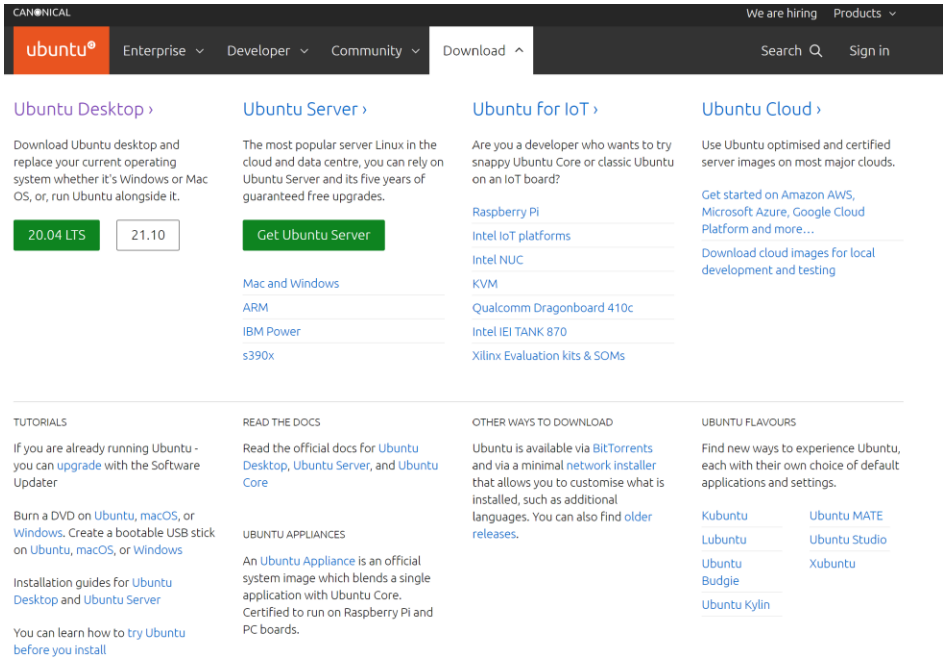
Homework 1

CIS 490I/590K

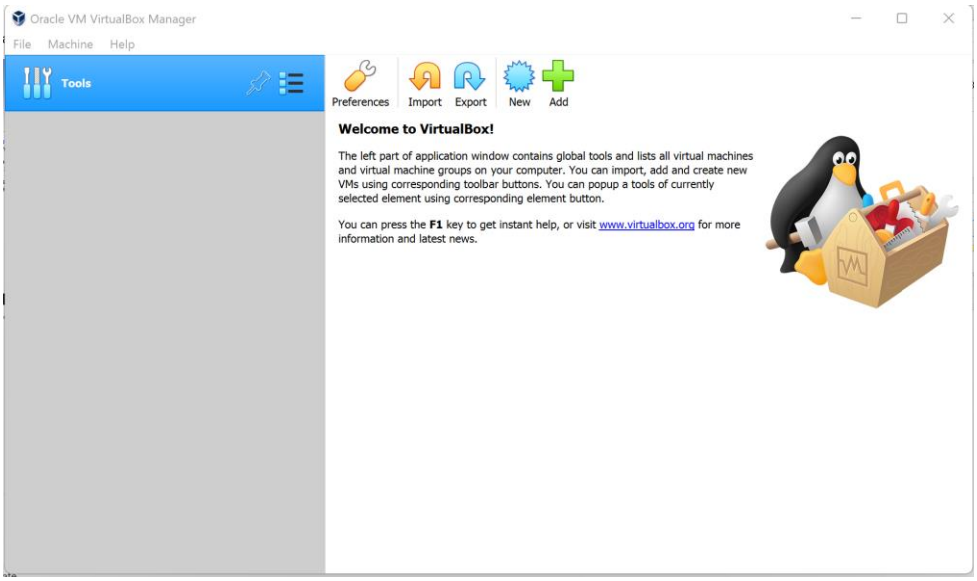
1. Install Anaconda 3 with Linux on VirtualBox

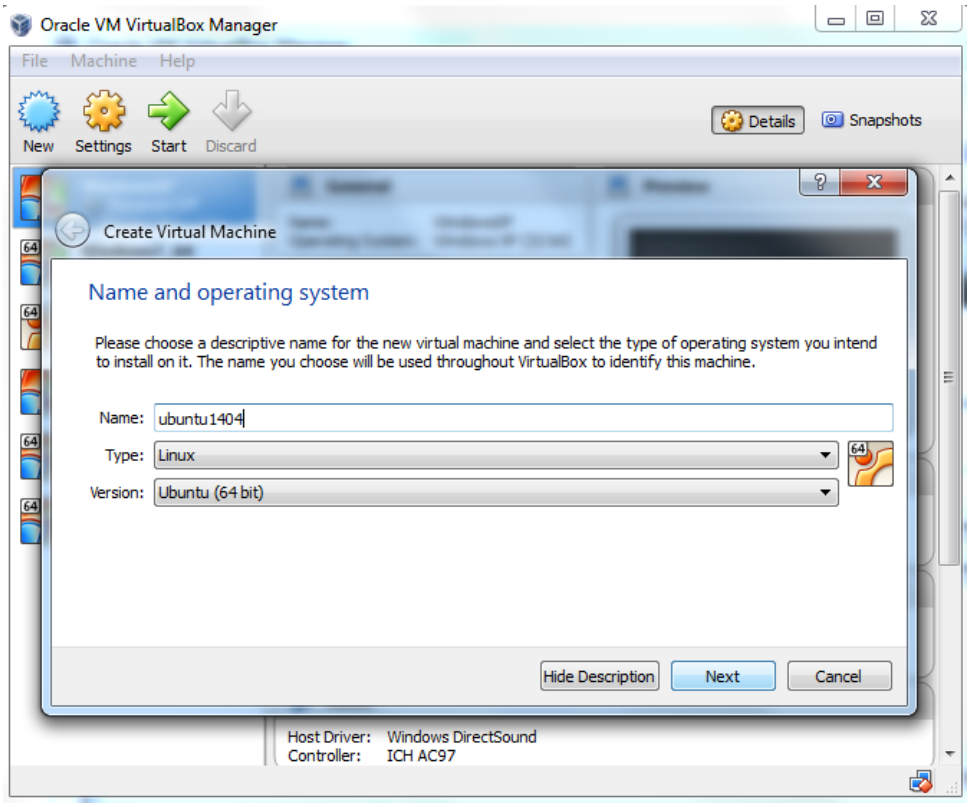
STEP 1 : Download VirtualBox and Ubuntu20.04.iso (any version # is fine)

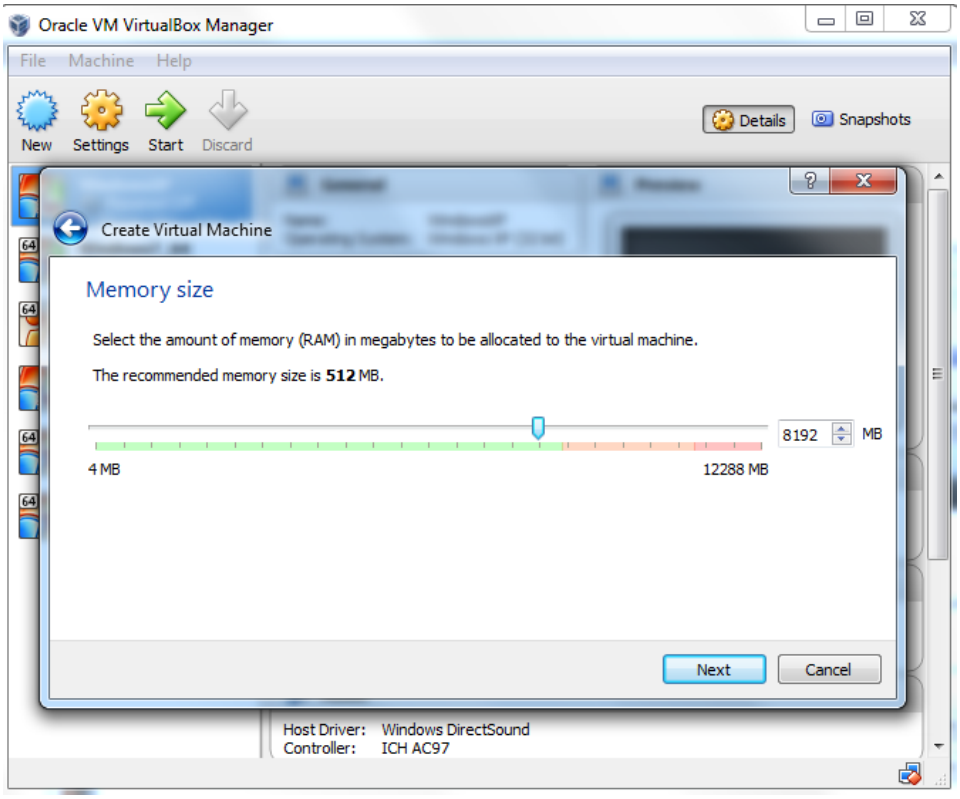


VirtualBox Download Ubuntu Download

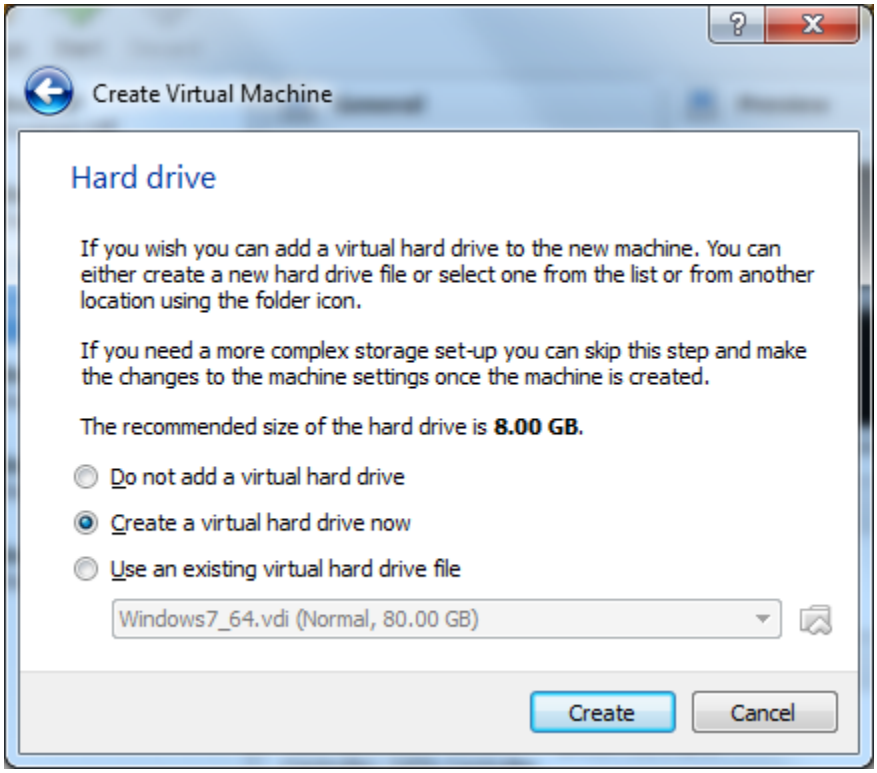
STEP 2 : Open Oracle VM VirtualBox and Click ‘New’ to create a new Virtual machine

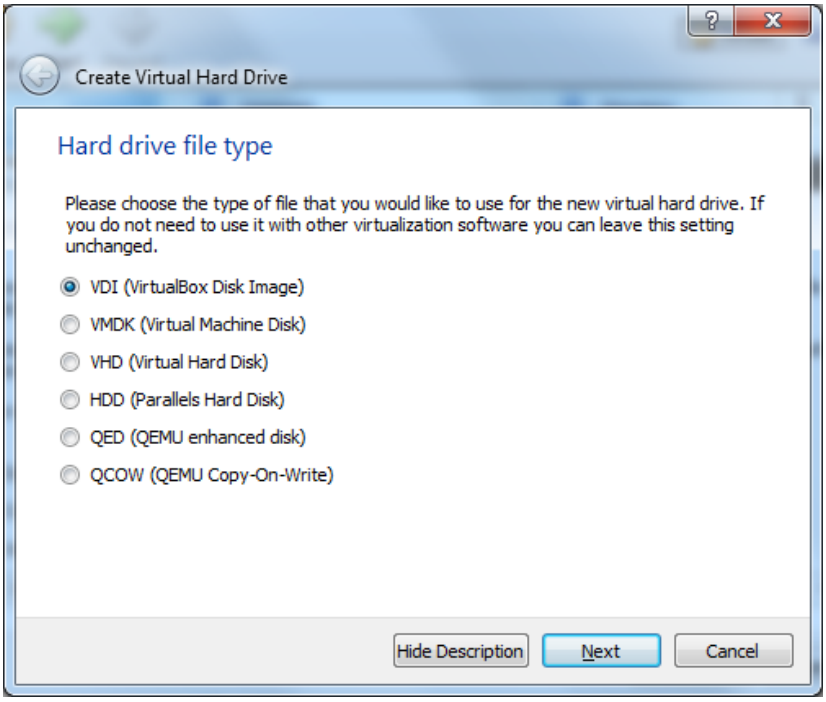

Oracle VM VirtualBox Manager
File Machine Help
Tools
Preferences Import Export New Add
Welcome to VirtualBox!
The left part of application window contains global tools and lists all virtual machines and virtual machine groups on your computer. You can import, add and create new VMs using corresponding toolbar buttons. You can popup a tools of currently selected element using corresponding element button.
You can press the F1 key to get instant help, or visit www.virtualbox.org for more information and latest news.

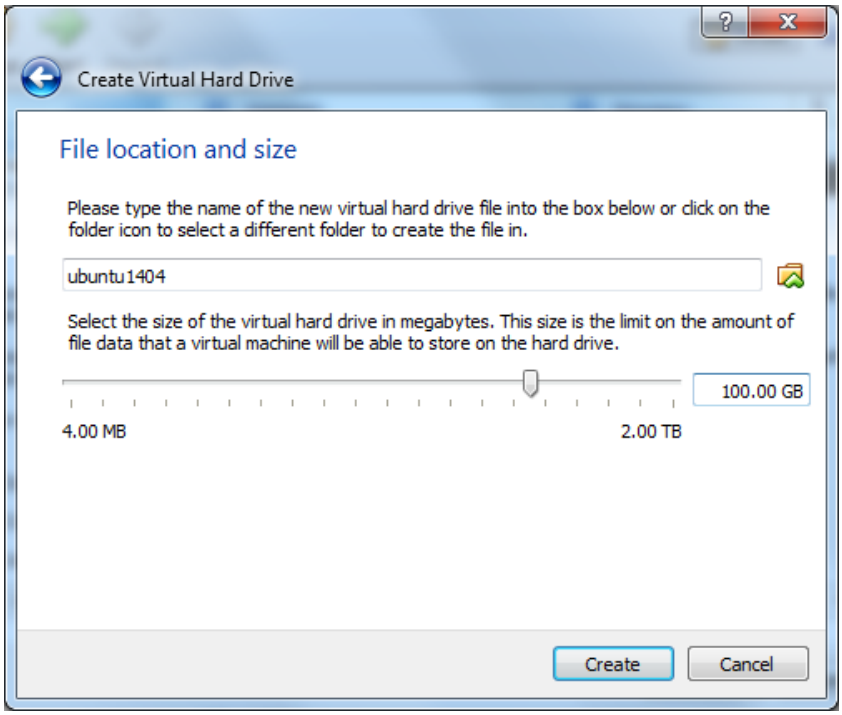

Oracle VM VirtualBox Manager
File Machine Help
New Settings Start Discard
Details Snapshots
Create Virtual Machine
Name and operating system
Please choose a descriptive name for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.
Name: ubuntu1404
Type: Linux
Version: Ubuntu (64 bit)
Hide Description Next Cancel
Host Driver: Windows DirectSound
Controller: ICH AC97



Just follow the image's setting or you can give your computer more RAM and space

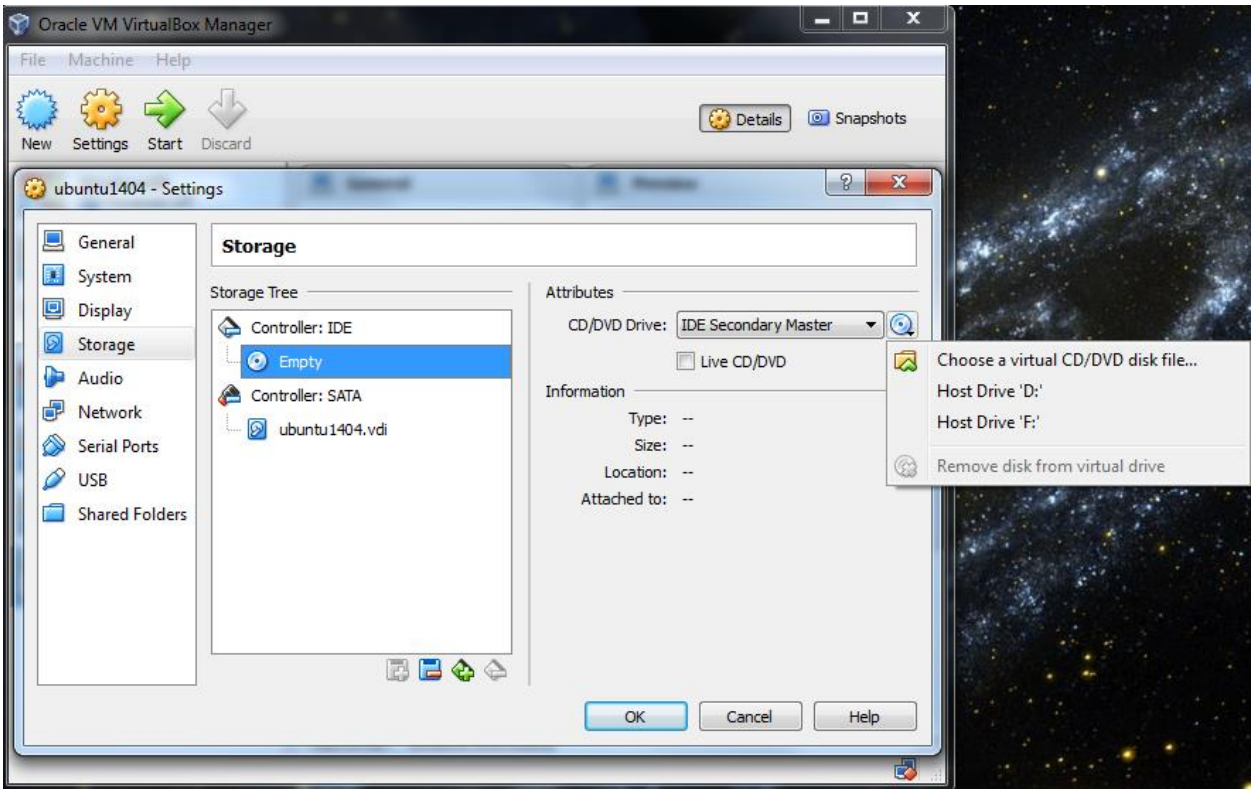


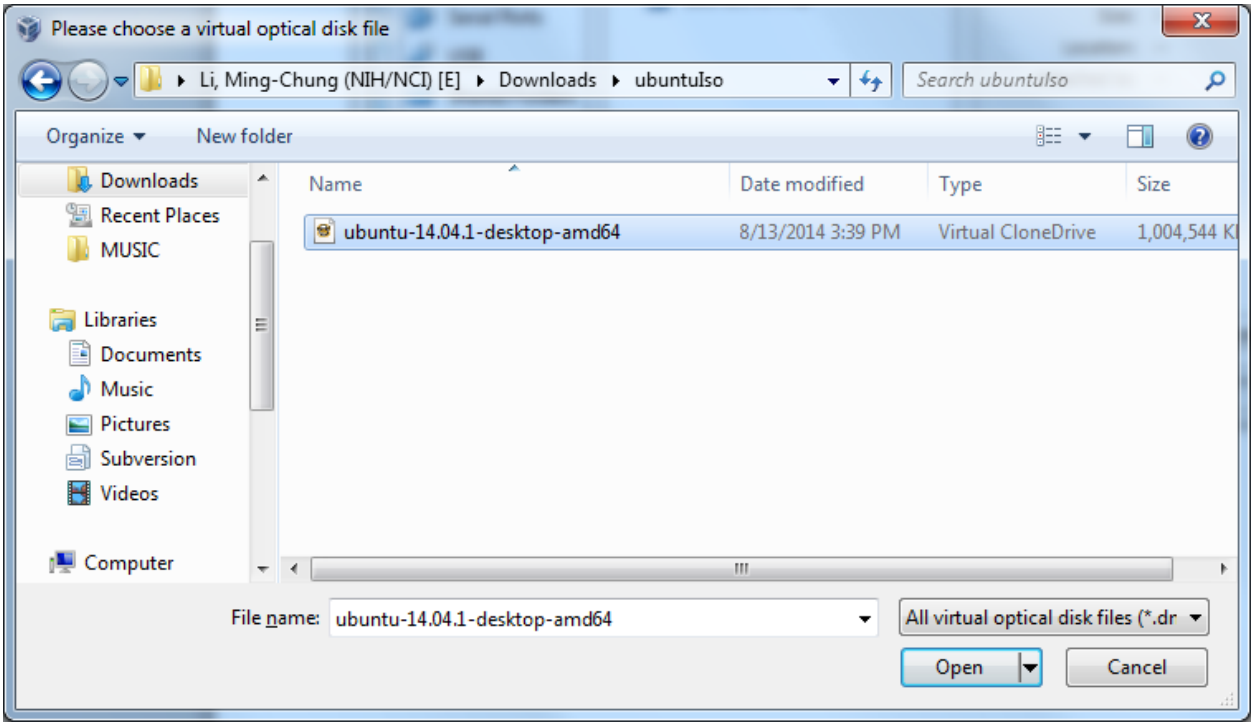


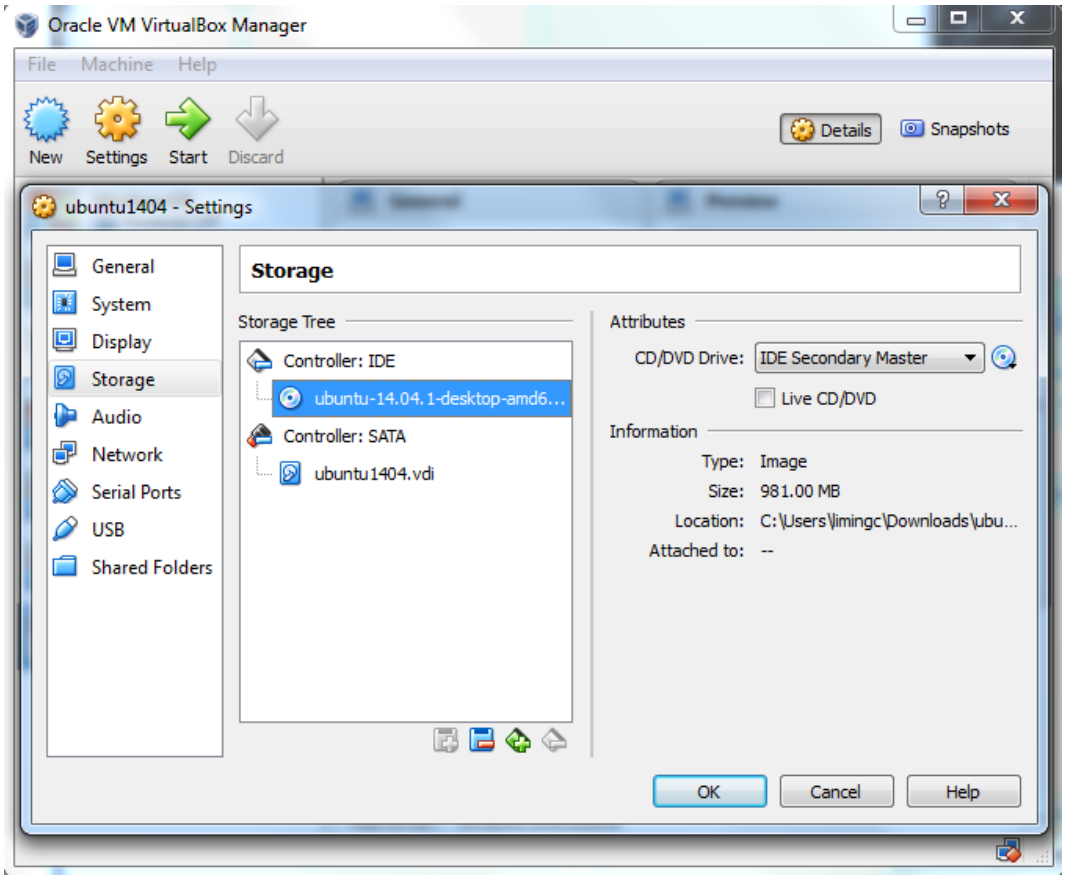


Now the virtual machine is created. We are ready to install Ubuntu in this virtual machine. Select your new virtual machine and click 'Settings' button. Click on 'Storage' category and then 'Empty' under Controller:IDE. Click "CD/DVD" icon on right hand side and select the ubuntu ISO file to mount.

Also make sure the **VT-x/Virtualization Technology** has been enabled in your computer's BIOS/Basic Input Output System.

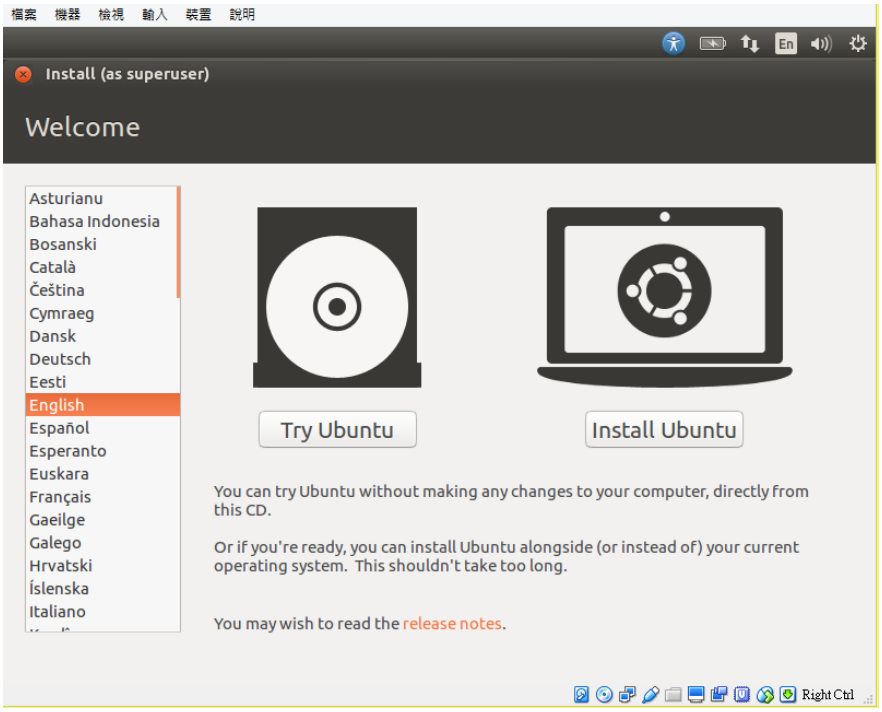

Oracle VM VirtualBox Manager
File Machine Help
New Settings Start Discard
Details Snapshots
ubuntu1404 - Settings
General
System
Display
Storage
Audio
Network
Serial Ports
USB
Shared Folders
Storage
Storage Tree
Controller: IDE
Empty
Controller: SATA
ubuntu1404.vdi
Attributes
CD/DVD Drive: IDE Secondary Master
Live CD/DVD
Information
Type: --
Size: --
Location: --
Attached to: --
Choose a virtual CD/DVD disk file...
Host Drive 'D:'
Host Drive 'F:'
Remove disk from virtual drive
OK
Cancel
Help

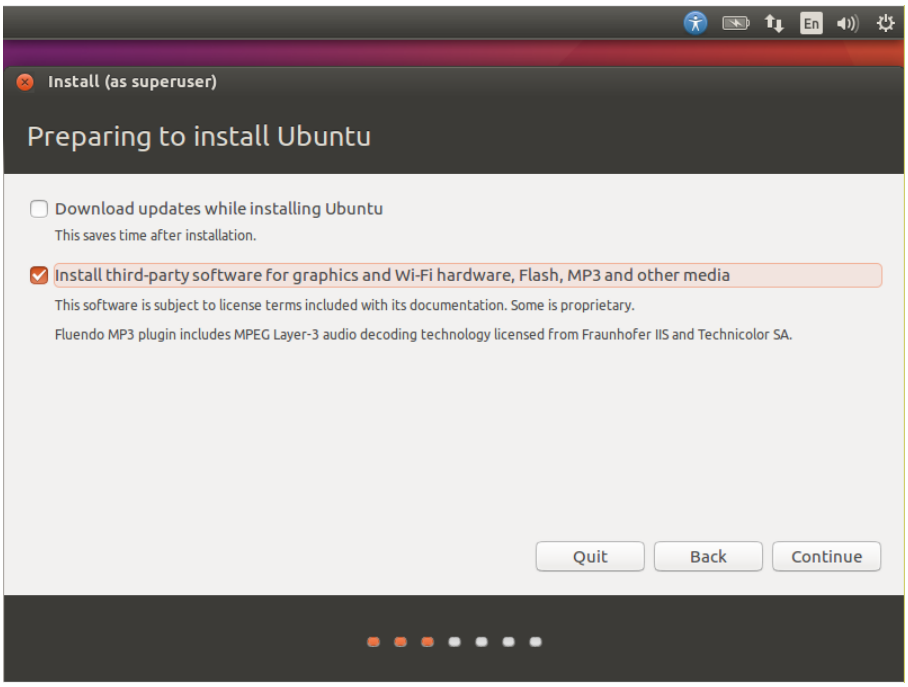

Please choose a virtual optical disk file
Li, Ming-Chung (NIH/NCI) [E] ▸ Downloads ▸ ubuntuIso
Search ubuntuIso
Organize
New folder
Downloads
Recent Places
MUSIC
Libraries
Documents
Music
Pictures
Subversion
Videos
Computer
Name
Date modified
Type
Size
ubuntu-14.04.1-desktop-amd64
8/13/2014 3:39 PM
Virtual CloneDrive
1,004,544 K
File name: ubuntu-14.04.1-desktop-amd64
All virtual optical disk files (*.dr
Open
Cancel



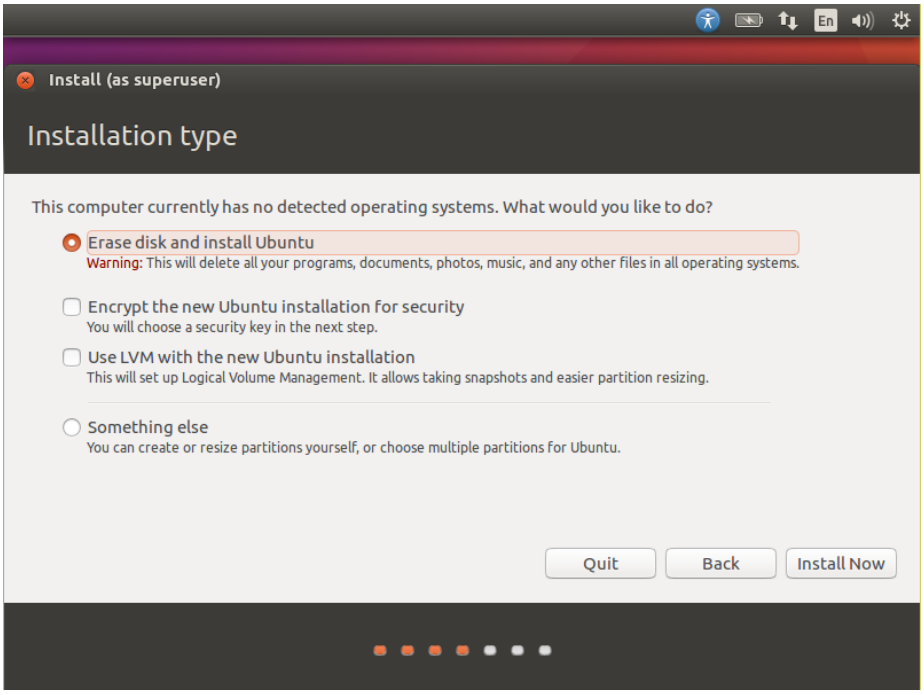
Choose your Ubuntu.iso in DVD site and ready to install it.

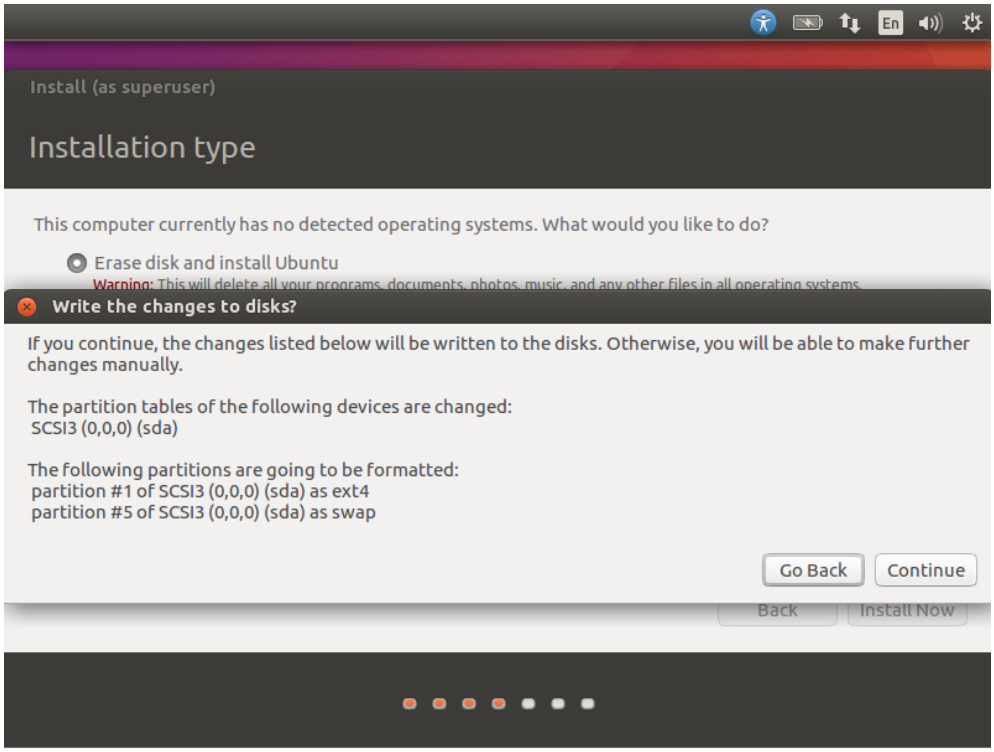
STEP 3 : Start install the Ubuntu in to your Virtual machine



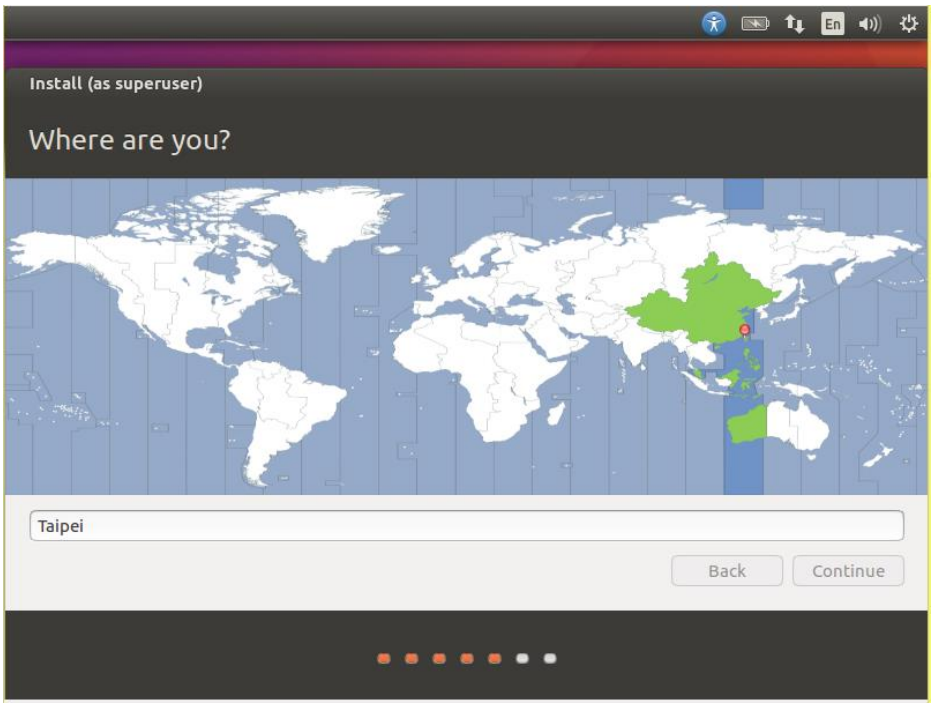


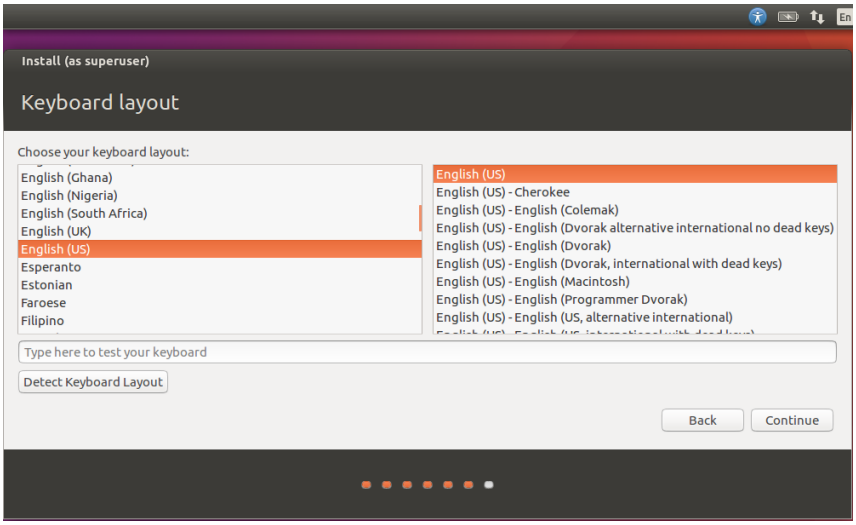
follow the image and continue every steps

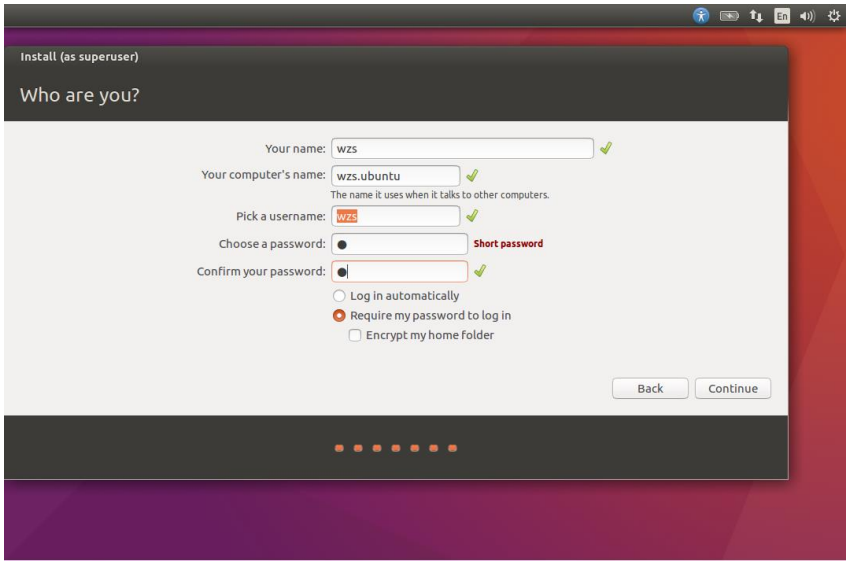


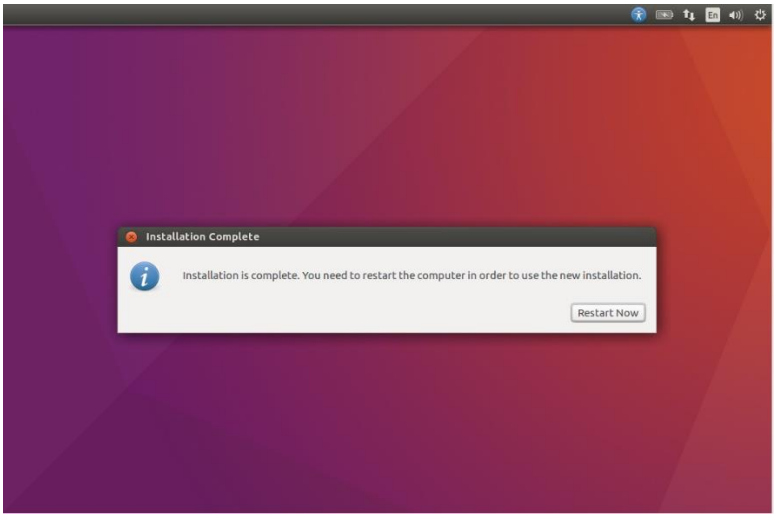


if your machine are new and empty just Ease disk and install Ubuntu !




Install (as superuser)
Keyboard layout
Choose your keyboard layout:
English (Ghana)
English (Nigeria)
English (South Africa)
English (UK)
English (US)
Esperanto
Estonian
Faroese
Filipino
English (US)
English (US) - Cherokee
English (US) - English (Colemak)
English (US) - English (Dvorak alternative international no dead keys)
English (US) - English (Dvorak)
English (US) - English (Dvorak, international with dead keys)
English (US) - English (Macintosh)
English (US) - English (Programmer Dvorak)
English (US) - English (US, alternative international)
Type here to test your keyboard
Detect Keyboard Layout
Back
Continue


Install (as superuser)
Who are you?
Your name:
wzs
Your computer's name:
wzs.ubuntu
The name it uses when it talks to other computers.
Pick a username:
wzs
Choose a password:
Short password
Confirm your password:
Log in automatically
Require my password to log in
Encrypt my home folder
Back
Continue


Installation Complete
Installation is complete. You need to restart the computer in order to use the new installation.
Restart Now

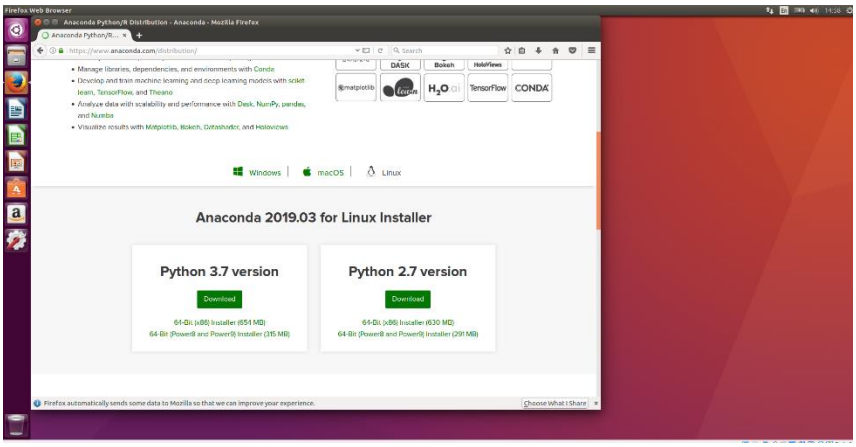
keep continuing and you will install it.

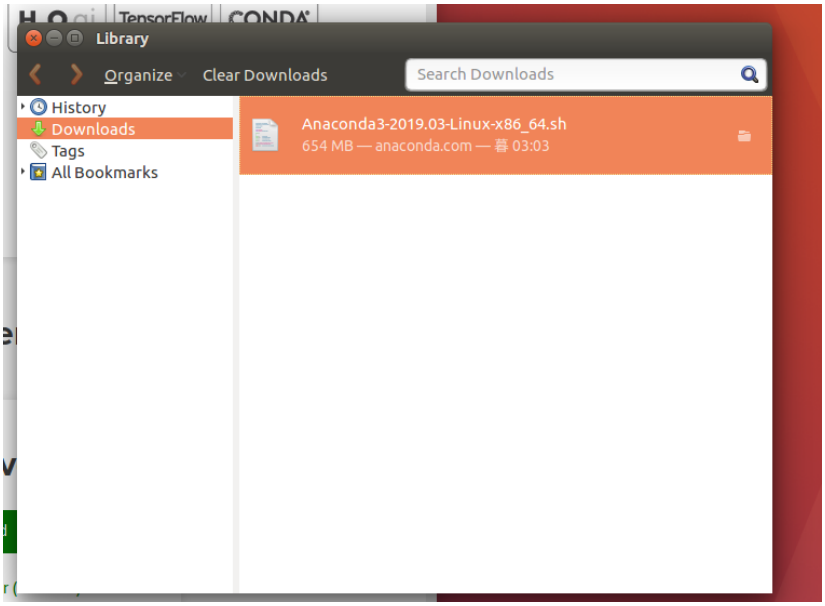
Take your own screenshots of the Ubuntu UI page.

STEP 4 : Install Python by using the command in the terminal

```
sudo apt install python3.8
```

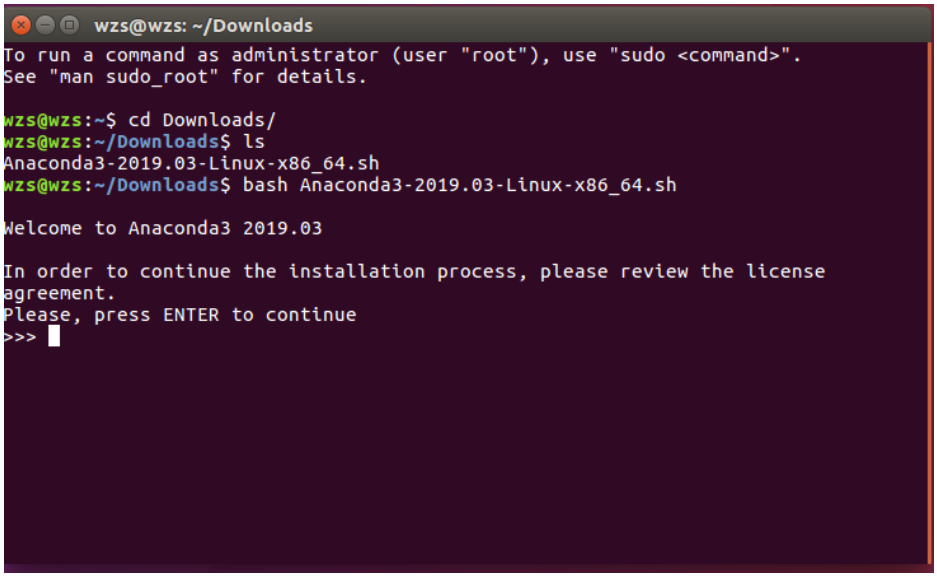
Download Anaconda online.

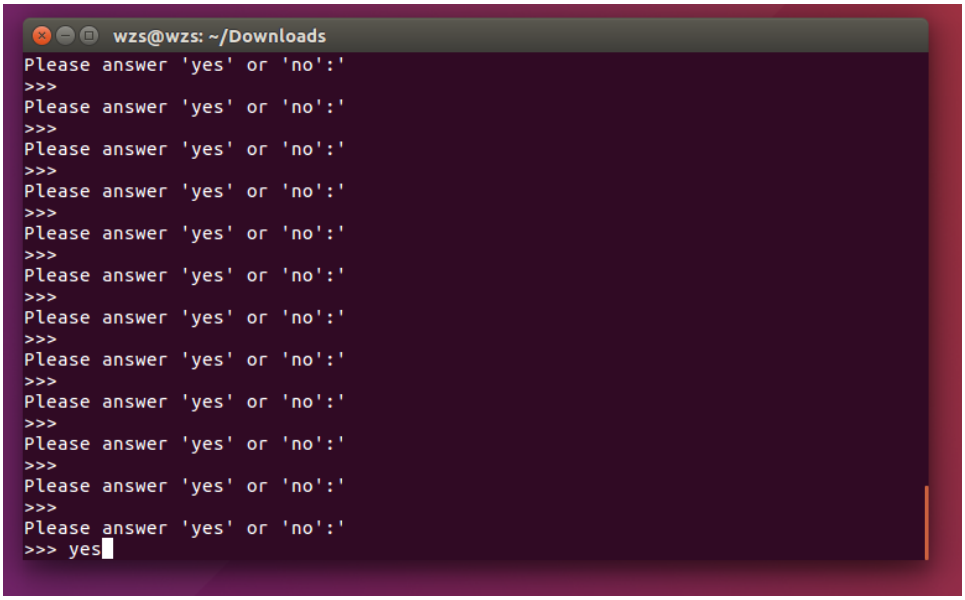




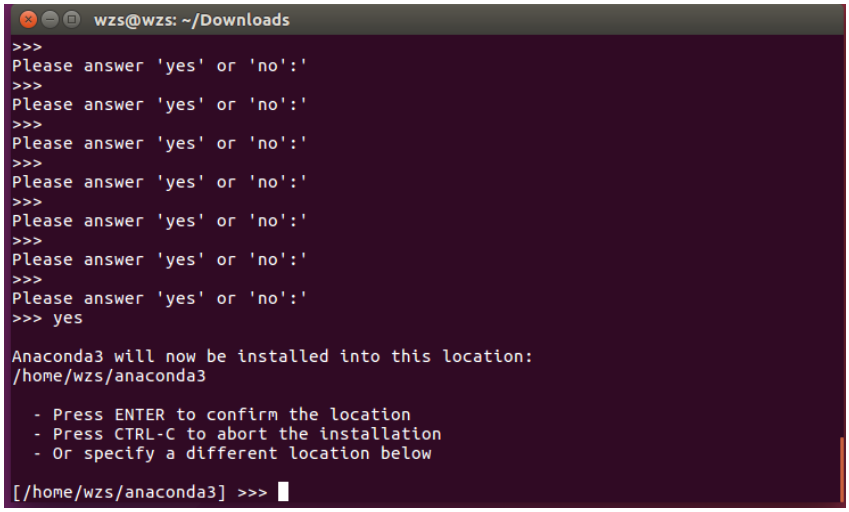
Download website — https://www.anaconda.com/distribution/#download-section

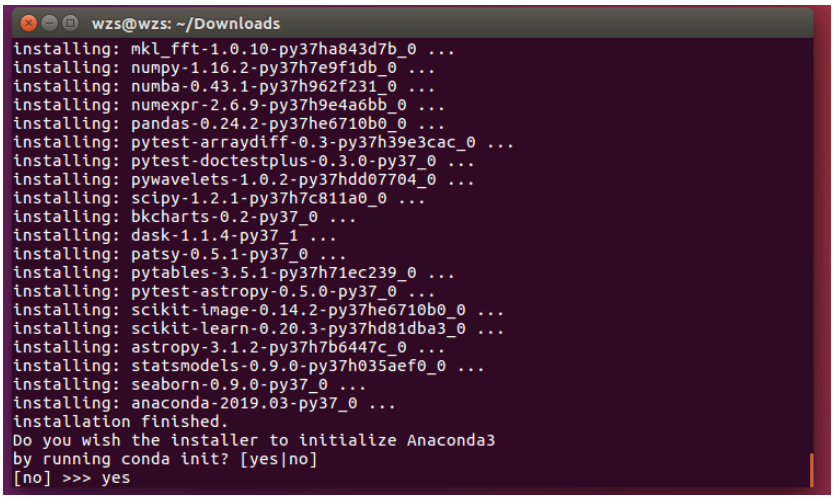
STEP 5 : install Anaconda3



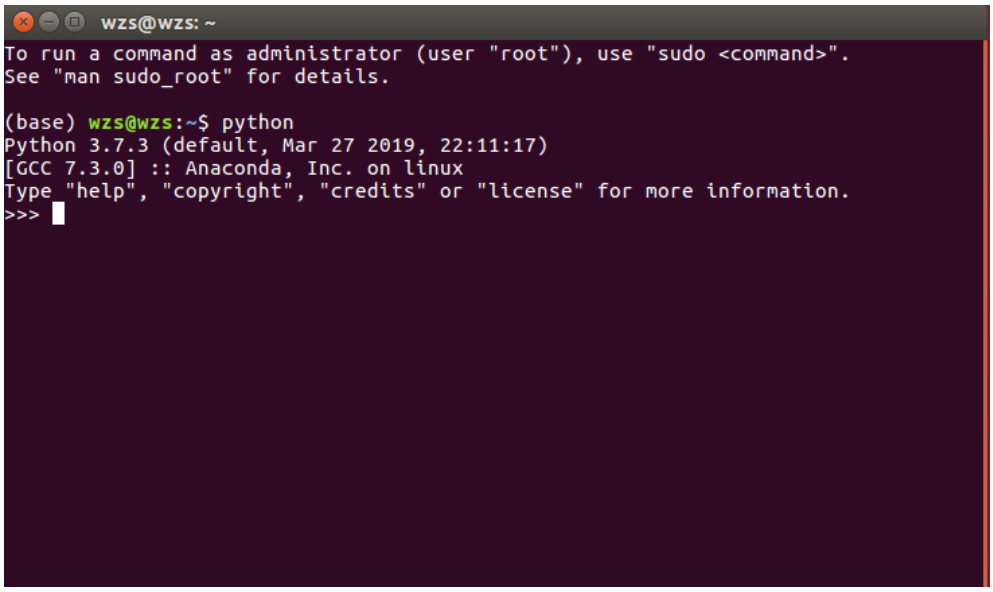


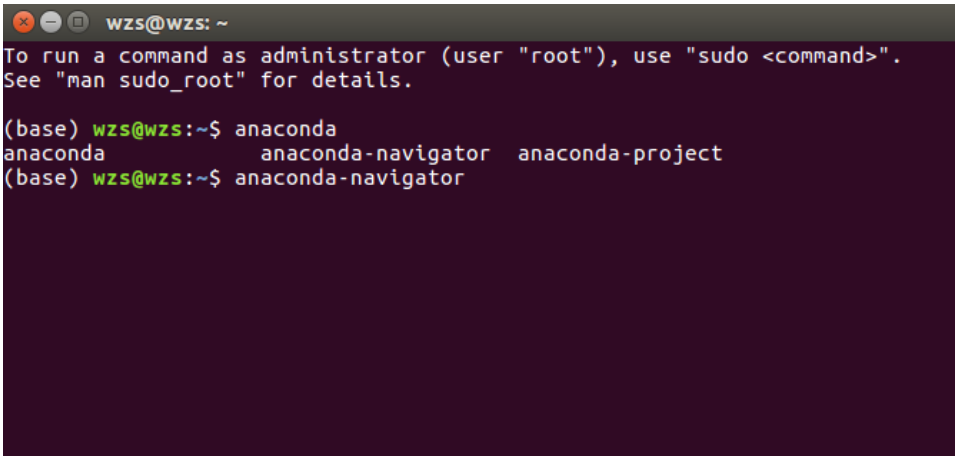
Open terminals and find Anaconda to install, and then press enter to start, then keep typing yes to keep installing it





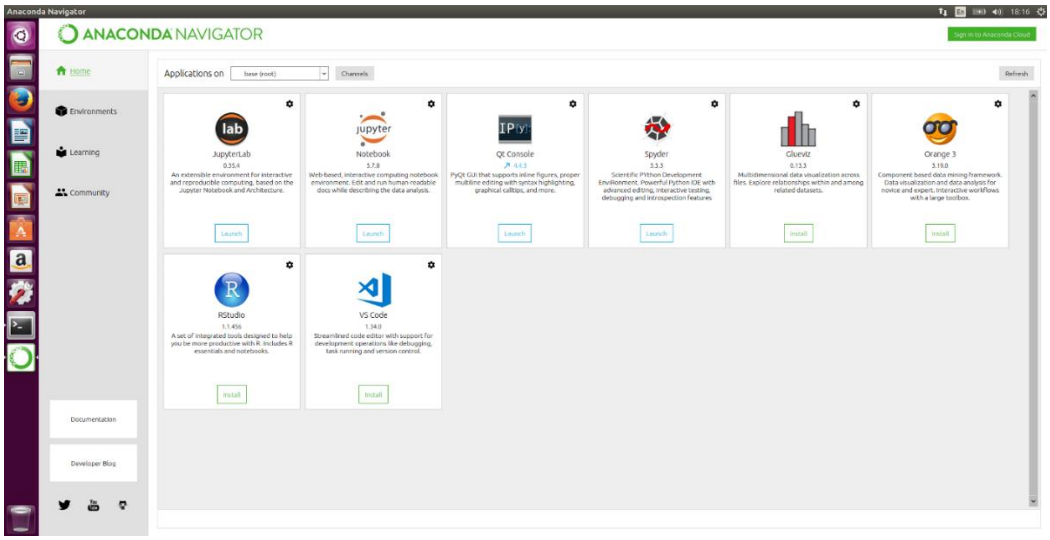
if you don’t need to change your installed location just press ENTER and keeping install



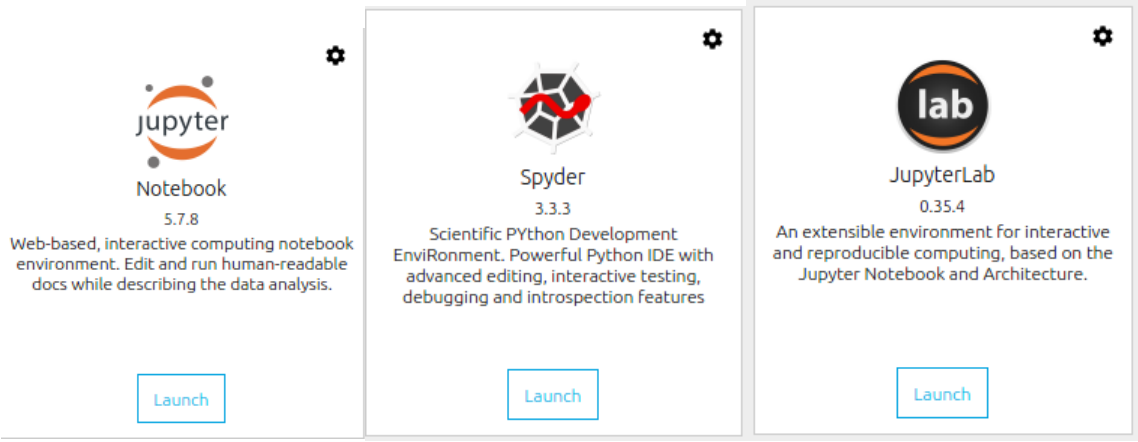


after installed try to press python and anaconda-navigator to open anaconda

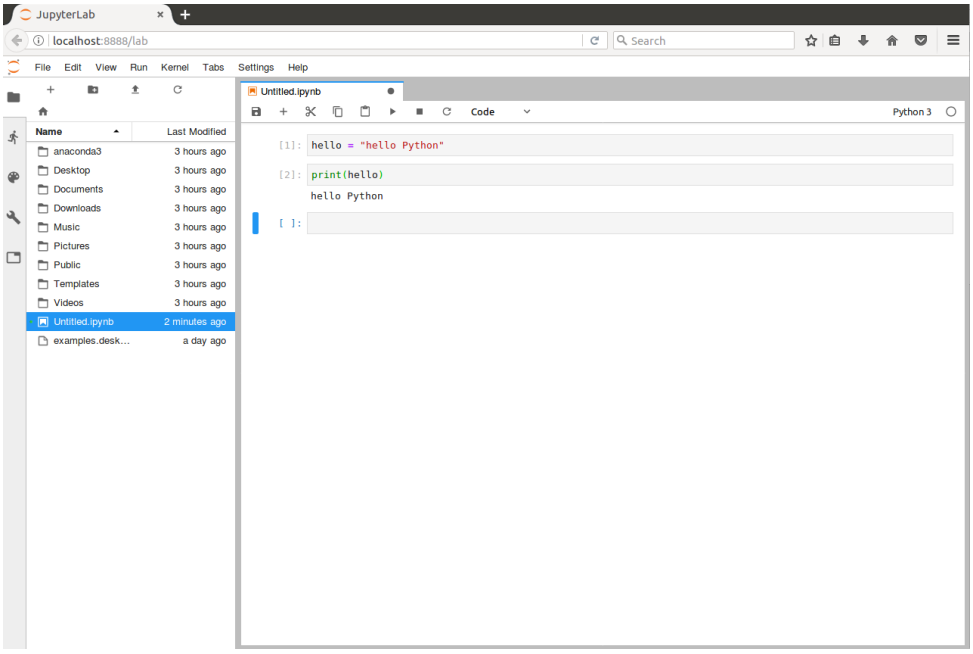
STEP 6 : Start Anaconda

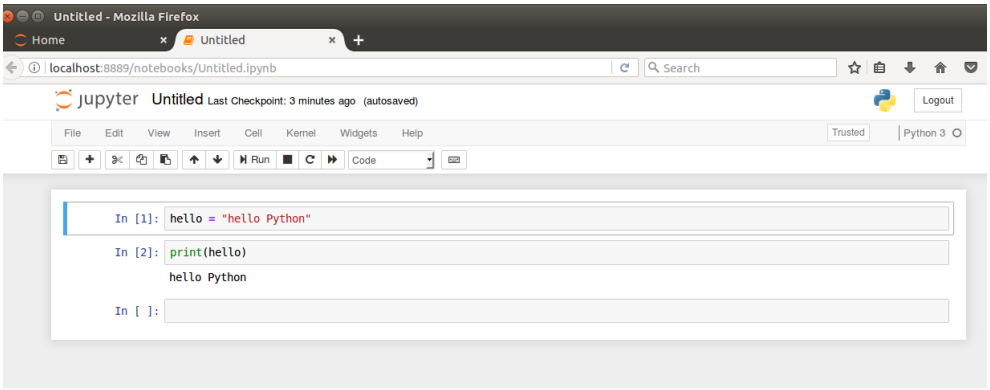


After pressing anaconda-navigator you will see this menu.



and now you can try to Launch Notebook,Spyder or JupyterLab.





Left site was “Lab” Right site was “notebook” you can try each to see which was suitable to you

Congratulations! Now you can coding on your own computer.

Take your own screenshots of the Jupiter book page.

2. Intalling Keras and Tensorflow

In this step, we will install Python libraries used for deep learning, specifically: TensorFlow, and Keras. Install the TensorFlow deep learning library (all except Windows) by typing:

```
1  Conda install -c conda-forge tensorflow
```

Alternatively, you may choose to install using pip and a specific version of tensorflow for your platform.

Install Keras by typing:

```
pip install keras
```

Confirm your deep learning environment is installed and working correctly.

Create a script that prints the version numbers of each library.

```
# tensorflow
import tensorflow
print('tensorflow: %s' % tensorflow.__version__)
# keras
import keras
print('keras: %s' % keras.__version__)
```

Save the script to a file *deep_versions.py*. Run the script by typing:

```
python deep_versions.py
```

You should see output like:

```
tensorflow: 0.12.1
Using TensorFlow backend.
keras: 1.2.1
```

Take your own screenshots of the Tensorflow/Keras version output.

Adding Missing Modules

By now you should feel comfortable installing modules using the conda command. If you need a specific module, simply Google something along the following lines:

Anaconda LibraryNameYouWant Install

If you encounter any problems search the web. Is most likely that you're not the first person to encounter a given error.