In this project you will implement dimensionality reduction using PCA with Eigen decomposition.

1). Read iris_dataset.cvs (4 features)

2). Find the principal components

3). Reconstruct the data set (X_hat)

4). Determine the accuracy of X_hat with 1 PC and 4 PCs using the LDA classifier

You must code the PCA algorithm yourself, but you may use *off-the-shelf* library functions such as `np.mean, np.cov` etc

Upload your *iPython* code.

Discussing this project with other students is highly recommended but you have to submit your own solution.