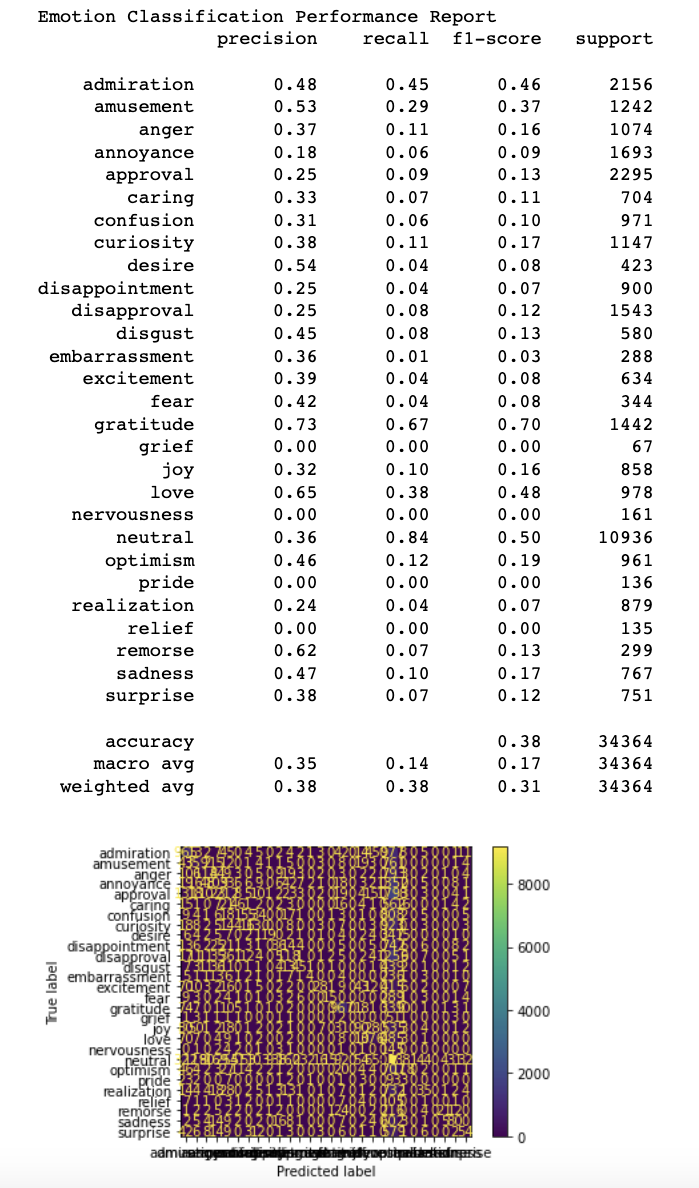
**Word as Features - Performance Report**

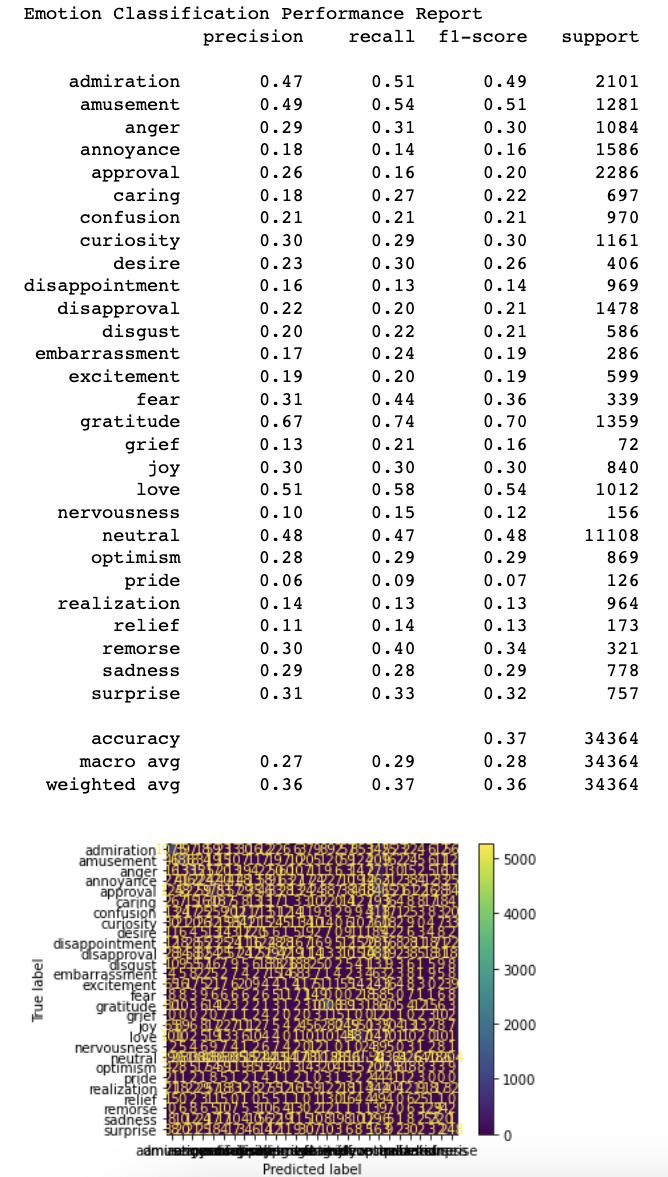
**Emotion Classification**

Naive Bayes Classifier

Base Model – {alpha = 1.0}

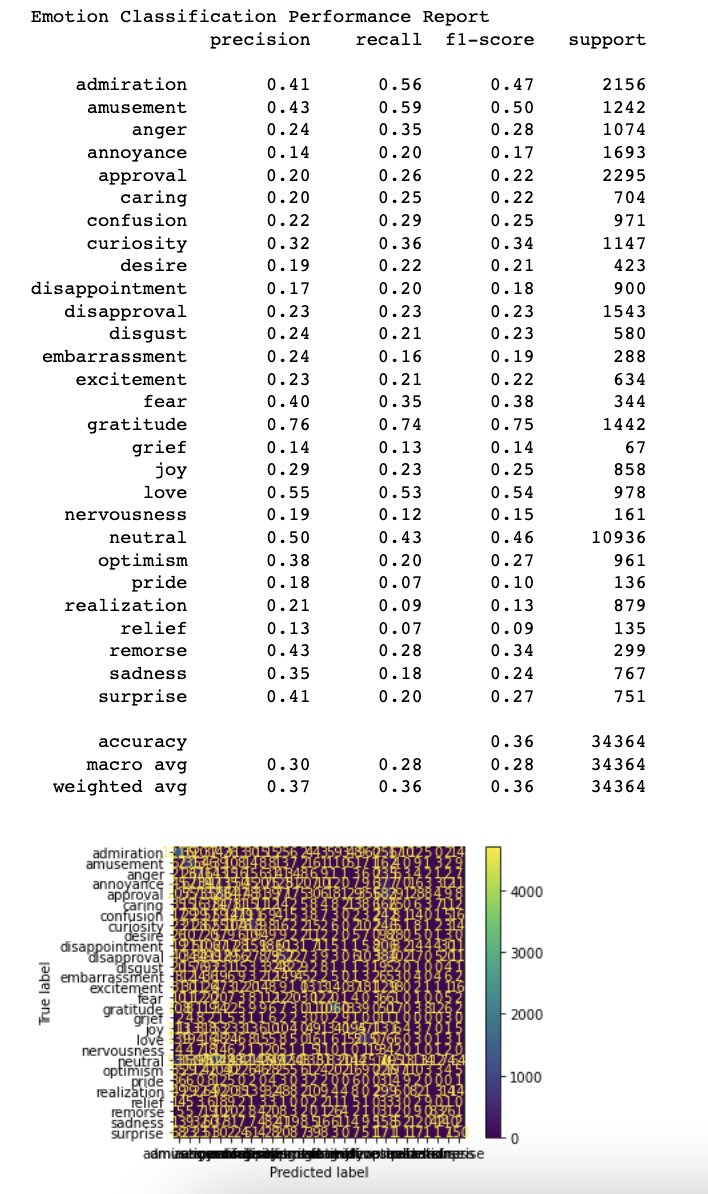


Optimized Model – {alpha = 0}

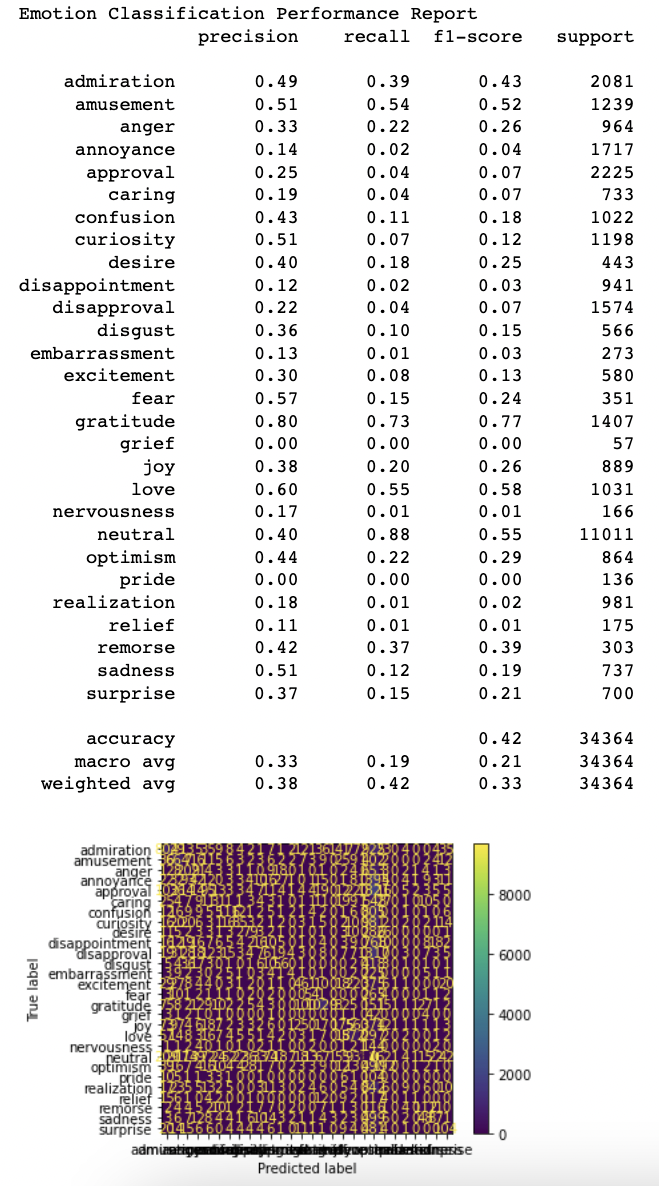


Decision Tree Classifier

Base Model – {criterion: “gini”, max\_depth: None, min\_samples\_split: 2}

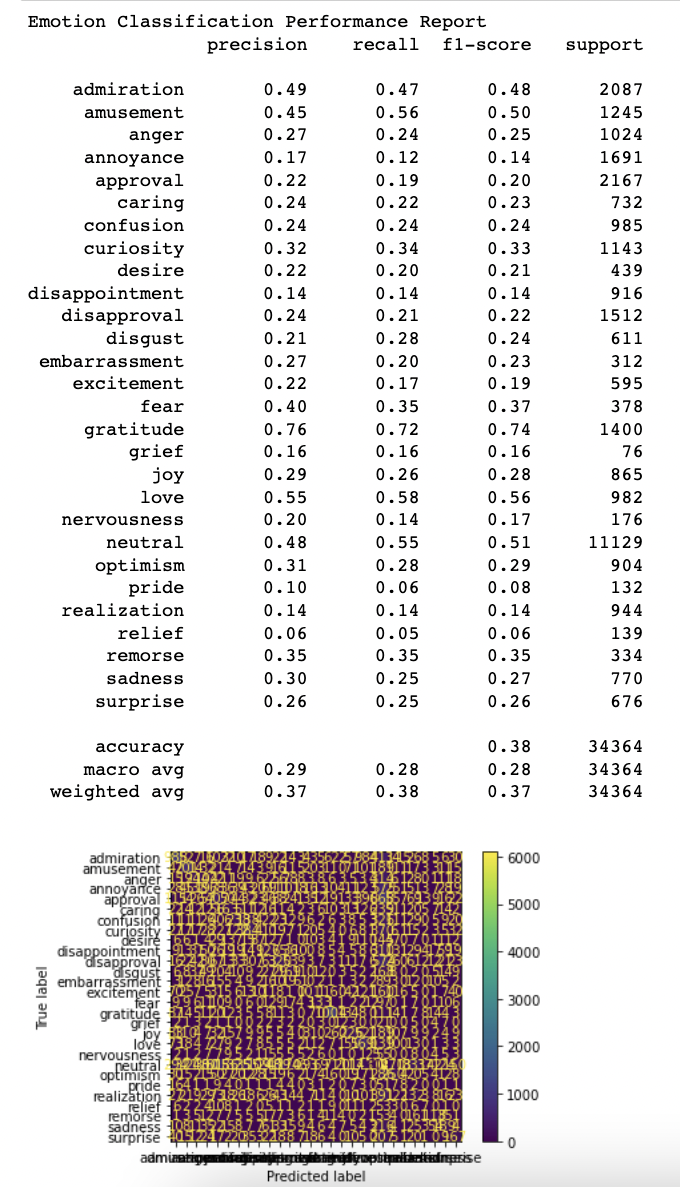


Optimized Model – {criterion: “gini”, max\_depth: 50, min\_samples\_split: 2}

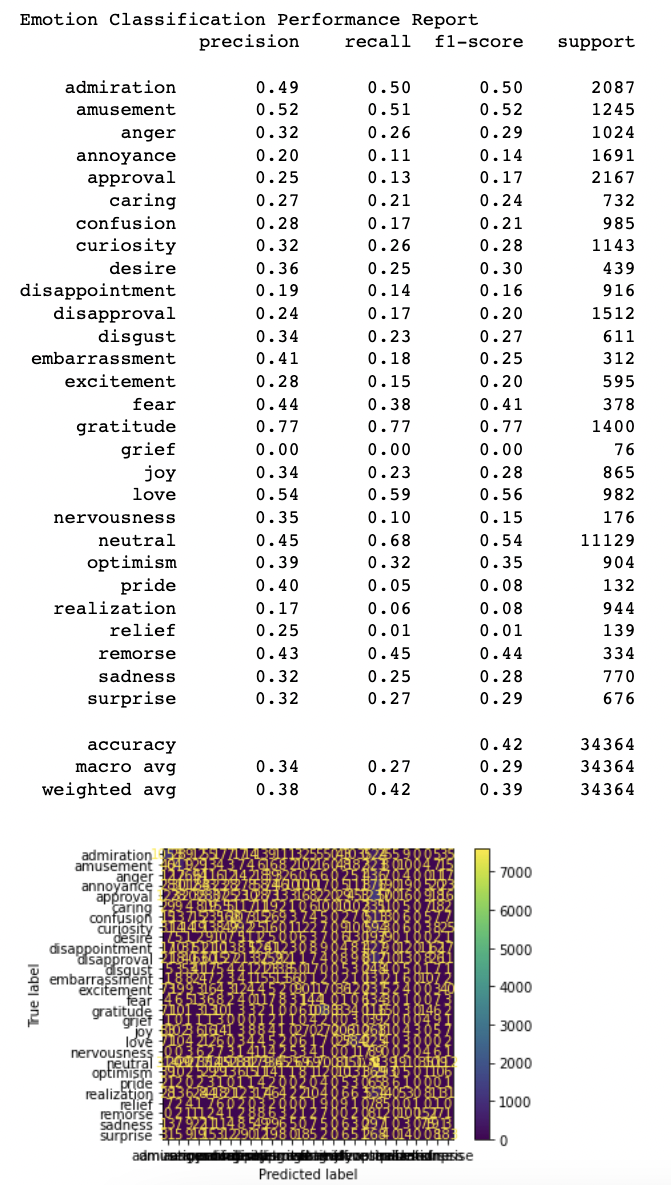


Multi-Layered Perceptron Classifier

Base Model – {activation: ‘relu, hidden\_layer\_sizes: (100,), solver: ‘adam’}



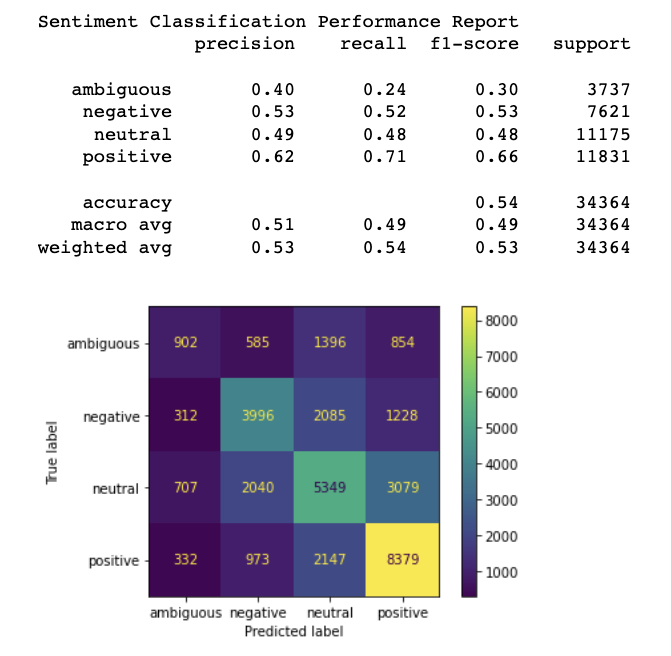
Optimized Model – {activation: ‘tanh, hidden\_layer\_sizes: (30,50), solver: ‘sgd’}



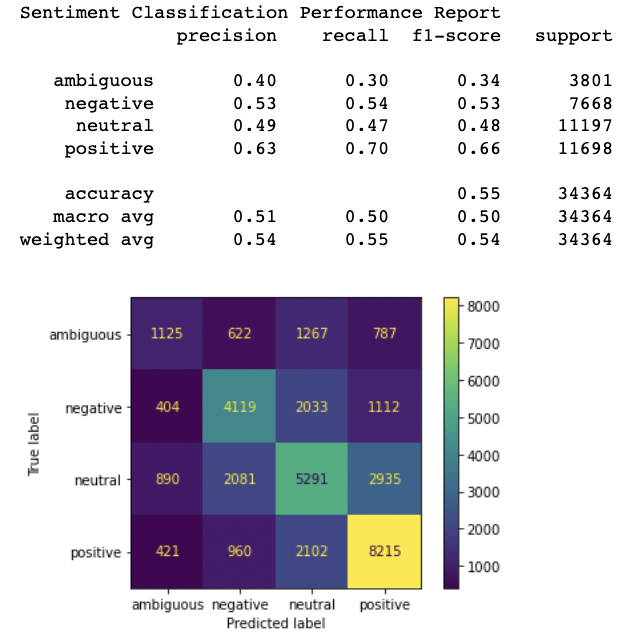
**Sentiment Classification**

Naive Bayes Classifier

Base Model – {alpha = 1.0}

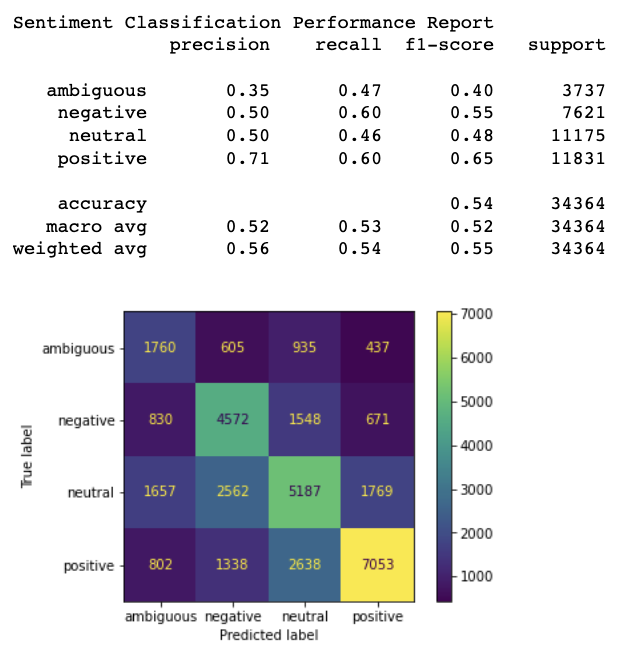


Optimized Model – {alpha = 0.5}



Decision Tree Classifier

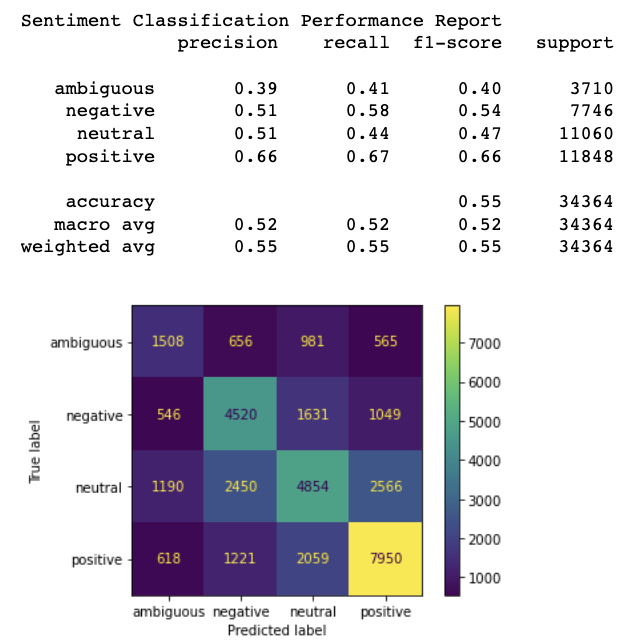
Base Model – {criterion: “gini”, max\_depth: None, min\_samples\_split: 2}



Optimized Model – {Same hyperparameter configuration as base model}

Multi-Layered Perceptron Classifier

Base Model – { activation: ‘relu, hidden\_layer\_sizes: (100,), solver: ‘adam’}



Optimized Model – {activation: ‘relu’, hidden\_layer\_sizes: (30,50), solver: ‘sgd’}

