Advanced Programming
Homework 3
Due: December 18 by 23:59pm

Note: You can work in a group of at most two students.

This is a single phase homework assignment. Please do the following:

1) Open a jpeg (jpg) file (color or gray scale image) save it as text based type 2 or 3 file with the same name as the original file name.
2) Create 6 tabs in your gui application. And show the following in each tab:
    1. The original image
    2. The grayscale image (if the original image is a gray scale image) of the original image.
    3. The binary image (the black and white image) of the original image. Use a global threshold value so that pixels that are greater than the threshold value become white and those smaller become blak.
    4. Find the horizontal projection of the binarized image (as we discussed in class). Show it on your tab (do not use any library for that).
    5. Find the vertical projection of the binarized image (as we discussed in class). Show it on your tab (do not use any library).
    6. I am providing a license plate for you. Using (4) and (5) to find the characters (digit and letters) in the license plate and put a red box around them.

Deliverables:

1) Your project folder with your source code.
2) Screenshots included for all tabs.
3) A readme.txt file that explains what you have accomplished or troubles you have had. If you are working in a group of 2 people, please include them in your readme.txt file.