ASSIGNMENT - 4
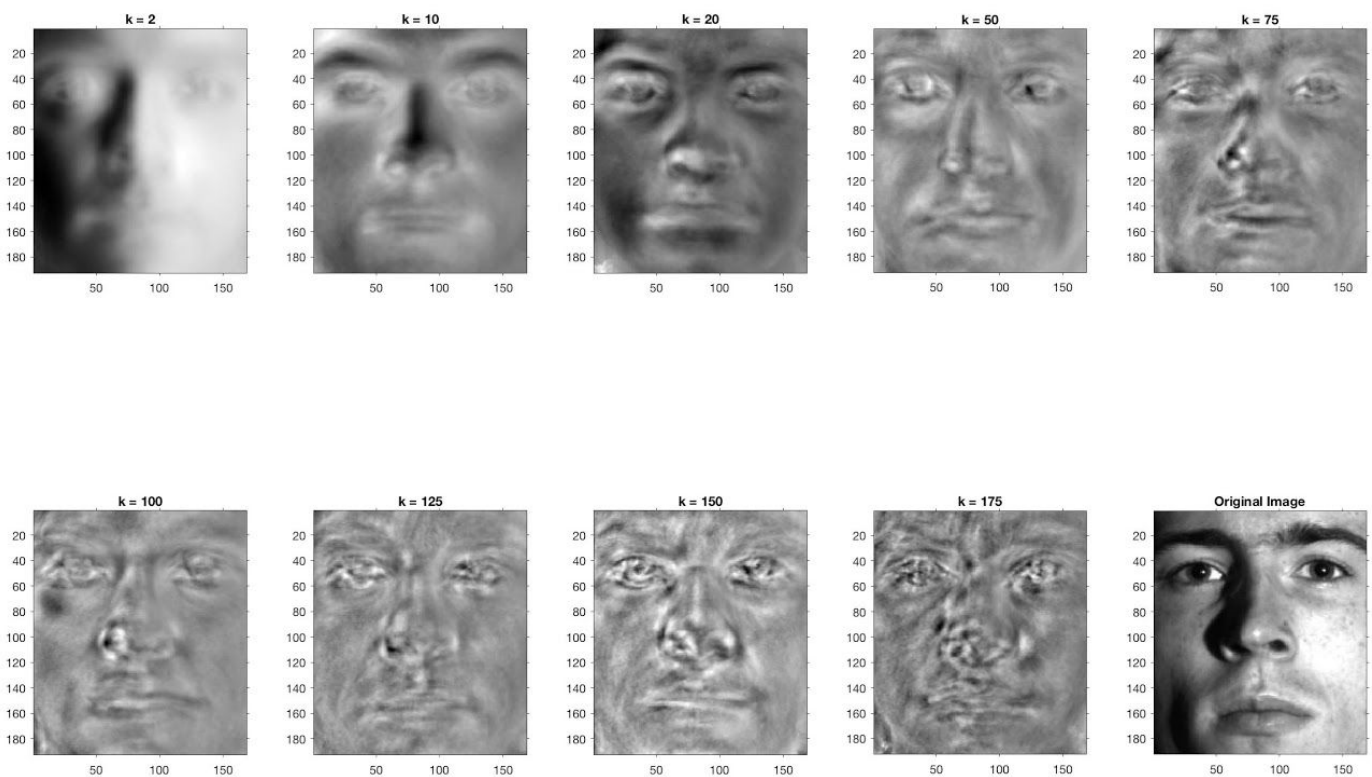
QUESTION - II

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Reconstructing the image **yaleB29_P00A-025E+00.pgm** from k = {2, 10, 20, 50, 75, 100, 125, 150, 175} values, the following images were obtained :

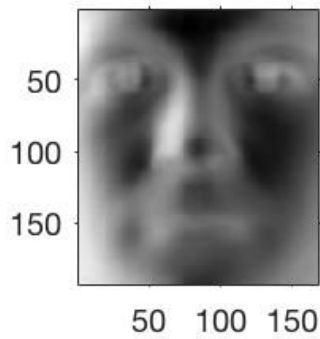As the value of k increases, the image is seen more clearly with edges and proper texture. This is due to the fact that smaller eigenvalued eigenvectors containing high frequency components which cause sharp features in an image such as edges, corners etc.
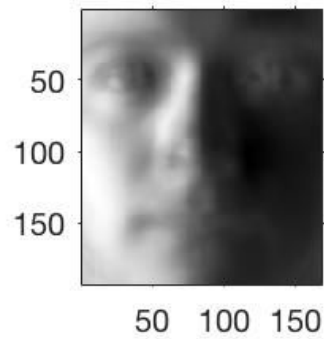
The next part involved plotting the first top 25 eigenvectors, the obtained subplot is shown below :
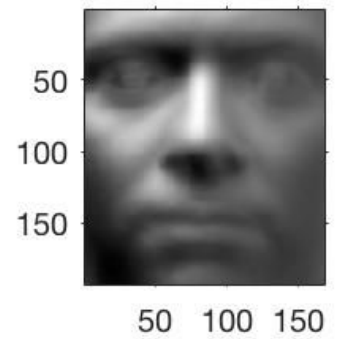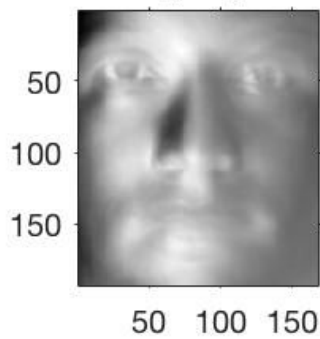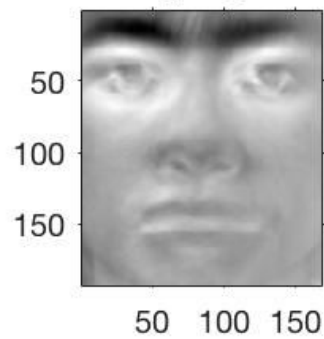
Eigenvectors k = 1 to 10 :
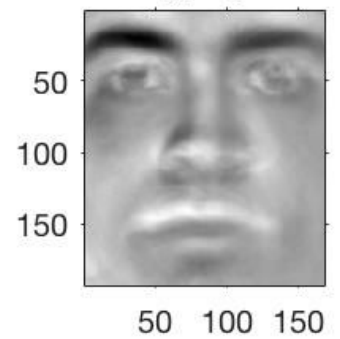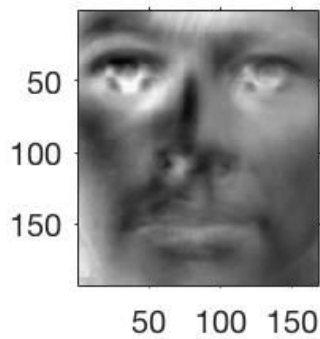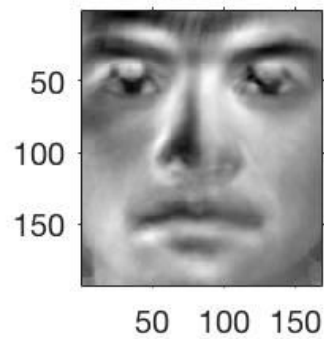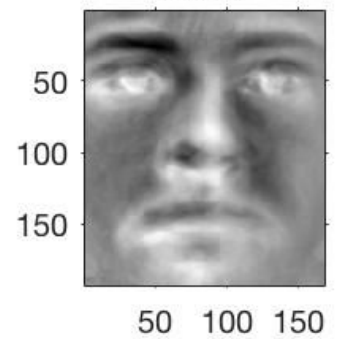
Eigenvectors from k = 10 to 25 :