# Documentation to start the program

## 1.0 Pre-request

Before you start the program, you need some application installed in your device

1. Python 3.6 or above (mandatory)
2. Opencv library (will discuss on the following section)
3. Pyqt5 (will discuss on the following section)

## 2.0 Configure and install the libraries

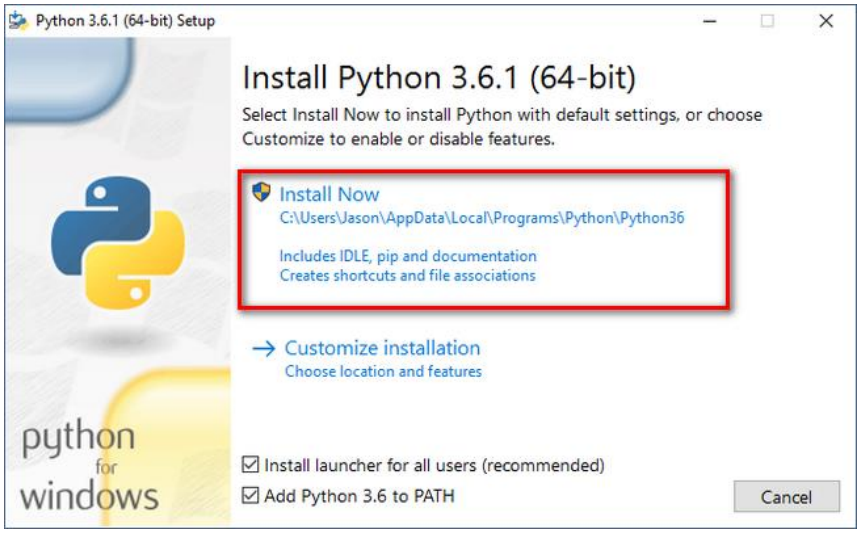
### 2.1 Python Installation steps

Step 1: To start the program, you need to install Python 3.6 or above. You can get the installer through the link provided below

Link: https://www.python.org/


1. If you are Windows user, select Windows
2. Click python 3.6.5 as shown above

Step 2: After completed download the installer, double click the installer, select Install Now (Remainder: select “Add Python 3.6 to PATH” before you proceed)




Step 3: Click “Next” and remain all setting as default setting

### 2.2 Opencv installation

Step 1: Go to [https://www.lfd.uci.edu/~gohlke/pythonlibs/#opencv](https://www.lfd.uci.edu/~gohlke/pythonlibs/#opencv), search opencv, and download opencv python-3.4.1 cp36-cp36m-win32.whl (if your python is 64bit, please select opencv python-3.4.1 cp36-cp36m-win amd64.whl)

**Index by date:** h5py quickfix spglib kiwisolver jupyter pillow matplotlib gevent pendulum moderngl numpy-quaternion aiohttp zstd tifffile cx_oracle sounddevice tats
netifaces pandas netcdf4 cftime dipy pygresql debug-information-files statsmodels twisted numexpr chompack cvxopt numpy vitables rapidjson aggdraw lxml pyopen
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nipy qimage2ndarray guiqwt qt_graph_helpers pyqwt pyqt4 multiprocess libtfr nitime lfdfiles mathutils cvxcanon pyvrml97 pythonmagick yappi pyfftw pyviennacl py
cyassimp sima pymca friture pycogent pysqlite blaze scikits.audiolab la bazaar dynd genshi python-sundials glumpy pyamf libxml-python cellcognition pymcmc pyk
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**OpenCV**, a real time computer vision library.

opencv_python-2.4.13.5-cp27-cp27m-win32.whl
opencv_python-2.4.13.5-cp27-cp27m-win_amd64.whl
opencv_python-3.1.0-cp34-cp34m-win32.whl
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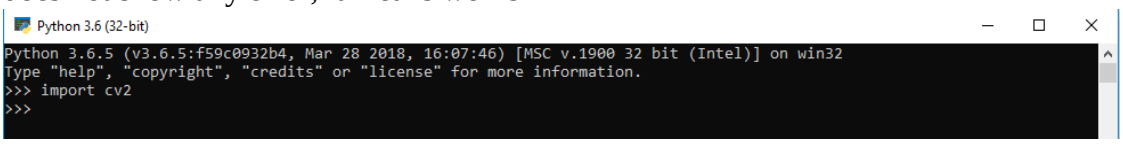
opencv_python-3.4.1-cp37-cp37m-win32.whl
opencv_python-3.4.1-cp37-cp37m-win_amd64.whl

Step 2: Go to Command Prompt, and type the following command, wait the installation complete

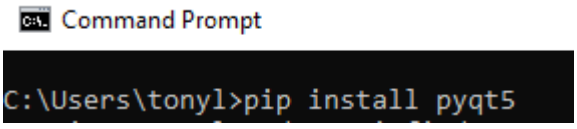
```
C:\Users\tonyl>pip install opencv_python-3.4.1-cp36-cp36m-win32.whl
```

Step 3: Go to python 3.6 and type the following command, if the command does not show any error, it means works

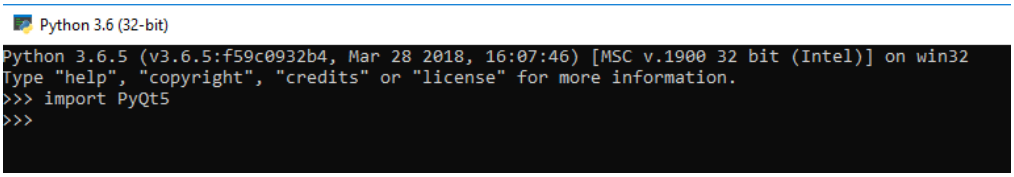



### 2.3 Pyqt5 installation

Step 1: Go to Command Prompt, and type the following command, wait the installation complete



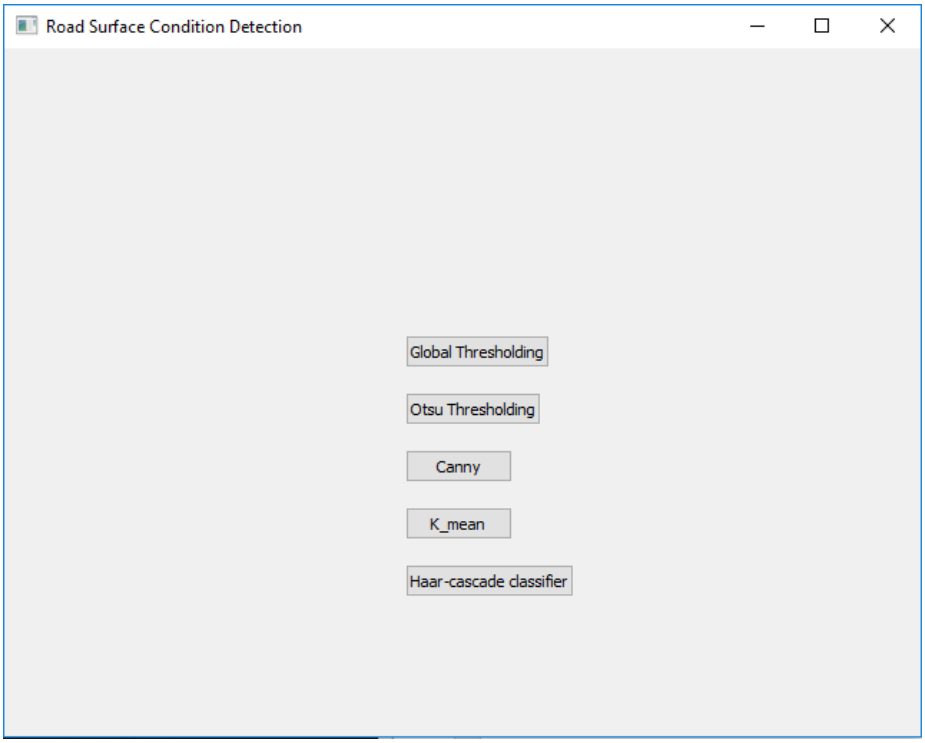

Step 2: Go to python 3.6 and type the following command, if the command does not show any error, it means works



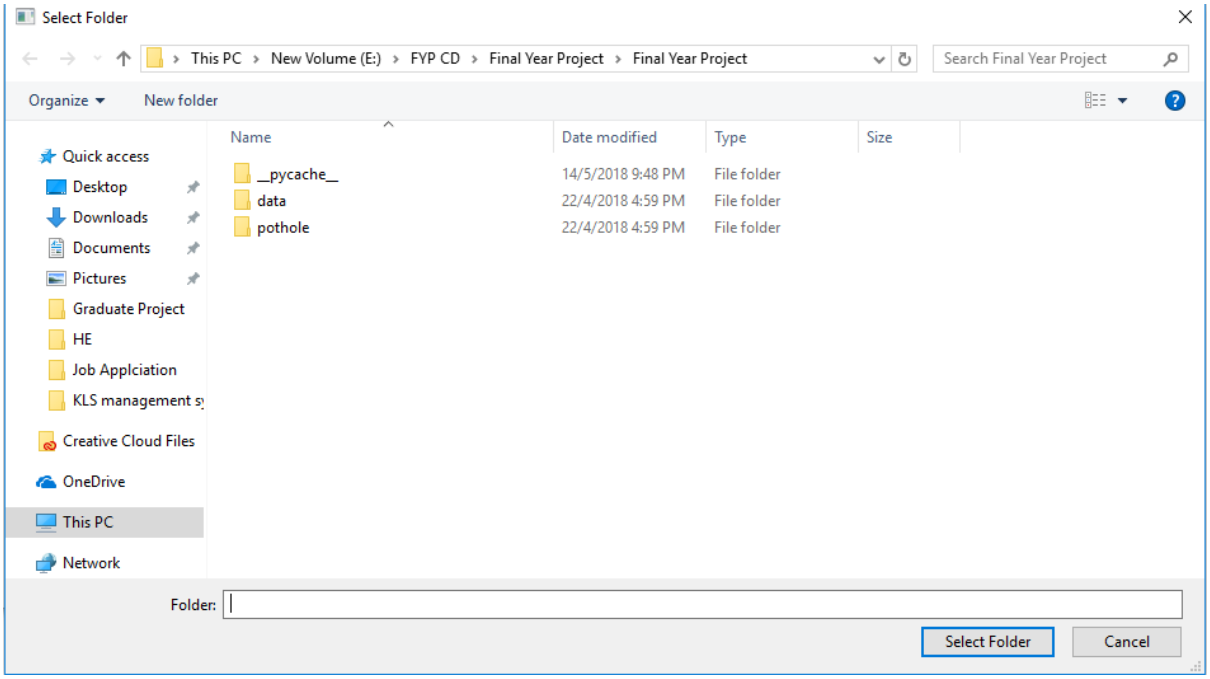

### 2.4 Run the program

Step 1: Double click “Final Year Project.py” file


Step 2: You will see the interface as shown, click any option you wish to know. For example: Global Thresholding




You will see the interface as shown below and select “pothole” folder




Step 3: You will see the result as shown


Press “esc” or spacebar to proceed until it finish the program