Brandon Quant
COEN 140
Lab 3 Report

In this lab, I ran the LDA and QDA models. I first trained the model using the training data and the correct attributes for each flower. Then I tested the model on the testing data and recorded the training errors for both the training and testing data. I did the training and testing for both LDA and QDA.

Features Selected	LDA Training Data Error Rate	LDA Testing Data Error Rate	QDA Training Data Error Rate	QDA Testing Data Error Rate
All Attributes	0.025	0	0.0167	0
Without Sepal Length	0.0167	0	0.025	0
Without Sepal Width	0.025	0	0.0167	0
Without Petal Length	0.0583	0	0.04167	0
Without Petal Width	0.04167	0	0.0583	0

Are any of the variables not important in classifying iris type? Explain your answer based on your experiments.

The sepal width variable is not important in classifying because based on the results, the error rates for the model without the sepal width attribute and the model with all attributes are the same. Also, the sepal length attribute is not as important as the petal length and petal width attributes. The error rates for the model without sepal length are only slightly off from the error rates for the model with all attributes while when taking out the petal length and petal width attributes, we get much higher error rates for these models.