**Vision Based Automation**

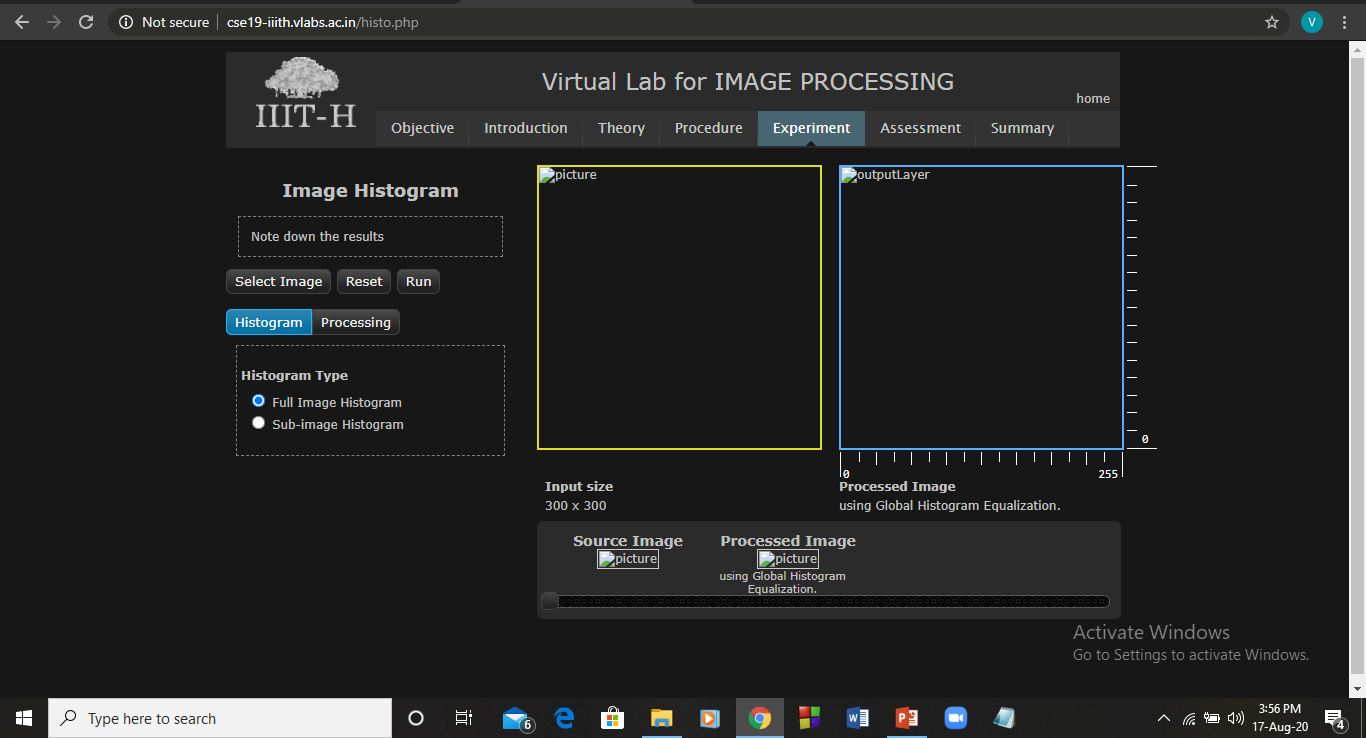
**Name: Vivek Chandrashekhar Rugale**

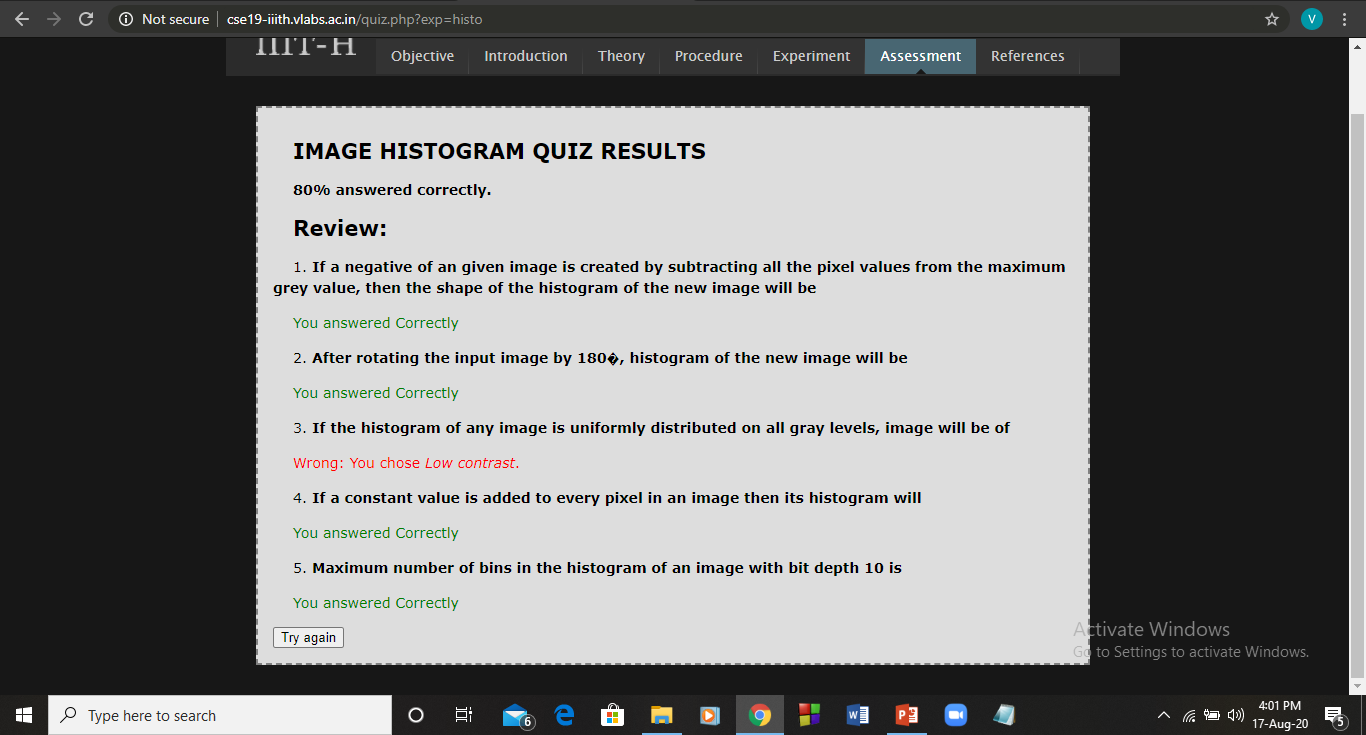
**GR No.: 11810369**

**Div.: TY-C**

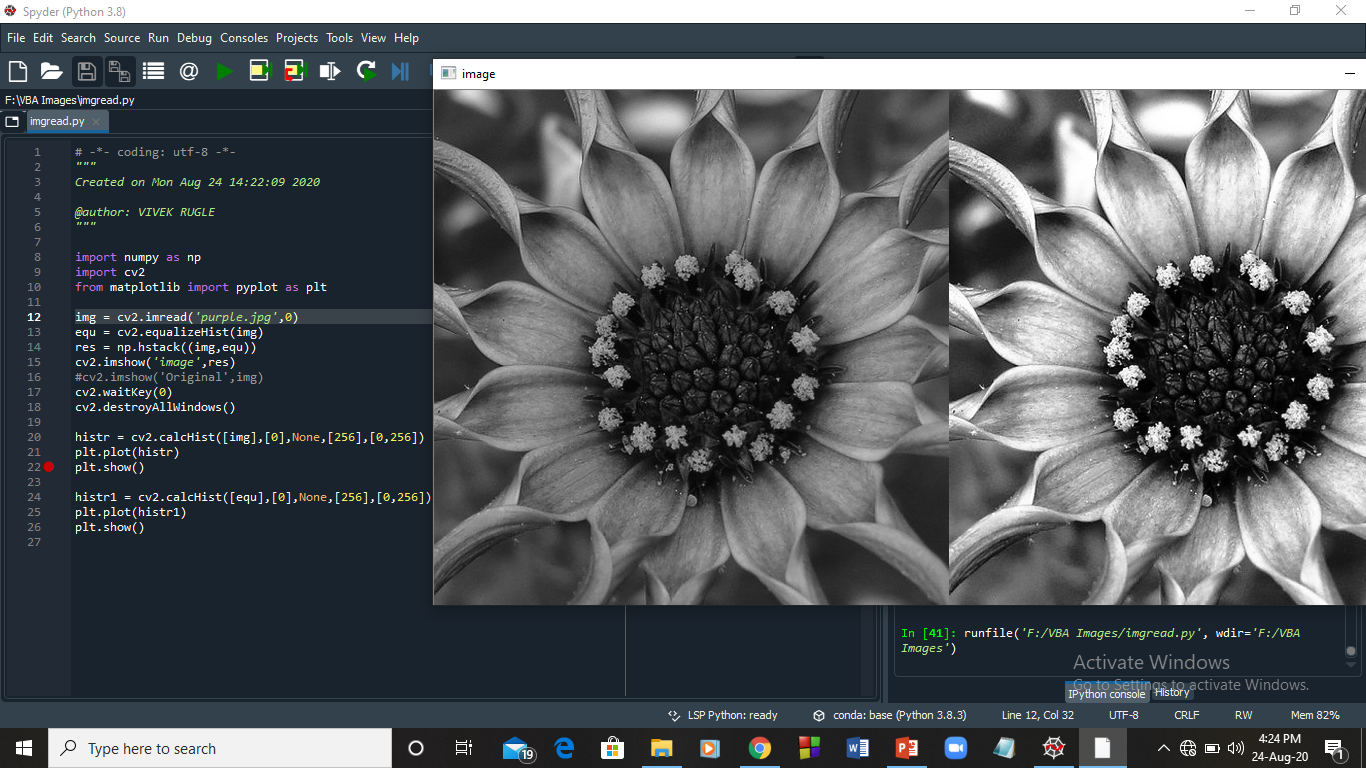
**Roll No.: 24 (Batch B1)**

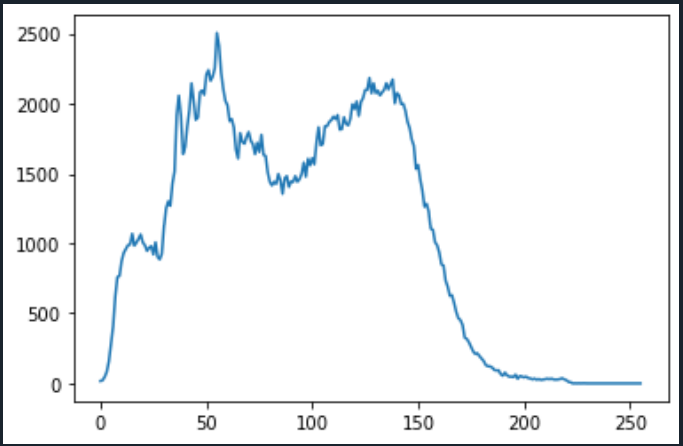
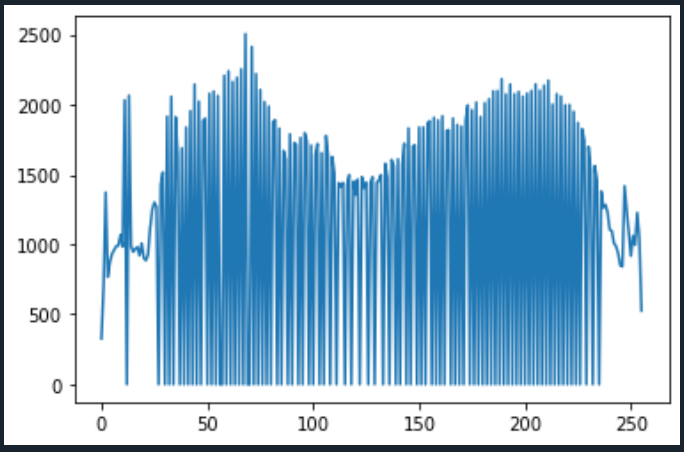
**Lab 1 :** Image Histogram Equalization





**Lab 2 :** Python code to read image and plot histogram

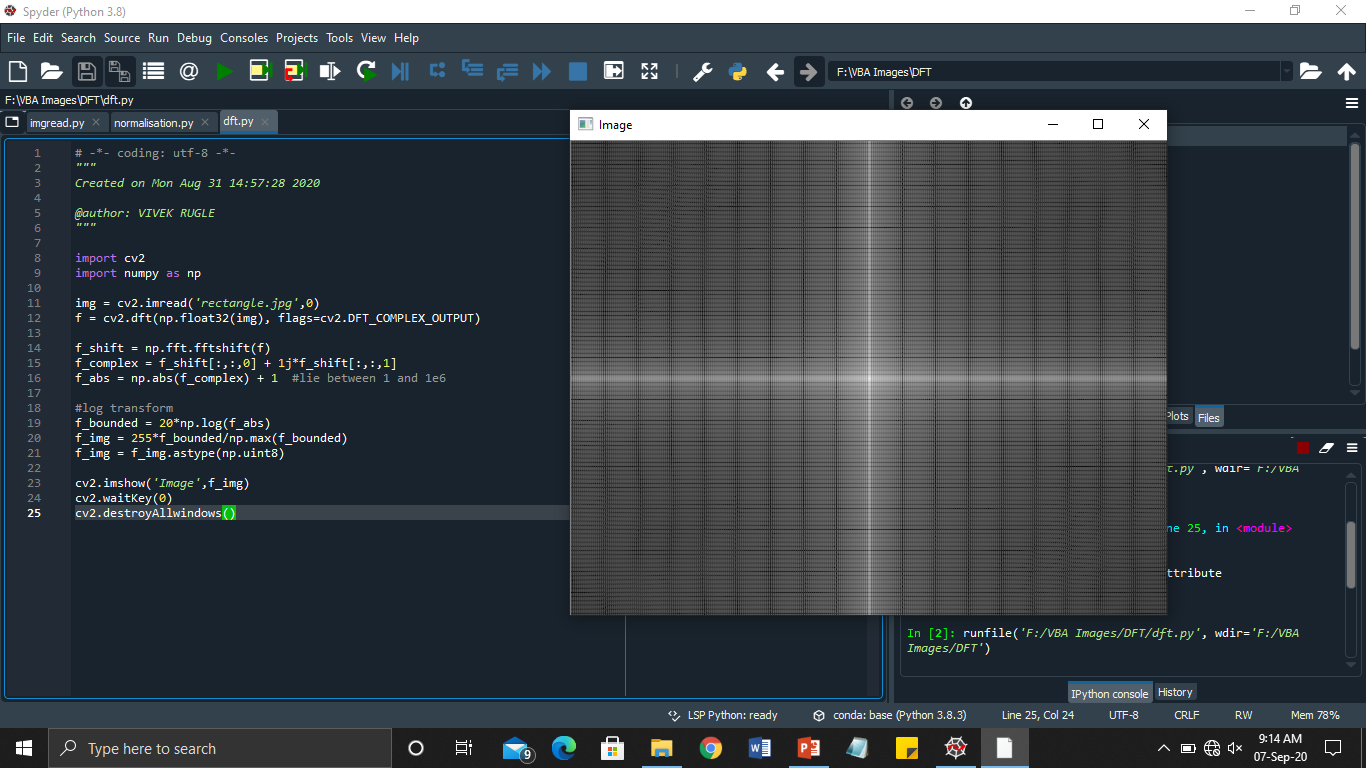




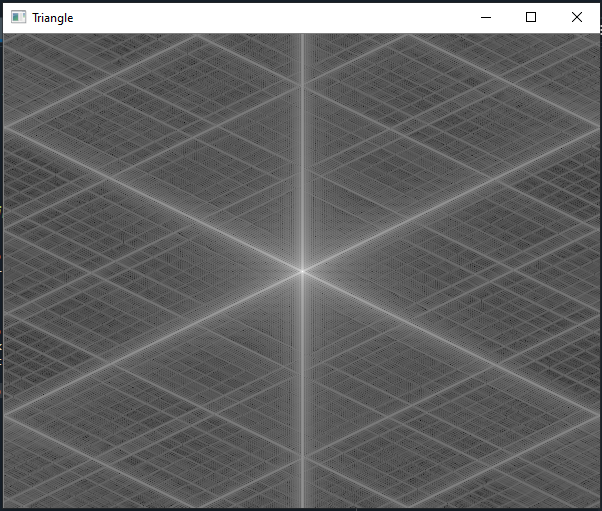
**Lab 3:** DFT of an image using open cv

* DFT of rectangle image -

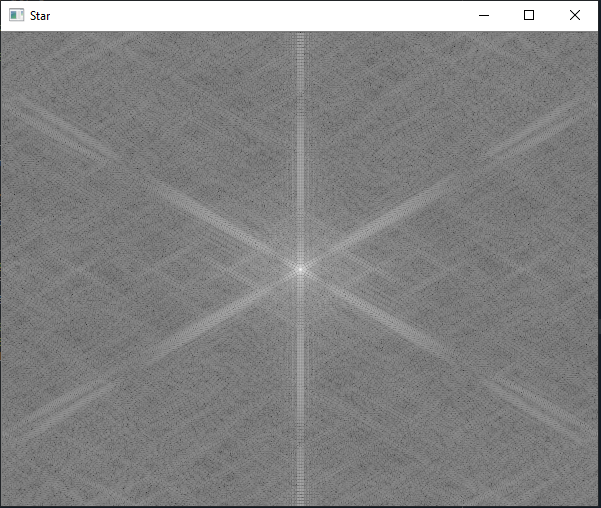
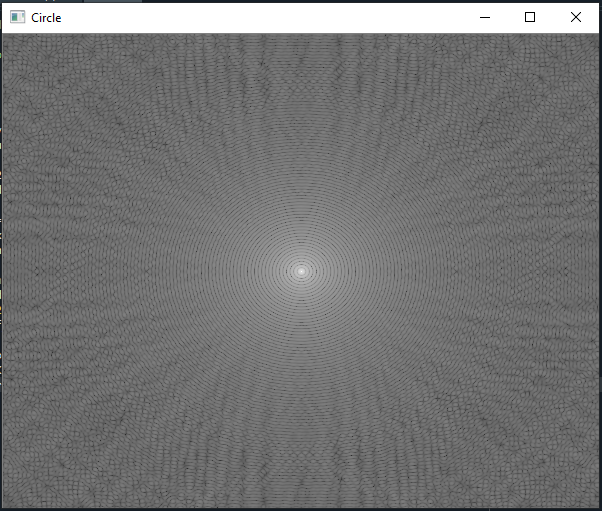




* For triangle and inclined line –

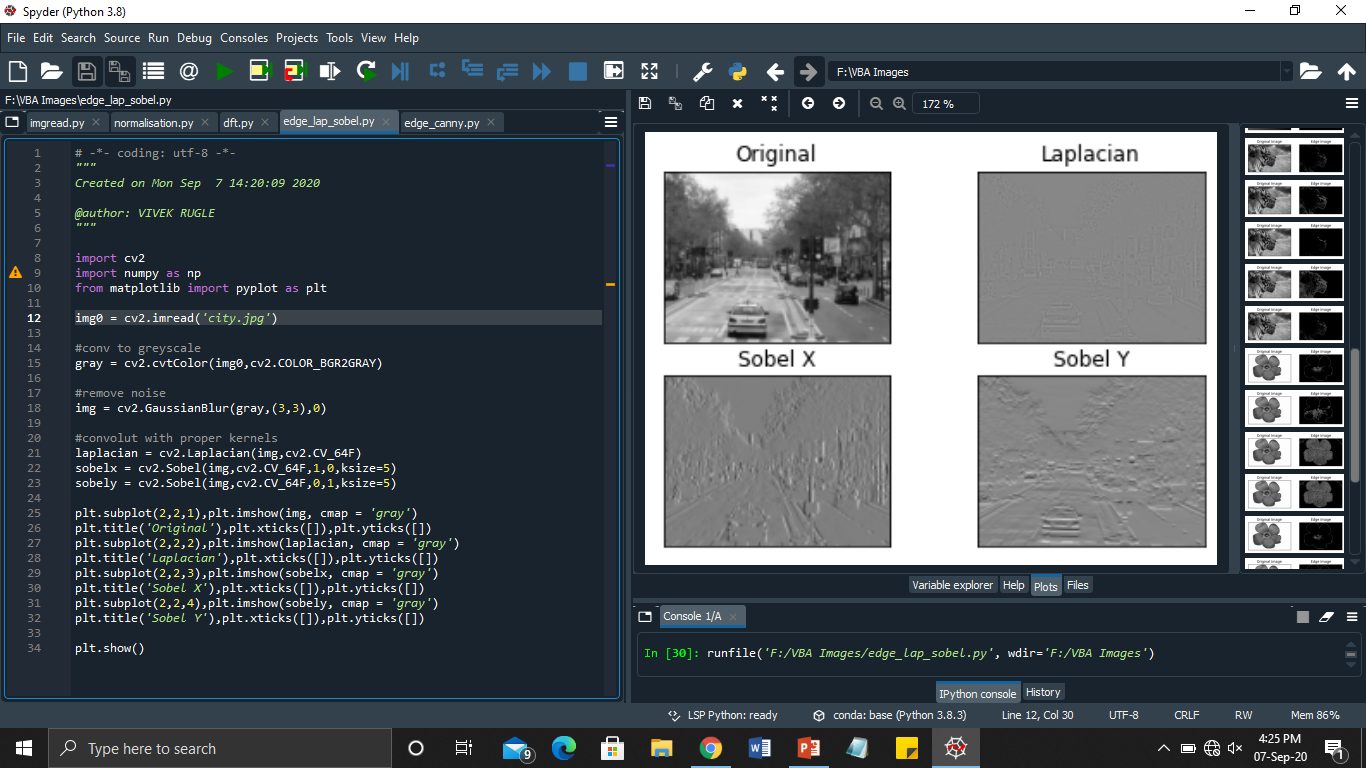
 

* For star and circle –

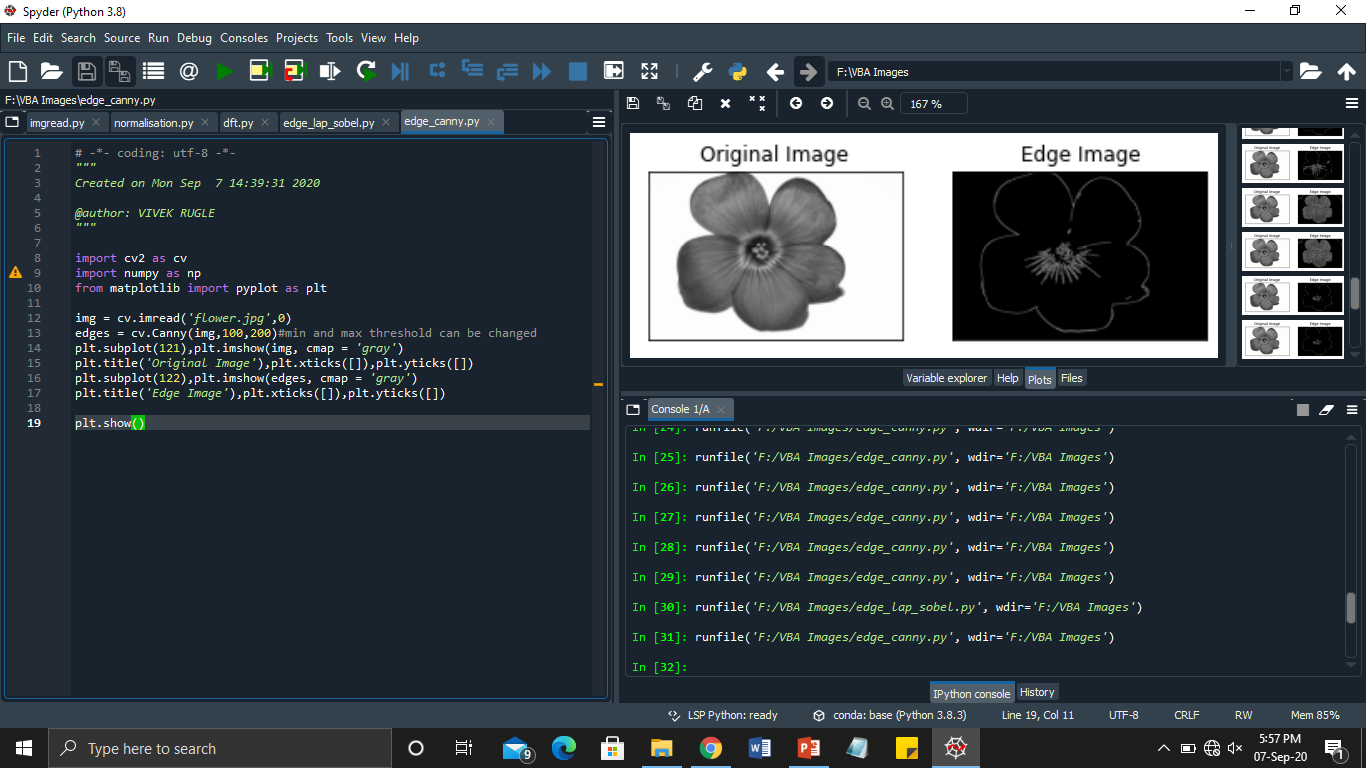
 

**Lab 4:** Edge detection using OpenCV

* Using Sobel operator -

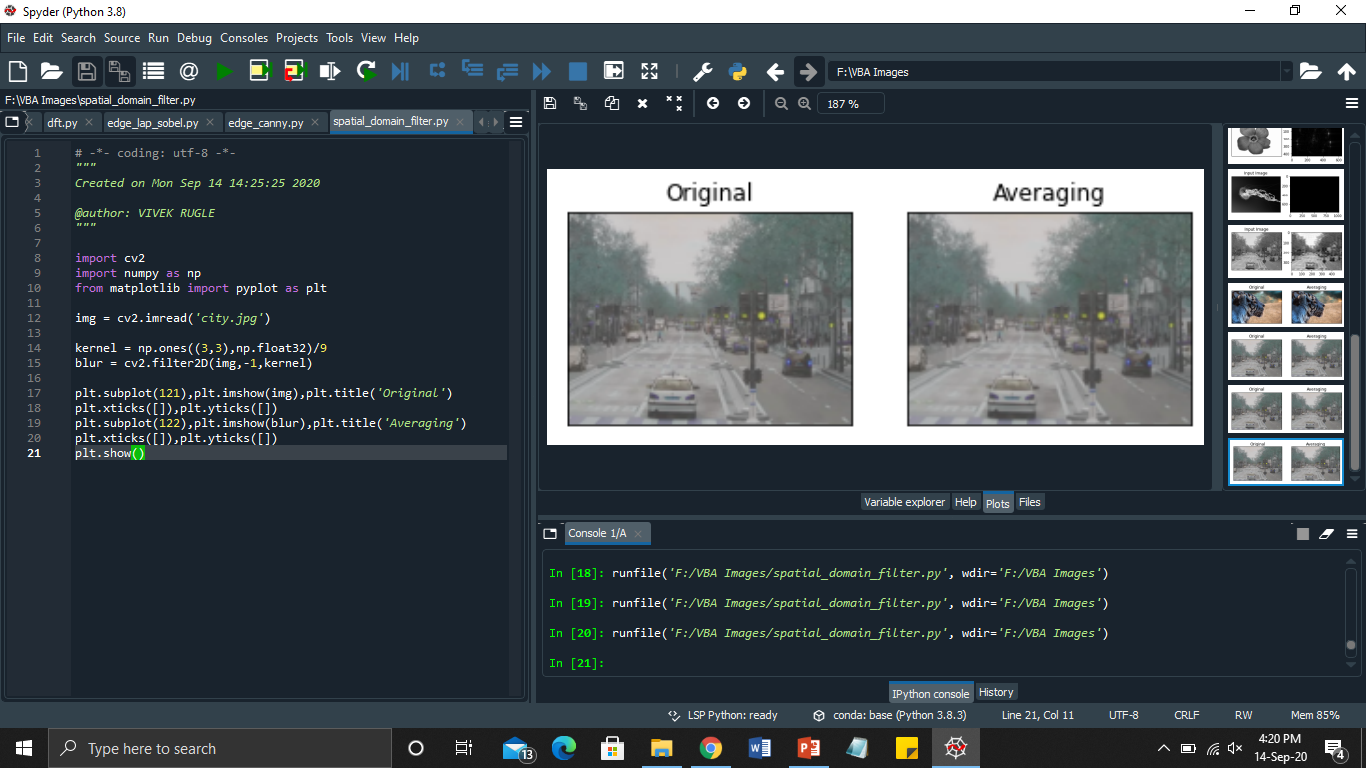


* Canny edge detection -

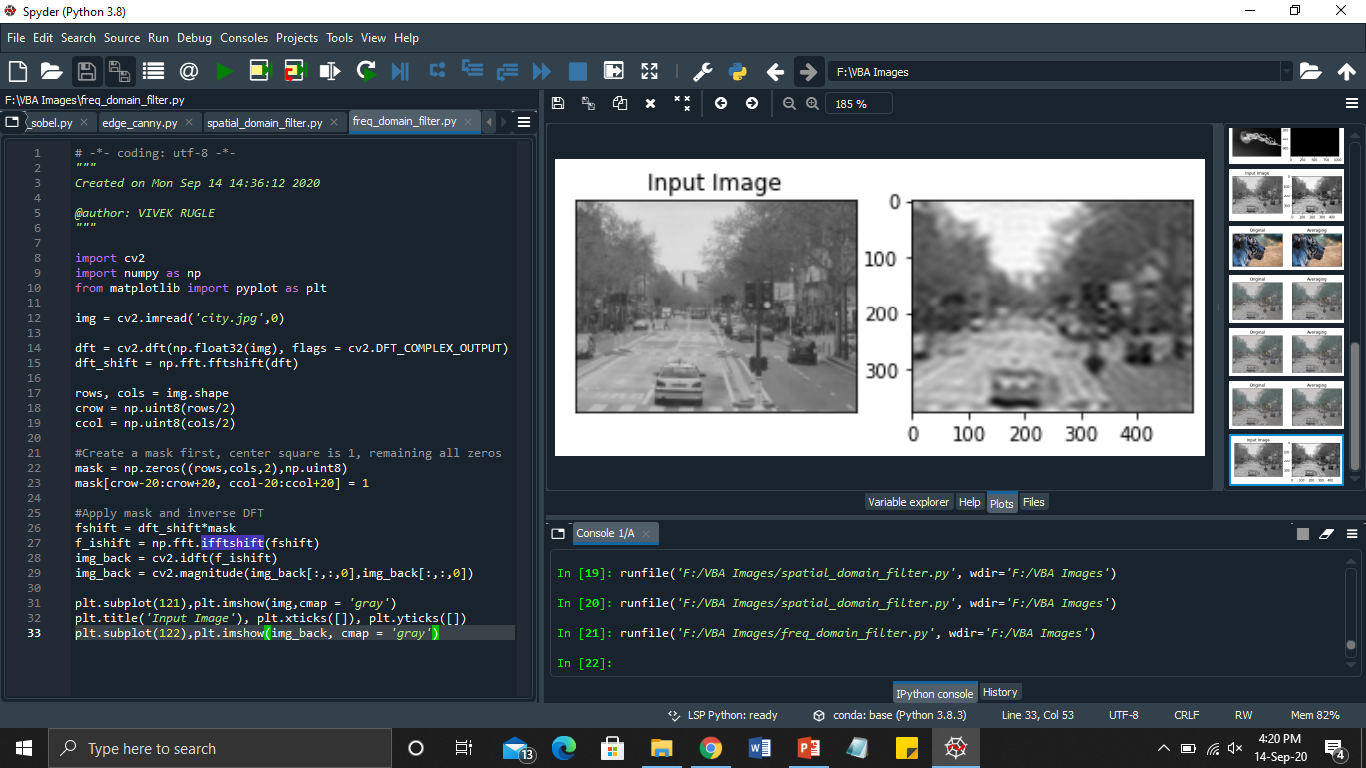


**Lab 5:** Low pass filtering of image

* Spatial Domain

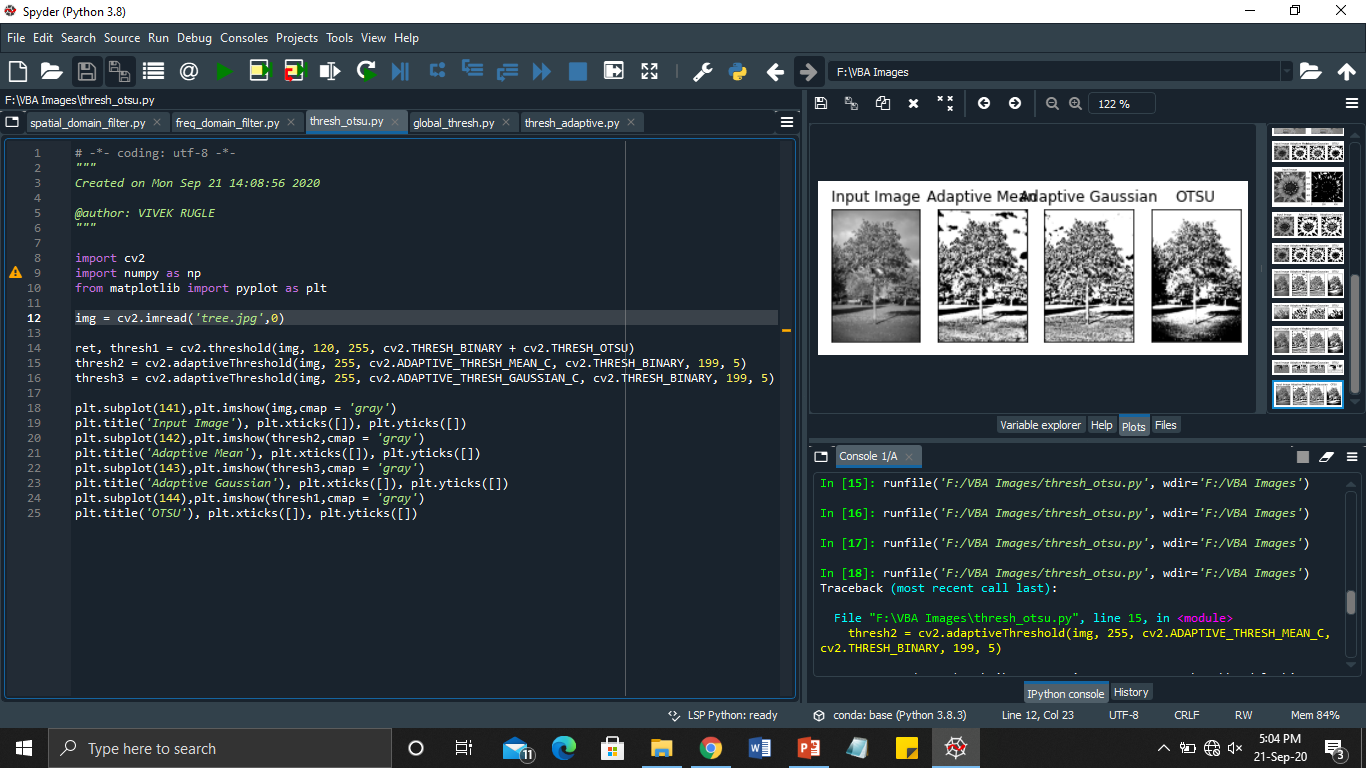


* Frequency Domain

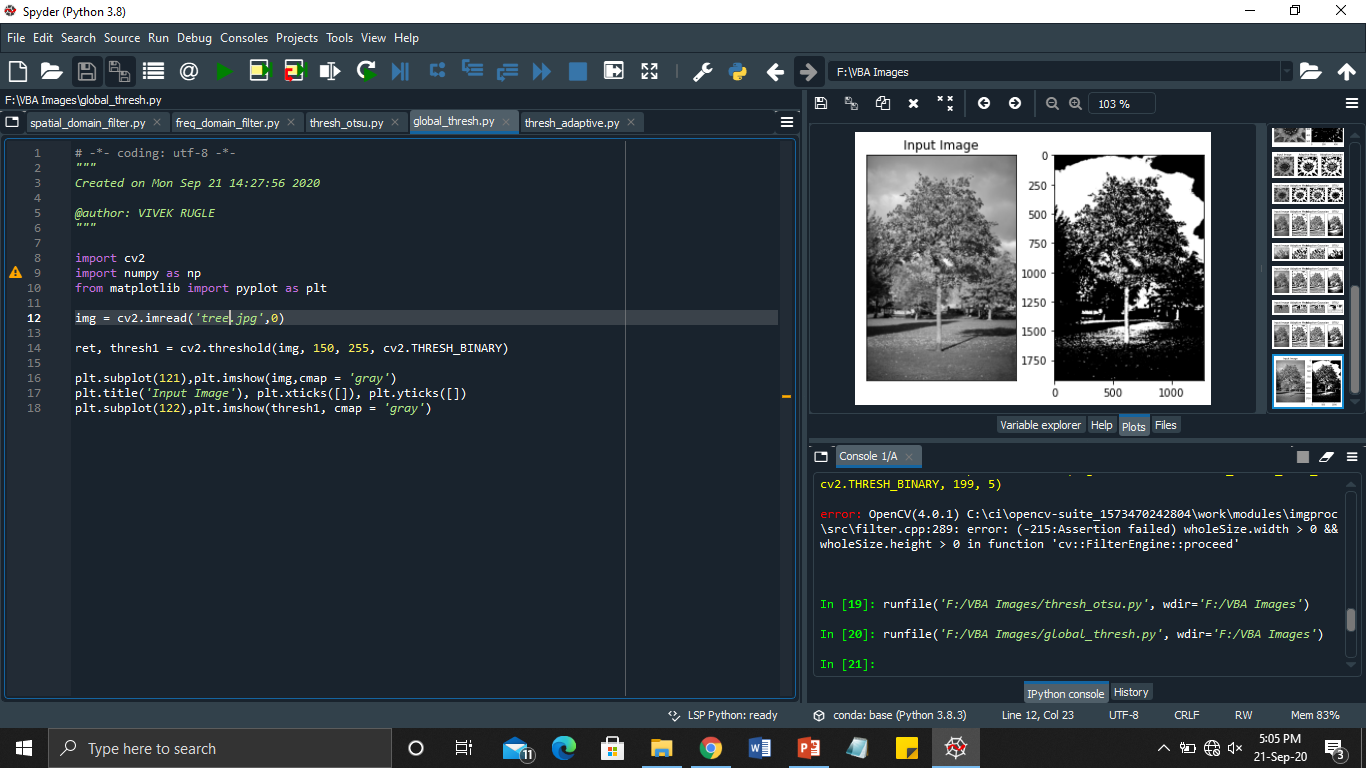


**Lab 6:** Image segmentation using opencv

1. Otsu Thresholding -



* Global Thresholding -

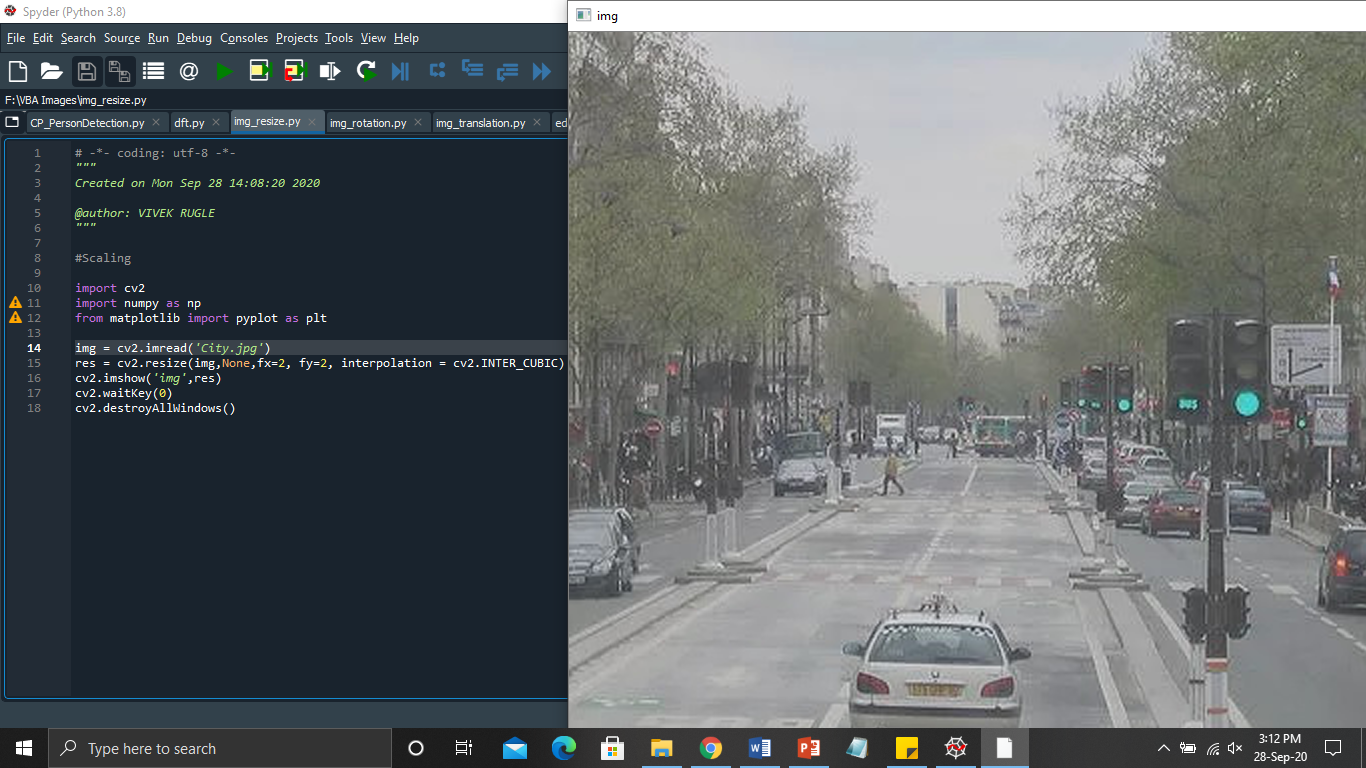


* Adaptive Thresholding

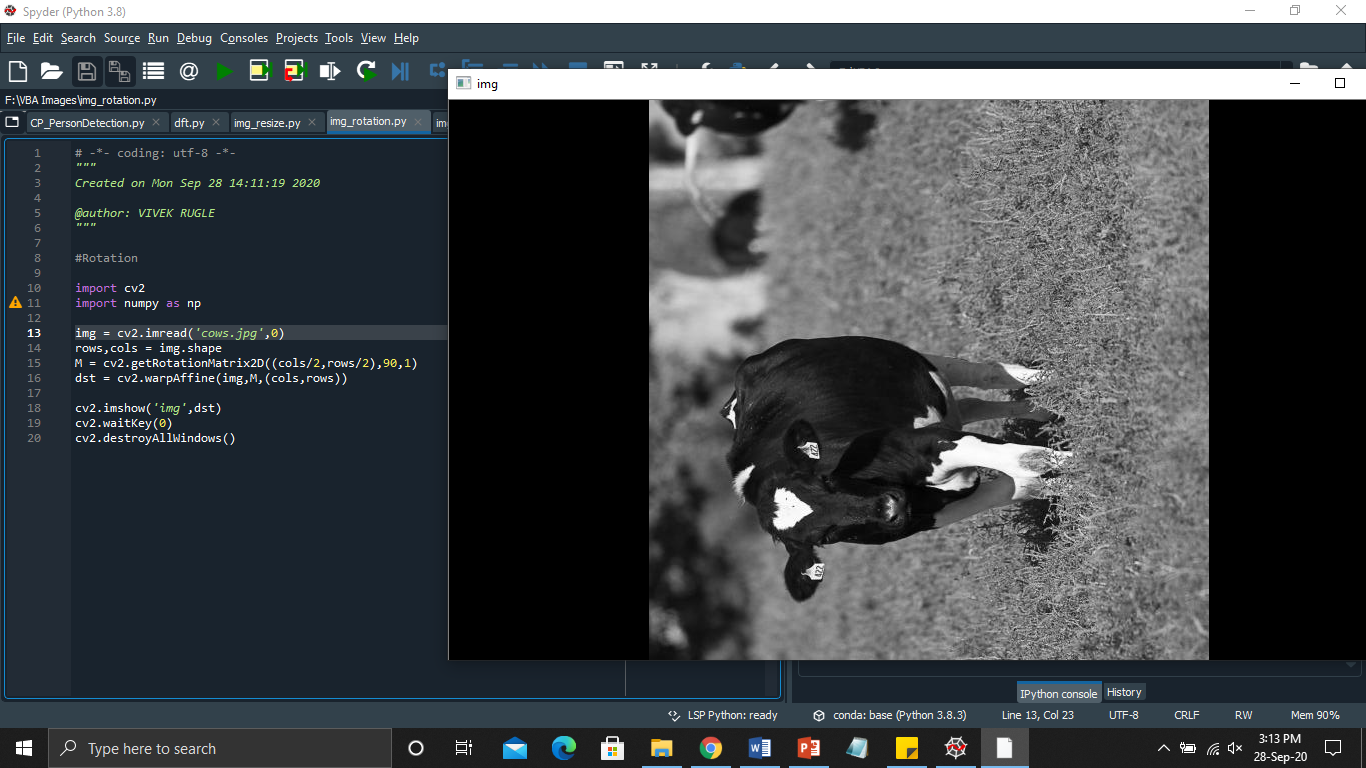


**Lab 7:** Scaling, rotation and translation of image using OpenCV

* Scaling -



* Image rotation -



* Image translation -

