

When random state = 3000

Algorithm	Accuracy	Precision
GaussianNB:	0.88042203985932	0.5414364640883977
MultinomialNB:	0.9513481828839391	1.0
BernoulliNB:	0.9654161781946072	0.9781420765027322
LogisticRegression:	0.9419695193434936	0.8857142857142857
SVC:	0.9736225087924971	0.9655172413793104
DecisionTreeClassifier:	0.9337631887456037	0.8071065989847716
KNeighborsClassifier:	0.8921453692848769	1.0
RandomForestClassifier:	0.963071512309496	0.9942196531791907

max_feature = 3000

Algorithm	Accuracy	Precision
GaussianNB:	0.8786635404454866	0.536986301369863
MultinomialNB:	0.9712778429073857	0.9894179894179894
BernoulliNB:	0.9736225087924971	0.9701492537313433
LogisticRegression:	0.9472450175849941	0.9044943820224719
SVC:	0.9794841735052755	0.9715639810426541
DecisionTreeClassifier:	0.9372801875732708	0.850828729281768
KNeighborsClassifier:	0.9015240328253223	1.0
RandomForestClassifier:	0.9706916764361079	0.9842105263157894

- Voting classifier: 0.9712778429073857, 1.0, estimators=[('knc', knc), ('mnb', mnb), ('rfc', rfc), ('svc', svc)], voting='soft'
- Voting classifier: 0.9660023446658851, 1.0, estimators=[('knc', knc), ('mnb', mnb), ('rfc', rfc), ('svc', svc)], voting='hard'
- Voting classifier: 0.9783118405627198, 1.0, estimators=[('knc', knc), ('mnb', mnb), ('rfc', rfc), ('svc', svc), ('bnb', bnb)], voting='soft'
- Voting classifier: 0.9765533411488863, 1.0, estimators=[('knc', knc), ('mnb', mnb), ('rfc', rfc), ('svc', svc), ('bnb', bnb)], voting='hard'
- Stackingclassifier: 0.9783118405627198, 1.0, estimators=[('knc', knc), ('mnb', mnb), ('rfc', rfc), ('svc', svc), ('bnb', bnb)], final_estimator=RandomForestClassifier()

Scaling X

Algorithm	Accuracy	Precision
GaussianNB:	0.8774912075029309	0.5333333333333333
MultinomialNB:	0.9800703399765534	0.9672897196261683
BernoulliNB:	0.9736225087924971	0.9701492537313433
LogisticRegression:	0.9618991793669402	0.9470899470899471
SVC:	0.9724501758499414	0.9308755760368663
DecisionTreeClassifier:	0.9384525205158265	0.856353591160221
KNeighborsClassifier:	0.8997655334114889	1.0
RandomForestClassifier:	0.9706916764361079	0.9842105263157894