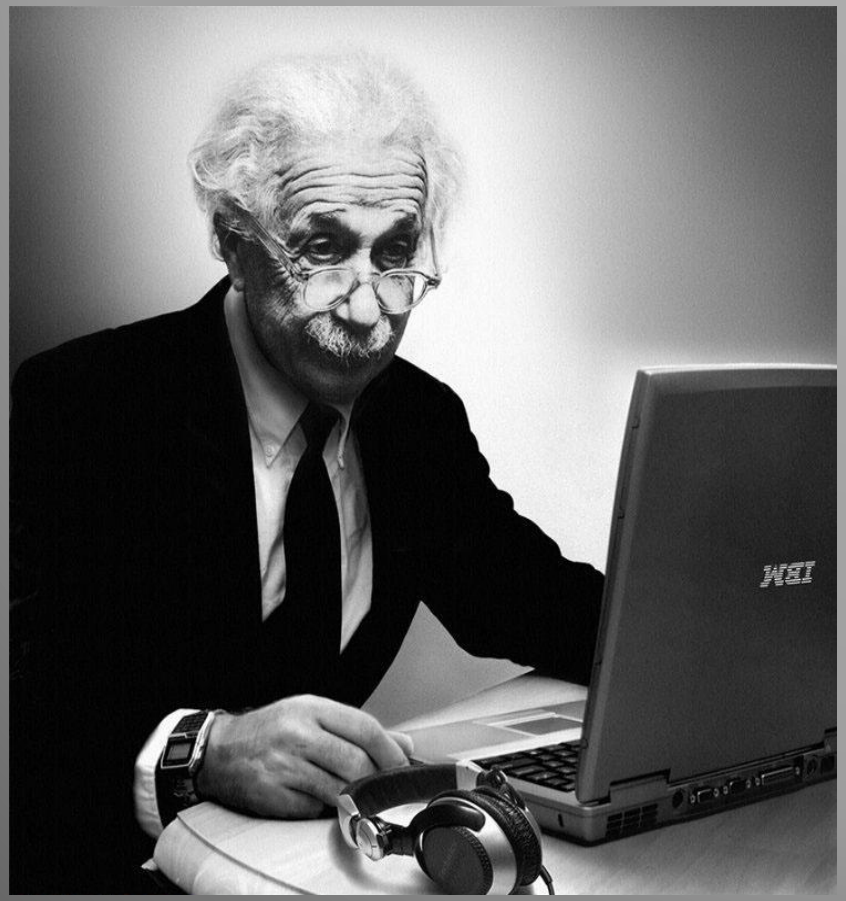
Introduction to Linux

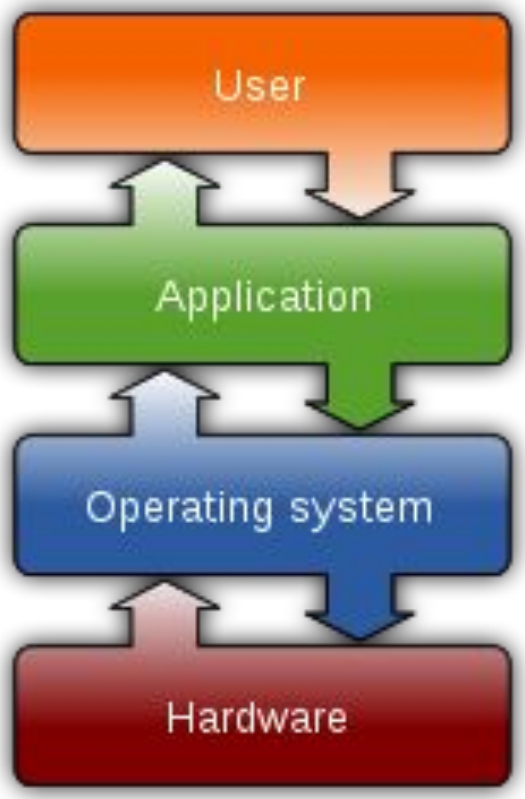
What is Linux?

It’s an Operating System.



What is Linux?

Linux is an open source operating system. An operating system is the software that directly manages a system's hardware and resources, like CPU, memory, and storage.



Linux Has Many Distributions

Which distribution is right for you?

- How skilled of a computer user are you?
- Do you prefer a modern or a standard desktop interface?
- Server or desktop?

Your answers to these questions will determine which distribution you will use.

What is Linux?
Linux + GNU Utilities = Free Unix

- Linus Torvalds.

- The name GNU stands for "GNU's Not Unix"
- GNU includes most of the software in linux.
- Richard Stallman.

http://www.gnu.org/

How to Install Linux?

Main operating system via USB and CD

Using virtualization software

Virtual Machines - Ubuntu

Ubuntu can also be installed as virtual machines. Some of the software which support virtual machines are

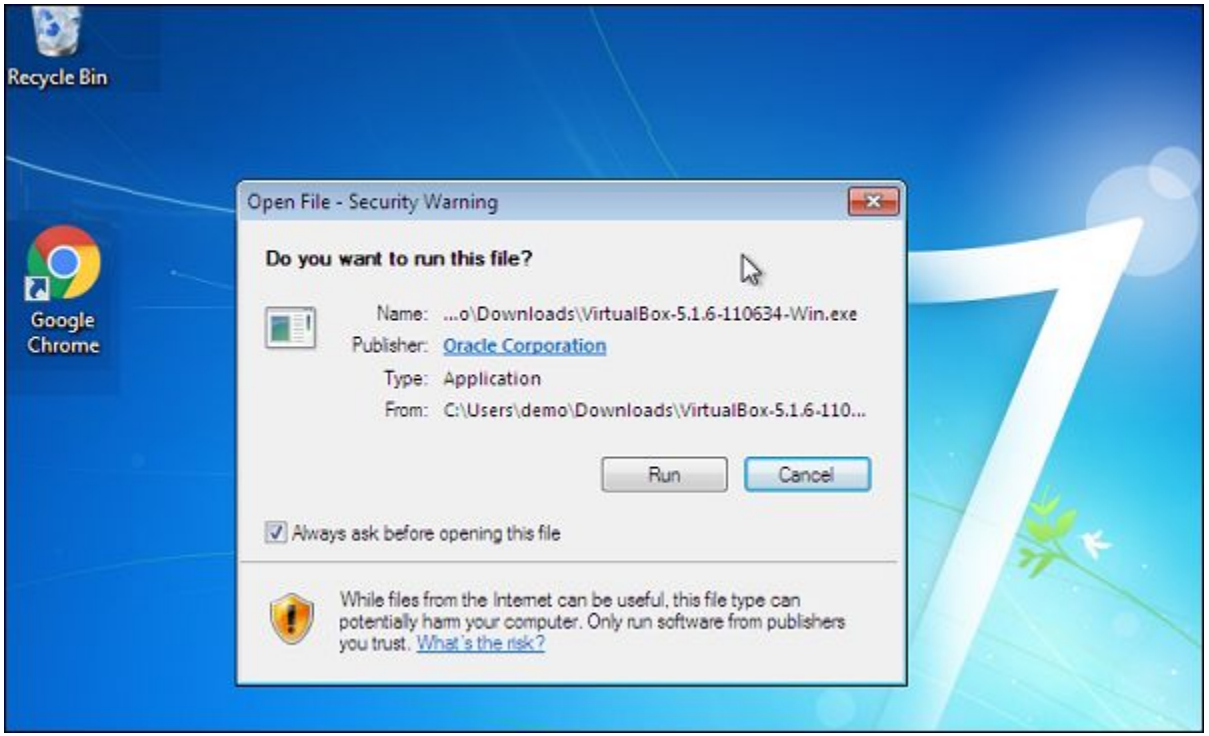
- Microsoft Hyper-V
- VMWare Workstation
- Oracle VirtualBox

Let’s use Oracle VirtualBox to create our Ubuntu virtual machine. Oracle VirtualBox is a free tool from Oracle. Following are the steps to have the virtual machine in place.

Step 1 – Download Oracle VirtualBox from the oracle site – https://www.virtualbox.org/

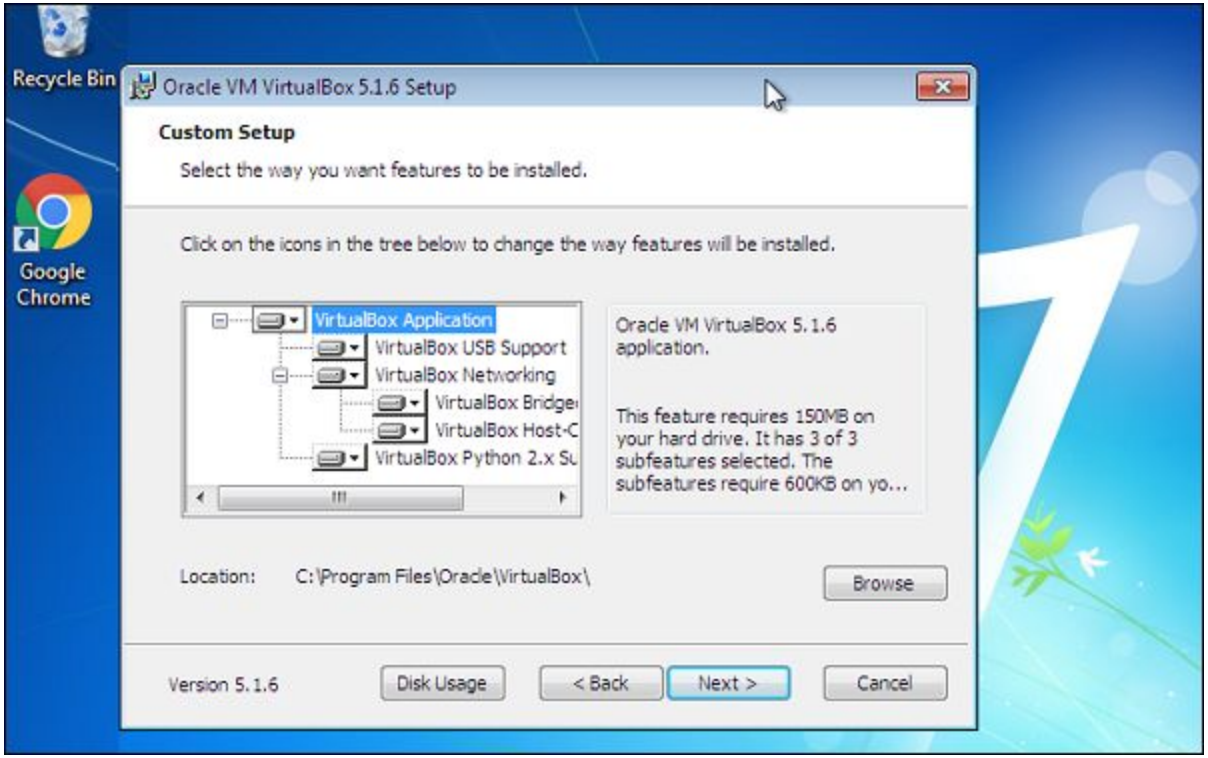
Step 2 – Go to the downloads section and download the Windows version and Extension Pack

Step 3 – Once download is complete, install VirtualBox. Launch the installer. Click the Run button on the following screen.

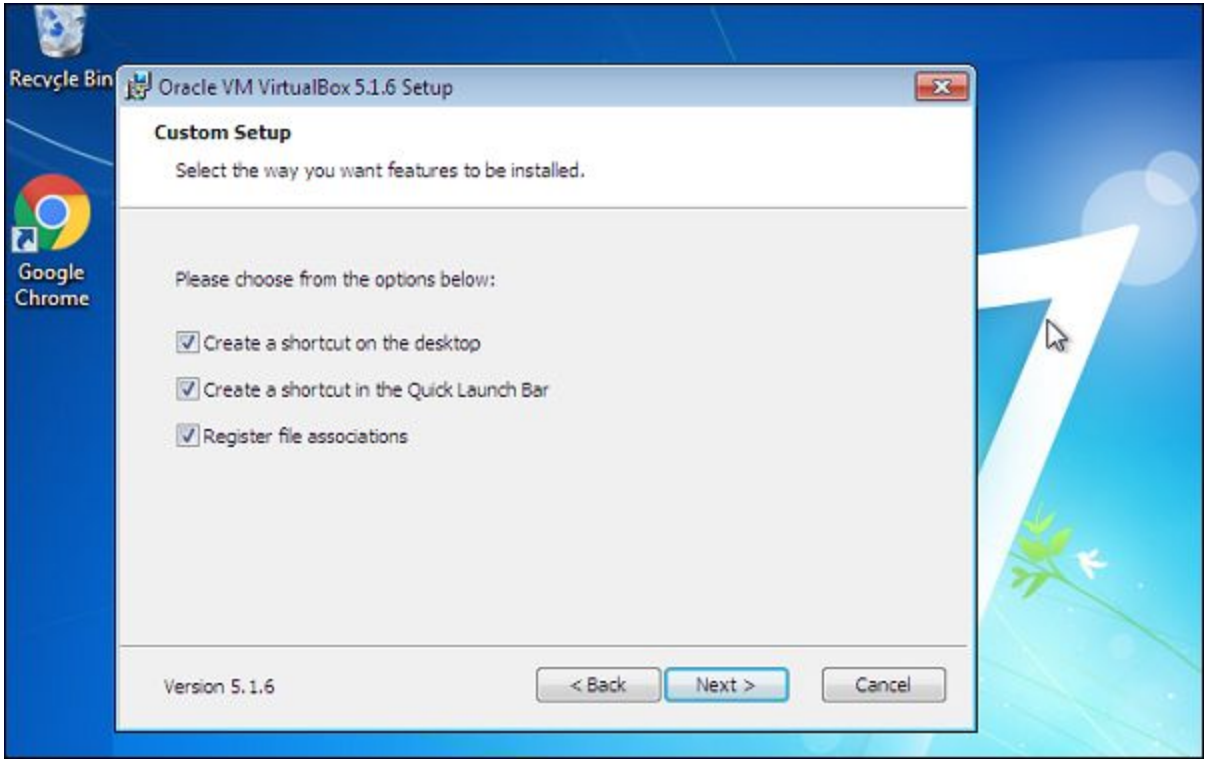


Step 4 – Click the Next button on the subsequent screen.

Step 5 – Choose the appropriate folder location and click the Next button.

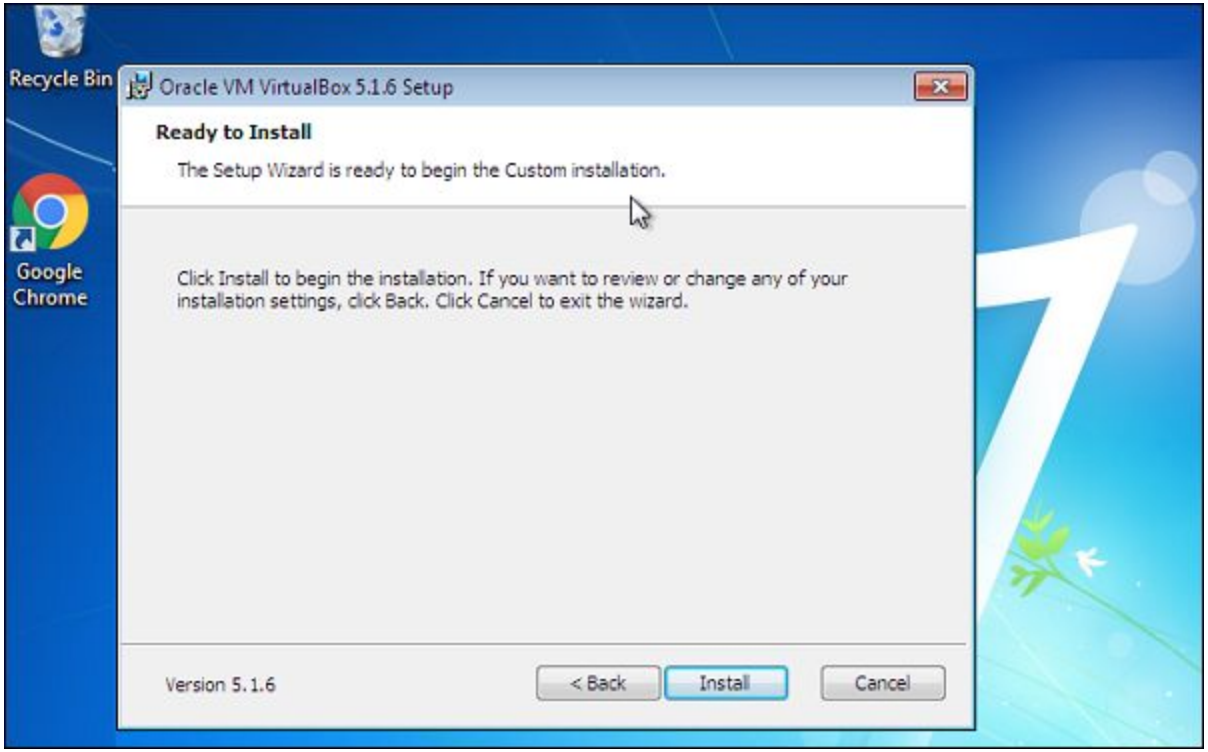


Step 6 – Click Next on the subsequent screen.

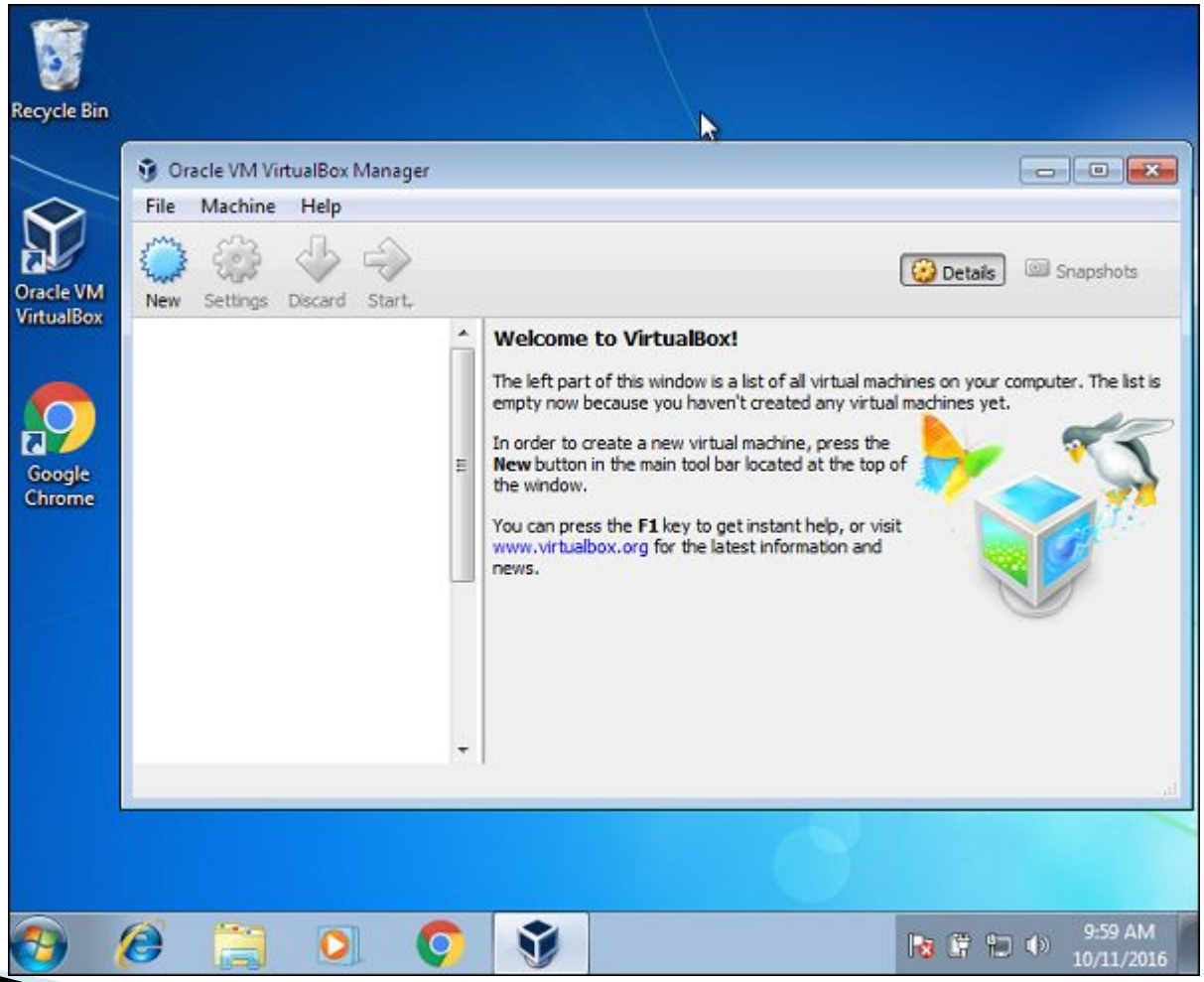


Step 7 – Click the ‘Yes’ button on the next screen to proceed ahead with the installation.

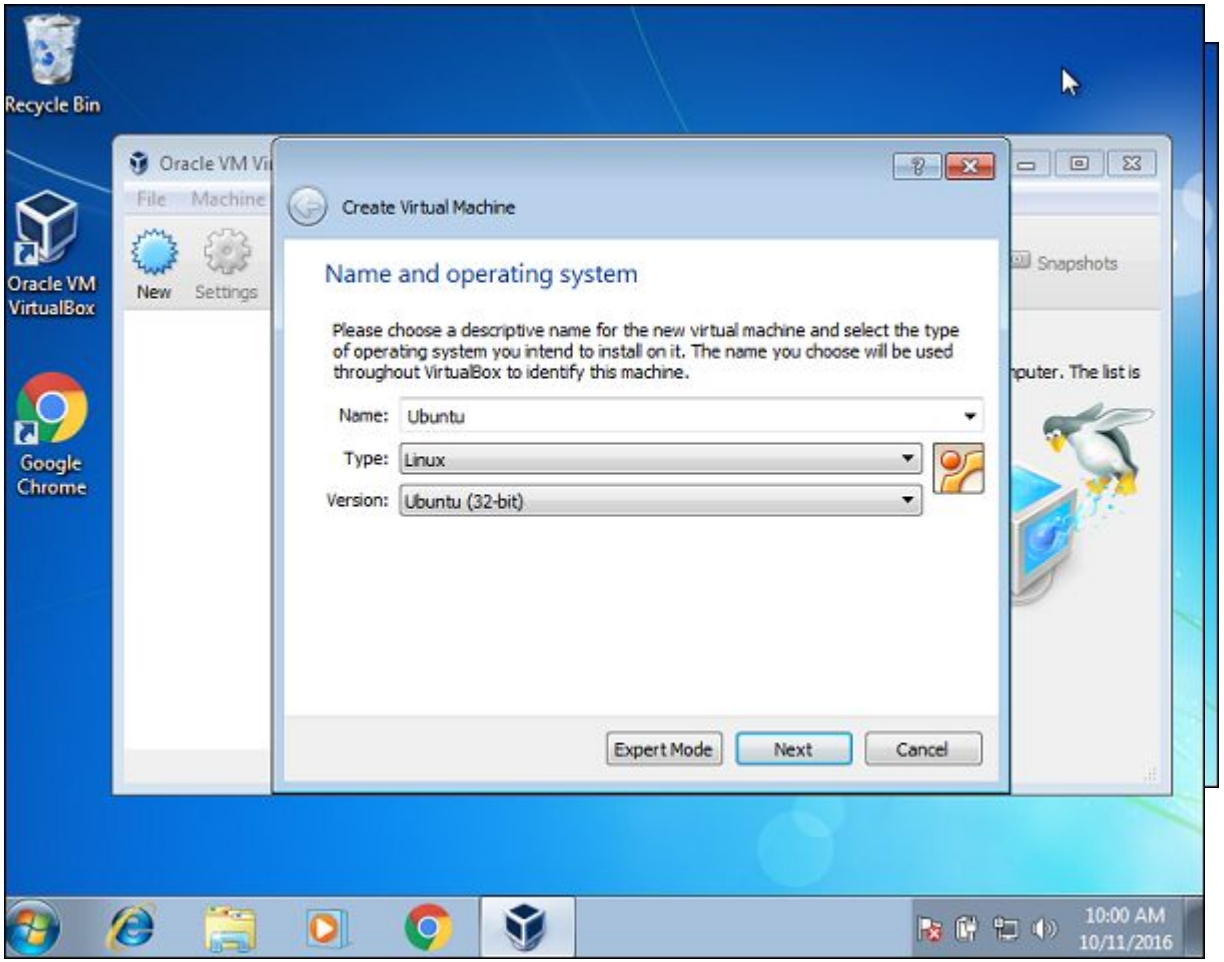
Step 8 – Click Install on the next screen.



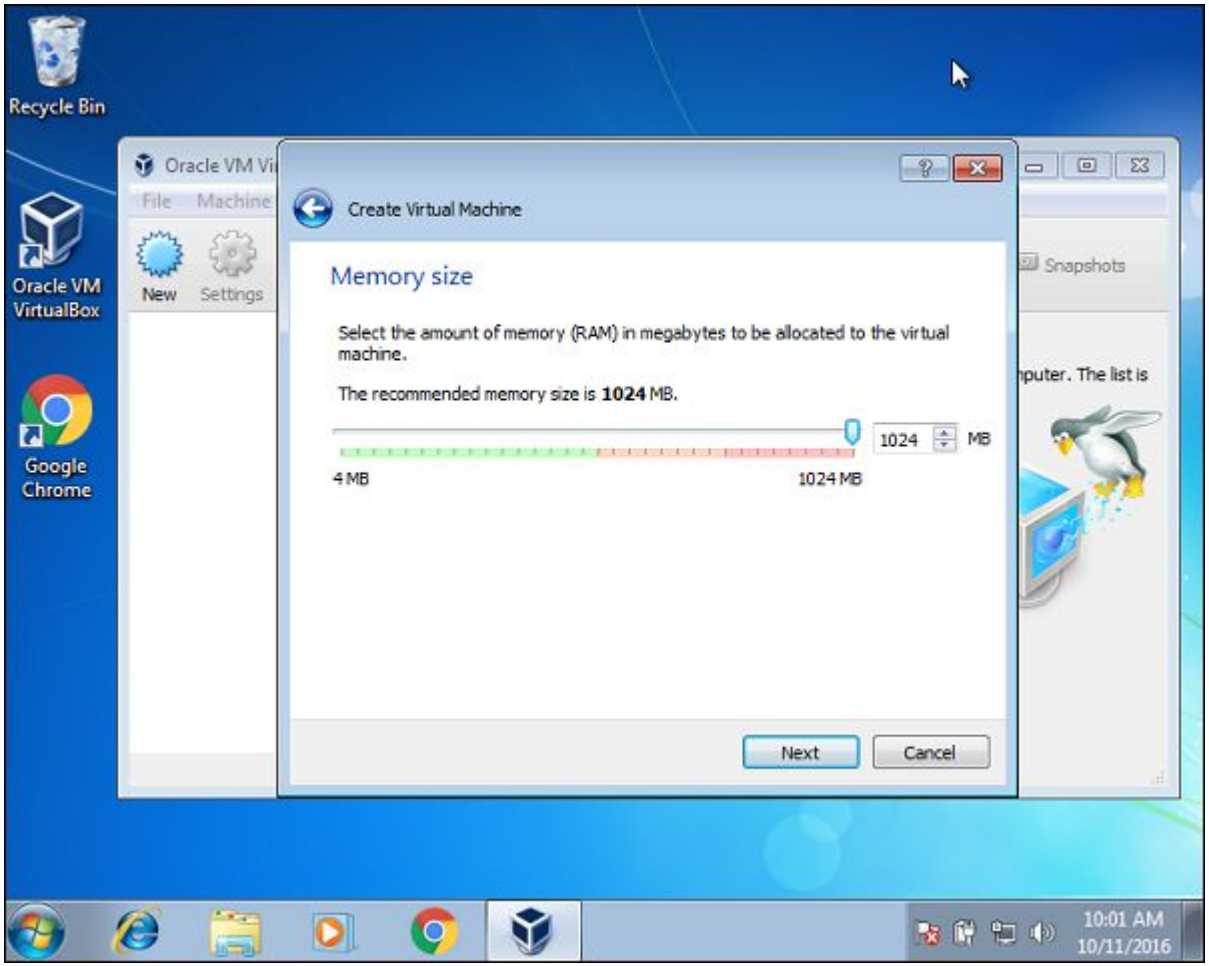
Step 9 – After the installation is complete, launch Oracle VirtualBox. On the Launch screen, click the ‘New’ menu option.



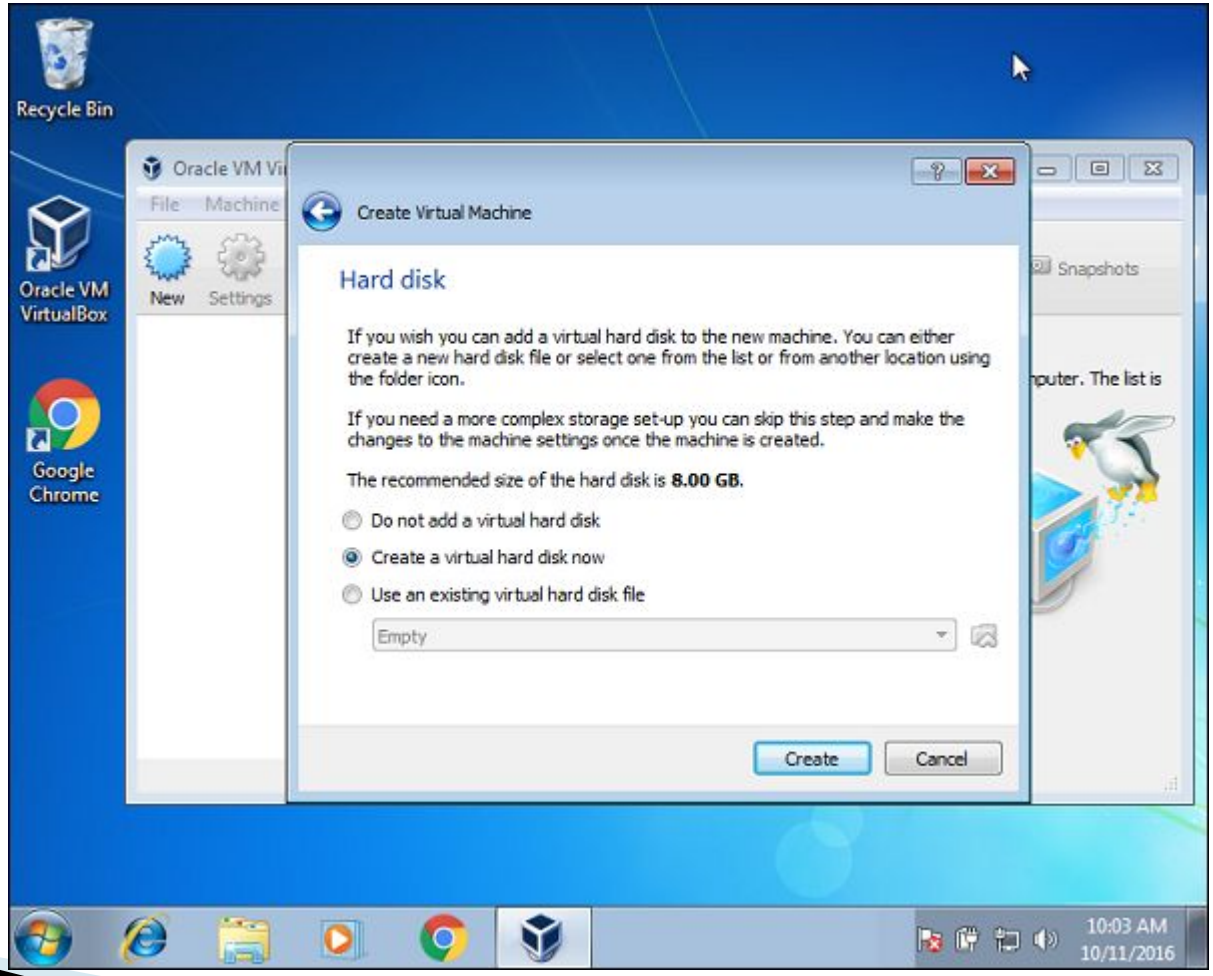
Step 10 – Give a name for the virtual machine and give the type as Ubuntu and then click the Next button.



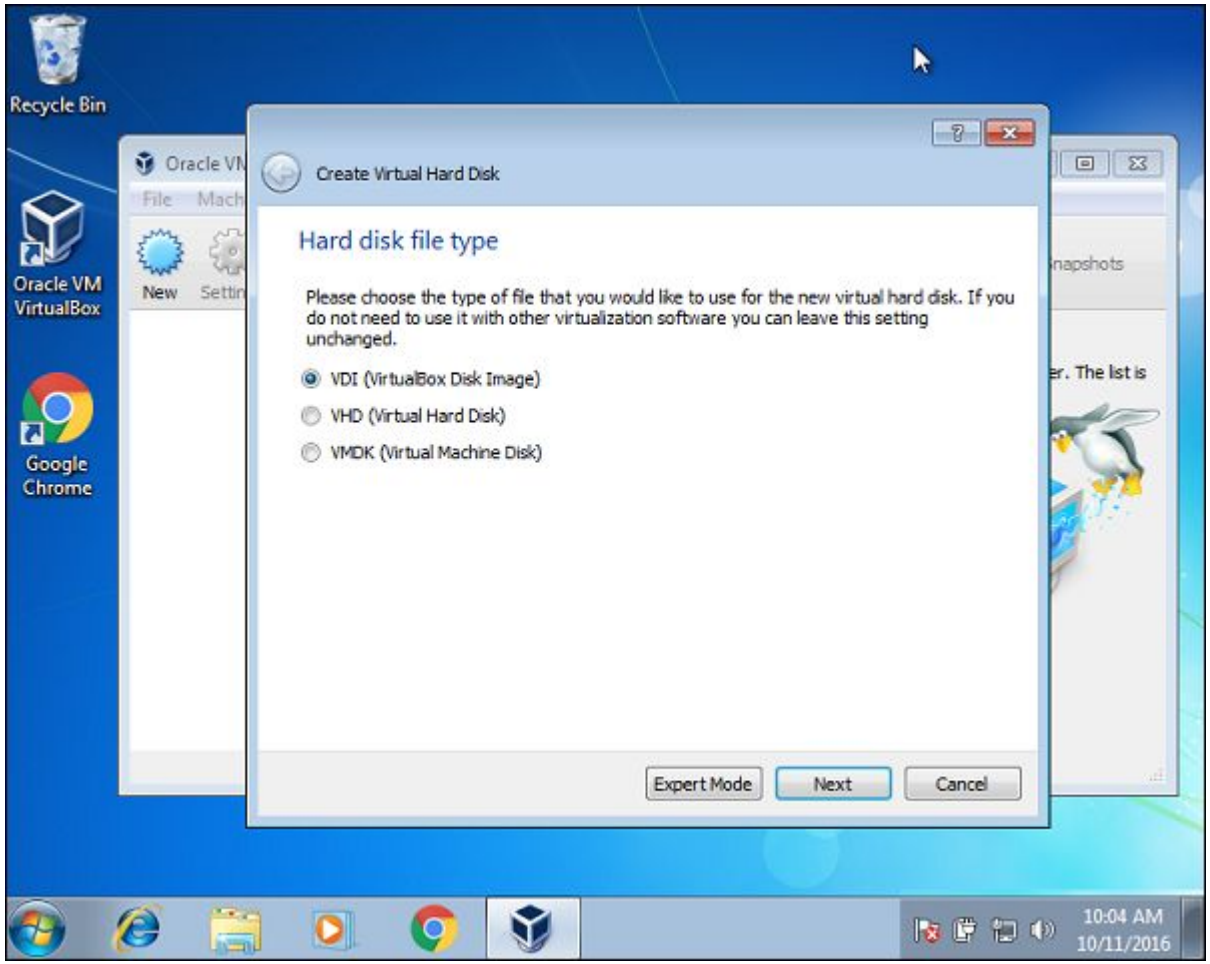
Step 11 – In the next screen, keep the recommended RAM as it is and click the Next button.



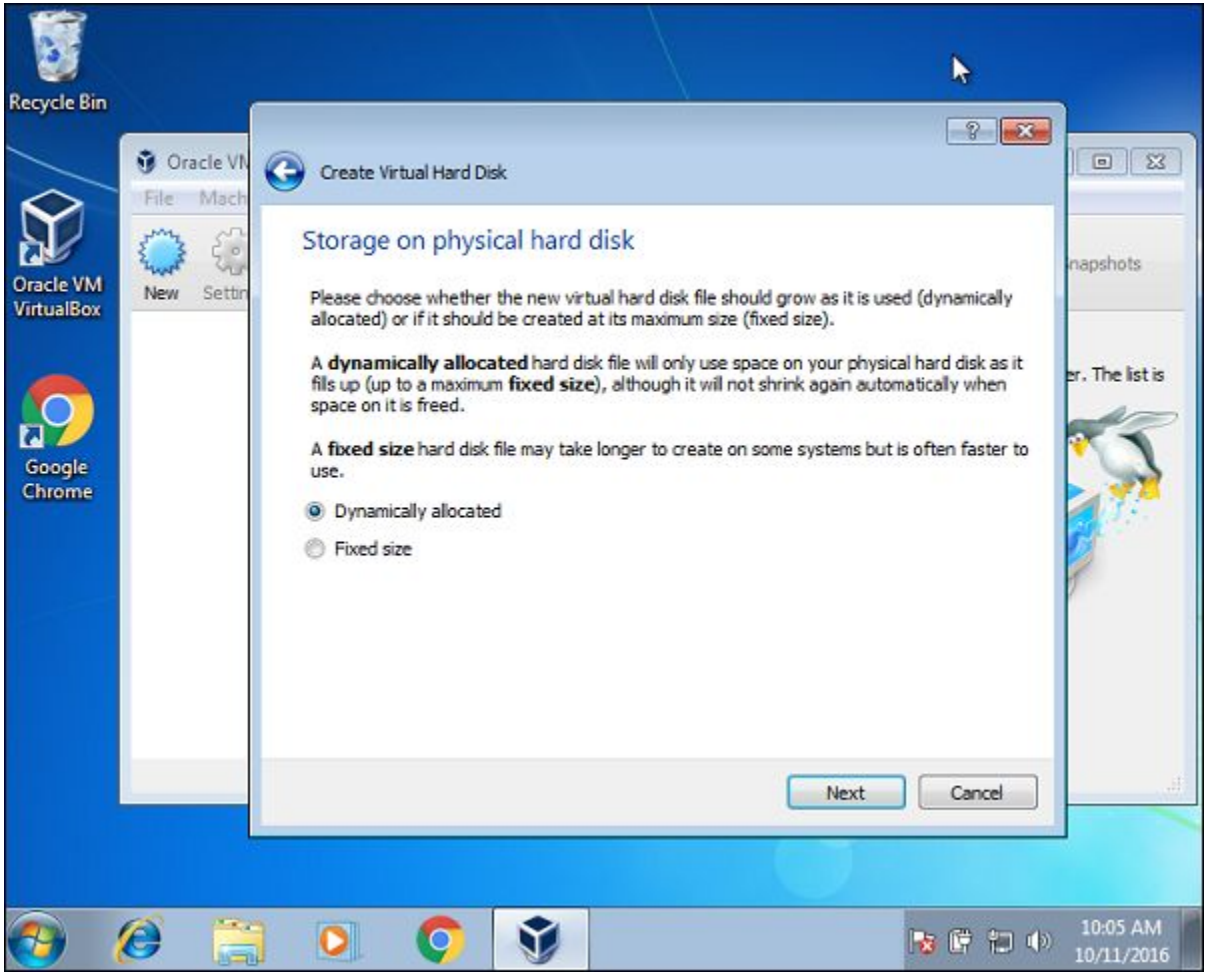
Step 12 – Accept the default setting for the virtual hard disk and click the Create button.



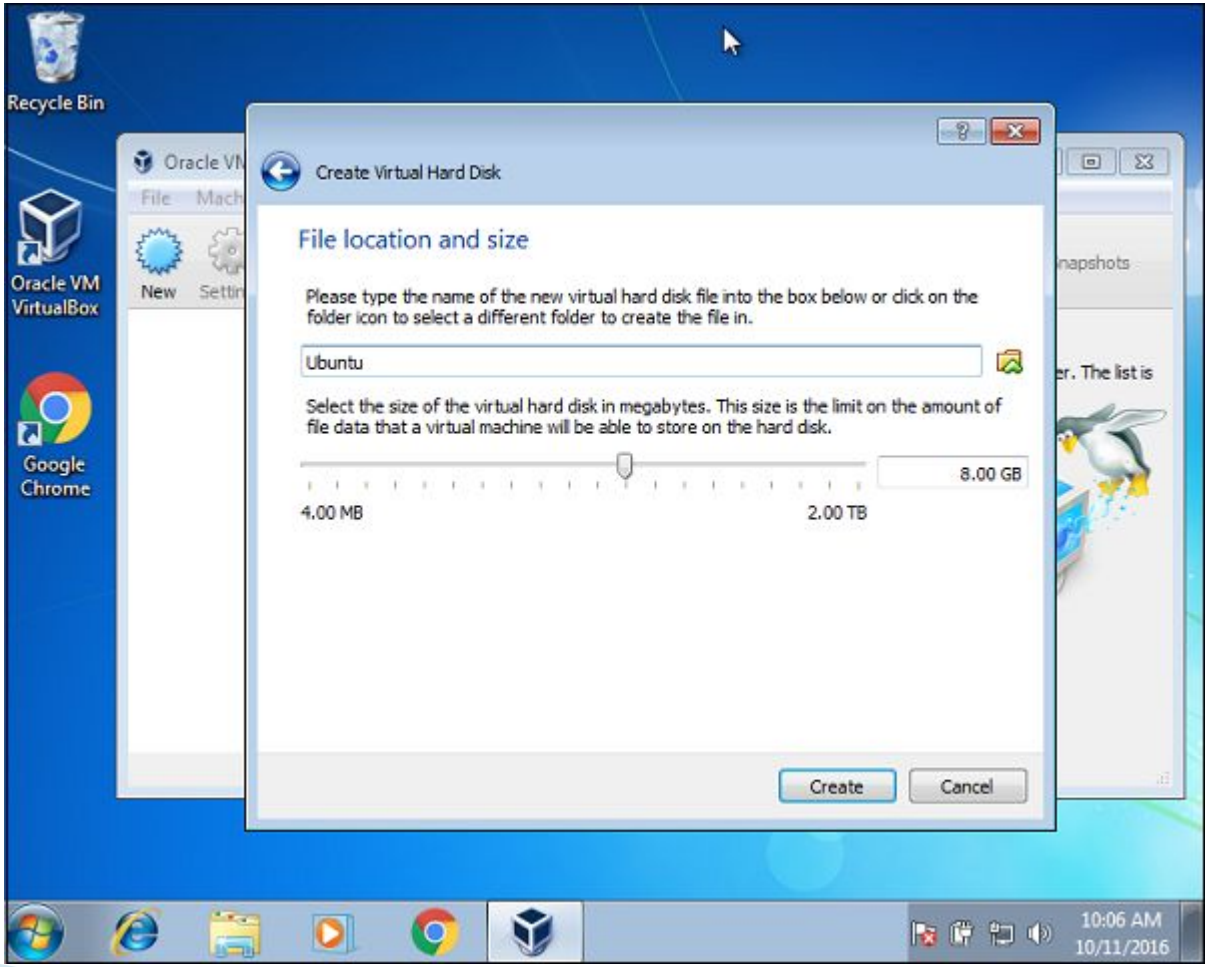
Step 13 – Accept the hard disk type and click the Next button. You can select VHD or VDI.



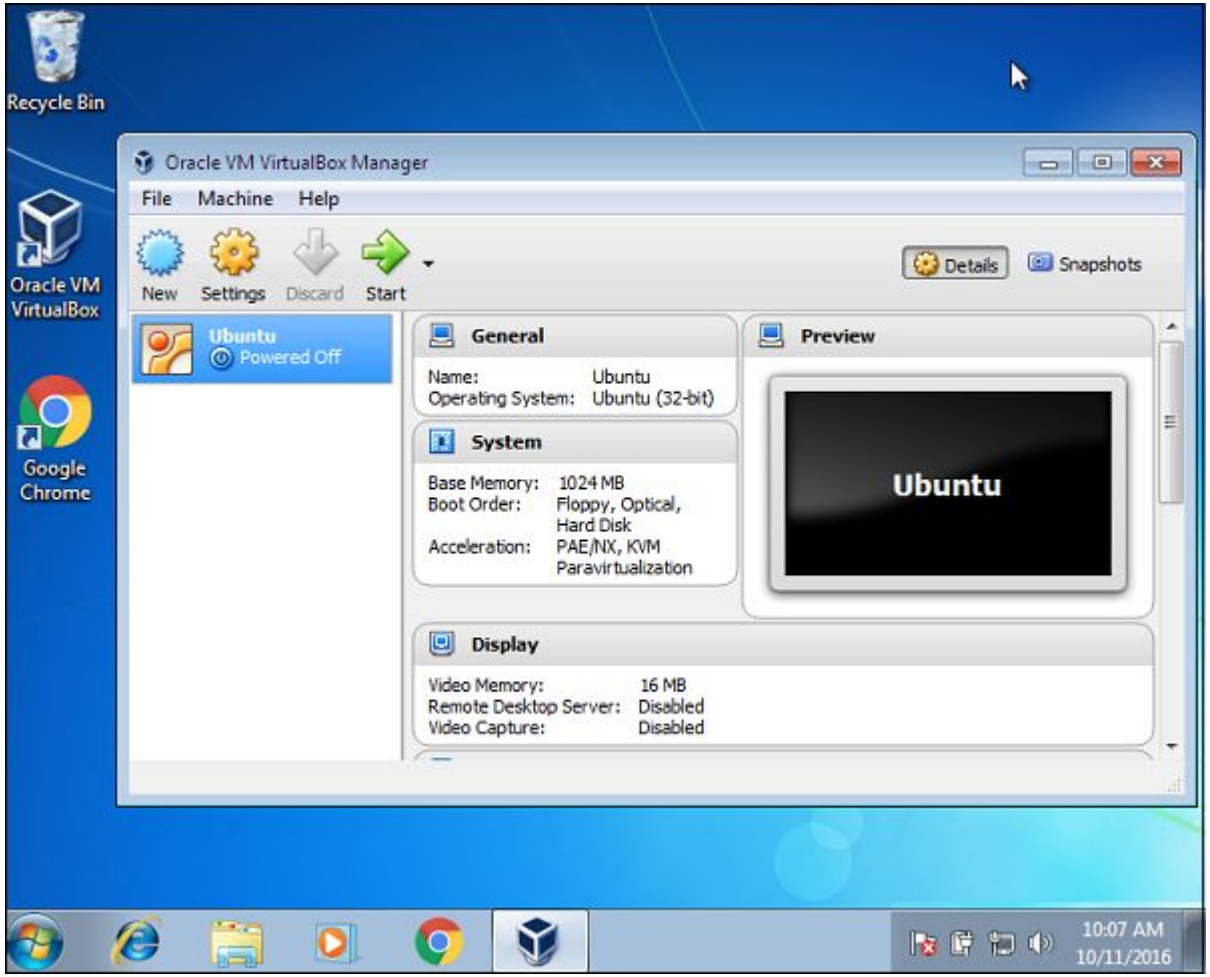
Step 14 – Accept the default type of physical hard disk allocation and click the Next button.



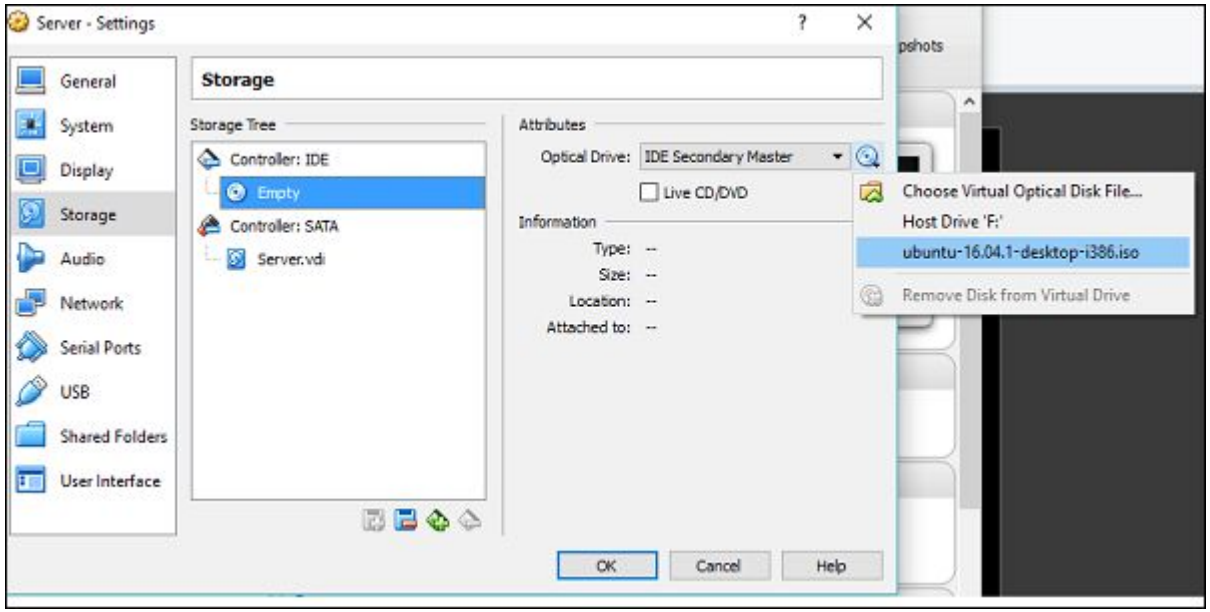
Step 15 – Accept the default file location and click the Create button.



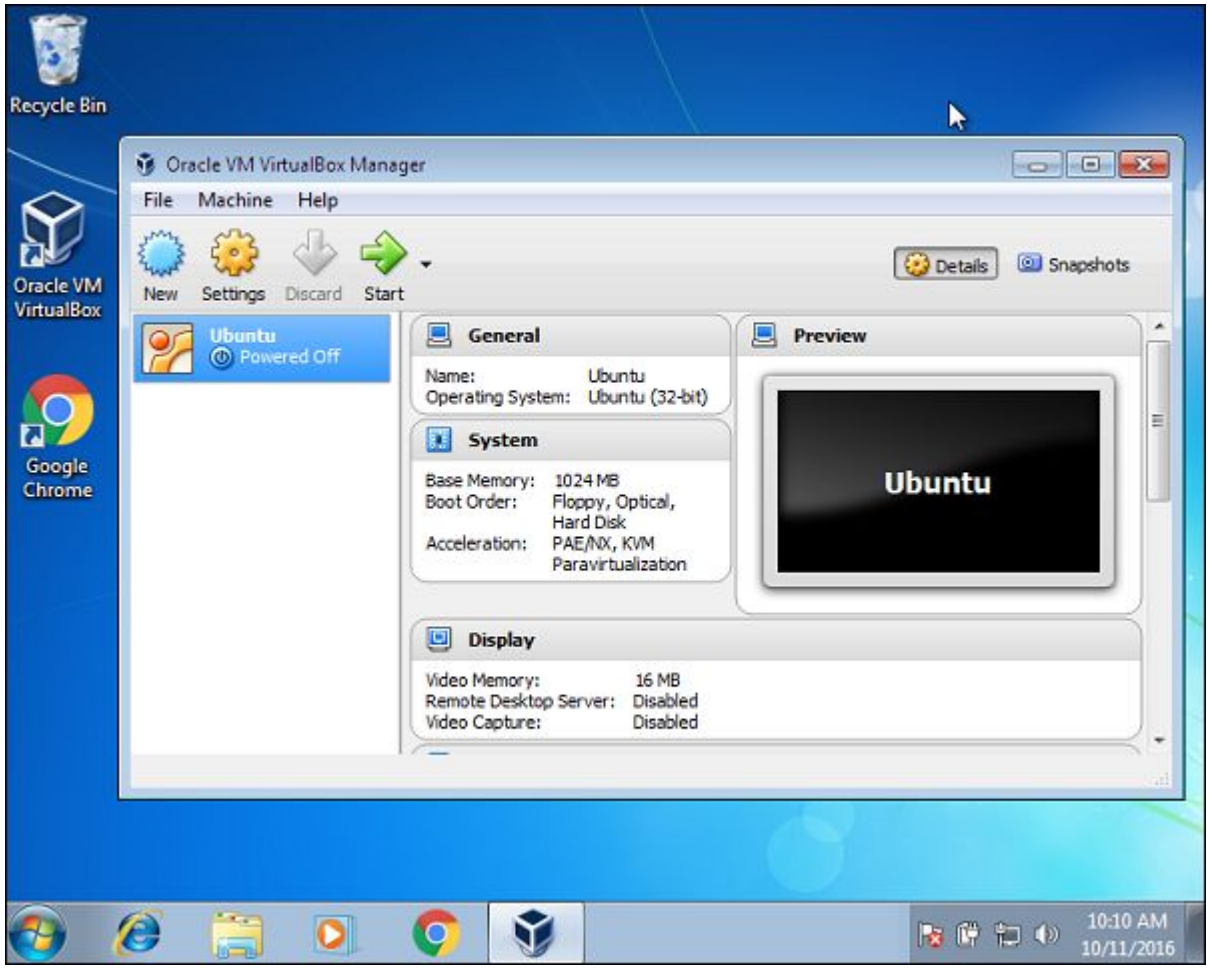
Step 16 – Now that the Virtual Machine has been created, click the Settings Menu option.



Step 17 – Go to the Storage option, click the Empty disk icon and browse for the Ubuntu iso image. Then click the OK button.

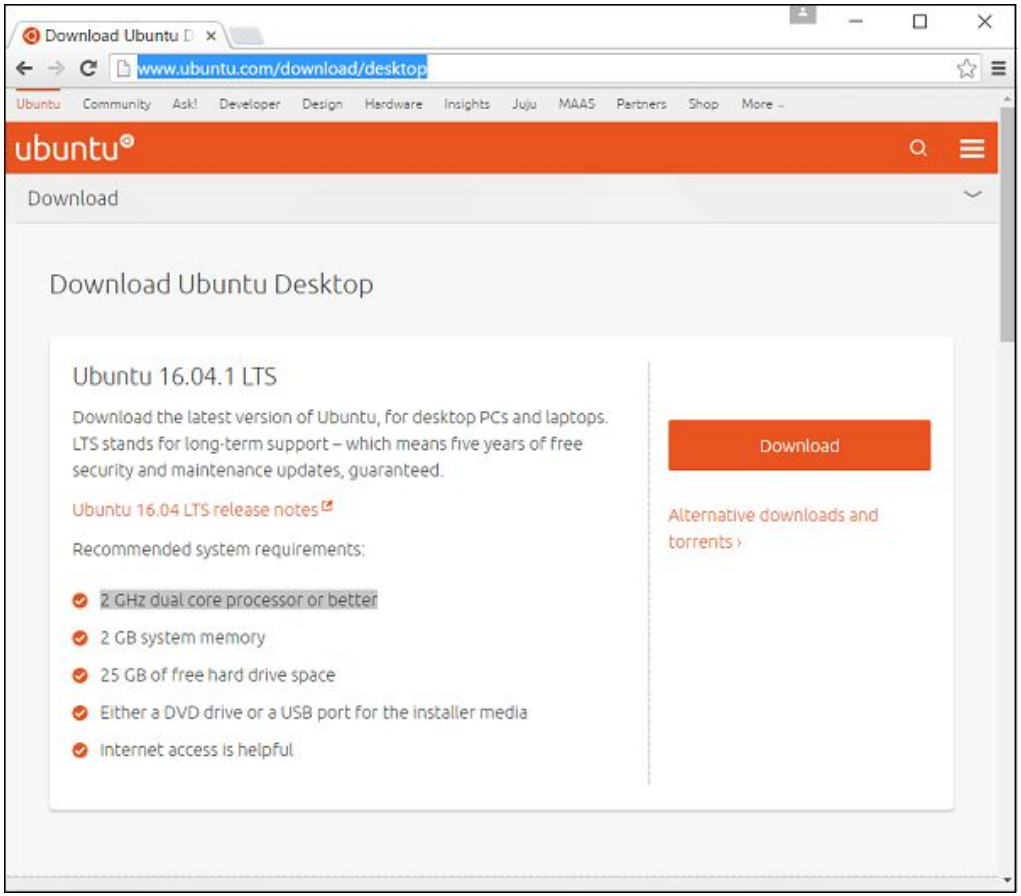


Step 18 - Finally click the Start button. The system prompts to install Ubuntu. Follow the steps in the Installation instruction.



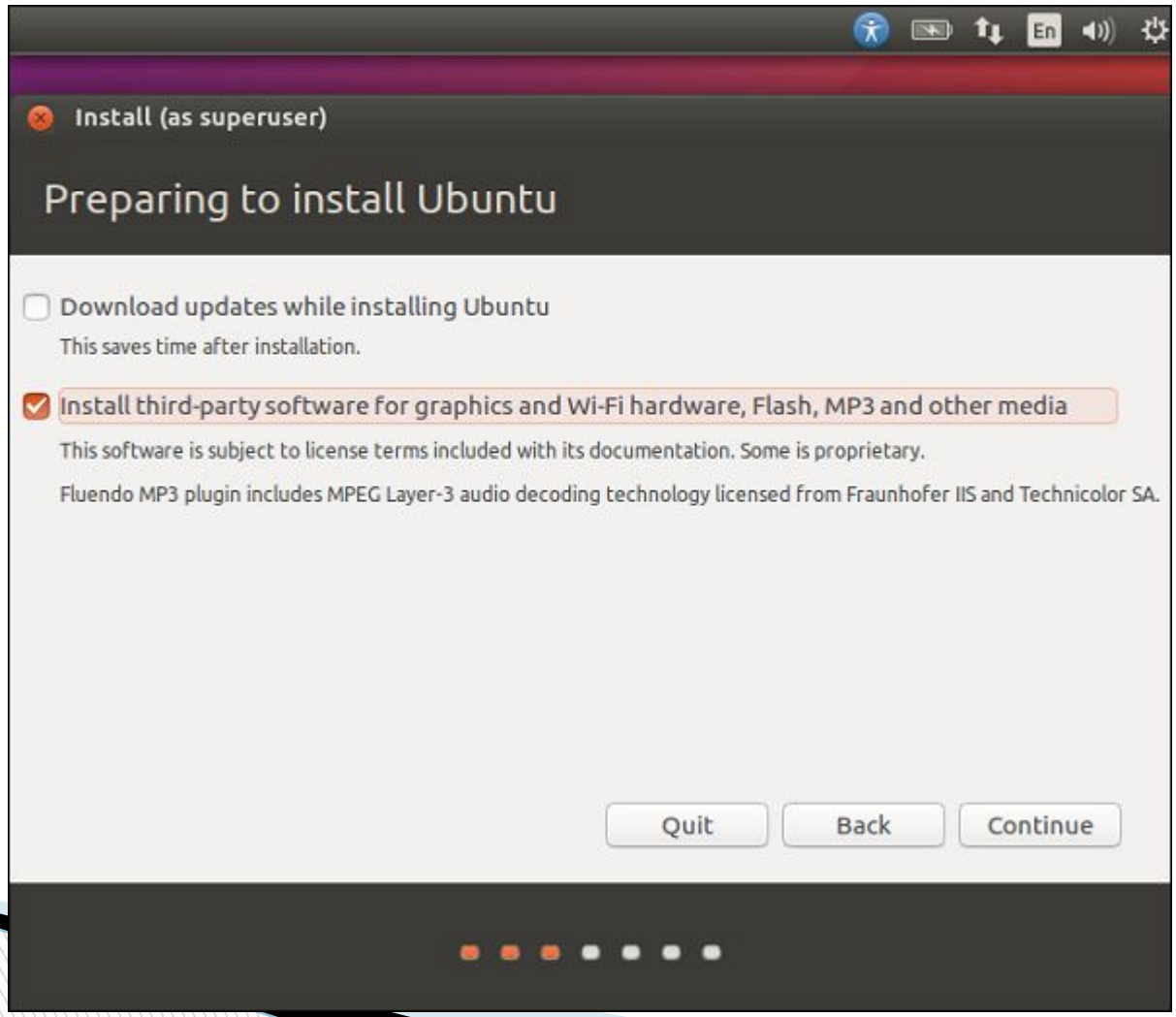
Installing Ubuntu

- Now let's learn about installing the desktop version of Ubuntu.



Step 1 – The first screen allows us to either install or try out Ubuntu. The try out option allows us to see the features of Ubuntu without actually installing it. However, we want to use Ubuntu, so let's choose the Install Ubuntu option.

Step 2 – The next screen gives you 2 options. One is to download updates in the background while installing and the other is to install 3rd party software. Check the option to install 3rd party software. Then click the Continue button.

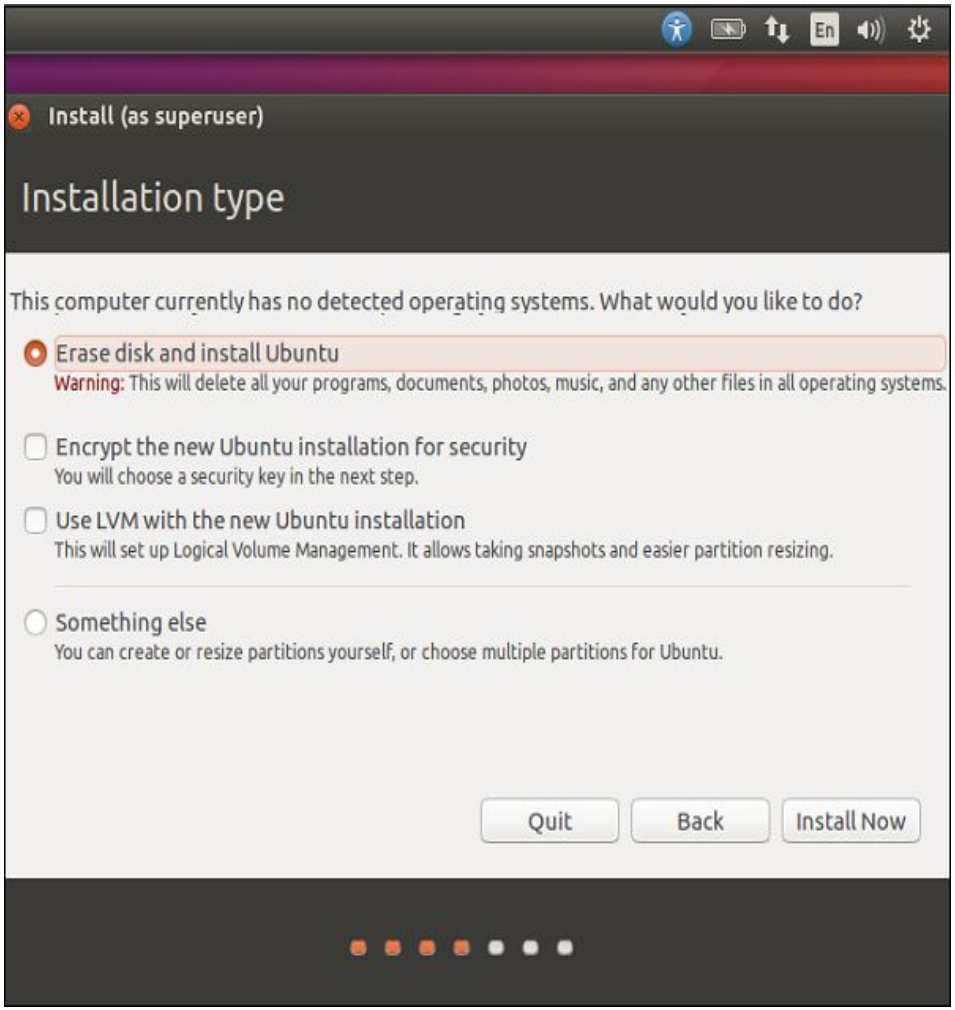


Step 3 – In the next screen, the following options are presented –

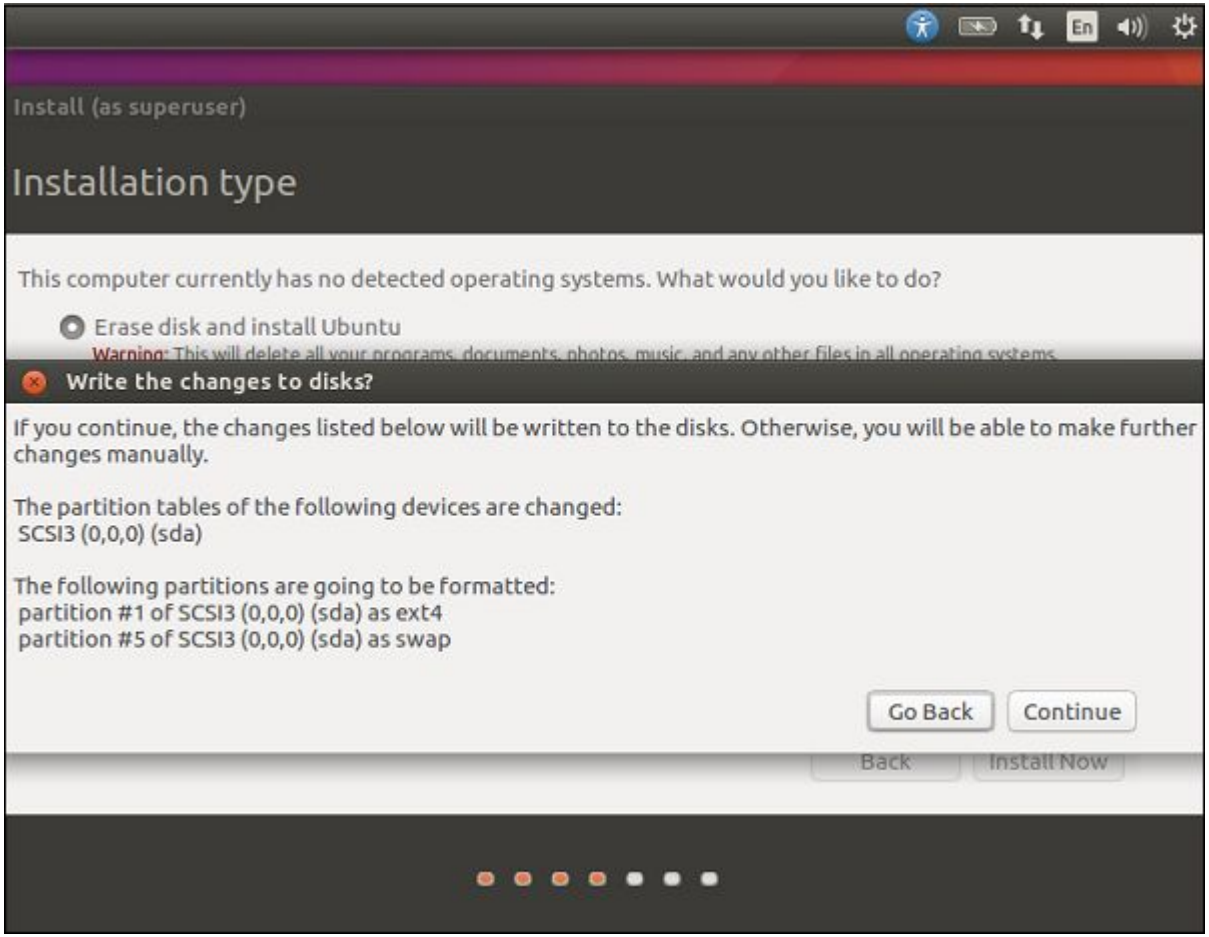
The disk is erased and the installation is carried out. If there was another operating system already on the disk, then Ubuntu would detect it and give the user the option to install the operating system side by side.

Click the Erase and install Ubuntu button.

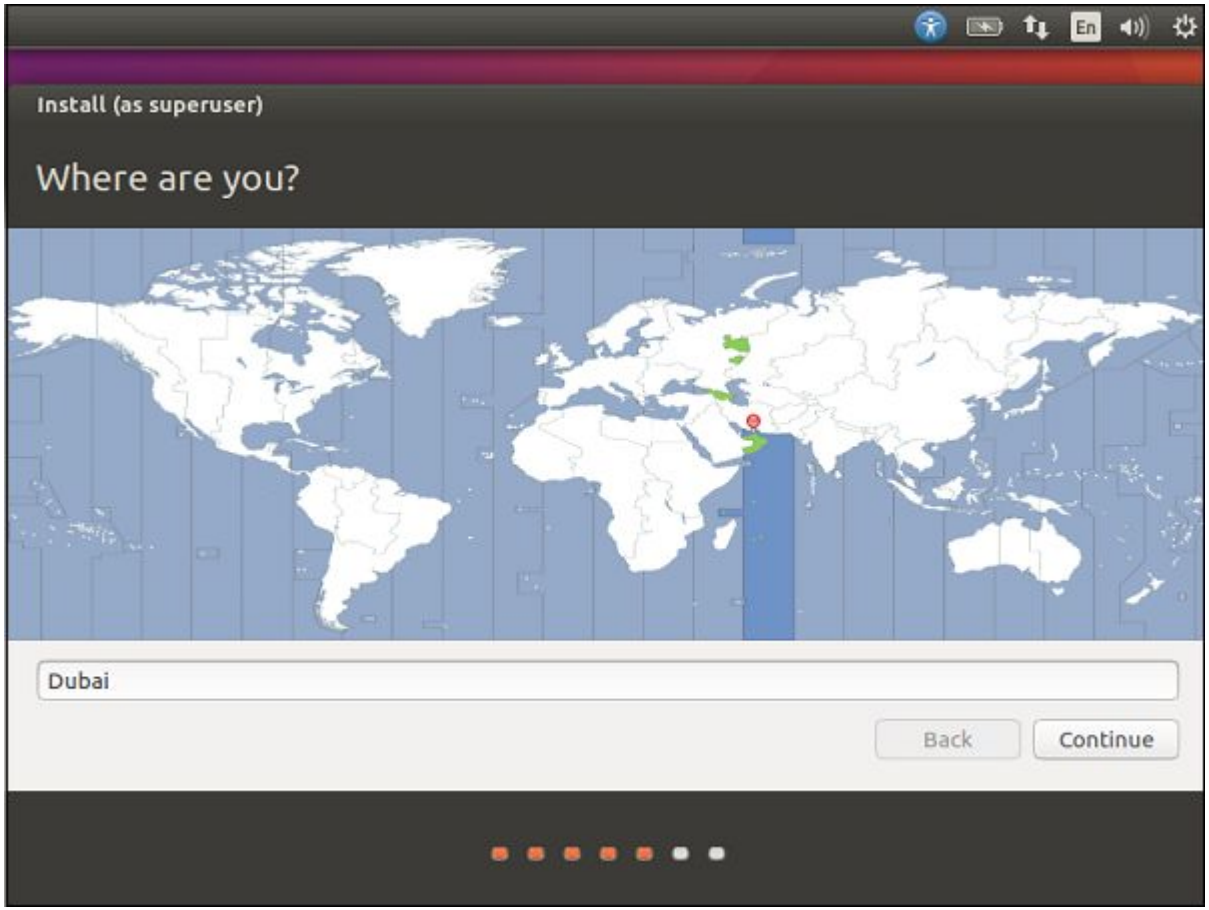
Then Install Now button.



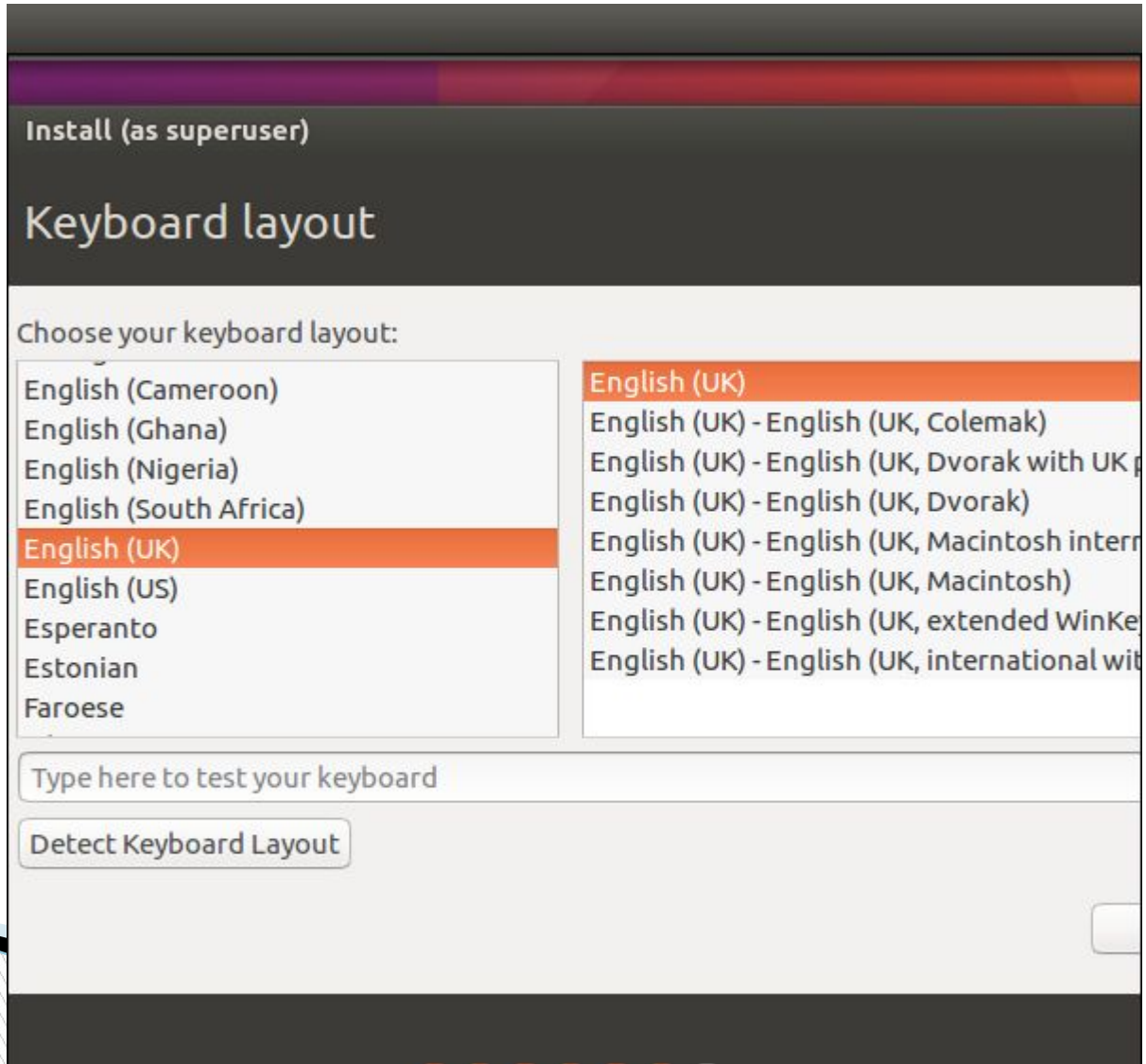
Step 4 – In the following screen, we will be prompted if we want to erase the disk. Click the Continue button to proceed.



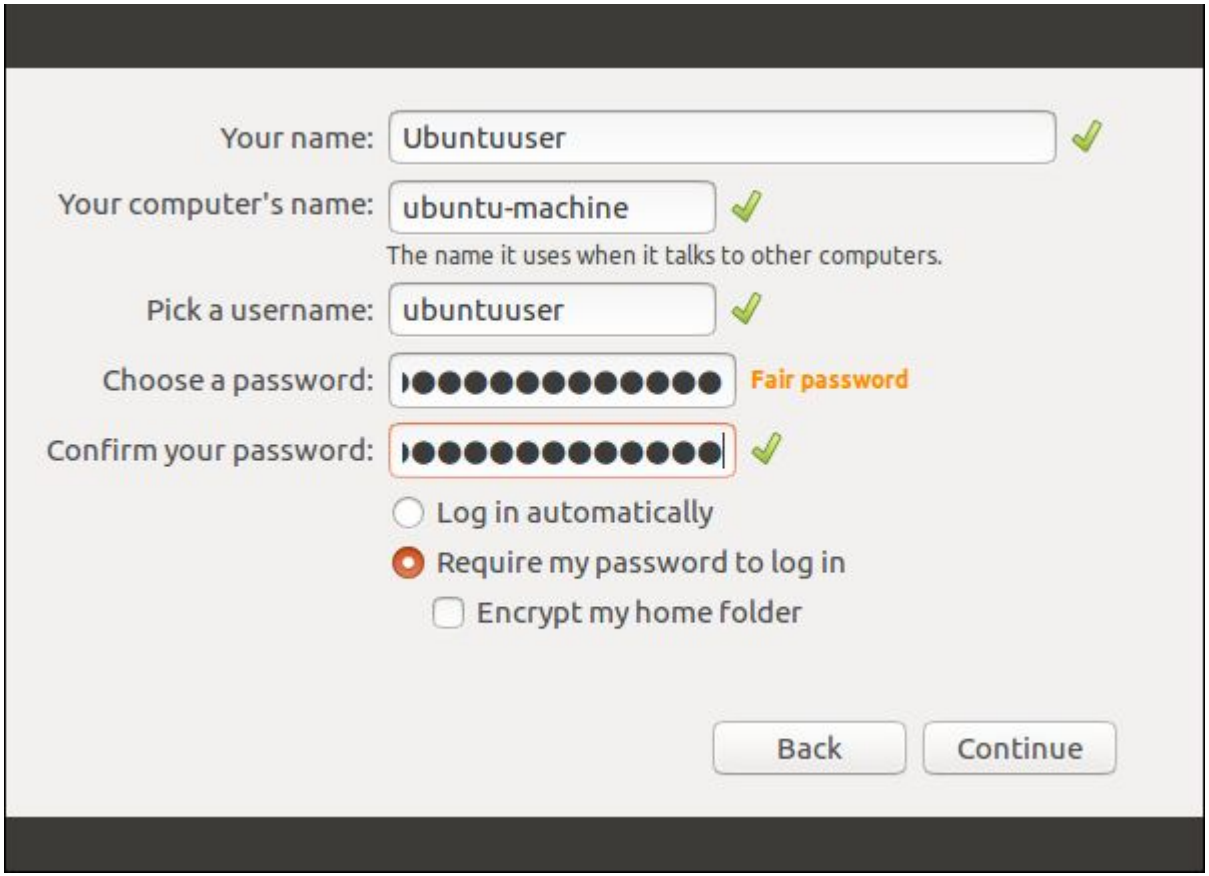
Step 5 – In this screen, we will be asked to confirm our location. Click the Continue button to proceed.



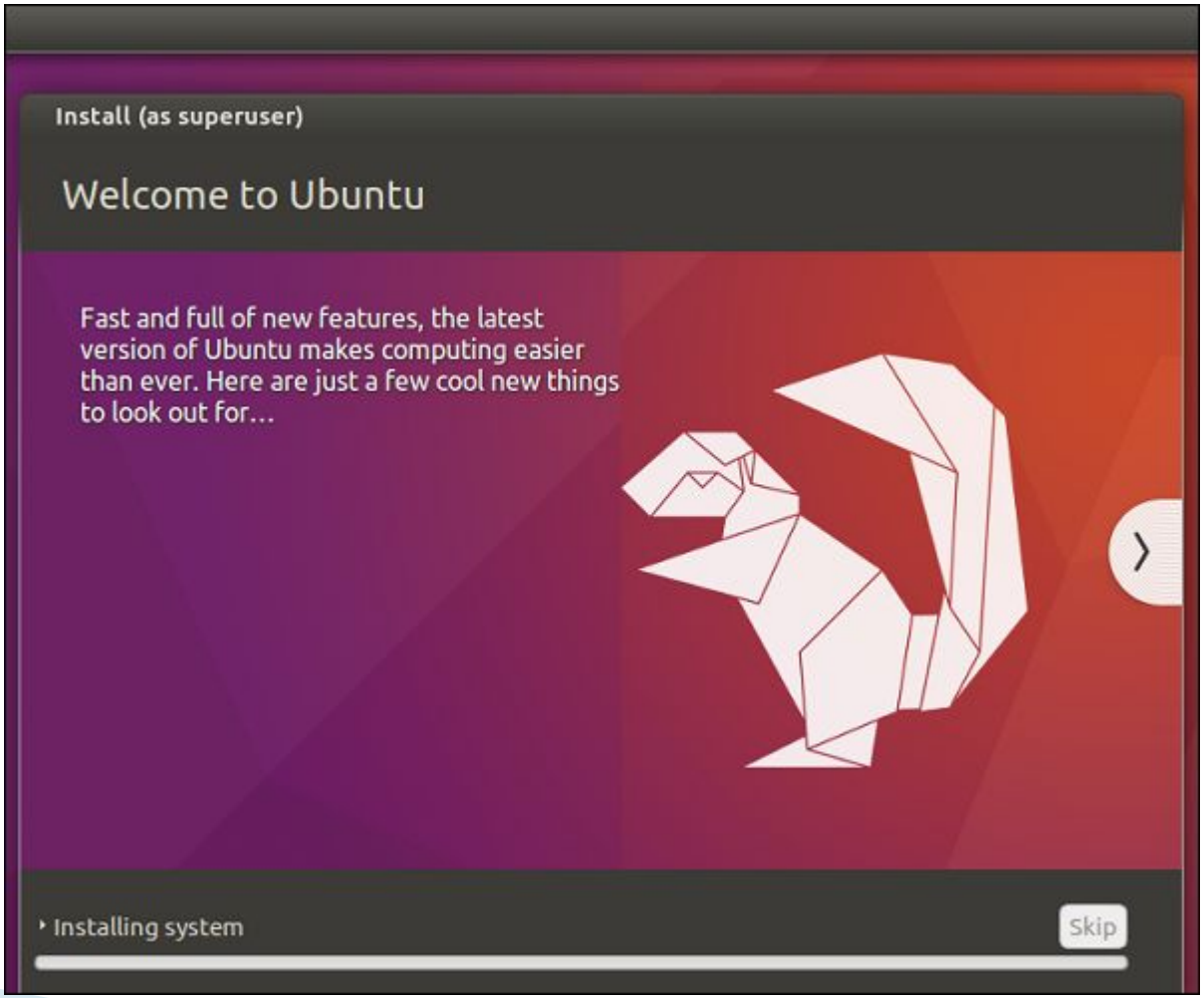
Step 6 – Now, we will be asked to confirm the language and the keyboard settings. Let us select Turkish(TR) as the preferred settings.



Step 7 – In the following screen, we will need to enter the user name, computer name and password which will be used to log into the system. Fill the necessary details as shown in the following screenshot. Then, click the continue button to proceed.

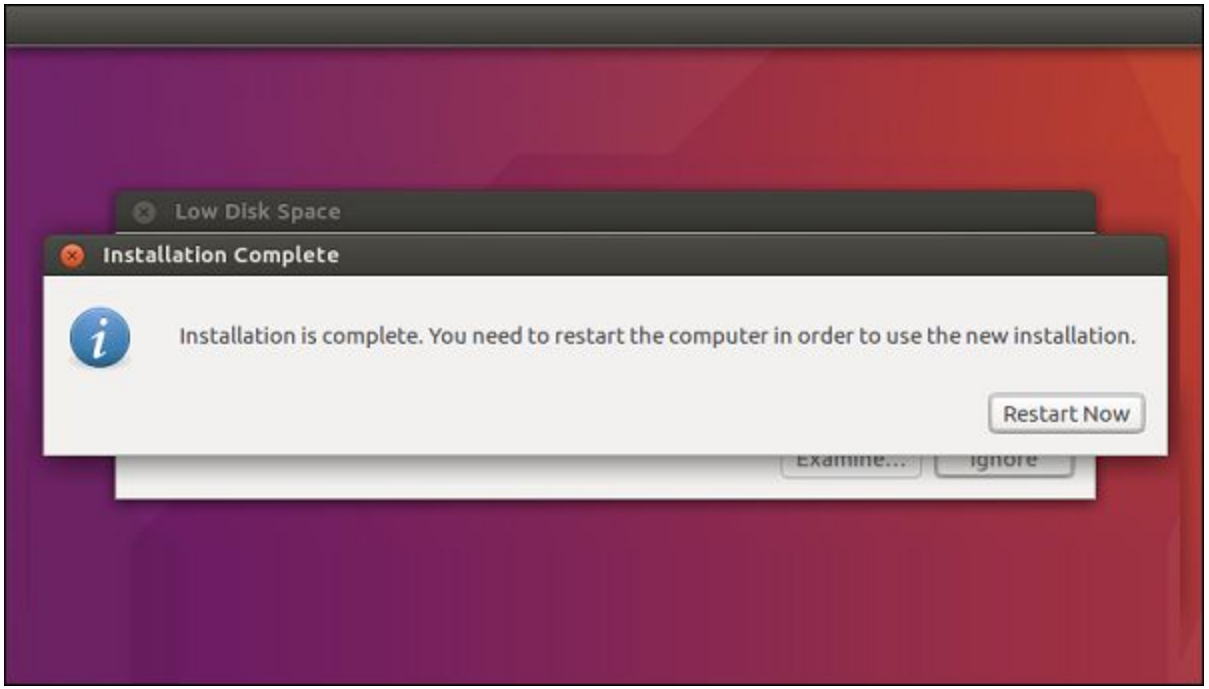


The system will now proceed with the installation and we will see the progress of the installation as shown in the following screenshot.

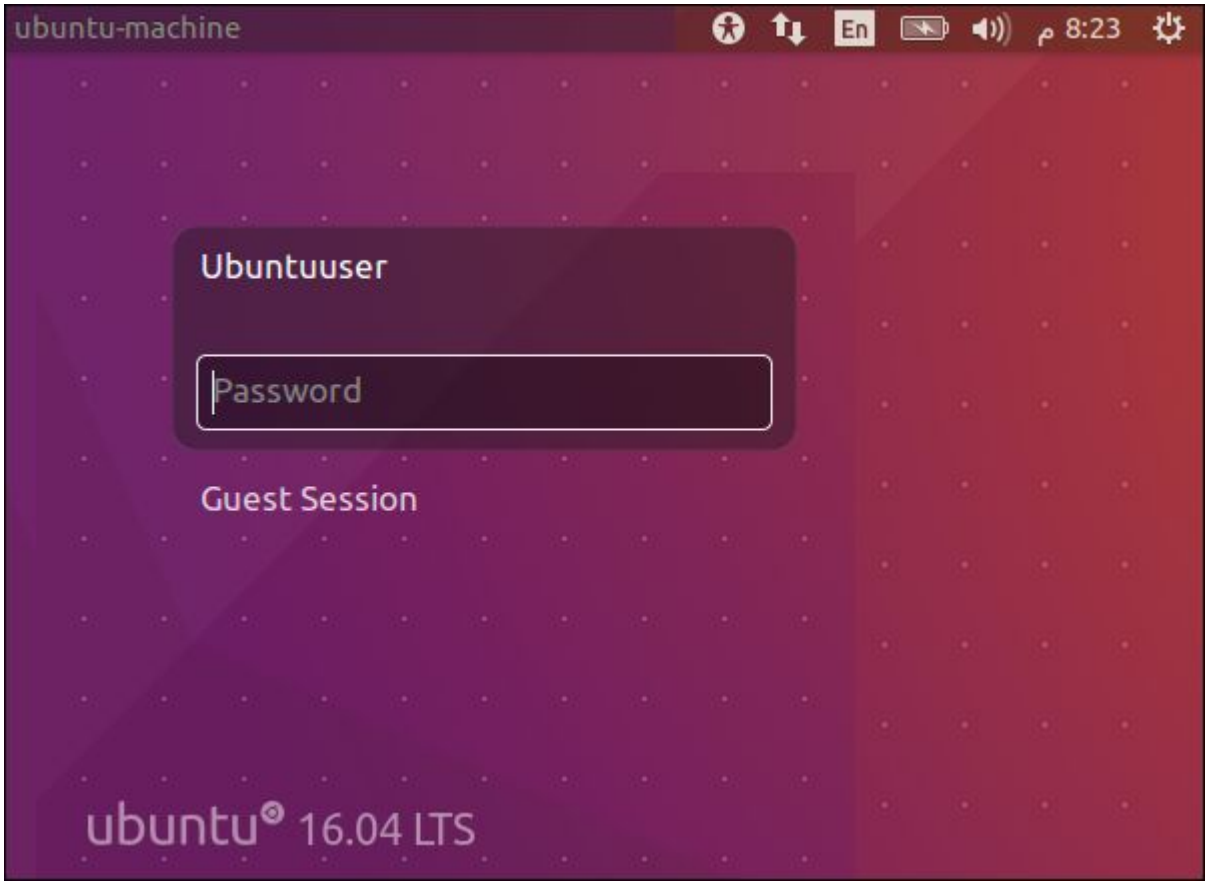


At the end of the installation, the system will prompt for a restart.

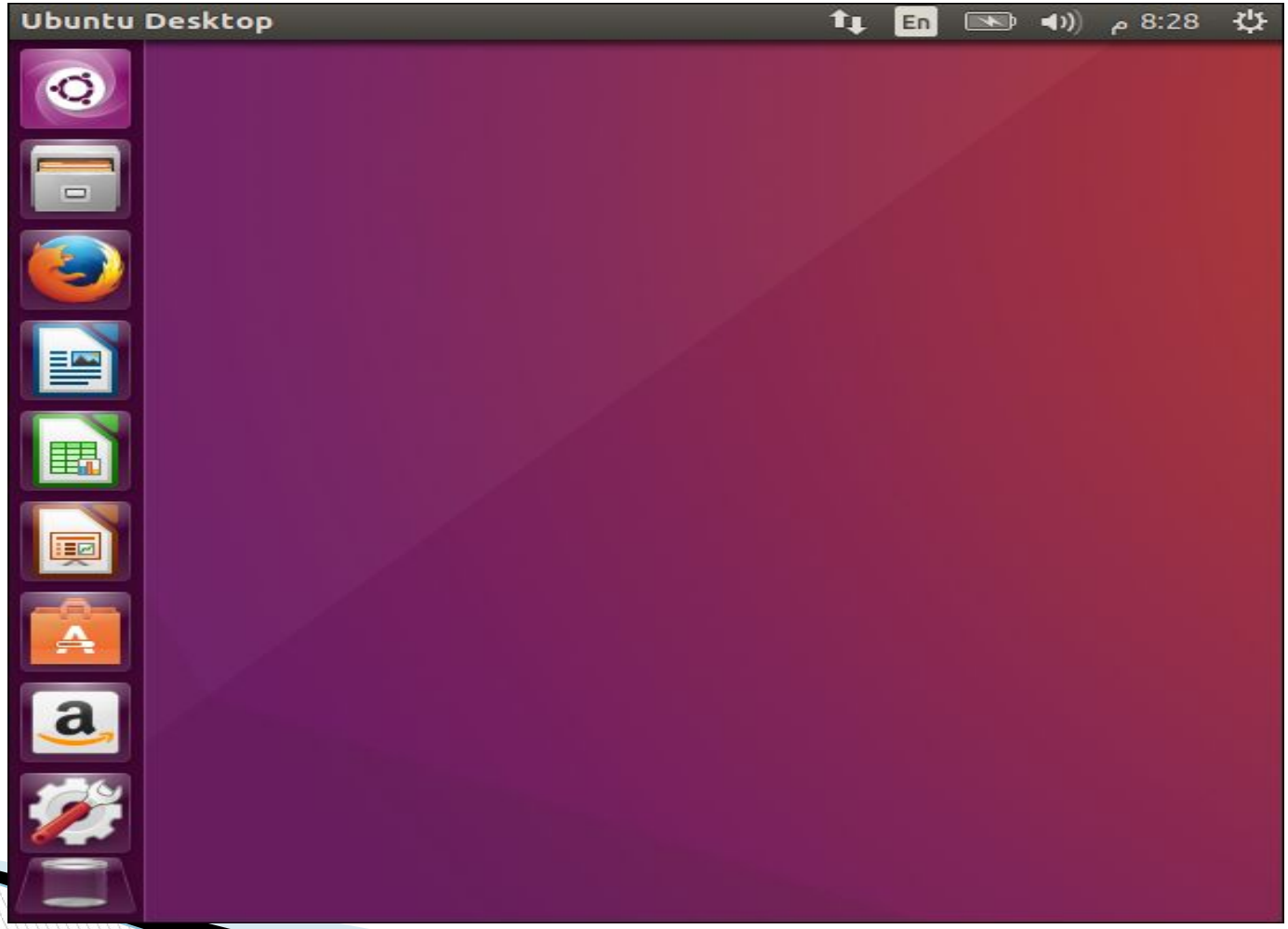
Step 8 – Click the Restart Now to proceed.



Once the restart is complete, log in with the username and password.



Once logged in, the desktop is presented as shown in the following screenshot.
We now have a fully functional version of Ubuntu.



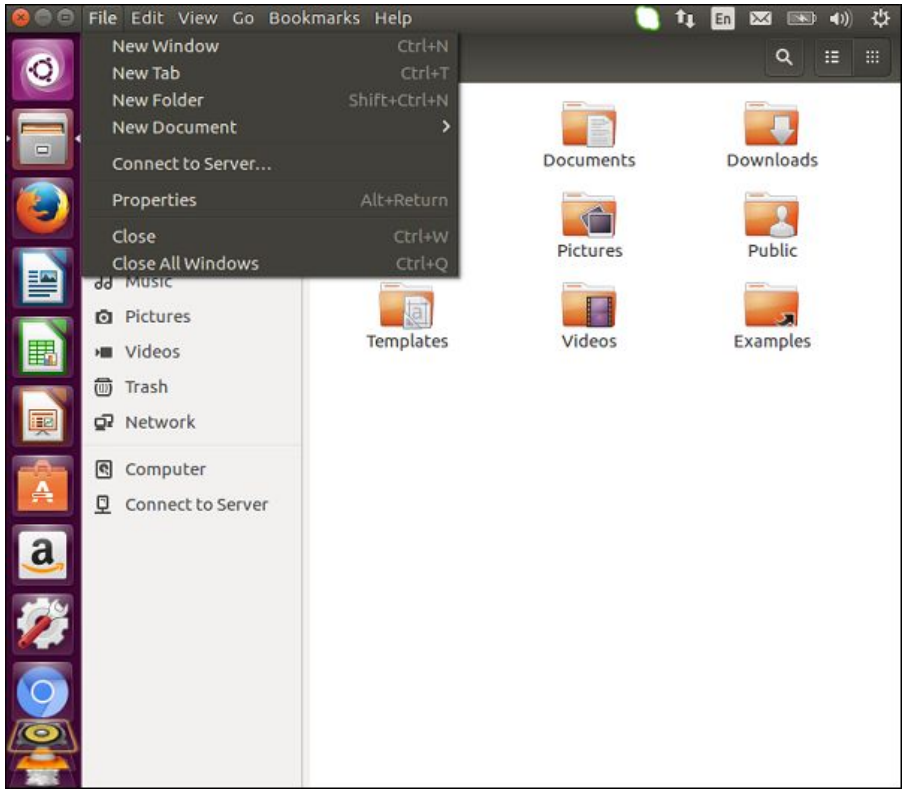
The Control Panel

The Control Panel on the left-hand side of the screen presents shortcuts for all of the most used applications.

Using these options, we can launch the LibreOffice component, the Firefox browser, the Software Center and many other applications.

The Menu Bar

When we launch any application, we will get the associated menu bar at the top of the application, which will have the different menu options for that application.

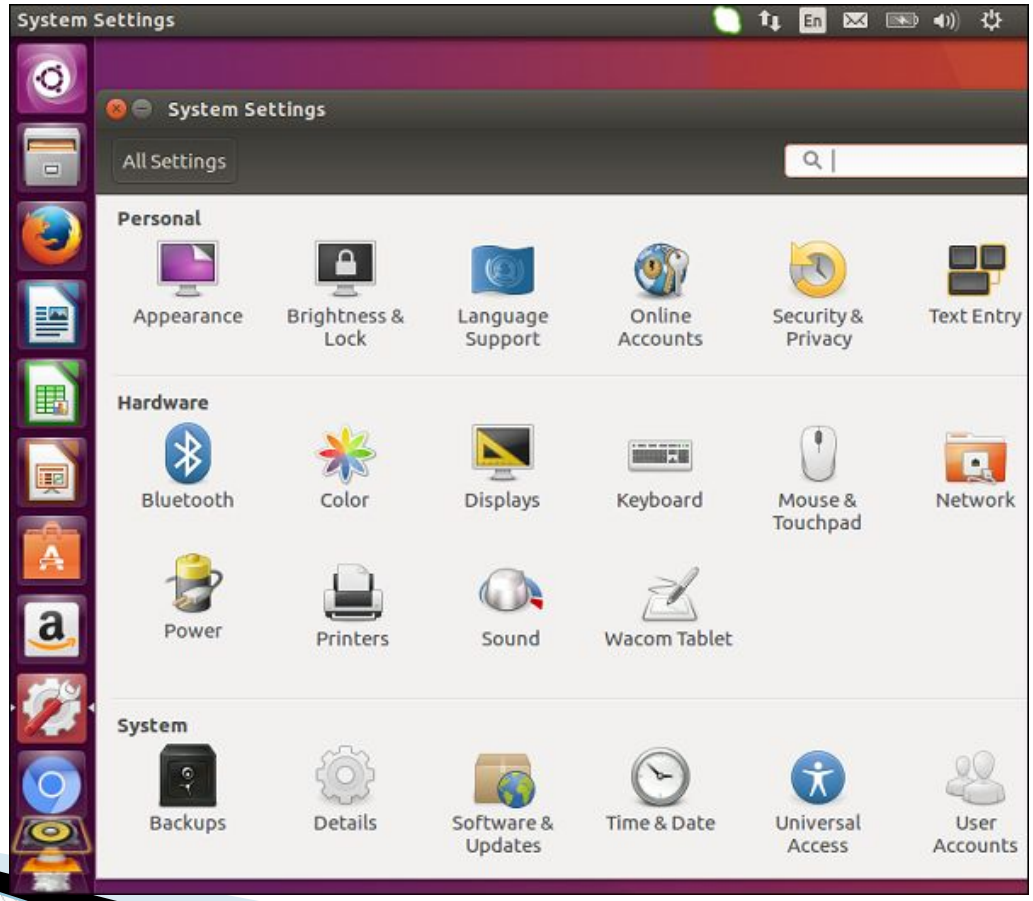


Taskbar

On the right-hand side of the screen is the task bar. The taskbar allows us to choose the change in volume settings, view the status of your internet connection ...

Ubuntu - Device Drivers

To view the options for devices, go to the settings options on the left-hand side control panel.



Ubuntu - Software Center

Ubuntu has a Software Center using which you can install a host of applications.

The Software Center is designed to search the Internet for available software which can be downloaded and installed.

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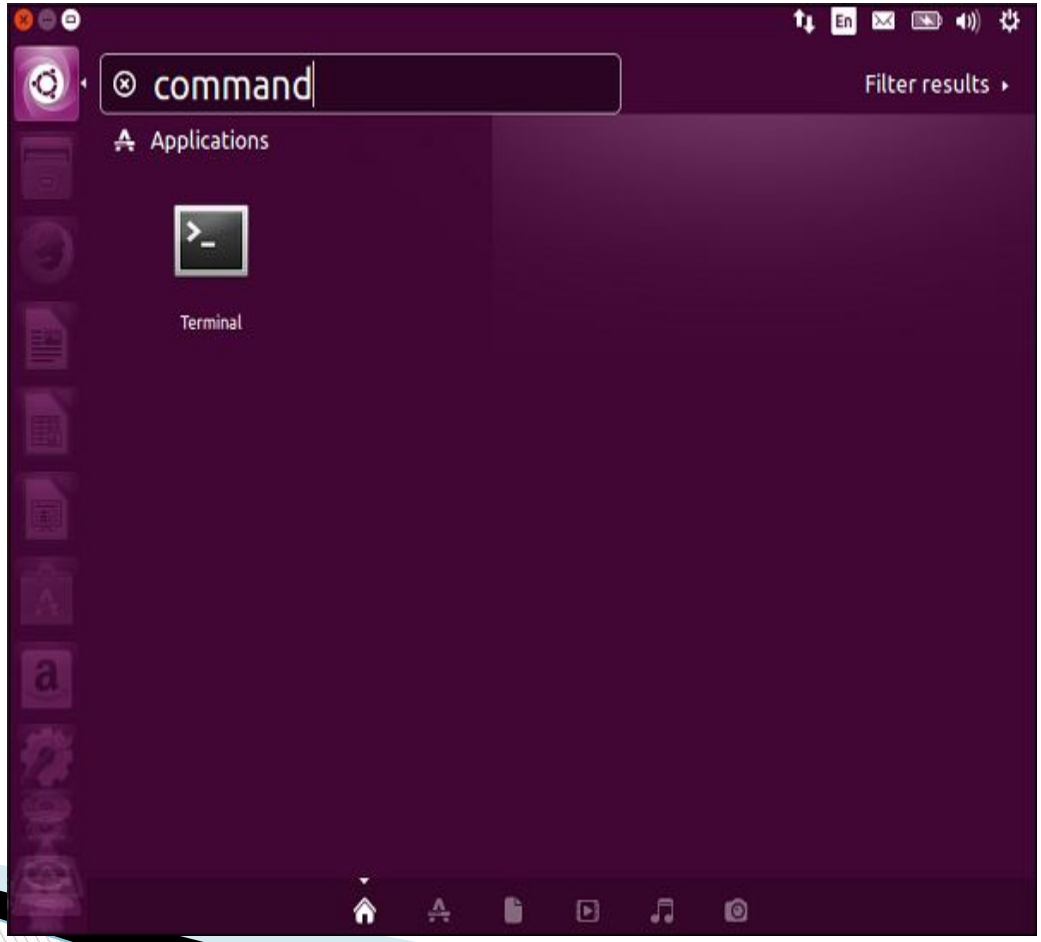
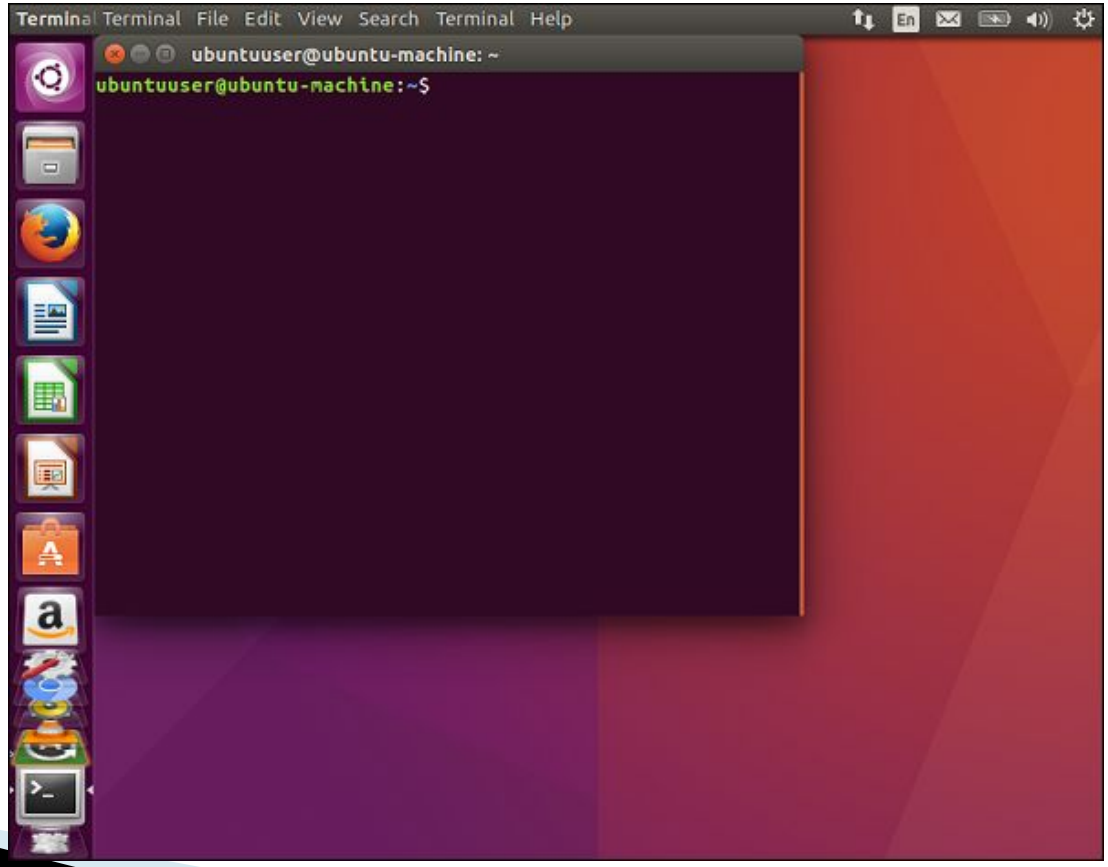
Ubuntu - Command Line

To invoke the command line, go to the search option and enter the command keyword in the search box.



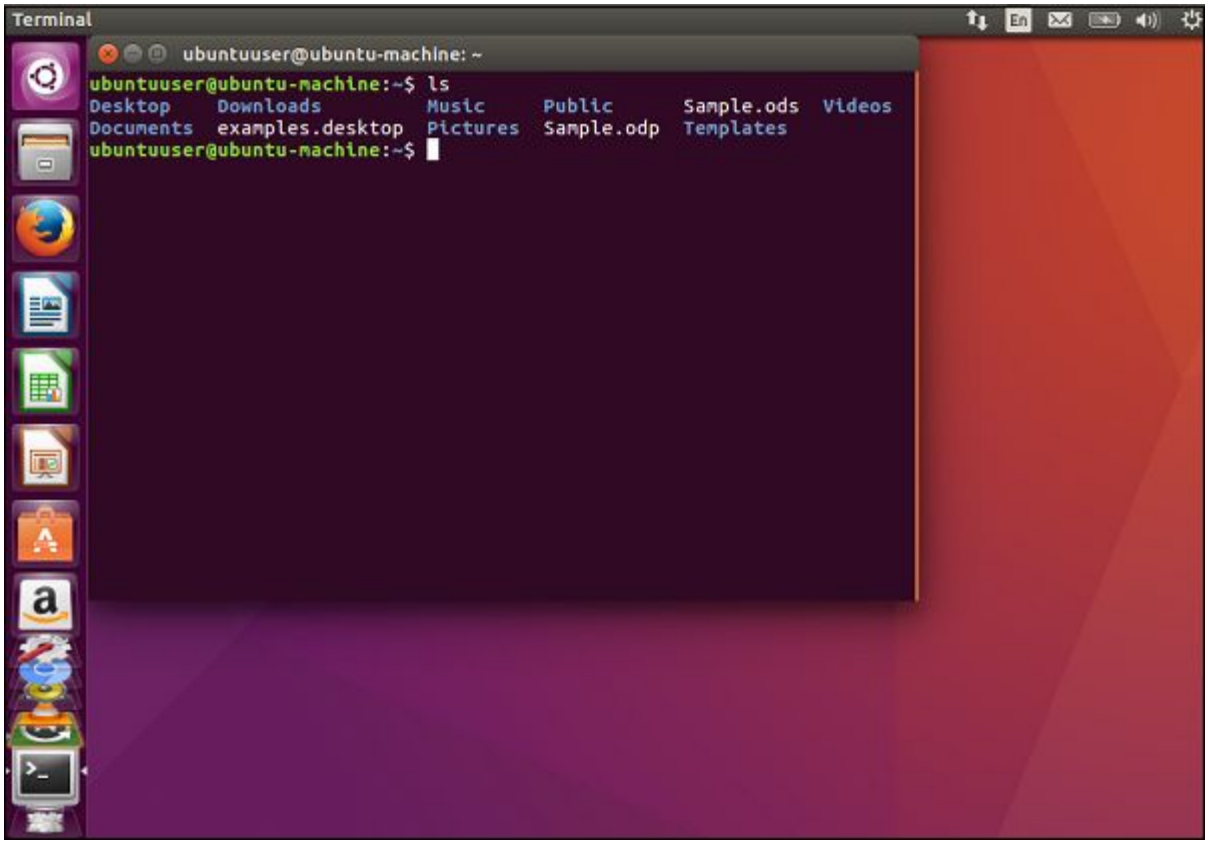
Ubuntu - Command Line

The search result will give the Terminal option. Double-lick to get the command line as shown in the following screenshot.



Ubuntu - Command Line

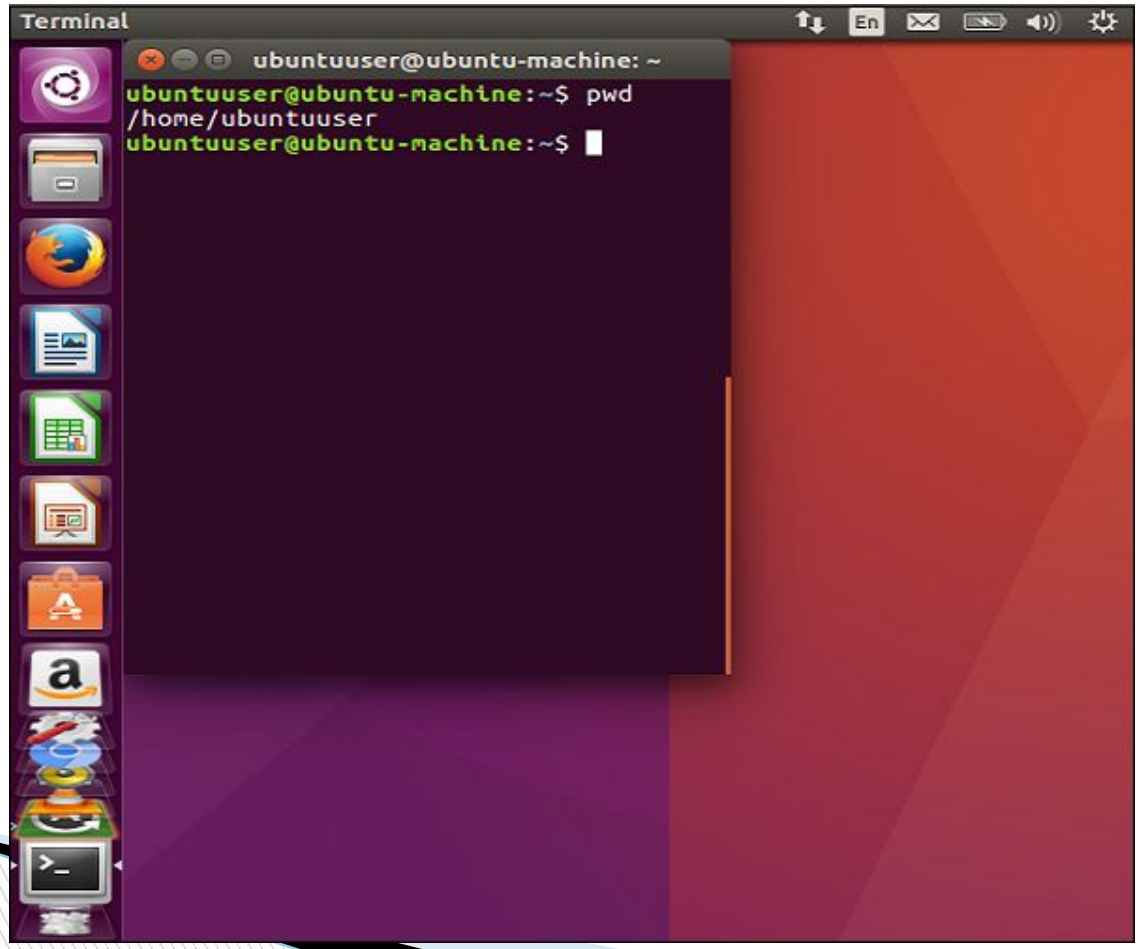
In the following example, we just issue the ls command to list the directory contents.

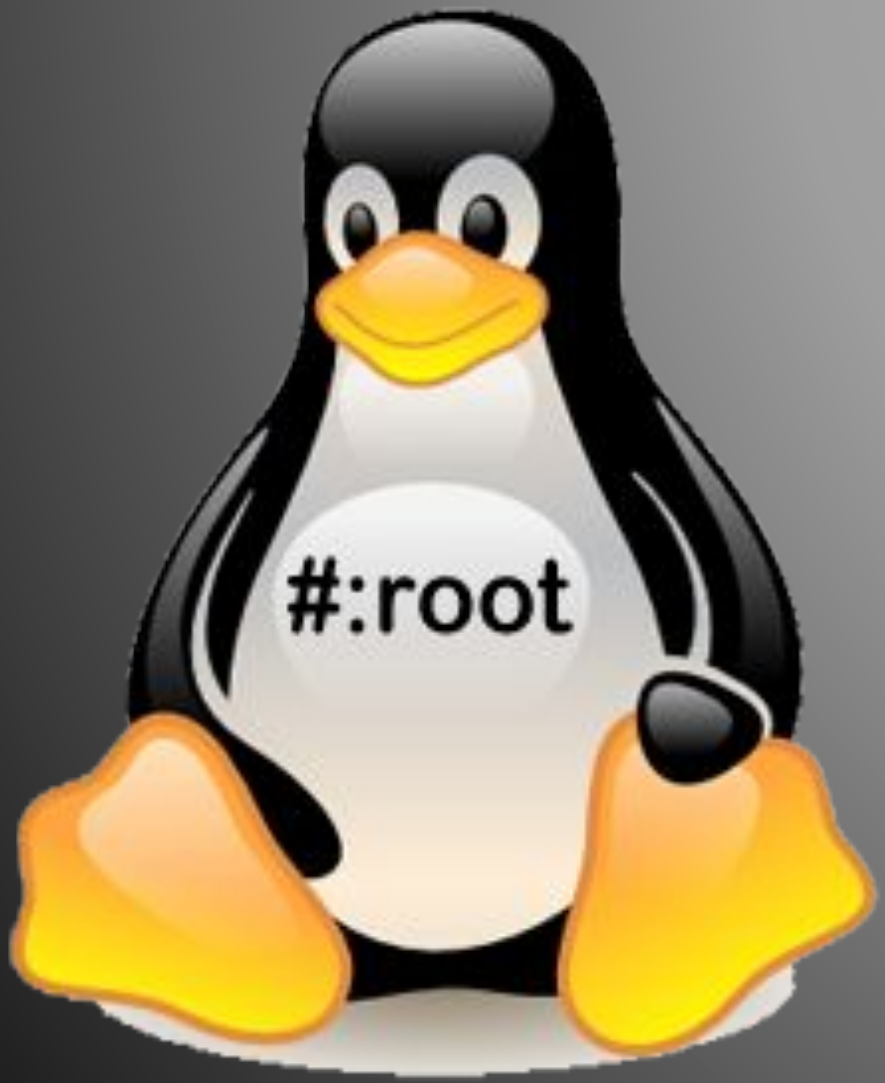


Ubuntu - Command Line

Present Working Directory - pwd command

The current working directory will be displayed.





Recommended book:

The Official Ubuntu Book, 7th Edition

root »

The root user is the master :)

sudo su :)

Finis