ENGR 0012 – Spring 2019
HW 4

Acceptable behaviors for this assignment include:

- Consulting your textbook or other written material
- Asking your team members
- Asking your professor or TA

Note that consulting materials and asking others is only acceptable as long as they do not provide you with the solutions – you have to come to the solution on your own!

Unacceptable behaviors for this assignment include:

- Copying the solution(s) from a solution manual, book, other written material, or from other students
- Copying the solutions(s) from assignments submitted in previous semesters
- Providing the solutions to a classmate, student in other section, student in future section, or online solution banks
- Asking someone to complete the assignment for you

You will be creating a MATLAB script that will do the tasks described below. But first, you need to do the following:

- First step: Create a flowchart of your program. You will be submitting this electronically, so please go to www.draw.io or use any flowchart software of your choice. Please include a text box with your team number and team member names at the top.
- Second step: Include a line of code so that the first thing your program displays is this sentence: "We in team (TeamNumber), (Team Member Names), certify that we have completed this assignment in an honest manner." (For example: "We in team L01 (Francisca, Gomy, and Jack-Jack) certify that we have completed this assignment in an honest manner."). Your assignment will not be graded if this statement is missing.

Topic: Image manipulation

Things you will need:

- Uncompressed directory of images placed within MATLAB working directory (provided on CourseWeb as a zip file)
- loadphoto.m script to load all images and their file names

Images provided:

Each image is a single channel (Red, Green, or Blue) representation of an image. Example: Image titled '1B.jpg' is Blue channel of Image 1. '1R.jpg' is Red channel of Image 1. And so on.

Instructions:

- Load all nine files (you may use the provided function). If using the provided function, review the output of the function and the order of image files stored inside the output.
- Combine the three-color channel per image into a single 3-dimensional array representing an RGB image i.e. image_file(d1,d2,d3) where d1 is number of rows of pixels, d2 is number of columns of pixels, and d3 is the color channel for the space represented by d1, d2. Red channel is at location: image_file(:,:,1), green at image_file(:,:,2), and blue at image_file(:,:,3).
- Concatenate the three images created in the above step to create a single panoramic image.
- For maximum possible score please format your code for easy review, include comments explaining your code, and use appropriate variable names. Please note the file naming convention and use of .zip file.

Include a comment with your team number and team member names at the top.
Include comments, indentation, and whitespace so that your program is neat and understandable to anyone who reads it.

This is a group assignment. You need to submit the flowchart and the m-file. Do not submit any images. Name your files **InstructorLastName_ClassTime_HW4_TeamNumber**. For example, if you are in Dr. Mandala's 10am class, you should name your files Mandala_10am_HW4_Team5. Then, place your m-file and flowchart in a folder, and name your folder the same way.

You will need to submit a zipped folder. To do this, follow these steps: (1) Right click on the folder, go to "Send to", then "Compressed (zipped) folder" (see Image 1), (2) Name your zipped folder the same way you named your regular folder (**InstructorLastName_ClassTime_HW4_TeamNumber**).

Incorrect file formats and/or incorrect file naming will result in point loss.

Upload the zipped folder through your class computer using the official file submission link (found on the desktop of class computers in GSCC 138 or BEH 229 at the beginning of the class when this assignment is due).

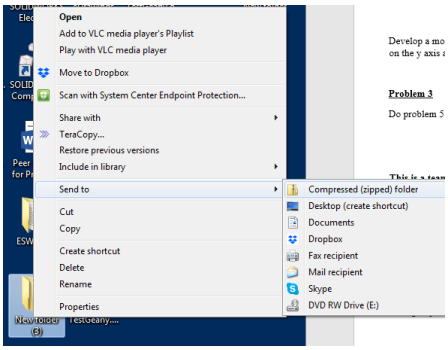

Image 1