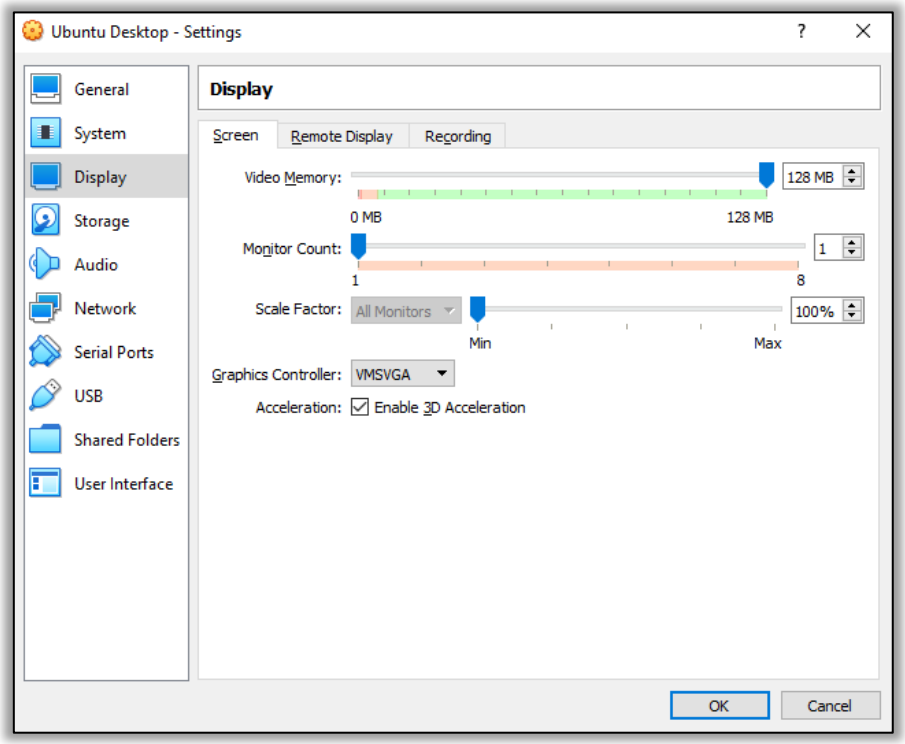
Step 6: Once the virtual machine is created, you can see that its name is displayed in the list of VMs in the main VirtualBox window. Next step is to configure the virtual machine.



Step 7: To edit the VM settings, select your new VM (Ubuntu Desktop in this case) and click ***Settings (Machine > Settings or press Ctrl+S)***.

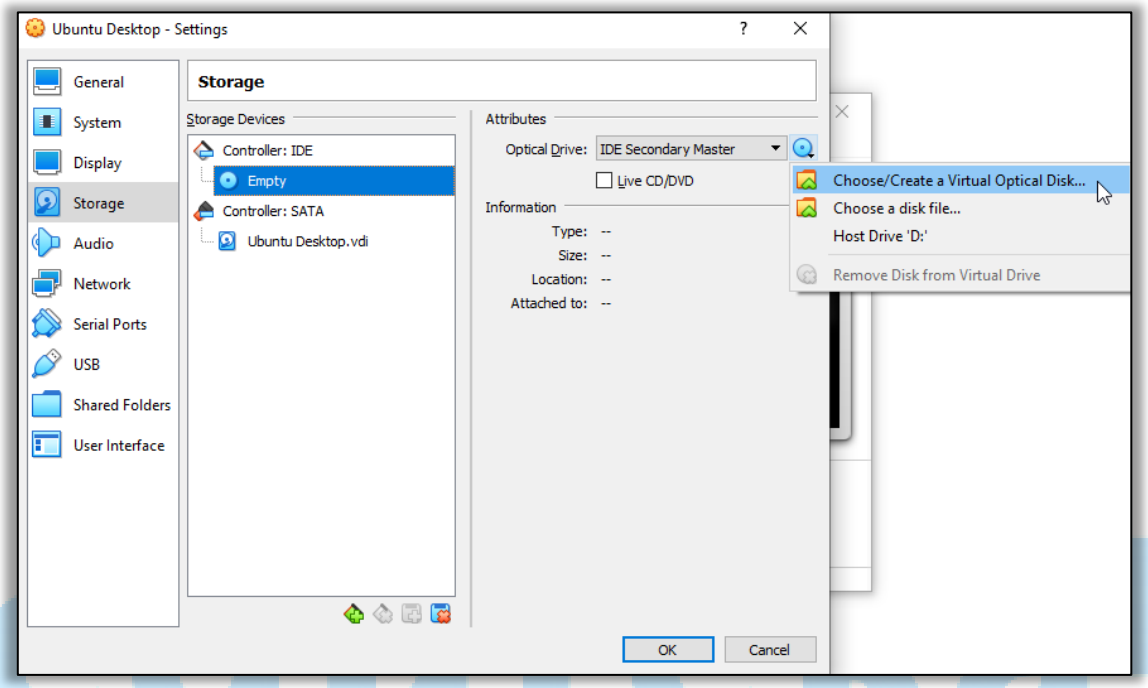


Step 8: Go to the ***Display*** section and select the ***Screen*** tab. Set video memory to 128MB and enable 3D acceleration as shown below. Then click on ***OK*** to save the settings.

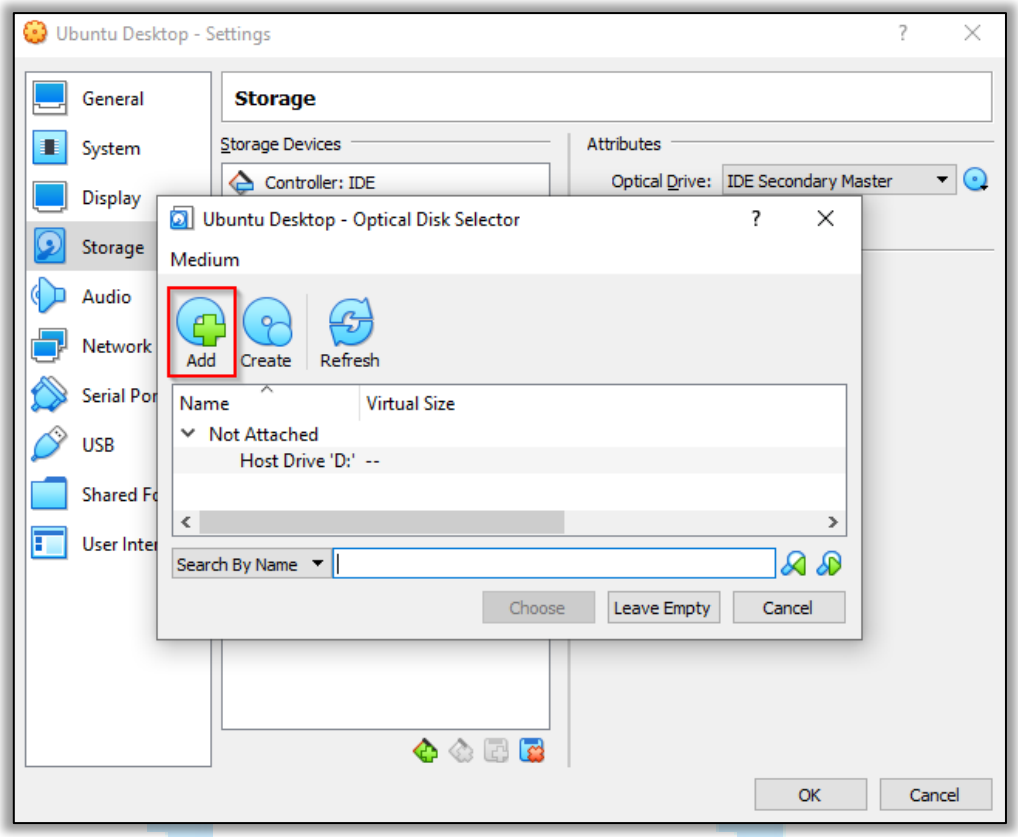


Step 9: Go to ***Storage*** section and under ***Storage Devices,*** select your virtual controller used for connecting a virtual DVD drive. Click the ***Empty*** status.

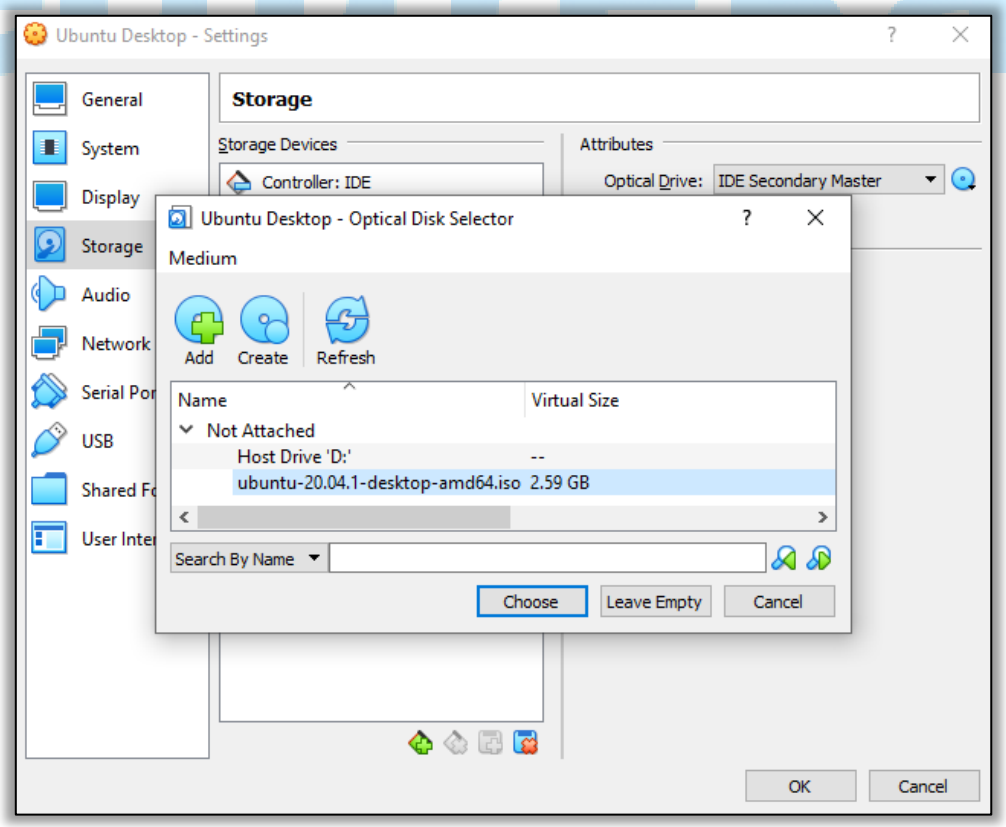
In the right pane, under the attribute section, for Optical Drive near the IDE Secondary Master, click the *disc icon*. In the menu that appears, click ***Choose Virtual Optical Disk File***.



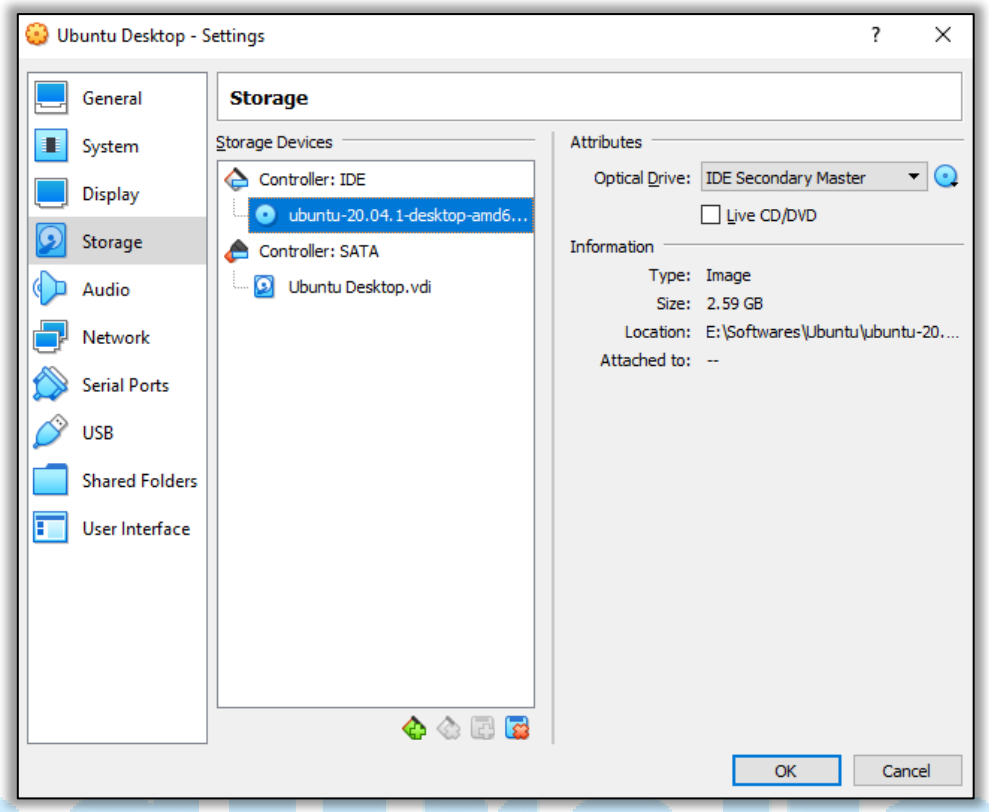
Click ***Add*** and browse the Ubuntu installation ISO image file that you downloaded in the previous steps (*ubuntu-20.04.1-desktop-amd64*).



Click ***Choose.***

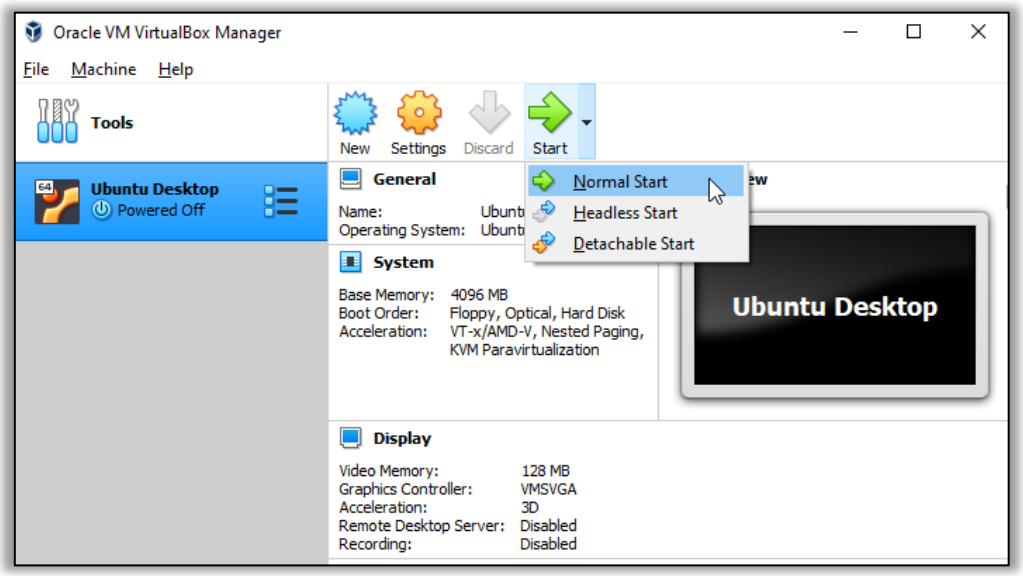


Click on ***OK*** back in the Settings window and now your VM is ready to install Ubuntu on VirtualBox.

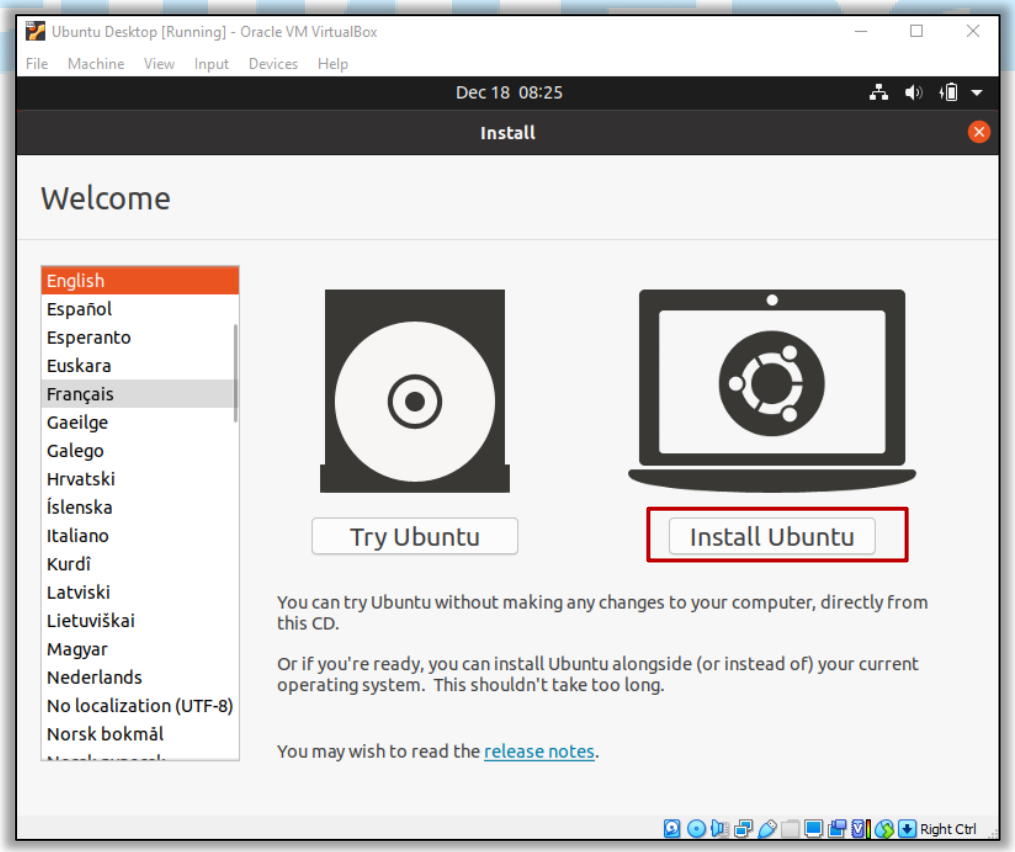


Install Ubuntu on VM

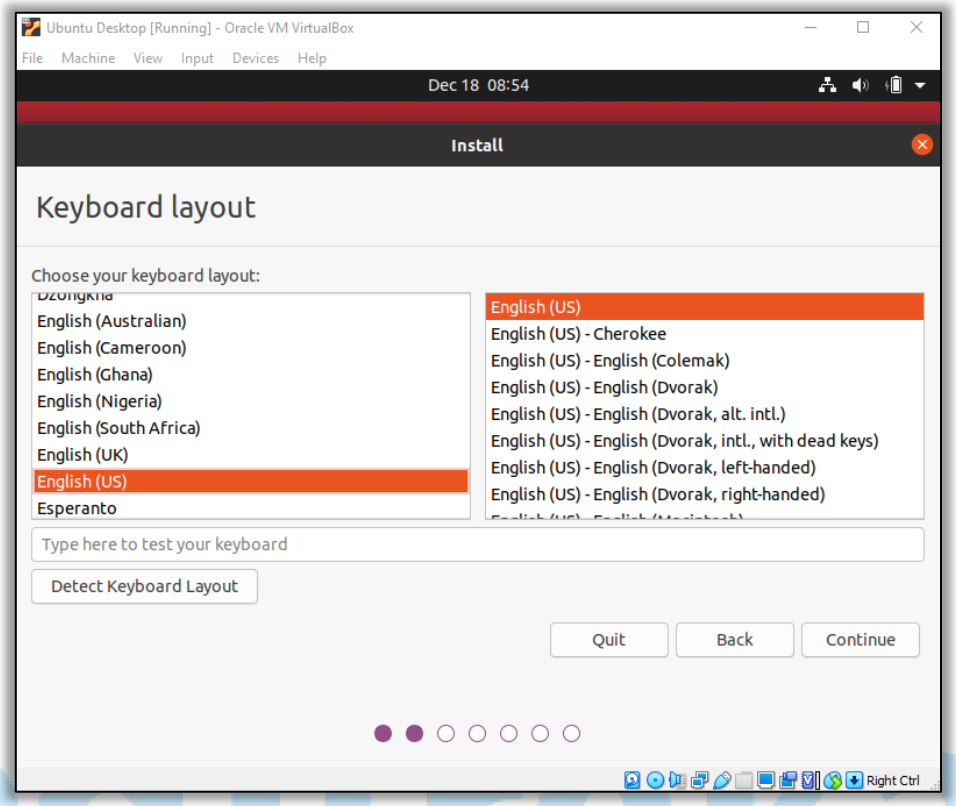
Step 1: Select your Ubuntu VM and click on ***Start > Normal Start***. Wait till the ISO Ubuntu installation page appears. The first screen that you see is Welcome screen.



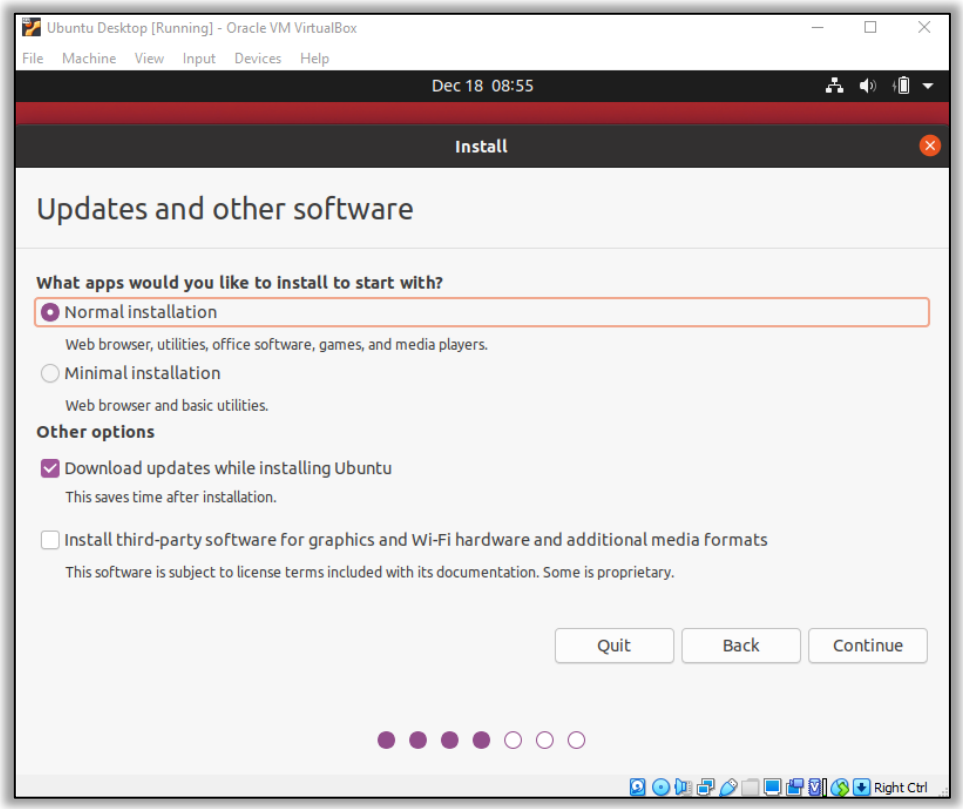
Step 2: Select the language of your choice for displaying information in the installer interface. Then click ***Install Ubuntu***.



Step 3: Choose the keyboard layout and select the language of your choice (English (US) in this case). Click on ***Continue***.

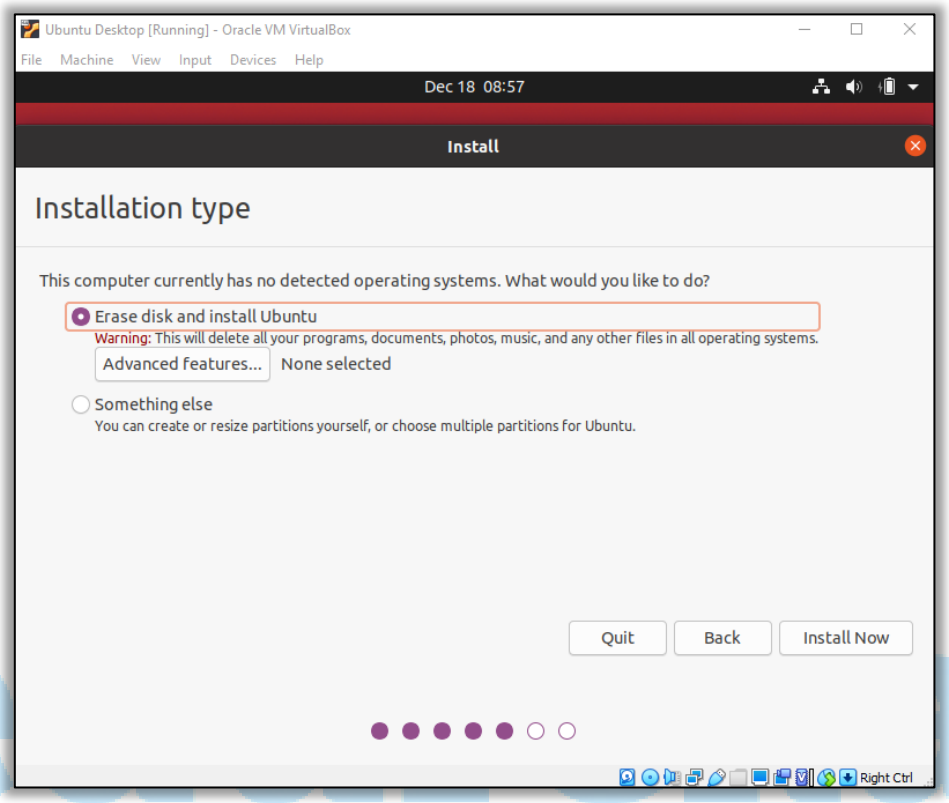


Step 4: On the next screen, select ***Normal Installation*** and click ***Continue.***

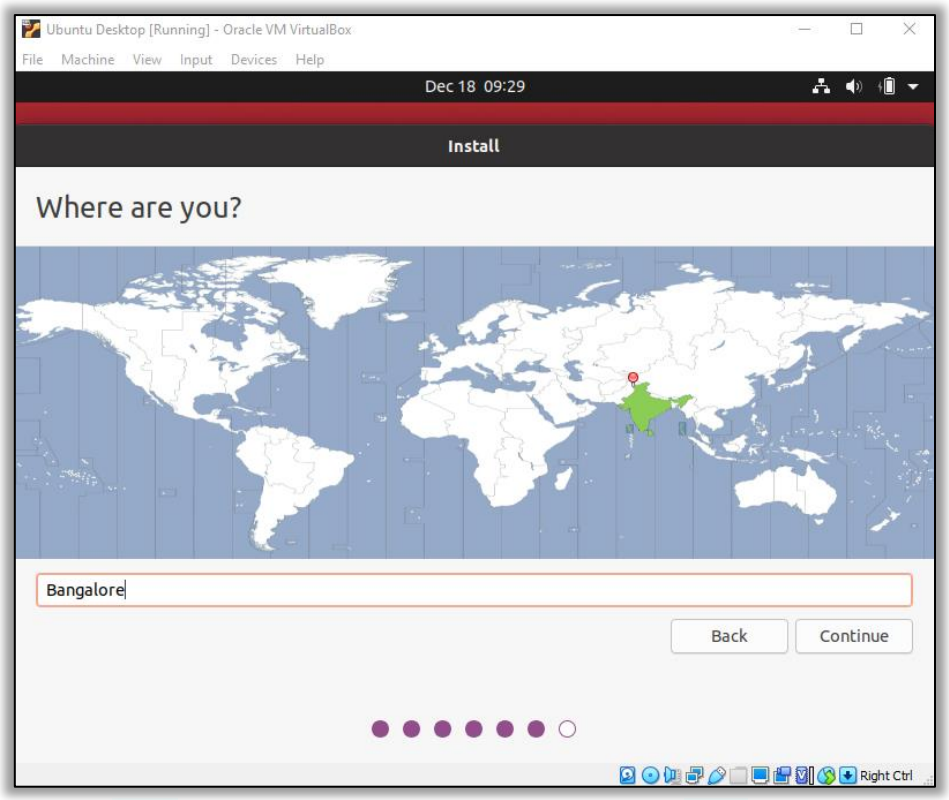


Step 5: The ***Installation type*** screen contains options for preparing a disk for Ubuntu installation. Select the default option ***Erase disk and install Ubuntu***. This will automatically allocate disk space to Ubuntu. Click on ***Install Now***.

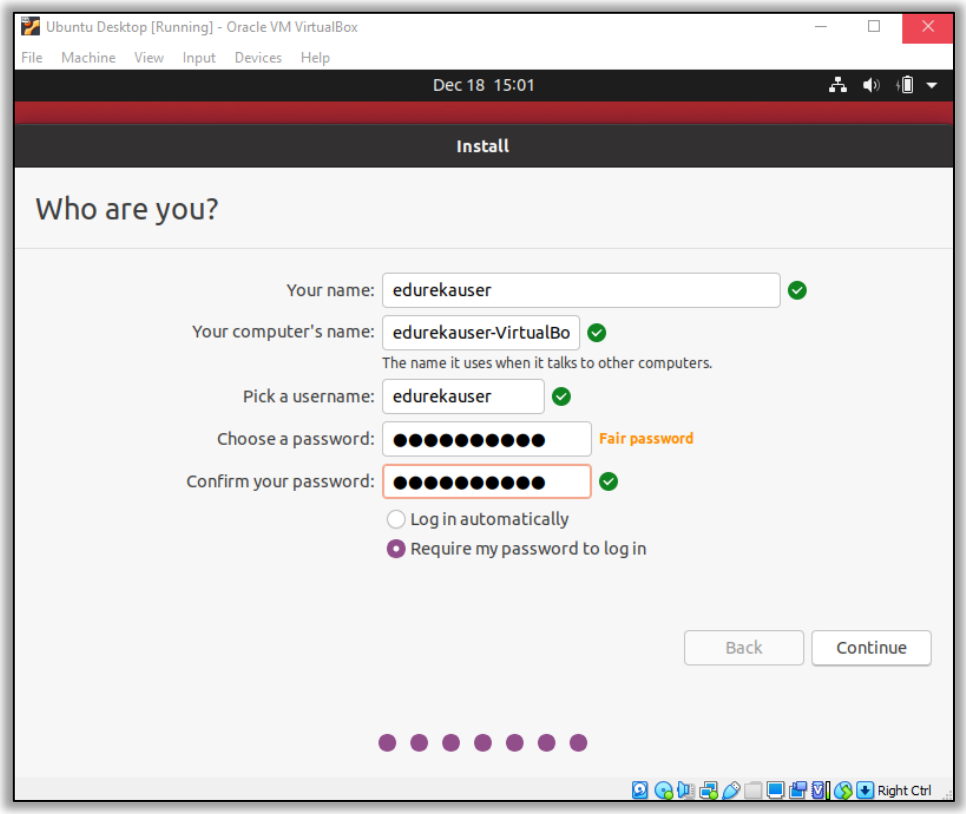
When the confirmation screen pops up, click on ***Continue*** to proceed with the installation.



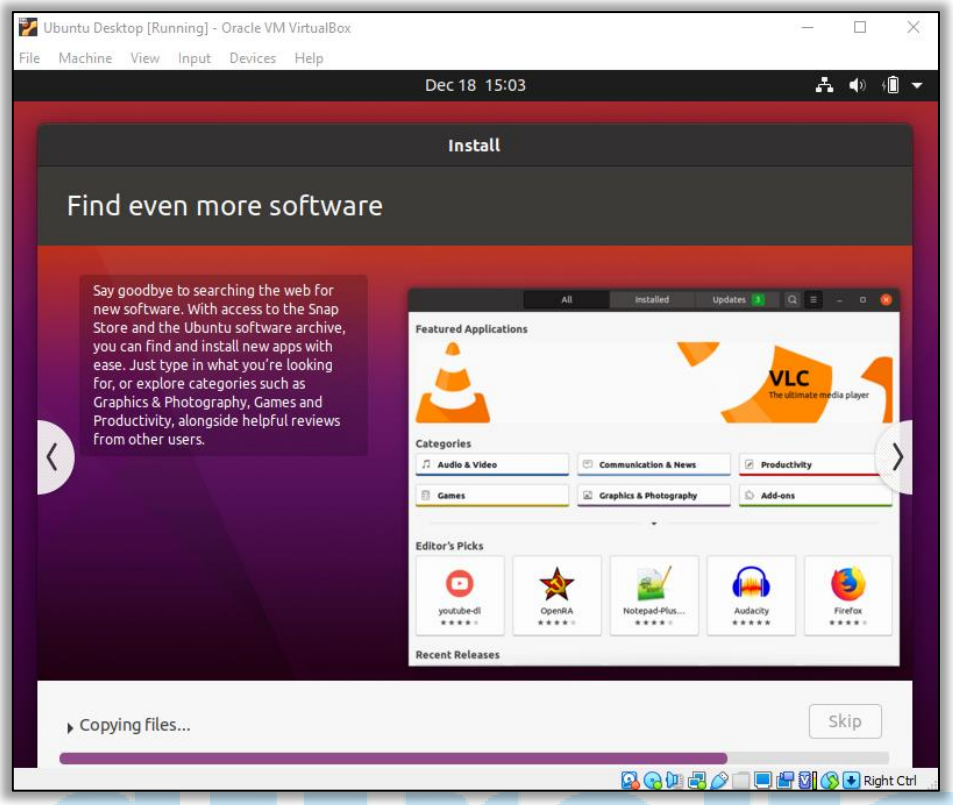
Step 6: On the **"Where are you?"** screen, select your location and click on ***Continue***. Note that time will be set automatically for the location you choose.



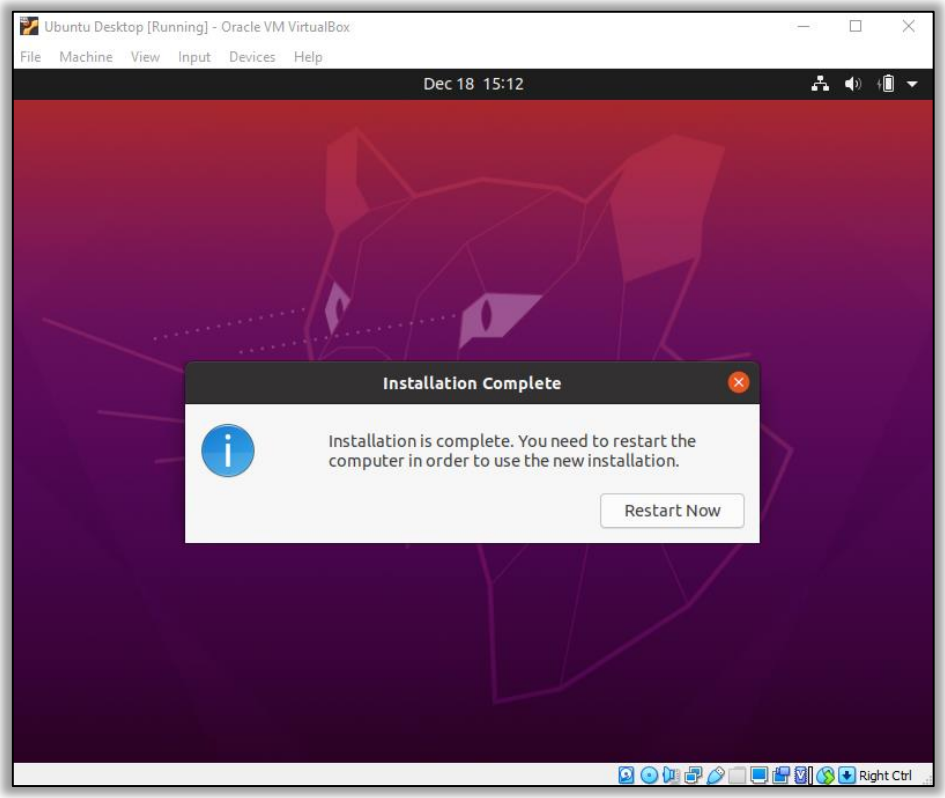
Step 7: On the ***"Who are you?"*** screen, configure the following details. Enter your user name, computer's name and a password. Click on ***Continue***.



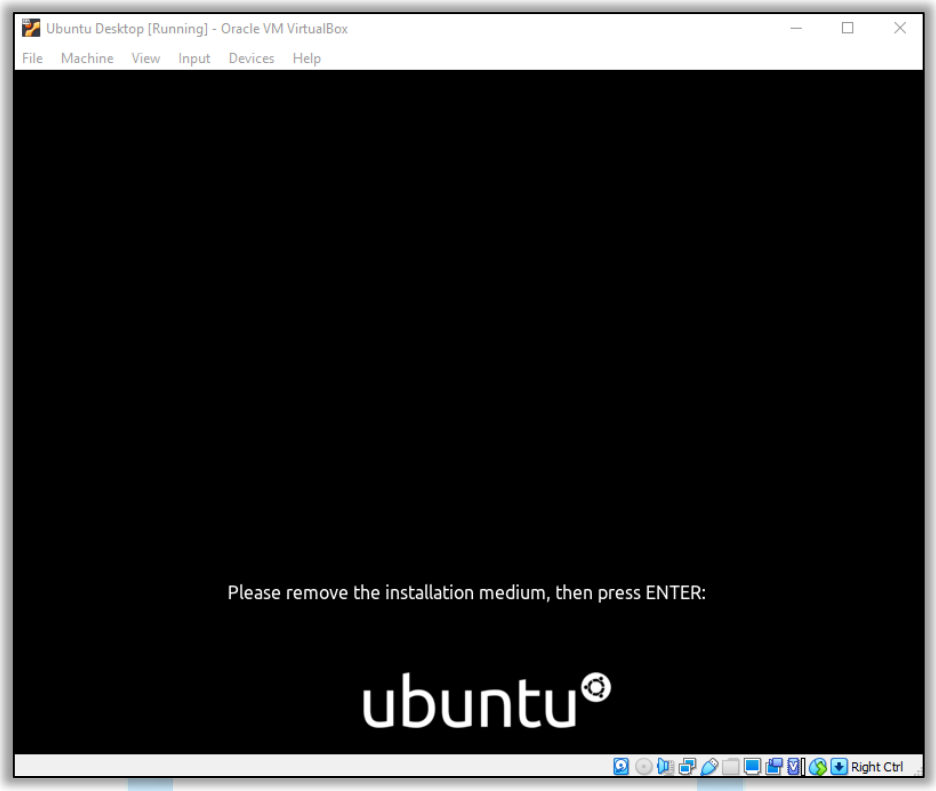
Note: During installation, you can see some useful tips on the screen as shown below.



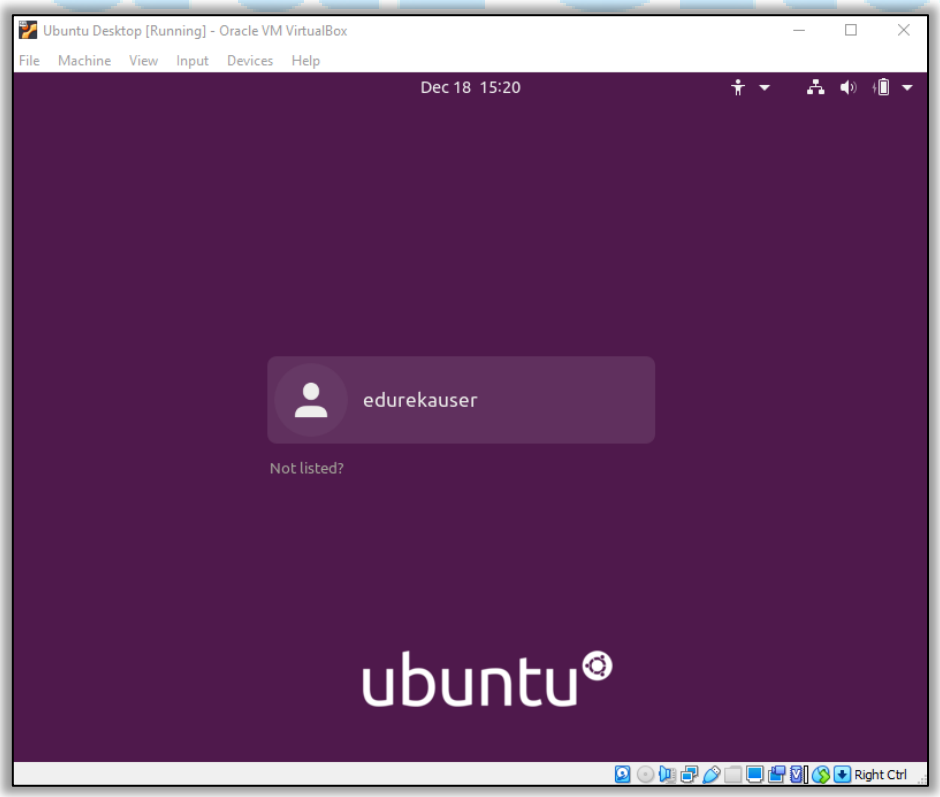
Step 8: Once the installation is complete, you will see a notification window. Restart your VM with Ubuntu on VirtualBox.



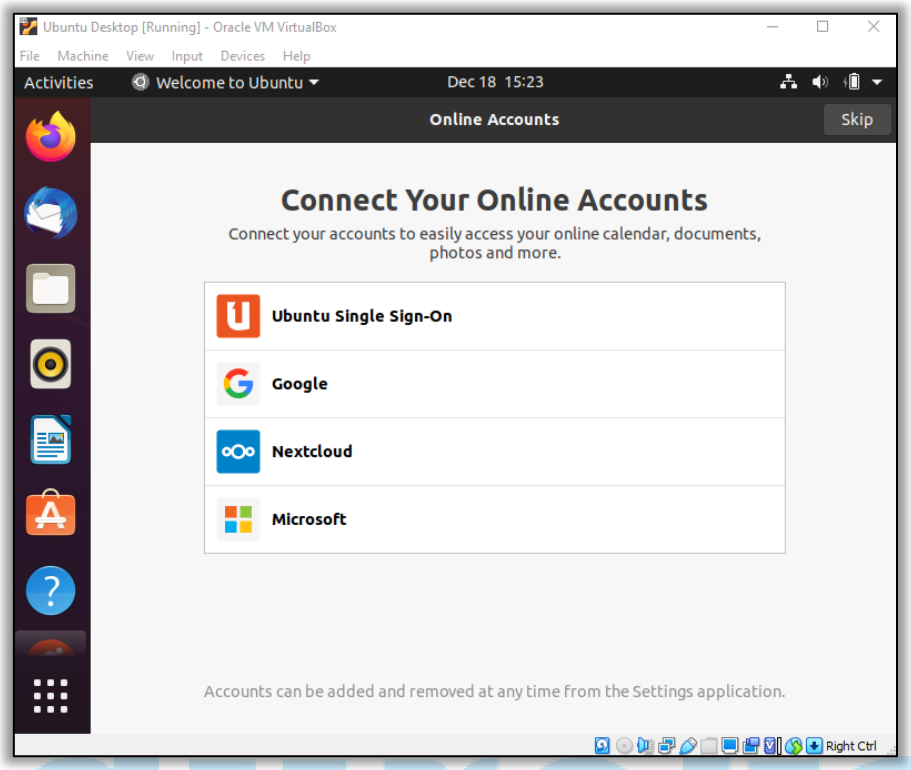
Press ***Enter*** on the below screen.



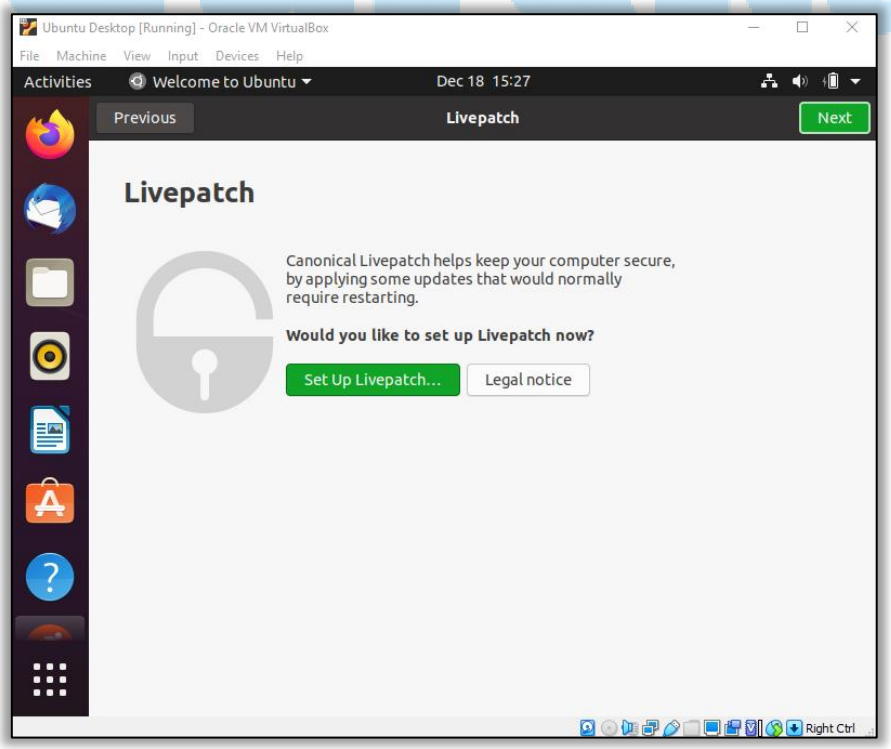
Step 9: Once you restart the VM, you will see the login screen with your username. Click on the username. Then, enter the password that you had set up during installation and click ***Enter***.

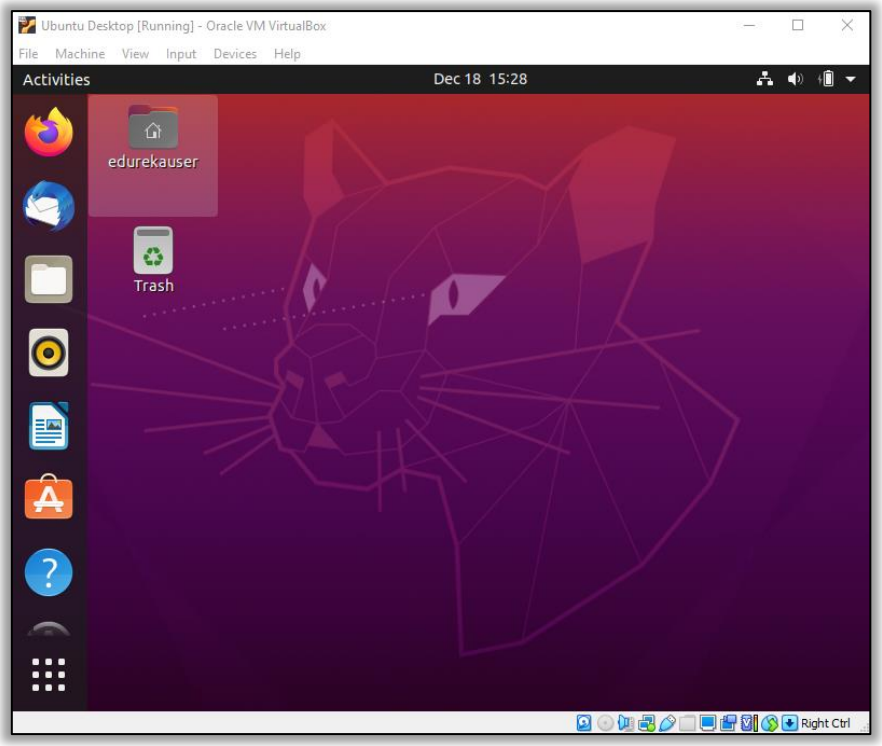


Once logged in, you will be presented with the Online Account setup screen. You can skip this step by clicking on ***Skip.***



Click ***Next*** on the subsequent screens like the below one.





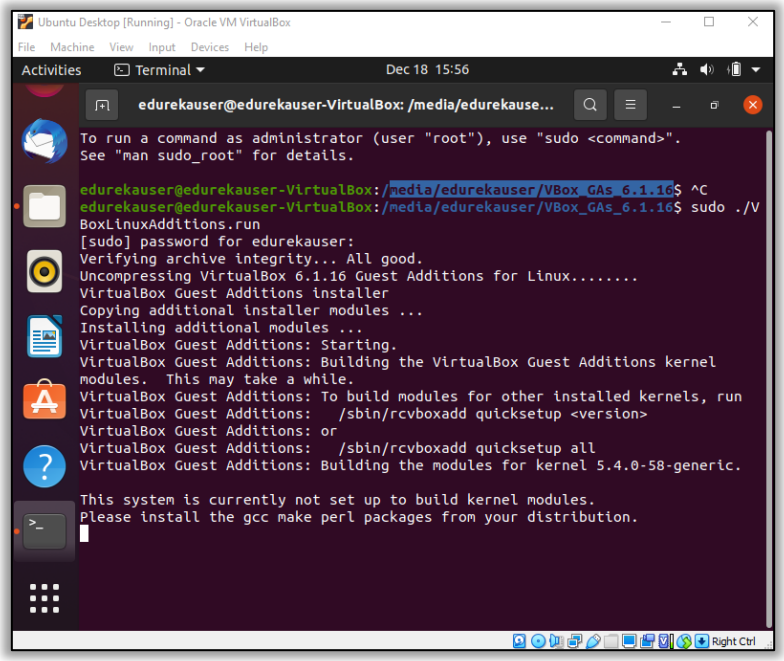
Step 10: Lastly, install ***VirtualBox Guest Additions***. It is a set of drivers and system utilities intended to improve usability and performance of your VM.

To install VirtualBox Guest Additions, open a terminal window and execute run the installer as shown below.

Run the following commands:

cd ***/media/edurekauser/VBox_GAs_6.1.16/***

sudo ./VBoxLinuxAdditions.run



At times, when you try to install VirtualBox Guest Additions, you might get a warning message saying "***Please install the gcc make perl packages***" (like in this case). In order to install these packages, execute the command:

sudo apt-get install build-essential gcc make perl dkms

Enter ***Y*** when asked to use some additional disk space.

Once the packages are installed, run the ***Guest Additions*** installer again using the below command:

sudo ./VBoxLinuxAdditions.run

Restart the system once the installation is complete.

That is it! Your Ubuntu VM is ready to use.