

CS8711 - CLOUD COMPUTING LABORATORY

18-12-20

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CS8711 - Cloud Computing Laboratory

Semester Practical Exam

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Class : CSE - C

Date : 18-12-2020

Session : FN

Subject code : CS8711

Subject name : Cloud Computing Laboratory.

Aim :

To install a Virtual Machine (Ubuntu), install jdk for java and run a sample Java program.

Procedure:

- 1) Create a new virtual machine by clicking on the New button in virtual box. Set the type as Linux and version as Ubuntu 64-bit.
- 2) Allocate 1GB of RAM
- 3) Create a virtual hard disk of type VDI (Virtual Disk Image)
- 4) Dynamically allocate storage and set the hard disk size to 10GB.
- 5) Once the vm has been created, in settings, set shared clipboard and drag n drop to bidirectional.

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- 6) Let the network adapter be NAT.
- 7) Click on the virtual machine and select the downloaded Ubuntu 16.04 (64-bit) ISO image as the start-up disk.
- 8) In the next window, select the language as English and click on Install Ubuntu.
- 9) Select to download the updates while installing Ubuntu and select the installation type as 'Erase disk and install ubuntu'.
- 10) In the next window, confirm if the changes can be written to the disk.
- 11) Confirm the location displayed.
- 12) Select the required keyboard layout.
- 13) In the next window, enter the name, computer's name, username and password and proceed with the installation.
- 14) Once the installation is completed, restart the machine.
- 15) Check the ip address using the command ifconfig.
- 16) Install the jdk using the command, 'sudo apt install default-jdk'.
- 17) Install the jre using the command, 'sudo apt install default-jre'.

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- 18) Check the version using the commands
'java -version' and 'javac -version' (for compiler)
- 19) A sample Java program to display a Hello World message is written using gedit.
- 20) The program is compiled using the command
'javac Hello.java'
- 21) The program is executed using the command 'java Hello'
and the output is displayed.

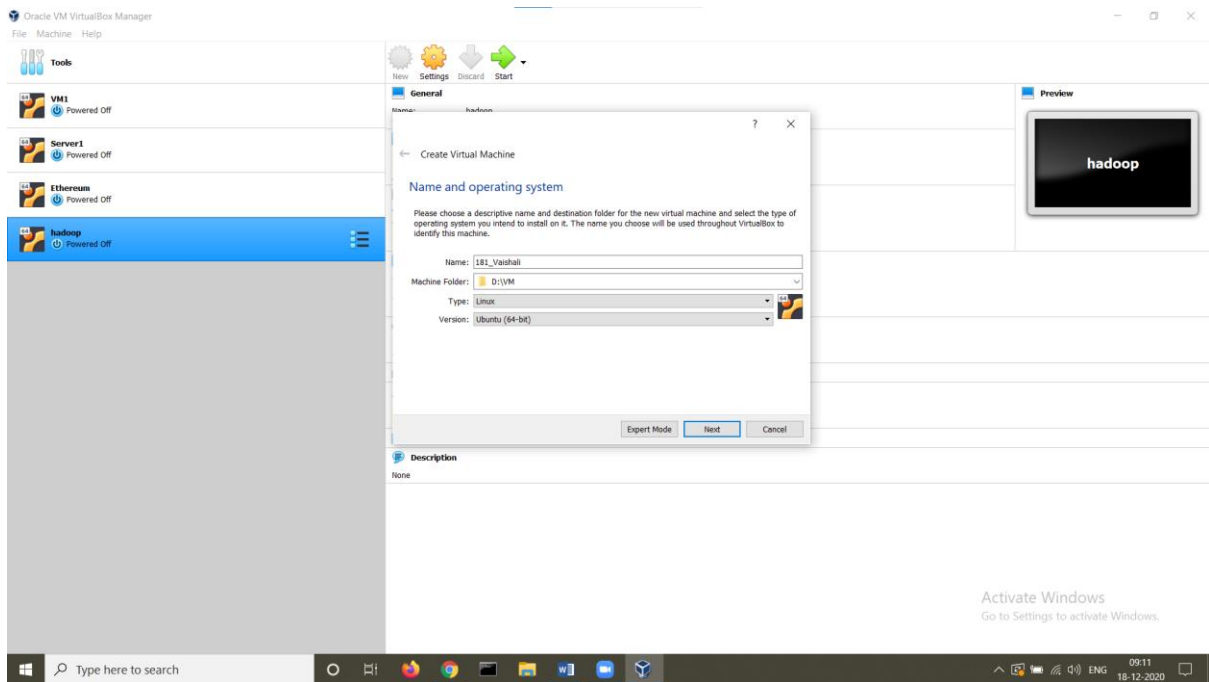
Result :

Thus,

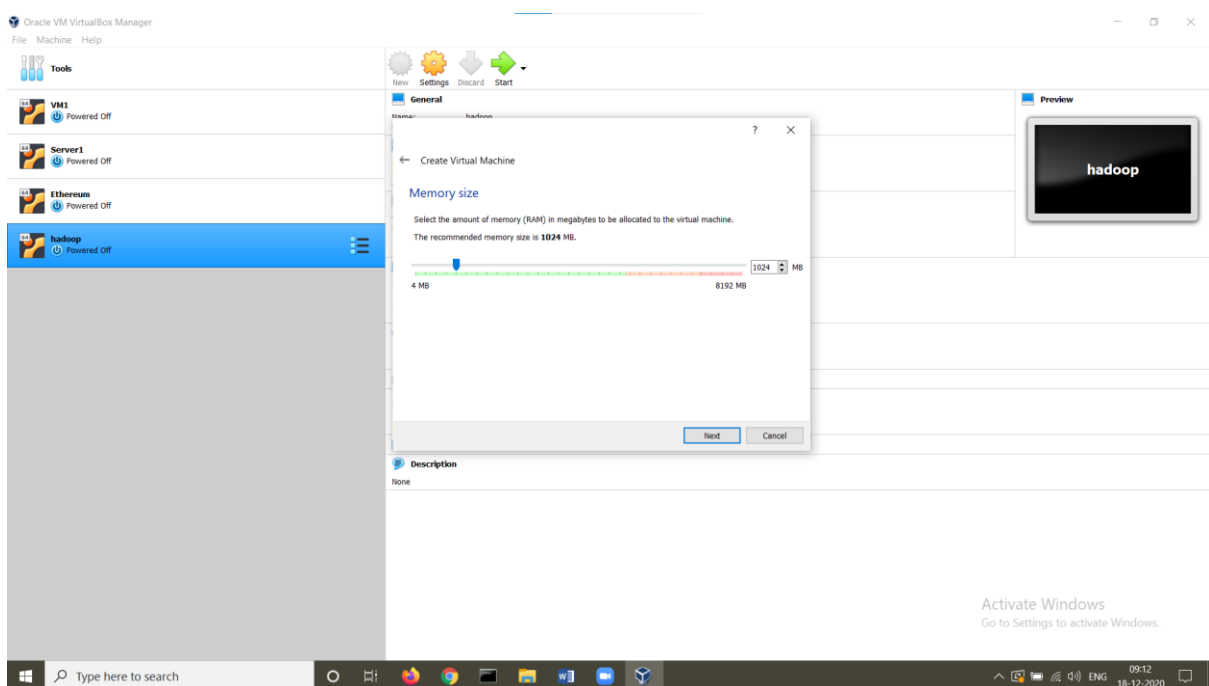
- (i) A virtual machine running Ubuntu Desktop 16.04 OS has been installed using Virtual Box
- (ii) The JDK has been installed
- (iii) A sample Java program has been compiled and executed successfully in the virtual machine.

OUTPUT SCREENSHOTS:

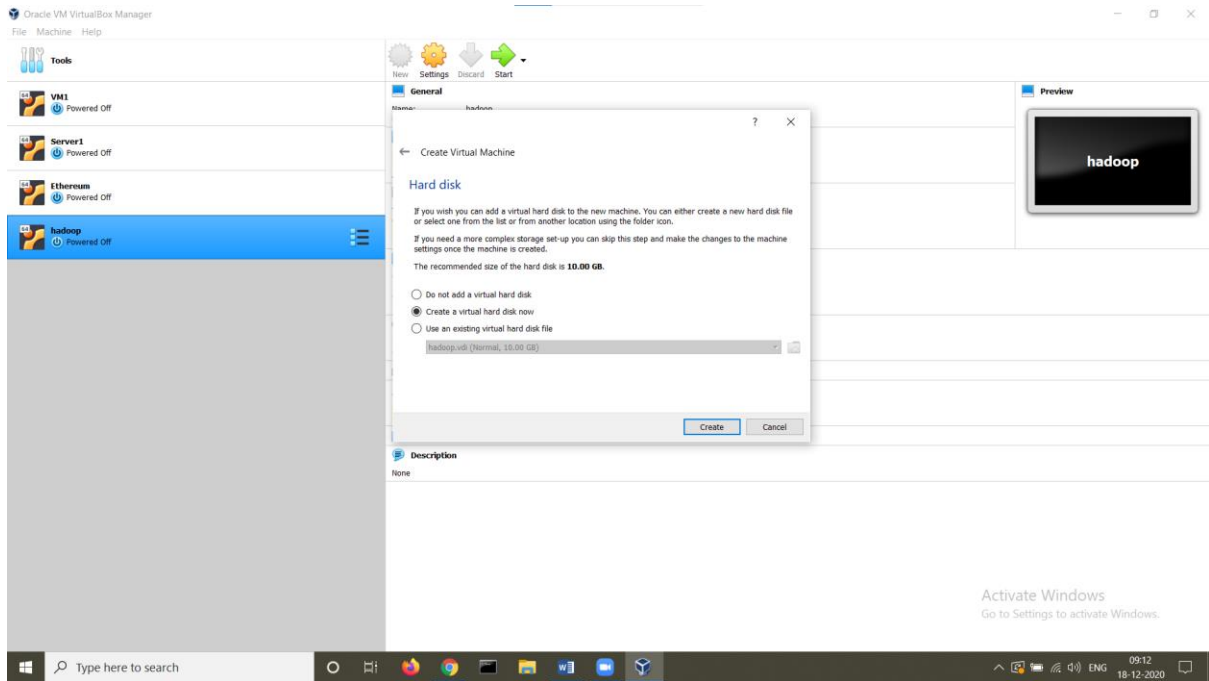
STEP 1: Create a new virtual machine (Ubuntu desktop 16.04)



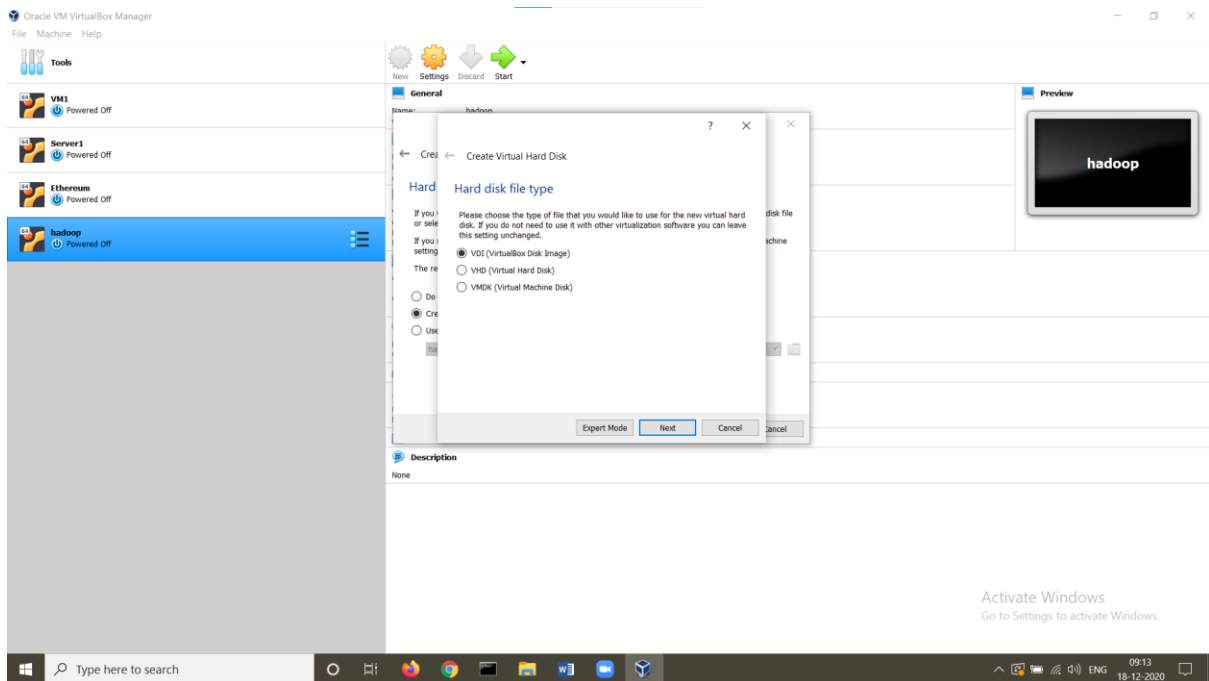
STEP 2: Allocate 1GB of RAM



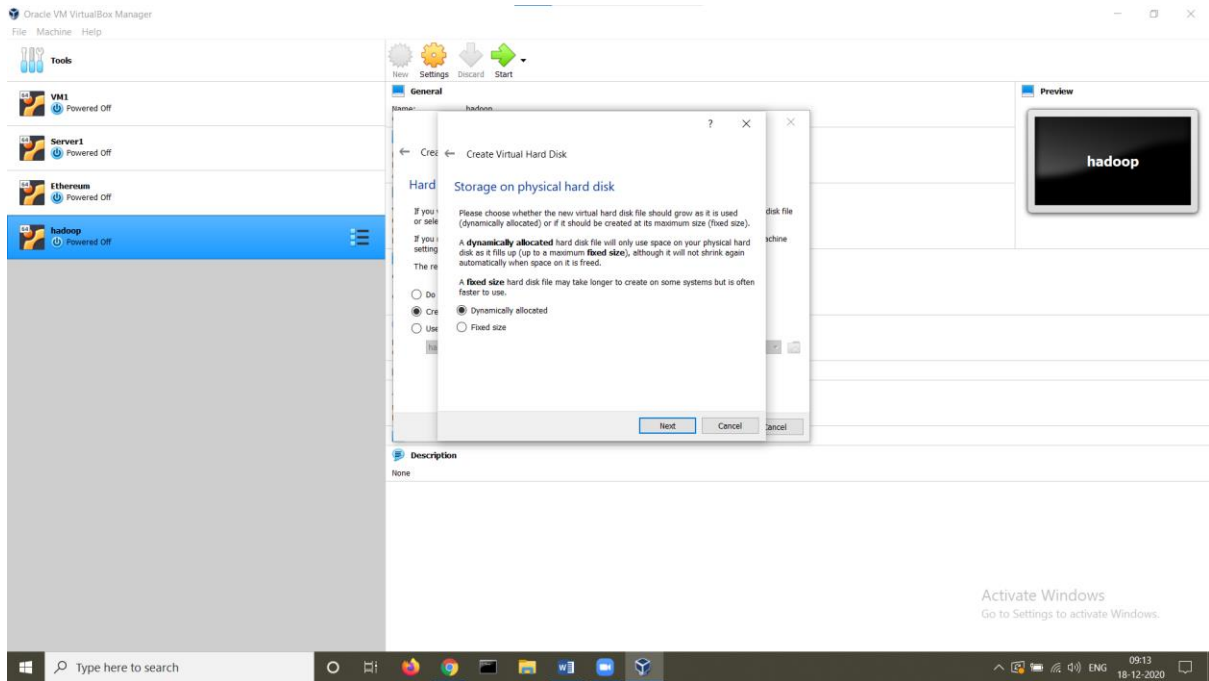
STEP 3: Create a virtual hard disk



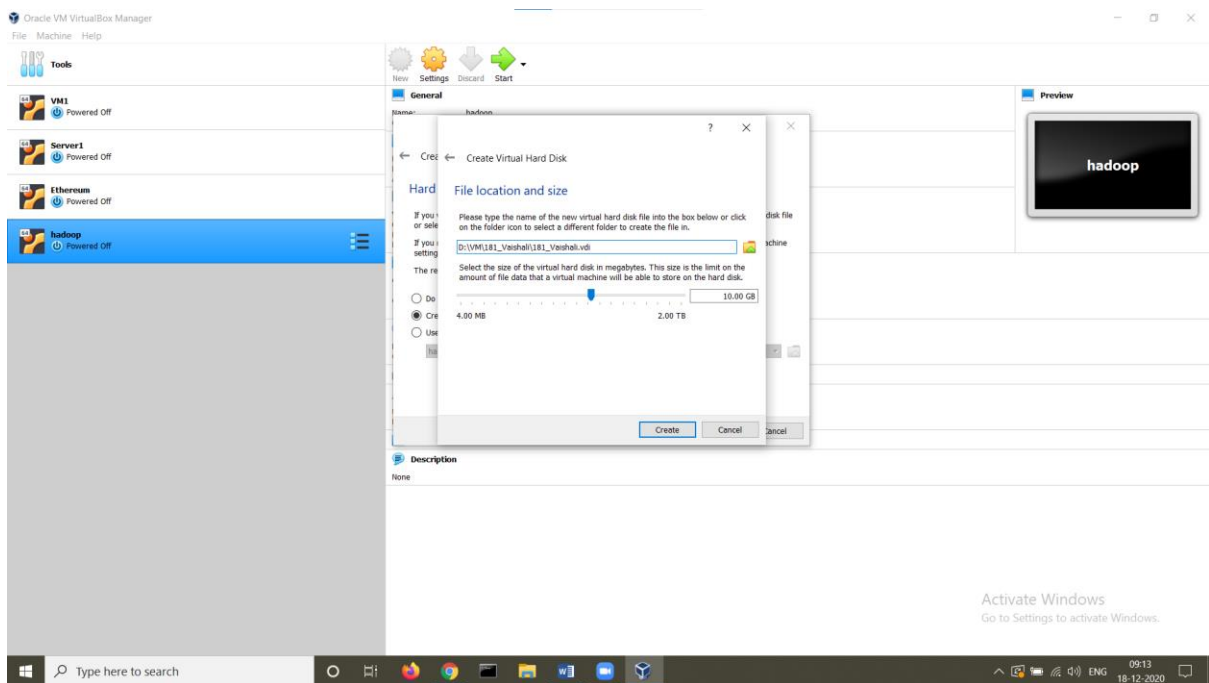
STEP 4: Set hard disk type



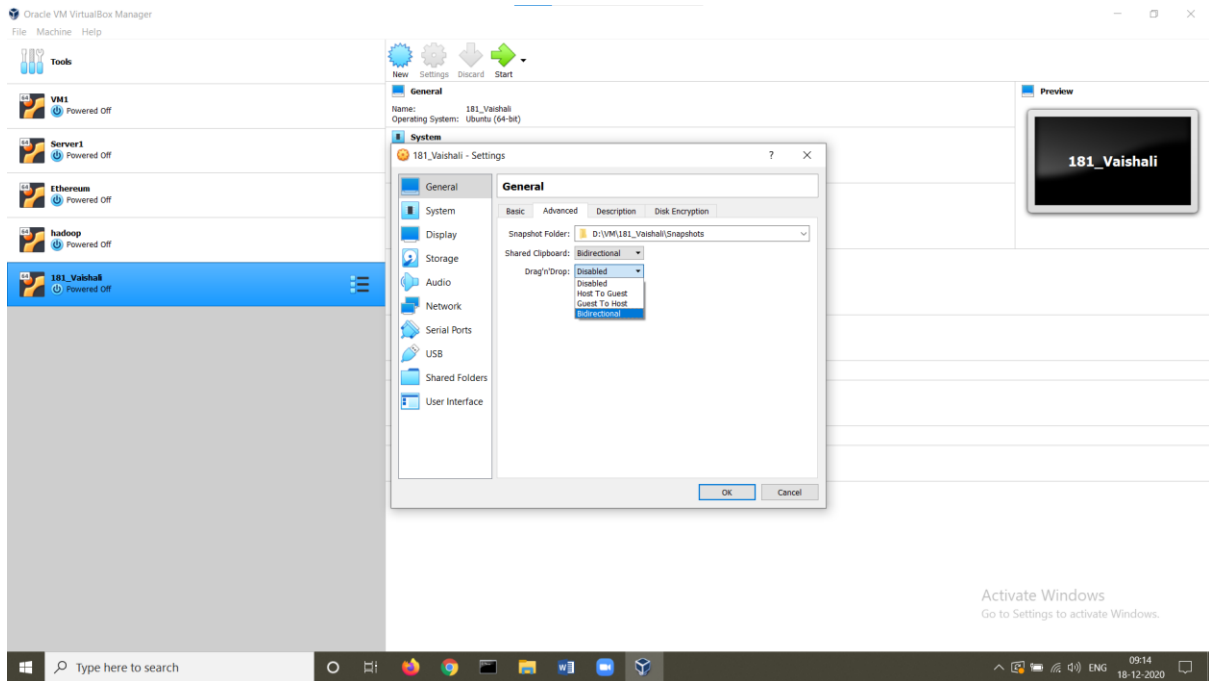
STEP 5: Dynamically allocate storage



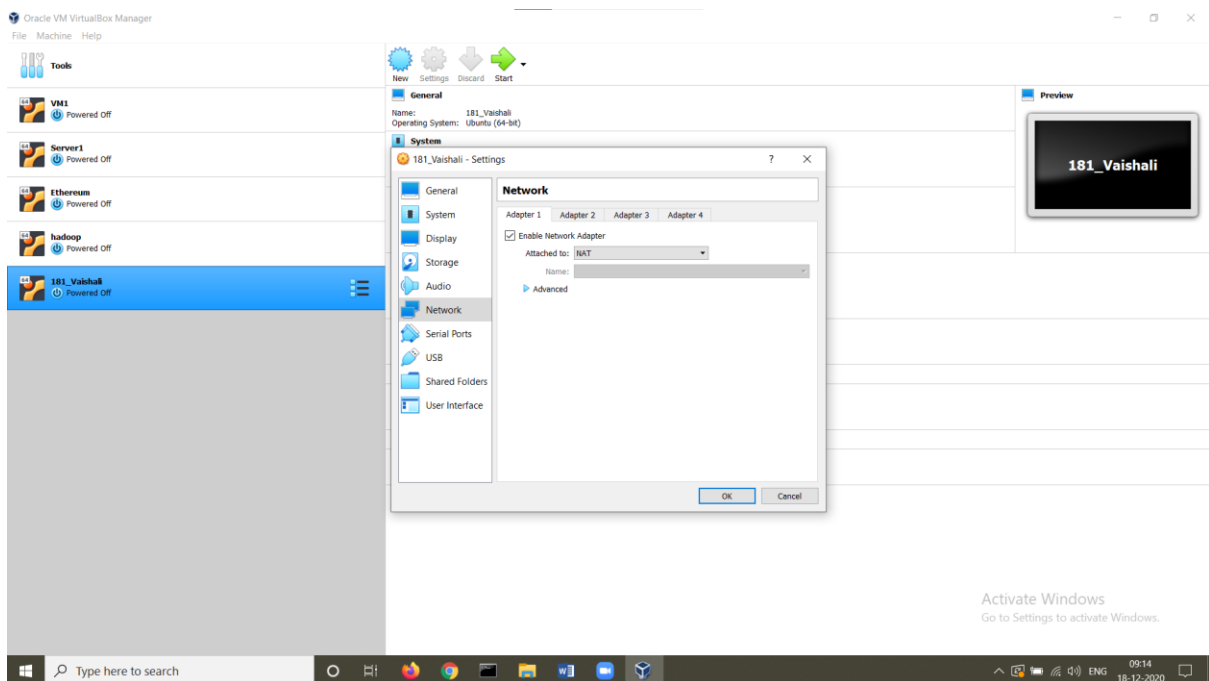
STEP 6: Set the hard disk size to 10 GB



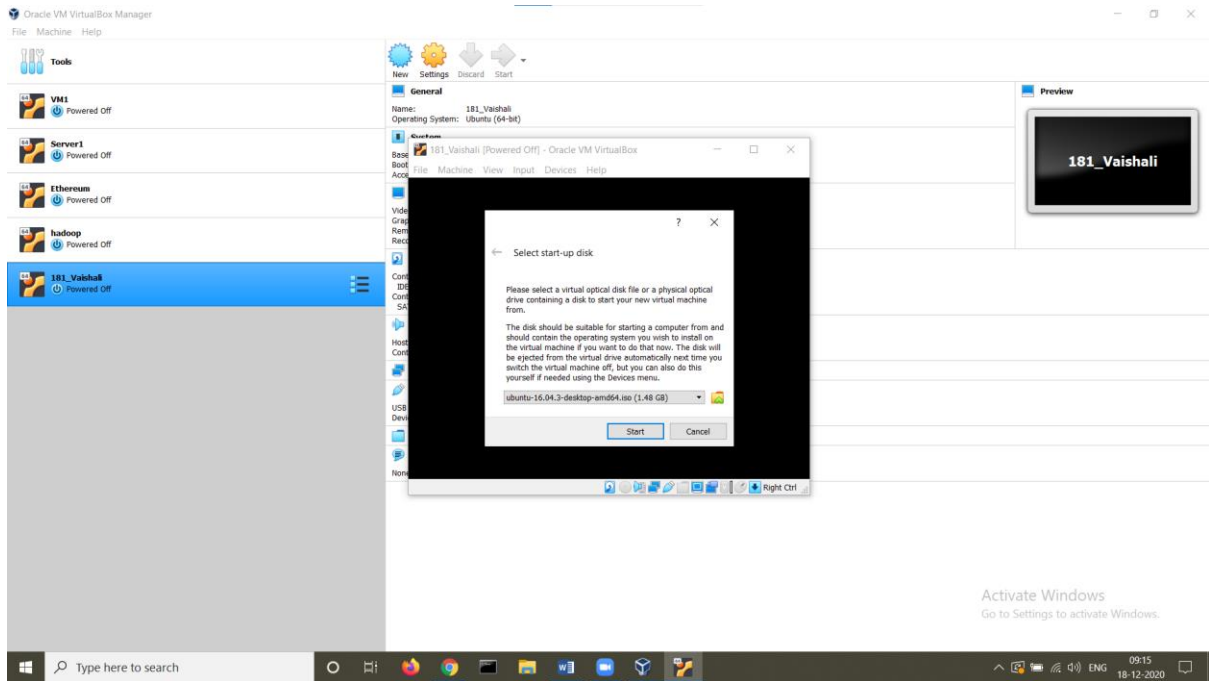
STEP 7: Set shared clipboard and drag n drop to bidirectional



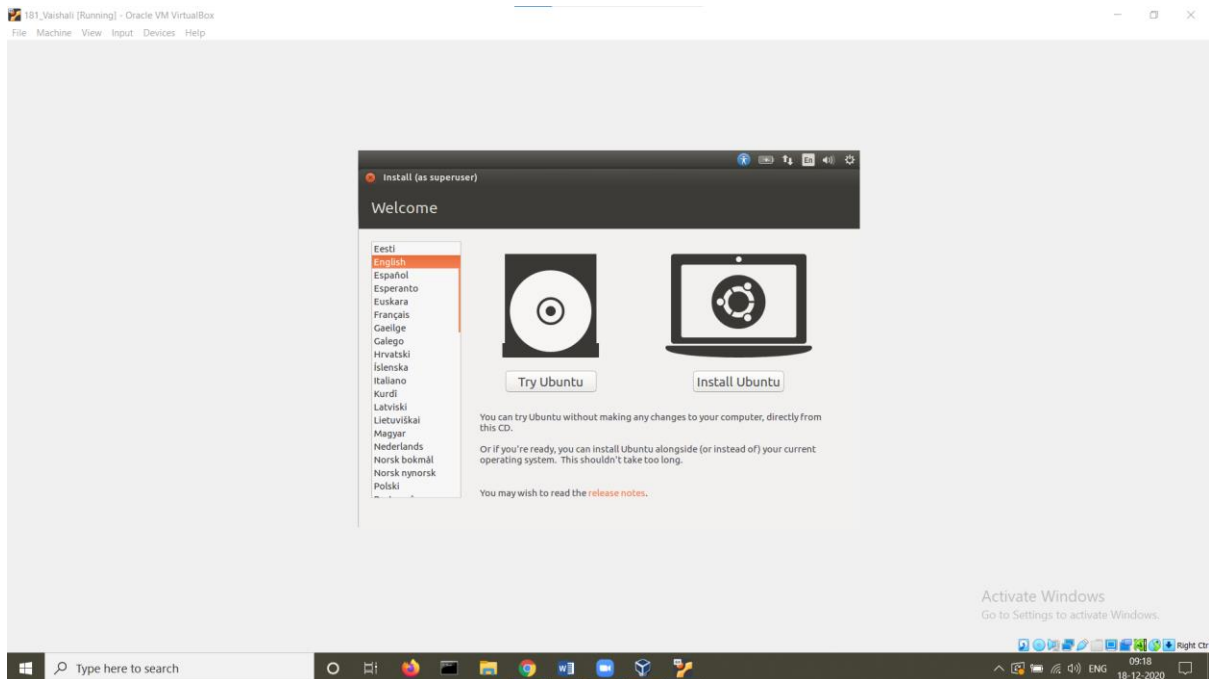
STEP 8: Let the network adapter be NAT



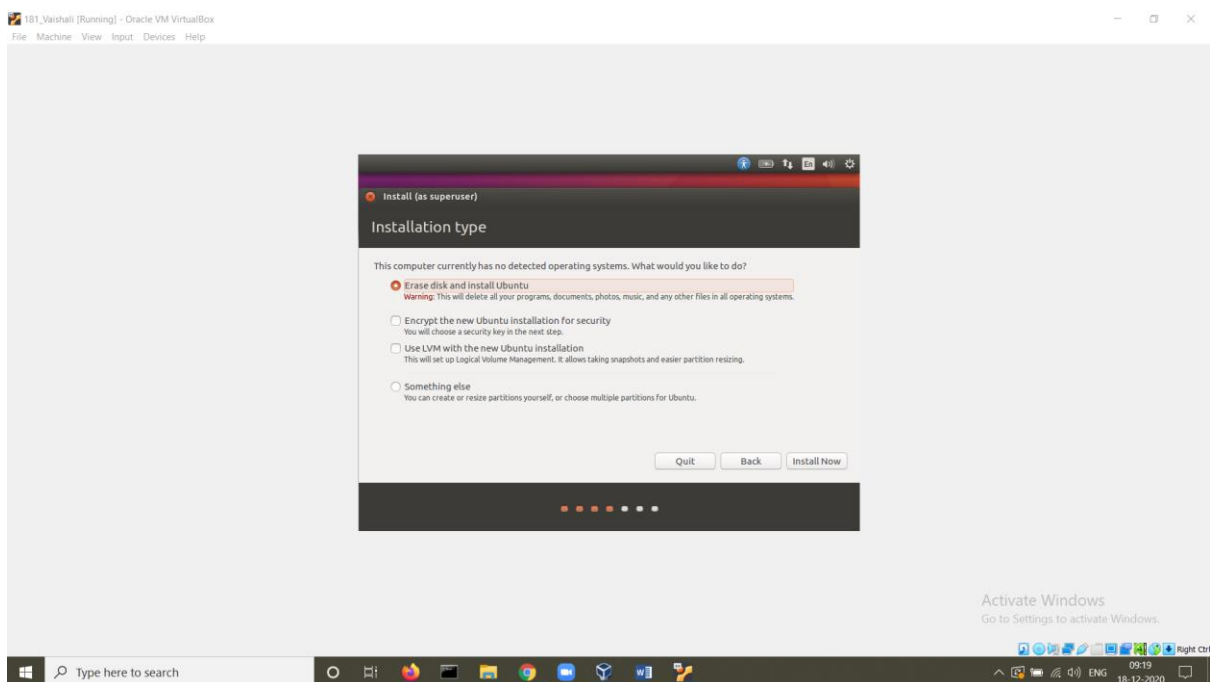
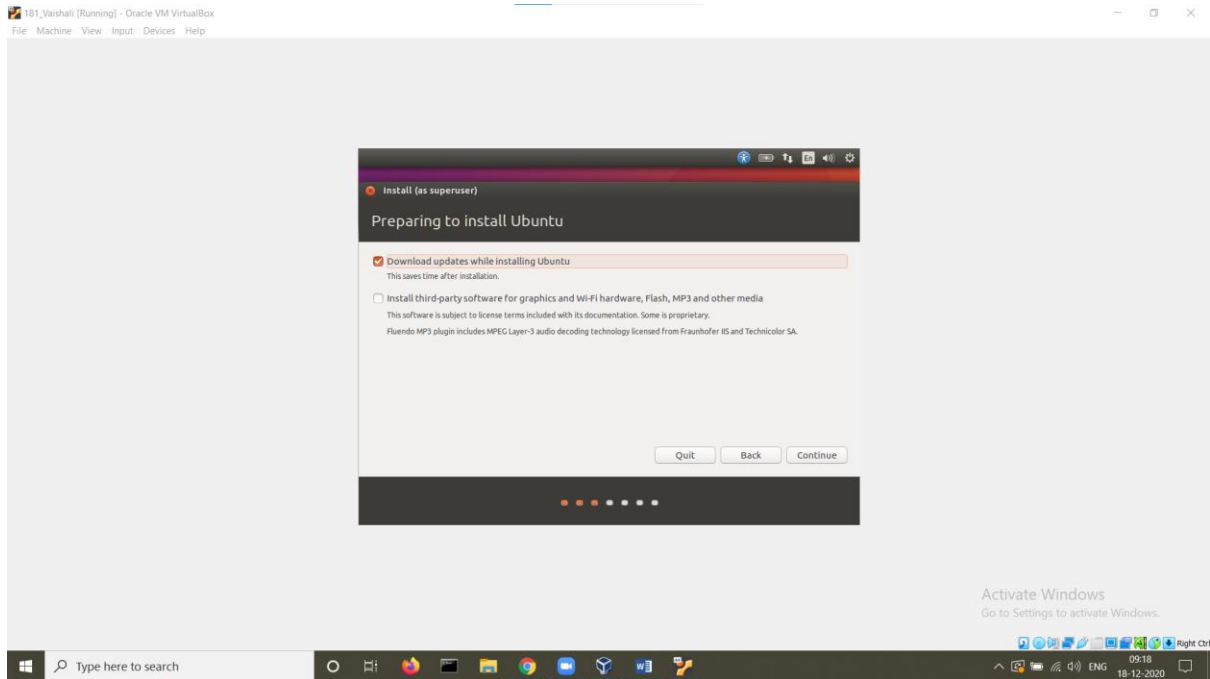
STEP 9: Select the ubuntu iso image

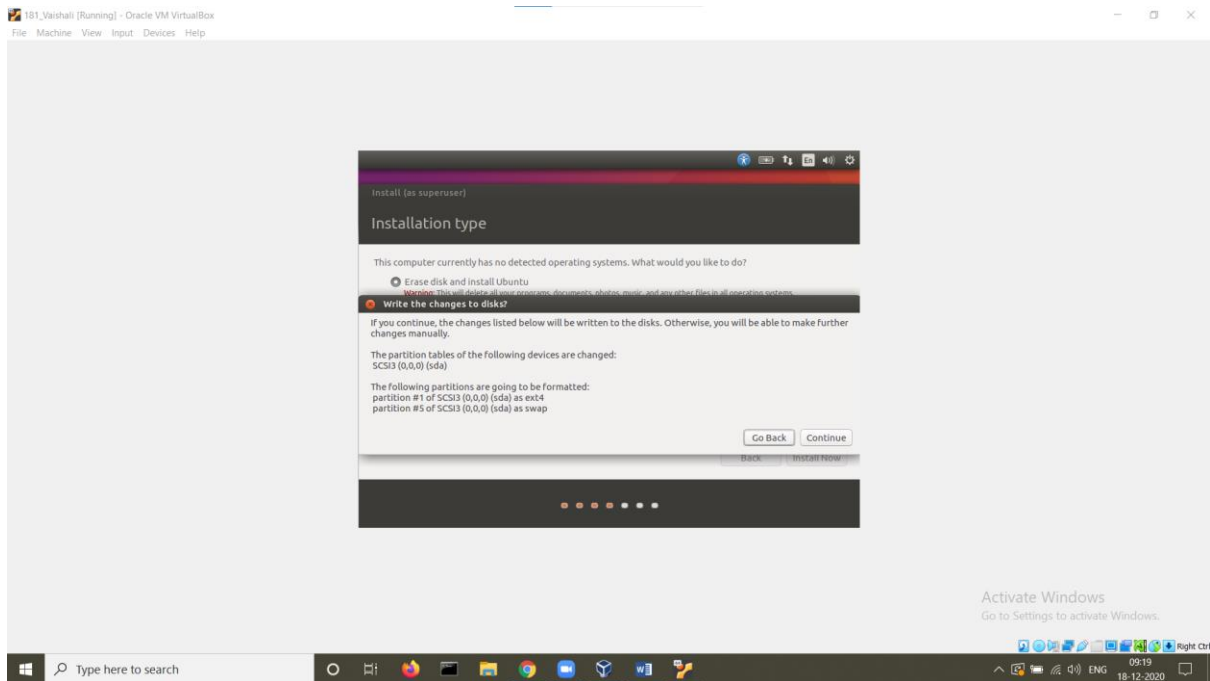


Step 10: Click on install Ubuntu

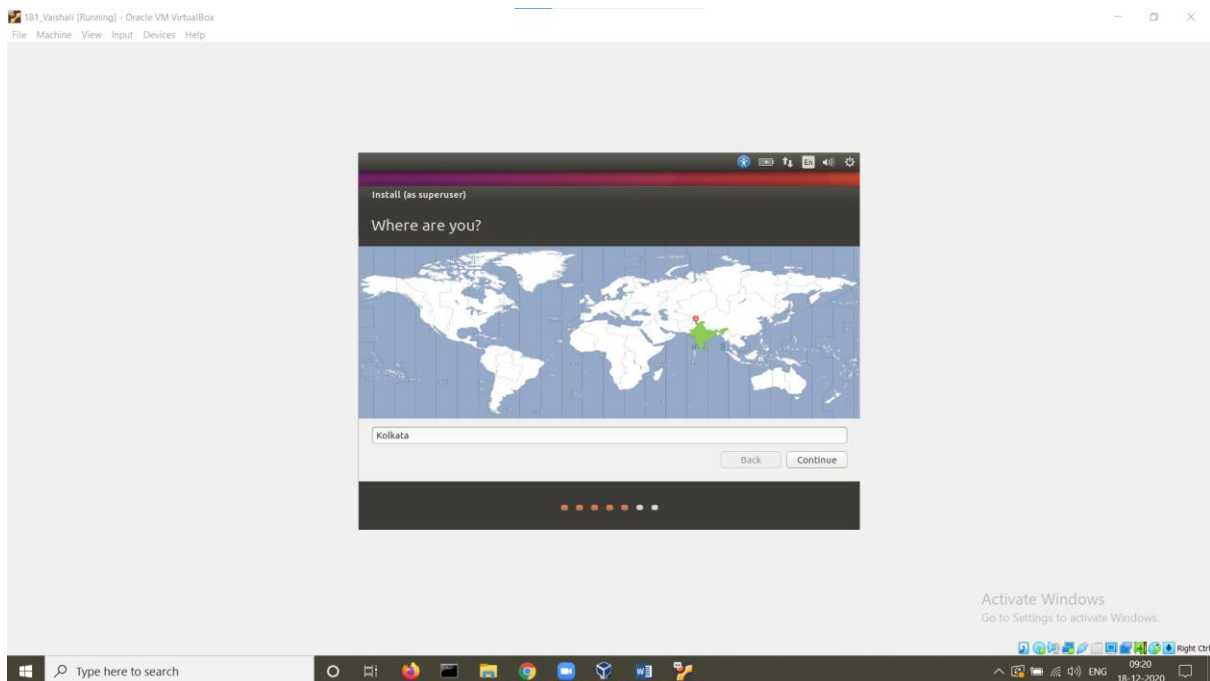


Step 11: Select download updates while installing Ubuntu and the installation type

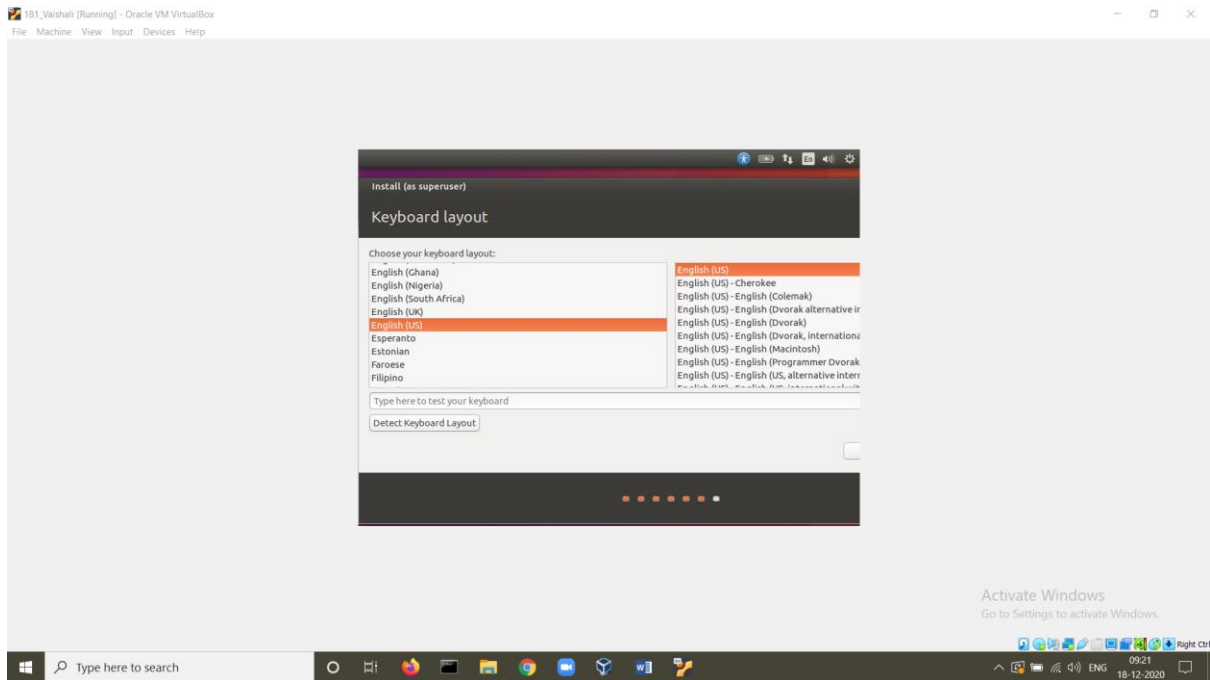




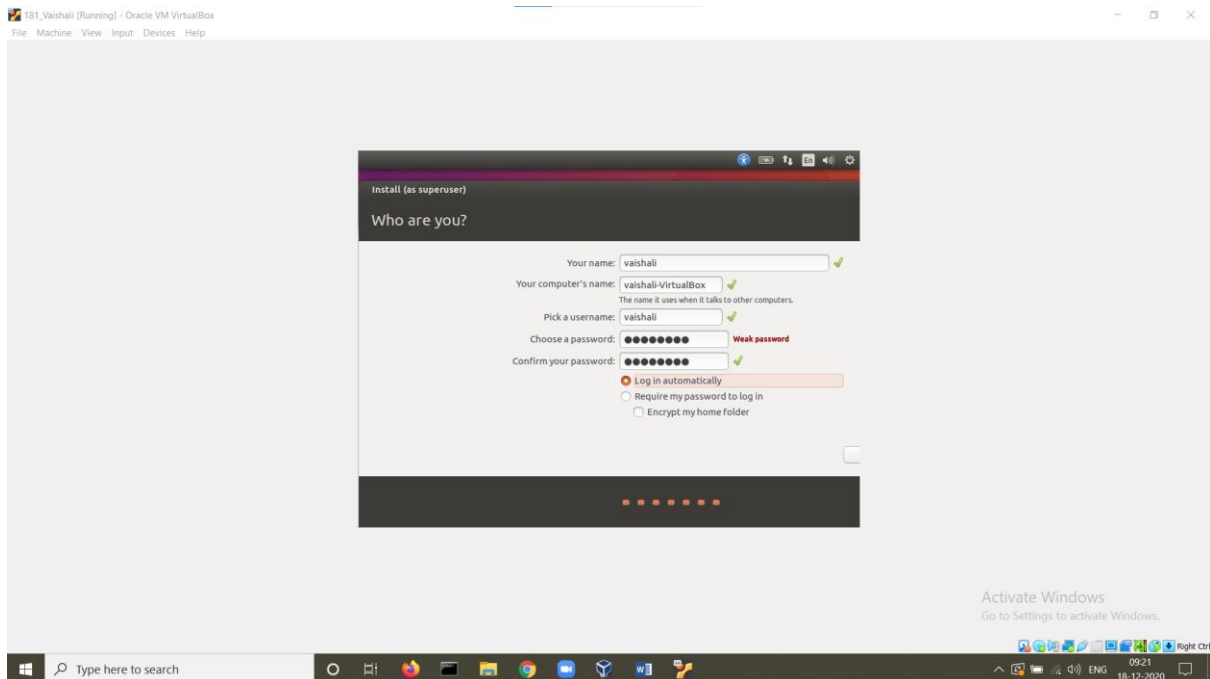
STEP 12: Confirm the location displayed



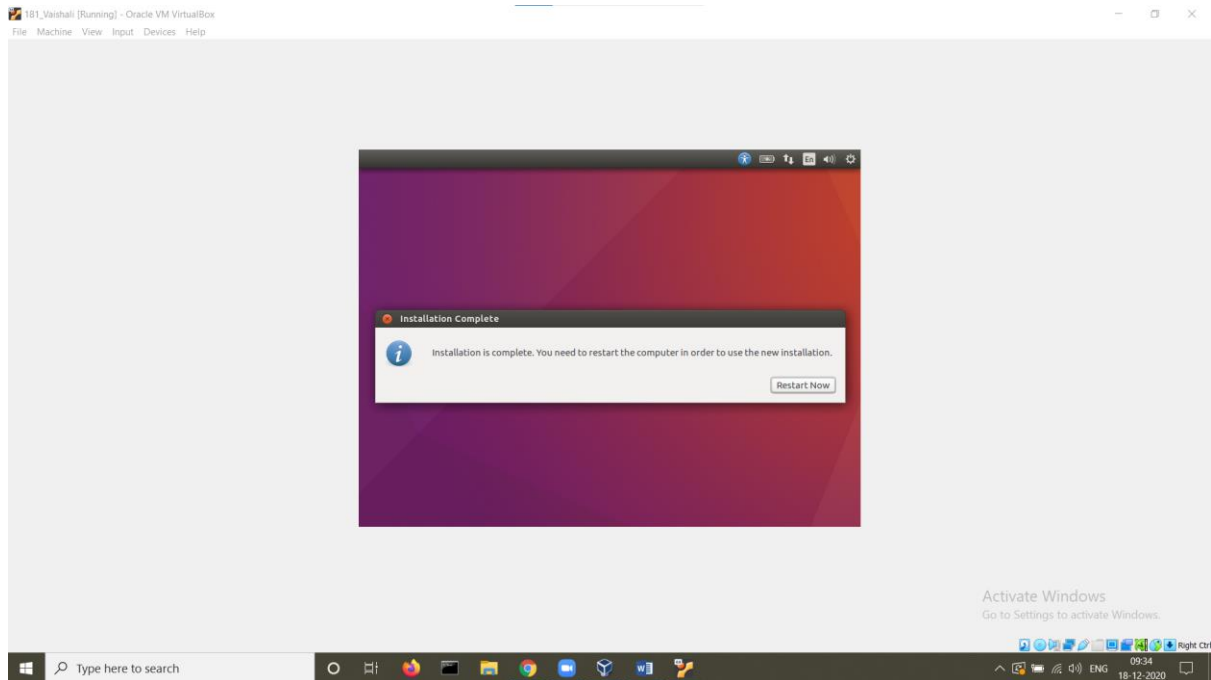
STEP 13: Select the keyboard layout



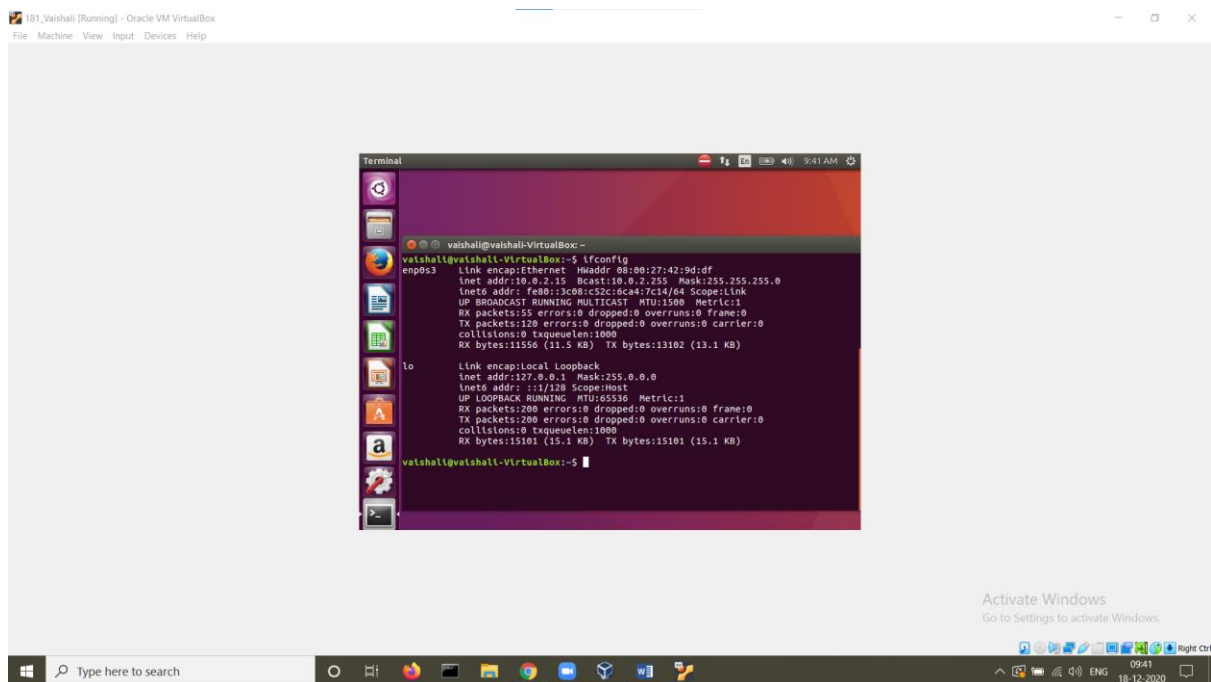
STEP 14: Set the name, computer's name, username and password



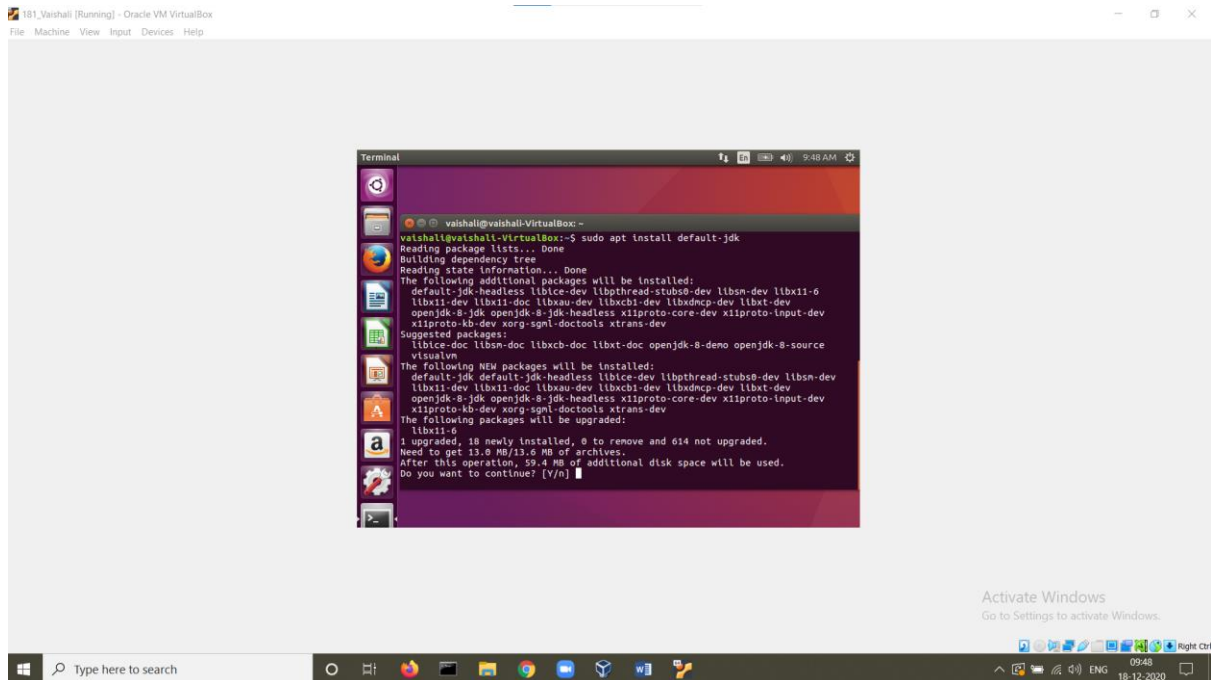
STEP 15: Once the installation is complete, restart the machine.



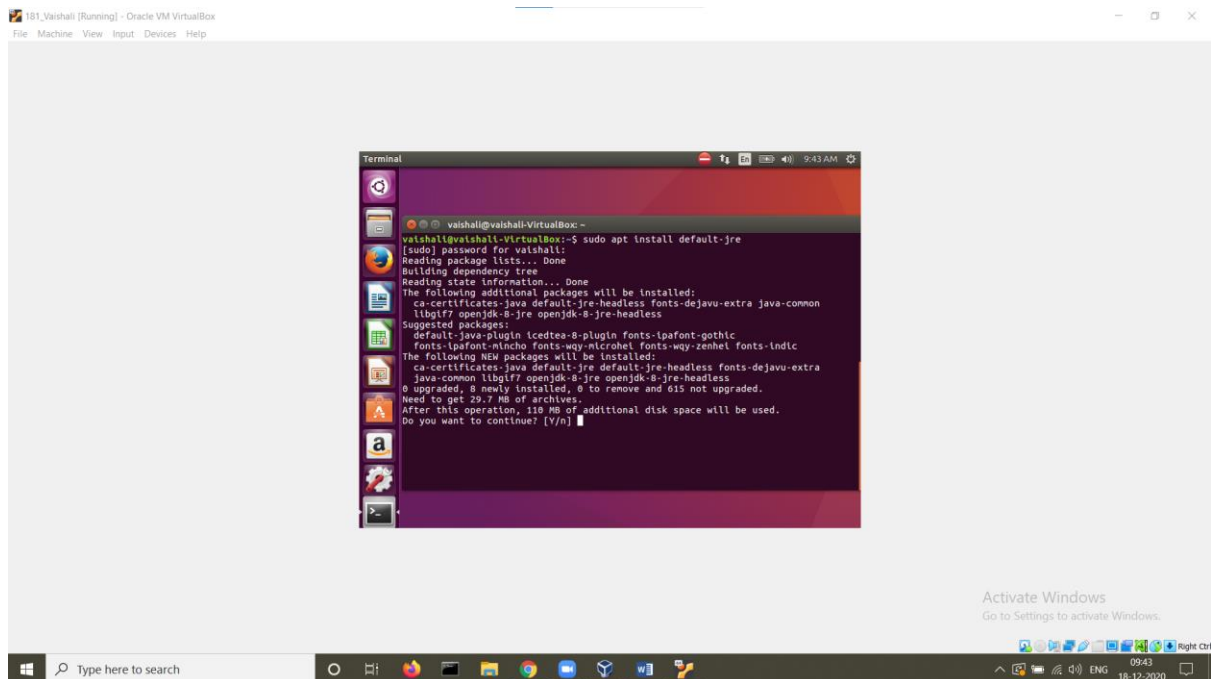
STEP 16: View the ip address of the machine using the command `ifconfig`



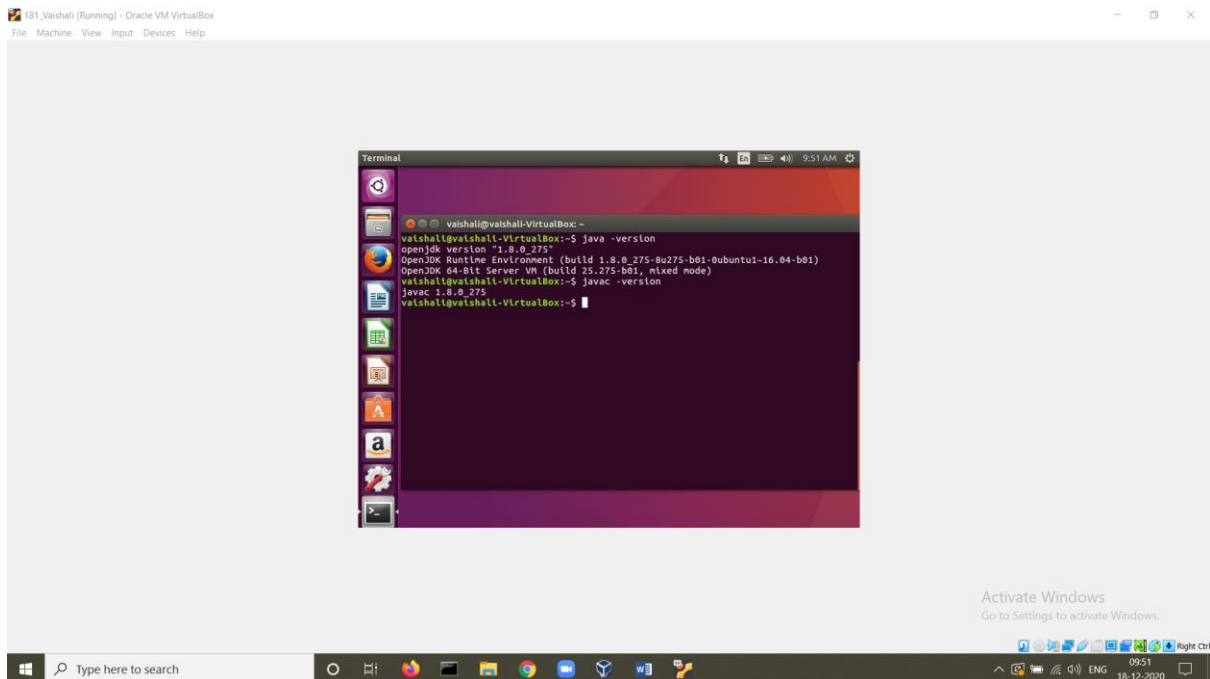
STEP 17: Install the jdk



STEP 18: Install the jre



STEP 19: Check the version

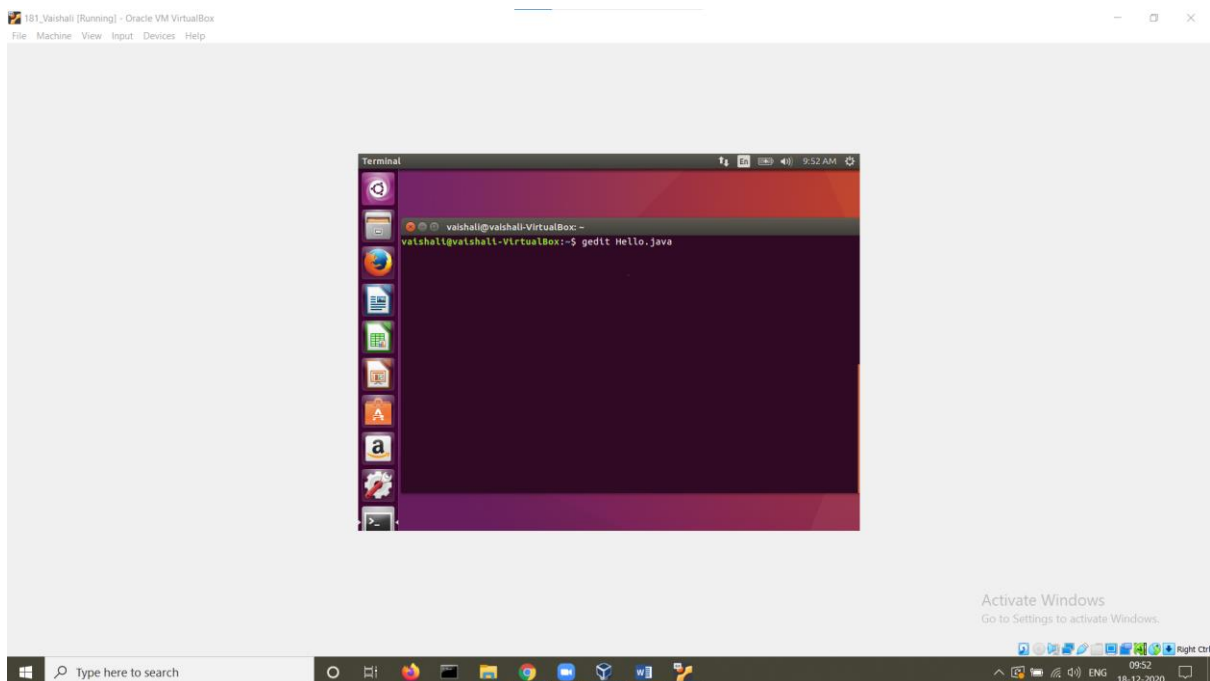


The screenshot shows a Windows 10 desktop with a terminal window open. The terminal is titled "Terminal" and shows the following output:

```
vaishali@vaishali-VirtualBox:~$ java -version
openjdk version "1.8.0_275"
OpenJDK Runtime Environment (build 1.8.0_275-b01-0ubuntu1-16.04-b01)
OpenJDK 64-Bit Server VM (build 25.275-b01, mixed mode)
vaishali@vaishali-VirtualBox:~$ javac -version
javac 1.8.0_275
vaishali@vaishali-VirtualBox:~$
```

The terminal window is running on a virtual machine named "181_Vaishali" in Oracle VM VirtualBox. The desktop background is a light blue gradient. The taskbar at the bottom shows the Windows logo, a search bar, and several application icons. The system tray on the right shows the date and time as 09:51 on 18-12-2020.

STEP 20: Create a new file Hello.java

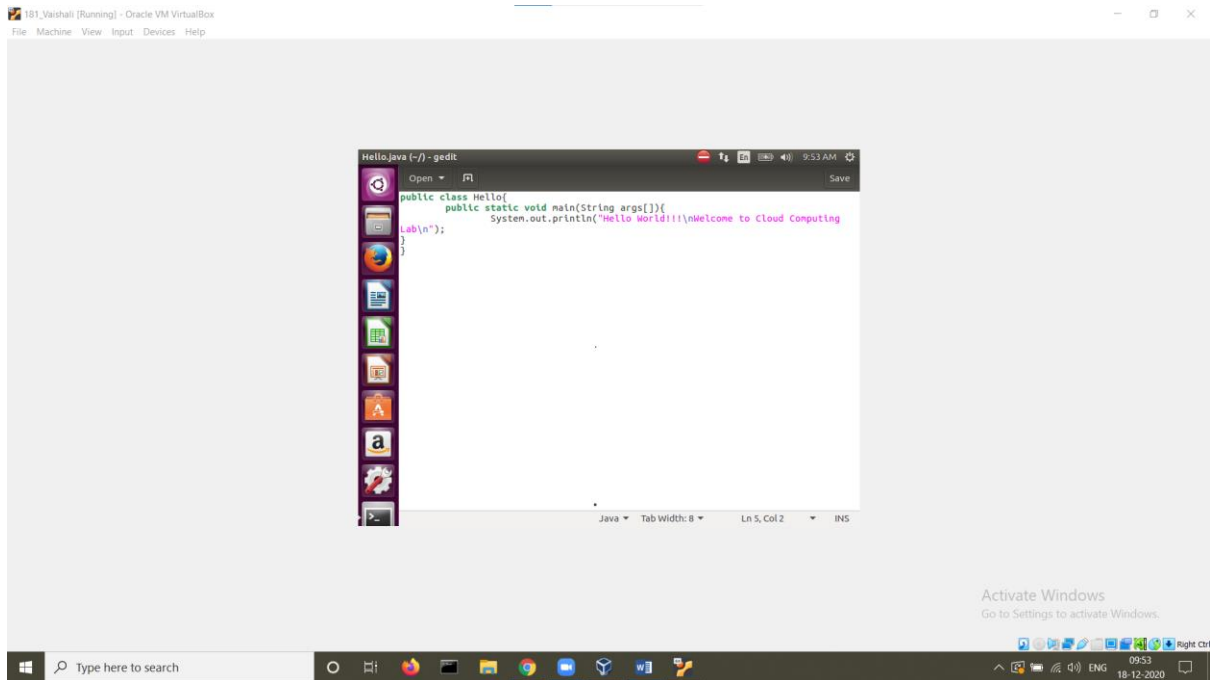


The screenshot shows the same Windows 10 desktop as in Step 19. The terminal window now shows the command to create a new file:

```
vaishali@vaishali-VirtualBox:~$ gedit Hello.java
```

The terminal window is still running on the same virtual machine. The desktop background and taskbar are the same. The system tray on the right shows the date and time as 09:52 on 18-12-2020.

STEP 21: A java program to display Hello World is written



STEP 22: The java program is compiled and executed.

