Assignment 1
(Due Jan 28 Sunday 11:59pm)

Requirements:

_____background removal_____

1. Read one of your own photo as the test image. (Convert color image into grayscale image if necessary)
2. Design and generate a mask image with same dimension of the test image. Show your mask image and save it (e.g. using "imwrite()") for submission.
3. Remove the background part (any part you do not want to keep) of your test image using the mask image.

You could change the test image pixel value according to the mask image pixel value. You could also use image subtraction, pixel value multiplication etc. As long as you could remove the background part using your own program, it is accepted.

_____image enhancement_____

4. Perform basic image pixel value analysis of your test image, such as maximum pixel value, minimum pixel value, average pixel value and histogram shape/range of the test image. **Analyze the existing problem of your test image using the basic statistic features you get. (Be sure to include your analysis in your report.)**
5. Apply different image enhancement tools on the test image (or on the test image after background removal). Show the results you get by applying each enhancement tool.
6. Select the best enhancement result and write out your analysis and conclusion.

Submission:

1. Your report (include the figures, discussion of your enhancement tools, your analysis and your conclusion.)
2. A compressed (e.g. "zip or rar") file including all the code files and source images, output images.

Some Note for you:

1. **Example code in blackboard/content/assignment.**
2. **There are no "perfect tool" in image processing. The ability to analyze a real problem and applying your knowledge is definitely more important than simply solving it.**