**NAME:** Yashvardhan Udia **NETID**: yudia2

**CLASSIFIERS COMPARISON**

Sklearn and numpy are used here to train *multilayer perceptron* and *logistic regression* models on the corpora. High/low essays are separated. Test and training sets are developed by using these separated essays in a 20:80 split and the 80% training set has proportional high/low essays. Binary mapping is done in high for 1 and low for 0. F1 scores are then calculated and accuracy is reported.

Random state=42 is used to keep consistency in all randomized usages.

The accuracy of these models is quite high compared to the formula provided.

F1 Accuracy using different classifiers:

Multilayer Perceptron accuracy:0.85

Logistic Regression accuracy:0.90

Our model: 0.7 – 0.8

A reason for low accuracy for my model is due to a lack of enhanced mechanisms used in the grammatical error detection, particularly, sentence well-formedness. This criterion is very useful but needs a detailed/convoluted implementation which might help increase and even surpass the classifiers.  
  
NOTE: The code takes a few seconds to a minute to run as the classifiers are now included.