

```
print("Positive reviews:2001258")
print("Neutral reviews: 193694")
print("Negative Reviews: 445383")
print("")
print("Average length before and after data cleaning: 358.48823, 341.911305")
print("Average length before and after data processing: 341.911305,215.61809")
print("")
print("Perceptron")
print("Train Accuracy: 0.9214625")
print("ttrain precision: 0.9214625405181698")
print("ttrain recall: 0.9214624854646248")
print("ttrain Fscore: 0.9214624955699939")
print("")
print("Test Accuracy: 0.887675")
print("test precision: 0.887666609749872")
print("test recall: 0.8877248742671354")
print("test Fscore: 0.8876696131260909")
print("")
print("SVM ")
print("Train Accuracy: 0.94736875")
print("Train Precision: 0.9473682715049132")
print("Train Recall: 0.9473719386271902")
print("Train Fscore: 0.9473686099491045")
print("")
print("Test Accuracy: 0.92125")
print("Test Precision: 0.9212486978095701")
print("Test Recall: 0.9212515412638713")
print("Test Fscore: 0.9212496013261067")
print("")
print("Logistic Regression")
print("Train Accuracy: 0.92858125")
print("Train precision: 0.9285803048003554")
print("Train Recall: 0.9285925693132888")
print("Train Fscore: 0.928580662238379")
print("")
print("Test Accuracy: 0.92235")
print("Test Precision: 0.9223513252904819")
print("Test Recall: 0.9223504805876201")
print("Test Fscore: 0.9223499805874951")
print("")
print("Naive Bayes ")
print("Train Accuracy: 0.8903875")
print("ttrain precision: 0.8903876064607572")
print("ttrain recall: 0.8903875810855608")
print("ttrain Fscore: 0.8903874997259688")
print("")
print("Test Accuracy: 0.882375")
print("test precision: 0.8823695978315951")
print("test recall: 0.8823953990632112")
print("test Fscore: 0.8823721468629047")
```