Assignment

Implement a linear and quadratic discriminant classifier. As before, for each classifier use year 1 labels as training set and predict year 2 labels. For each week, your feature set is (μ, σ) for that week. Use your labels (you will have 52 weekly labels per year) from year 1 to train your classifier and predict labels for year 2.

Questions:

1. what is the equation for linear and quadratic classifier found from year 1 data?
2. what is the accuracy for year 2 for each classifier. Which classifier is "better"?
3. compute the confusion matrix for year 2 for each classifier
4. what is true positive rate (sensitivity or recall) and true negative rate (specificity) for year 2?
5. implement trading strategyies based on your labels for year 2 (for both linear and quadratic) and compare the performance with the "buy-and-hold" strategy. Which strategy results in a larger amount at the end of the year?