LabWork #4
MAT 116E-Advanced Scientific and Engineering Computing (MATLAB)
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Main Task

Given a two points x_1 and x_2 in a real vector space, a convex combination of these points is a point of the form

$$x = \alpha x_1 + (1 - \alpha)x_2$$

where the real number $\alpha \in [0, 1]$.

By investigating *imread*, *image* and *uicontrol* functions, write a MATLAB code which reads two images (You can use builtin demo images of MATLAB like `'peppers.png'` and `'tape.png'`), takes α value from the user by **SLIDER** to create the third picture which is a convex combination of these pictures and plots the third picture. So, at the end you should have such kind of a sample program as it is in Figure 1.

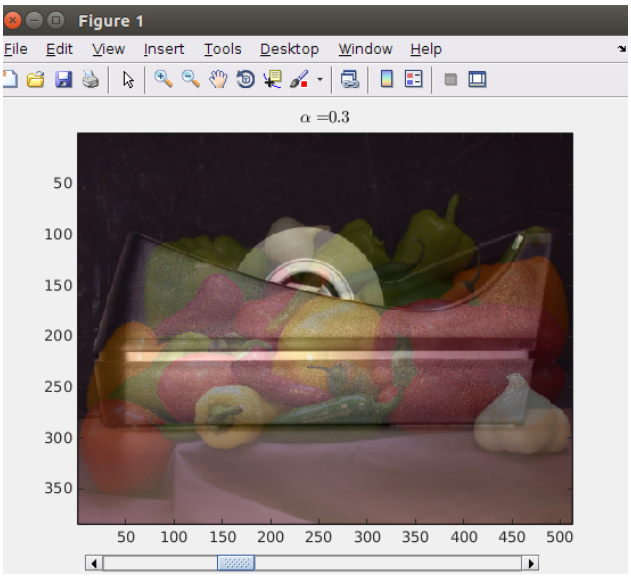

Figure 1: Screenshot of a Sample Program.

NOTE: If the image sizes are not compatible, use the min function to find the minimum number of rows and columns as it is described in the lecture.

Submission Information

Any LabWork submitted after class will be subject to a 20-point deduction per 24 hour period. Extensions should be requested at least 3 days in advance and will only be granted for exceptional reasons (e.g., conference submission). You may work with your friends. Collaboration is strongly recommended. However, each student should be able to present his/her program.