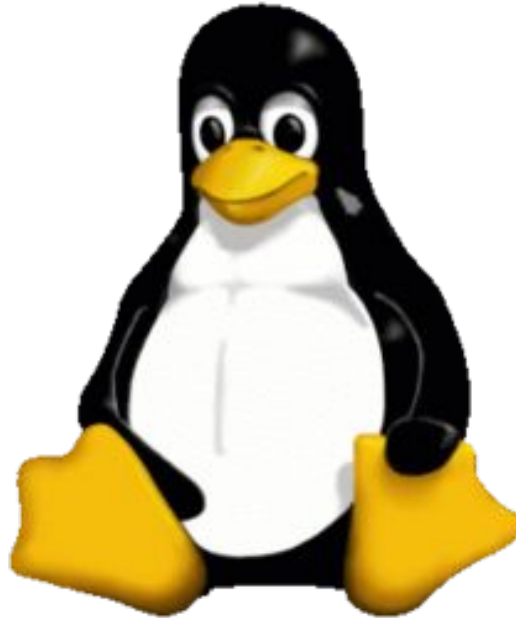
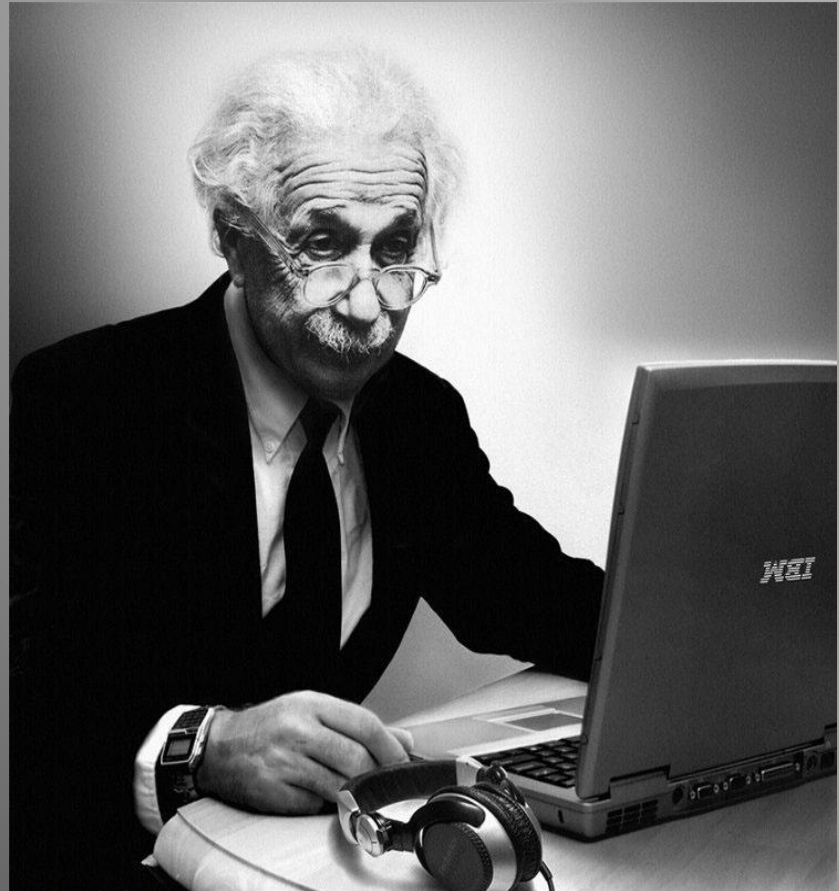


Introduction to Linux



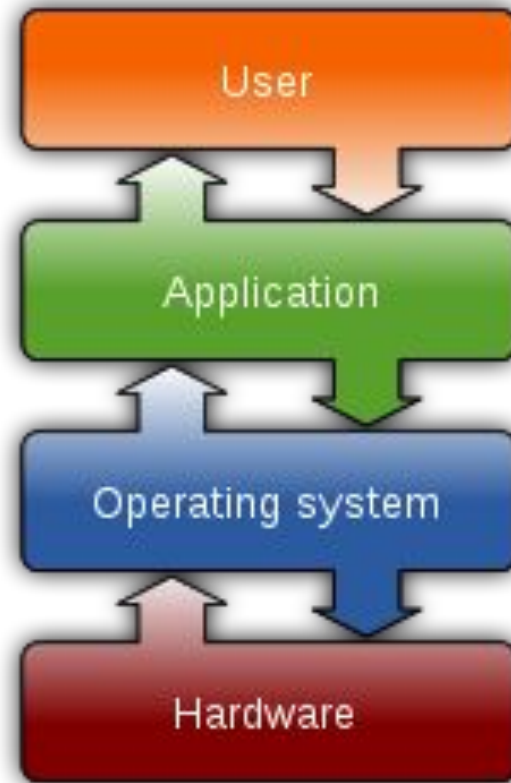
What is Linux?

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.



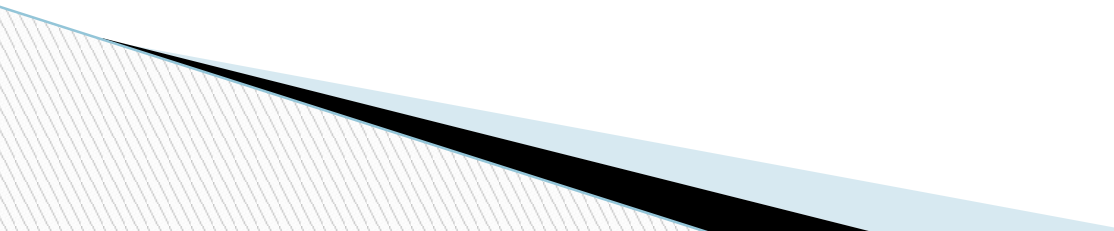
Linux Has Many Distributions



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



VirtualBox

Download VirtualBox

Here, you will find links to VirtualBox binaries and its source code.

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

- **VirtualBox platform packages.** The binaries are released under the terms of the GPL version 2.
 - **VirtualBox 4.3.10 for Windows hosts** → [x86/amd64](#)
 - **VirtualBox 4.3.10 for OS X hosts** → [x86/amd64](#)
 - **VirtualBox 4.3.10 for Linux hosts**
 - **VirtualBox 4.3.10 for Solaris hosts** → [x86/amd64](#)
- **VirtualBox 4.3.10 Oracle VM VirtualBox Extension Pack** → All supported platforms
Support for USB 2.0 devices, VirtualBox RDP and PXE boot for Intel cards. See this chapter from the User Manual for an intro under the VirtualBox Personal Use and Evaluation License (PUEL).
Please install the extension pack with the same version as your installed version of VirtualBox!
If you are using **VirtualBox 4.2.24**, please download the extension pack → [here](#).
If you are using **VirtualBox 4.1.32**, please download the extension pack → [here](#).
If you are using **VirtualBox 4.0.24**, please download the extension pack → [here](#).
- **VirtualBox 4.3.10 Software Developer Kit (SDK)** → All platforms

See the [changelog](#) for what has changed.
You might want to compare the

- SHA256 checksums or the
- MD5 checksums

to verify the integrity of downloaded packages.
The SHA256 checksums should be favored as the MD5 algorithm must be treated as insecure!

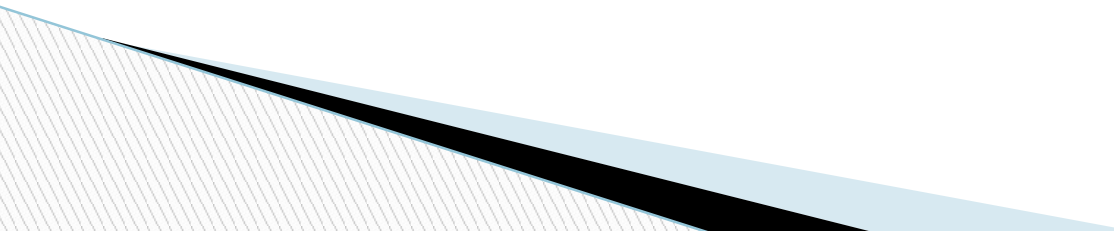
Click On this link to download virtualbox for windows7

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.



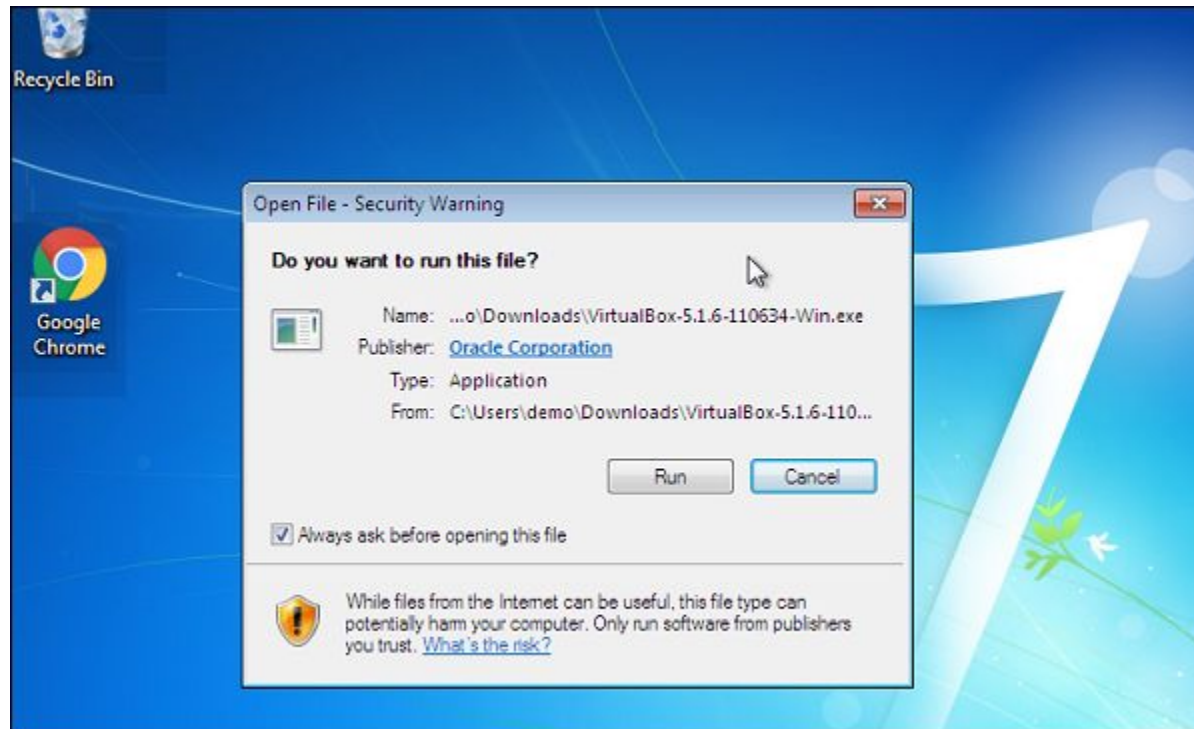
Step 1 – Download Oracle VirtualBox from the oracle site –
<https://www.virtualbox.org/>



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



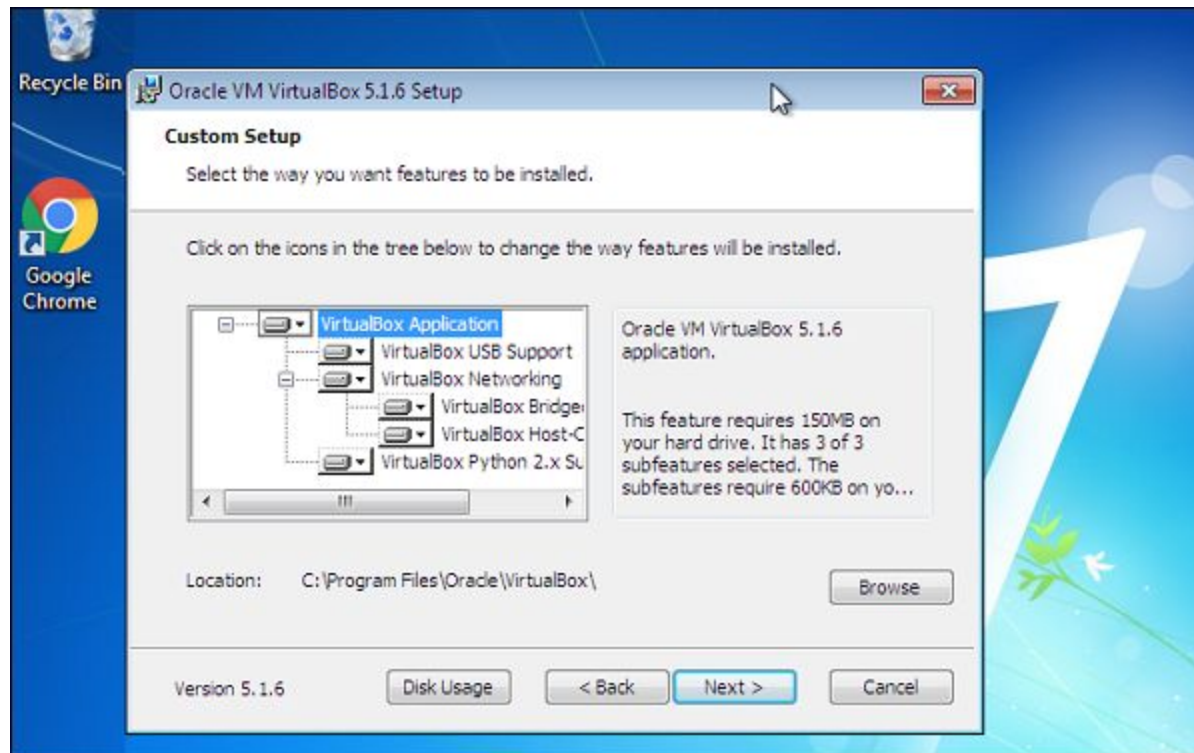
Step 3 – Once download is complete, install VirtualBox. Launch the installer. Click the Run button on the following screen.



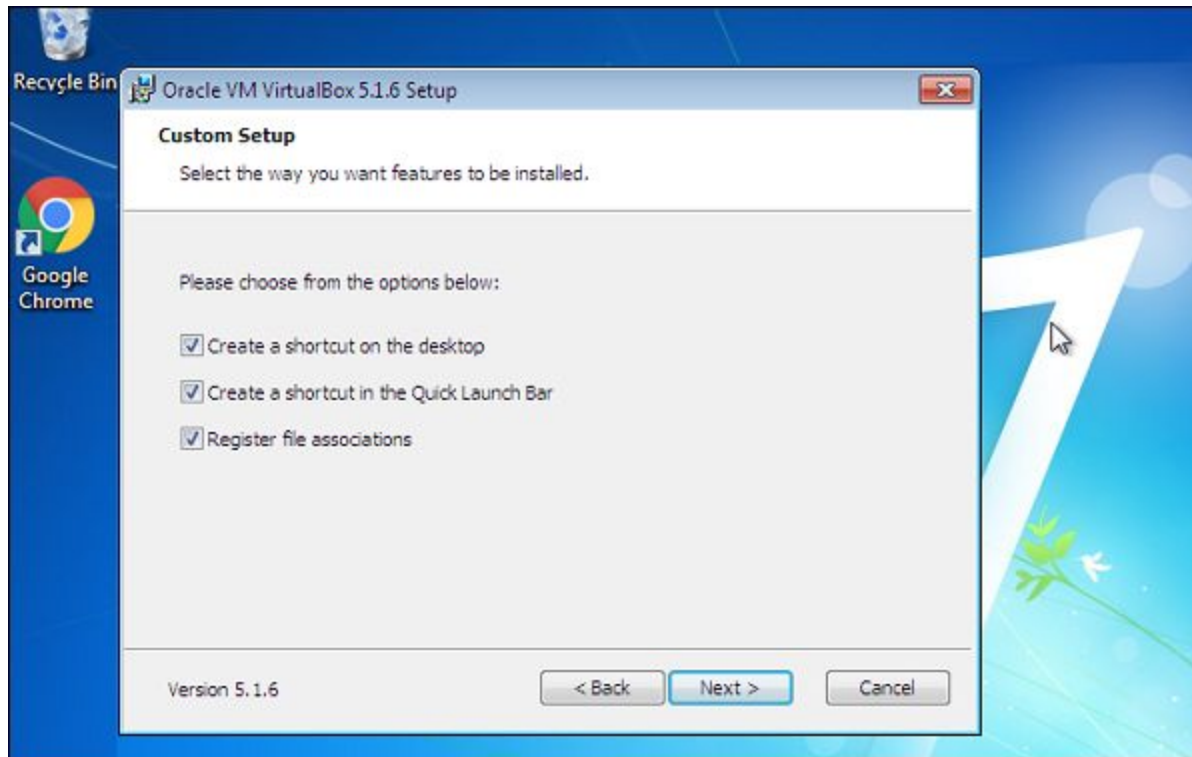
Step 4 – Click the Next button on the subsequent screen.



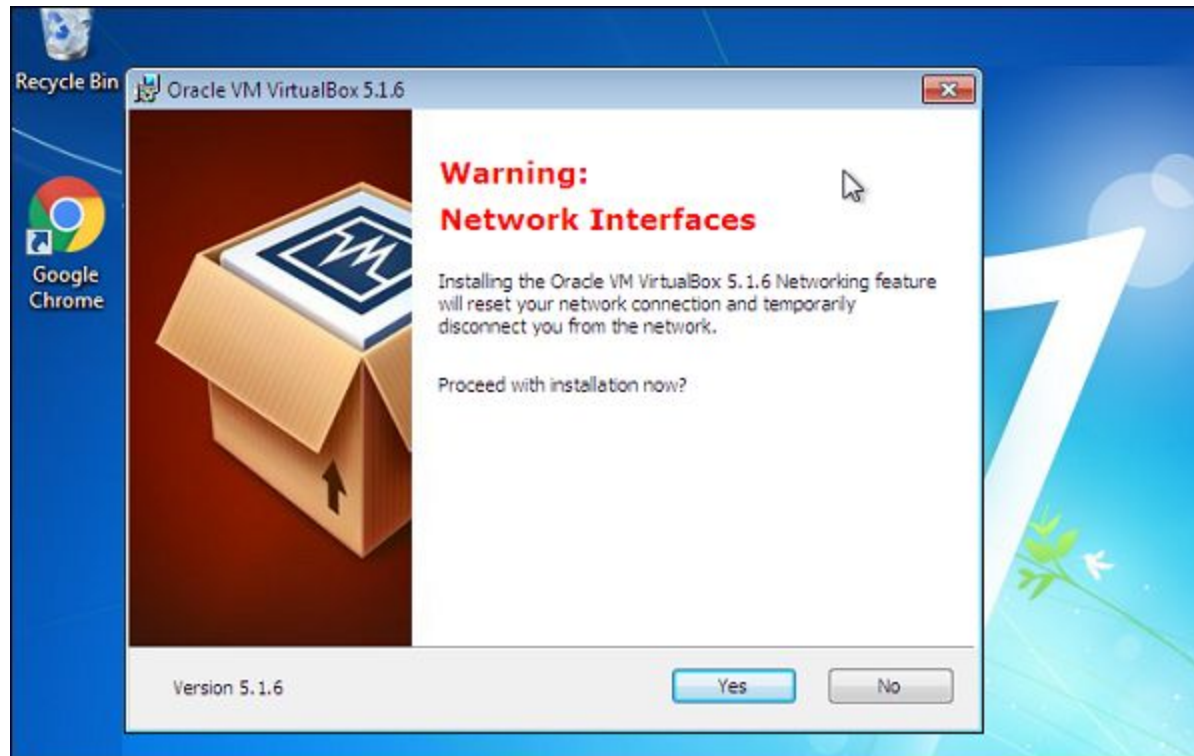
Step 5 – Choose the appropriate folder location and click the Next button.



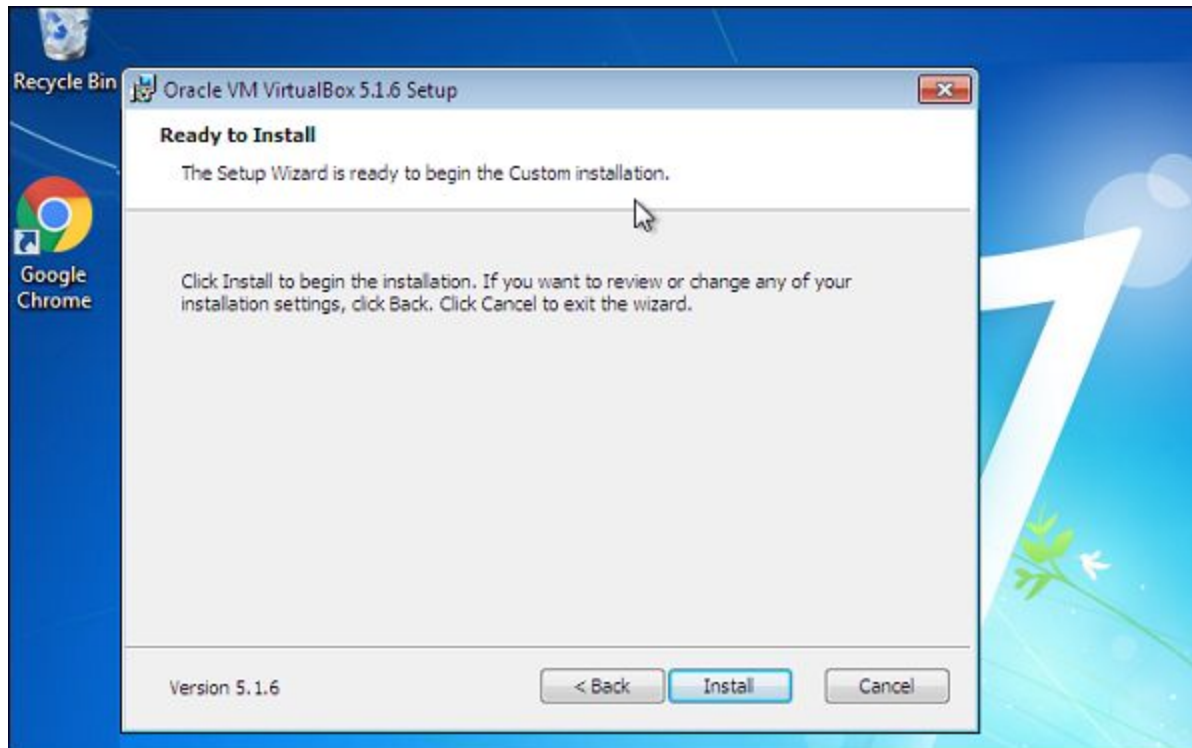
Step 6 – Click Next on the subsequent screen.



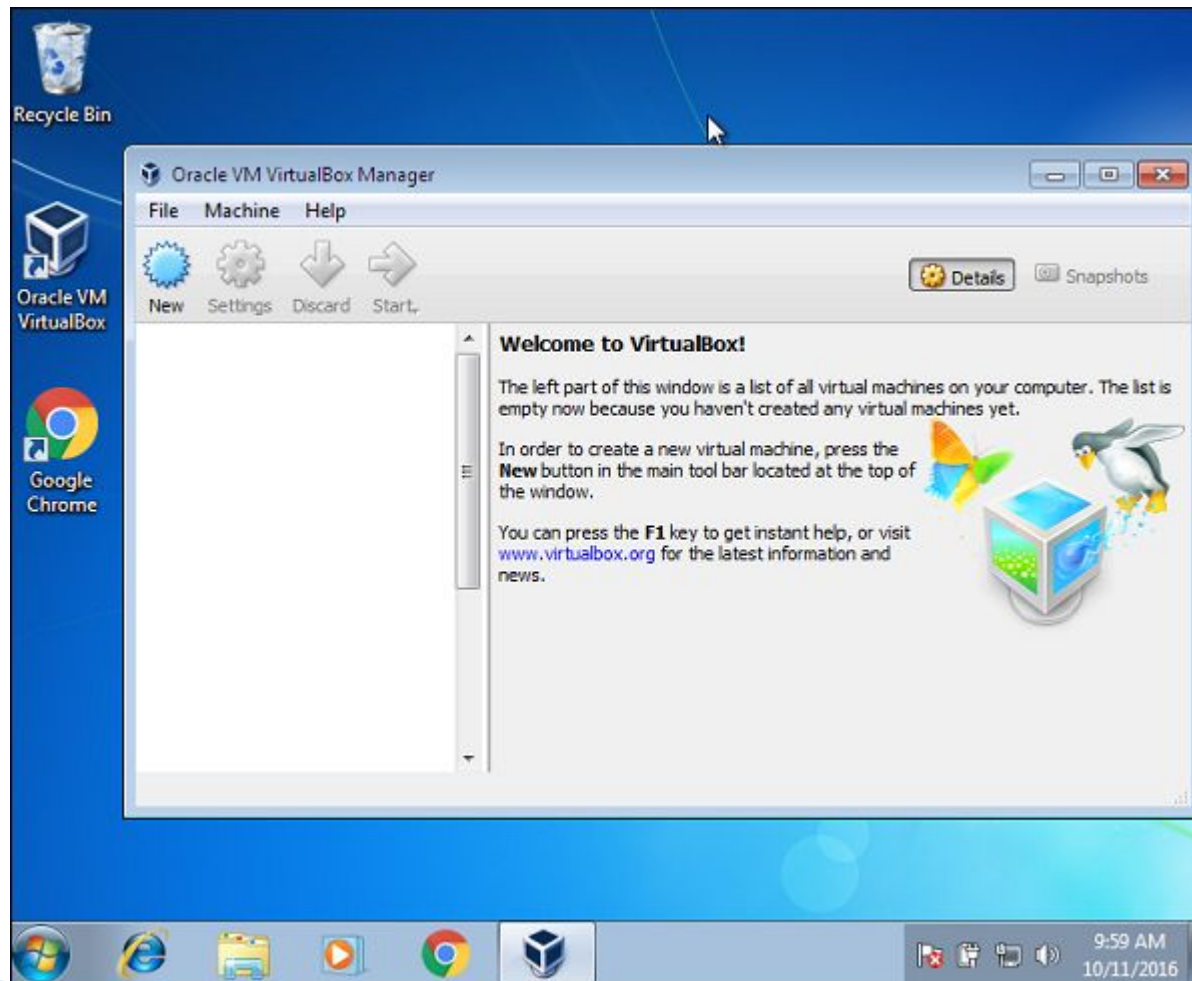
Step 7 – Click the 'Yes' button on the next screen to proceed ahead with the installation.



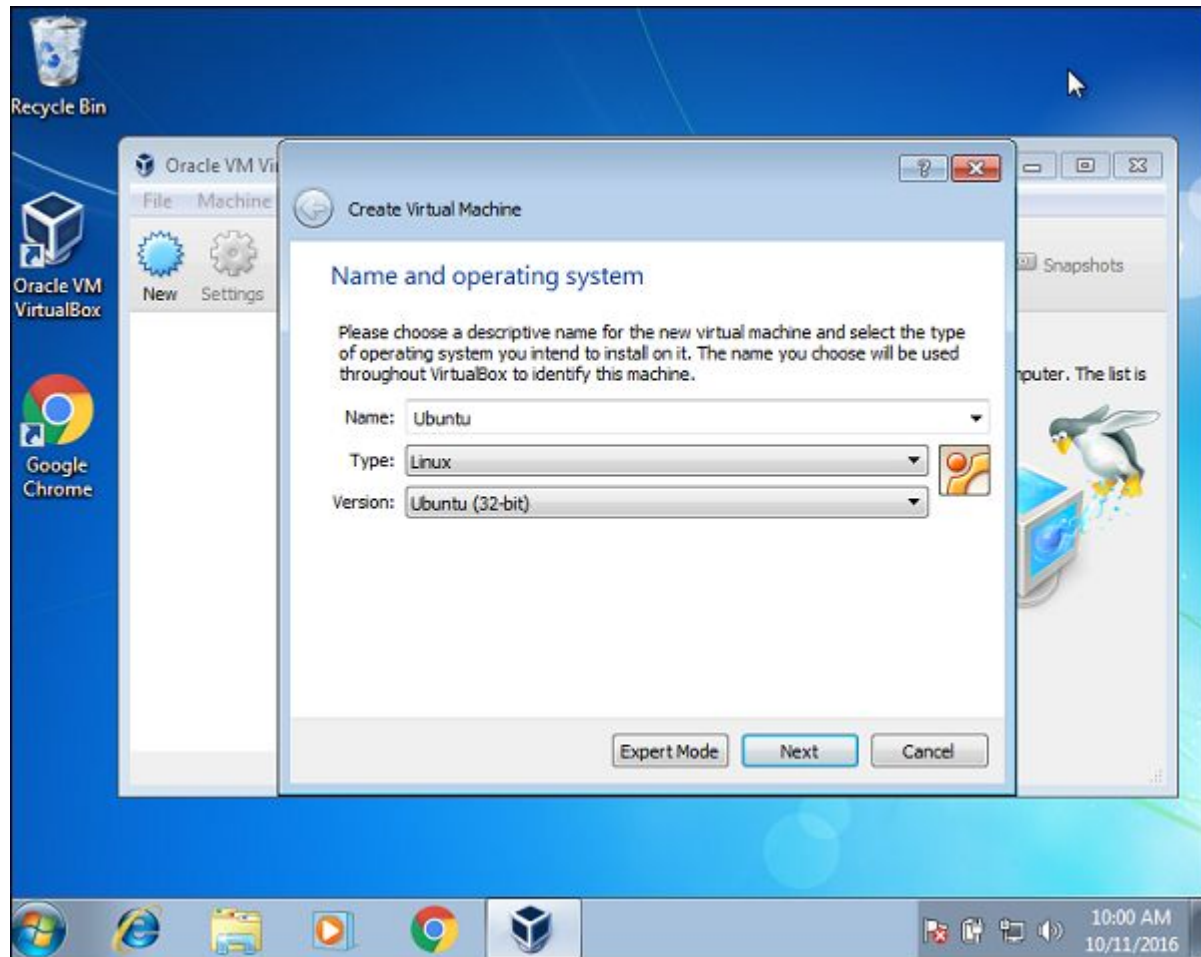
Step 8 – Click Install on the next screen.



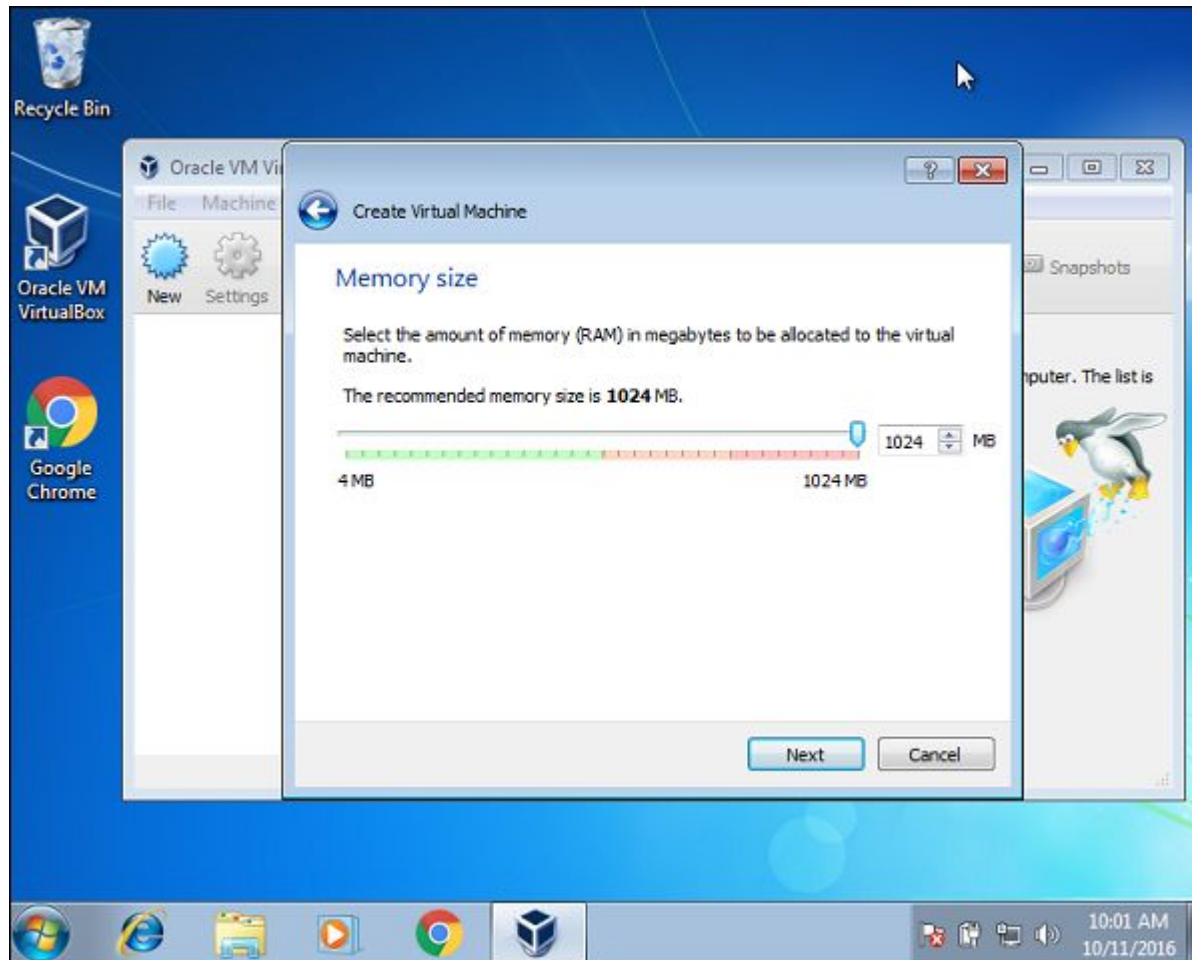
Step 9 – After the installation is complete, launch Oracle VirtualBox. On the Launch screen, click the 'New' menu option.



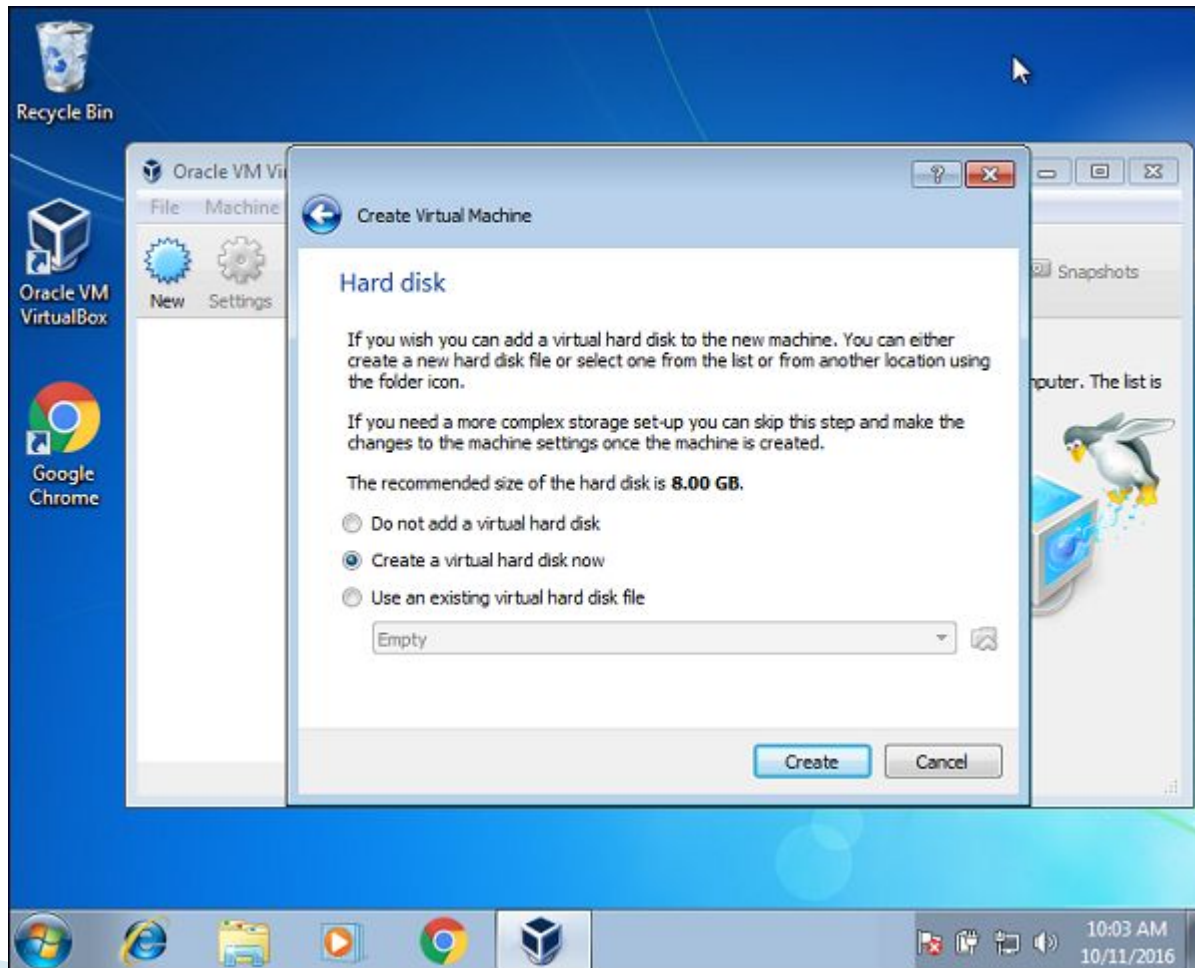
Step 10 – Give a name for the virtual machine and give the type as Ubuntu and then click the Next button.



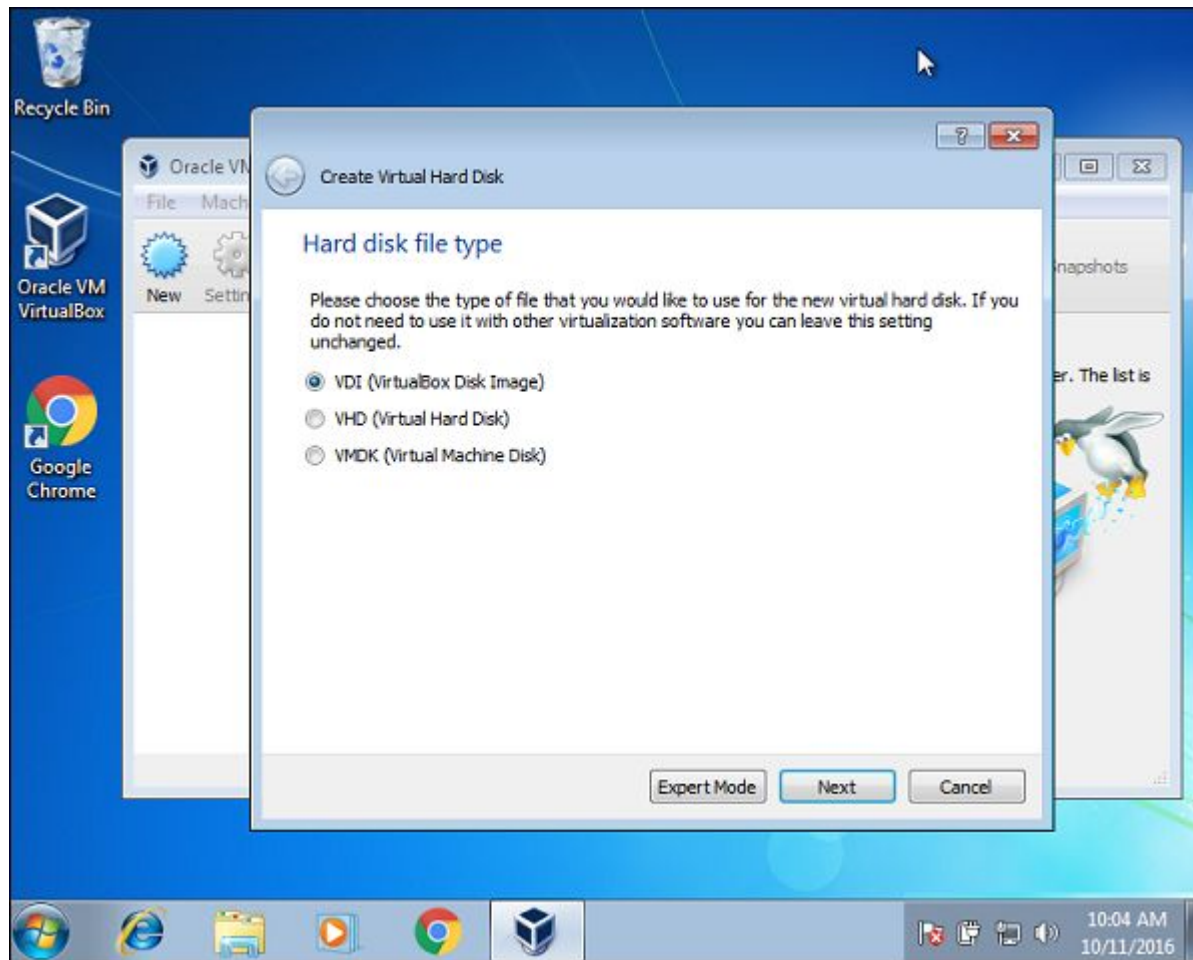
Step 11 – In the next screen, keep the recommended RAM as it is and click the Next button.



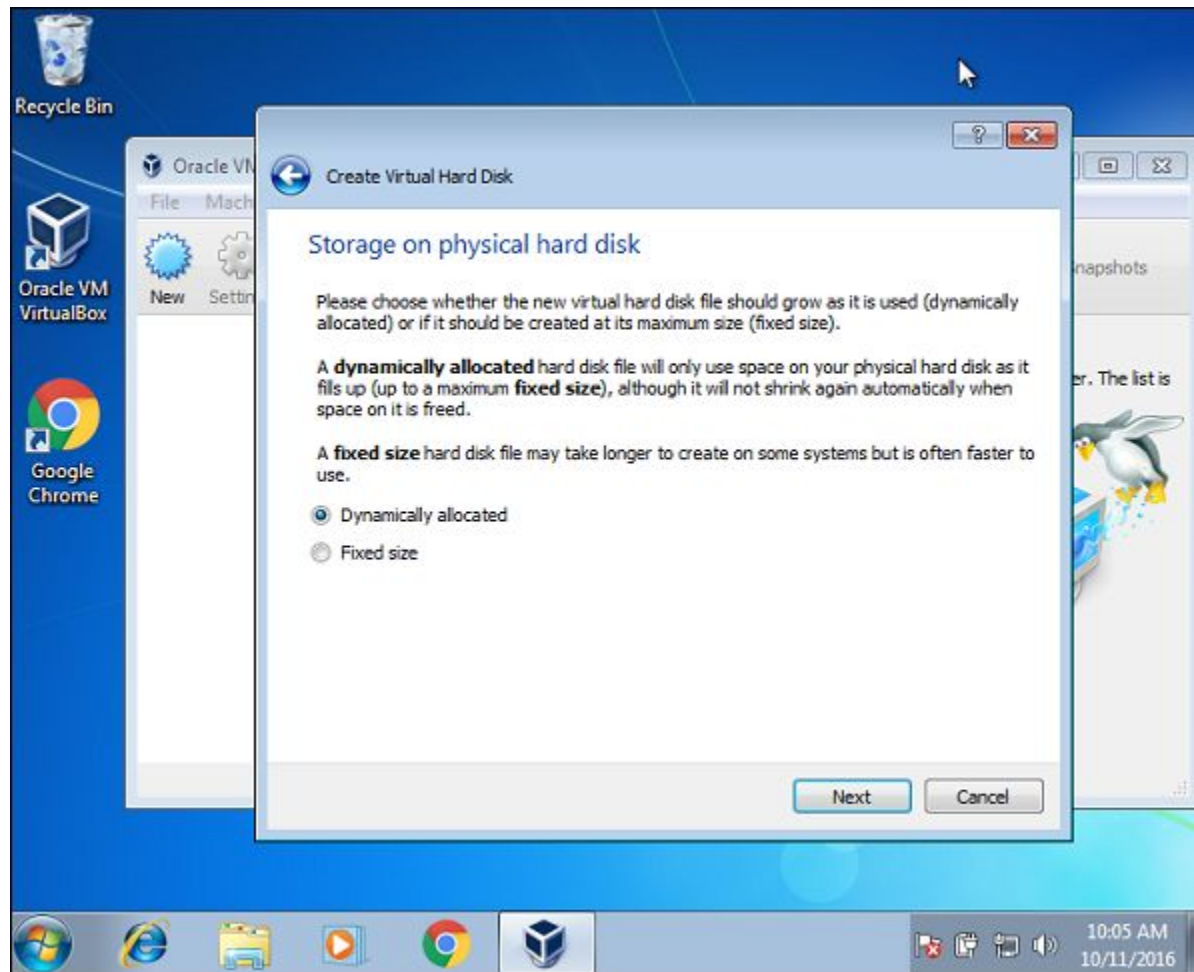
Step 12 – Accept the default setting for the virtual hard disk and click the Create button.



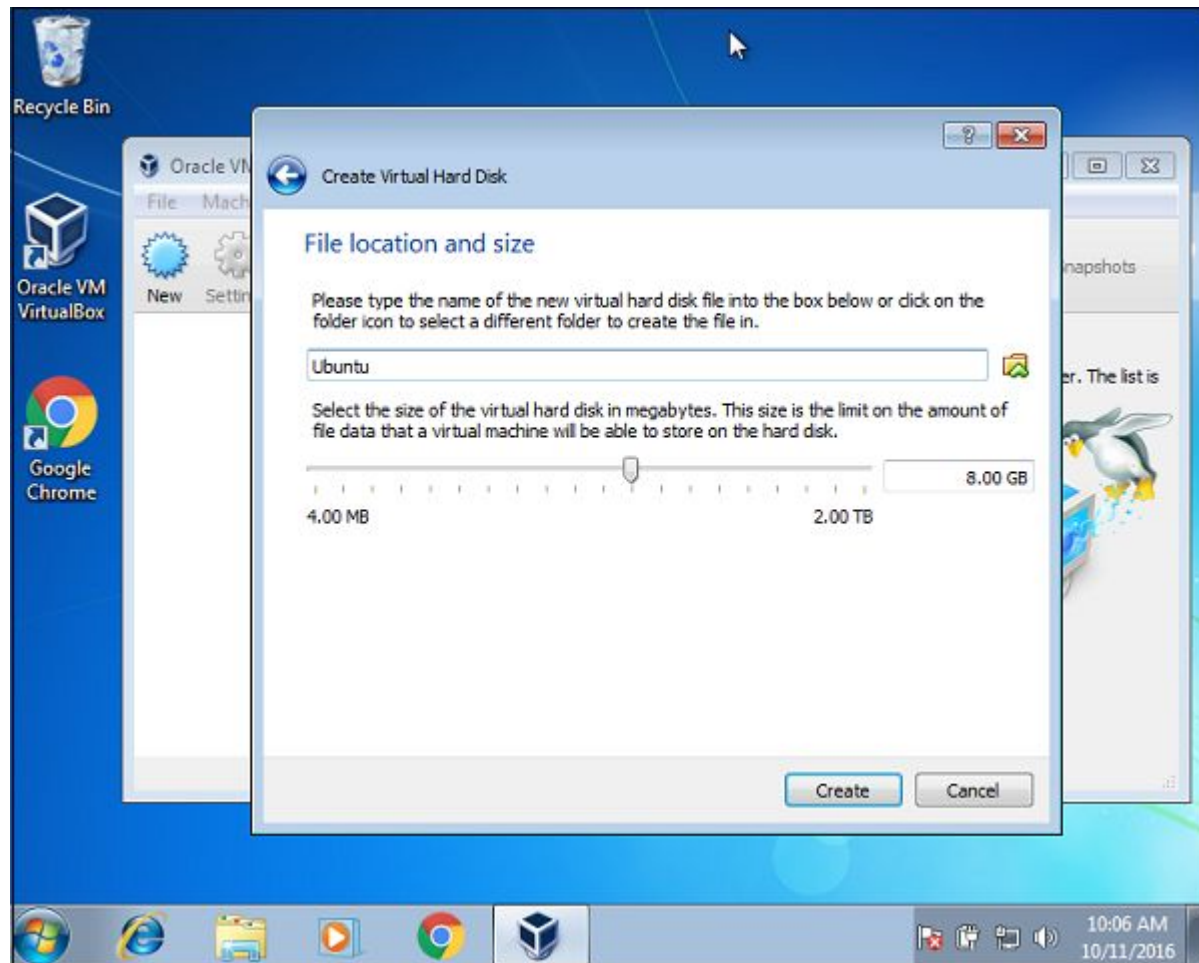
Step 13 – Accept the hard disk type and click the Next button.
You can select VHD or VDI.



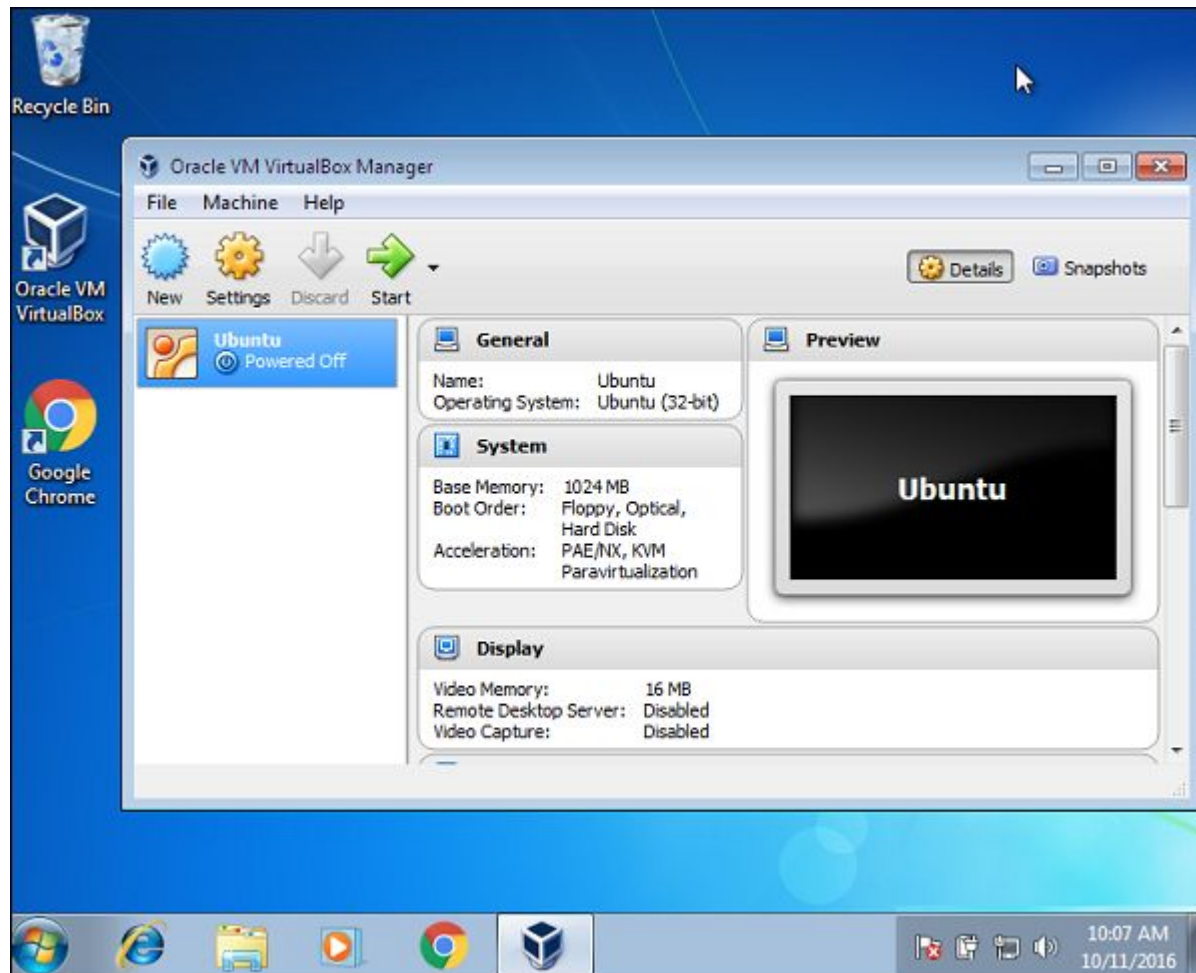
Step 14 – Accept the default type of physical hard disk allocation and click the Next button.



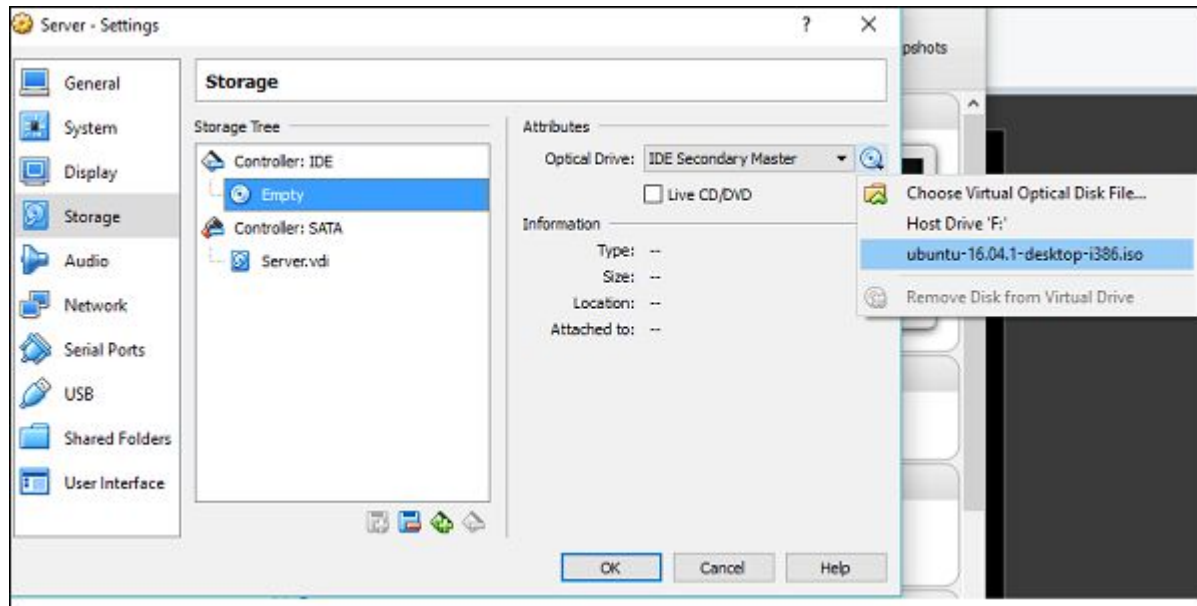
Step 15 – Accept the default file location and click the Create button.



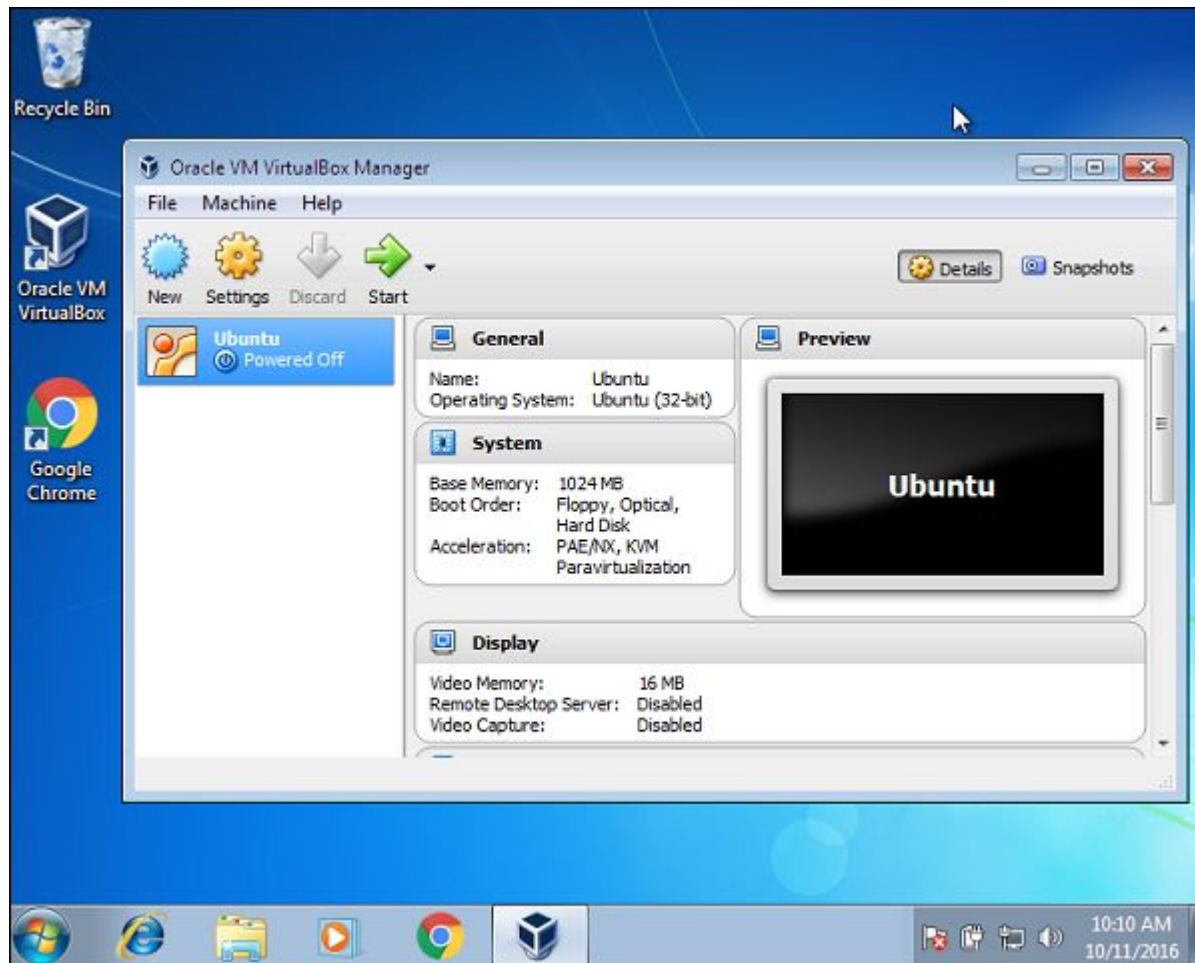
Step 16 – Now that the Virtual Machine has been created, click the Settings Menu option.



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

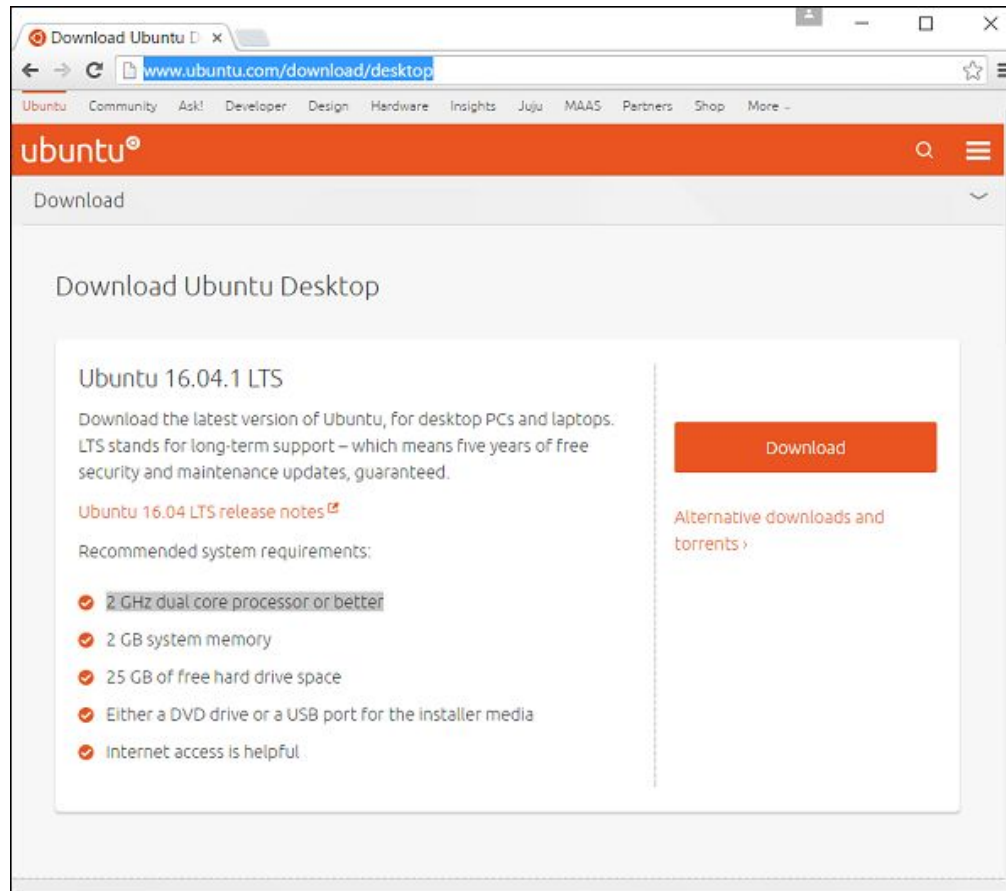


Step 18 - Finally click the Start button. The system prompts to install Ubuntu. Follow the steps in the Installation instruction.

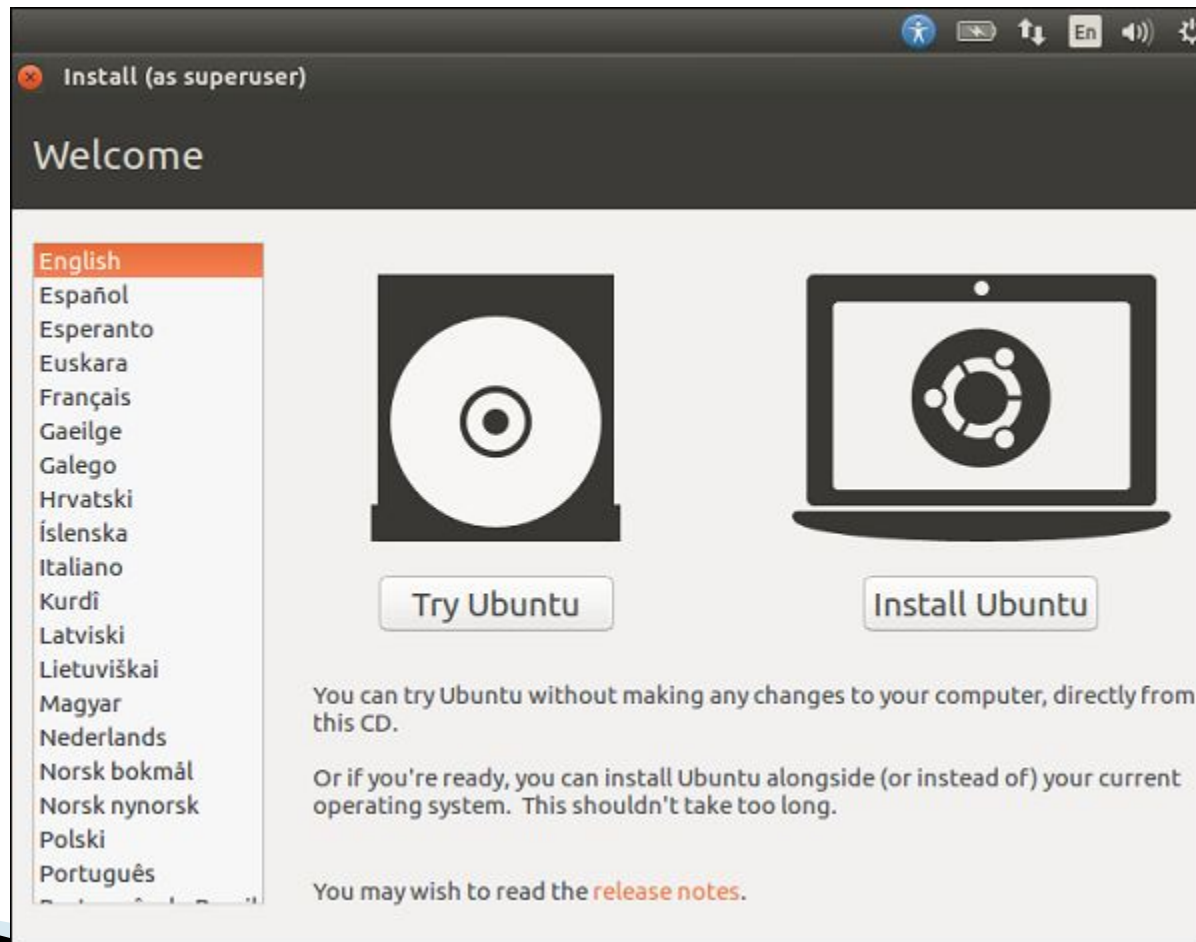


Installing Ubuntu

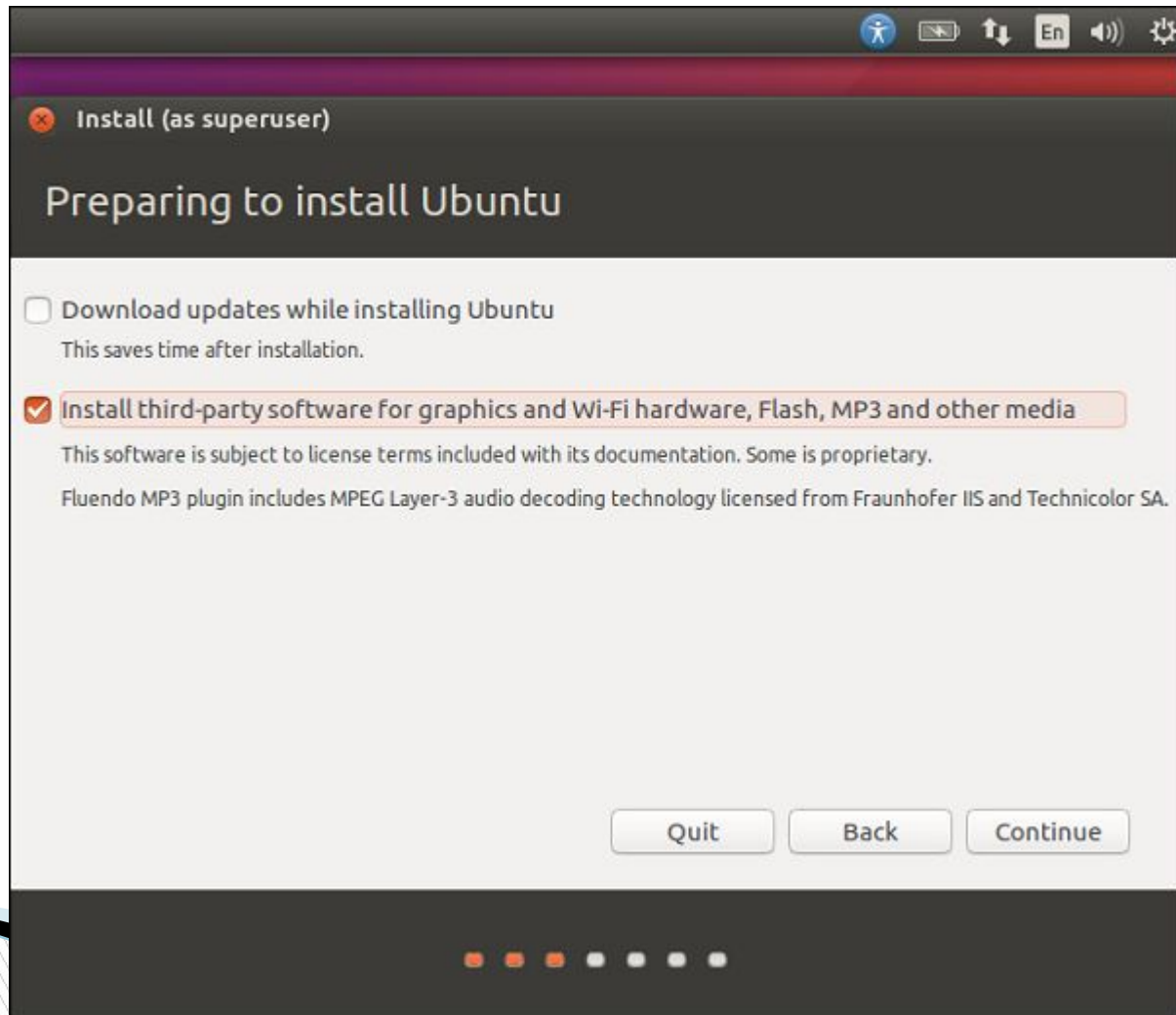
- Now let's learn about installing the desktop version of Ubuntu.



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.



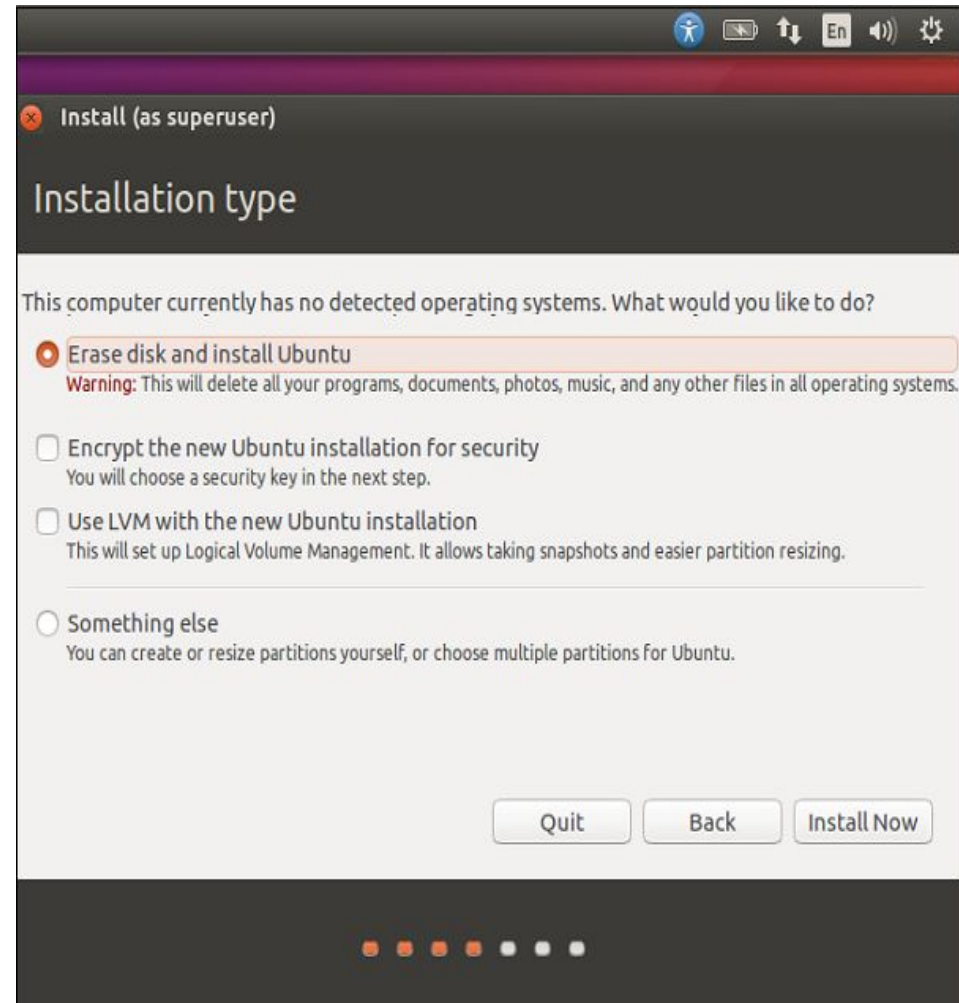
Step 2 – The next screen gives you 2 options. One is to download updates in the background while installing and the other is to install 3rd party software. Check the option to install 3rd party software. Then click the Continue button.



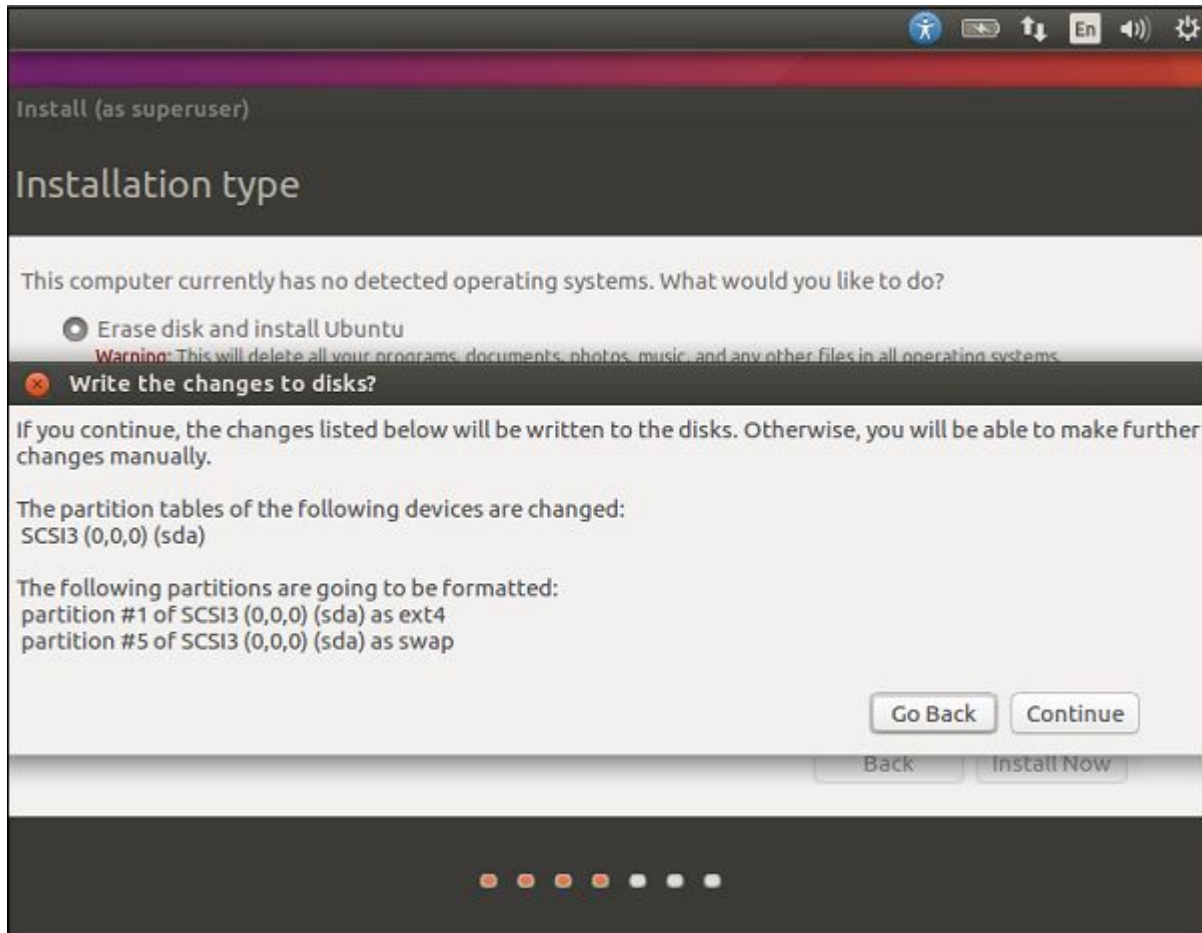
Step 3 – In the next screen, the following options are presented –

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.

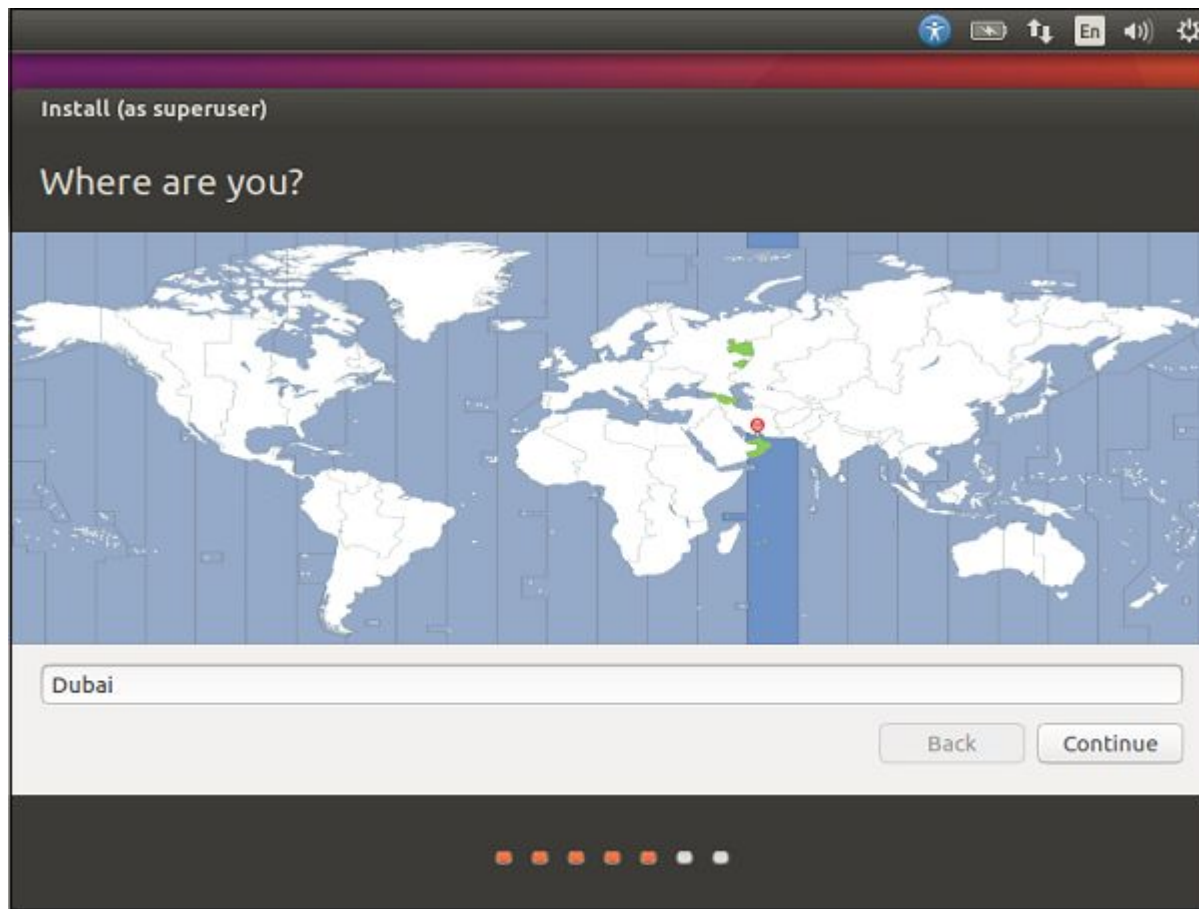
Click the Erase and install Ubuntu button.
Then Install Now button.



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



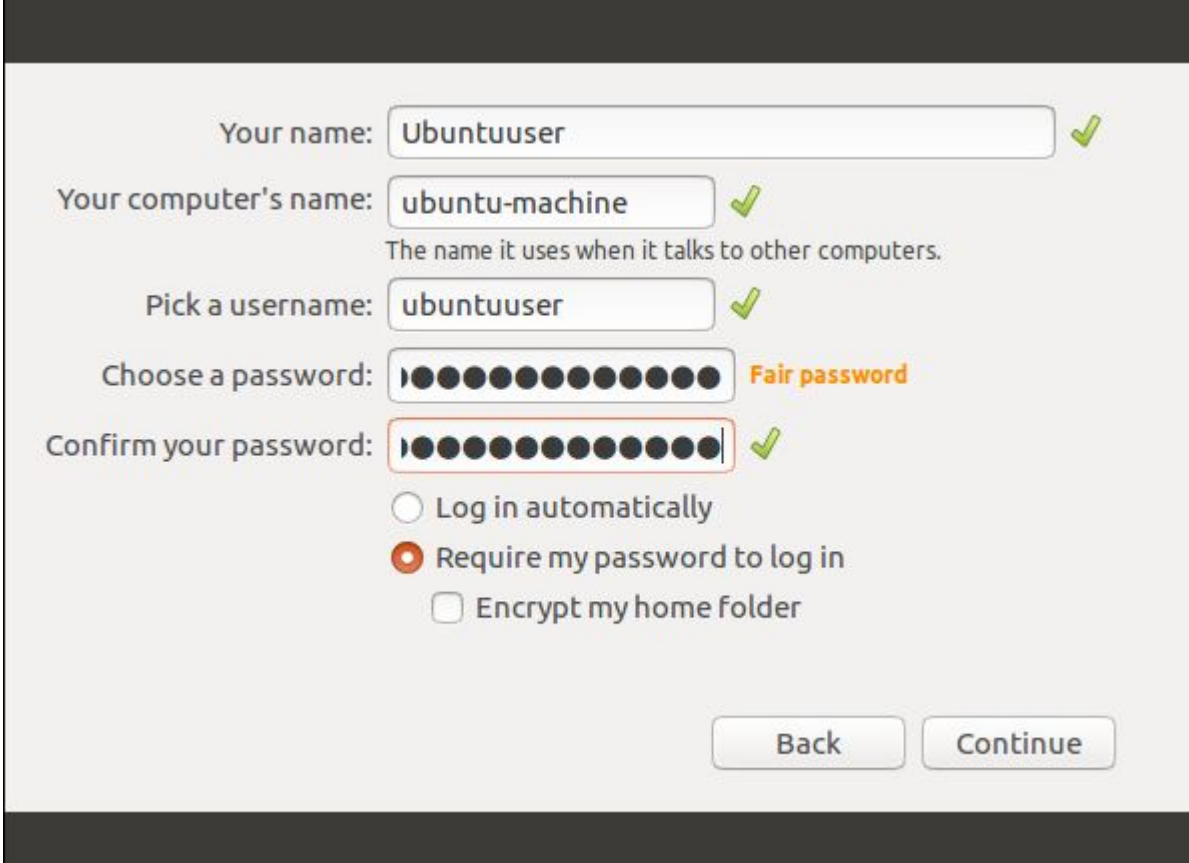
Step 5 – In this screen, we will be asked to confirm our location. Click the Continue button to proceed.



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 screenshot shows the 'User Setup' window in the Ubuntu installer. It contains several input fields and checkboxes. The 'Your name' field is filled with 'Ubuntuuser' and has a green checkmark. The 'Your computer's name' field is filled with 'ubuntu-machine' and has a green checkmark; a tooltip below it says 'The name it uses when it talks to other computers.' The 'Pick a username' field is filled with 'ubuntuuser' and has a green checkmark. The 'Choose a password' field is filled with 12 dots, has a green checkmark, and a label 'Fair password' in orange. The 'Confirm your password' field is also filled with 12 dots, has a green checkmark, and is highlighted with a red border. Below these fields are three radio buttons: 'Log in automatically' (unselected), 'Require my password to log in' (selected), and 'Encrypt my home folder' (unselected). At the bottom right are 'Back' and 'Continue' buttons.

Your name: ✓

Your computer's name: ✓
The name it uses when it talks to other computers.

Pick a username: ✓

Choose a password: Fair password ✓

Confirm your password: ✓

☐ Log in automatically
☒ Require my password to log in
☐ Encrypt my home folder

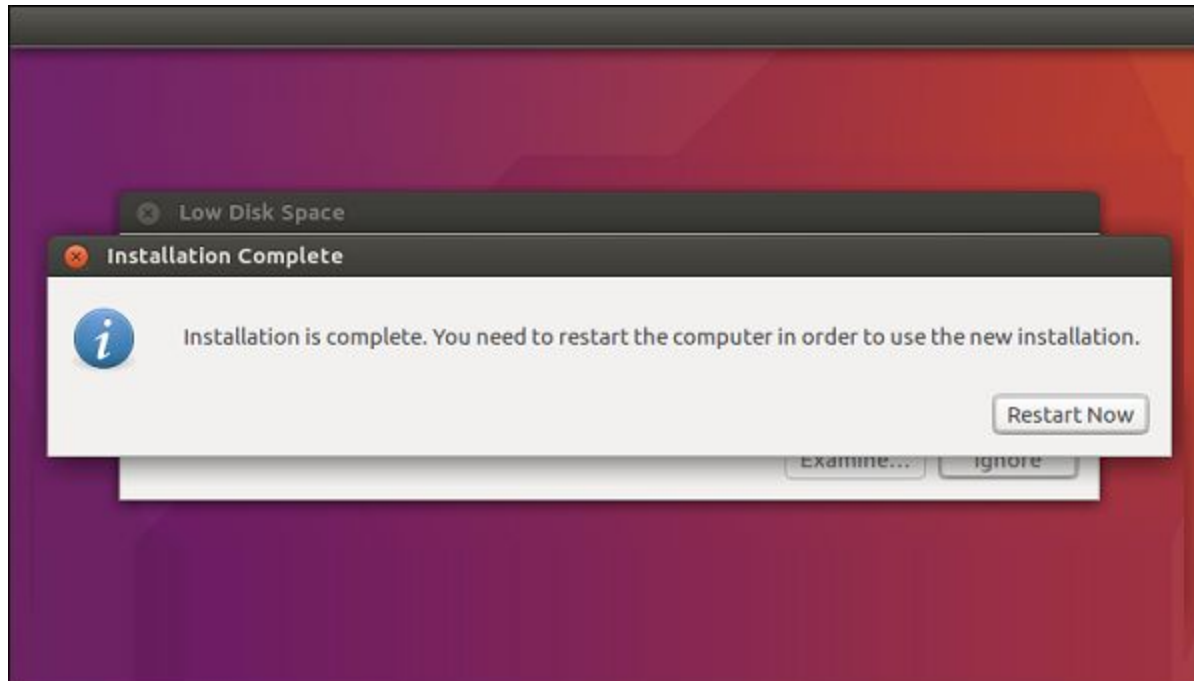
Back Continue

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

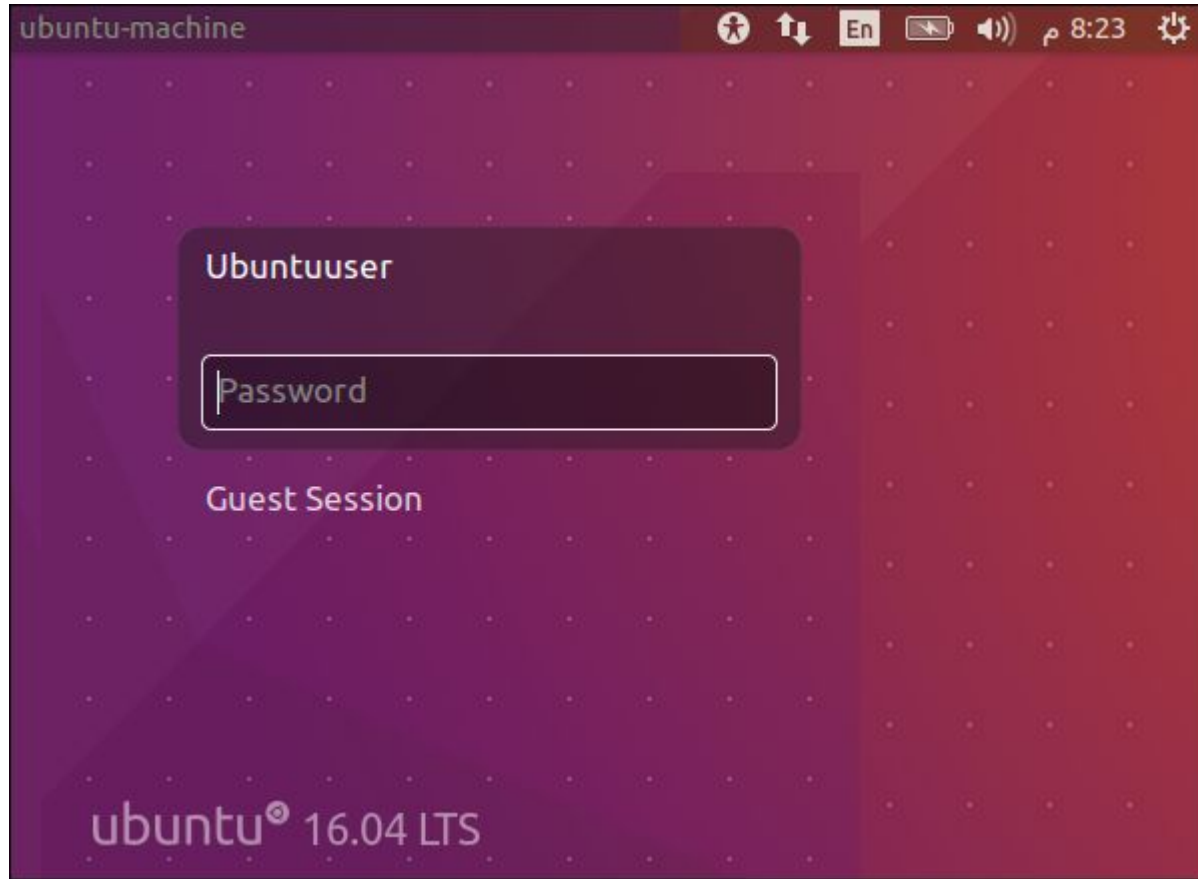


At the end of the installation, the system will prompt for a restart.

Step 8 – Click the Restart Now to proceed.

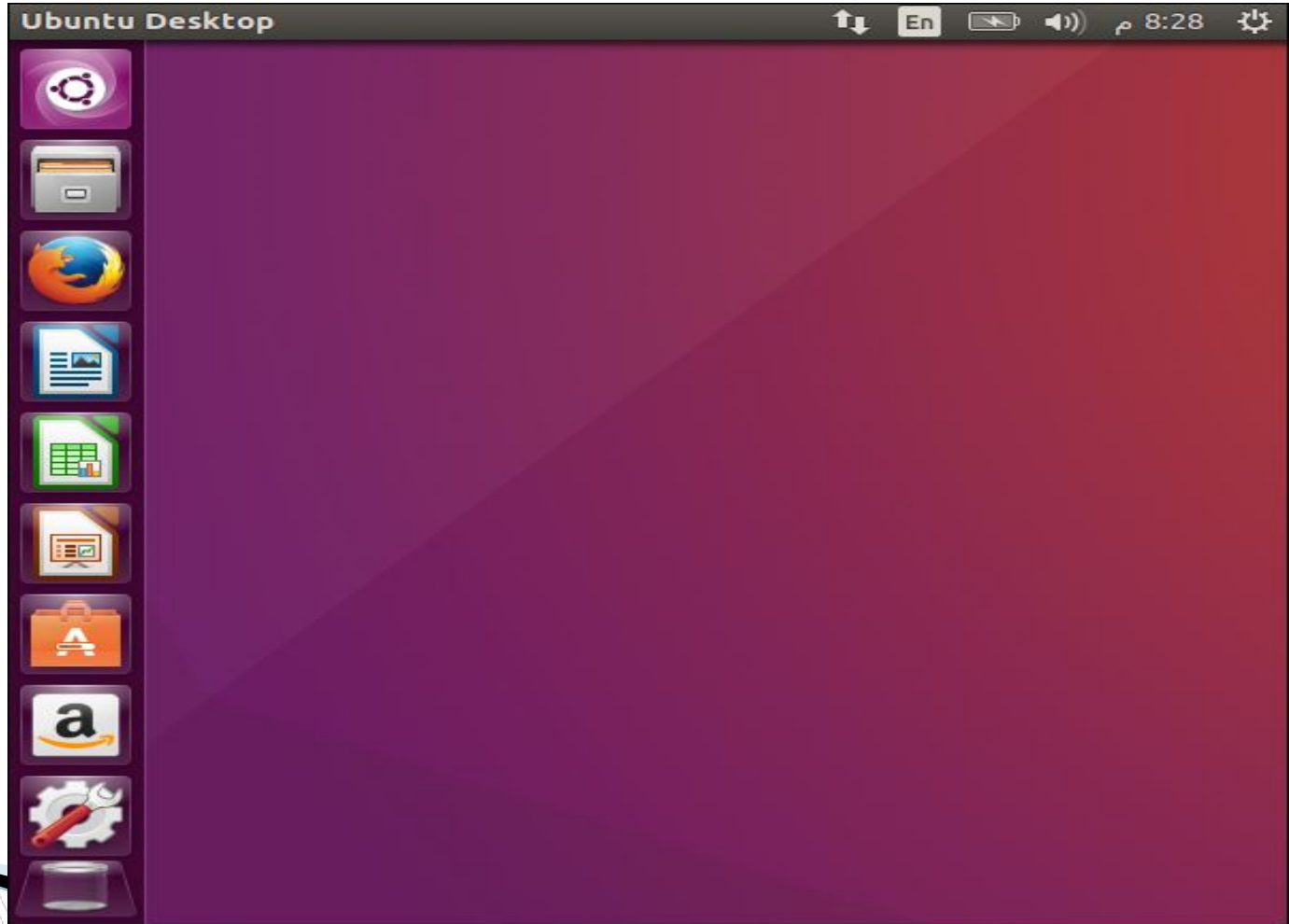


Once the restart is complete, log in with the username and password.



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

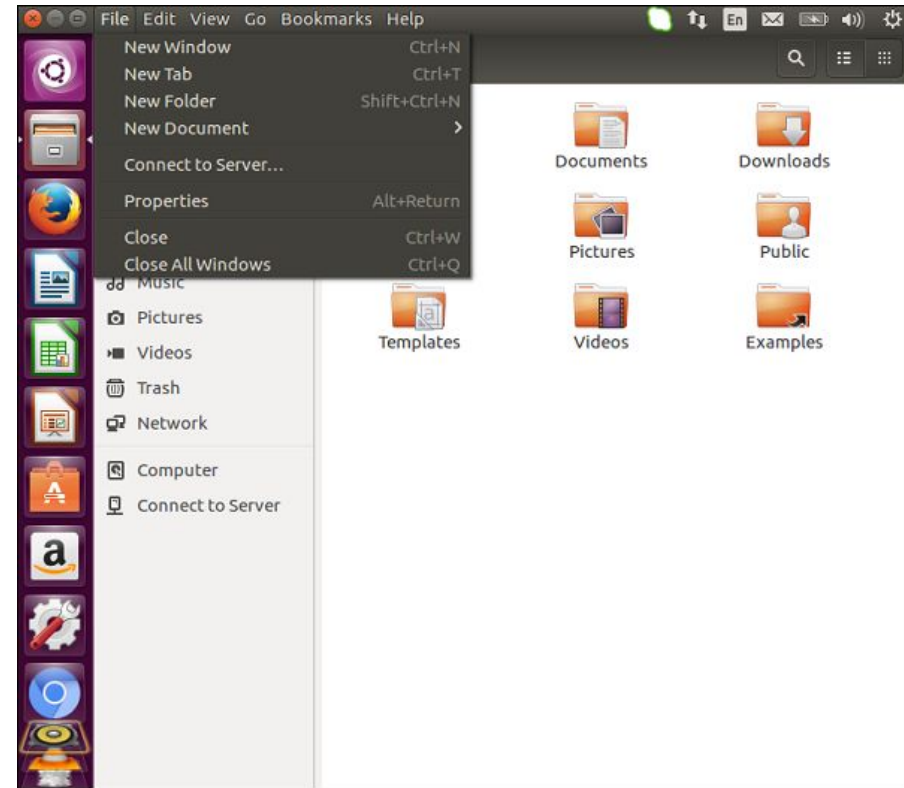
The Control Panel on the left-hand side of the screen presents shortcuts for all of the most used applications.

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.



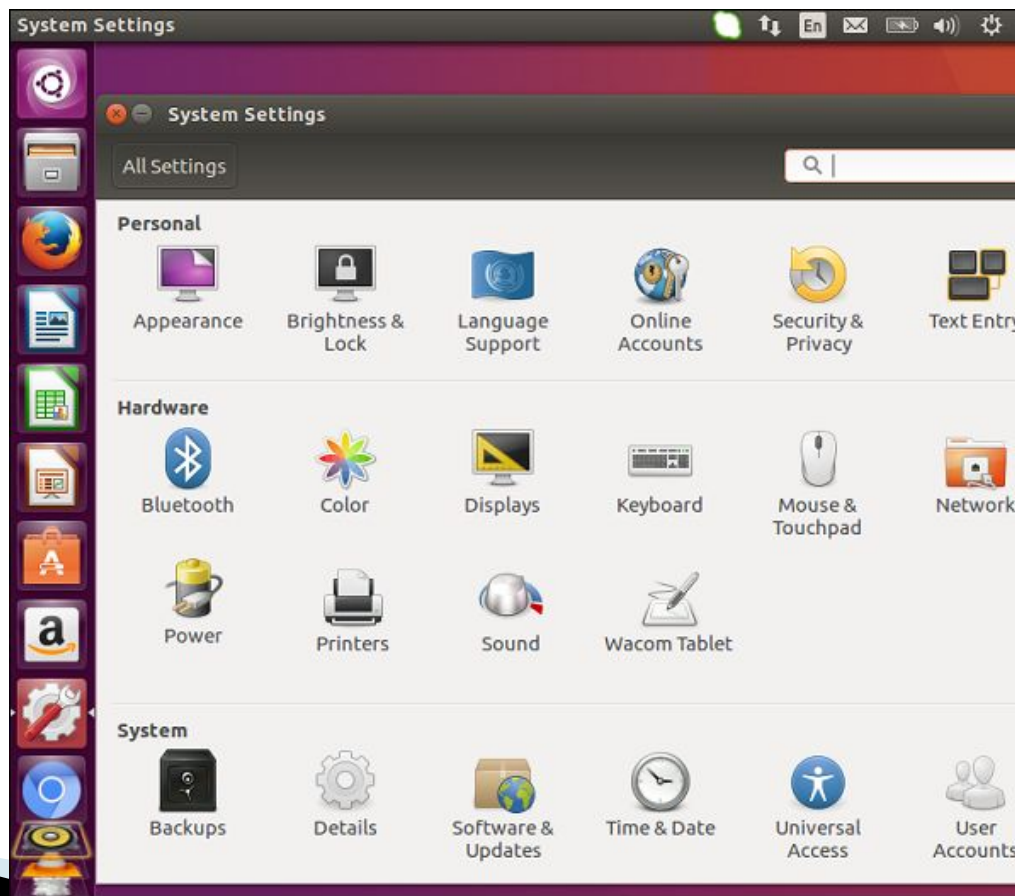
Taskbar

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.



Ubuntu - Software Center

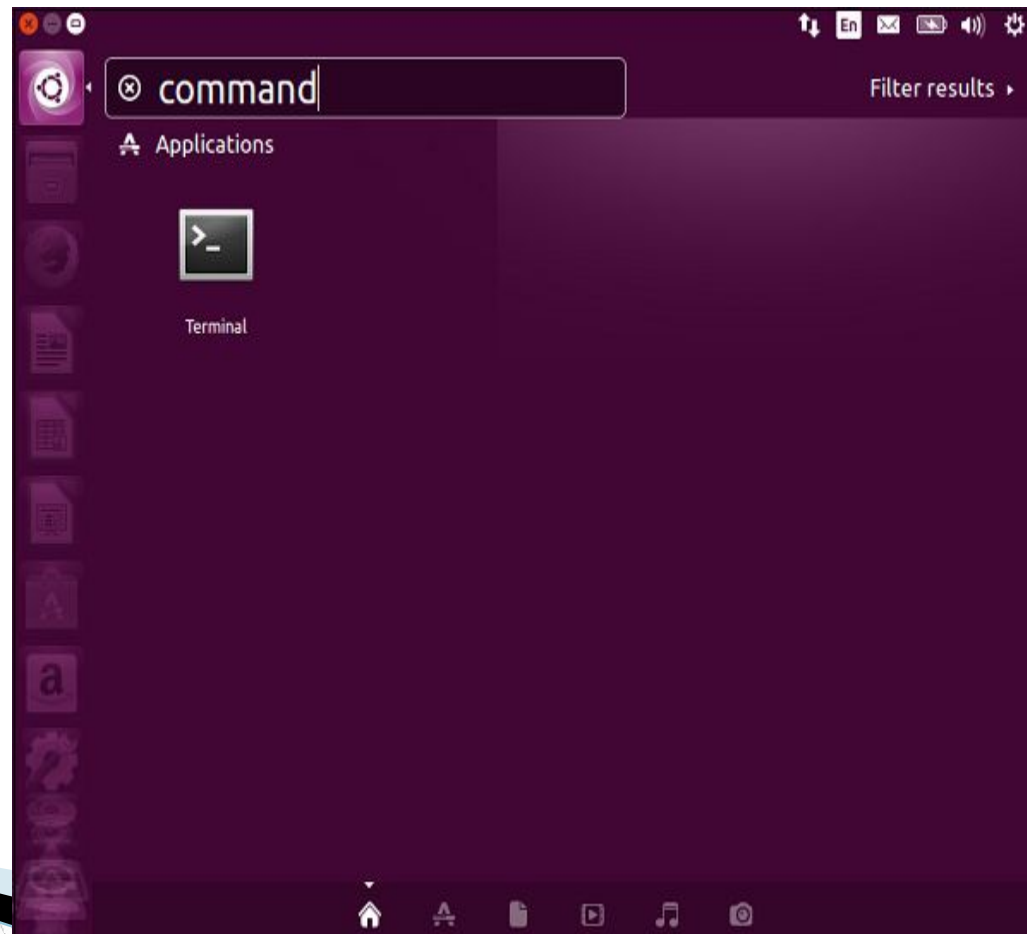
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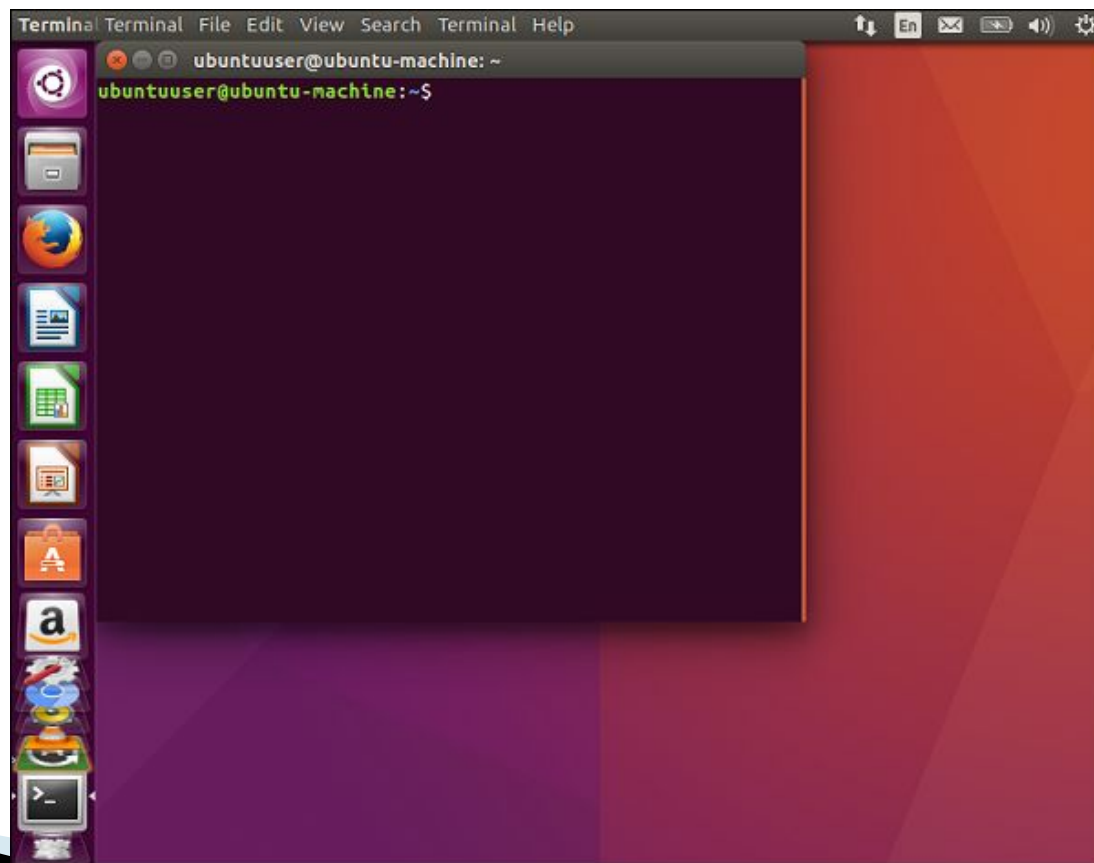
Ubuntu - Command Line

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



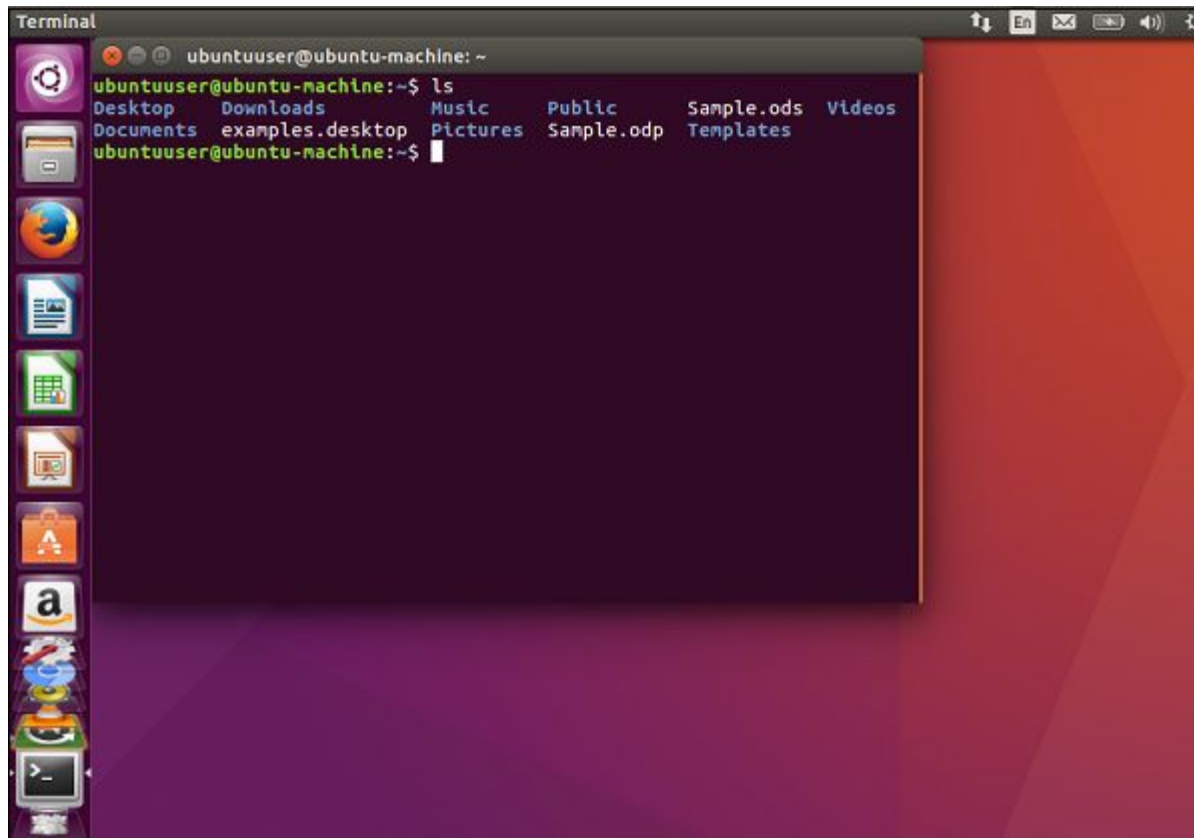
Ubuntu - Command Line

The search result will give the Terminal option. Double-click 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.



The screenshot shows an Ubuntu desktop environment with a purple and red geometric background. A terminal window is open, displaying the command `ls` and its output. The terminal title bar reads "Terminal". The prompt is `ubuntuuser@ubuntu-machine: ~`. The output of `ls` is as follows:

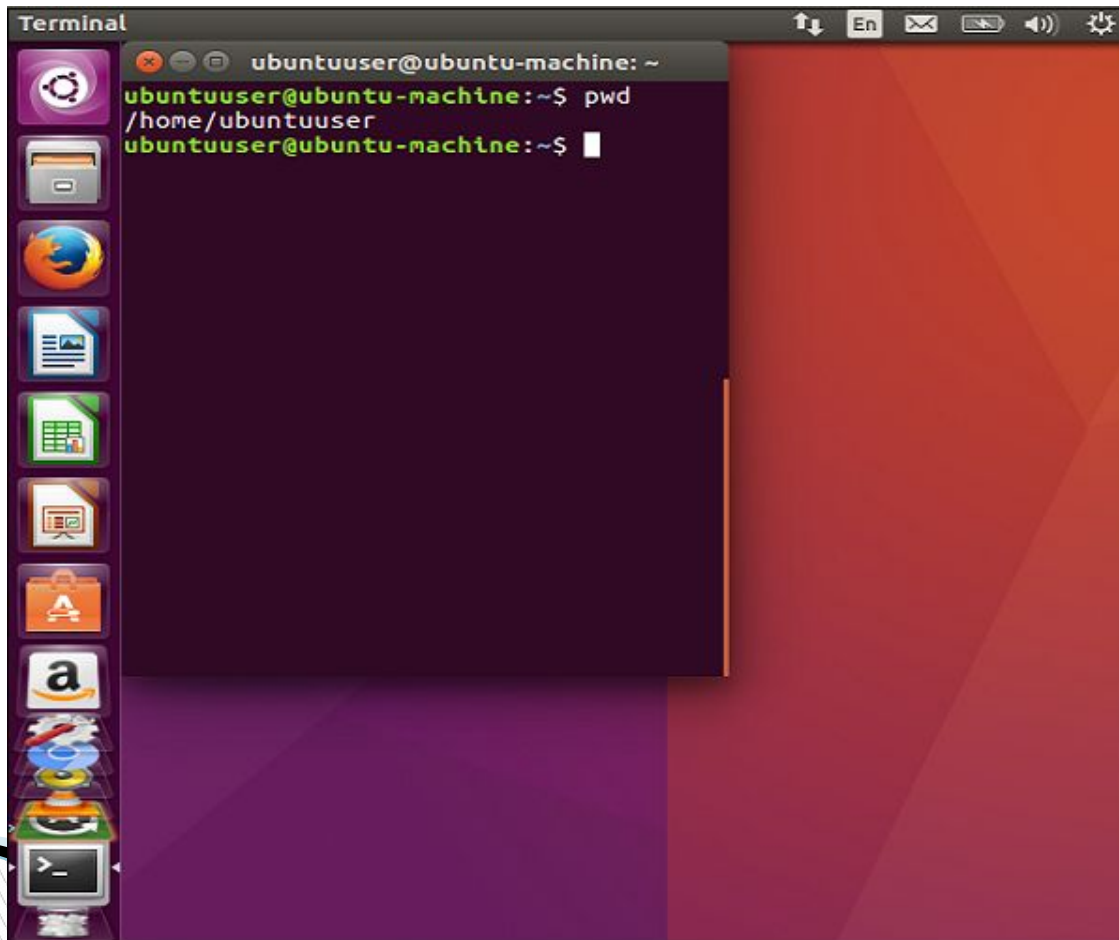
Desktop	Downloads	Music	Public	Sample.ods	Videos
Documents	examples.desktop	Pictures	Sample.odp	Templates	

The terminal window is positioned over a desktop with a vertical dock on the left containing icons for Dash, Home Folder, Files, Firefox, LibreOffice Writer, LibreOffice Calc, LibreOffice Impress, LibreOffice Draw, Amazon, and a custom icon. The system tray at the top right shows icons for network, language (En), mail, battery, and volume.

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

