Instructions

- Turn in your completed tutorial from Part 2, source code from Part 3, and both pairs of images (source & result) in class.
- Email your Matlab source code and results (attach as a zip file) to obeijbom@cs.ucsd.edu with the title CSE152 Assignment 0.

Description

The purpose of this assignment is to gain some familiarity with Matlab programming. Matlab is intuitive and easy to use! Even if you do not understand a command or a feature of the language, you can simply consult the reference manual that comes with the program.

Part 1

Visit the cse152 discussion board and sign up at http://www.piazza.com (search for “University of California, San Diego” -> “CSE 152”). This will be used to answer questions regarding the course. If you are unable to join piazza because you don’t have a UCSD email, email obeijbom@cs.ucsd.edu

Part 2

Complete Matlab tutorial found at: http://cseweb.ucsd.edu/classes/wi13/cse152-a/hw0/matlab_intro.m. Print out the Matlab tutorial portion of the assignment, check each section off once you have completed it. You should not turn in any Matlab output.

Part 3

Using your new found Matlab skills, write a program that does the following:

- Read in an image.
- Resize the image to 256 x 256 pixels using bilinear interpolation.
- Tile the image to form 4 quadrants where
  - The top left quadrant is the original image
  - The top right is the green channel of the original image (other channels set to zero)
  - The bottom left is the red channel (other channels set to zero)
  - The bottom right is the blue channel (other channels set to zero)

Test your program with the given image flag.jpg. Your program should be short (5 to 10 lines), and your
result should match Figure 1. Then, write a short paragraph explaining your results. Does your program produce the correct output? Does the red/ green/ blue channel separation make sense?

![Figure 1: Result for flag.jpg](image)

Finally, try running your program with a picture of yourself! (Note that if your image dimensions are not square, the resulting picture may be distorted, so you may want to crop the image appropriately). Turn in a copy of the source image and the final result with the assignment.