**Code Documentation for Program 3**

Part 1: (There are no images to display because the figure that pops up is just a black box-due to graphics issue and a limit of 8 bit pixels)

1. Open the images from the text file using the function **fopen**
2. Read in the images using the function **textread**
3. Set variable **r** to the rows of the text file
4. Create a **for loop** which loops through the rows of the text file
5. For each item the loop goes through it will: append the images so that they are seen as images rather than text files using the function **strcat**, then we reshape each image into a matrix using the function **reshape** and finally, we change each images color map to grey using the function **colormap**.
6. We then end the for loop.
7. Next we compute the average of the images using the **mean** function.
8. We then, compute the covariance of the matrices.
9. After that, we iterate through the pictures in an **for loop** and **if statement** and if it is equal to 0, it will not store the picture.

Part 2: Not finished

Part 3: Not finished