KNN + SVM + Naive Bayes + PCA - Class Assessment

[Time: 4 hrs]

[Total Marks: 100]

	For the given 'Wine' dataset, perform the following tasks:	**Marks**
Q.1	Compute and plot those feature which are related to each other?	**[15]**
Q.2	What are the optimum number of principal components in PCA?	**[10]**
Q.3	Build a KNN classifier considering optimal number of principal components and value of K and state its score.	**[20]**
Q.4	Build a SVM Classifier and tune the hyperparameters to get the optimum model.	**[20]**
Q.5	Build a Naive Bayes Classifier and comment about its accuracy.	**[20]**
Q.6	Compare all of the models and justify your choice about the optimum model.	**[15]**