Linux

1. Download and Installing Oracle Virtual Box

- Go to the link https://www.virtualbox.org/
- Click download Virtual Box 6.1 and then select either VirtualBox 6.0 builds or VirtualBox 5.2 builds.

- Then click Windows hosts.

VirtualBox

Download VirtualBox (Old Builds): VirtualBox 6.0

The Extension Packs in this section are released under the VirtualBox Personal Use and Evaluation License. All other binaries are released u you agree to the terms and conditions of the respective license.
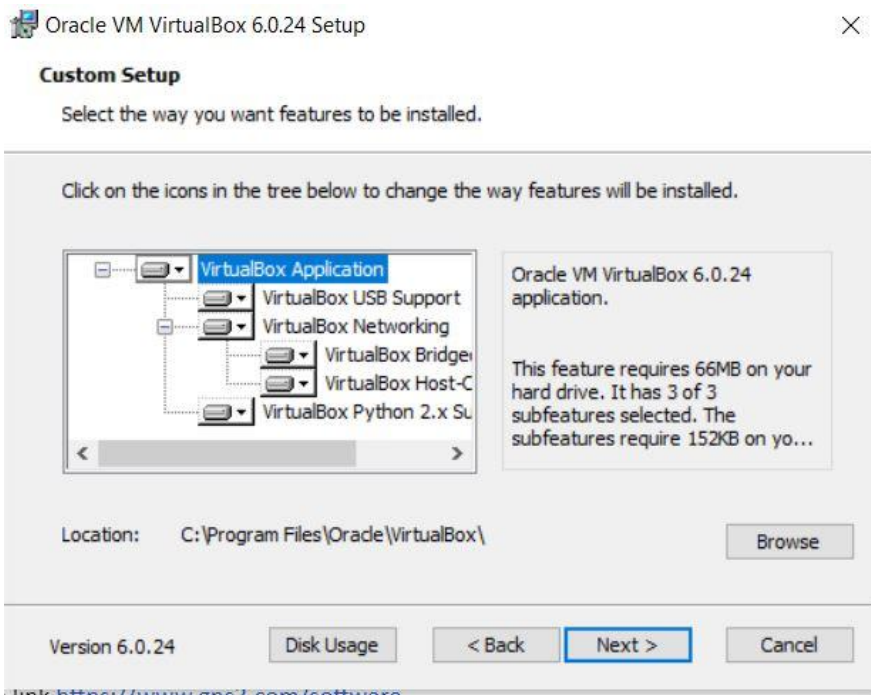
VirtualBox 6.0.x is no longer supported!

- 6.0 SDK (6.0.24)

- **VirtualBox 6.0.24** *(released July 14 2020)*
    - Windows hosts
    - OS X hosts
    - Solaris hosts
    - Linux Hosts:
        - Oracle Linux 8 / Red Hat Enterprise Linux 8 / CentOS 8
        - Oracle Linux 7 / Red Hat Enterprise Linux 7 / CentOS 7
        - Oracle Linux 6 / Red Hat Enterprise Linux 6 / CentOS 6
        - Ubuntu 19.10 / 20.04
        - Ubuntu 18.04 / 18.10 / 19.04
        - Ubuntu 16.04
        - Ubuntu 14.04 / 14.10 / 15.04
        - Debian 10
        - Debian 9
        - Debian 8
        - openSUSE 15.0
        - openSUSE 13.2 / Leap 42
        - Fedora 31
        - Fedora 29 / 30
        - Fedora 26 / 27 / 28
        - All distributions
    - Extension Pack
    - Sources
    - MD5 checksums, SHA256 checksums

- **VirtualBox 6.0.22** *(released May 15 2020)*
    - Windows hosts
    - OS X hosts

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  Technical docs
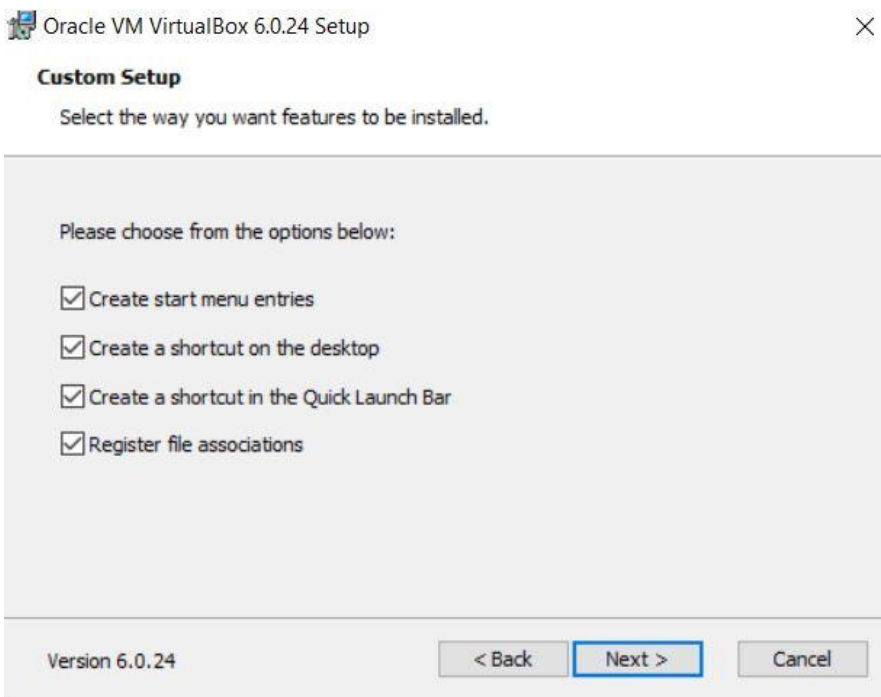Contribute
Community

- Install the downloaded software by giving default settings in installing wizard.
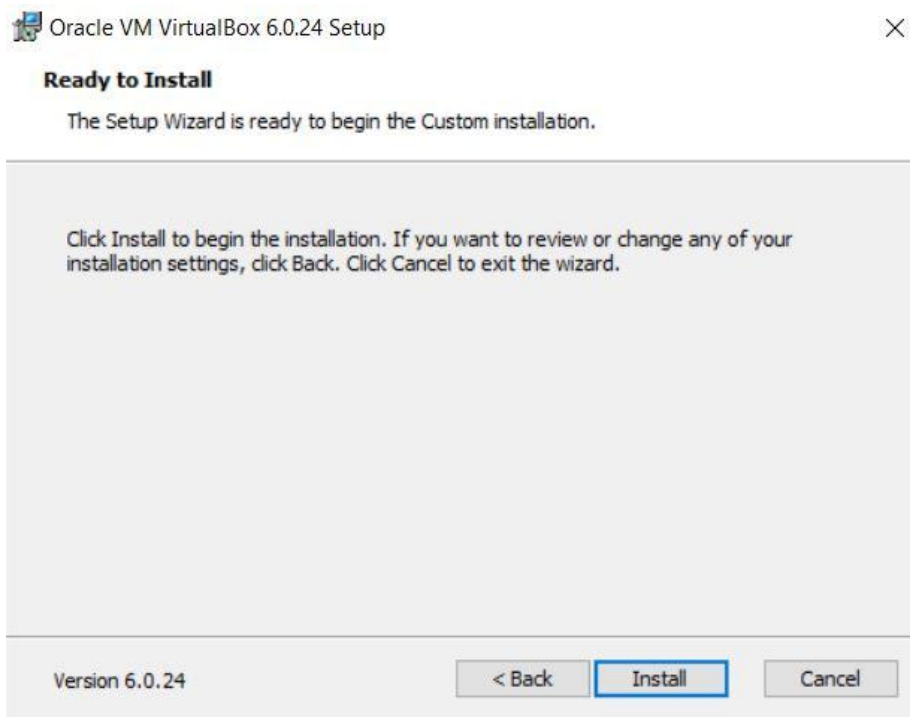   - Click next.

- Click next.

2

○ Click next.

○ Give Yes
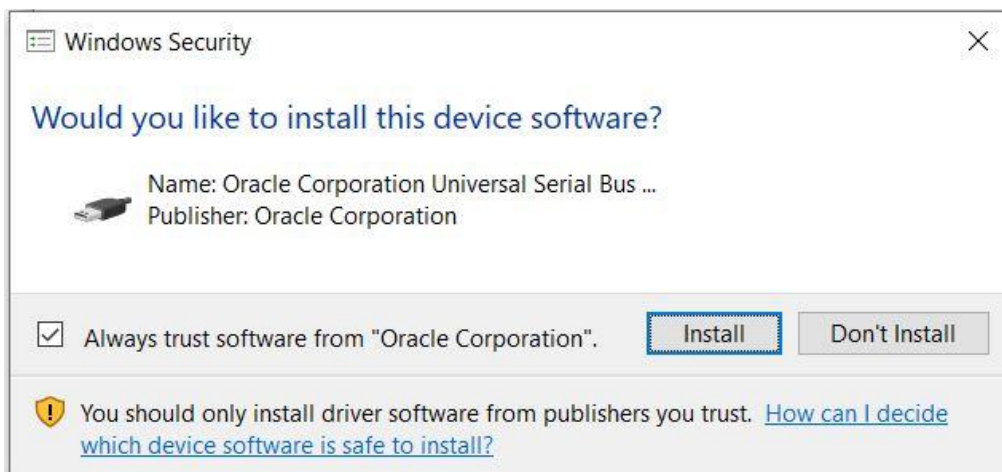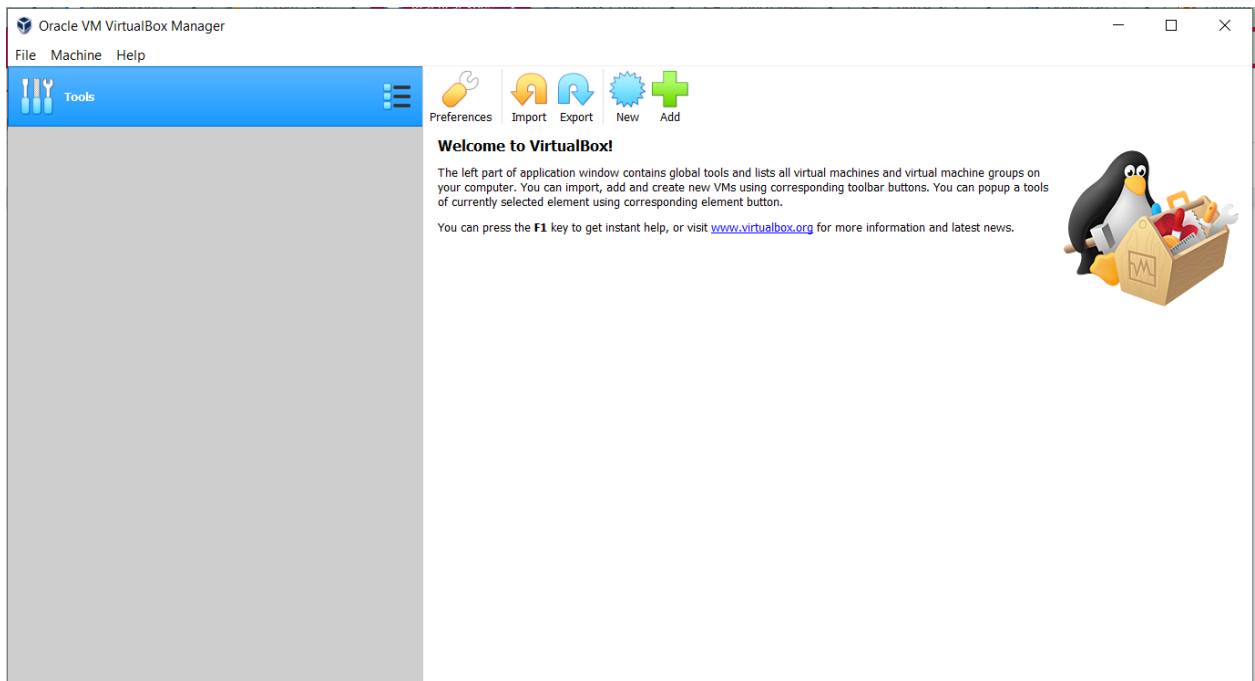
- o Click Install

- o Click Install

Windows Security ×

Would you like to install this device software?

Name: Oracle Corporation Universal Serial Bus ...
Publisher: Oracle Corporation

☑ Always trust software from "Oracle Corporation".   Install   Don't Install

⚠ You should only install driver software from publishers you trust. How can I decide which device software is safe to install?

○ Click Finish to complete the installation

Oracle VM VirtualBox 6.0.24 Setup ×

Oracle VM VirtualBox 6.0.24 installation is complete.

Click the Finish button to exit the Setup Wizard.

☑ Start Oracle VM VirtualBox 6.0.24 after installation

Version 6.0.24   < Back   Finish   Cancel

2. Downloading the Ubuntu ISO file (16.04)

- Go to the link https://releases.ubuntu.com/16.04/
- Here, click and download the **64-bit PC (AMD64) desktop image**

3. Open Ubuntu in VirtualBox

Open Oracle VirtualBox VM Manager.

Click **New** button.
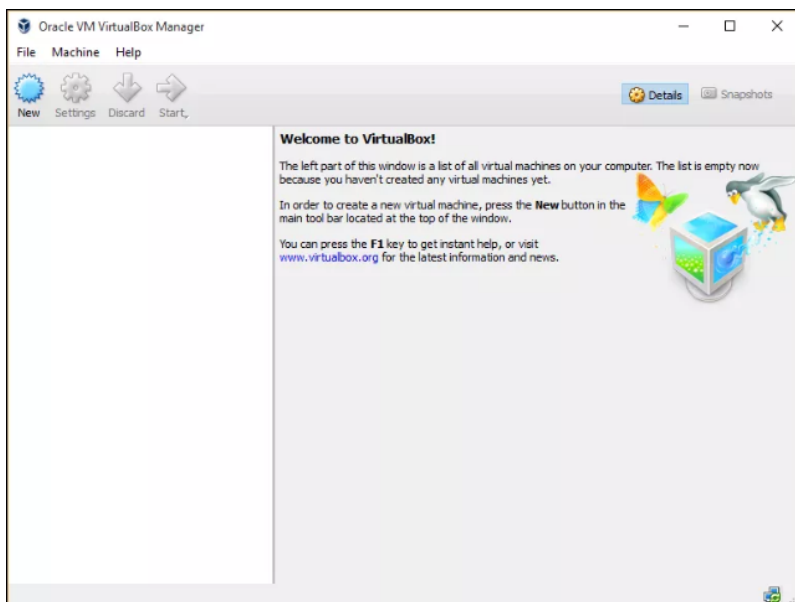
Choose the type of virtual machine.

Give your machine a name.

Select **Linux** as the type and **Ubuntu** as the version.

Click **Next**.

How much memory do you give your virtual machine

You have to choose how much of your Computer's memory you will assign to the virtual machine. You cannot allocate all of your Computer's memory to the VM as you need to leave enough for Windows to continue running.
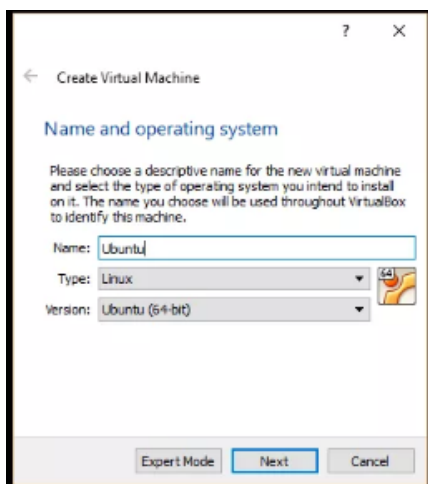
The minimum you should consider assigning to Ubuntu is 2GB. The more you can give the better But don't go overboard.

Slide the slider to the amount you want to assign and click **Next.**
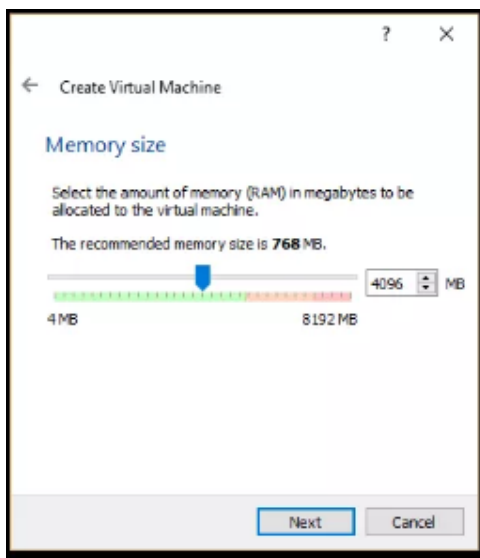
Create a virtual hard drive

Select the **Create a Virtual hard drive disk now** option and click **Create.**

There are a number of different hard drive types that you can choose from. Choose **VDI** and Click **Next.**
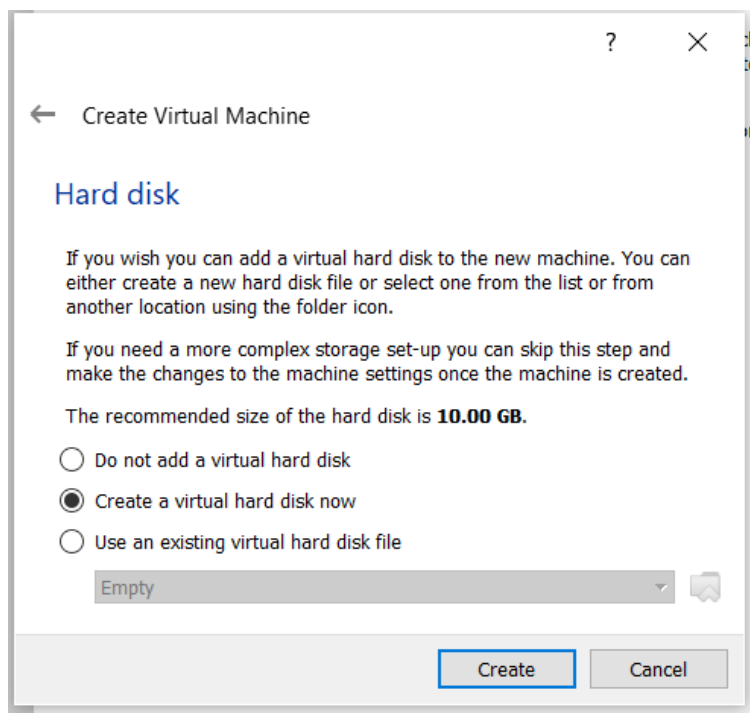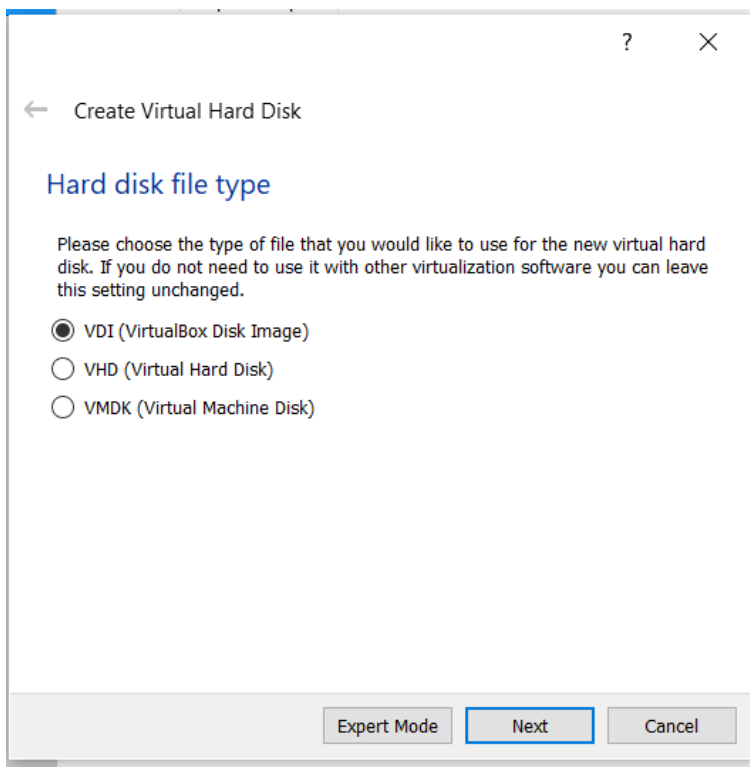
There are 2 ways to create the Virtual hard drive: Dynamically allocated; fixed size.

If you choose dynamically allocated it will only use space as it is required. So if you set 20 gigabytes aside for the virtual hard drive and only 6 is required then only 6 will be used. As you install more applications the extra space will be allocated as necessary.

This is more efficient in terms of disk space usage but isn't so good for performance because you have to wait for the space to be allocated before you can use it.

The fixed size option allocates all the space you request straight away. This is less efficient in terms of disk space usage because you may have set aside space you never actually use but it is better for performance. This is the better option as your computer generally has more disk space than memory and CPU power.

Choose the option you prefer and click **Next**.
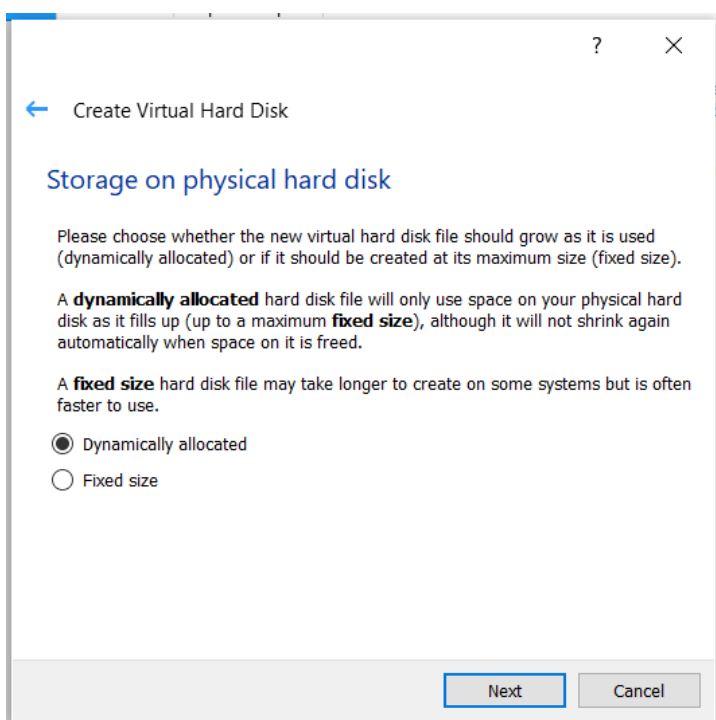
Set the Size of your Virtual Hard Drive

Finally, you are at the stage of setting how much space you wish to give to Ubuntu. The minimum is about 10 gigabytes but the more you can spare the better. You don't have to go overboard though. If you are just installing Ubuntu in a virtual machine to test it out go for a smaller amount.

When you are ready click Create to **continue**.
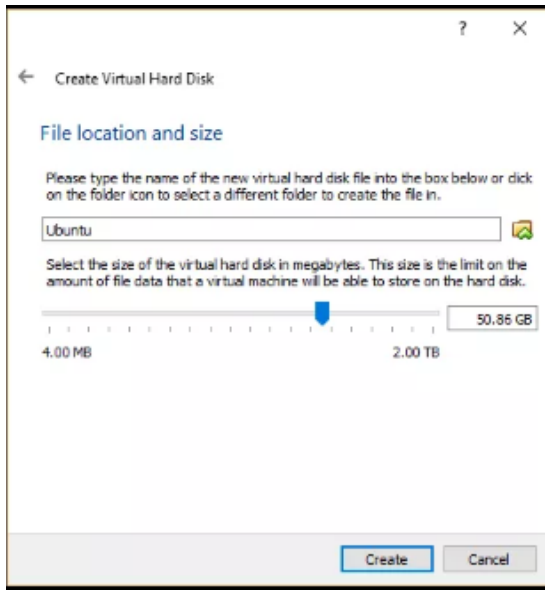
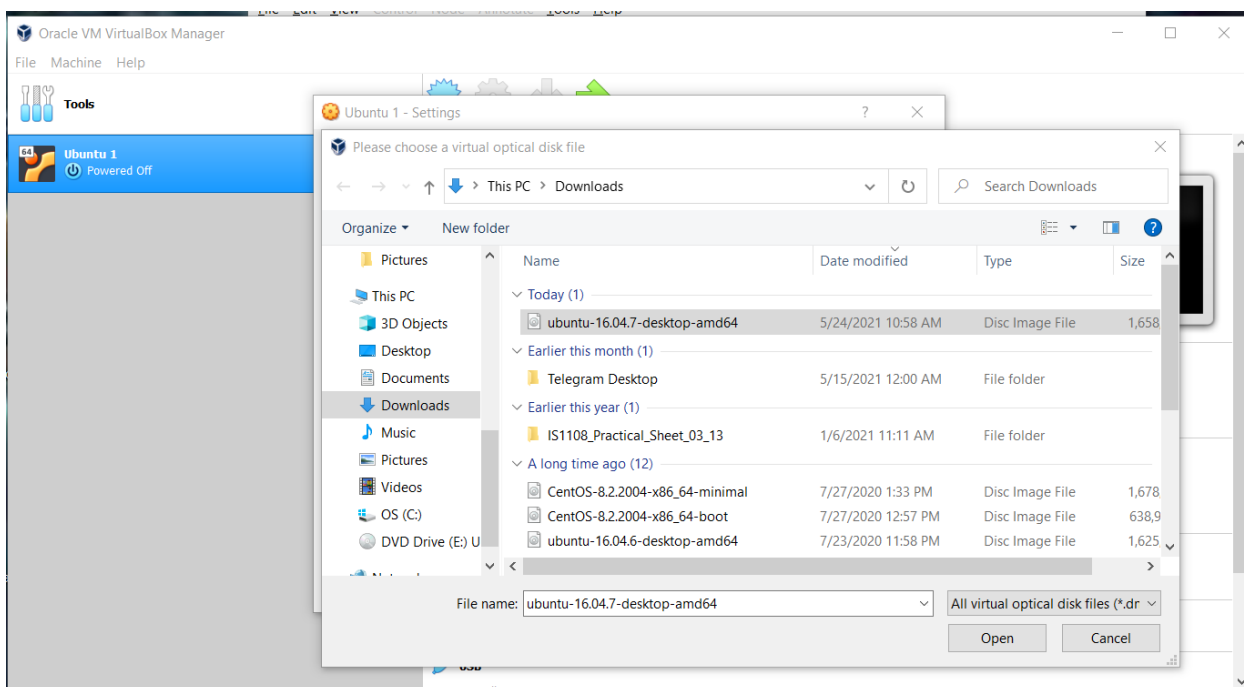**Install Ubuntu on your Virtual Machine**

The virtual machine has now been created but it is like a computer that doesn't have an operating system installed yet.

The first thing to do is to boot into Ubuntu. For that first select the created virtual machine and then click settings . In the settings go to the storage and there you can see the controller IDE is indicated as empty. Click empty.
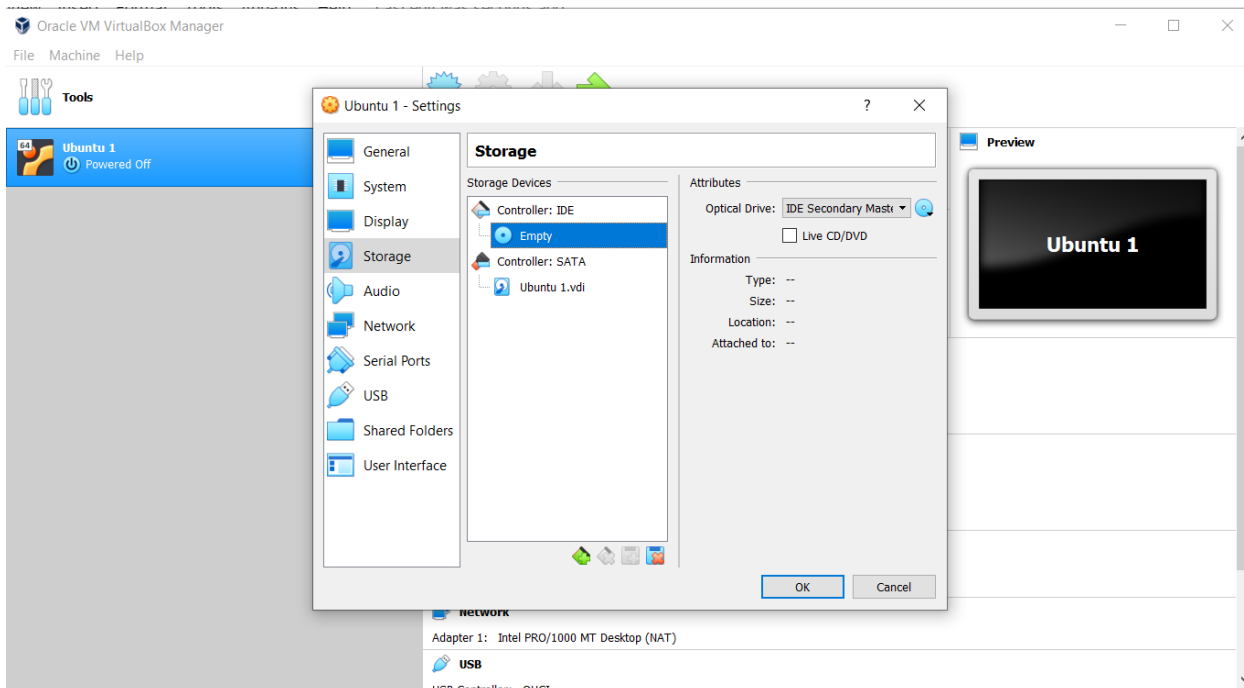
Then click the disk icon which is situated under the attributes and in front of optical drive lable and then select the option choose virtual optical disk file. Then select the image file you need to install and click open.

Now you can see that the image file has been uploaded under controller IDE. Now click ok.
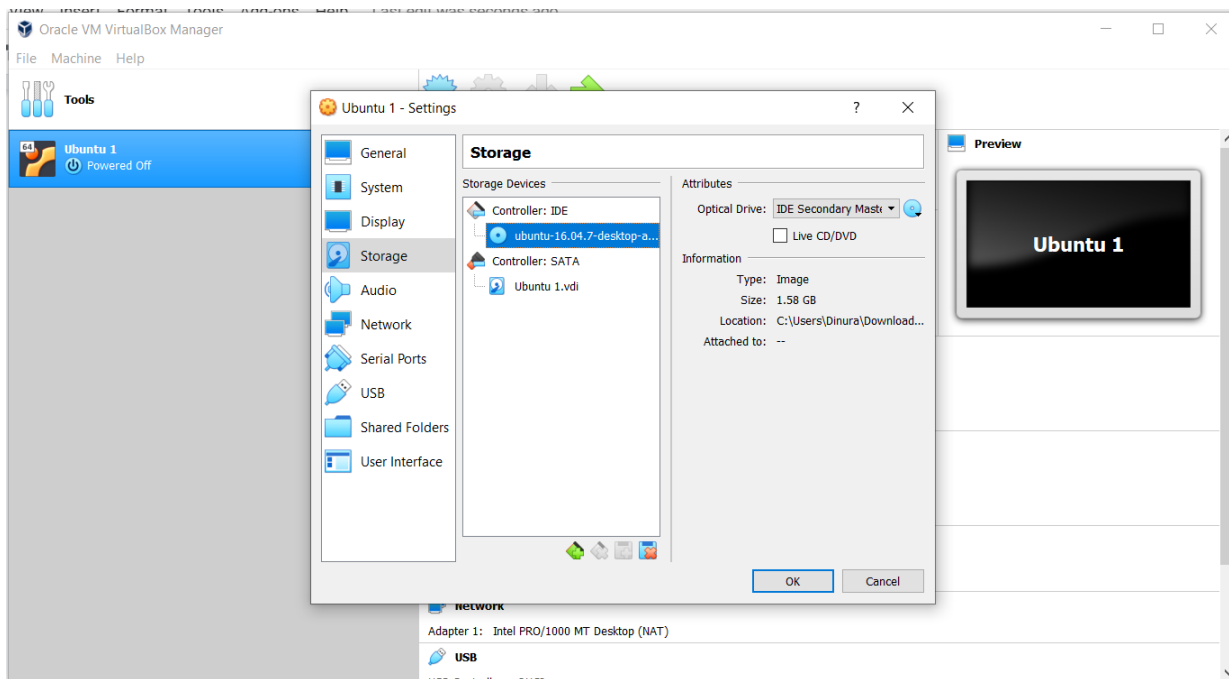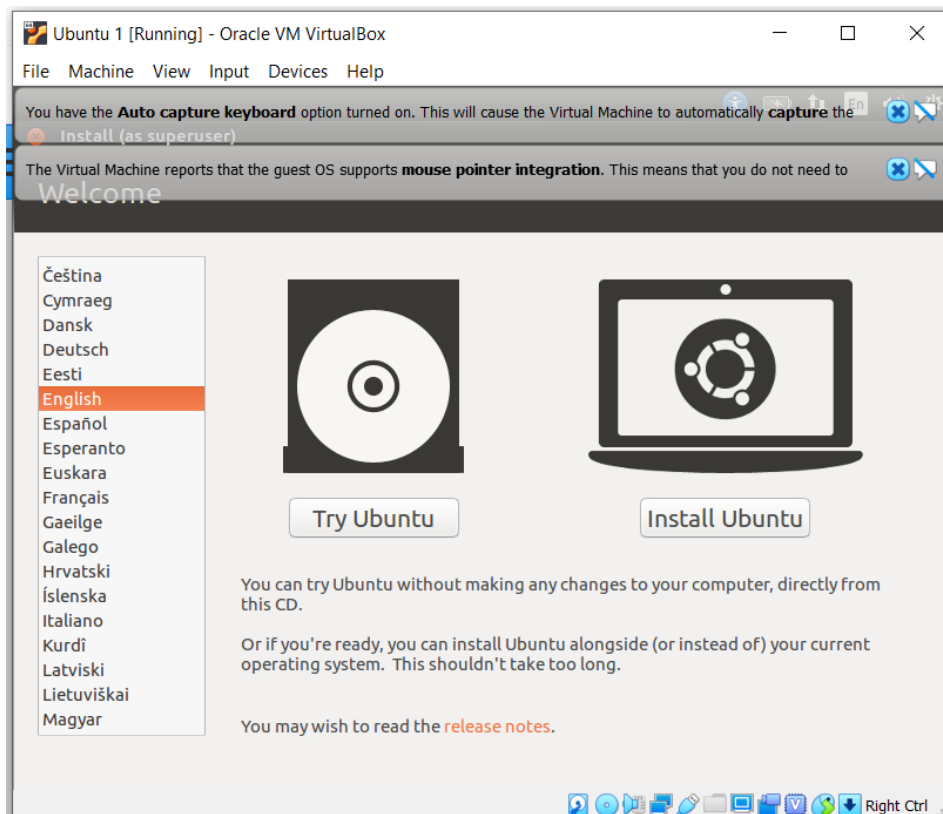
Now select the virtual machine you have created and click start.

Start the Ubuntu Installer

Click on the **Start** button.

Ubuntu should load into the little window and you will have the option to try Ubuntu or install Ubuntu.

Click on the **Install Ubuntu** option.

Check your virtual Machine meets the prerequisites

A list of prerequisites will be displayed. Basically, you need to make sure your machine has enough power (i.e. plug it in if you are using a laptop), has over 6.6 gigabytes of disk space and is connected to the internet.

You also have the option of downloading updates whilst installing and to install third party software.
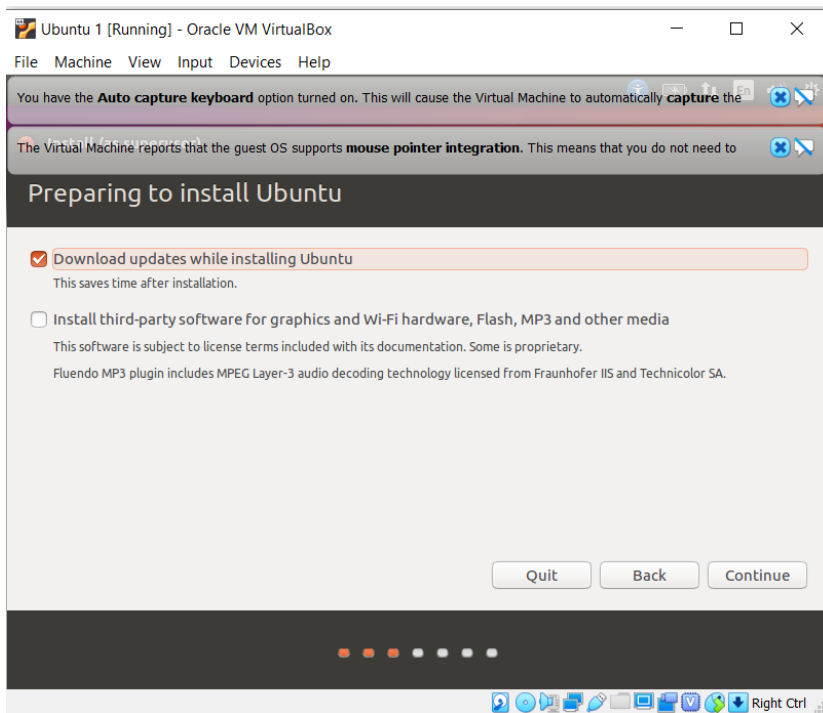
If you have a good internet connection check the download updates option otherwise untick it and leave the updates to install at a later point post installation.

Check the install third party software option as it will allow you to play MP3 audio and watch Flash videos.
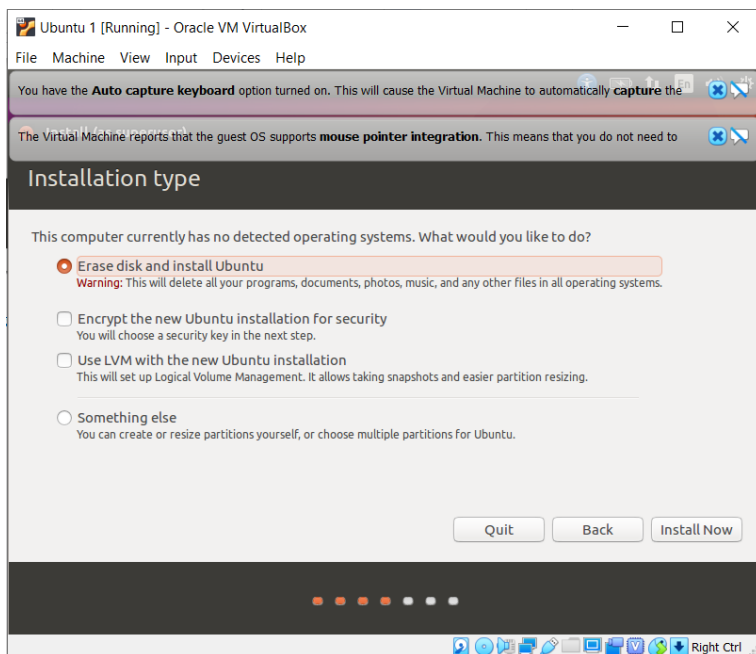
Click **Continue**.

Choose the installation type

The next step lets you decide how to install Ubuntu. As you are using a virtual machine select the **Erase disk and install Ubuntu** option.

Do not worry. This will not erase your physical hard drive. It will just install Ubuntu in the virtual hard drive created earlier on.
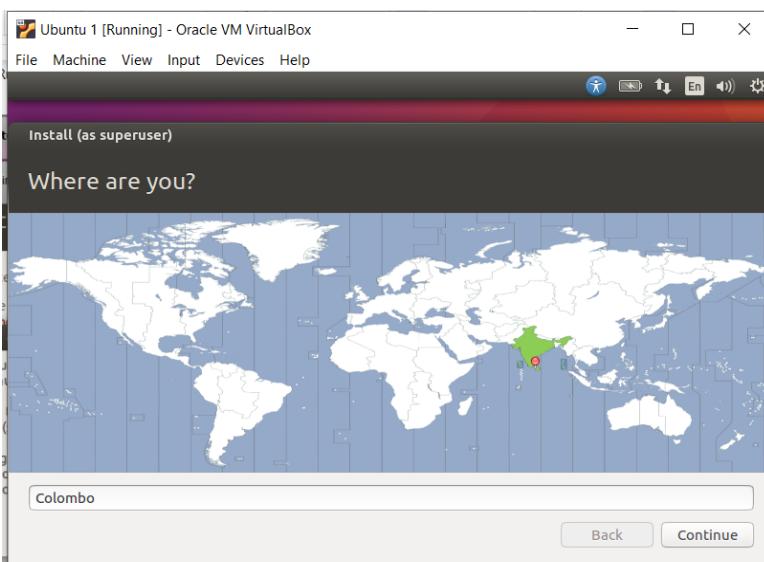
Click **Install Now**.

A message will appear showing you the changes that will be made to your disk. Again this is only your virtual hard drive and so it is safe to click **Continue**.
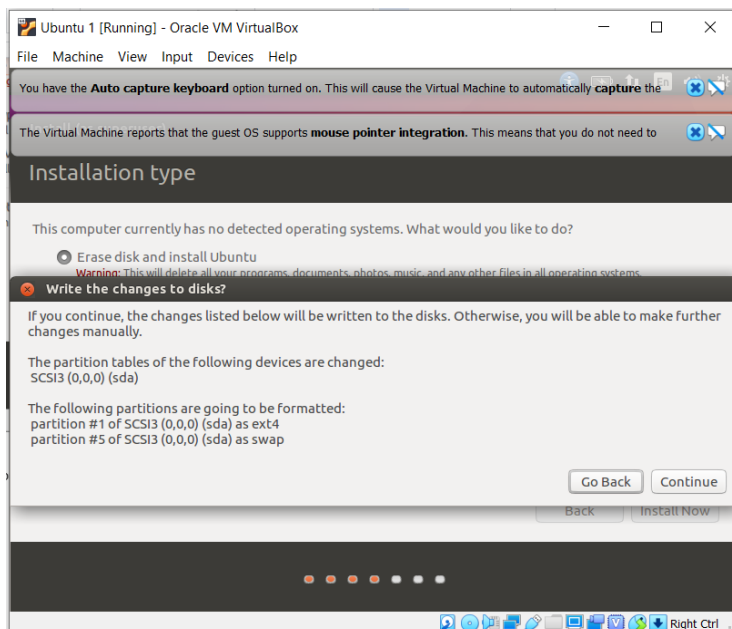
Choose your location

You will now be required to choose where you live. You can either select the place on the map or type it into the box available.

Click **Continue**.

Choose your keyboard layout

The penultimate step is to choose your keyboard layout.

You may find that the correct layout has already been chosen but it isn't, try clicking on the **Detect Keyboard Layout** option.

If that doesn't work, click on the language for your keyboard in the left panel and then choose the physical layout in the right pane.

Click **Continue**.
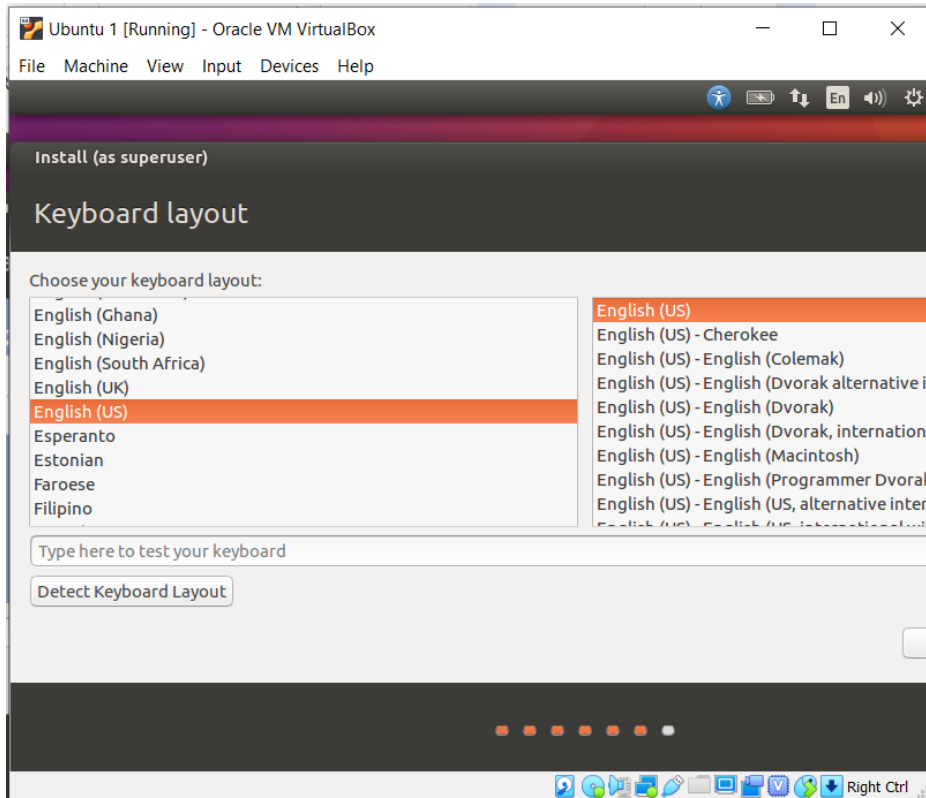
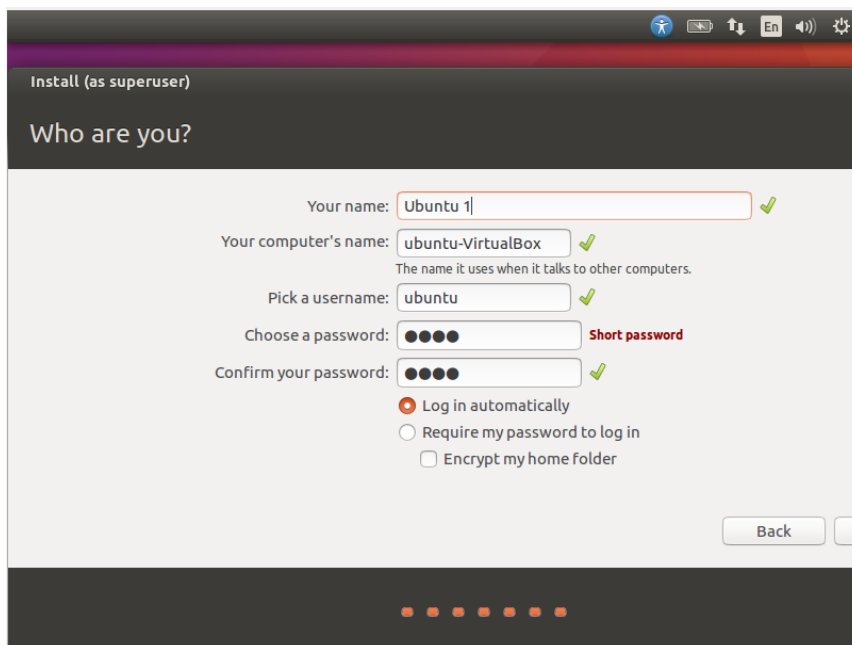**Create a user**

The final step is to create a user.

Enter your name into the box provided and give your virtual machine a name.

Now choose a username and enter a password to associate with that user. (repeat the password as required).

The other options are to log in automatically or require a password to log in. You can also choose to encrypt your home folder.

As it is a virtual machine you may as well go for the **Log in automatically** option but we recommend always selecting the **Require my password to log in**.

Click **Continue**.

Ubuntu will now be installed.
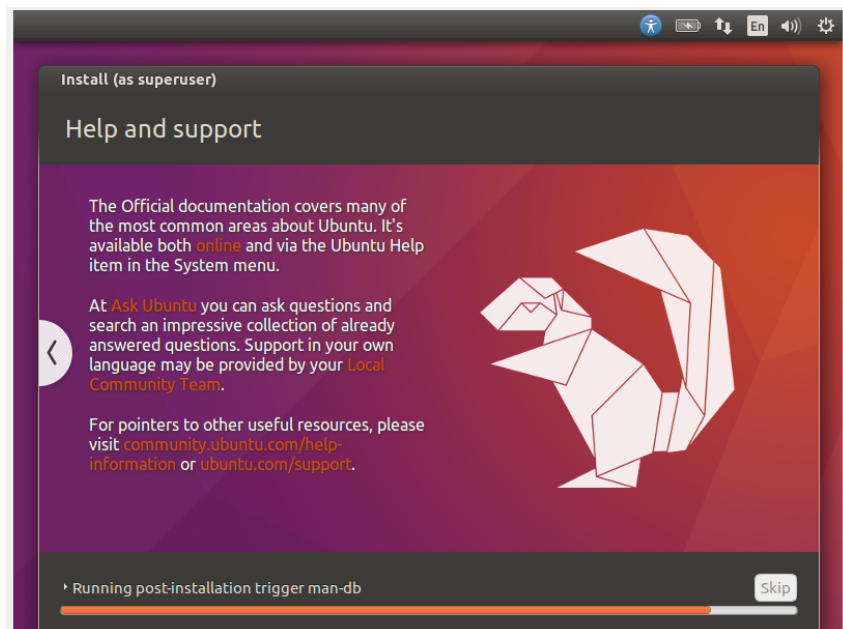
After installation click restart now .
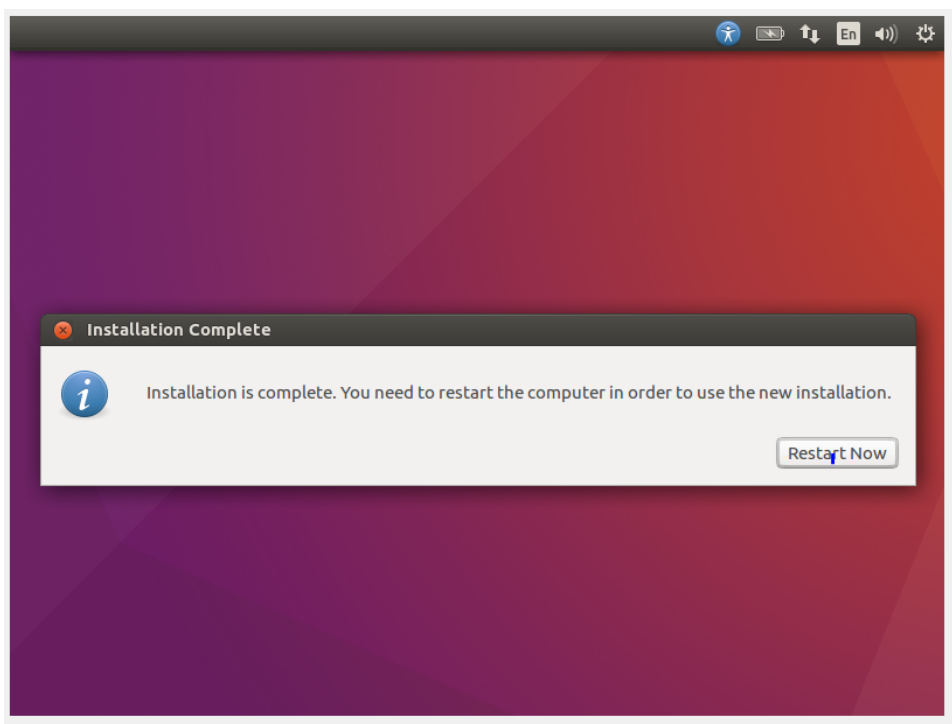
While restarting or after that you have to remove the installation medium from where we set the installation medium. (storage> controller IDE).

Now a virtual machine is successfully created in the virtual box

When the installation has finished click the File menu and choose close. You have the option to save the machine state, send the shutdown signal or power off the machine. Choose power off the machine and click **OK**.
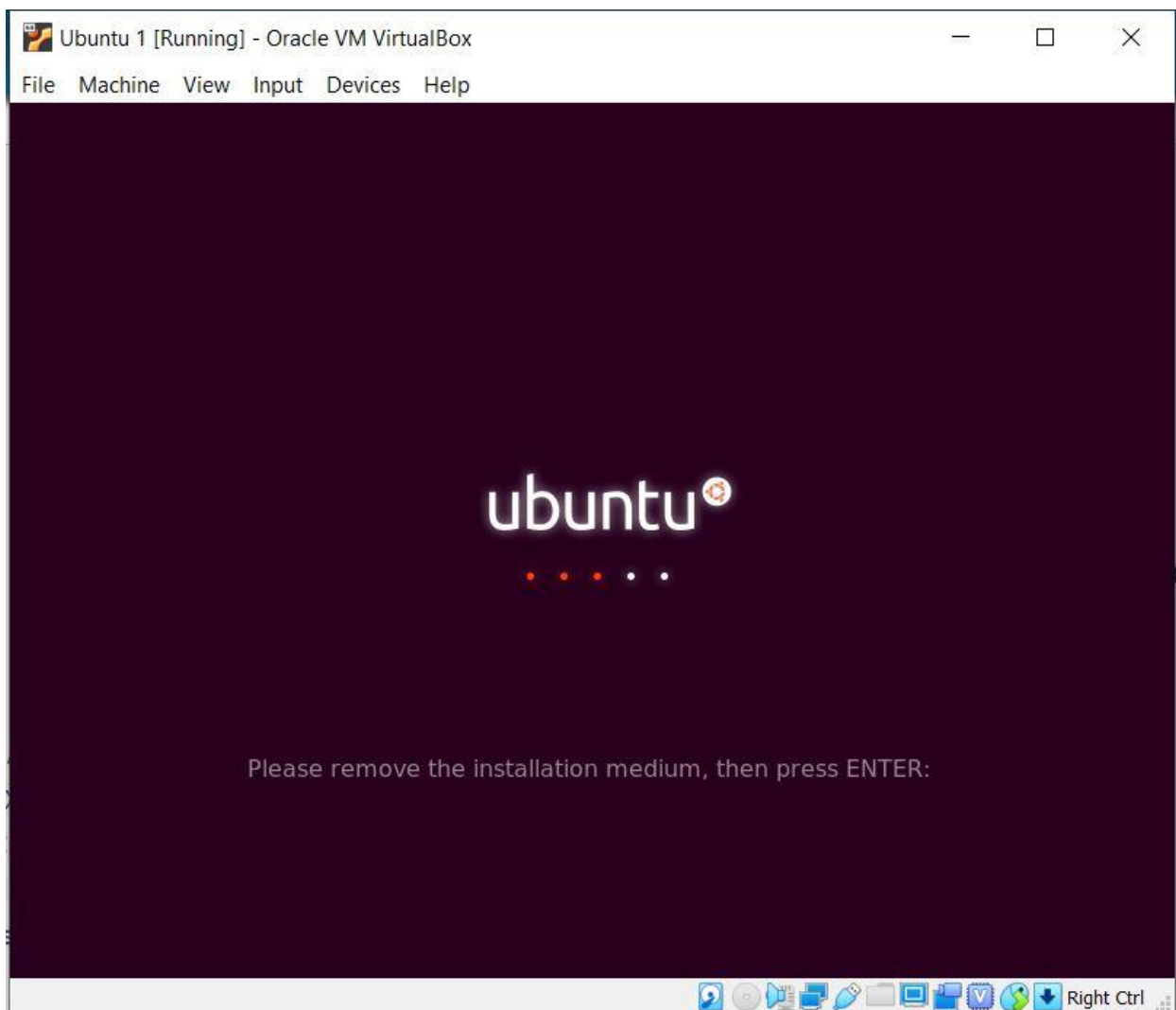
4. Installing Software

In the control panel, the Software Center appears on the left-hand side of the screen. In the following screenshot, it is encircled in a red box. Double-click to open it.Once open, it shows the following options –

- View all the available software.
- All software currently installed on the machine.
- Any updates available for the software currently installed on the machine.

We can also browse through various software categories. For example, let's click the Audio category. We can see a list of available software for installation. As seen in the following screenshot, the application 'Rhythmbox' has already been installed.

Now let us choose an application, say the Music application and see how it installs. Once we click the Music application, the following screenshot pops up. Click the Install button to begin the installation. We will then see the Installing progress bar to show that the Music application is being installed.

Once the installation is complete, click the Launch button to launch the software.
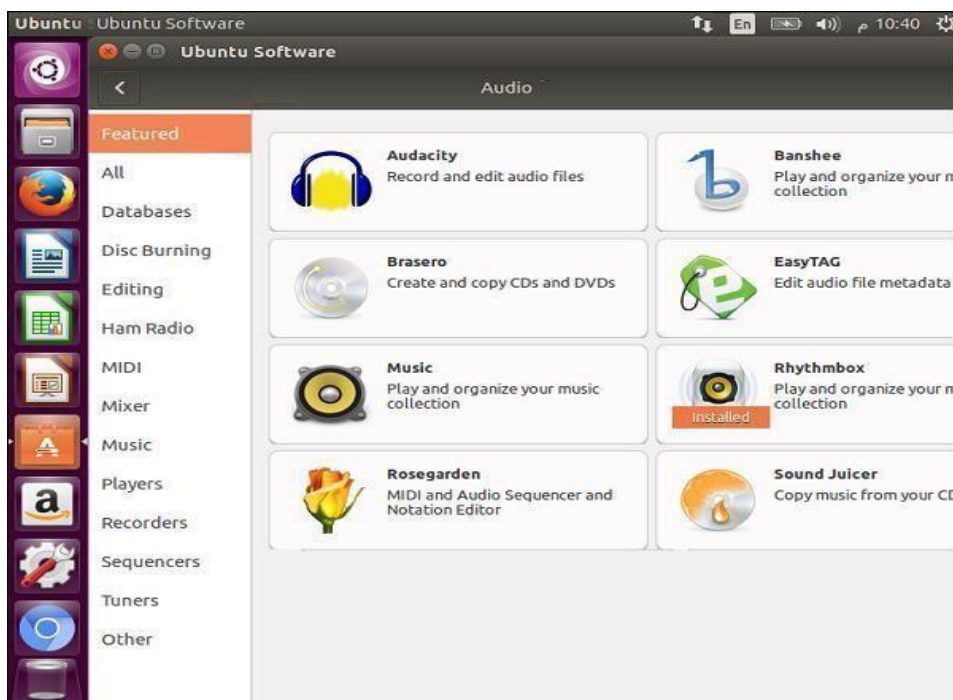
Note that you can also use the terminal application to directly download and install applications, libraries, updates. To open the terminal application, simply press the windows key (super key) on your keyboard and type terminal
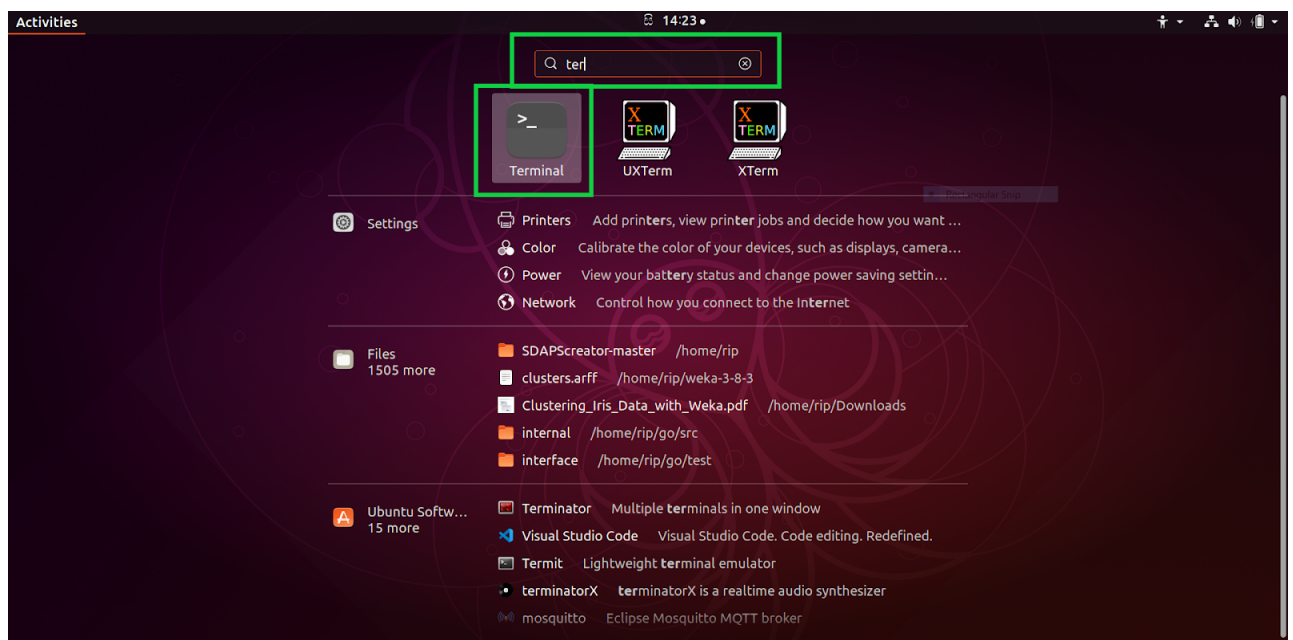
For an example, let's say we want to install the VLC player to our machine, then the following command lines can be used.

```
sudo apt-get install vlc
```

5. <u>Try to use Free office suit and other substitutes for windows</u>

Windows OS Application	Linux OS Application
Microsoft Words	LibreOffice Writer
Microsoft PowerPoint	LibreOffice Impress
Microsoft Excel	LibreOffice Calc
Microsoft Access	LibreOffice Base
Adobe Photoshop	GIMP
Adobe Illustrator	Inkscape
Adobe Premier	Open Shot