King Abdulaziz University

Smart Methods

Task Week 2

Steps Install Virtual Box, Ubuntu and ROS

Summer Training 2020

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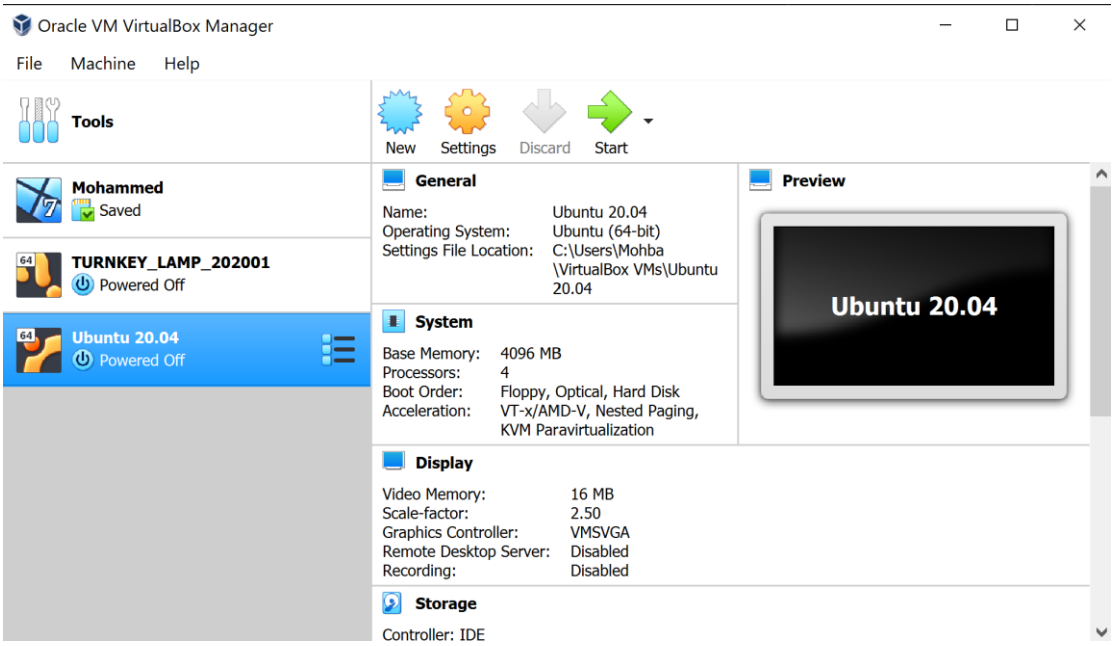
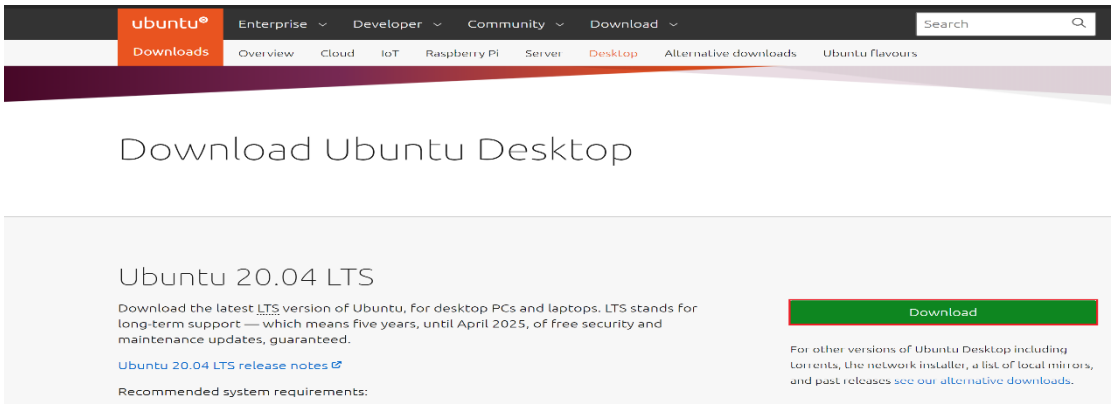
Steps to Install Virtual Box:

Step 1: Go to the Virtual Box site and choose Windows hosts as in the following image:

After installing the Virtual Box interface:

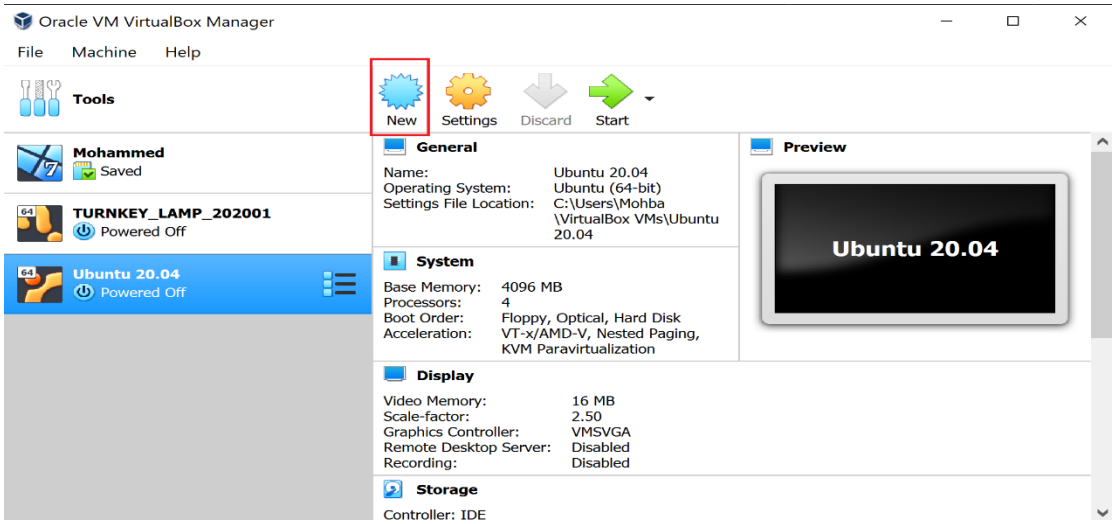


Step 2: Go to Ubuntu website and download the 20.04 version as in the following image:

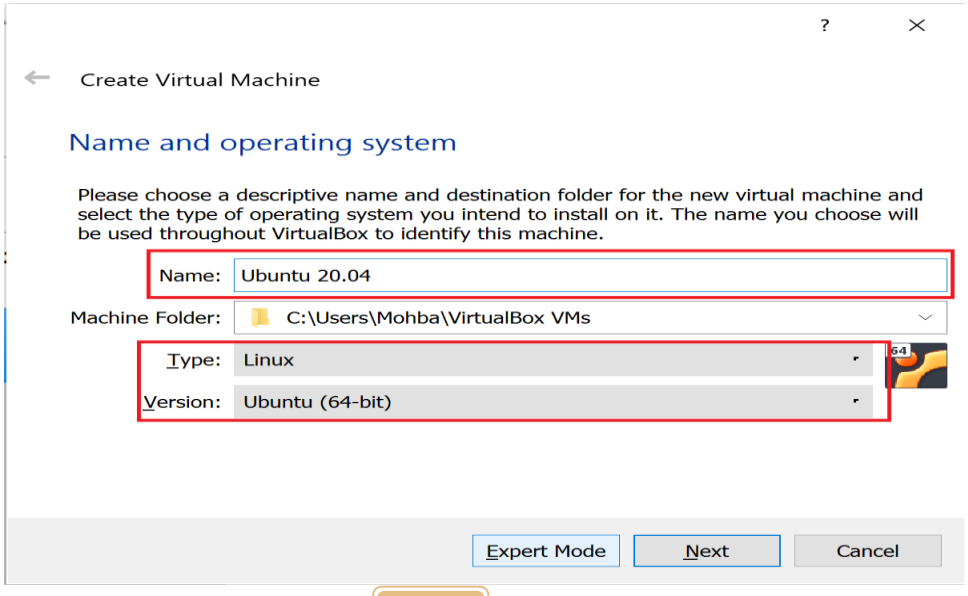


Steps to install Ubuntu on Virtual Box:

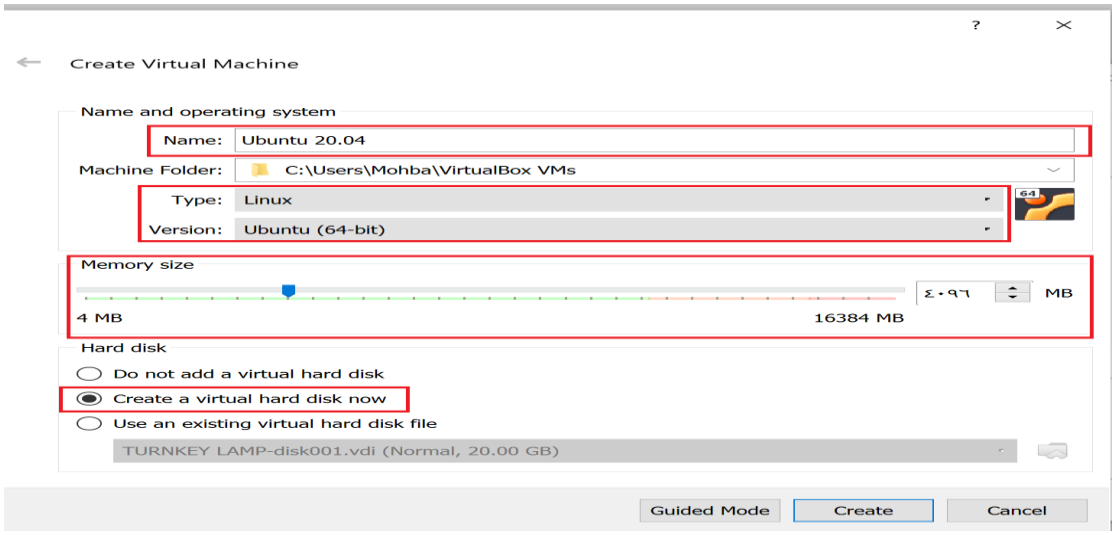
A / Click New:



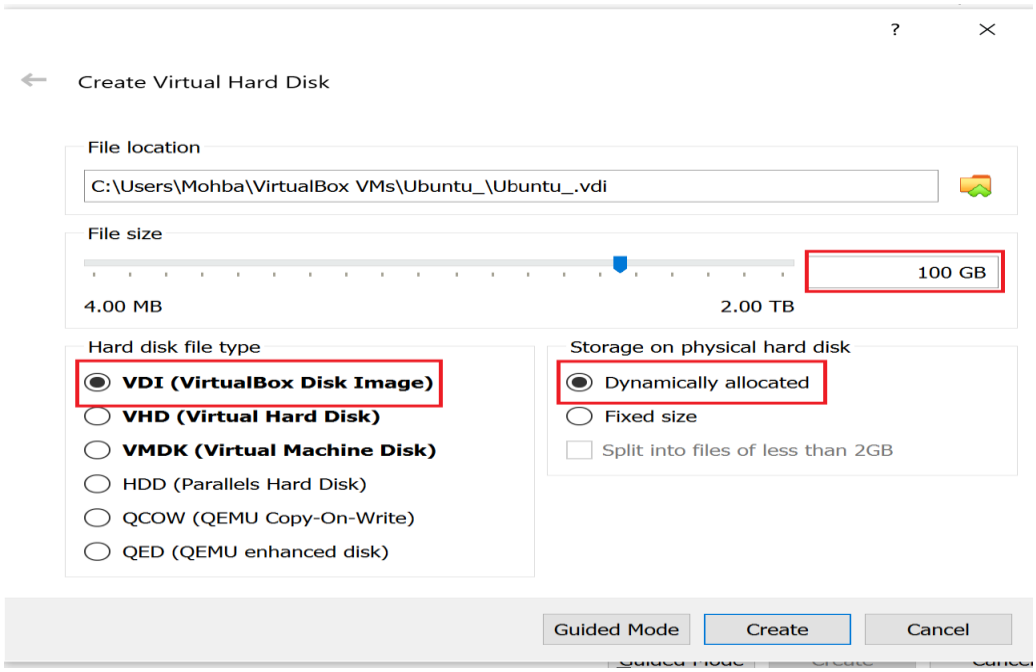
- Set the system name, choose the **Linux** system type, and **Ubuntu version (64 bits)**.



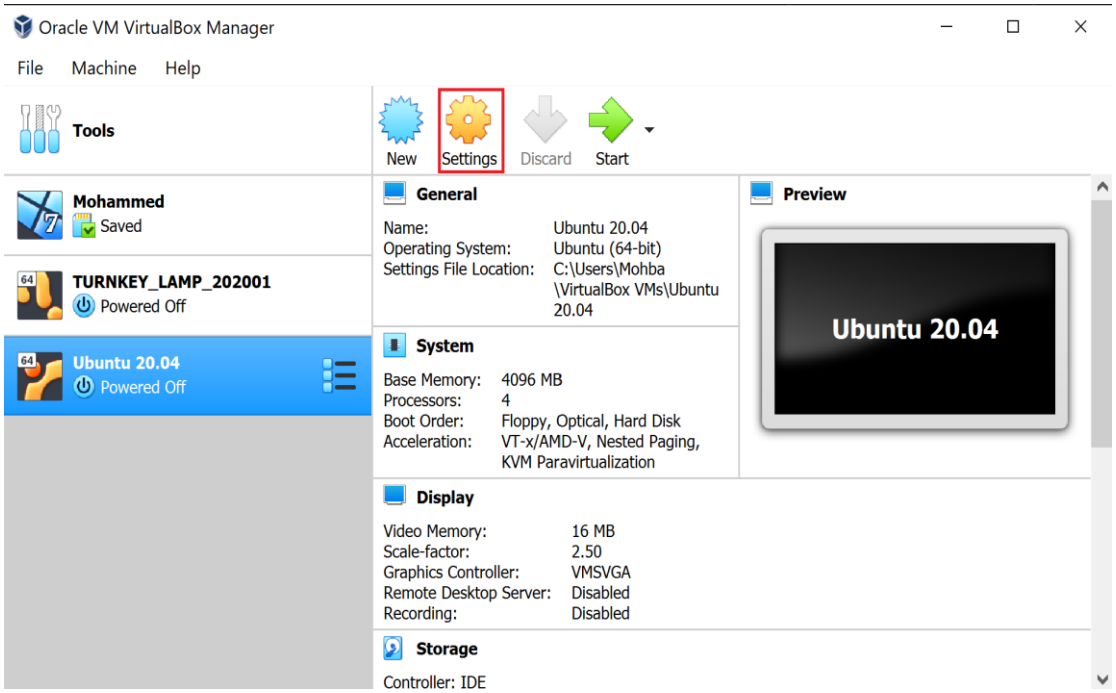
- Click on Expert Mode.
- Change Memory Size to **4096 MB**.
- choose **Create a virtual hard disk now**.
- Click Create.



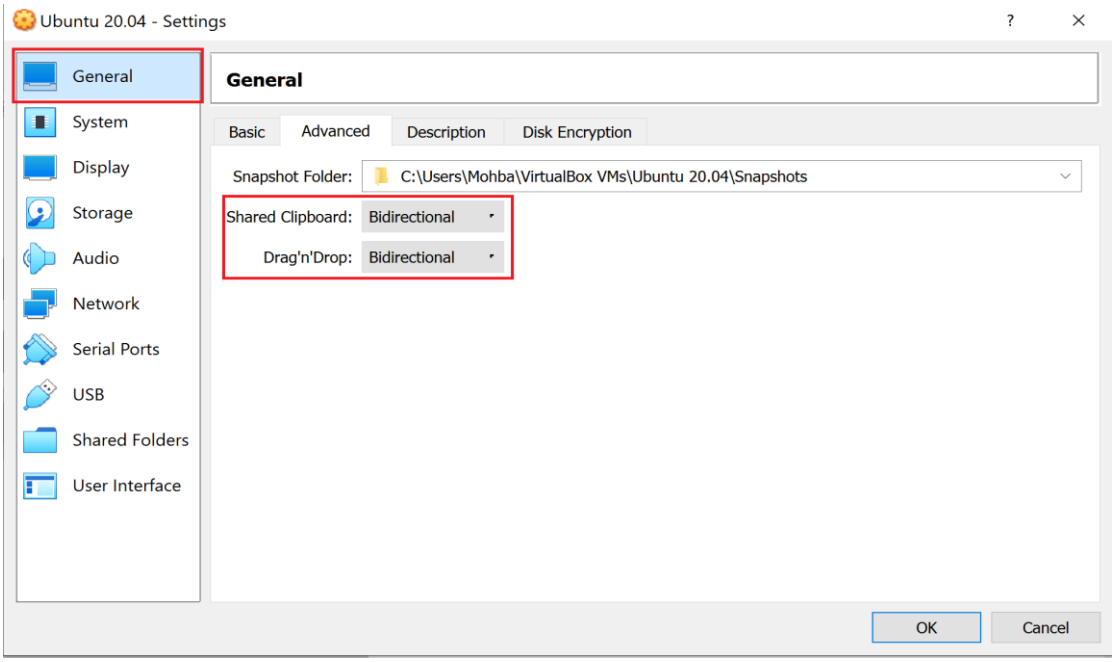
- Change File Size to **100 GB**.
- Choose **VDI (VirtualBox Disk Image)**.
- Choose **Dynamically allocated**.
- Click Create.



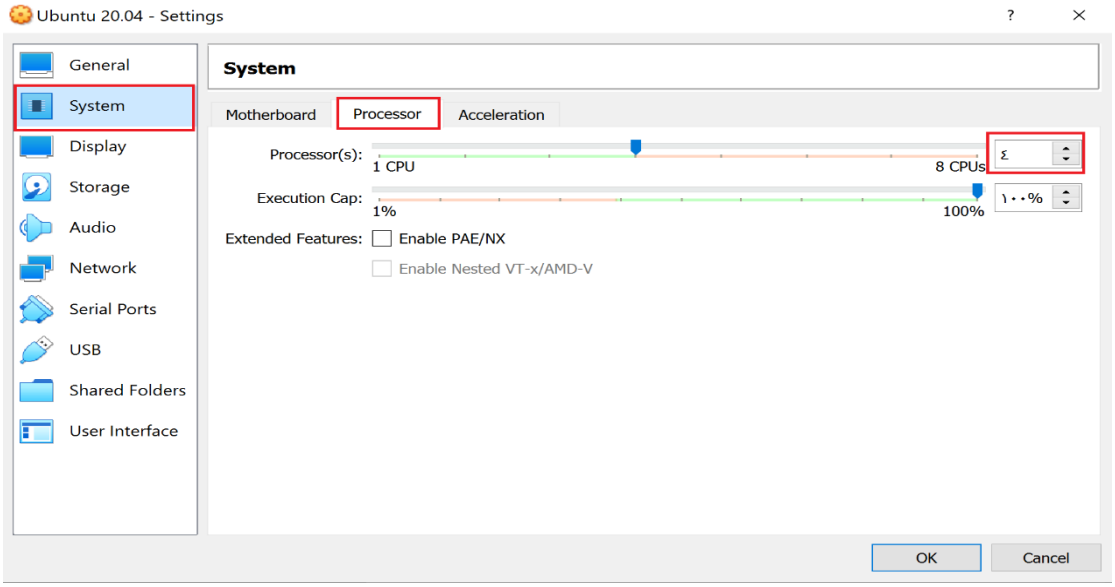
B / Click Ubuntu 20.04 Settings:



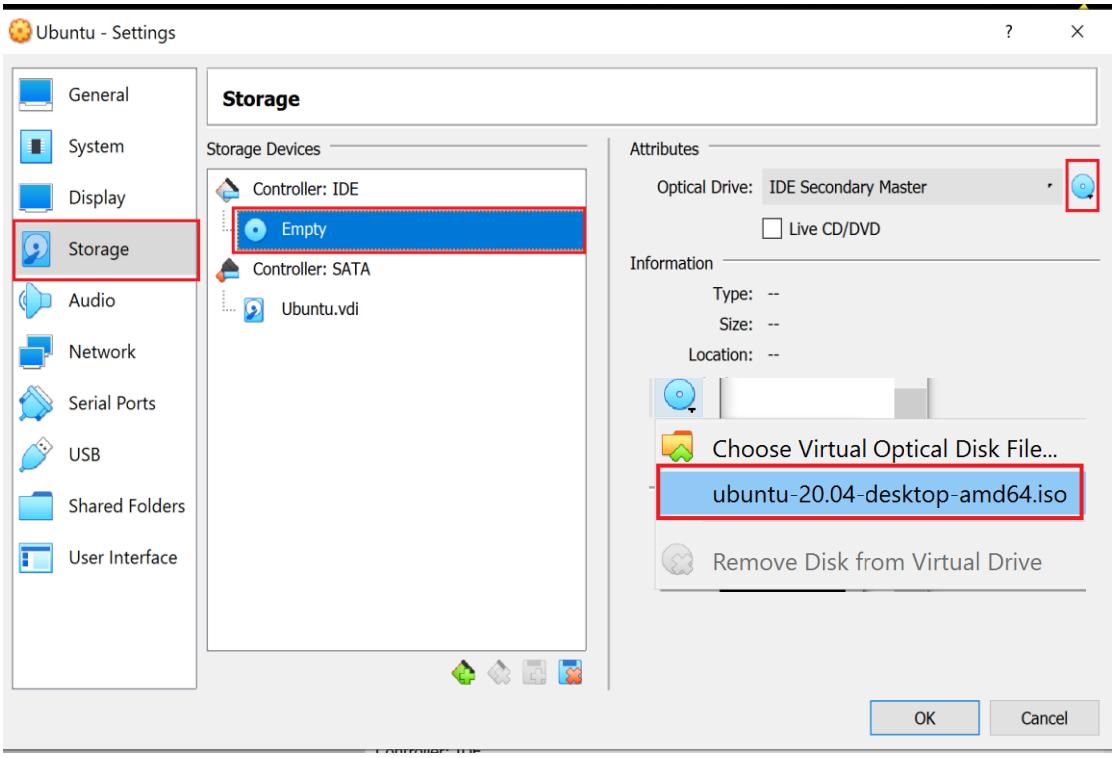
- Click on General.
- Press Advanced.
- Change Shared Clipboard to **Bidirectional**.
- Change Drag'n Drop to **Bidirectional**.



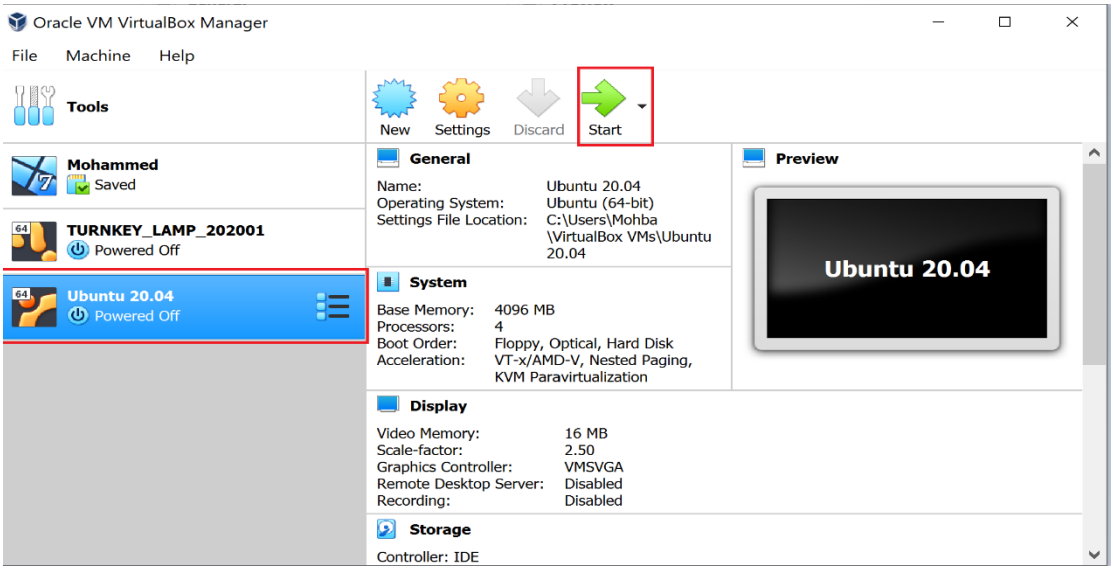
- Click on System.
- Click on Processor.
- Change Processor (s) to **4 CPU**.



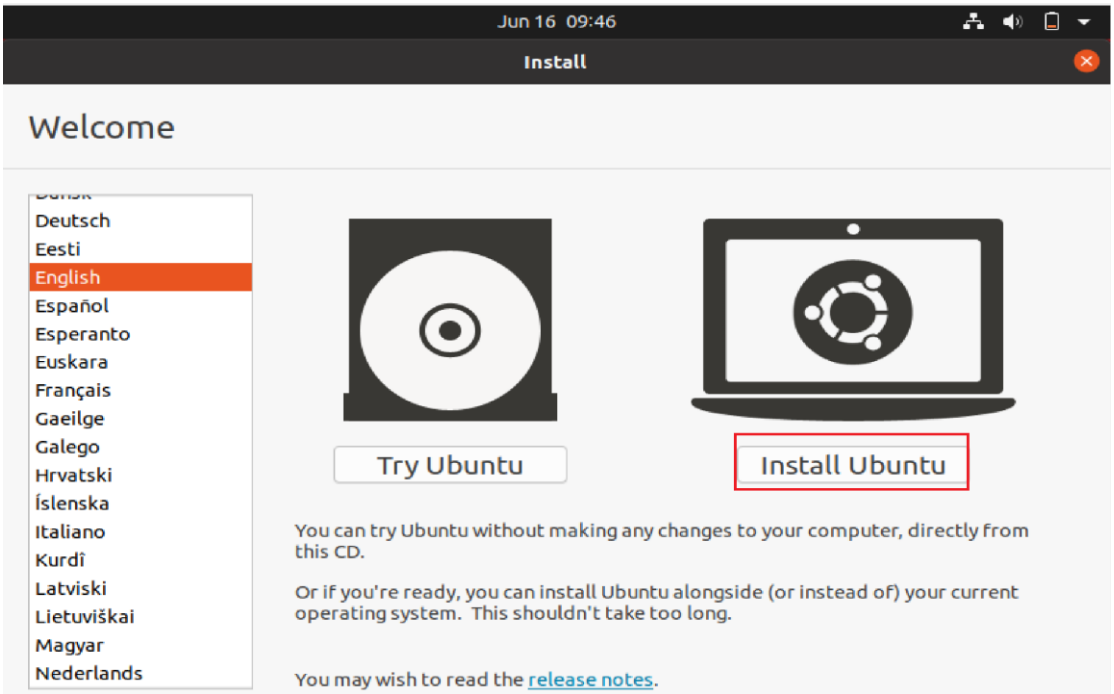
- Click on Storage
- Click on Empty
- Select the previously loaded ISO file from Ubuntu as shown in the image:
- Press OK and exit settings.



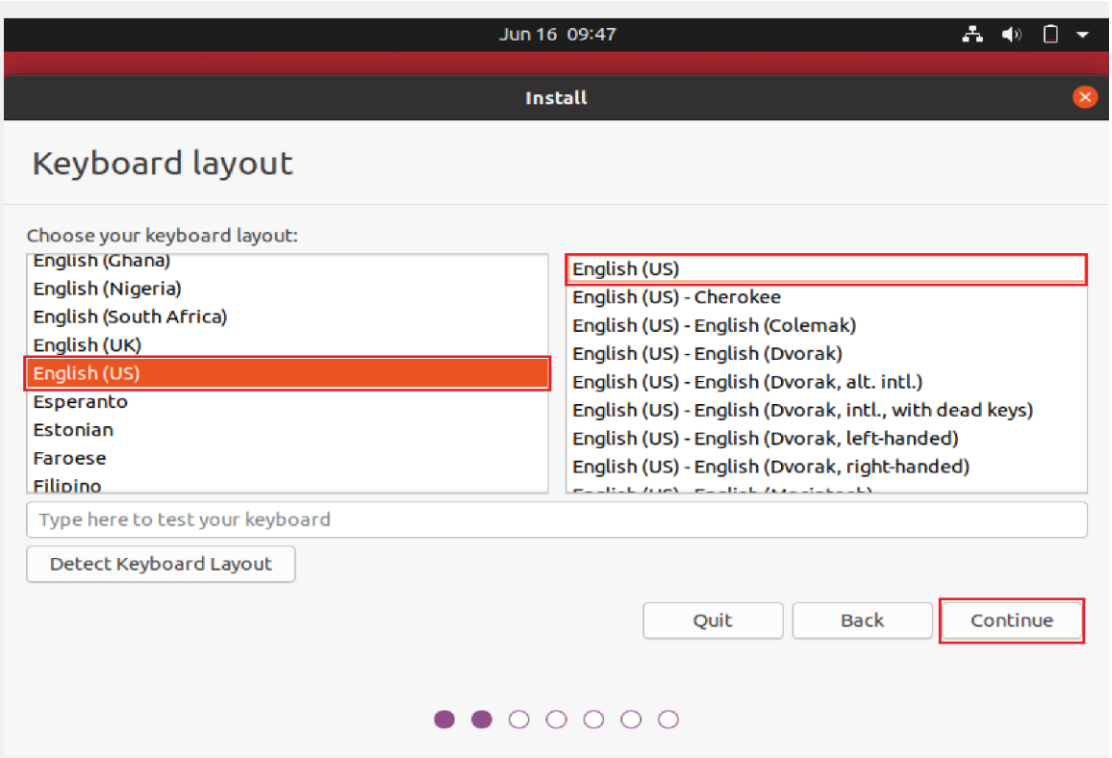
C / Press Start to start and install Ubuntu 20.04.



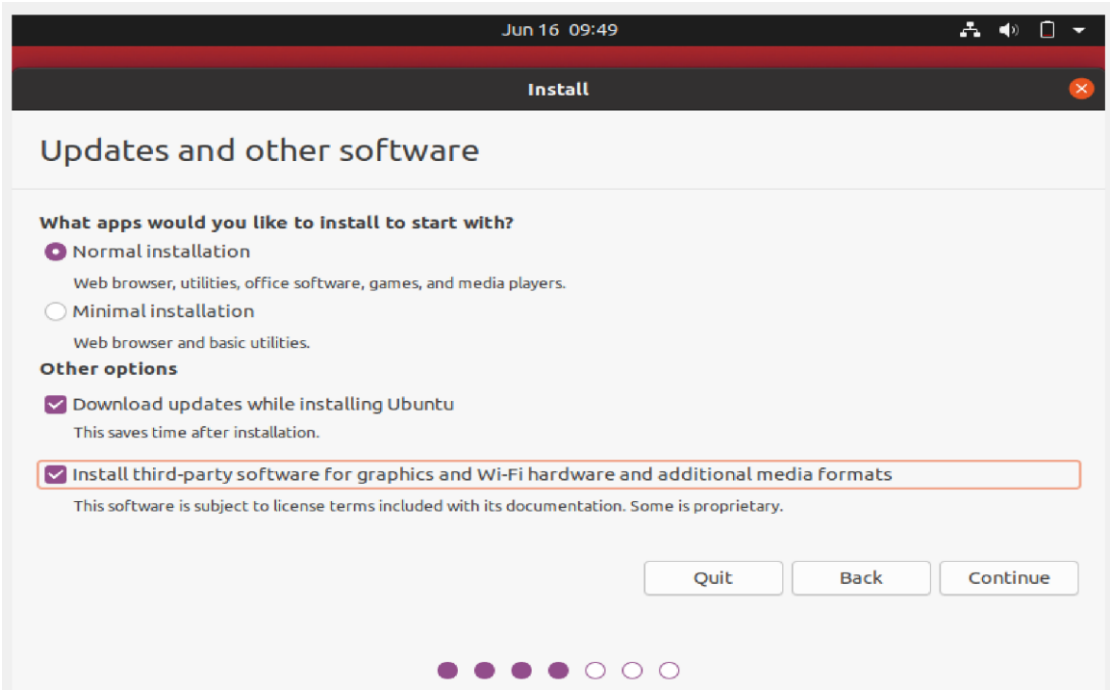
- After Ubuntu is started.
- Choose the appropriate language for the system.
- Click on **Install Ubuntu**.



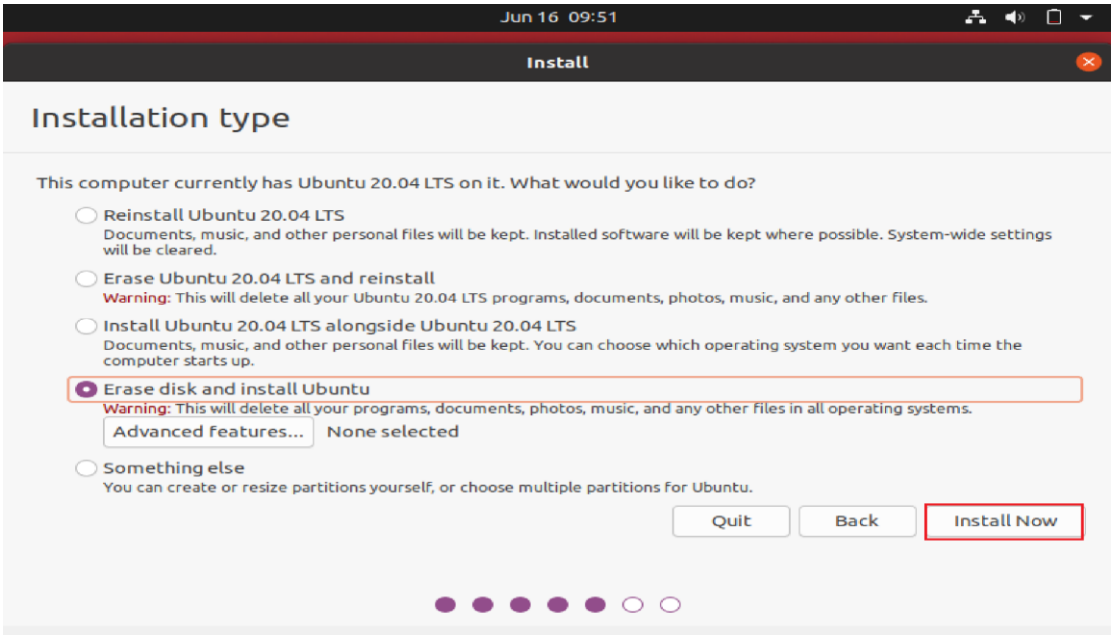
- Choose keyboard language.
- Press Continue.



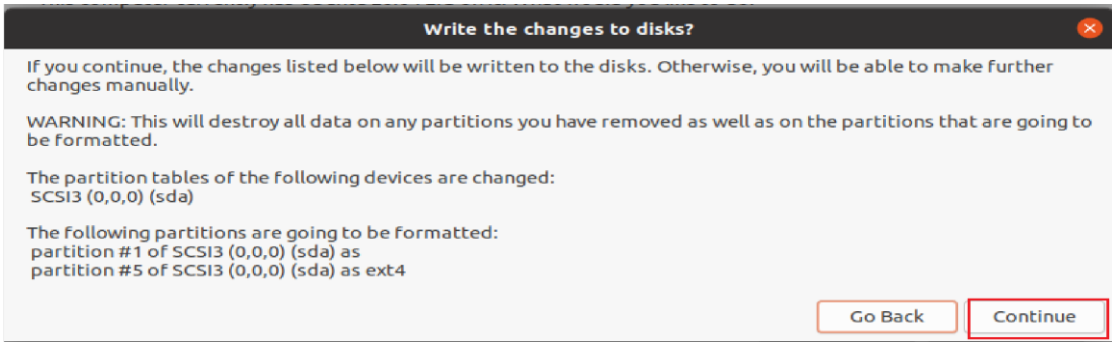
- Click on the last selection as shown in the image:
- Press Continue.



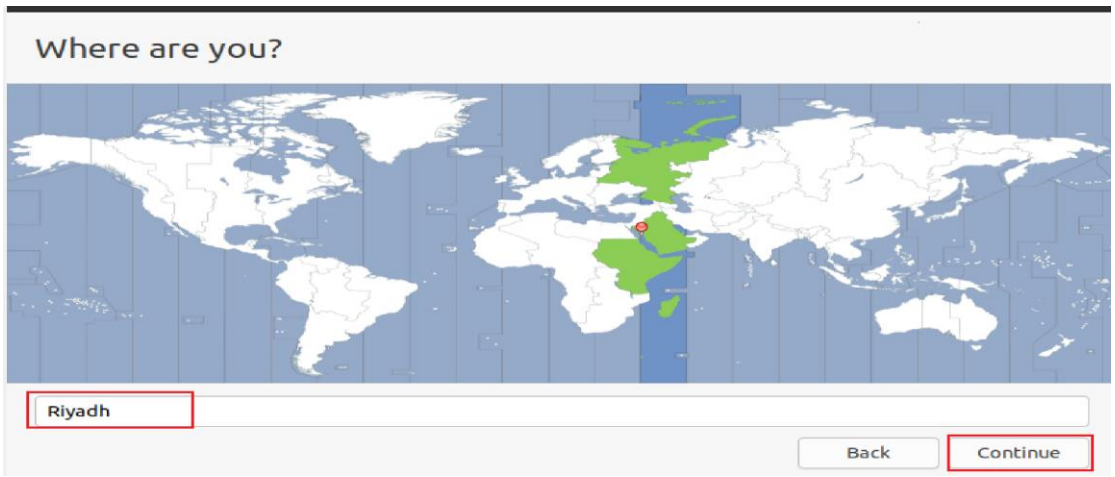
- Choose **Erase disk and install Ubuntu**.
- Click on **Install Now**.



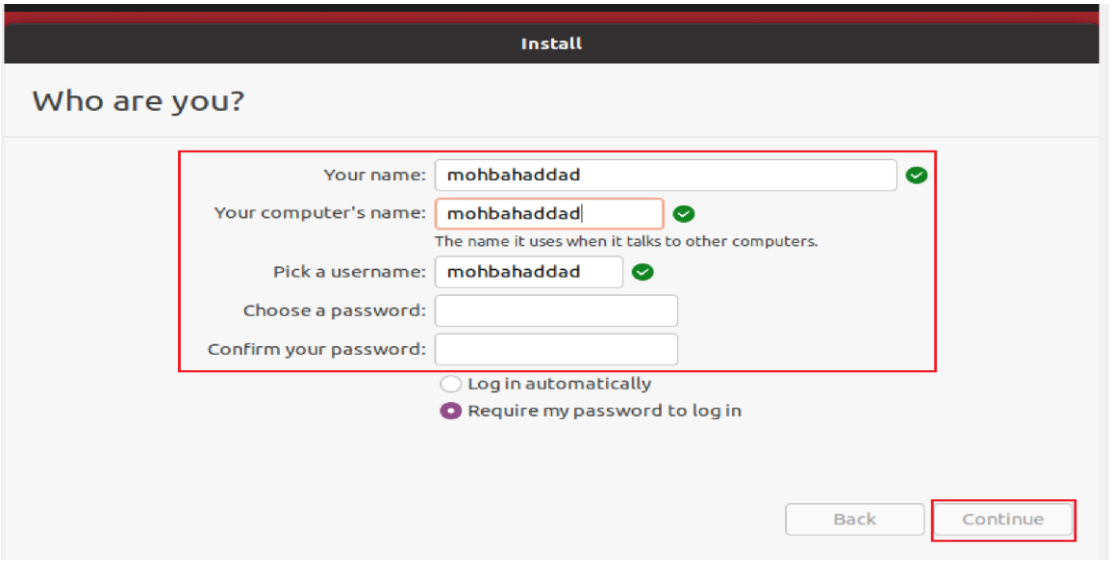
- After clicking Install Now, this message will appear:
- Click Continue.



- Select a region from the map and press Continue.

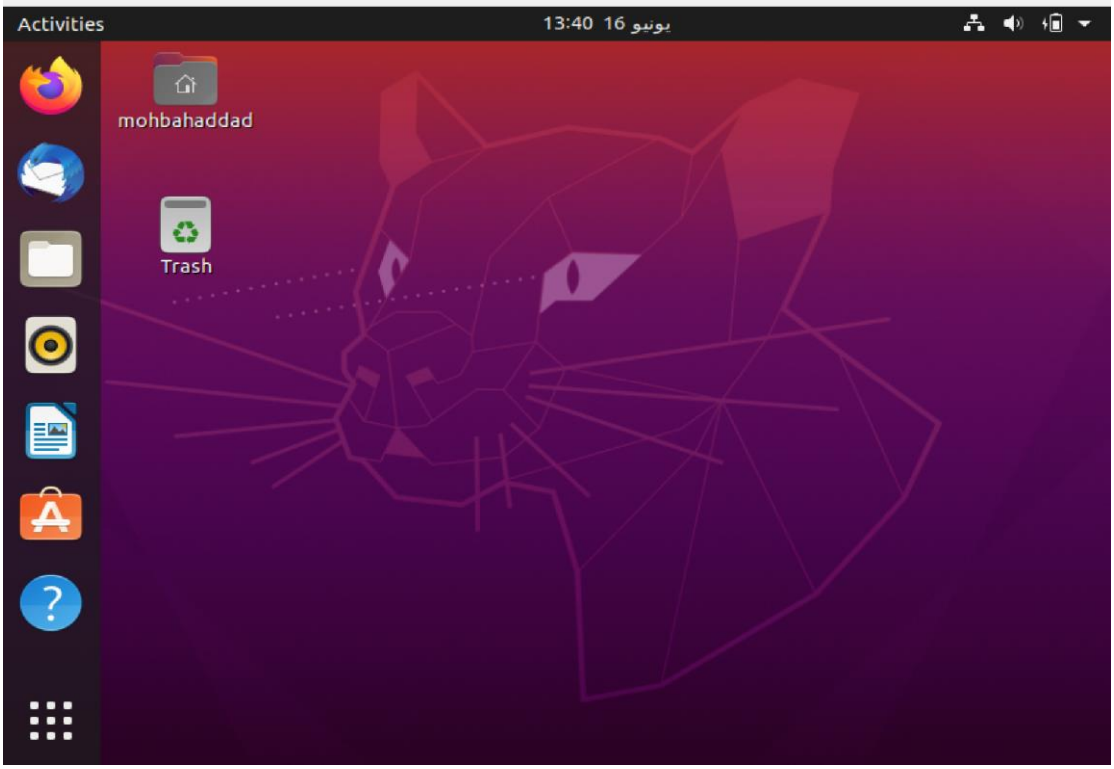


- Set the system username and password.
- Press Continue.



D / After installing the Ubuntu system:

System interface as in the following image:



Steps to install ROS:

(Note: These are the steps to install ROS for Ubuntu 20.04).

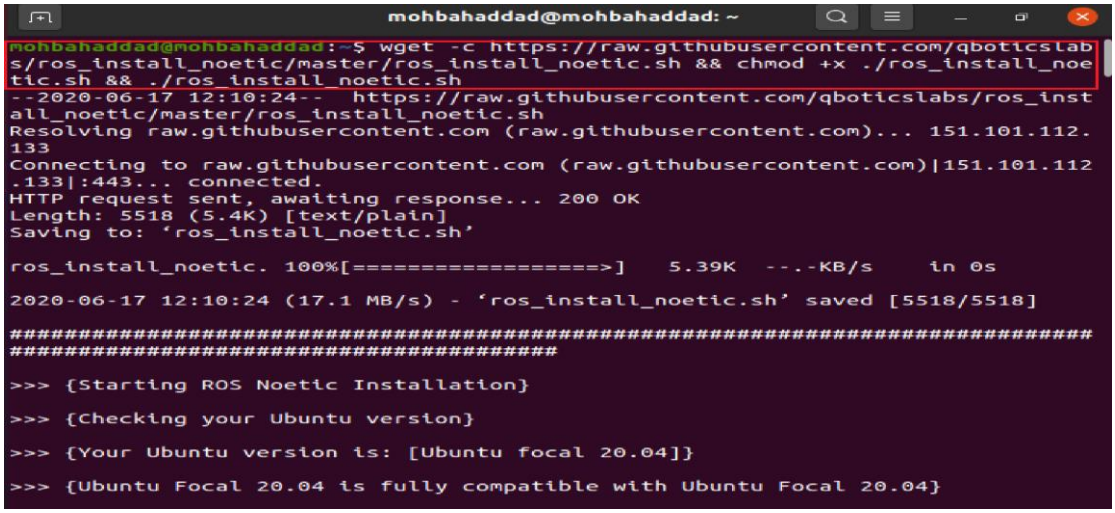
- Go to Terminal.
- Copy the following command from the link in the references at the end of the page.

Usage

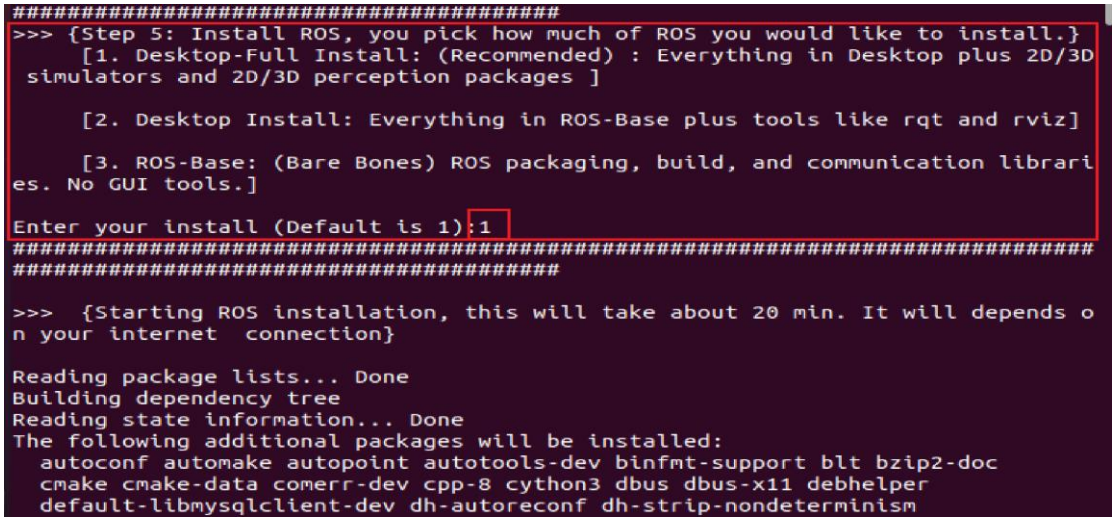
You can just copy-paste the command below in your terminal for installing and uninstalling ROS Noetic. You have to enter your password while running the script. Execute the script as a normal user.

Single line ROS Noetic Install

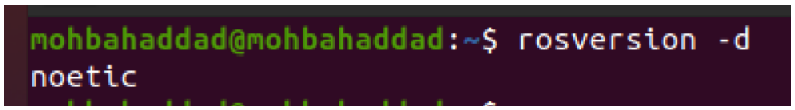
```
wget -c https://raw.githubusercontent.com/qboticslabs/ros_install_noetic/master/ros_install_noetic.sh && chmod +x ./ros_
```



- Choose ROS Package to install and choose No. 1.



- After the ROS installation is completed.
- Write the command (**rosversion -d**) in Terminal to confirm the installed version.



References:

- Virtual Box download link:

https://www.virtualbox.org/wiki/Downloads

- Ubuntu download link for version 20.04:

https://ubuntu.com/download/desktop

- Video tutorial on how to install Ubuntu 20.04 on Virtual Box:

https://www.youtube.com/watch?v=x5MhydijWmc&feature=youtu.be

- Video tutorial on how to install ROS for Ubuntu 20.04:

https://www.youtube.com/watch?v=IqrpSi2Xueg&feature=youtu.be

- Command link to install ROS for Ubuntu 20.04::

https://github.com/qboticslabs/ros_install_noetic