Report Assignment 1 Machine Learning

Since this dataset contains 1024 rows but in column, we need to separate into 1024 columns. Then, we need to train the data set by using validation 80 for train and 20 for test. Lastly, we can see that the result is 0.08727070594774874 which has small error with 91.27% accuracy for this test. This model results shows good accuracy and high performance for predict some case, with the less error percentage in this model.

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Test error rate: 0.08449138410227905

0.9155086158977209
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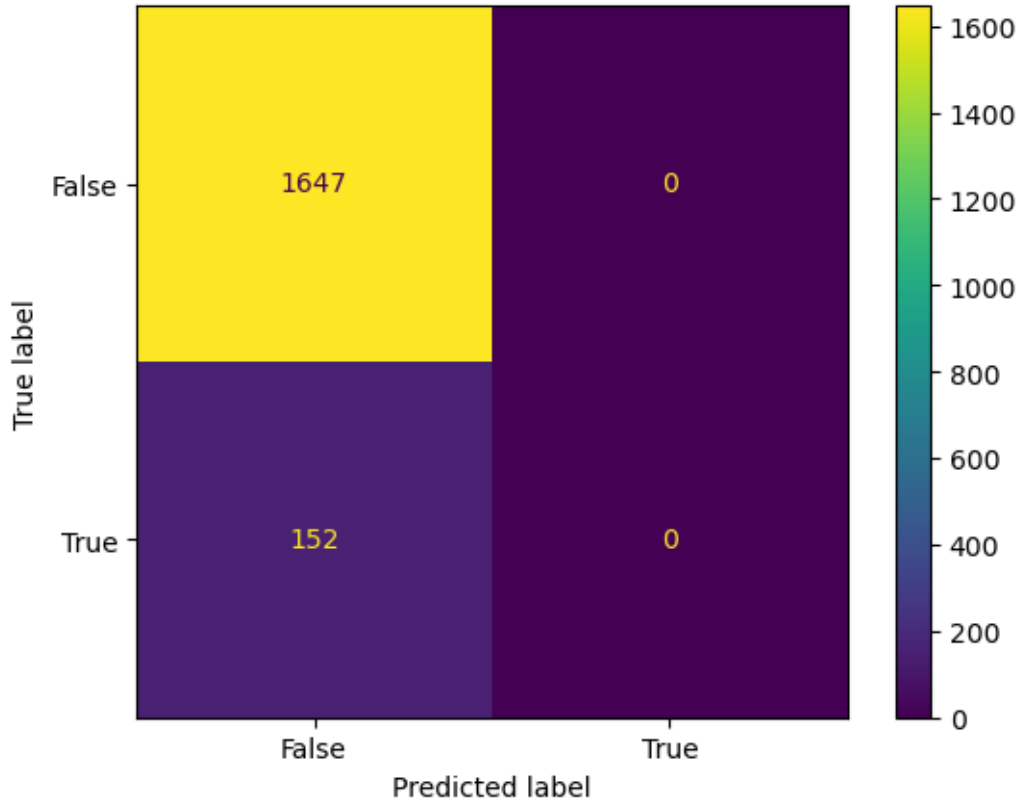
The picture above shows accuracy and test error rate for this model.

As we can see, the model has predicted 1647 from 1799 which are correct means that the model also has fail to predict correct but from accuracy we can assure that is a good model because it has good performance quality.



The graph above shows confusion matrix and there are four different quadrants.

LDA or QDA is not suitable for this dataset because they are sensitive outlier and can affect decision boundaries plus classification accuracy by distorting estimations of covariance. Since the data is contains of binary classification, the logistic regression is quite performing between those LDA and QDA.