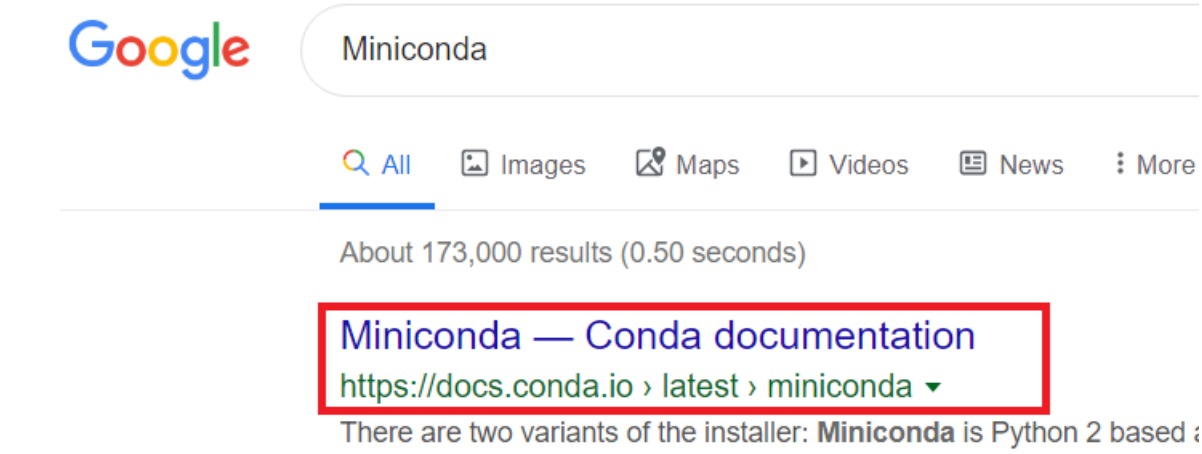
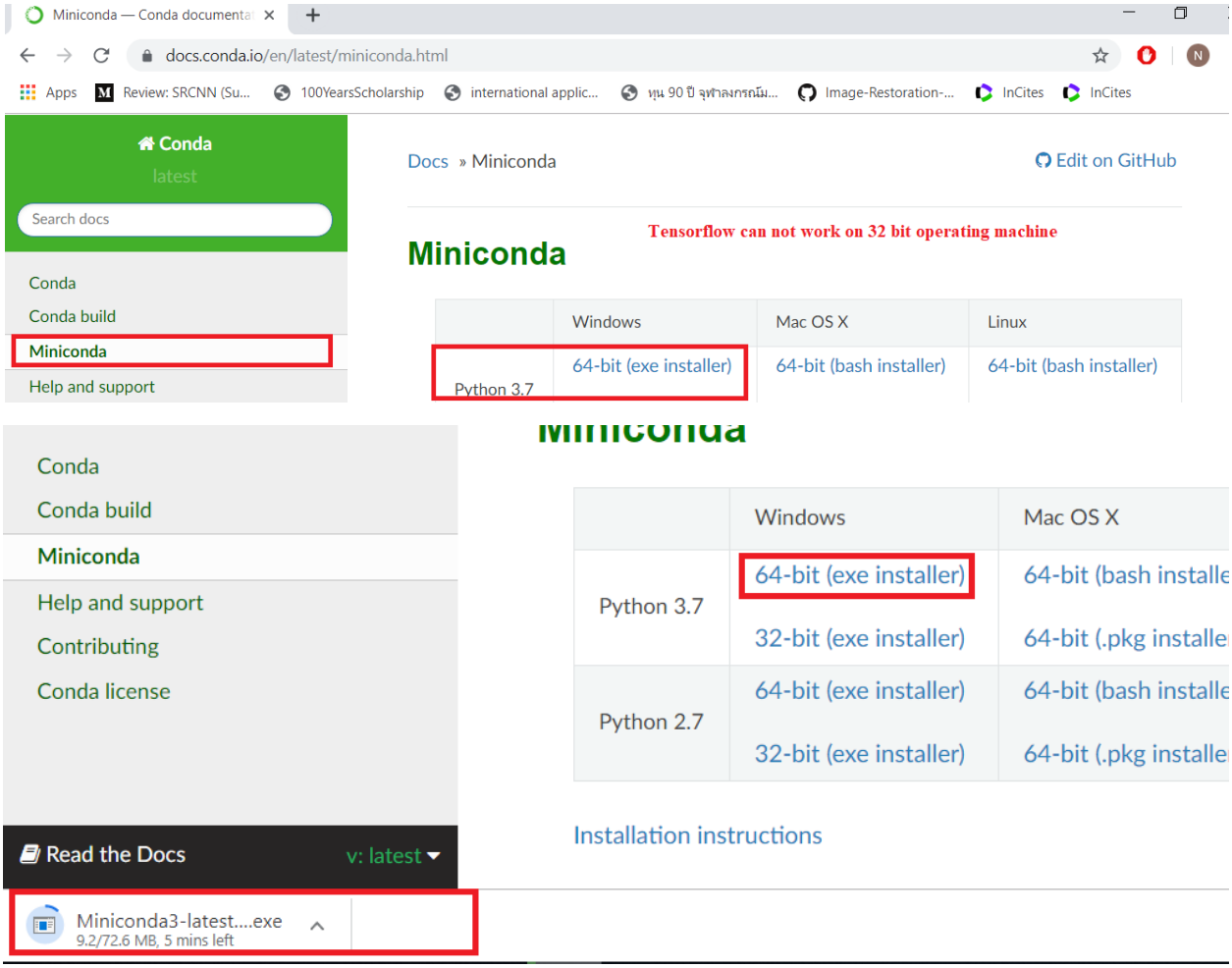
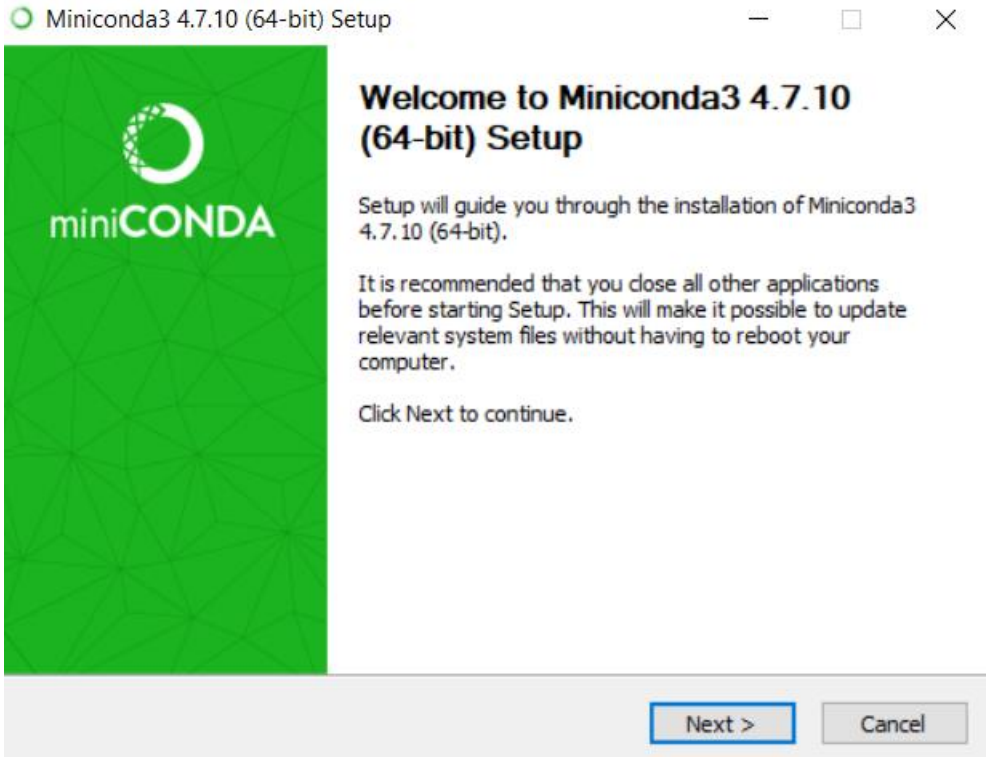
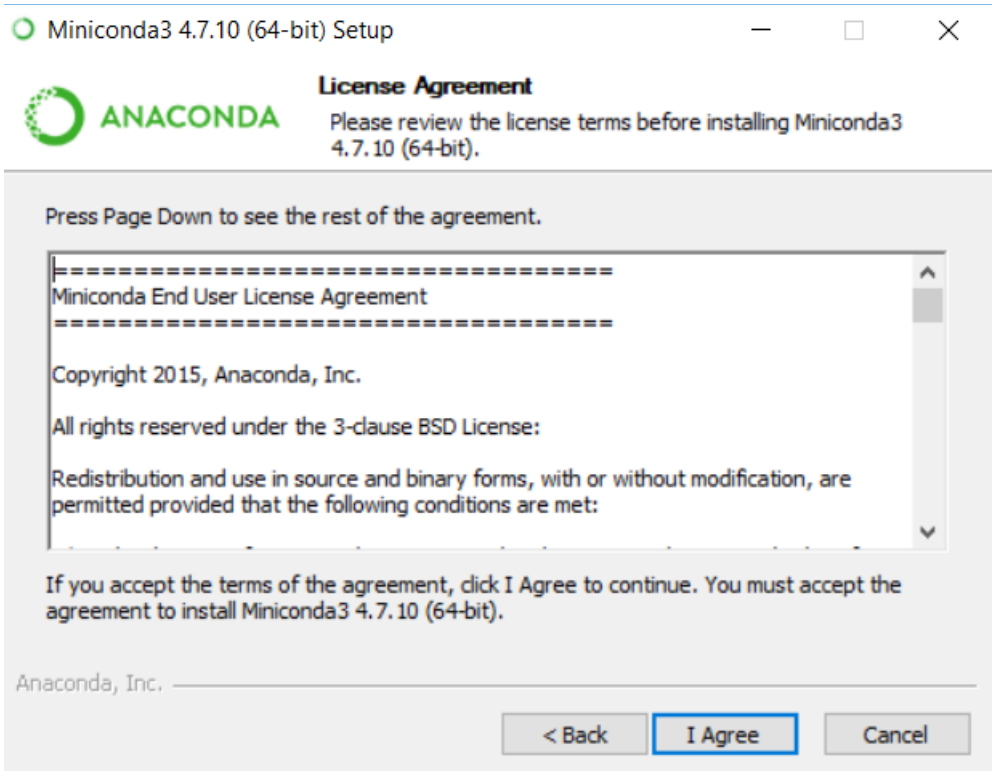
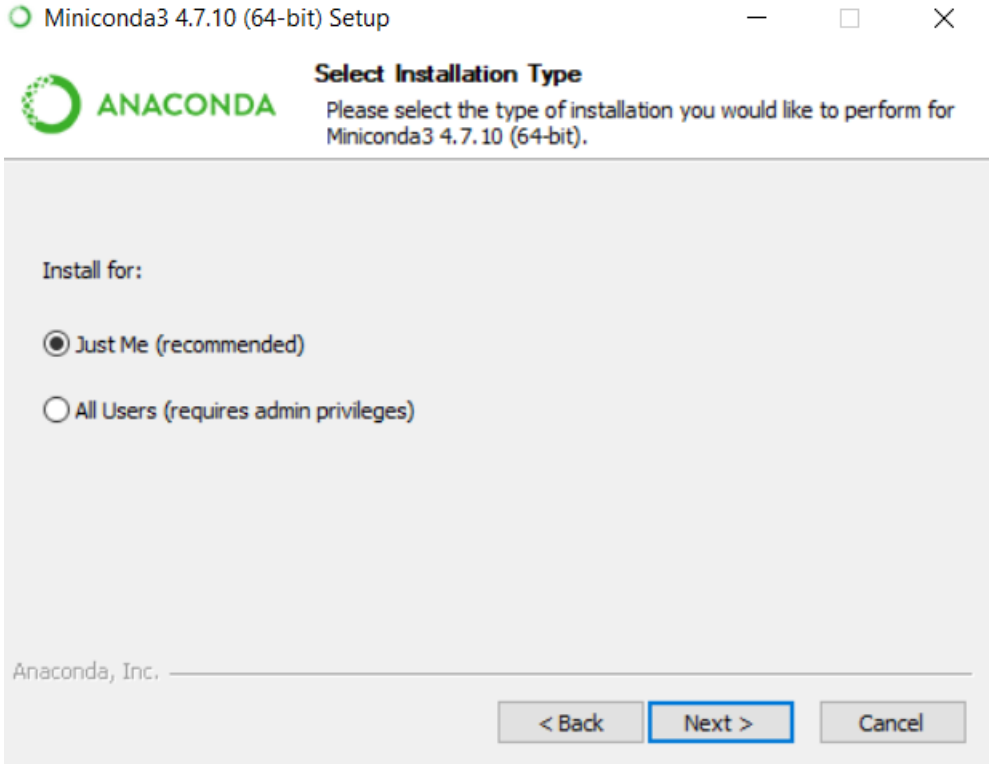
INSTALLING MINICONDA, PYTHON, TENSORFLOW, KERAS, OPEN CV AND PYCHARM

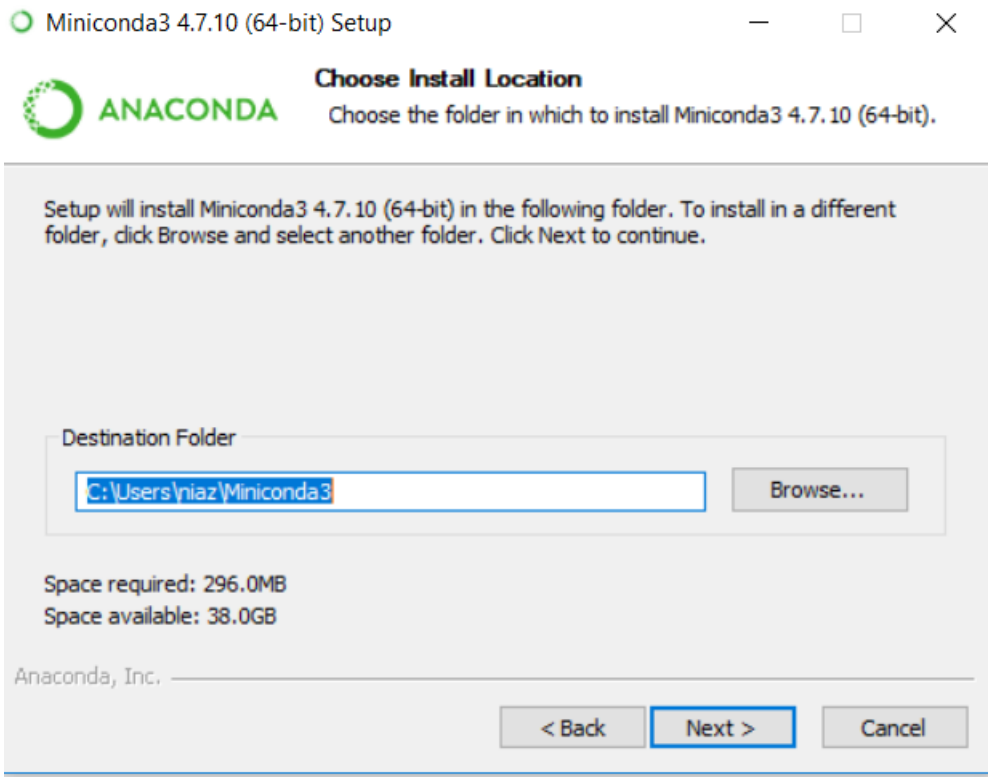


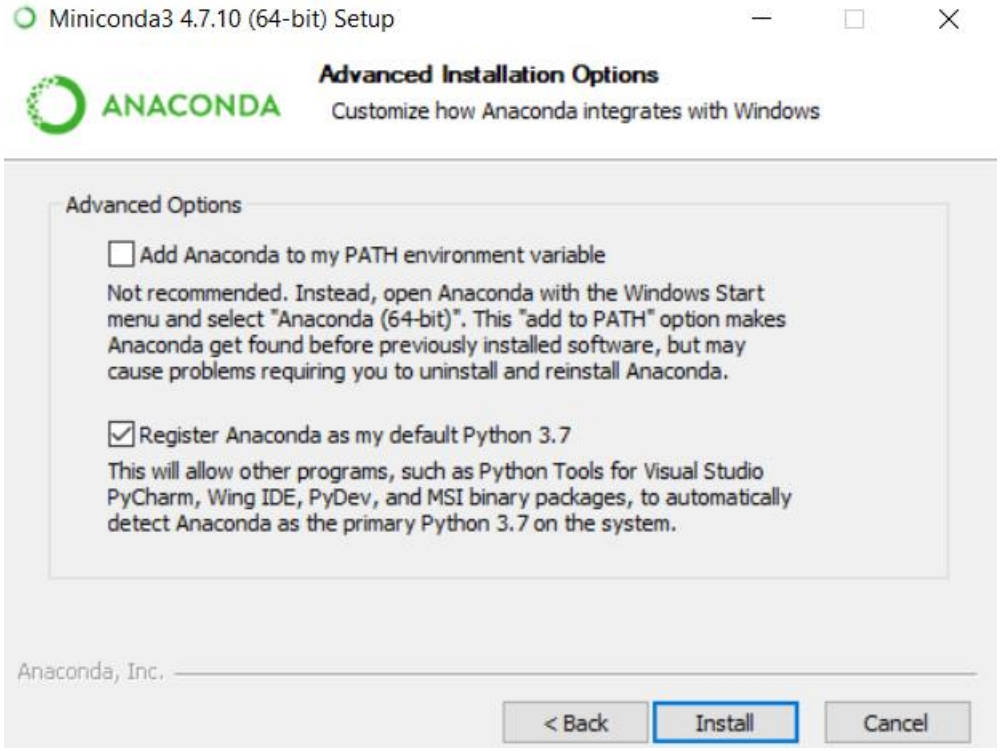


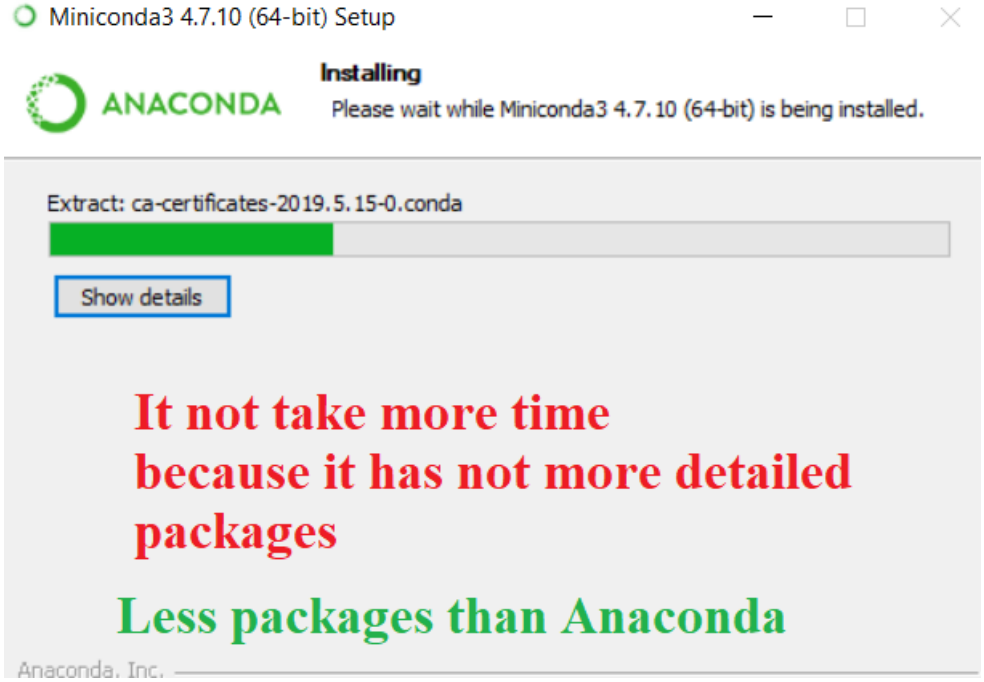

Miniconda3 4.7.10 (64-bit) Setup
miniCONDA
Welcome to Miniconda3 4.7.10 (64-bit) Setup
Setup will guide you through the installation of Miniconda3 4.7.10 (64-bit).
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
Next >
Cancel

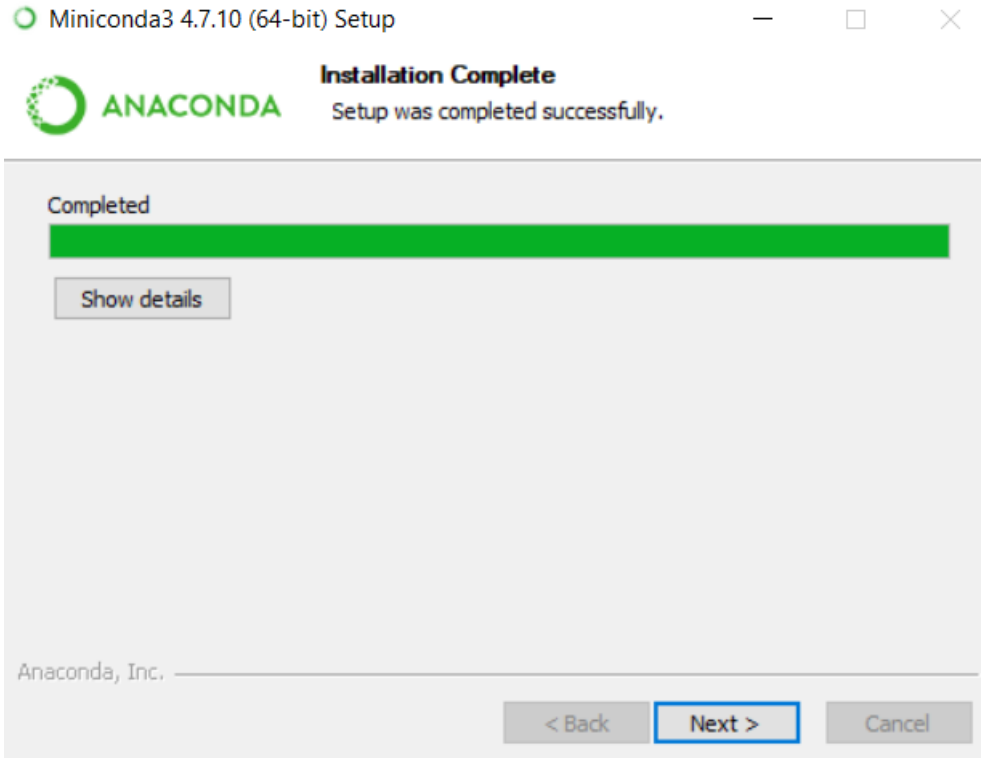

Miniconda3 4.7.10 (64-bit) Setup
ANACONDA
License Agreement
Please review the license terms before installing Miniconda3 4.7.10 (64-bit).
Press Page Down to see the rest of the agreement.
Miniconda End User License Agreement
Copyright 2015, Anaconda, Inc.
All rights reserved under the 3-clause BSD License:
Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install Miniconda3 4.7.10 (64-bit).
Anaconda, Inc.
< Back
I Agree
Cancel


Miniconda3 4.7.10 (64-bit) Setup
ANACONDA
Select Installation Type
Please select the type of installation you would like to perform for Miniconda3 4.7.10 (64-bit).
Install for:
Just Me (recommended)
All Users (requires admin privileges)
Anaconda, Inc.
< Back
Next >
Cancel

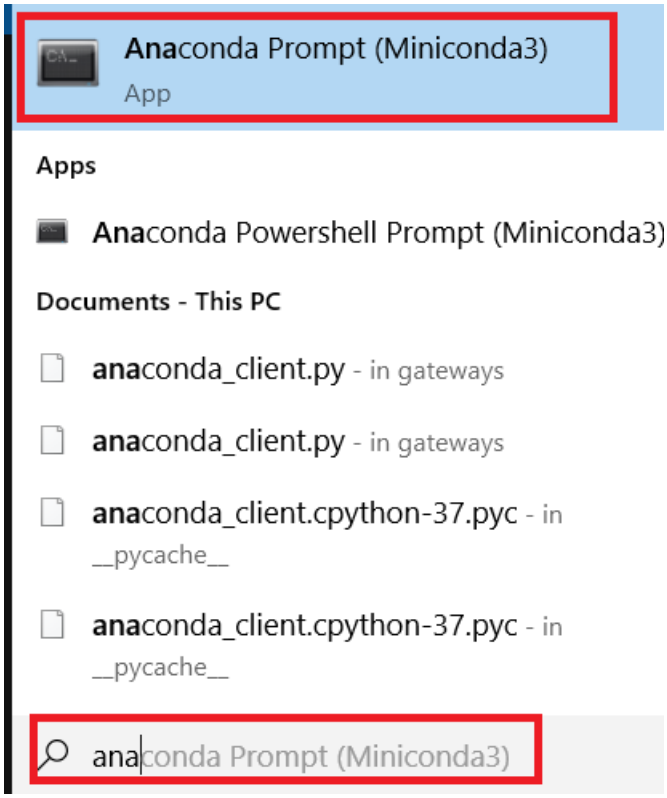

Miniconda3 4.7.10 (64-bit) Setup
ANACONDA
Choose Install Location
Choose the folder in which to install Miniconda3 4.7.10 (64-bit).
Setup will install Miniconda3 4.7.10 (64-bit) in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.
Destination Folder
C:\Users\niaz\Miniconda3
Browse...
Space required: 296.0MB
Space available: 38.0GB
Anaconda, Inc.
< Back
Next >
Cancel

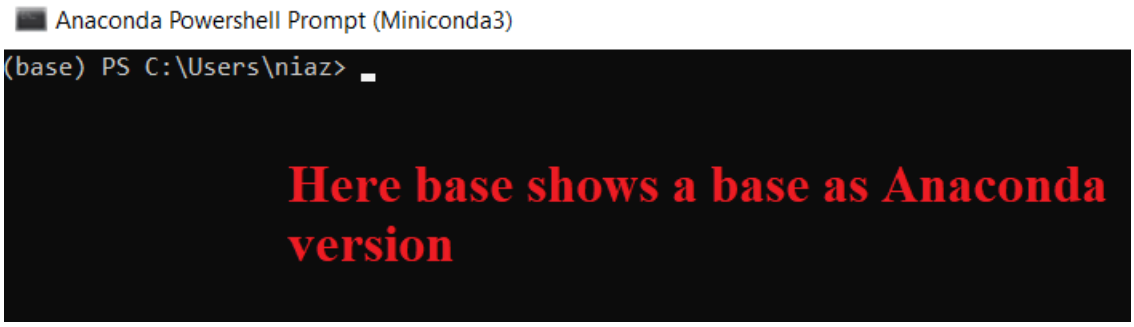

Miniconda3 4.7.10 (64-bit) Setup
ANACONDA
Advanced Installation Options
Customize how Anaconda integrates with Windows
Advanced Options
Add Anaconda to my PATH environment variable
Not recommended. Instead, open Anaconda with the Windows Start menu and select "Anaconda (64-bit)". This "add to PATH" option makes Anaconda get found before previously installed software, but may cause problems requiring you to uninstall and reinstall Anaconda.
Register Anaconda as my default Python 3.7
This will allow other programs, such as Python Tools for Visual Studio PyCharm, Wing IDE, PyDev, and MSI binary packages, to automatically detect Anaconda as the primary Python 3.7 on the system.
Anaconda, Inc.
< Back
Install
Cancel

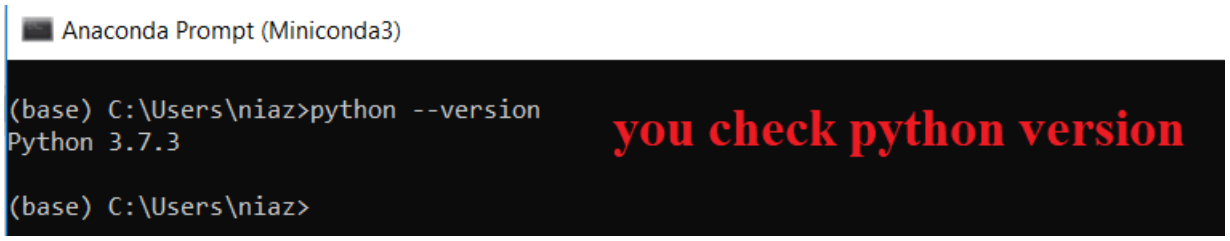

Miniconda3 4.7.10 (64-bit) Setup
ANACONDA
Installing
Please wait while Miniconda3 4.7.10 (64-bit) is being installed.
Extract: ca-certificates-2019.5.15-0.conda
Show details
It not take more time
because it has not more detailed
packages
Less packages than Anaconda
Anaconda, Inc.


Miniconda3 4.7.10 (64-bit) Setup
ANACONDA
Installation Complete
Setup was completed successfully.
Completed
Show details
Anaconda, Inc.
< Back
Next >
Cancel

Miniconda3 4.7.10 (64-bit) Setup
miniCONDA
Thanks for installing Miniconda3!
Anaconda is the most popular Python data science platform.
Share your notebooks, packages, projects and environments on Anaconda Cloud!
Learn more about Anaconda Cloud
Learn how to get started with Anaconda
< Back
Finish
Cancel


Anaconda Prompt (Miniconda3)
App
Apps
Anaconda Powershell Prompt (Miniconda3)
Documents - This PC
anaconda_client.py - in gateways
anaconda_client.py - in gateways
anaconda_client.cpython-37.pyc - in __pycache__
anaconda_client.cpython-37.pyc - in __pycache__
anaconda Prompt (Miniconda3)


Anaconda Powershell Prompt (Miniconda3)
(base) PS C:\Users\niaz>
Here base shows a base as Anaconda version


Anaconda Prompt (Miniconda3)
(base) C:\Users\niaz>python --version
Python 3.7.3
(base) C:\Users\niaz>
you check python version

(base) C:\Users\niaz>python --version
Python 3.7.3
(base) C:\Users\niaz>conda create --name wazirtensorflow python=3.6
Because python 3.7.3 tensorflow conflict, so we install with python 3.6
my virtual environment name is wazirtensorflow

```
he following NEW packages will be INSTALLED:

certifi           pkgs/main/win-64::certifi-2019.6.16-py36_1
pip               pkgs/main/win-64::pip-19.2.2-py36_0
python            pkgs/main/win-64::python-3.6.9-h5500b2f_0
setuptools        pkgs/main/win-64::setuptools-41.0.1-py36_0
sqlite            pkgs/main/win-64::sqlite-3.29.0-he774522_0
vc                pkgs/main/win-64::vc-14.1-h0510ff6_4
vs2015_runtime    pkgs/main/win-64::vs2015_runtime-14.15.26706-h3a45250_4
wheel             pkgs/main/win-64::wheel-0.33.4-py36_0
wincertstore      pkgs/main/win-64::wincertstore-0.2-py36h7fe50ca_0

roceed ([y]/n)? y
```

yes install new packages

```
ython-3.6.9         | 20.4 MB    | ############
ip-19.2.2           | 1.9 MB     | ############
reparing transaction: done
erifying transaction: done
xecuting transaction: done
#
# To activate this environment, use
#
#     $ conda activate wazirtensorflow
#
# To deactivate an active environment, use
#
#     $ conda deactivate


(base) C:\Users\niaz>
```

```
(base) C:\Users\niaz>conda activate wazirtensorflow

(wazirtensorflow) C:\Users\niaz>
```

Now u r in your environment

```
(base) C:\Users\niaz>python --version
Python 3.7.3

(base) C:\Users\niaz>conda activate wazirtensorflow

(wazirtensorflow) C:\Users\niaz>python --version
Python 3.6.9 :: Anaconda, Inc.

(wazirtensorflow) C:\Users\niaz>
```

on base python version 3.7.3

In my virtual environment python is 3.6.9

```
(wazirtensorflow) C:\Users\niaz>conda install scipy
mkl-2019.4          | 99.2 MB    | ############################
Preparing transaction: done
Verifying transaction: done
Executing transaction: done

(wazirtensorflow) C:\Users\niaz>pip install --upgrade sklearn
```

```
(wazirtensorflow) C:\Users\niaz>pip install --upgrade pandas
```

```
(wazirtensorflow) C:\Users\niaz>pip install --upgrade pandas-datareader
Collecting pandas-datareader
```

```
(wazirtensorflow) C:\Users\niaz>pip install --upgrade psutil
Collecting psutil
```

```
(wazirtensorflow) C:\Users\niaz>pip install --upgrade tensorflow==1.12.0
Collecting tensorflow==1.12.0
```

```
(wazirtensorflow) C:\Users\niaz>pip install --upgrade keras==2.2.4
```

```
keras==2.2.4) (1.1.0)
Installing collected packages: pyyaml, keras
Successfully installed keras-2.2.4 pyyaml-5.1.2
```

```
(wazirtensorflow) C:\Users\niaz>python
Python 3.6.9 |Anaconda, Inc.| (default, Jul 30 2019, 14:00:49) [MSC v.1915 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import tensorflow as tf
>>> print(tf.__version__)
1.12.0
>>> import keras
Using TensorFlow backend.
```

two times under score

```
(wazirtensorflow) C:\Users\niaz>pip install opencv-python
```

```
Installing collected packages: opencv-python
Successfully installed opencv-python-4.1.0.25
```

```
(wazirtensorflow) C:\Users\niaz>python
Python 3.6.9 |Anaconda, Inc.| (default, Jul 30 2019, 14:00:49) [MSC v.1915 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import cv2
>>>
```

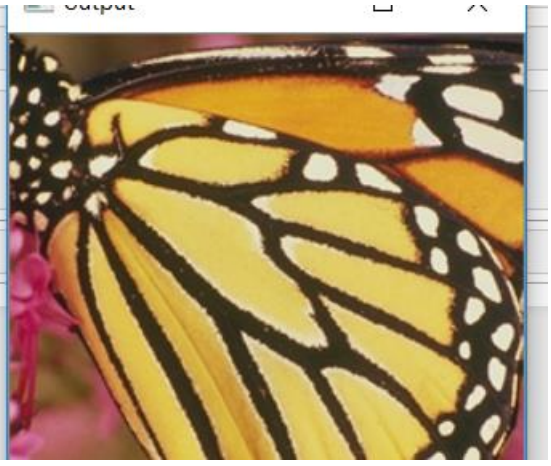
```
>>> quit()

(wazirtensorflow) C:\Users\niaz>conda install jupyter
```

```
(wazirtensorflow) C:\Users\niaz>jupyter notebook
```

```
import cv2
```

```
img = cv2.imread("C:/Users/niaz/butterfly_GT.bmp")
cv2.imshow("output",img)
cv2.waitKey(0)
cv2.destroyAllWindows()
```



```
import tensorflow as tf
```

```
print("TensorflowVersion",tf.__version__)
```

```
TensorflowVersion 1.12.0
```

```
import tensorflow as tf
print("TensorflowVersion",tf.__version__)
```

```
import keras.backend as K
from keras.models import Sequential, Model
from keras.layers import Dense, Conv2D, Activation, Input
```

```
from keras import optimizers
from keras.models import load_model
import numpy as np
import scipy.misc
import scipy.ndimage
import cv2
import math
import glob
```

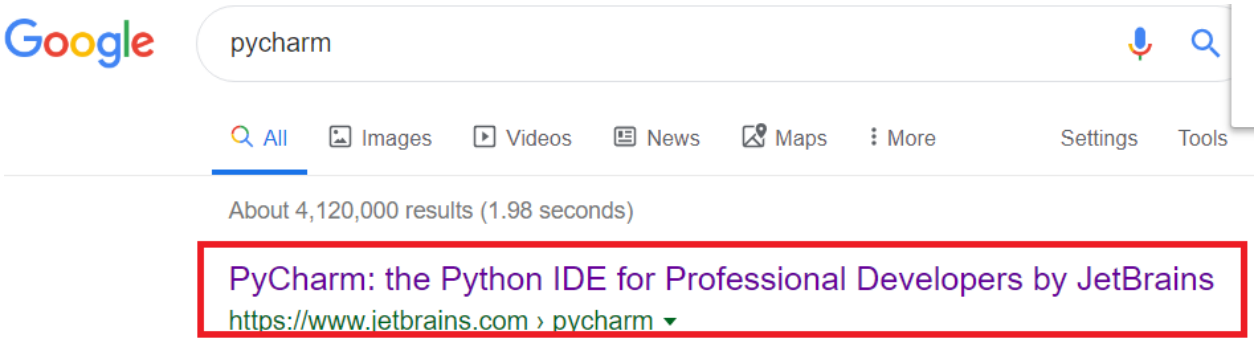
```
img_shape = (32,32,1)
input_img = Input(shape=(img_shape))
C1 = Conv2D(64,(9,9),padding='SAME',name='CONV1')(input_img)
A1 = Activation('relu', name='act1')(C1)
C2 = Conv2D(32,(1,1),padding='SAME',name='CONV2')(A1)
A2 = Activation('relu', name='act2')(C2)
C3 = Conv2D(1,(5,5),padding='SAME',name='CONV3')(A2)
A3 = Activation('relu', name='act3')(C3)
model = Model(input_img, A3)
opt = optimizers.Adam(lr=0.0003)
model.compile(optimizer=opt,loss='mean_squared_error')
model.summary()
```

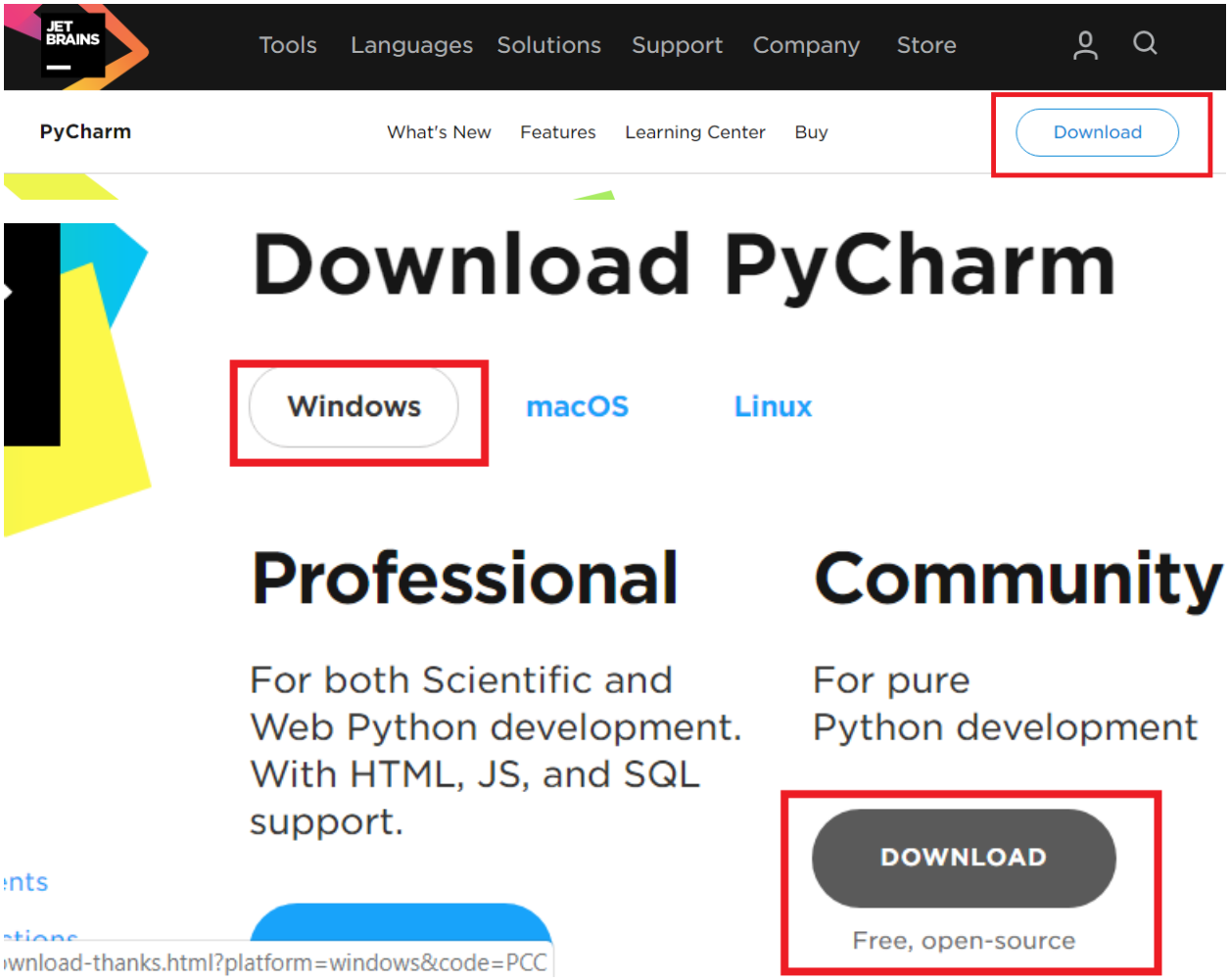
In [1]:
```
import keras.backend as K
from keras.models import Sequential, Model
from keras.layers import Dense, Conv2D, Activation, Input
from keras import optimizers
from keras.models import load_model
import numpy as np
import scipy.misc
import scipy.ndimage
import cv2
import math
import glob
```

```
Using TensorFlow backend.
```

In [2]:
```
img_shape = (32,32,1)
input_img = Input(shape=(img_shape))
C1 = Conv2D(64,(9,9),padding='SAME',name='CONV1')(input_img)
A1 = Activation('relu', name='act1')(C1)
C2 = Conv2D(32,(1,1),padding='SAME',name='CONV2')(A1)
A2 = Activation('relu', name='act2')(C2)
C3 = Conv2D(1,(5,5),padding='SAME',name='CONV3')(A2)
A3 = Activation('relu', name='act3')(C3)
model = Model(input_img, A3)
opt = optimizers.Adam(lr=0.0003)
model.compile(optimizer=opt,loss='mean_squared_error')
model.summary()
```

```
_________________________________________________________________
Layer (type)                 Output Shape              Param #
=================================================================
input_1 (InputLayer)         (None, 32, 32, 1)         0
```




JET BRAINS
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What's New Features Learning Center Buy
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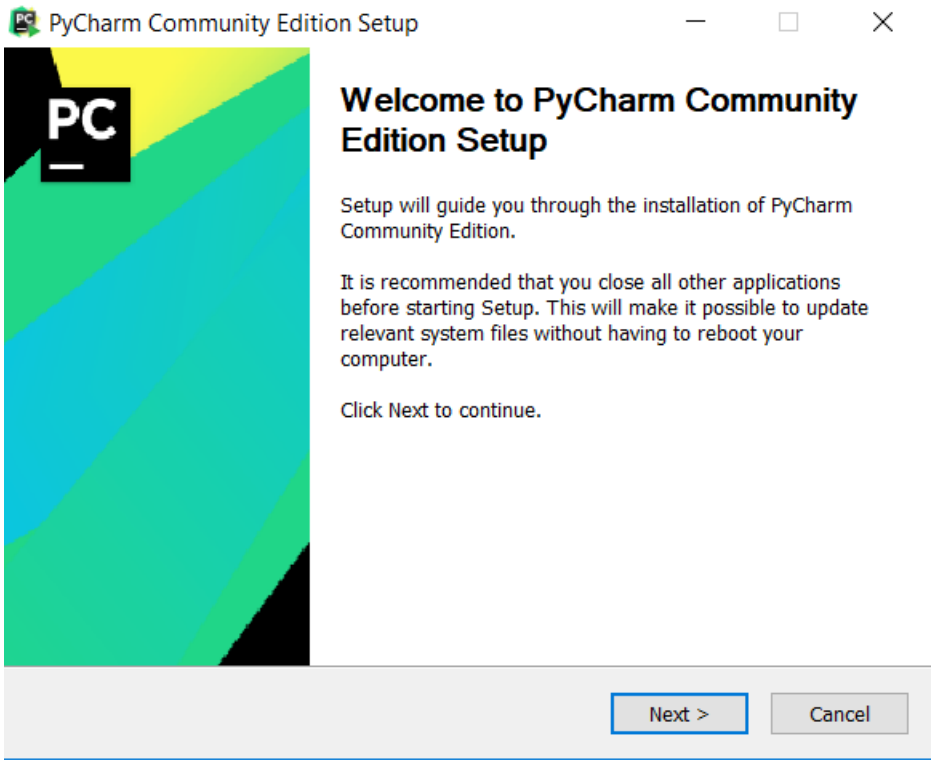
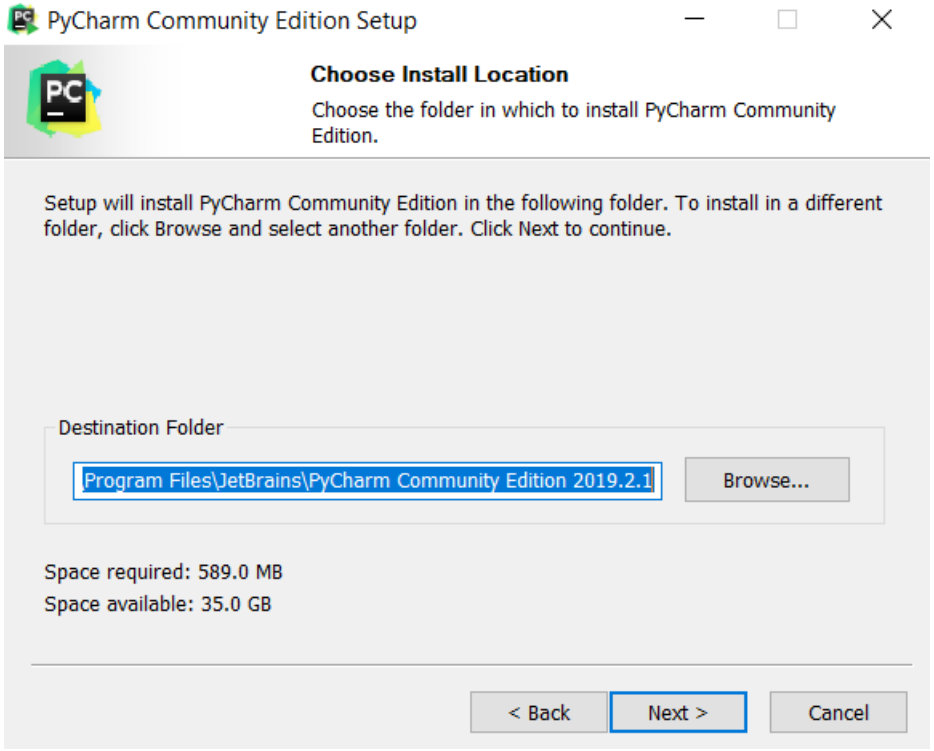
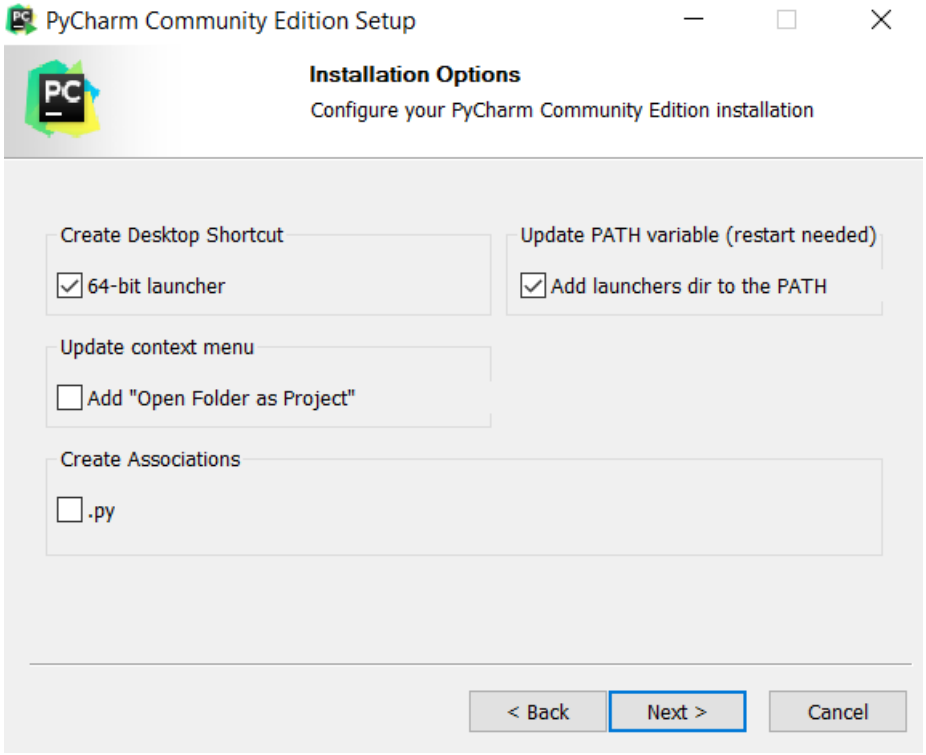
Professional
For both Scientific and Web Python development. With HTML, JS, and SQL support.
Community
For pure Python development
DOWNLOAD
Free, open-source
wnload-thanks.html?platform=windows&code=PCC

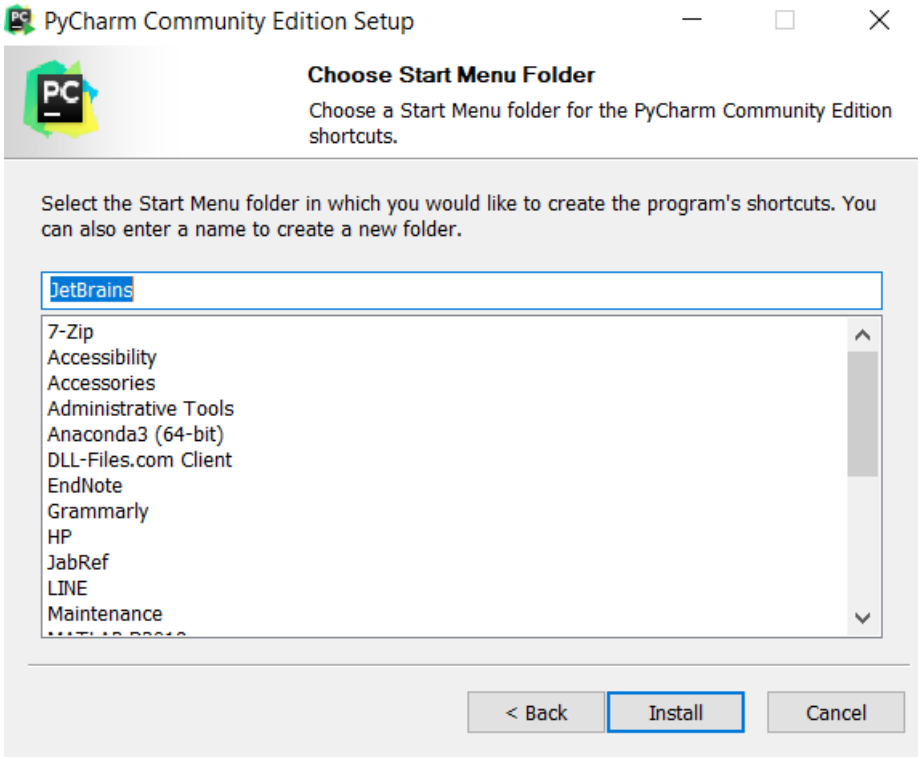
Thank you for downloading PyCharm!
Your download should start shortly. If it doesn't, please use dire
pycharm-commun....exe
113/252 MB, 14 mins left

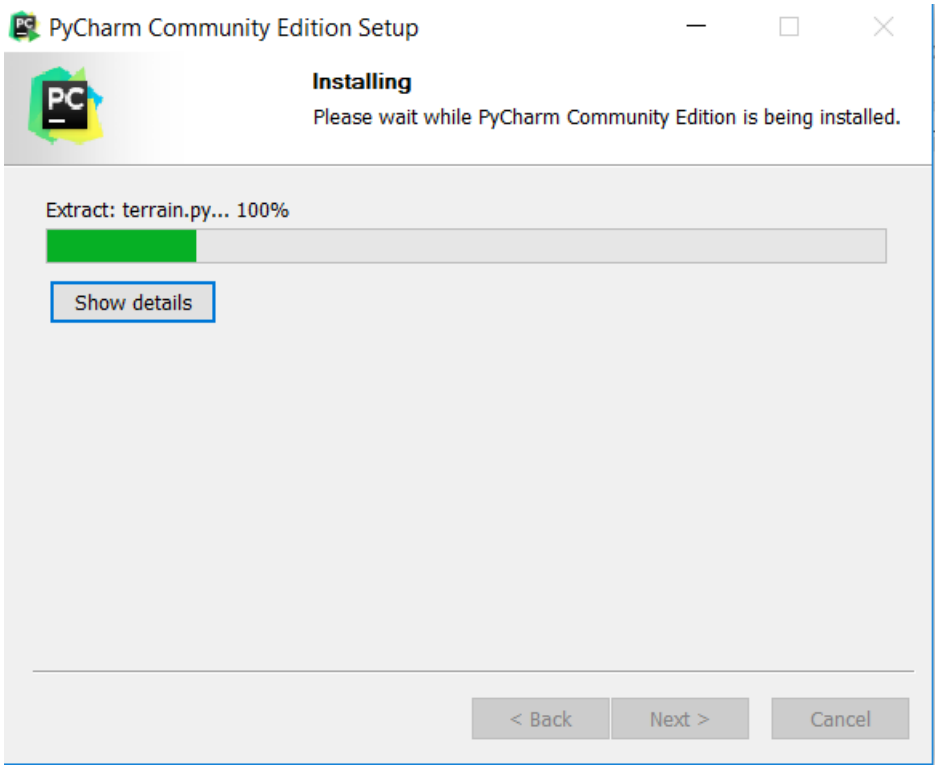
pycharm-community-2019.2.1.exe

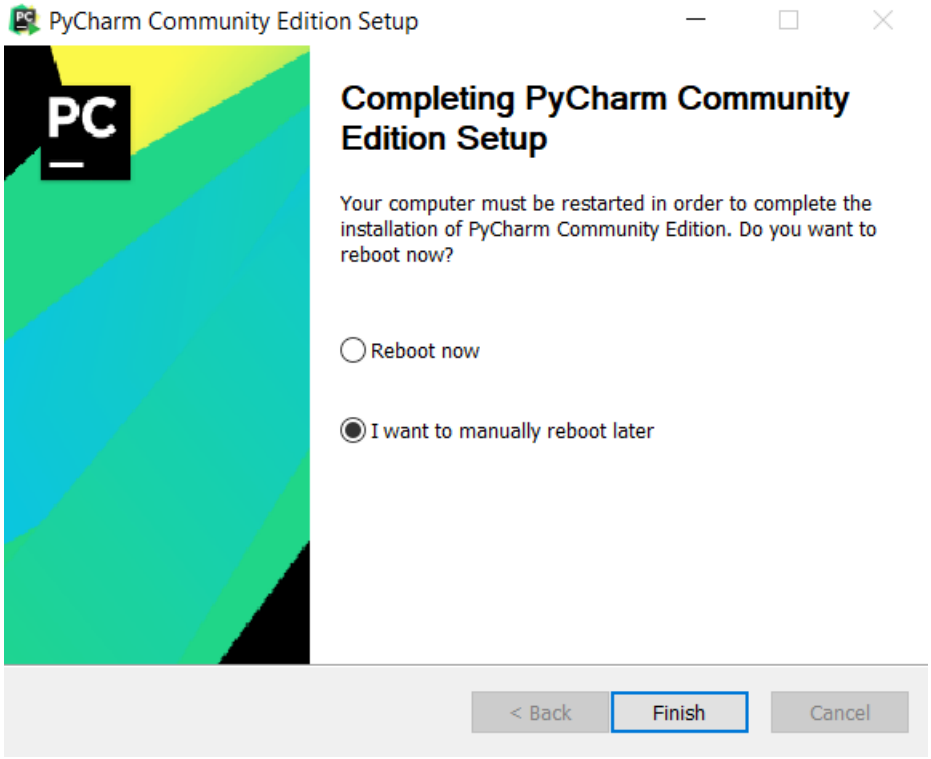

PyCharm Community Edition Setup
Welcome to PyCharm Community Edition Setup
Setup will guide you through the installation of PyCharm Community Edition.
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
Next >
Cancel

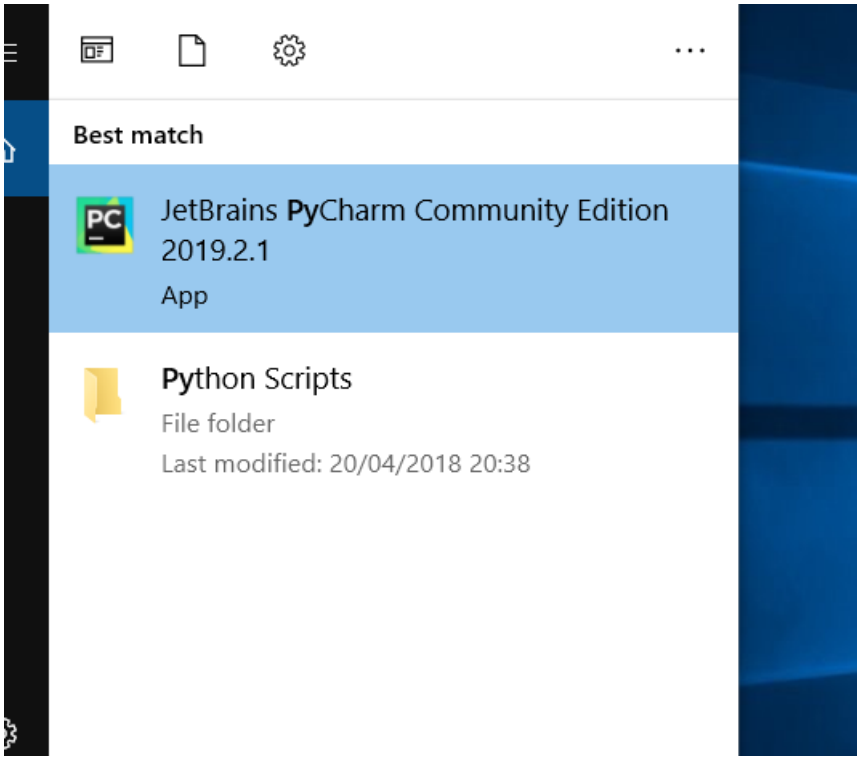

PyCharm Community Edition Setup
Choose Install Location
Choose the folder in which to install PyCharm Community Edition.
Setup will install PyCharm Community Edition in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.
Destination Folder
Program Files\JetBrains\PyCharm Community Edition 2019.2.1
Browse...
Space required: 589.0 MB
Space available: 35.0 GB
< Back
Next >
Cancel

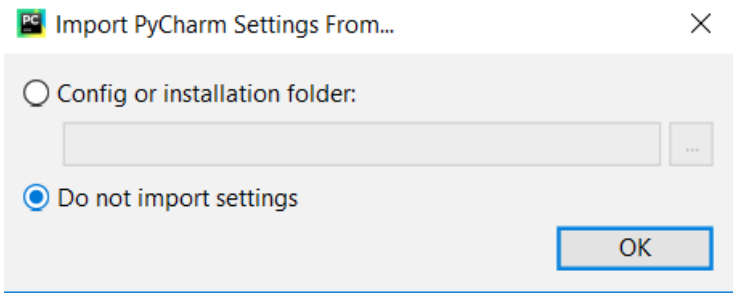

PyCharm Community Edition Setup
Installation Options
Configure your PyCharm Community Edition installation
Create Desktop Shortcut
64-bit launcher
Update PATH variable (restart needed)
Add launchers dir to the PATH
Update context menu
Add "Open Folder as Project"
Create Associations
.py
< Back
Next >
Cancel


PyCharm Community Edition Setup
Choose Start Menu Folder
Choose a Start Menu folder for the PyCharm Community Edition shortcuts.
Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder.
JetBrains
7-Zip
Accessibility
Accessories
Administrative Tools
Anaconda3 (64-bit)
DLL-Files.com Client
EndNote
Grammarly
HP
JabRef
LINE
Maintenance
< Back
Install
Cancel


PyCharm Community Edition Setup
Installing
Please wait while PyCharm Community Edition is being installed.
Extract: terrain.py... 100%
Show details
< Back
Next >
Cancel


PyCharm Community Edition Setup
Completing PyCharm Community Edition Setup
Your computer must be restarted in order to complete the installation of PyCharm Community Edition. Do you want to reboot now?
Reboot now
I want to manually reboot later
< Back
Finish
Cancel





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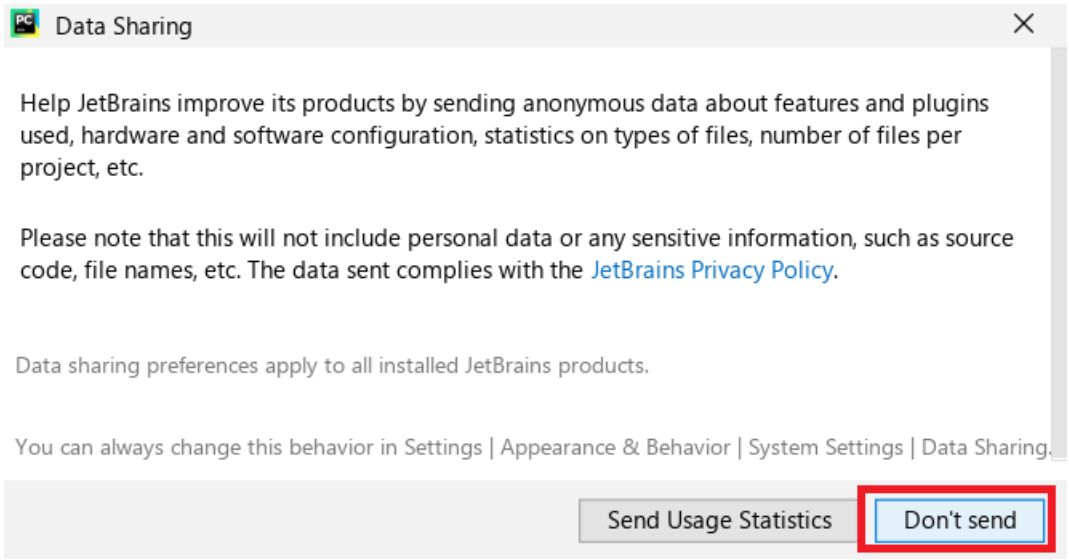
Continue | Reject and Exit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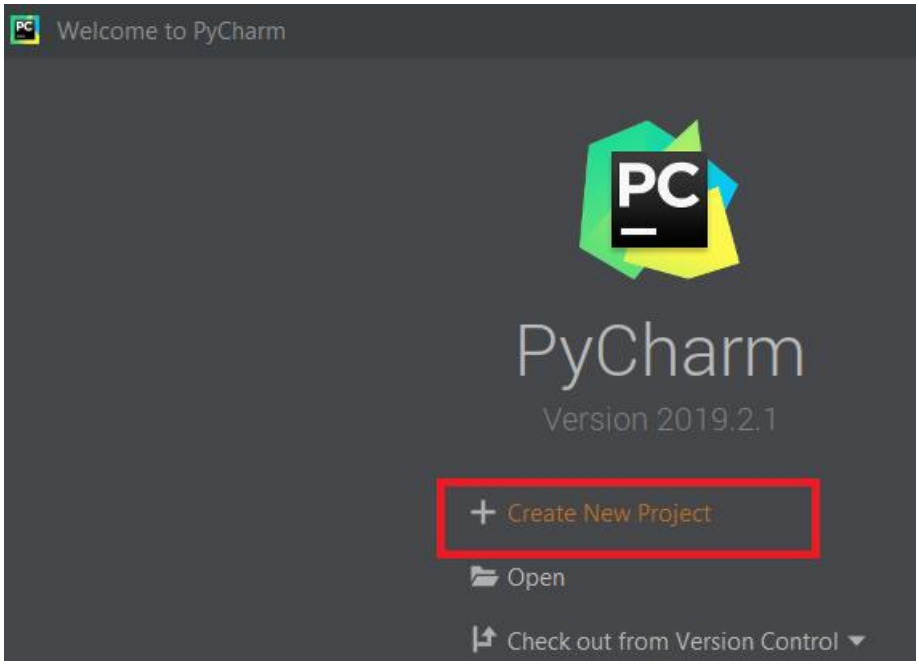
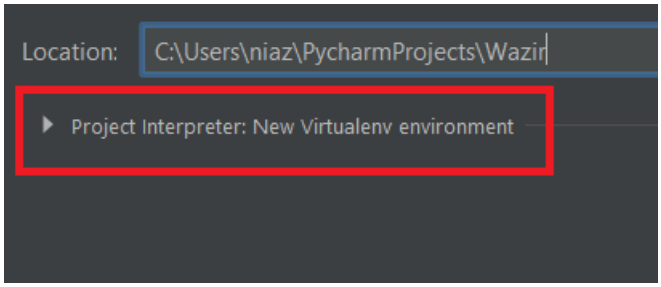
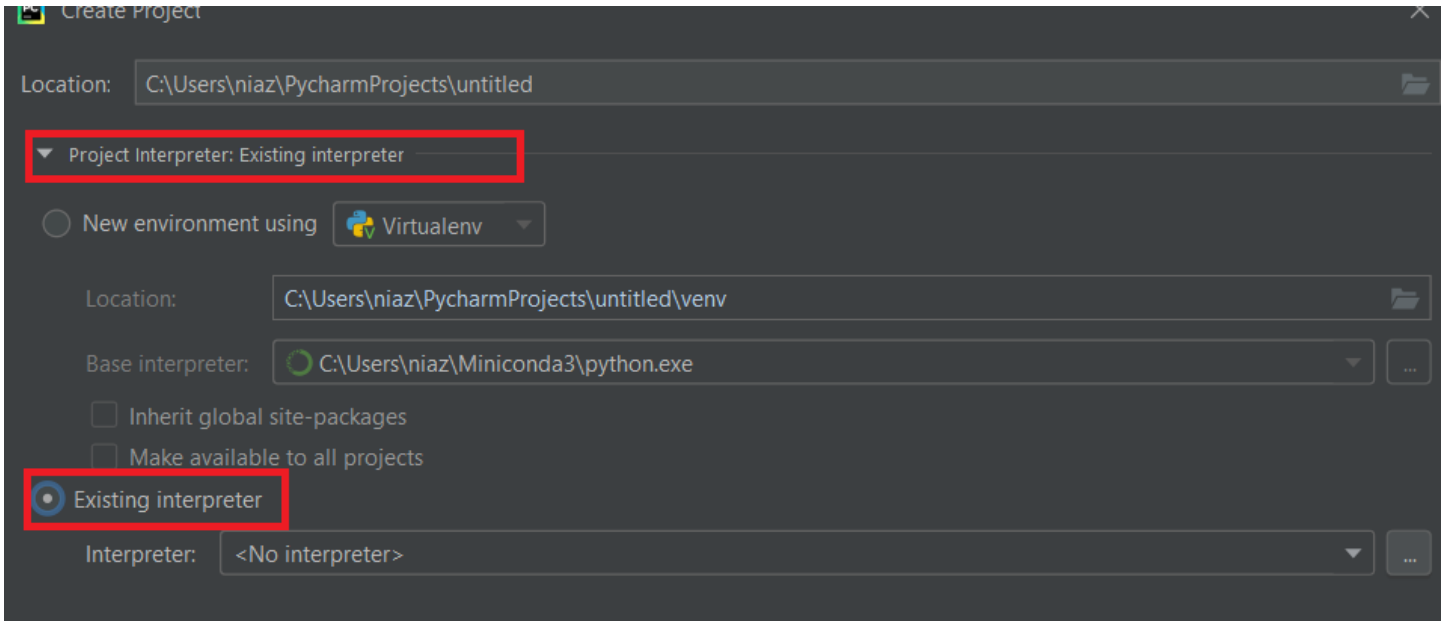
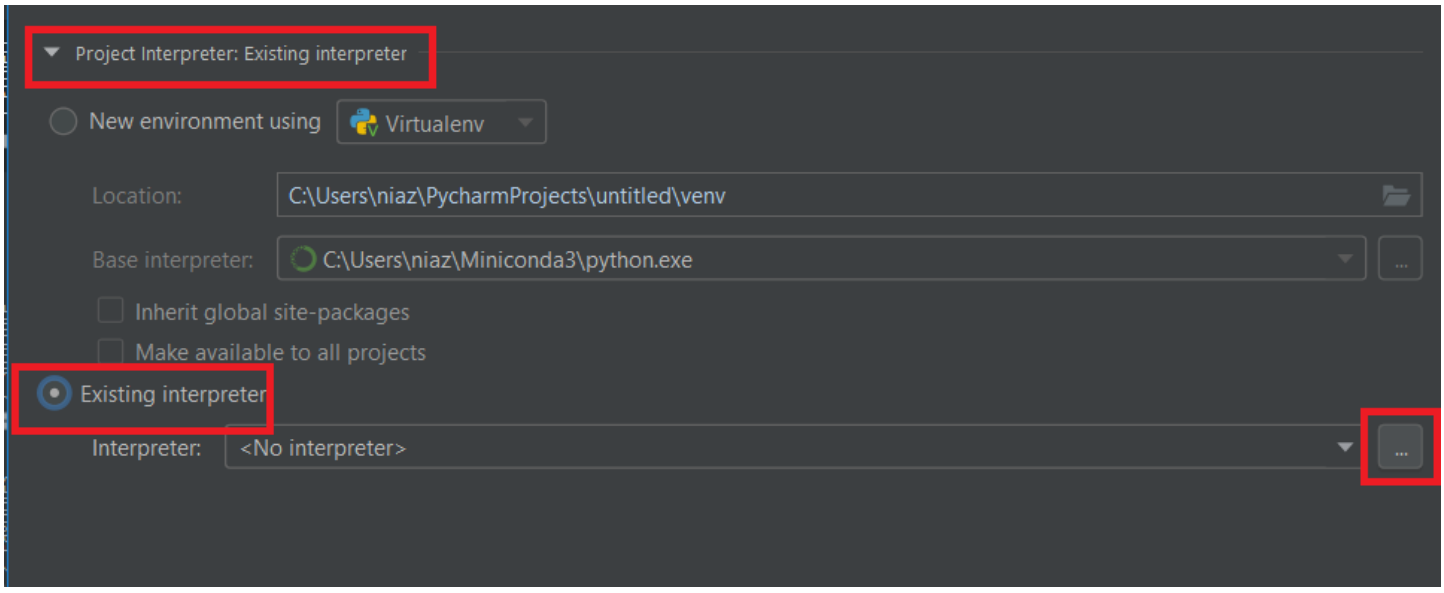
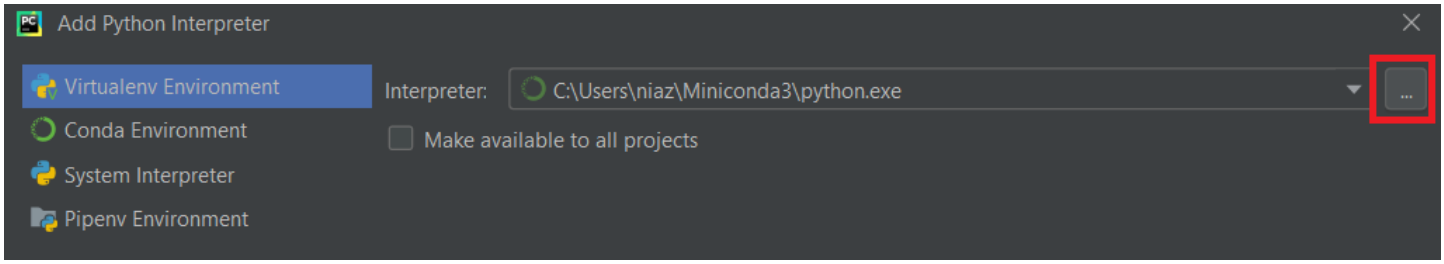
Help JetBrains improve its products by sending anonymous data about features and plugins used, hardware and software configuration, statistics on types of files, number of files per project, etc.
Please note that this will not include personal data or any sensitive information, such as source code, file names, etc. The data sent complies with the JetBrains Privacy Policy.
Data sharing preferences apply to all installed JetBrains products.
You can always change this behavior in Settings | Appearance & Behavior | System Settings | Data Sharing.
Send Usage Statistics
Don't send

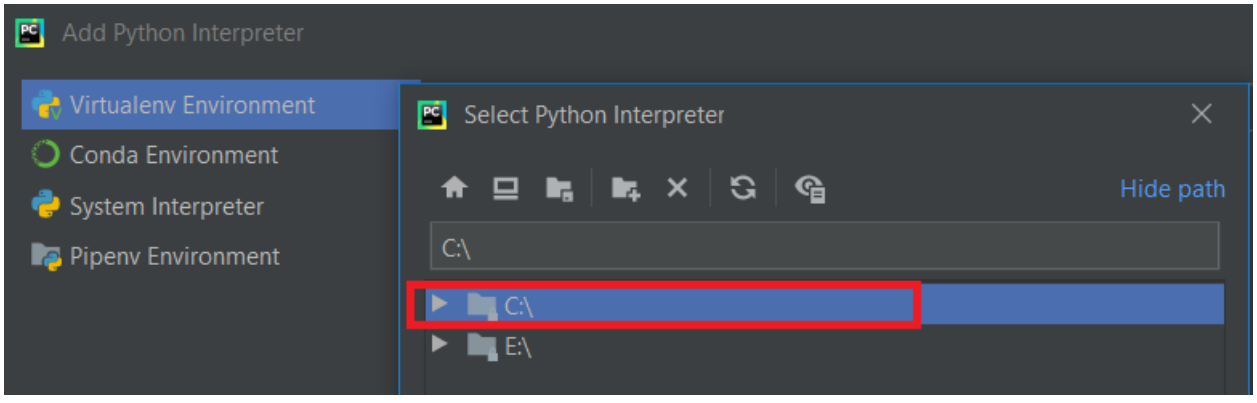

Welcome to PyCharm
PyCharm
Version 2019.2.1
Create New Project
Open
Check out from Version Control

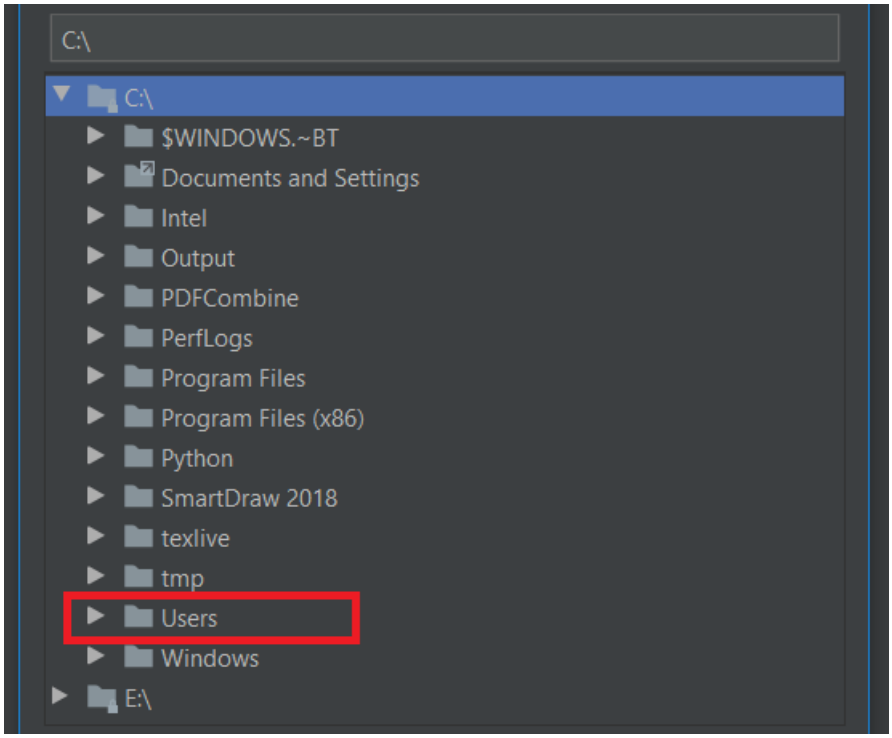

Location:
C:\Users\niaz\PycharmProjects\Wazir
Project Interpreter: New Virtualenv environment

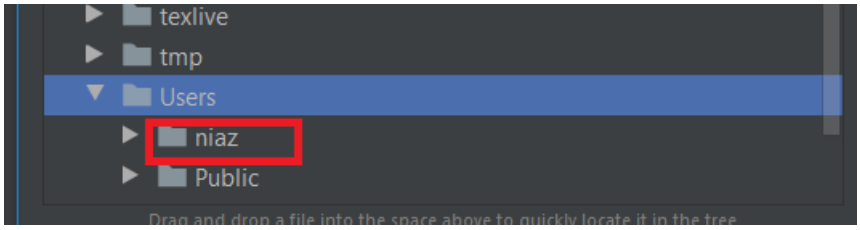

Create Project
Location: C:\Users\niaz\PycharmProjects\untitled
Project Interpreter: Existing interpreter
New environment using Virtualenv
Location: C:\Users\niaz\PycharmProjects\untitled\venv
Base interpreter: C:\Users\niaz\Miniconda3\python.exe
Inherit global site-packages
Make available to all projects
Existing interpreter
Interpreter: <No interpreter>

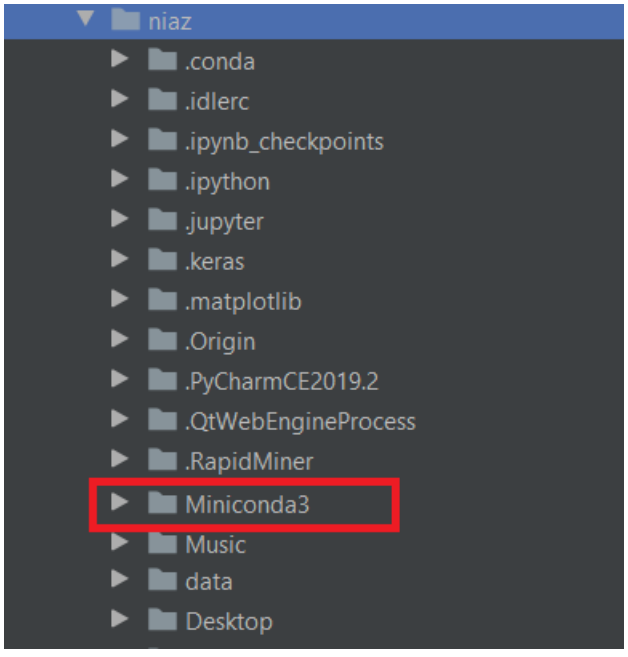

Project Interpreter: Existing interpreter
New environment using Virtualenv
Location: C:\Users\niaz\PycharmProjects\untitled\venv
Base interpreter: C:\Users\niaz\Miniconda3\python.exe
Inherit global site-packages
Make available to all projects
Existing interpreter
Interpreter: <No interpreter>

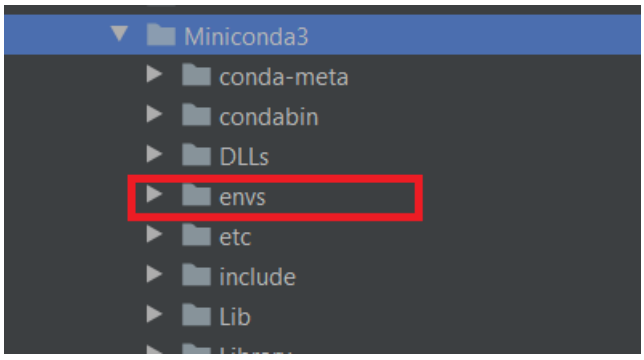

Add Python Interpreter
Virtualenv Environment
Conda Environment
System Interpreter
Pipenv Environment
Interpreter: C:\Users\niaz\Miniconda3\python.exe
Make available to all projects

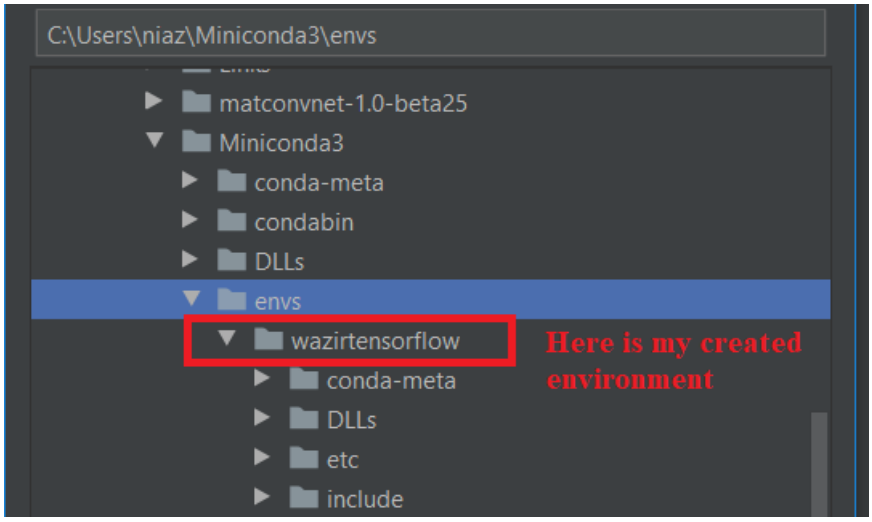

Add Python Interpreter
Virtualenv Environment
Conda Environment
System Interpreter
Pipenv Environment
Select Python Interpreter
Hide path
C:\
C:\
E:\

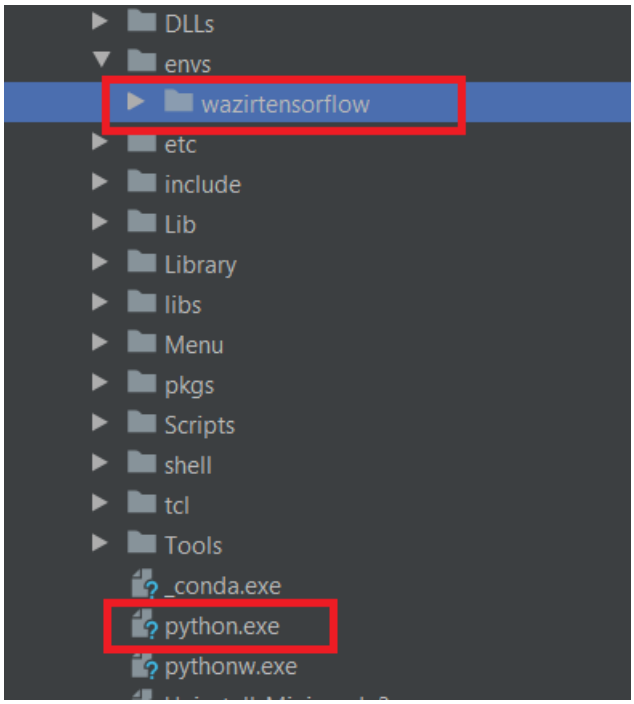

C:\
C:\
$WINDOWS.~BT
Documents and Settings
Intel
Output
PDFCombine
PerfLogs
Program Files
Program Files (x86)
Python
SmartDraw 2018
texlive
tmp
Users
Windows
E:\

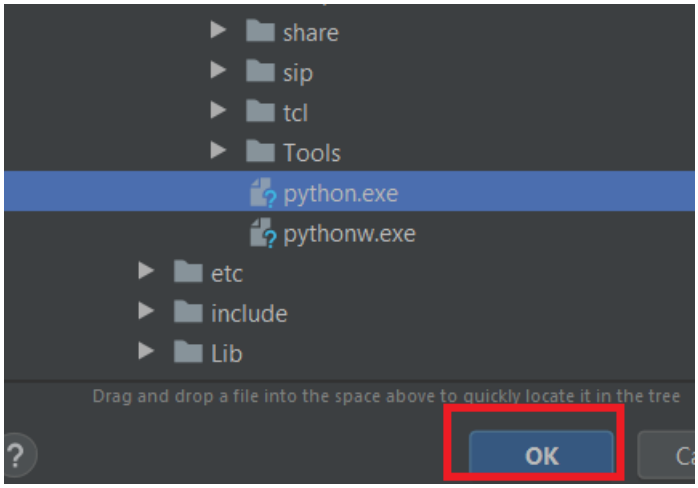

texlive
tmp
Users
niaz
Public
Drag and drop a file into the space above to quickly locate it in the tree

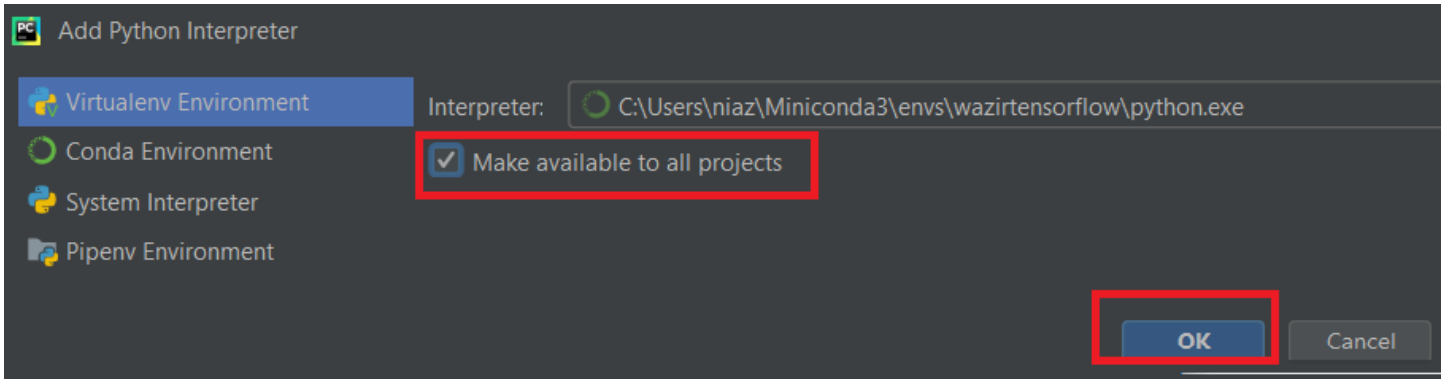

niaz
.conda
.idlerc
.ipynb_checkpoints
.ipython
.jupyter
.keras
.matplotlib
.Origin
.PyCharmCE2019.2
.QtWebEngineProcess
.RapidMiner
Miniconda3
Music
data
Desktop

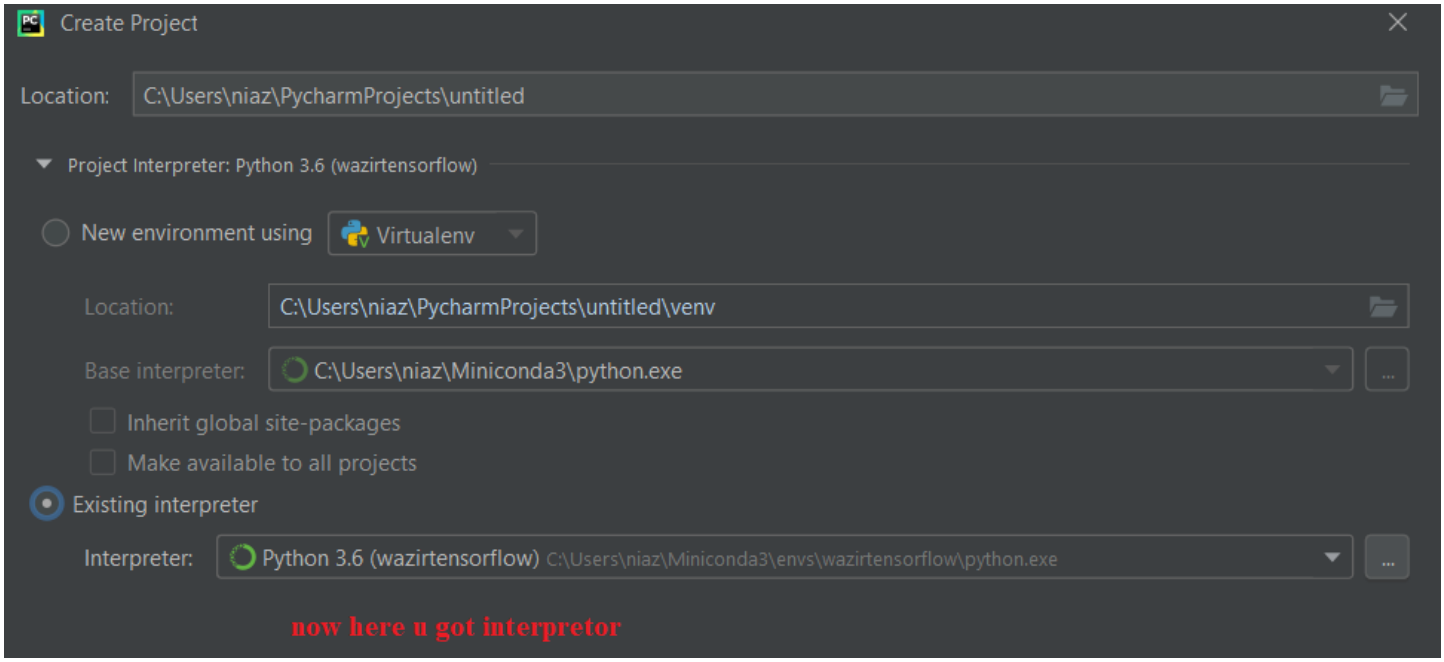

Miniconda3
conda-meta
condabin
DLLs
envs
etc
include
Lib

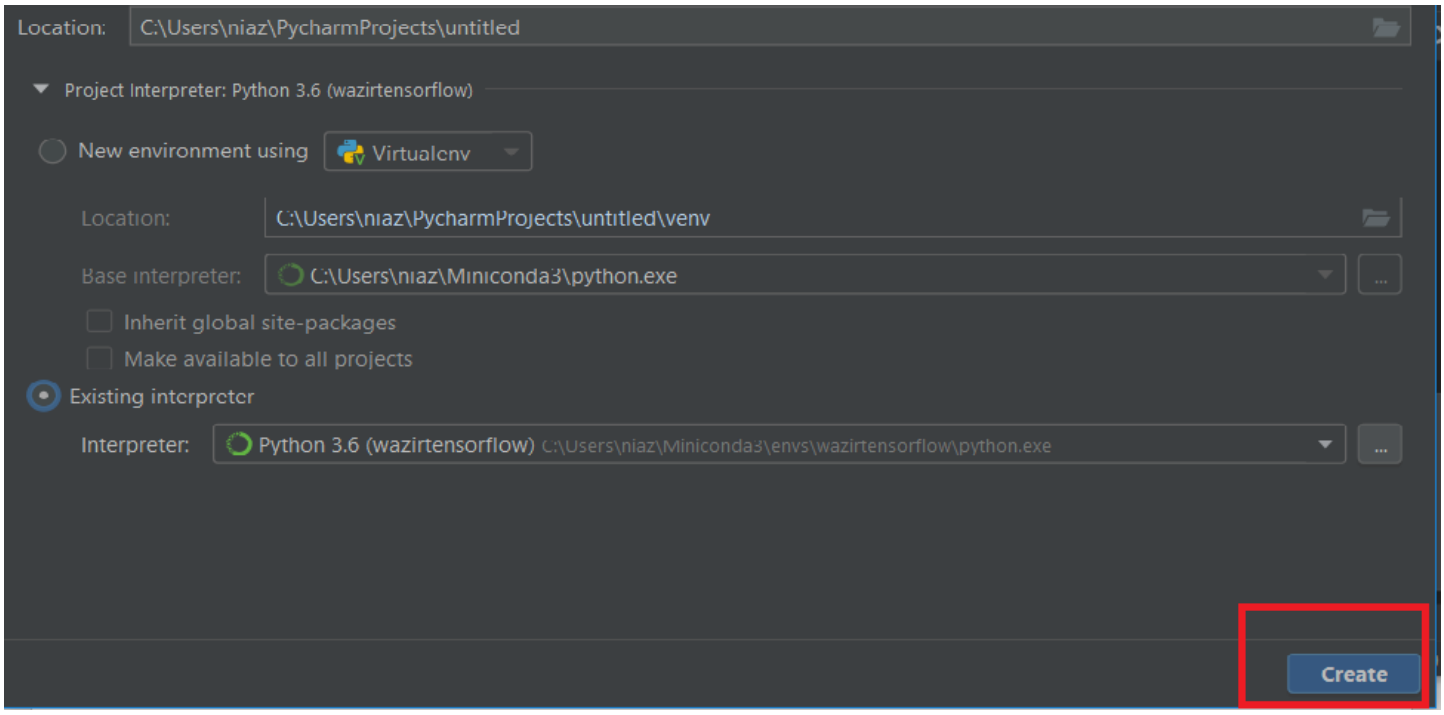

C:\Users\niaz\Miniconda3\envs
matconvnet-1.0-beta25
Miniconda3
conda-meta
condabin
DLLs
envs
wazirtensorflow
Here is my created environment
conda-meta
DLLs
etc
include

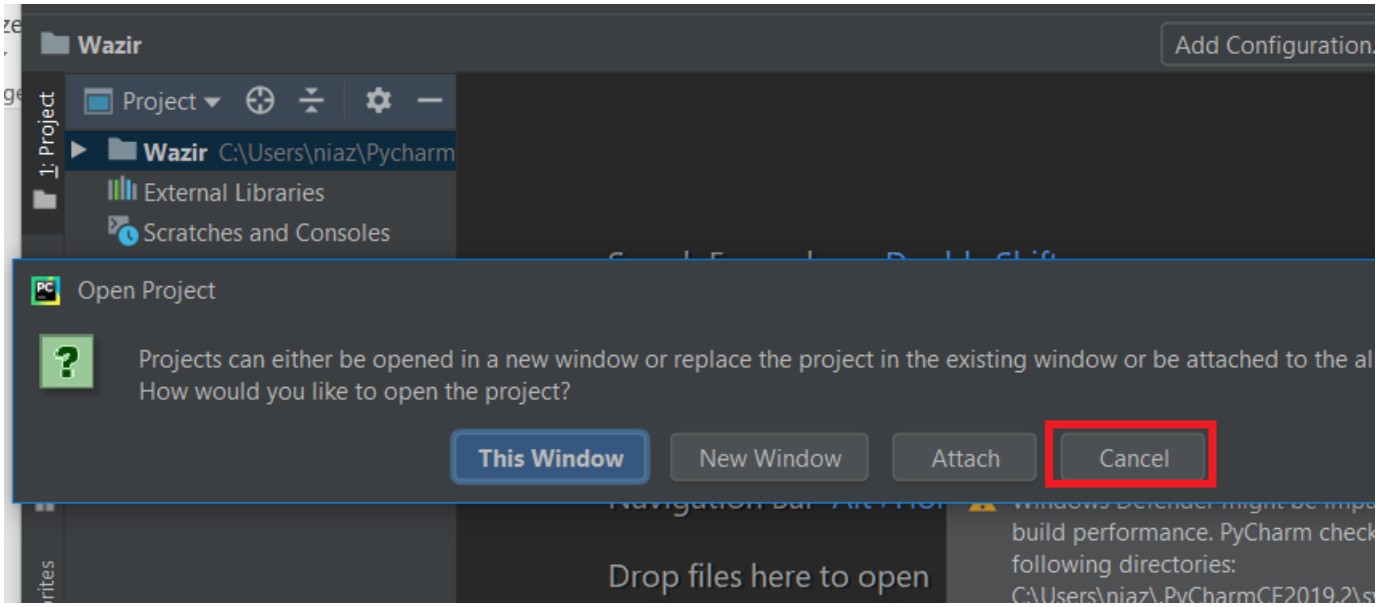

DLLs
envs
wazirtensorflow
etc
include
Lib
Library
libs
Menu
pkgs
Scripts
shell
tcl
Tools
_conda.exe
python.exe
pythonw.exe

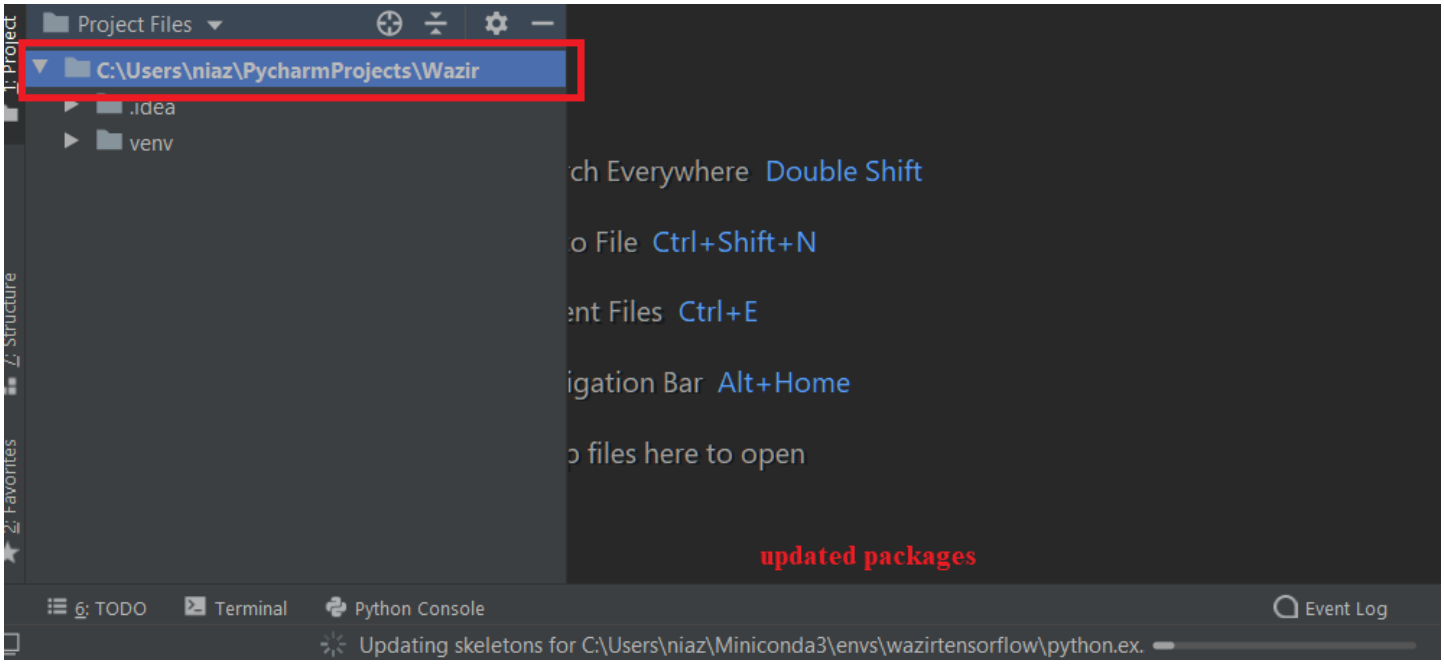

share
sip
tcl
Tools
python.exe
pythonw.exe
etc
include
Lib
Drag and drop a file into the space above to quickly locate it in the tree
OK

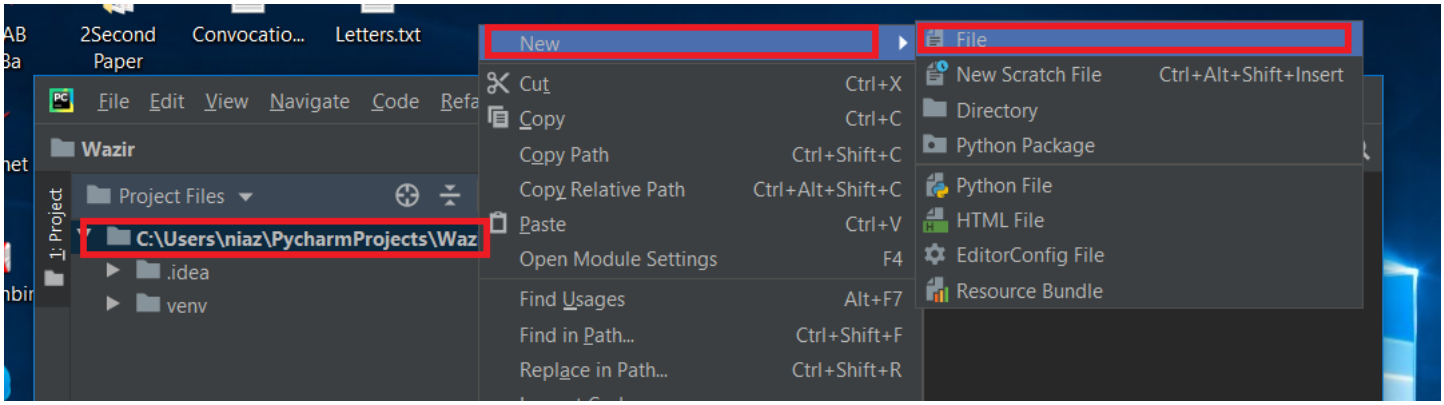

Add Python Interpreter
Virtualenv Environment
Conda Environment
System Interpreter
Pipenv Environment
Interpreter:
C:\Users\niaz\Miniconda3\envs\wazirtensorflow\python.exe
Make available to all projects
OK
Cancel

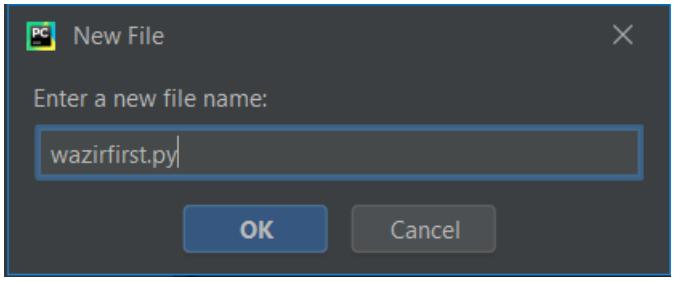

Create Project
Location:
C:\Users\niaz\PycharmProjects\untitled
Project Interpreter: Python 3.6 (wazirtensorflow)
New environment using
Virtualenv
Location:
C:\Users\niaz\PycharmProjects\untitled\venv
Base interpreter:
C:\Users\niaz\Miniconda3\python.exe
Inherit global site-packages
Make available to all projects
Existing interpreter
Interpreter:
Python 3.6 (wazirtensorflow) C:\Users\niaz\Miniconda3\envs\wazirtensorflow\python.exe
now here u got interpretor

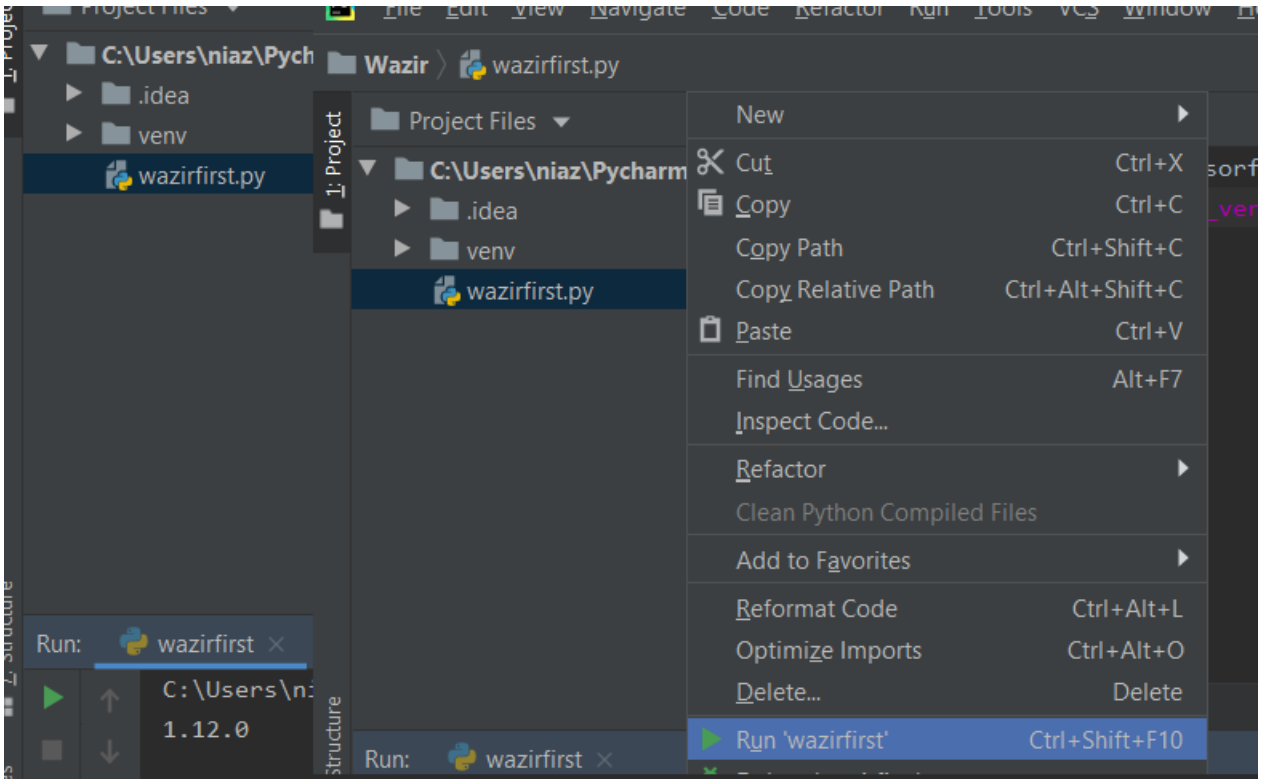

Location:
C:\Users\niaz\PycharmProjects\untitled
Project Interpreter: Python 3.6 (wazirtensorflow)
New environment using
Virtualenv
Location:
C:\Users\niaz\PycharmProjects\untitled\venv
Base interpreter:
C:\Users\niaz\Miniconda3\python.exe
Inherit global site-packages
Make available to all projects
Existing interpreter
Interpreter:
Python 3.6 (wazirtensorflow) C:\Users\niaz\Miniconda3\envs\wazirtensorflow\python.exe
Create

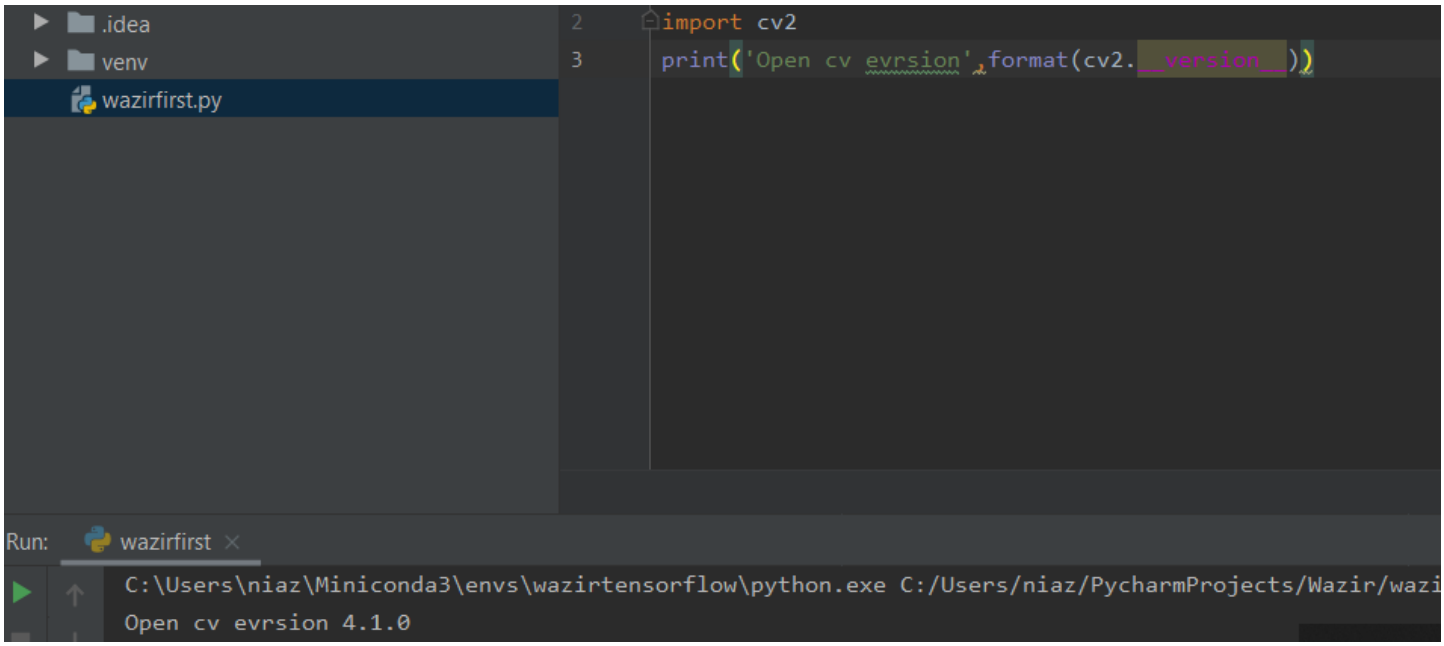

Wazir
Add Configuration...
Project
Wazir C:\Users\niaz\Pycharm
External Libraries
Scratches and Consoles
Open Project
Projects can either be opened in a new window or replace the project in the existing window or be attached to the al
How would you like to open the project?
This Window
New Window
Attach
Cancel
Drop files here to open
build performance. PyCharm check
following directories:


Project Files
C:\Users\niaz\PycharmProjects\Wazir
.idea
venv
ch Everywhere Double Shift
o File Ctrl+Shift+N
ent Files Ctrl+E
igation Bar Alt+Home
o files here to open
updated packages
6: TODO
Terminal
Python Console
Event Log
Updating skeletons for C:\Users\niaz\Miniconda3\envs\wazirtensorflow\python.ex.


2Second Paper
Convocatio...
Letters.txt
File Edit View Navigate Code
Wazir
Project Files
C:\Users\niaz\PycharmProjects\Waz
.idea
venv
New
Cut Ctrl+X
Copy Ctrl+C
Copy Path Ctrl+Shift+C
Copy Relative Path Ctrl+Alt+Shift+C
Paste Ctrl+V
Open Module Settings F4
Find Usages Alt+F7
Find in Path... Ctrl+Shift+F
Replace in Path... Ctrl+Shift+R
File
New Scratch File Ctrl+Alt+Shift+Insert
Directory
Python Package
Python File
HTML File
EditorConfig File
Resource Bundle


New File
Enter a new file name:
wazirfirst.py
OK
Cancel


C:\Users\niaz\Pych
.idea
venv
wazirfirst.py
Wazir
wazirfirst.py
Project Files
C:\Users\niaz\Pycharm
.idea
venv
wazirfirst.py
New
Cut Ctrl+X
Copy Ctrl+C
Copy Path Ctrl+Shift+C
Copy Relative Path Ctrl+Alt+Shift+C
Paste Ctrl+V
Find Usages Alt+F7
Inspect Code...
Refactor
Clean Python Compiled Files
Add to Favorites
Reformat Code Ctrl+Alt+L
Optimize Imports Ctrl+Alt+O
Delete... Delete
Run 'wazirfirst' Ctrl+Shift+F10
Run: wazirfirst
C:\Users\ni
1.12.0
Run: wazirfirst


.idea
venv
wazirfirst.py
import cv2
print('Open cv evrsion',format(cv2.__version__))
Run: wazirfirst
C:\Users\niaz\Miniconda3\envs\wazirtensorflow\python.exe C:/Users/niaz/PycharmProjects/Wazir/wazi
Open cv evrsion 4.1.0