



University of Central Punjab

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FACULTY OF INFORMATION TECHNOLOGY

Operating System

Lab No 1

Ubuntu Installation and Setting up Virtual Machine



Faculty of Information Technology

UCP Lahore Pakistan



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TOPIC TO BE COVERED

- Introduction to VirtualBox
- Installation of Virtual Box
- Setting up the VirtualMachine
- InstallingUbuntu

Objectives

- Student get familiar with Virtualbox
- Student able to install Ubuntu in its laptop/PC in VirtualBox



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Virtual Box – An Introduction

Virtual Box is a powerful x86 and AMD64/Intel64 virtualization product for enterprise as well as home use. Not only is Virtual Box an extremely feature rich, high performance product for enterprise customers, it is also the only professional solution that is freely available as Open Source Software under the terms of the GNU General Public License (GPL) version 2.

When we describe Virtual Box as a "virtualization" product, we refer to "full virtualization", that is, the particular kind of virtualization that allows an unmodified operating system with all of its installed software to run in a special environment, on top of your existing operating system. This environment, called a "virtual machine", is created by the virtualization software by intercepting access to certain hardware components and certain features. The physical computer is then usually called the "host", while the virtual machine is often called a "guest". Most of the guest code runs unmodified, directly on the host computer, and the guest operating system "thinks" it's running on real machine. Learn more at <https://www.virtualbox.org/>

Now we will start Installing Virtual Box in Windows, to install Ubuntu as virtual machine

Installing Virtual Box

You can download Virtual Box from following link.

[VirtualBox Download](#)

VirtualBox binaries

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

If you're looking for the VirtualBox 5.1.34 packages, see [VirtualBox 5.1 builds](#). Consider upgrading.

- **VirtualBox 5.2.8 platform packages.** The binaries are released under the terms of the GPL version 2.
 - [Windows hosts](#)
 - [OS X hosts](#)
 - [Linux distributions](#)
 - [Solaris hosts](#)
- **VirtualBox 5.2.8 Oracle VM VirtualBox Extension Pack** [⇒ All supported platforms](#)
Support for USB 2.0 and USB 3.0 devices, VirtualBox RDP, disk encryption, NVMe and PXE boot for Intel cards. See [this chapter from the User Manual](#) for an introduction to this Extension Pack.
The Extension Pack binaries are released under the [VirtualBox Personal Use and Evaluation License \(PUEL\)](#).
Please install the extension pack with the same version as your installed version of VirtualBox:
- **VirtualBox 5.2.8 Software Developer Kit (SDK)** [⇒ All platforms](#)

Click on Windows hosts. After completing the download, click on

.exe for starting the

installation.



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Step1: Following Welcome screen will appear.



Click "Next" button.

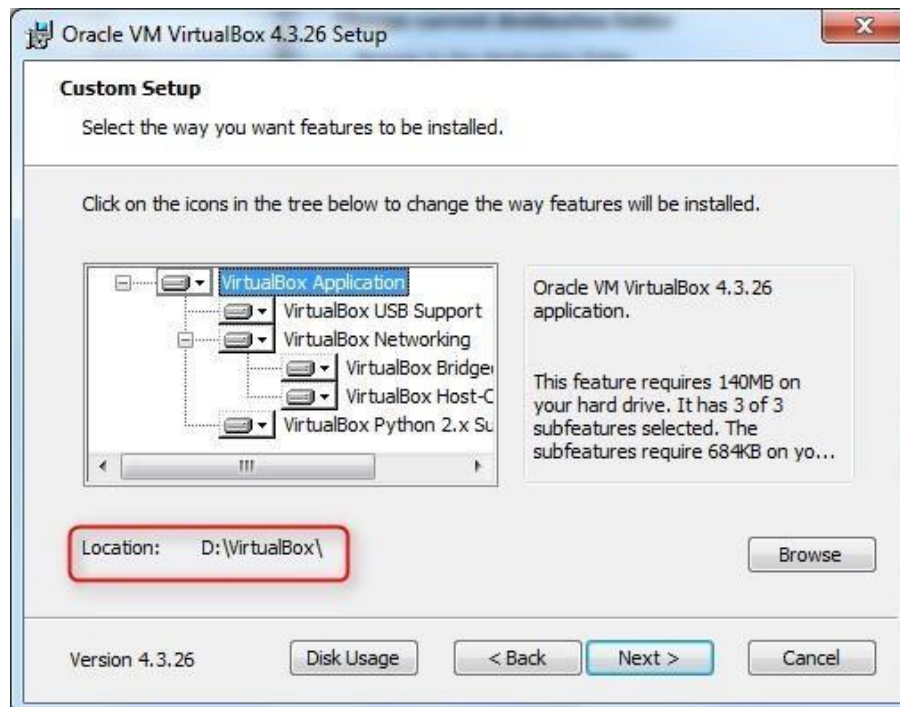


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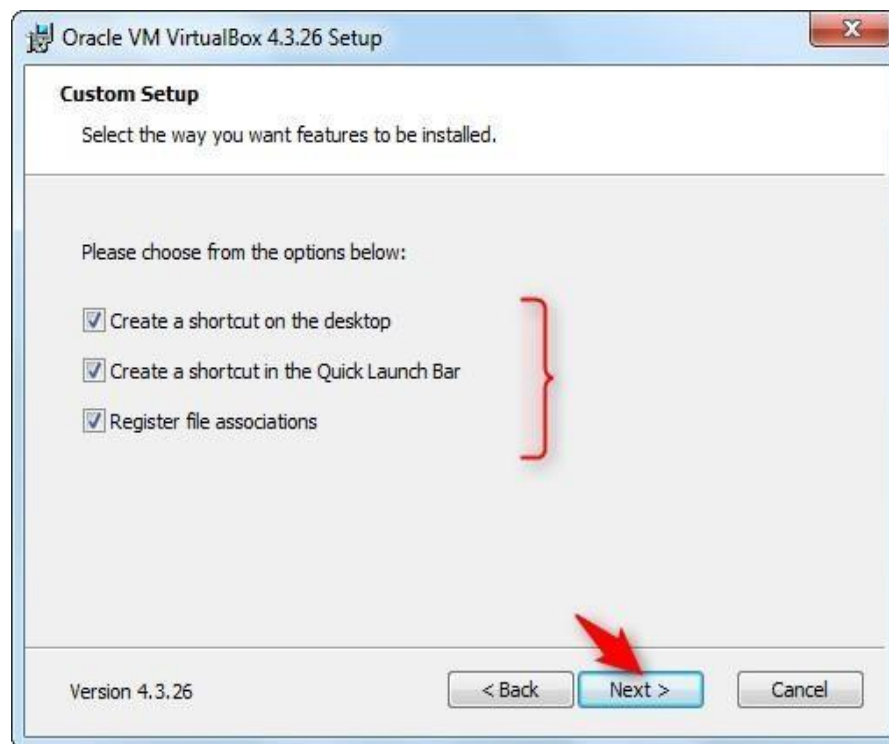
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Step2: Click Next



Step3: Custom Setup for different features Window is displayed. No need to change anything, just press “Next” button.

Step 4: Warning window is displayed. Click Yes.



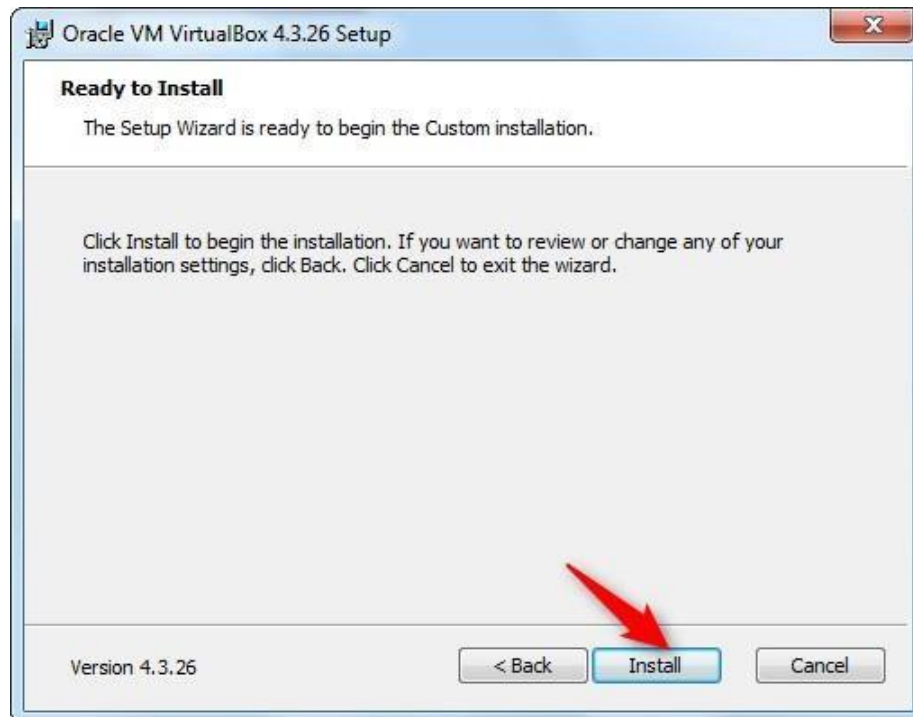


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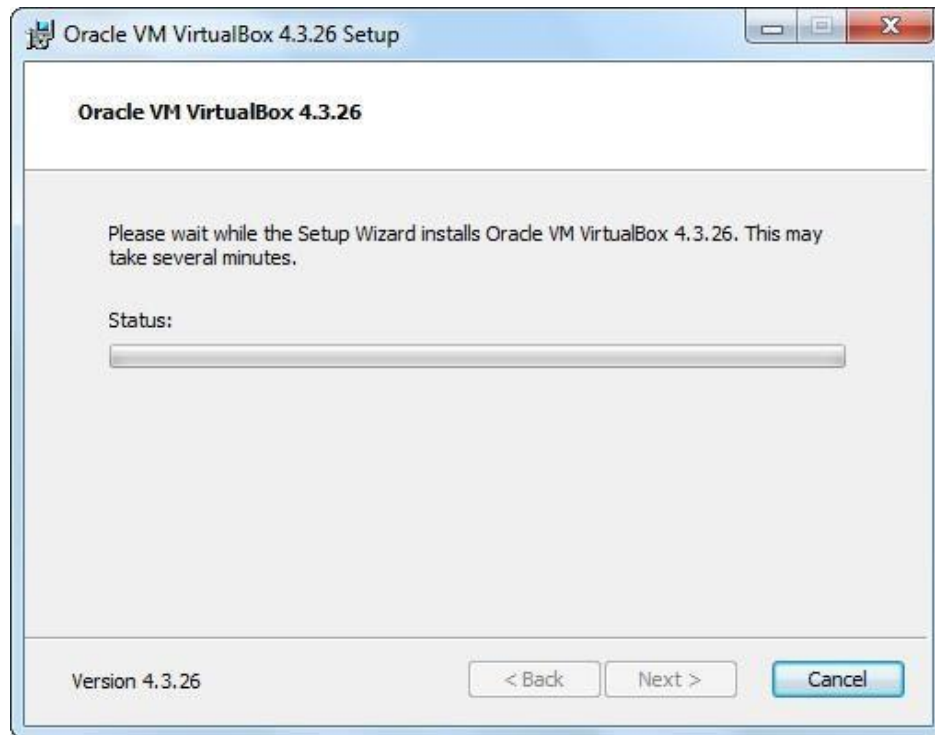
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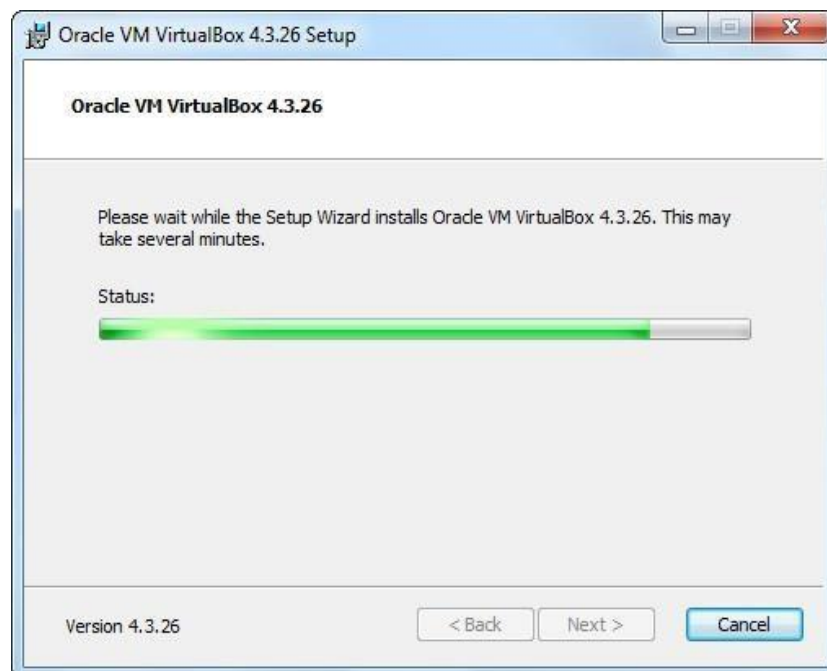
Step5: "Ready to Install" window is displayed. Press "Install" button.



Step6: Finally after setup, installation will start and following window will be displayed with status bar.



Installation continues...





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Meanwhile Windows Security will ask for the confirmation of installing hardware. e.g below.



Press Install.

Step7: Installation Complete. Press "Finish" button.



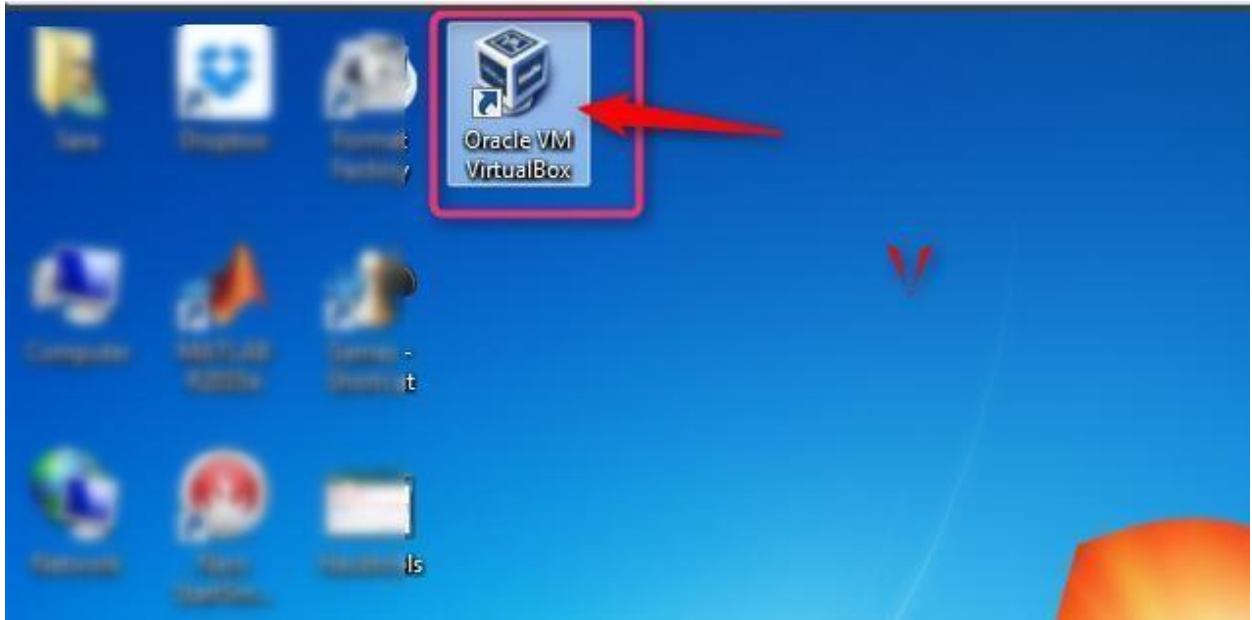


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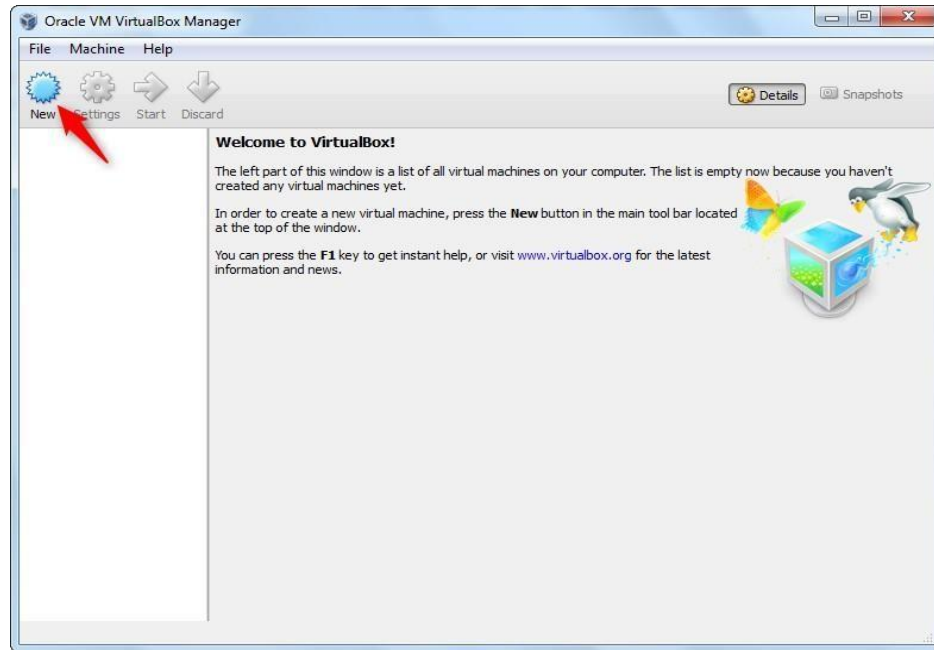
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After installation completed, you can find its icon on desktop.



Setting up Virtual Machine

Step1: Click the Virtual Box icon and following window will be opened.



Click on "New" button on top of menu bar.

Step2: Step1 will lead you to setup a new virtual machine.

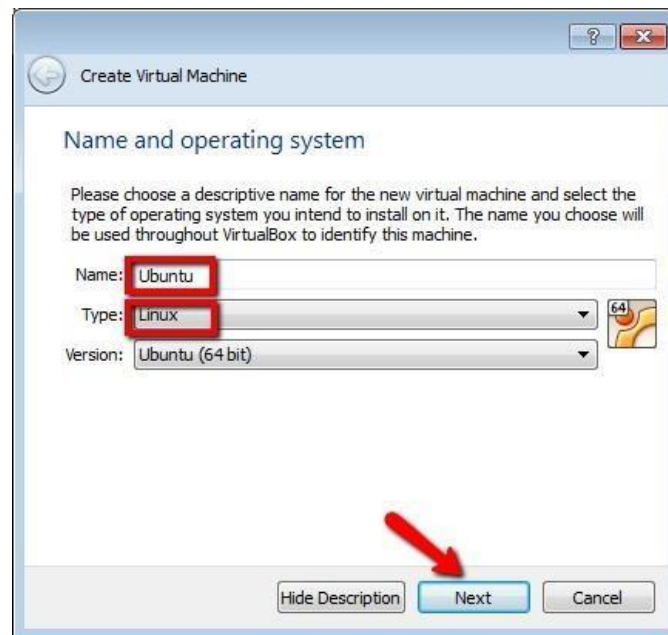
Following window will be opened to setup virtual machine name and type. Press Next.



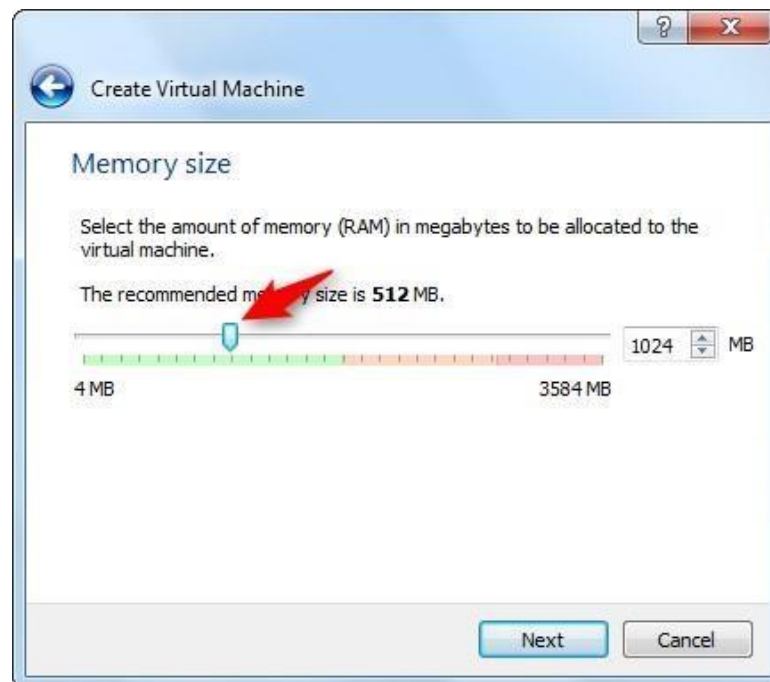
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Step3: By pressing “Next”, following window will be opened to setup memory size. Minimum size



is 1024MB. Allocate at least 2GB if you have 8GB or more RAM.

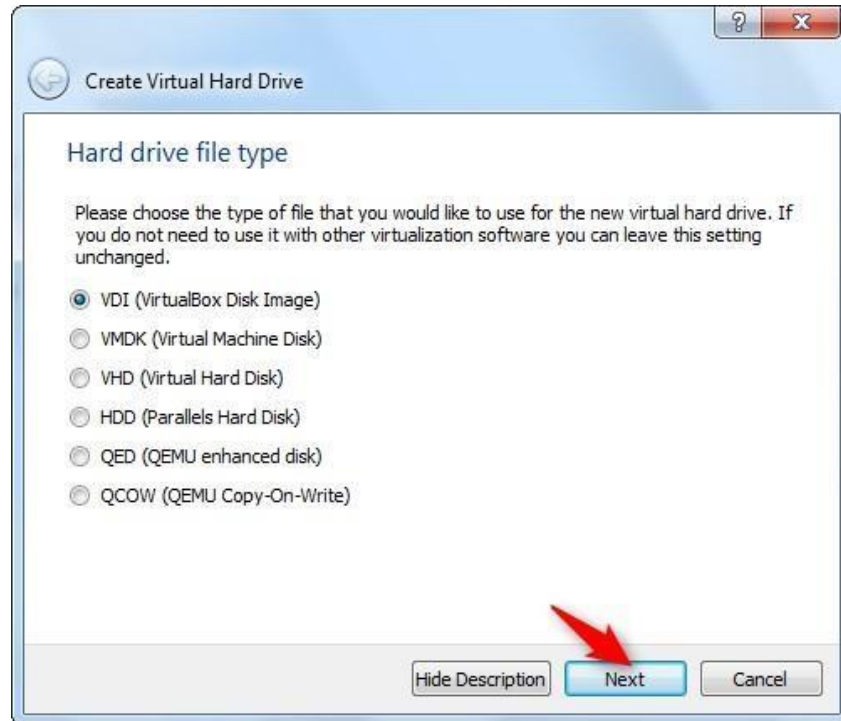
Press Next.

Step4: By pressing “Next”, “Hard drive” window will be opened. Select “Create a virtual hard drive now”.



Press “Create” button.

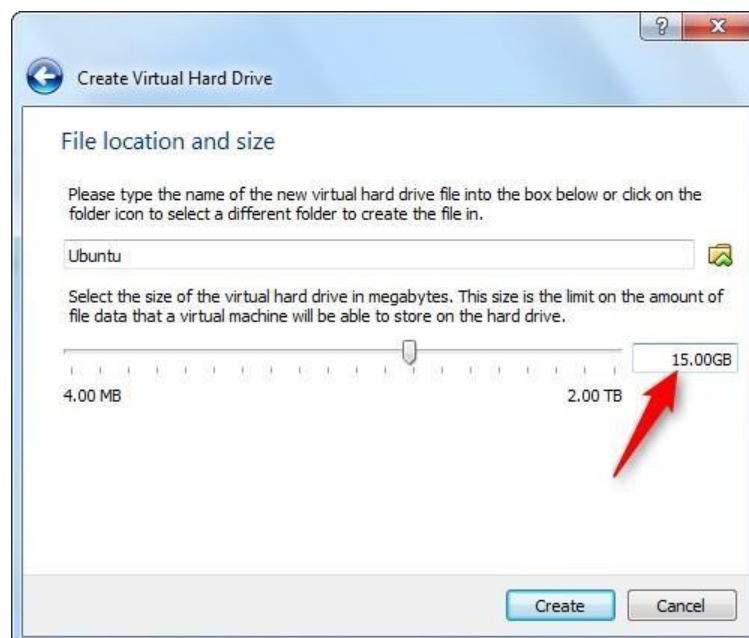
Step 5: By default, VDI option is selected. Do not make any change and just press "Next".



Step6: Select "Dynamically allocated".

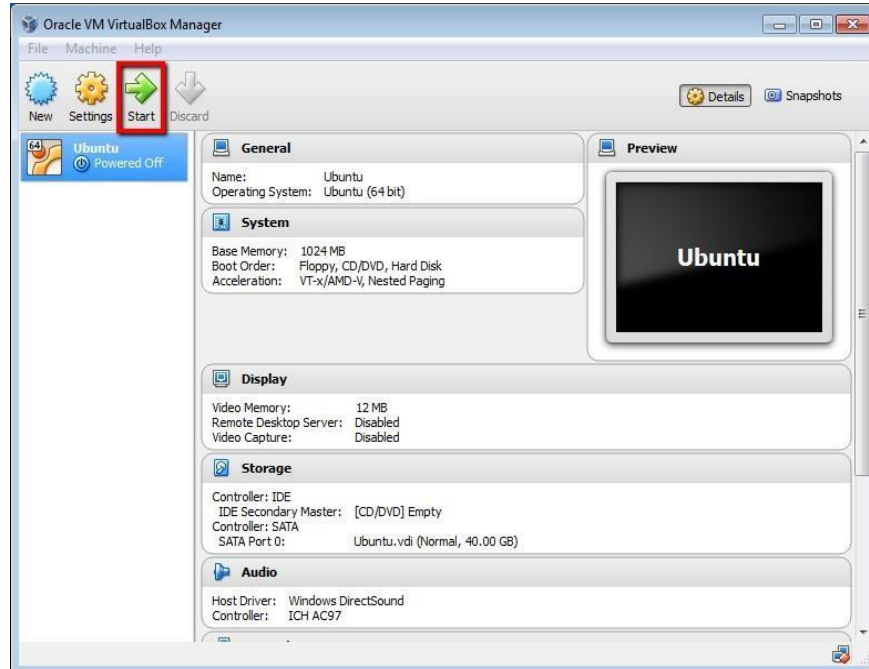


Step7: Following window will be opened to setup virtual hard drive size. Here 15 GB is selected but you must select it greater than 100GB if free space is available. Allocate at least 20GB.



Press "Create" button.

Step8: Following window will appear with one virtual machine named "Ubuntu" will be added in left panel. Click on "Start" button highlighted.



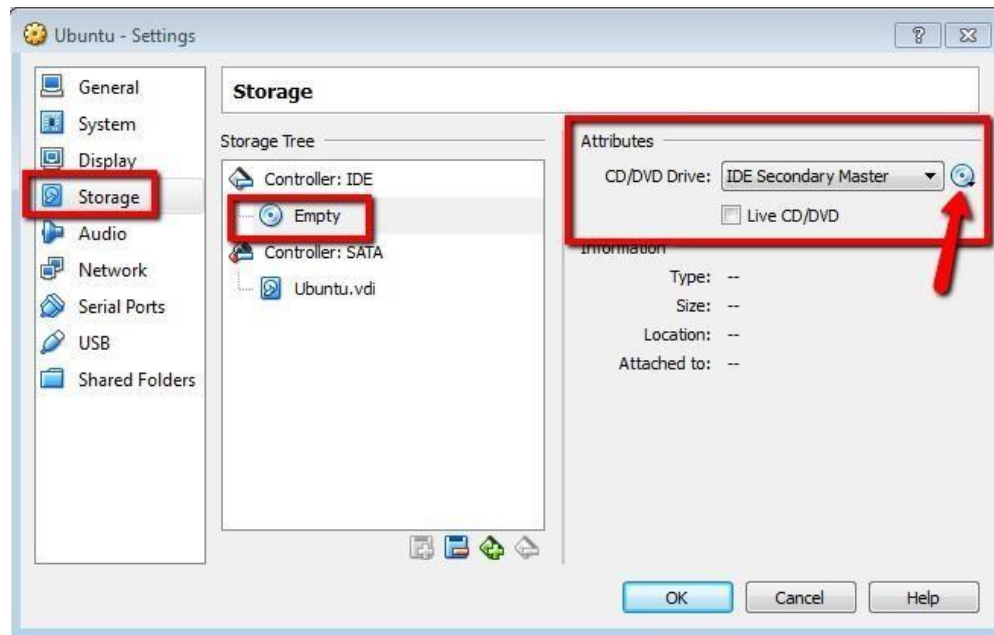
Step9: In order to attach ISO image with this virtual machine.

9.1 Click on "Settings" button. Following settings window will open.

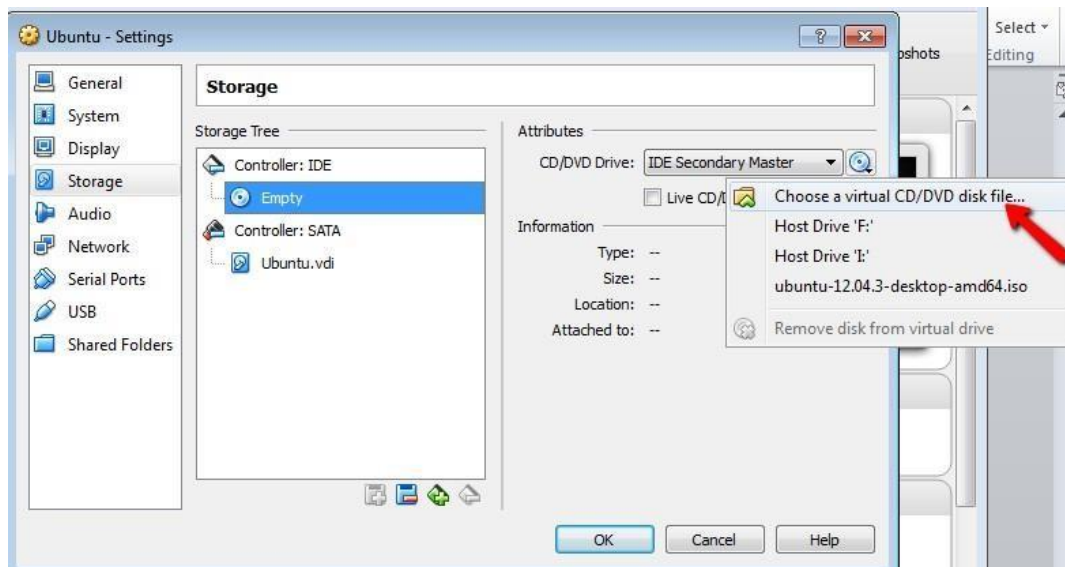
9.2 Go to Storage Option. Under "Storage Tree" go to Controller:IDE.

9.3 Select "Empty" option. By selecting "Empty" Attributes will be changed.

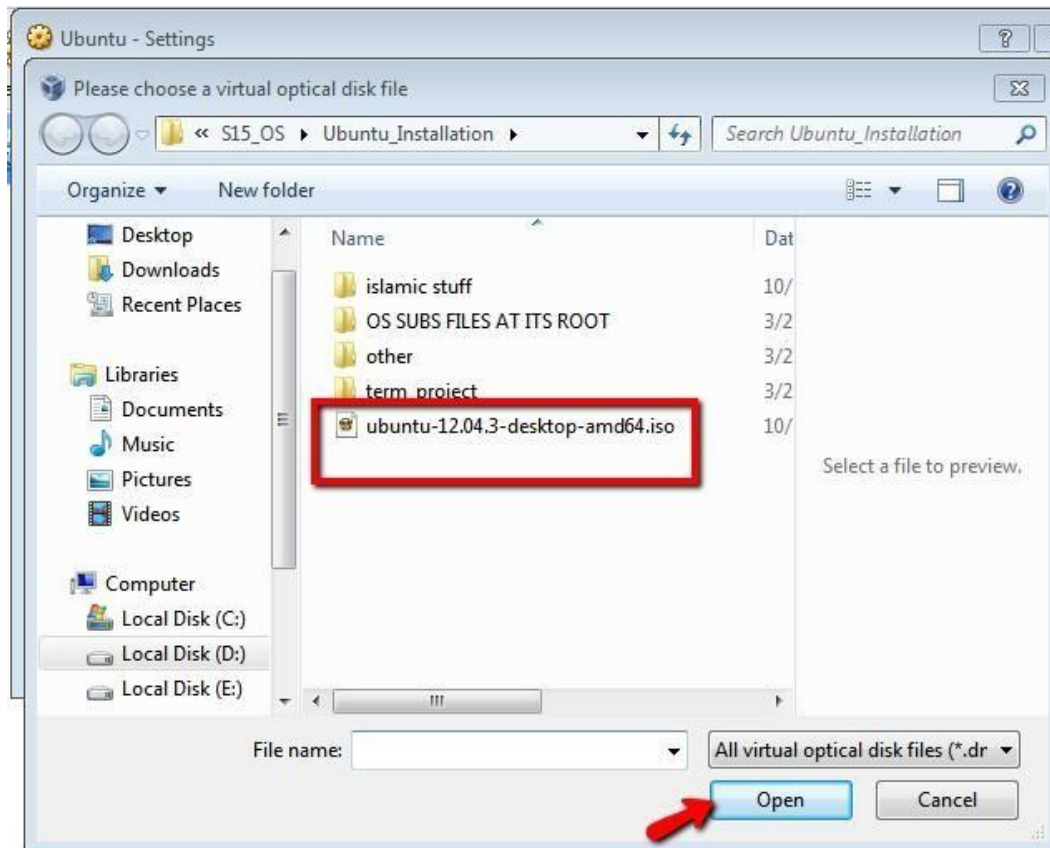
9.4 Click on CD icon pointed by arrow in below image.



9.5 By clicking at icon of CD, following menu will be displayed.



9.6 By clicking on “Choose a virtual CD/DVD disk file...” An “Open Window” will appear. Select .iso(Downloaded From Ubuntu website) image and click “Open” button.



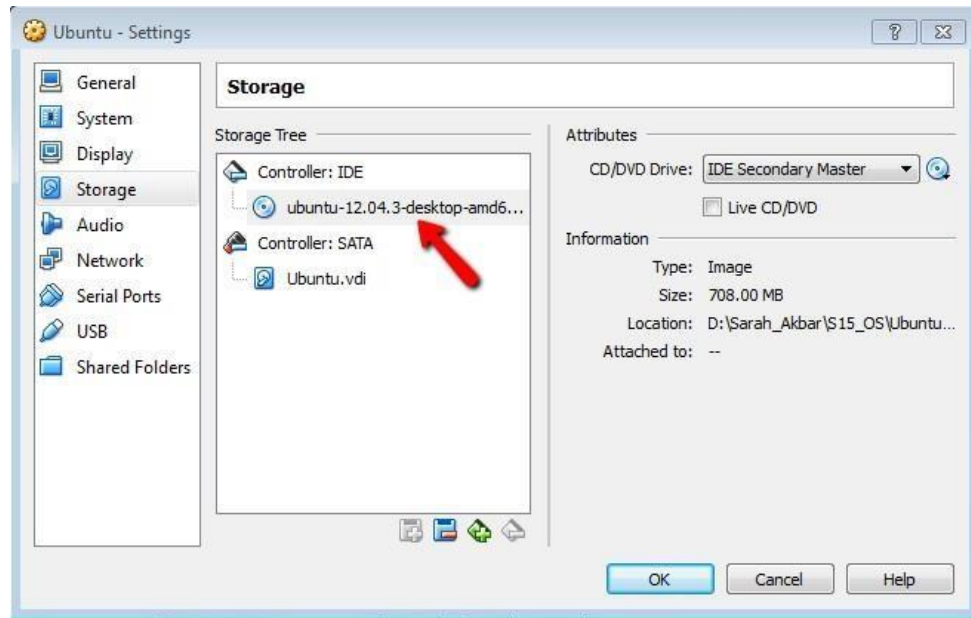
9.7 Now it's added here. Press “OK”button.



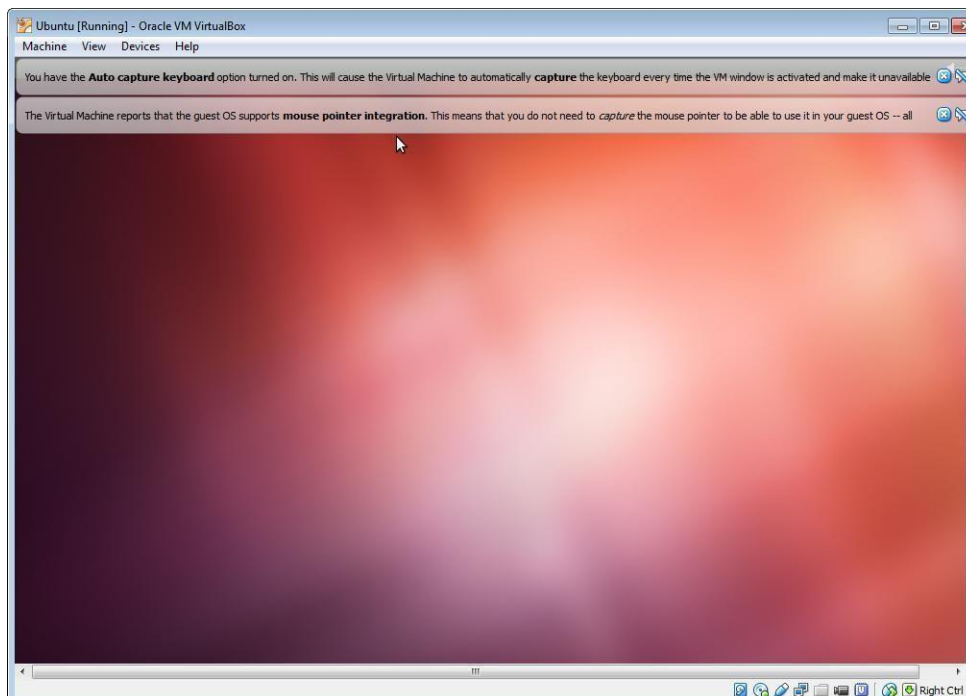
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Step 10: Click "Start" button and following window will appear.





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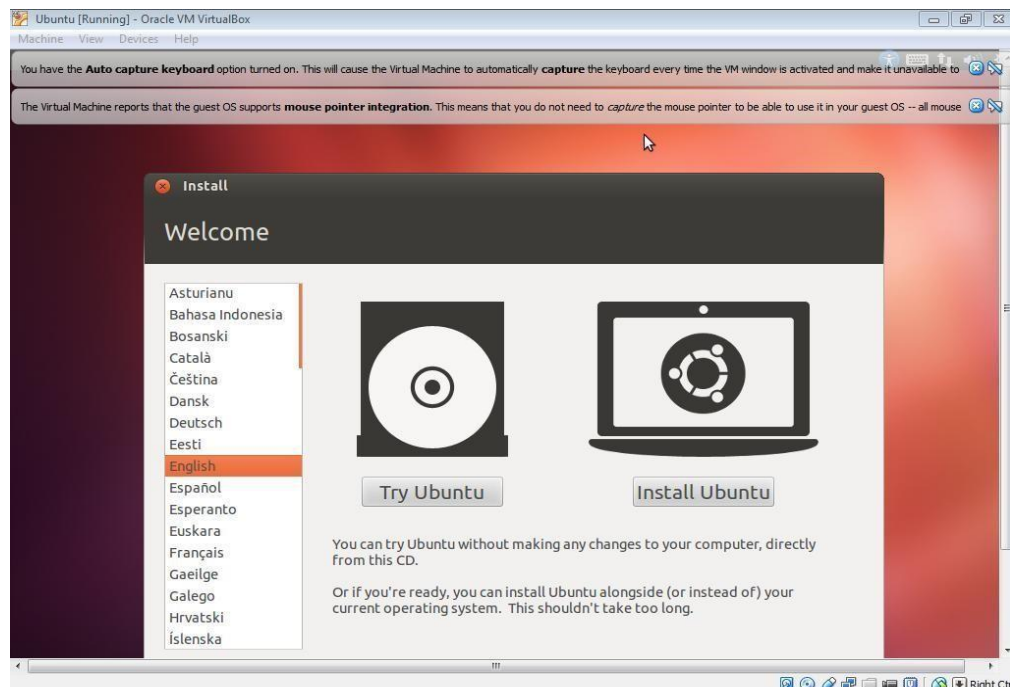
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Installing Ubuntu

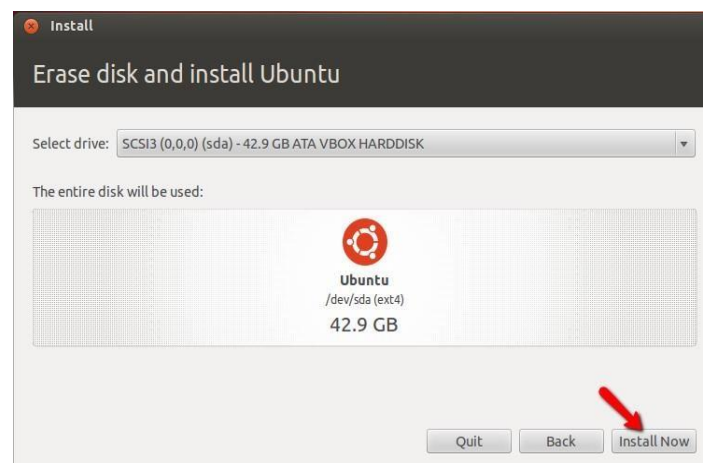
Step1: Now you will start installing Ubuntu from ISO image just added in virtual machine named "Ubuntu"

When following screen will appear

Step2: Select "Install Ubuntu" button.



Step3: Click "Install now"



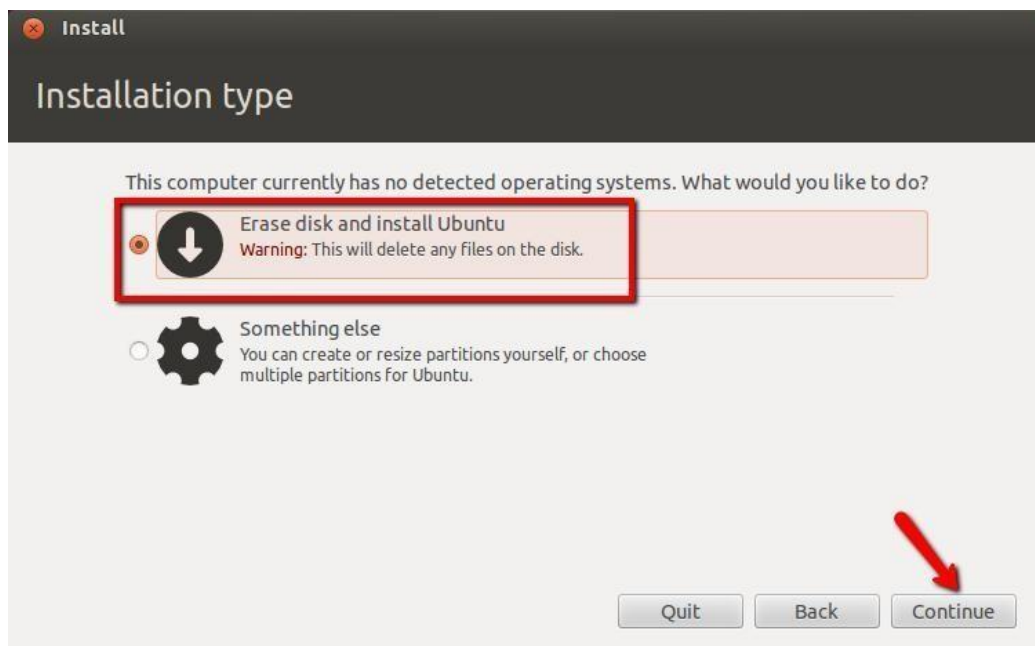
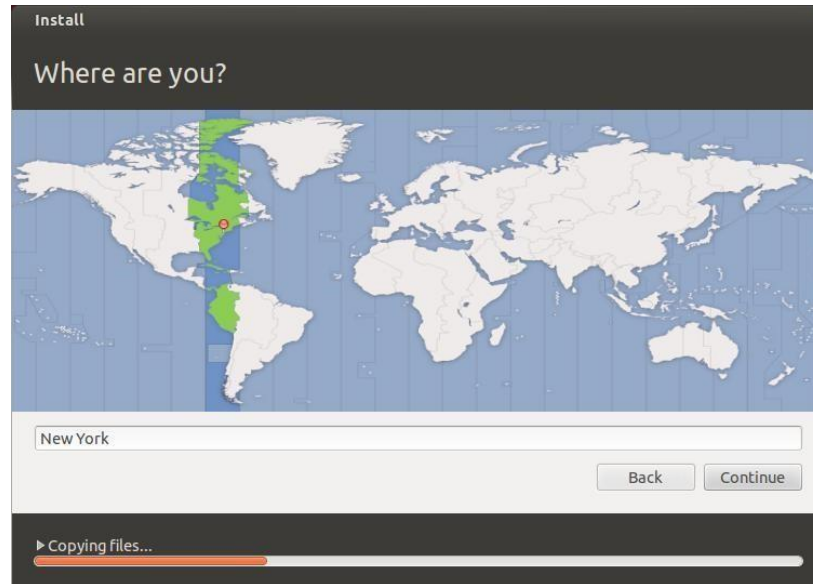


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Step4:






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Install

Where are you?



Lahore

Back Continue

The image shows a software installation window titled "Install". Below the title bar, the text "Where are you?" is displayed. A world map is shown with Pakistan highlighted in green. A red pin is located on the map over Lahore. Below the map, there is a text input field containing the word "Lahore". To the right of the input field are two buttons: "Back" and "Continue". A red arrow points to the "Continue" button.

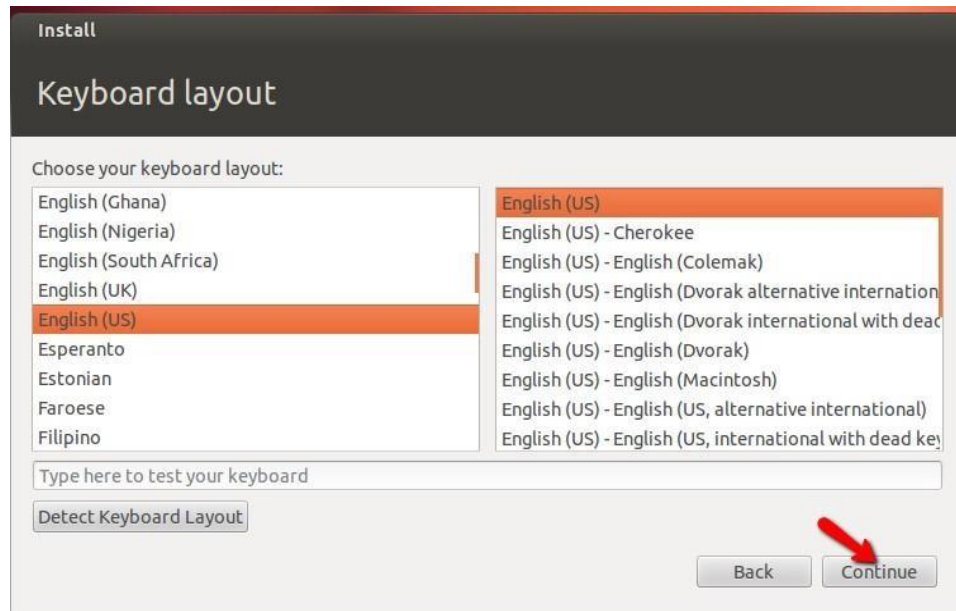


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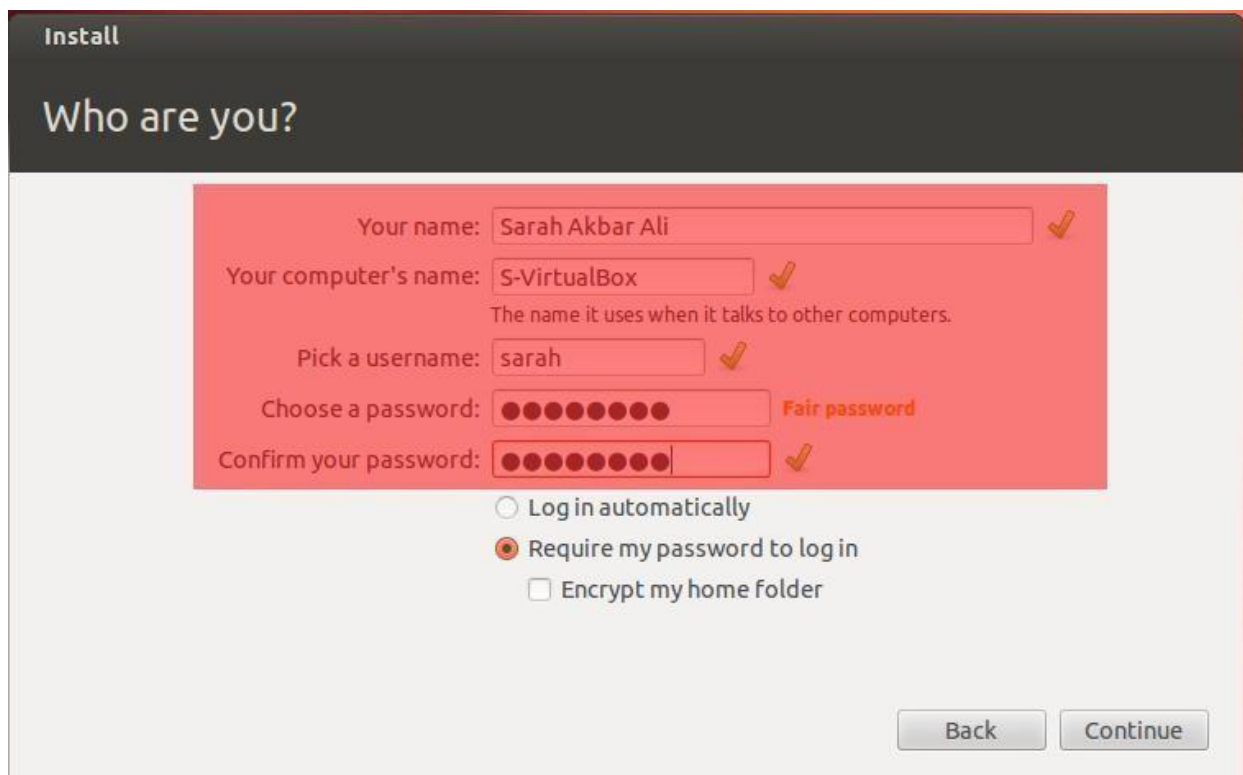
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Step5: Choose Language



Step6: Give username and password information.





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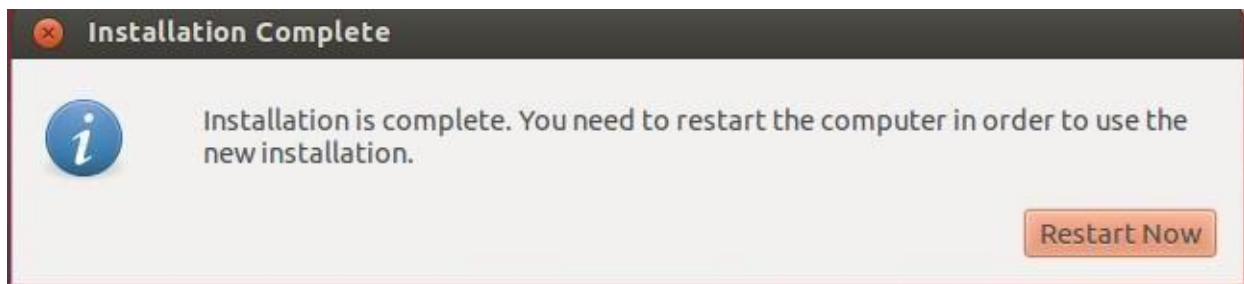
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Step7: Following welcome window will appear



Step8: Restart system.





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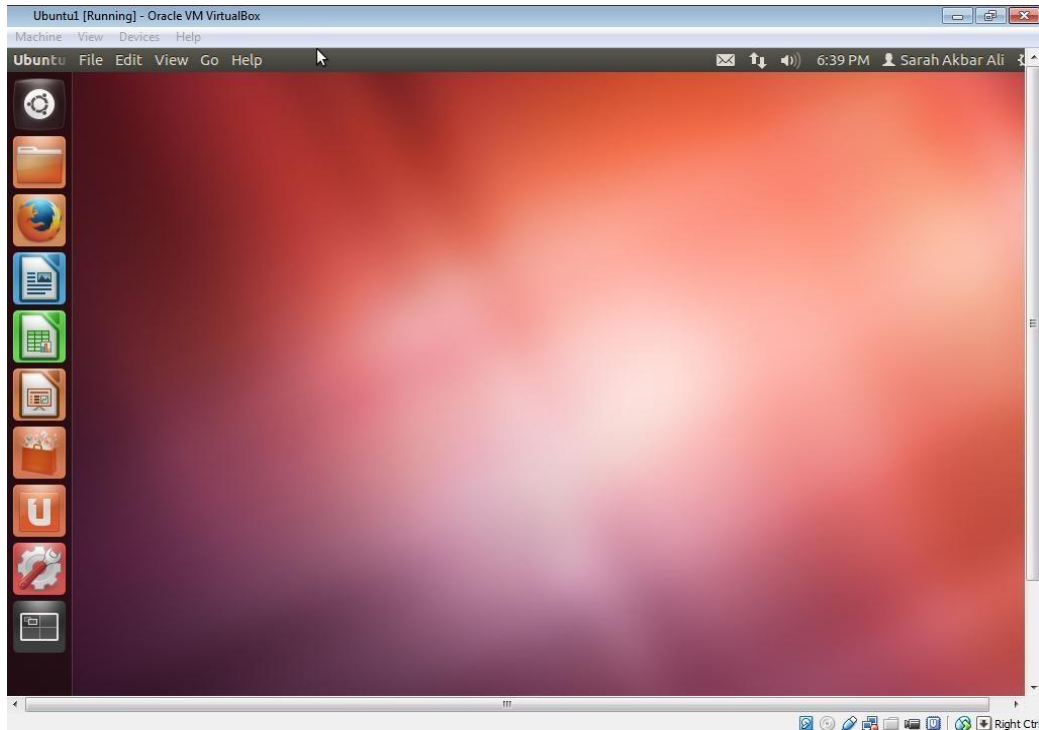
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```
* All processes ended within 2 seconds.... [ OK ]
modem-manager[1409]: <info> Caught signal 15, shutting down...

* Deconfiguring network interfaces... [ OK ]
* Unmounting temporary filesystems... [ OK ]
* Deactivating swap... [ OK ]
* Stopping remaining crypto disks... [ OK ]
* Stopping early crypto disks... [ OK ]
umount: /run/lock: not mounted
umount: /run/shm: not mounted
* casper is resyncing snapshots and caching reboot files...
Please remove installation media and close the tray (if any) then press ENTER:
```

Step 9: Press "Enter". Login into Ubuntu

Step10: Desktop of Ubuntu displayed.



Step11: After Installation completed, go to settings and delete Storage link to iso image.

