

Exploring Linux by Deepali Srivastava : Lecture 4

In this document we'll see the instructions for

- 1) Installing virtual box on Windows and creating virtual machine in it.
- 2) Installing the guest OS (Ubuntu linux) on the virtual machine.

Installing Virtual Box on Windows

Go to the site - www.virtualbox.org

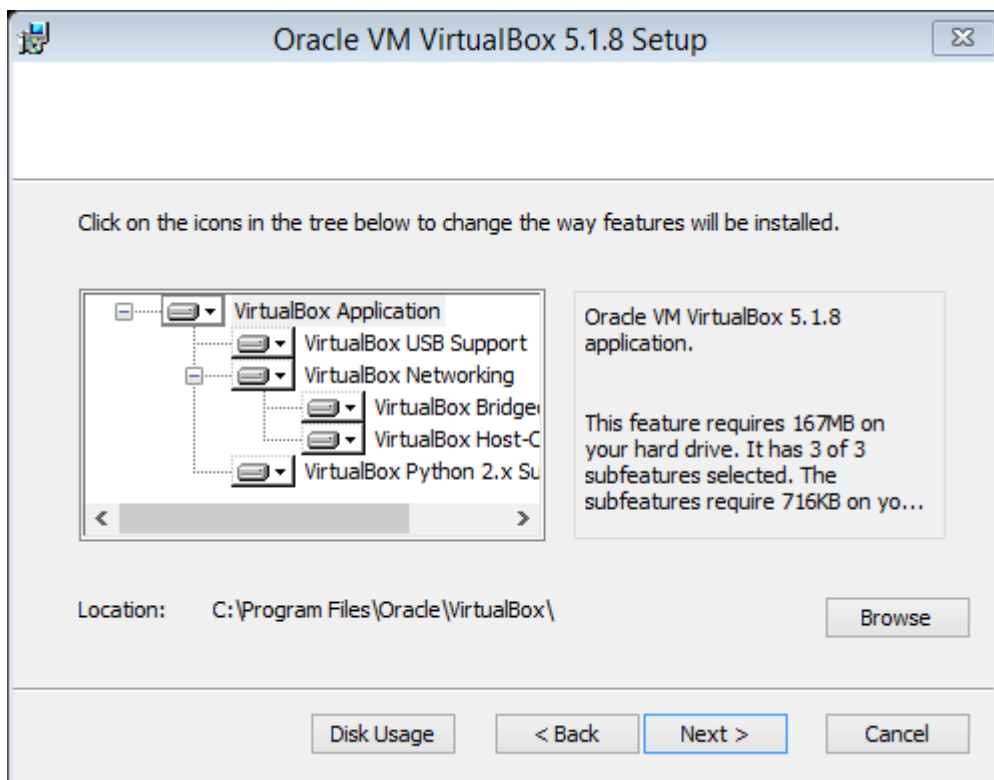
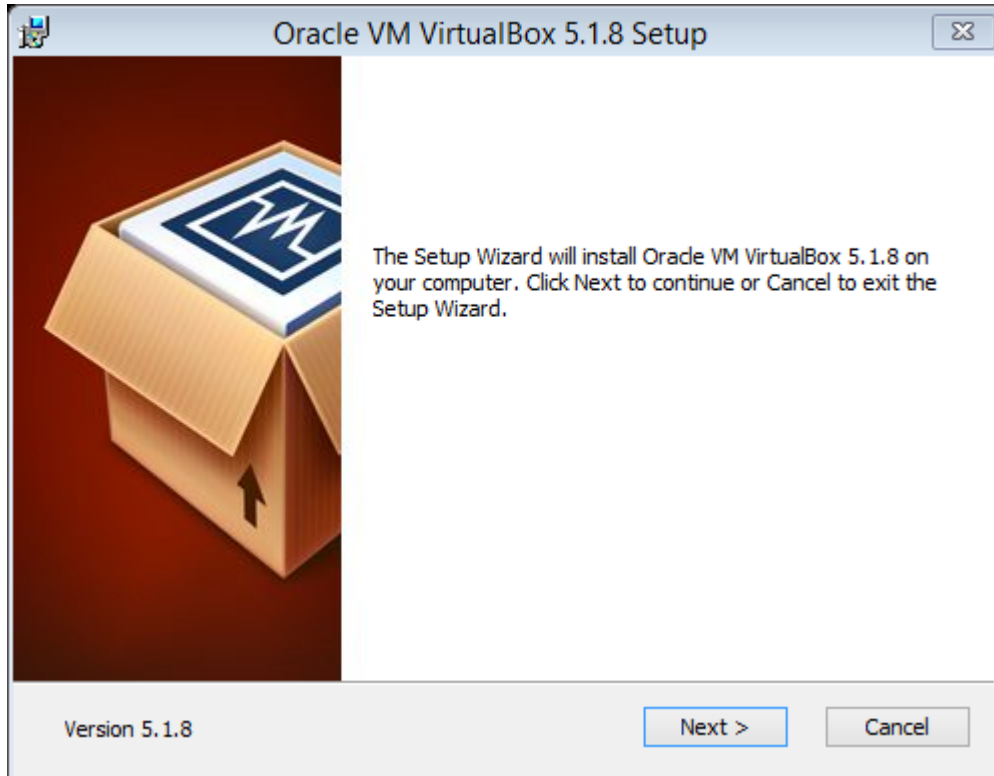


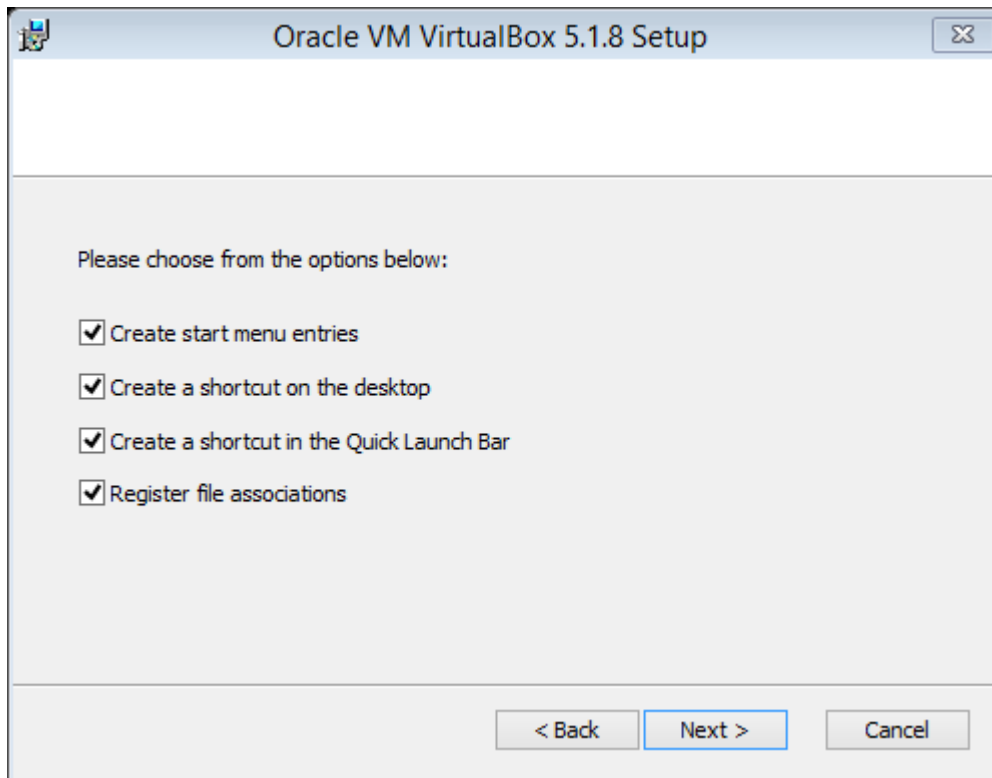
Click on Downloads in the left column.

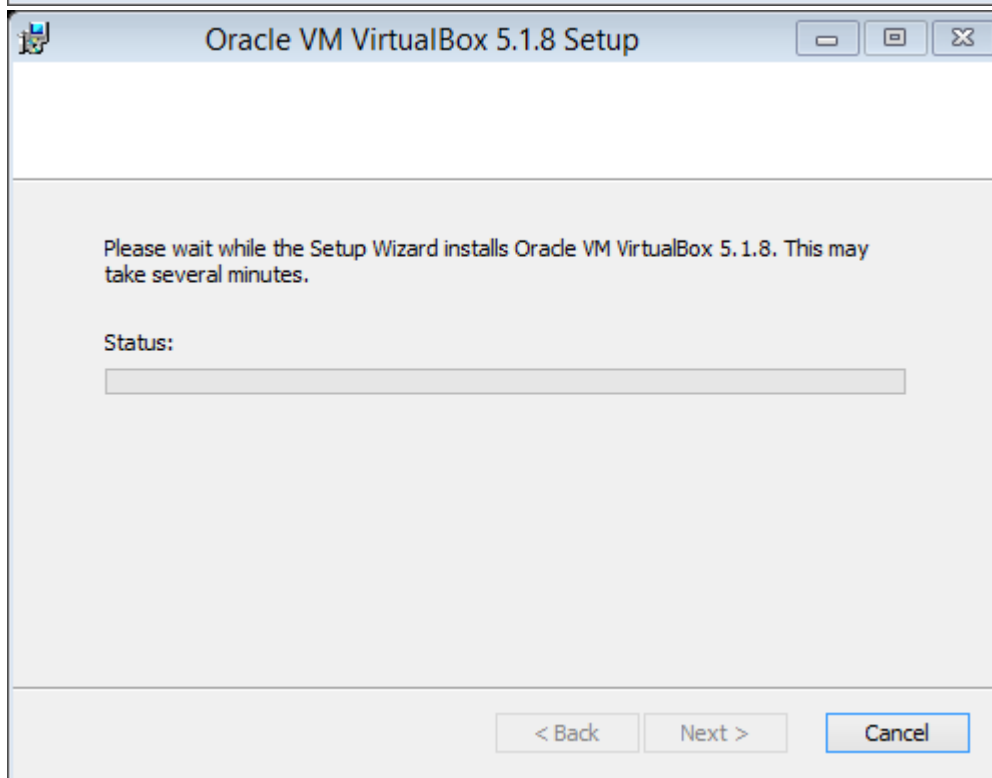
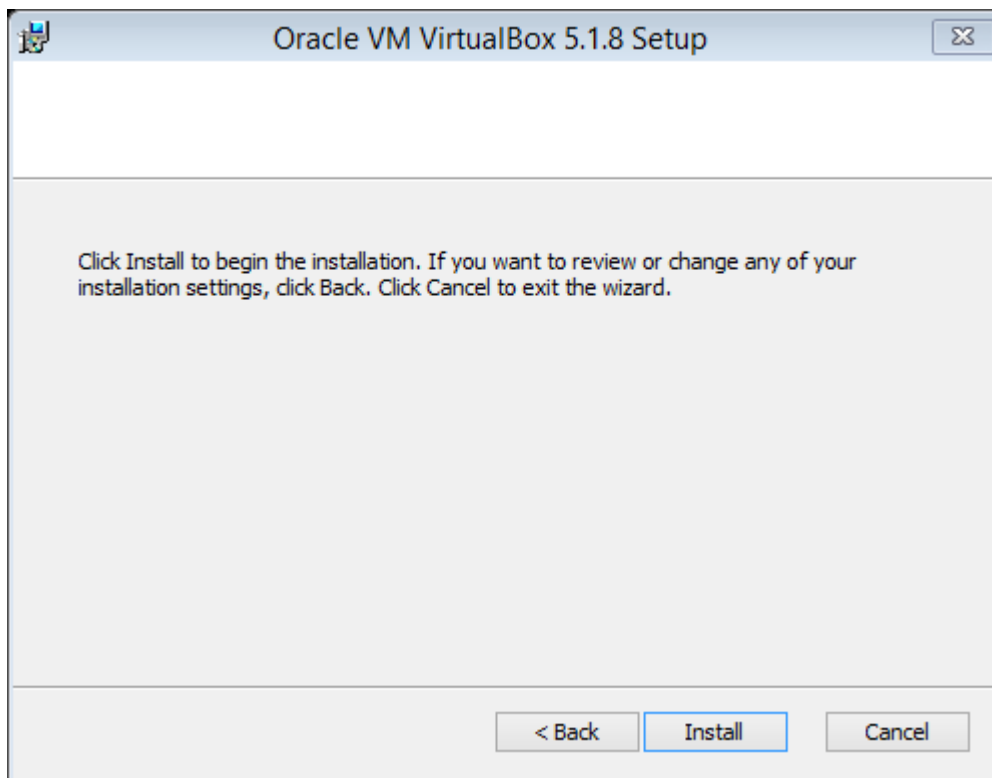


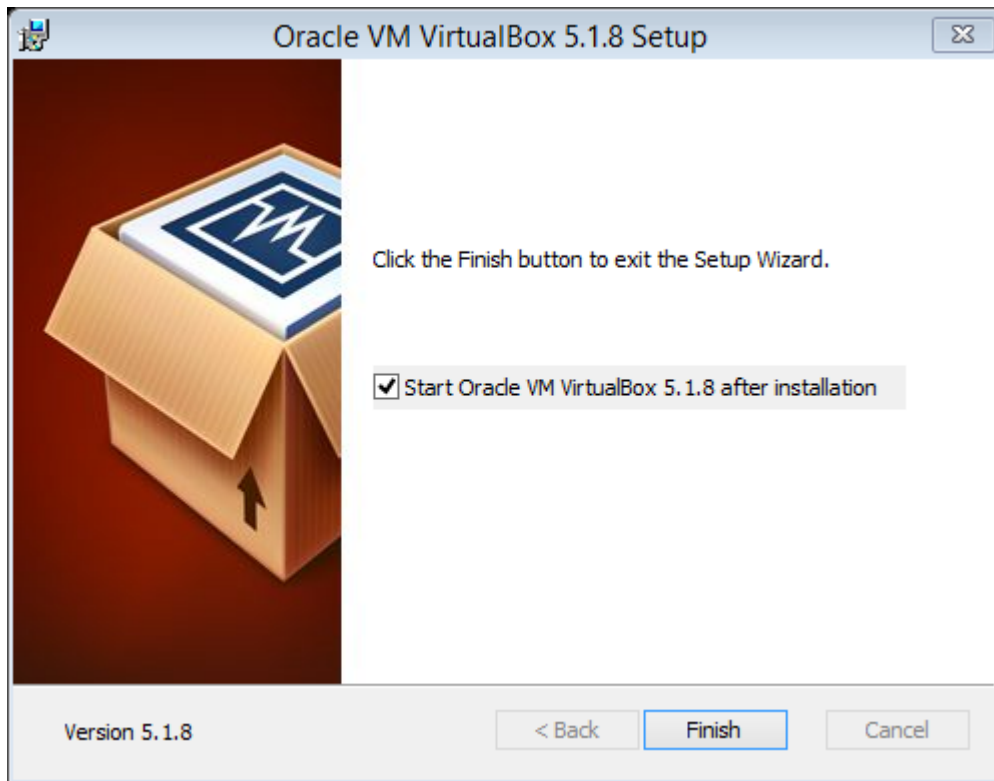
Download the correct .exe file for your operating system. For Windows select the one shown in the figure.

After downloading, run the executable file and follow the onscreen instructions to install VirtualBox on Windows.

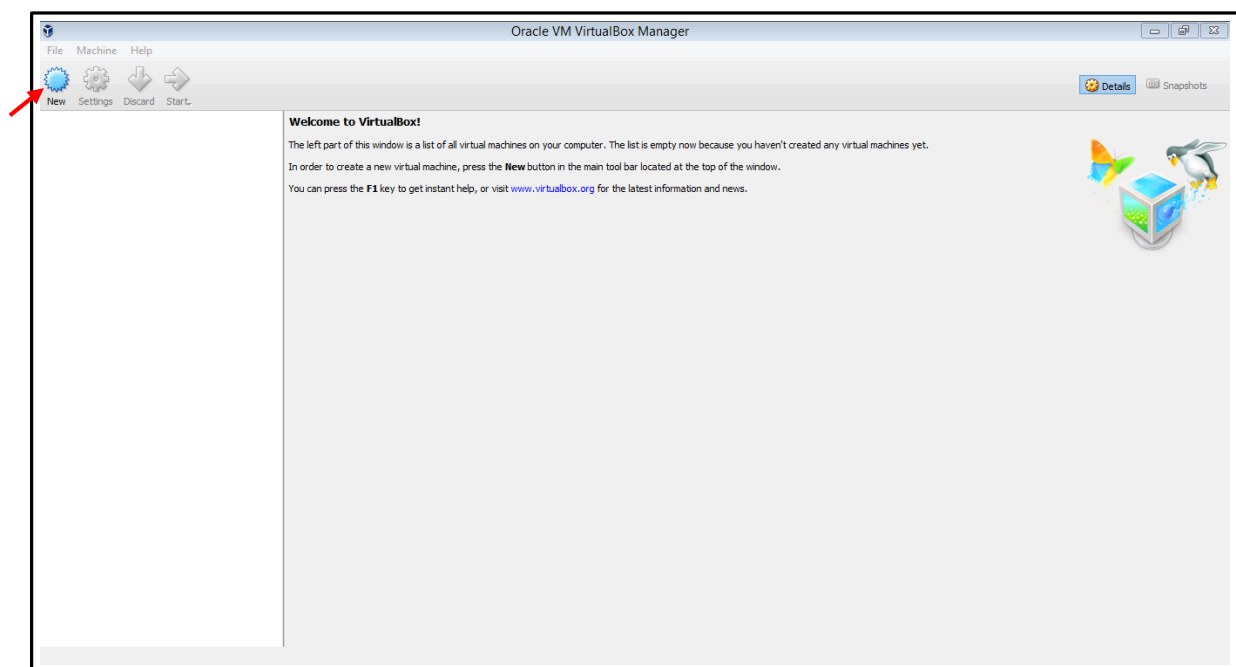




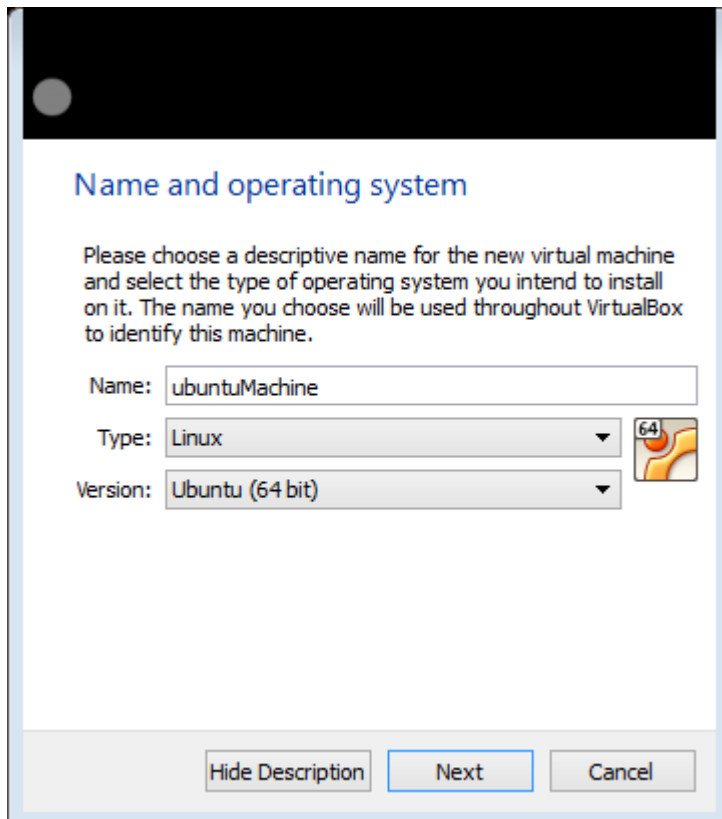




After finishing the installation, Run VirtualBox. The VirtualBox Manager appears and now you can create your virtual machines in it.




Create a new virtual machine by clicking on the New button in the virtual box window.



Name and operating system

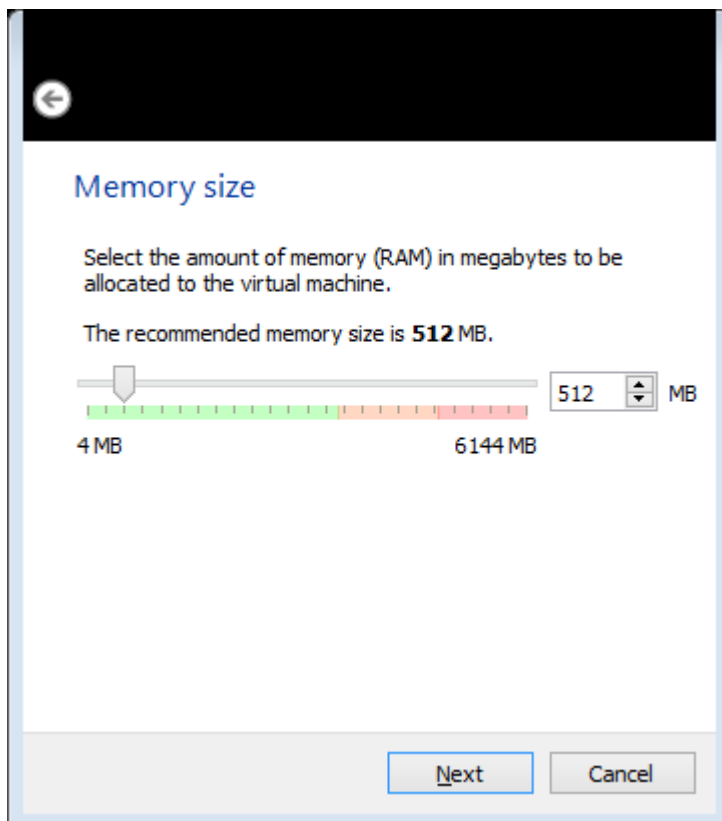
Please choose a descriptive name for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.

Name:

Type: 

Version:

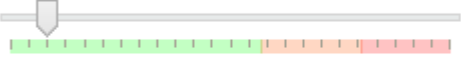
Type a name for the virtual machine, select the type and version of the guest operating system that you want to run on this virtual machine, and click Next.



Memory size

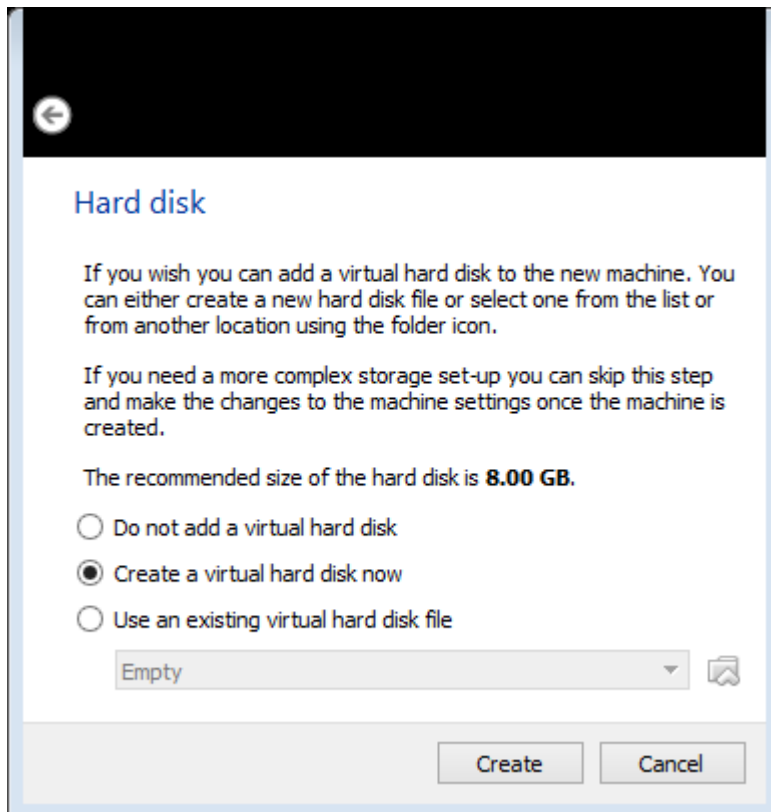
Select the amount of memory (RAM) in megabytes to be allocated to the virtual machine.


The recommended memory size is 512 MB.

 512 MB

4 MB 6144 MB

Select the RAM for the virtual machine and click Next.





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 **8.00 GB**.

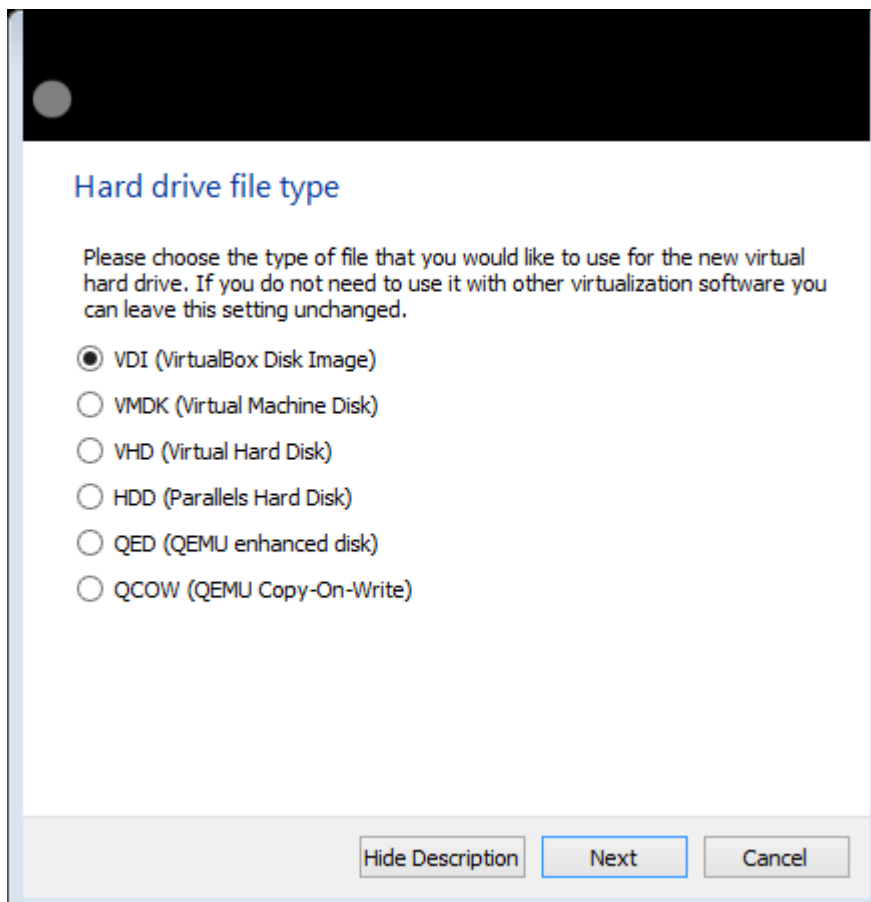
☐ Do not add a virtual hard disk


☒ Create a virtual hard disk now

☐ Use an existing virtual hard disk file

Empty 

Click Create.





Hard drive file type

Please choose the type of file that you would like to use for the new virtual hard drive. If you do not need to use it with other virtualization software you can leave this setting unchanged.

☒ VDI (VirtualBox Disk Image)

☐ VMDK (Virtual Machine Disk)

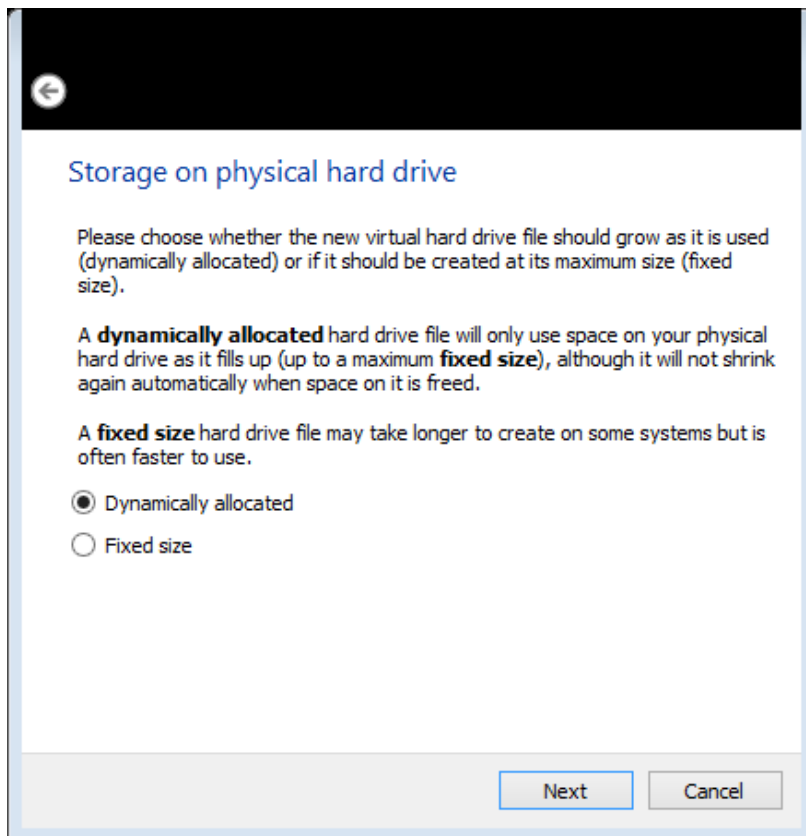
☐ VHD (Virtual Hard Disk)

☐ HDD (Parallels Hard Disk)

☐ QED (QEMU enhanced disk)

☐ QCOW (QEMU Copy-On-Write)

Click Next.



A screenshot of a Windows-style dialog box titled "Storage on physical hard drive". It has a back arrow in the top-left corner. The text inside asks the user to choose between "dynamically allocated" and "fixed size". It explains that dynamically allocated drives grow as needed but don't shrink, while fixed size drives are faster but take longer to create. The "Dynamically allocated" option is selected with a radio button. At the bottom right are "Next" and "Cancel" buttons.

Storage on physical hard drive

Please choose whether the new virtual hard drive 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 drive file will only use space on your physical hard drive as it fills up (up to a maximum **fixed size**), although it will not shrink again automatically when space on it is freed.

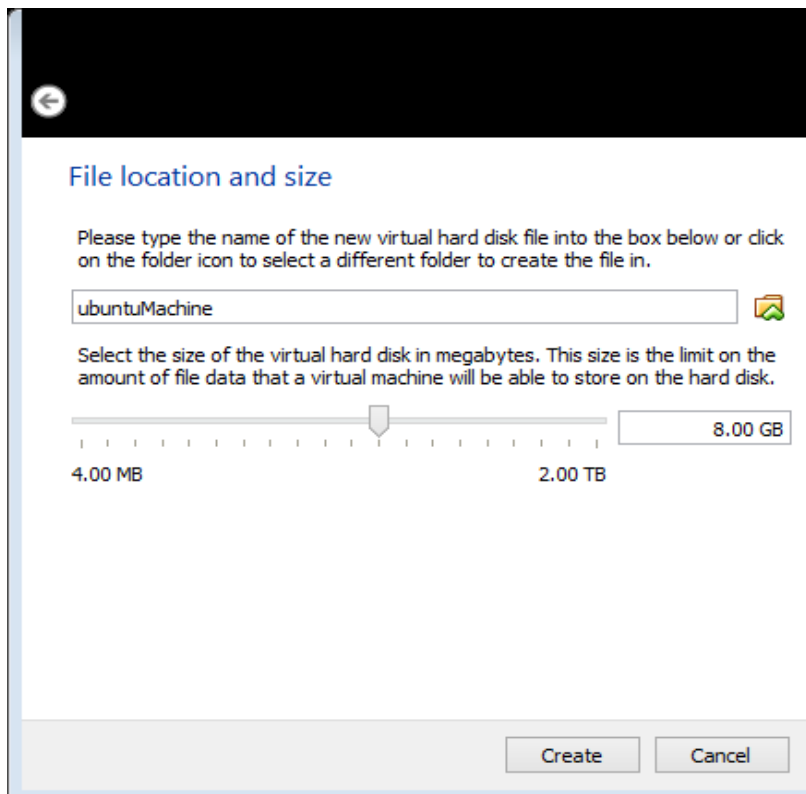
A **fixed size** hard drive file may take longer to create on some systems but is often faster to use.

☒ Dynamically allocated

☐ Fixed size

Next Cancel


Select Dynamically allocated and click Next.



A screenshot of a Windows-style dialog box titled "File location and size". It has a back arrow in the top-left corner. The text asks the user to enter the name of the new virtual hard disk file or click a folder icon. A text box contains "ubuntuMachine". Below this, it asks the user to select the size of the virtual hard disk in megabytes, with a slider ranging from 4.00 MB to 2.00 TB. The current selection is 8.00 GB. At the bottom right are "Create" and "Cancel" buttons.

File location and size

Please type the name of the new virtual hard disk file into the box below or click on the folder icon to select a different folder to create the file in.

ubuntuMachine 

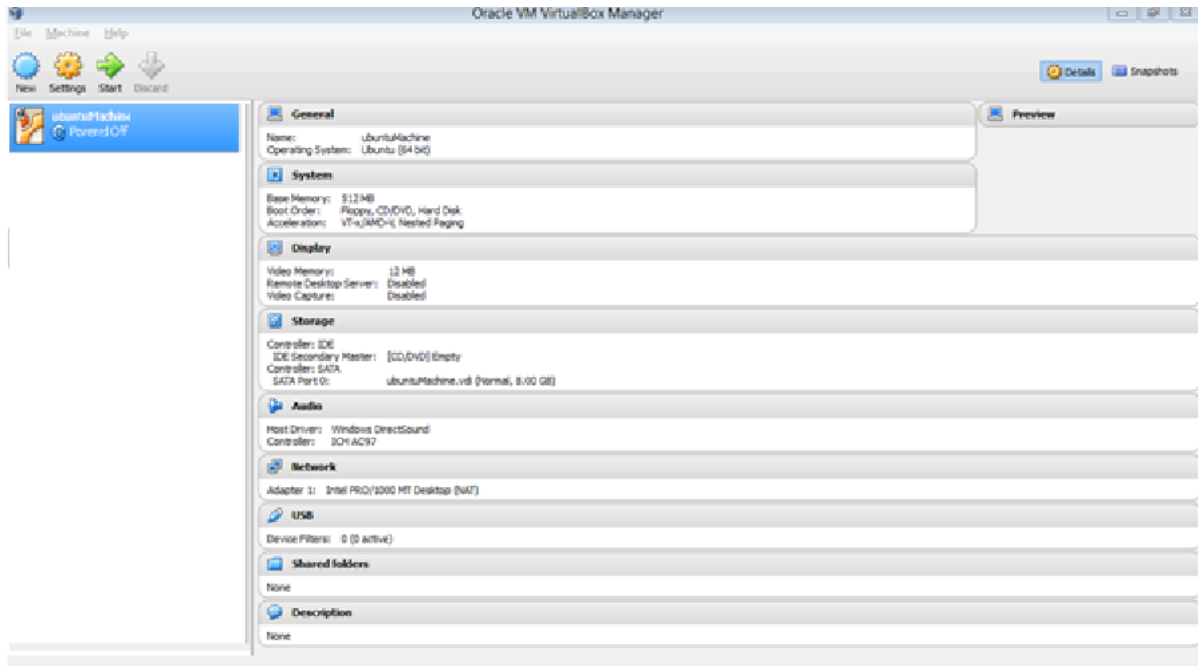
Select the size of the virtual hard disk in megabytes. This size is the limit on the amount of file data that a virtual machine will be able to store on the hard disk.

4.00 MB 2.00 TB 8.00 GB

Create Cancel

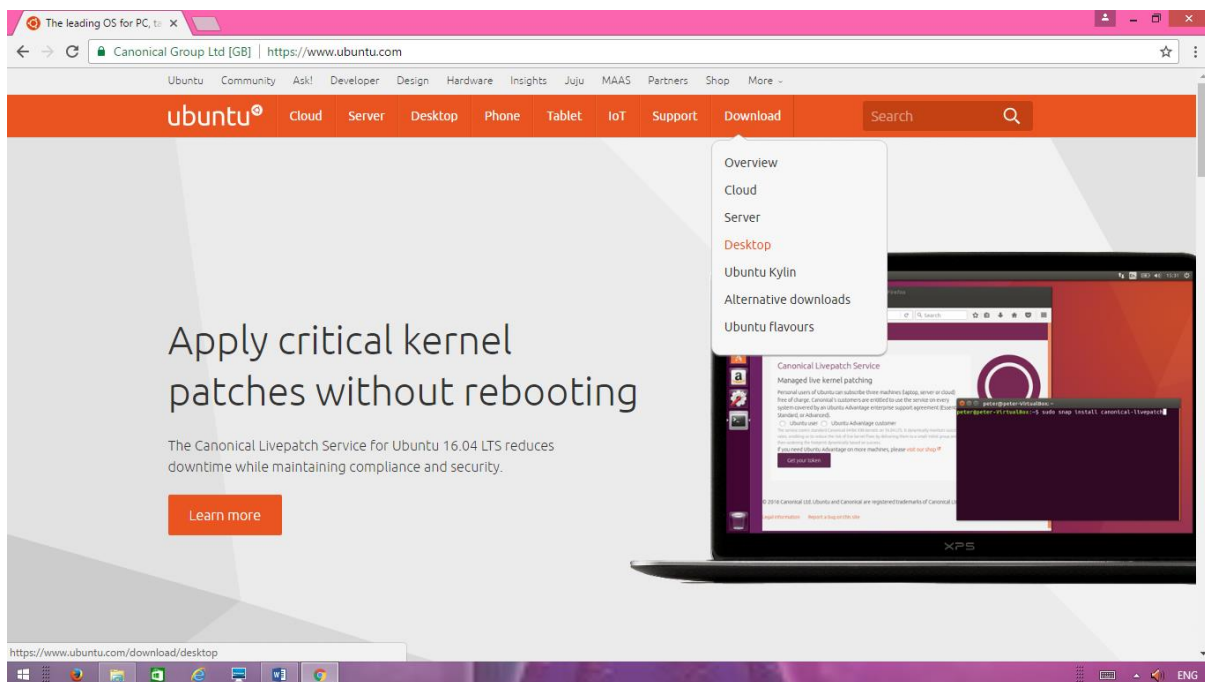
Click Create.

Now a new virtual machine is created inside the VirtualBox. We can see it in the left column. This new machine is in powered off state.

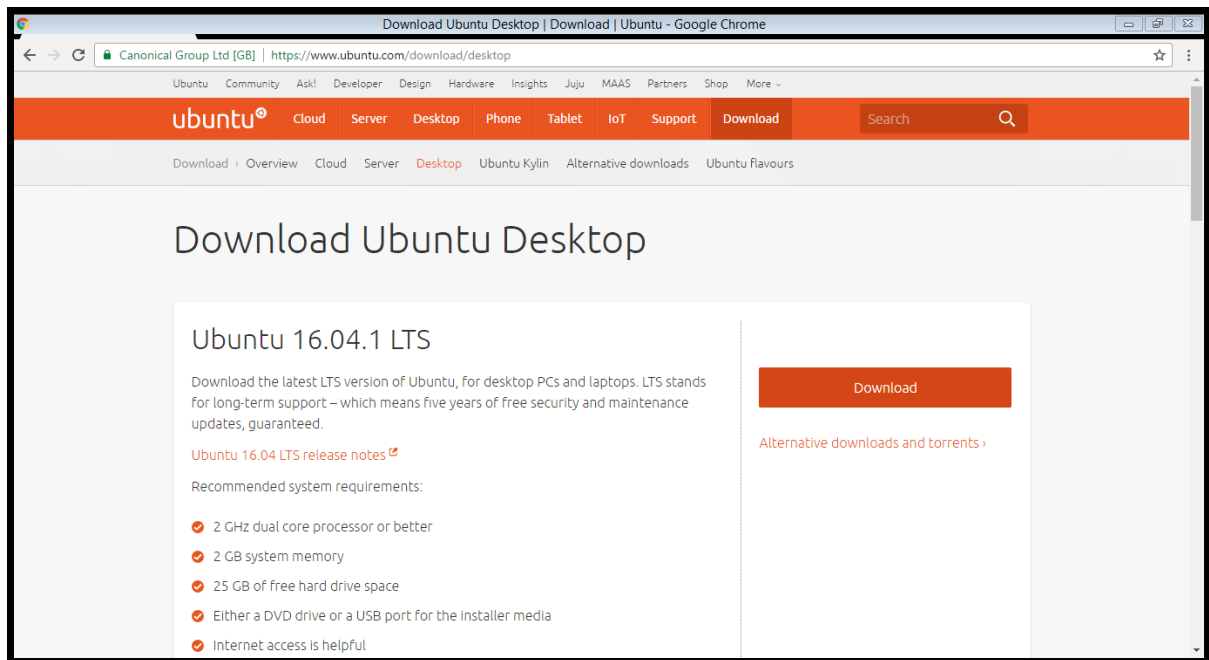


Installing Ubuntu on the virtual machine

Go to ubuntu.com

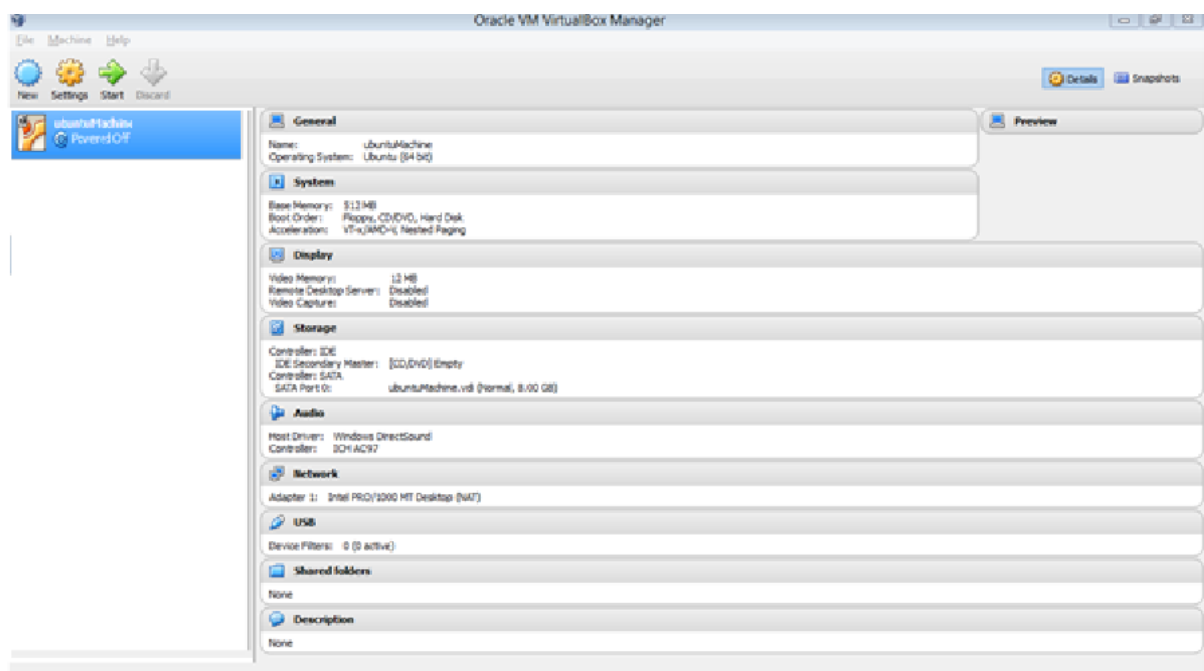


Select Desktop from Download Menu.

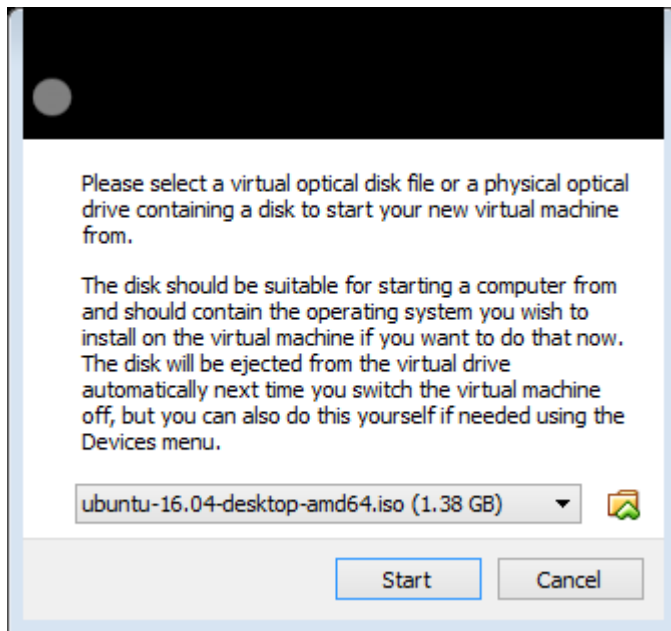


Download the Ubuntu ISO image file by clicking on Download.

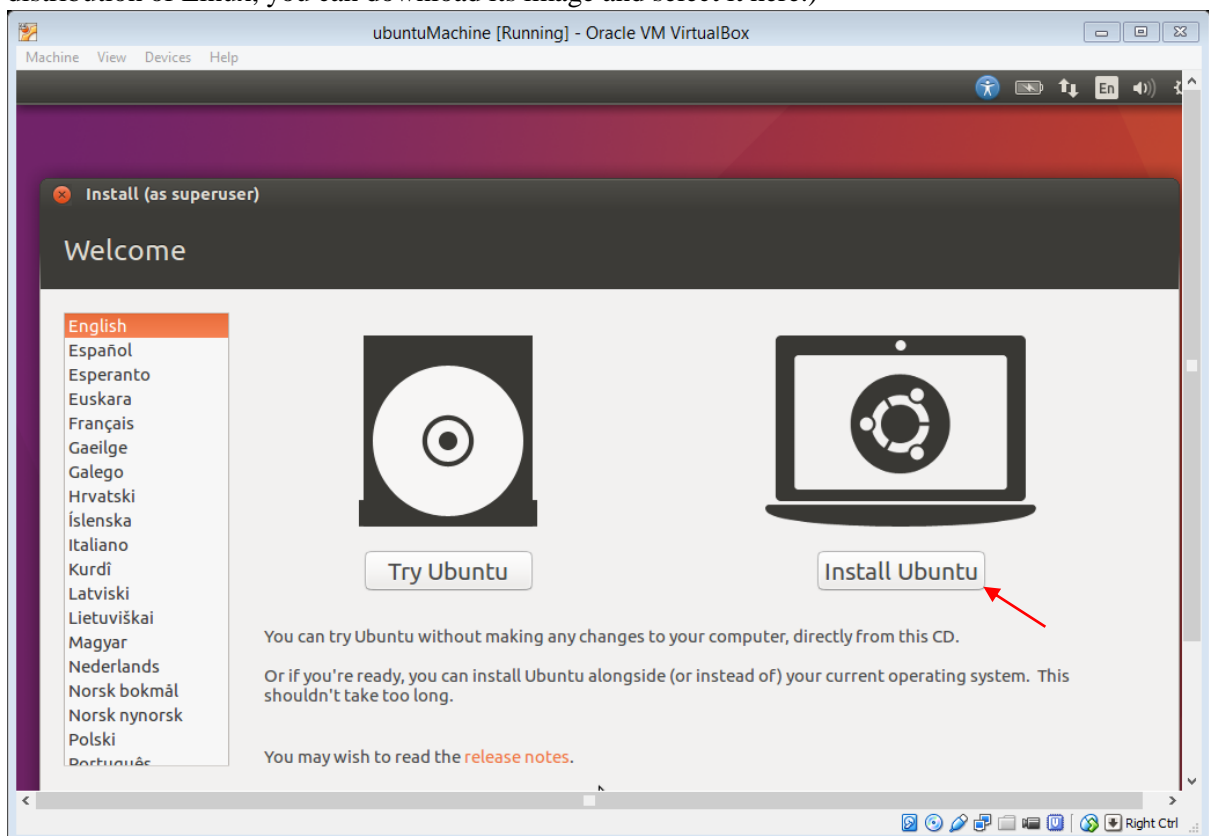
Open the Virtual Box Manager and start the virtual machine by double clicking on it or by selecting it and clicking Start button or by right clicking on the machine and selecting Start.



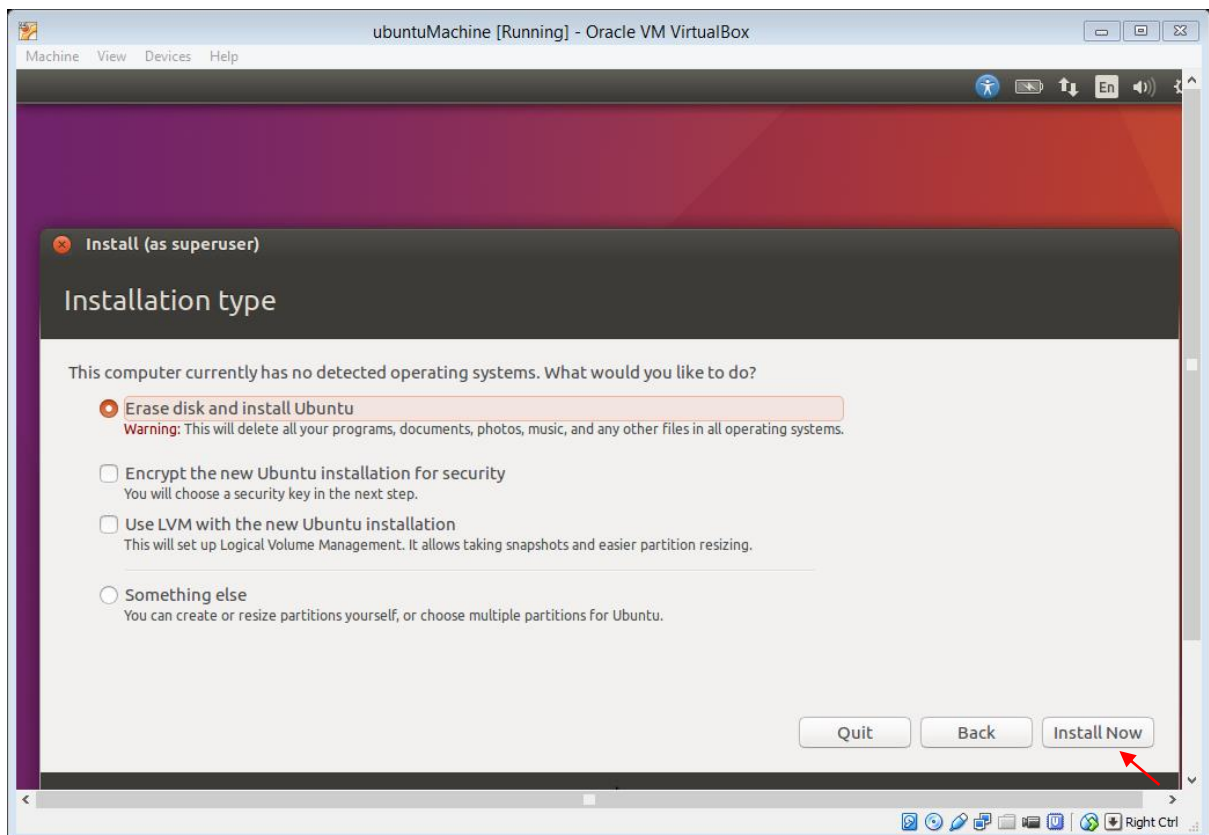
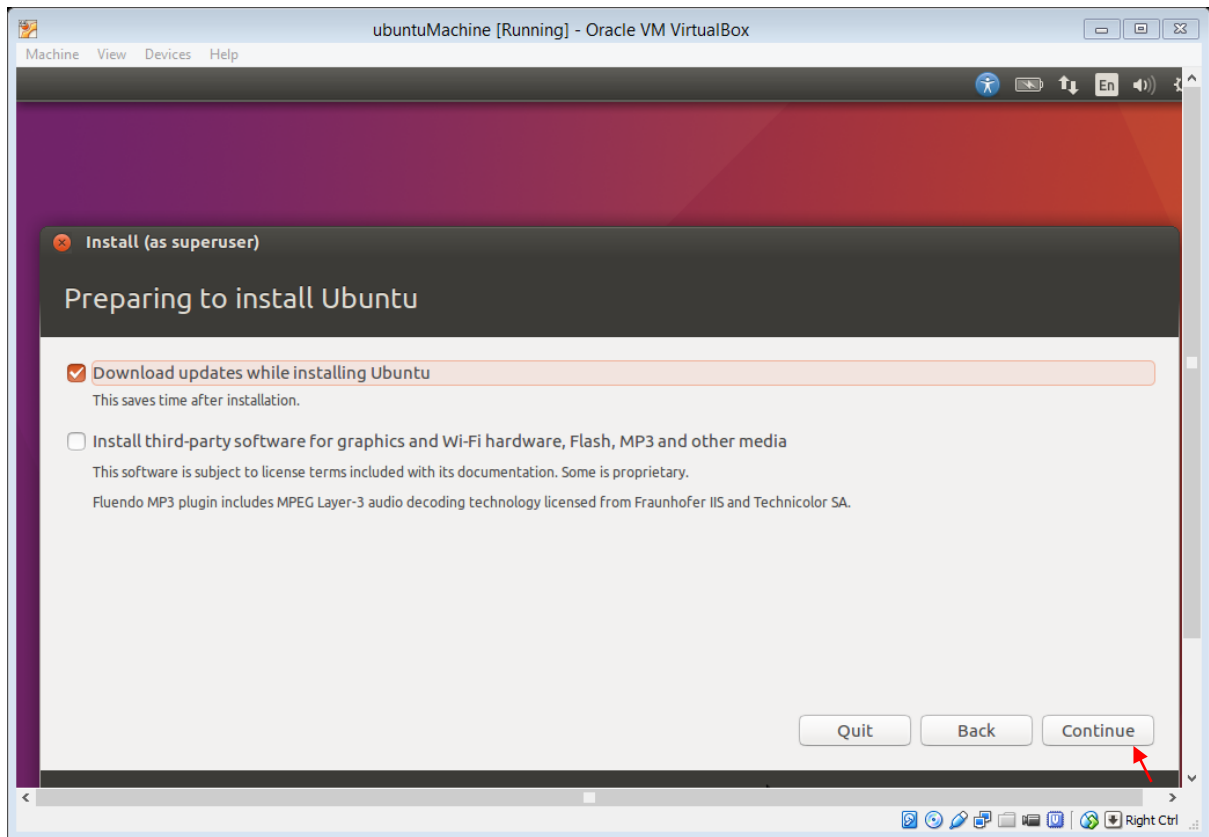
This is the first time you have started your virtual machine, so you will see a dialog box to choose the disk image you want to use for installing the guest OS.

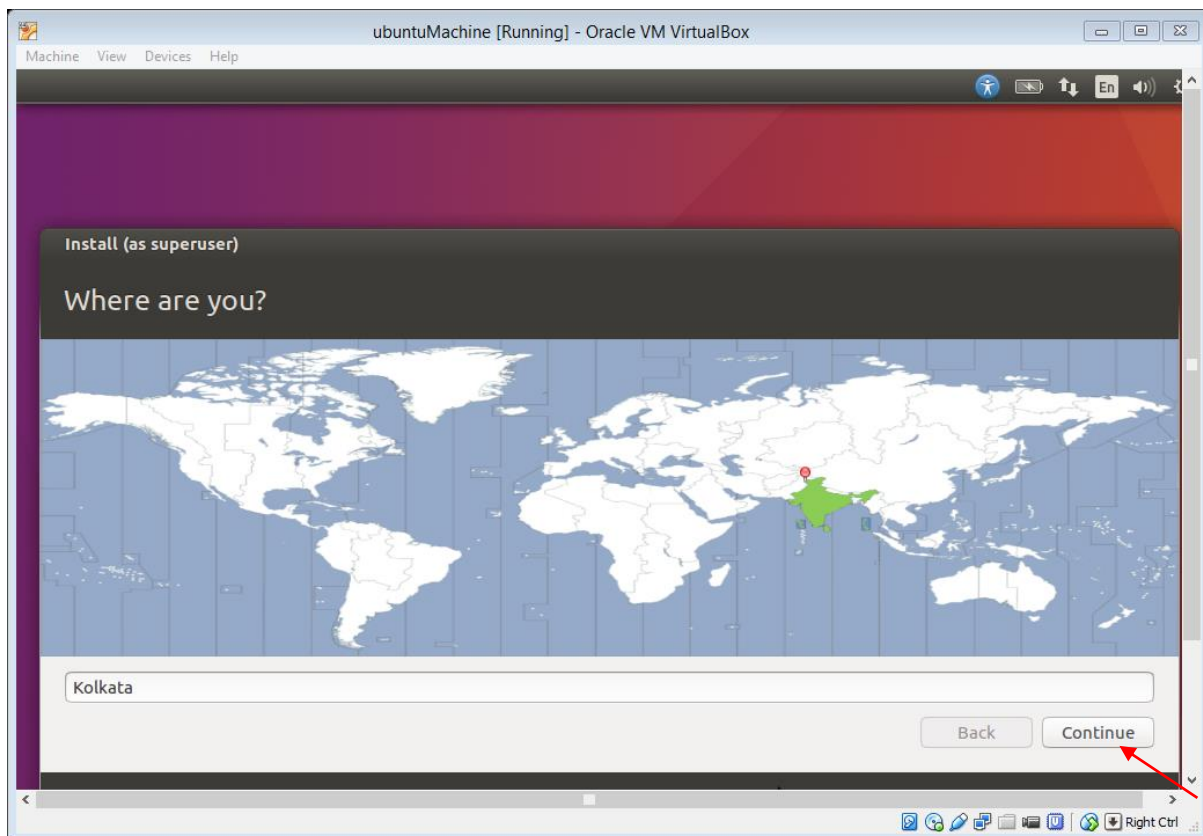


Select the Ubuntu image that you had downloaded and click Start. (If you want to install some other distribution of Linux, you can download its image and select it here.)

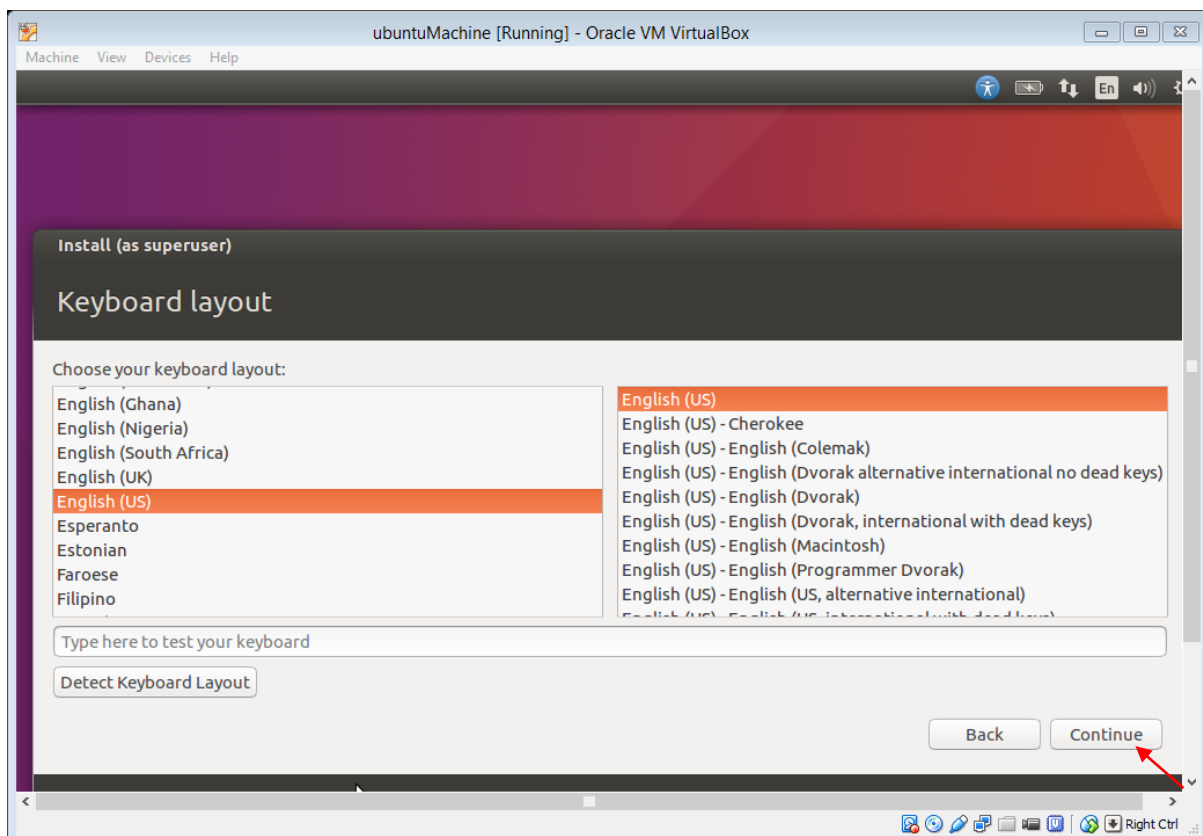


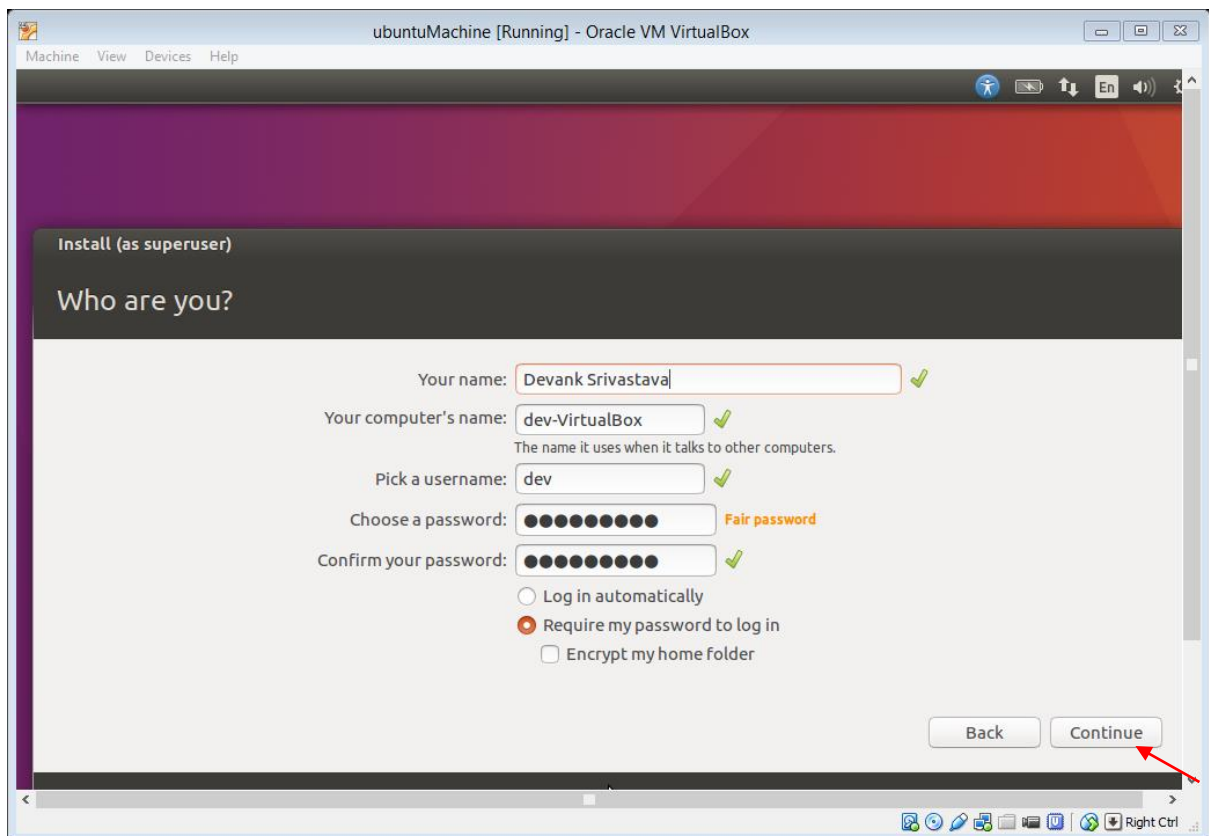
Click on Install Ubuntu.



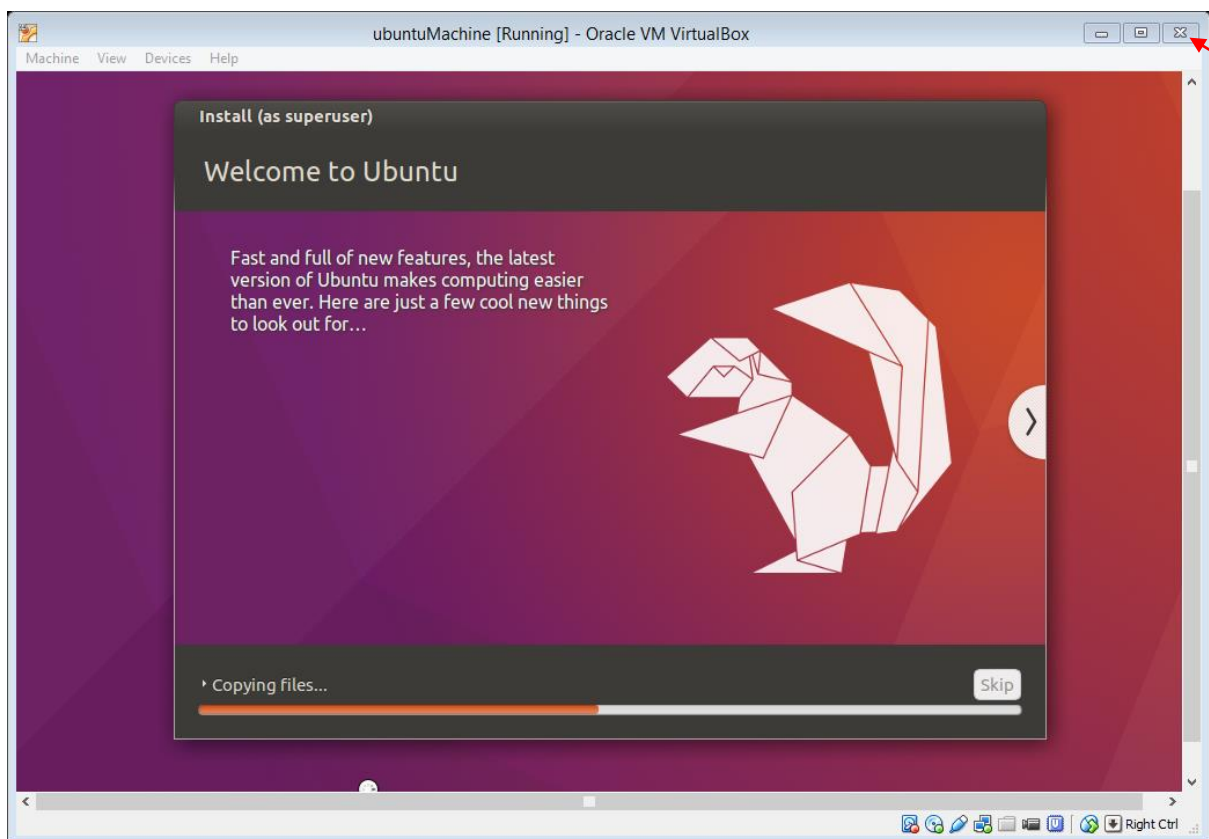


Select the time zone and press Continue.

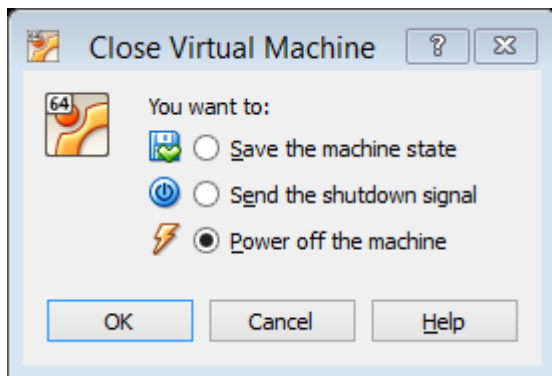




Enter the name, user name, and password and click Continue. Installation will start and will take several minutes.



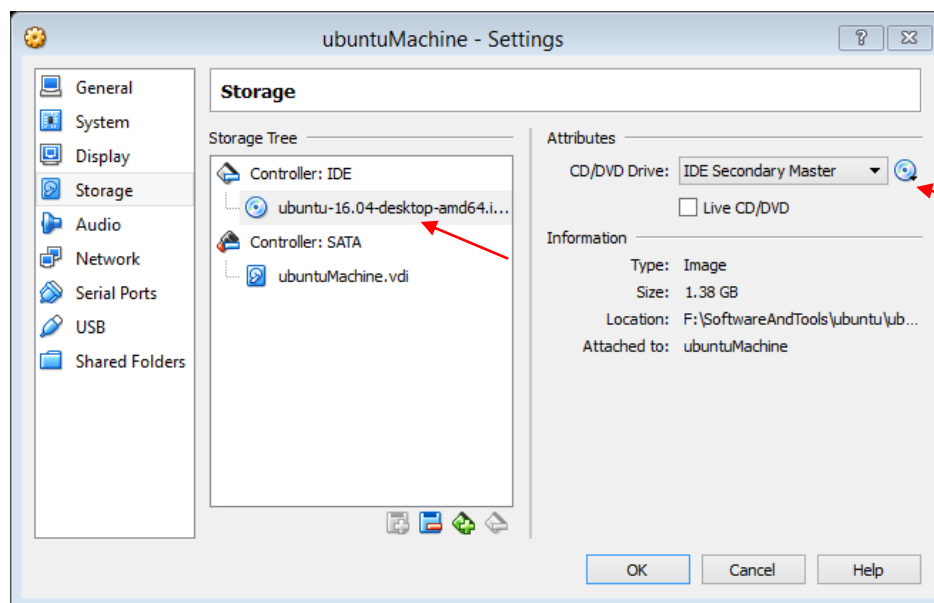
Close this window, power off the machine.

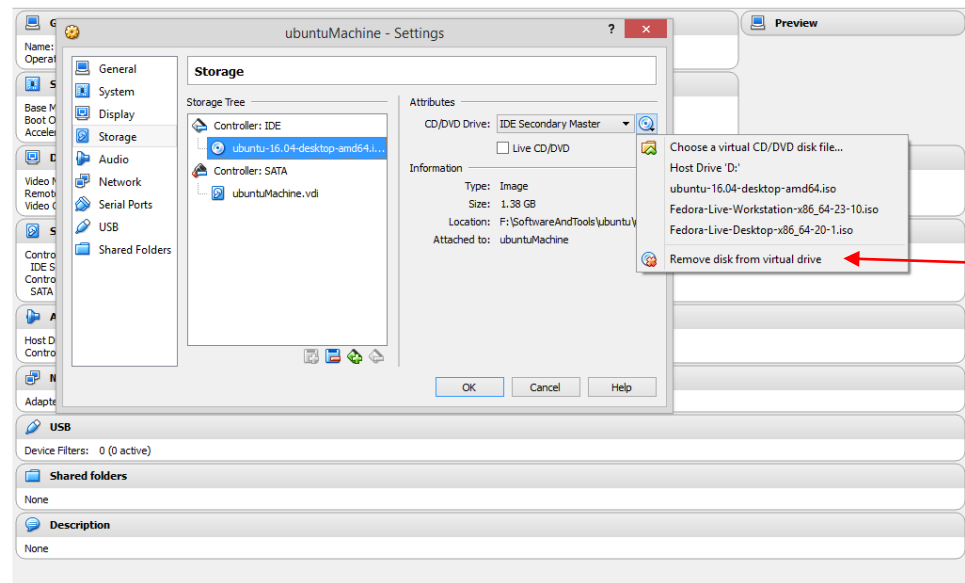


Now the machine is in powered off state. In the virtualBox, Click on the Settings button,

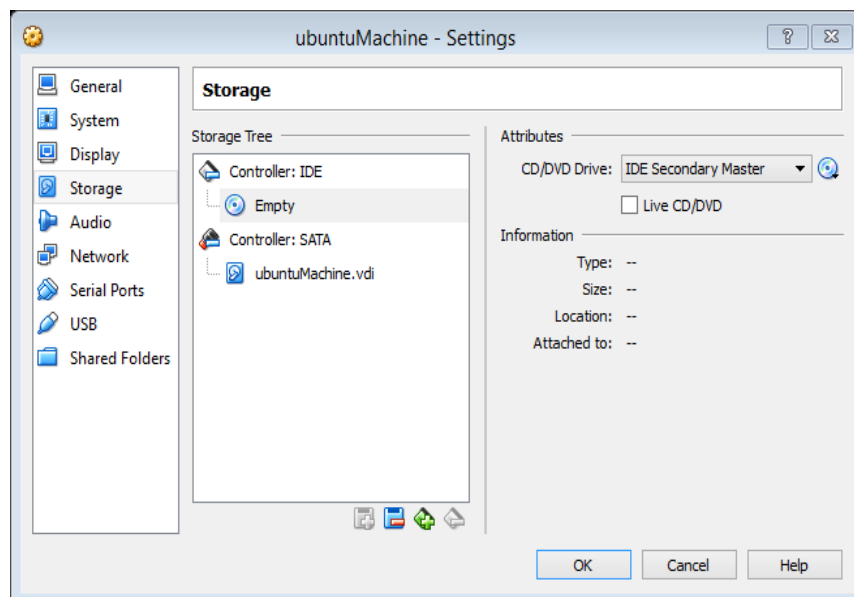


Select the Storage tab, highlight on the disc image in the panel named Storage Tree, then in the right panel click on the disc icon

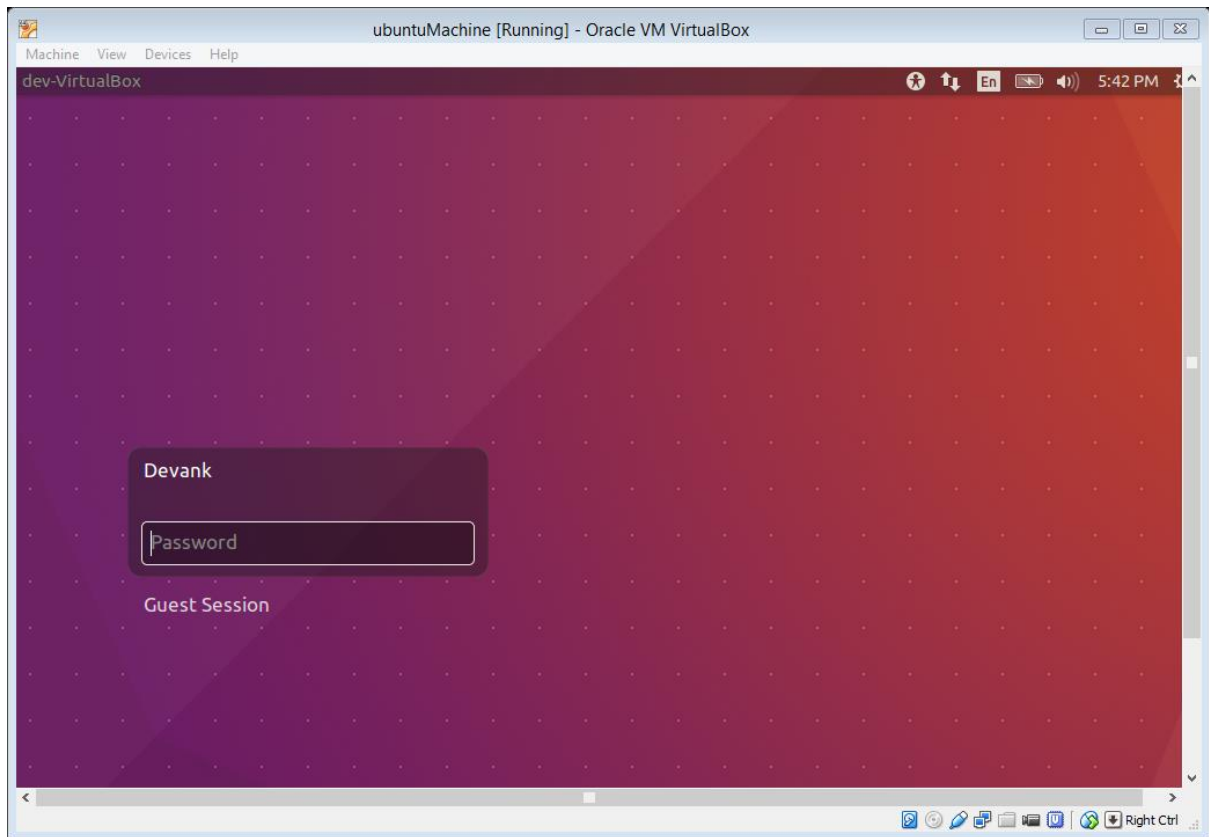




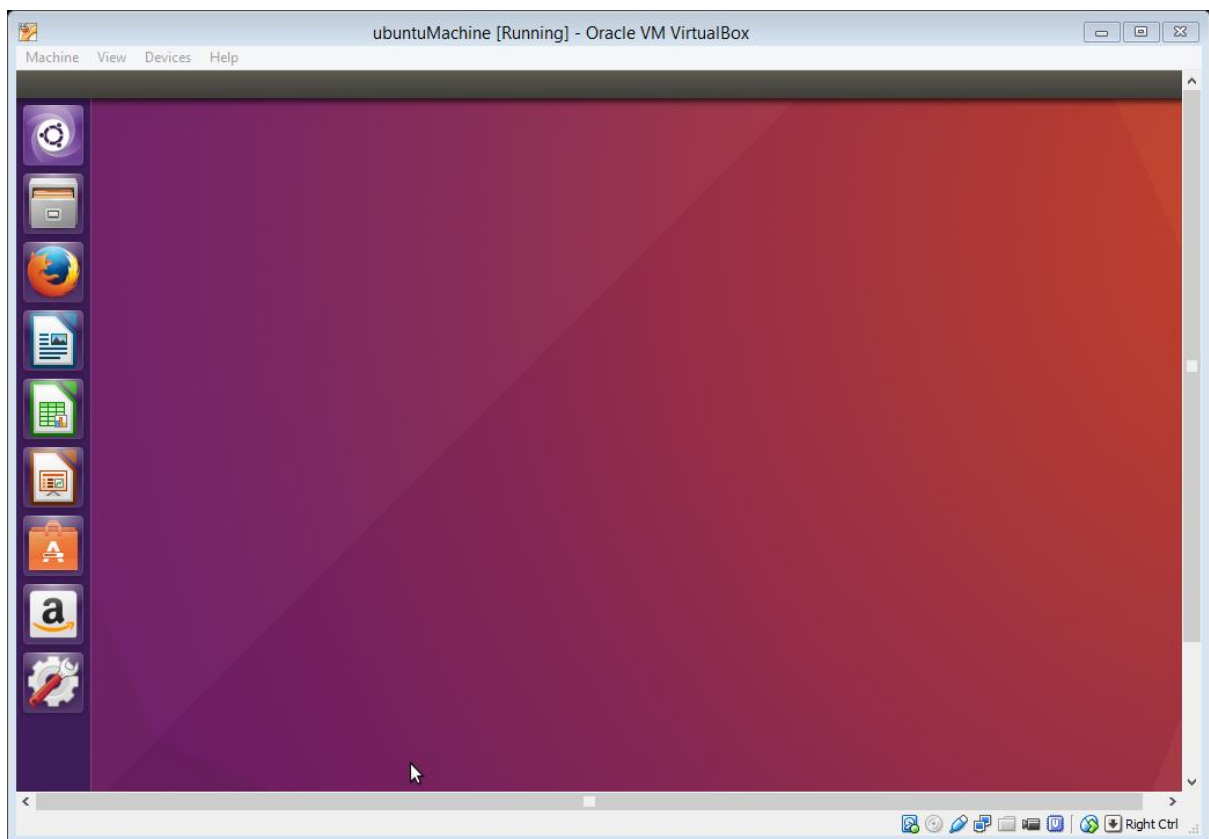
Click on Remove disk from virtual drive.



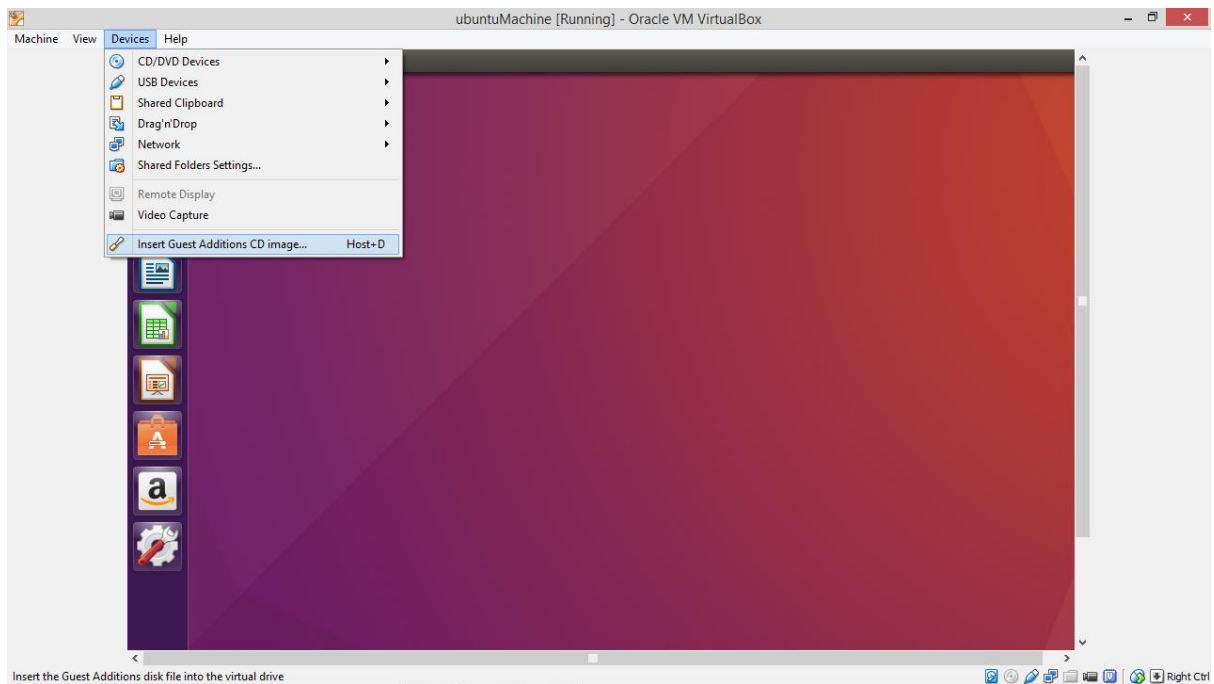
Start the machine. You will be asked to enter the password.



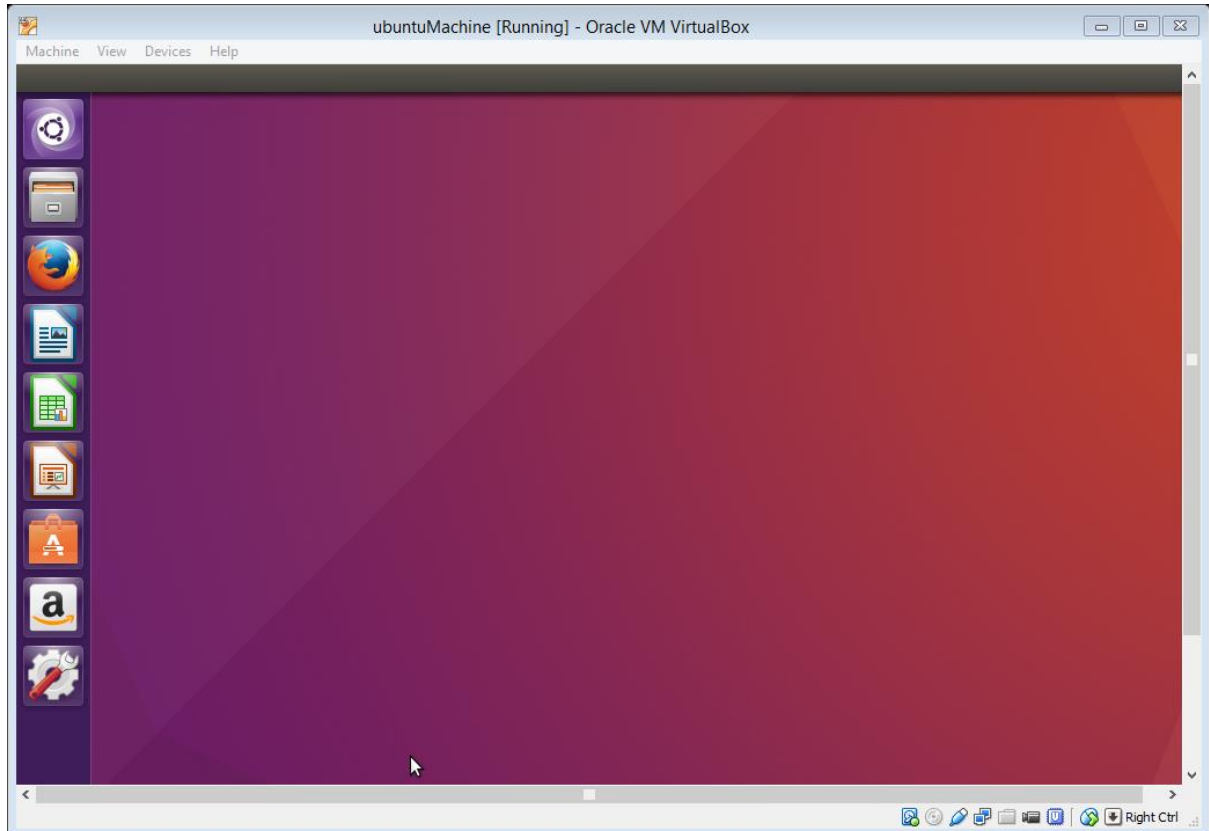
After entering the password, you will get this screen.




To install the guest additions, Select Devices -> Insert Guest Additions CD image.




After this, power off the machine and start again.




On the Ubuntu Desktop, you can see a list of applications on the left.

There is a search button on the top left , to search for an application you can click on it.


There is a file manager , similar to Windows Explorer


Firefox web browser ,

LibreOffice Writer  which is a word processing software similar to MS Word,

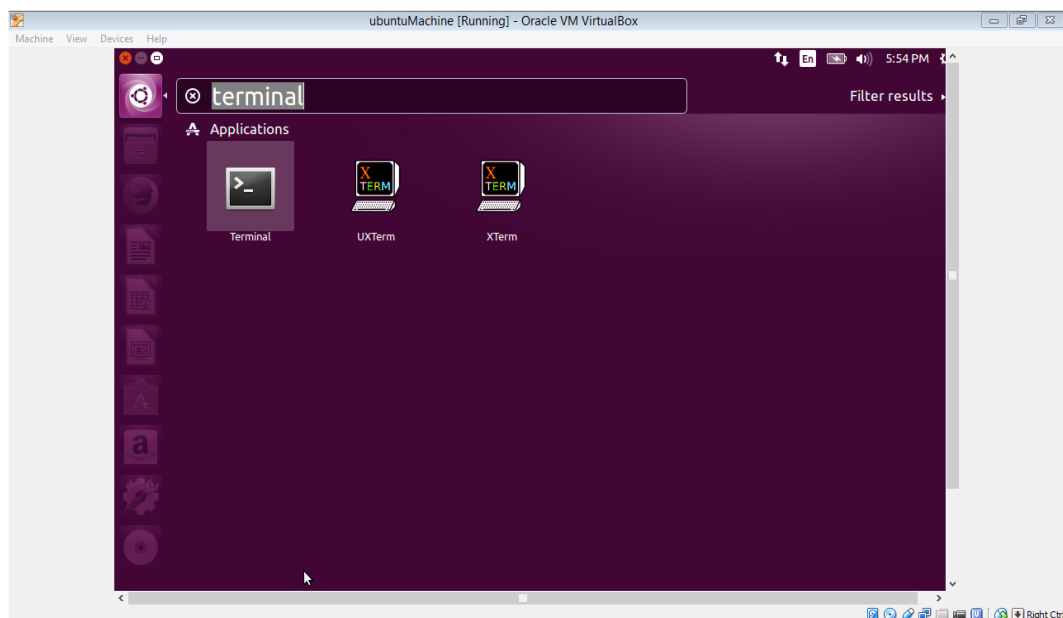
LibreOffice Calc  which is a spreadsheet software similar to MS Excel,

LibreOffice Impress  which is a presentation software similar to MS PowerPoint,

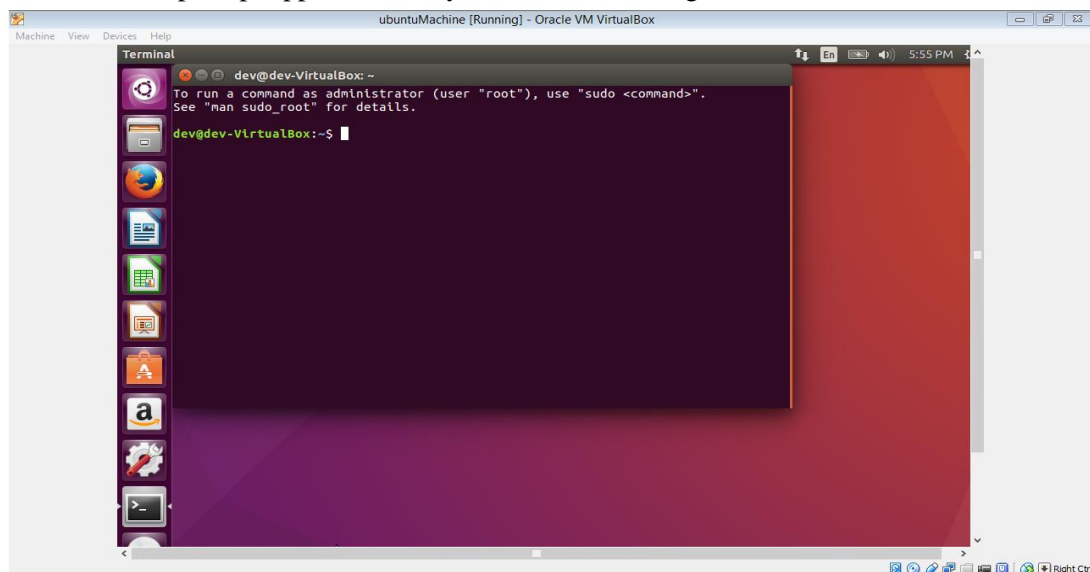
Ubuntu software  to install and update Ubuntu applications,

Settings  to change various system settings, similar to Control Panel in Windows

To access the Command Line interface, you need to open a terminal console. Click on the search icon on the top in the left column, type terminal and then open the terminal by clicking on the search result.



The command prompt appears where you can start entering commands.



To exit the terminal application, type exit.

To shutdown, click on the gear icon on the right hand corner and select Shutdown.