Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID31563
Project Name	Project – Web Phishing Detection
Maximum Marks	10 Marks

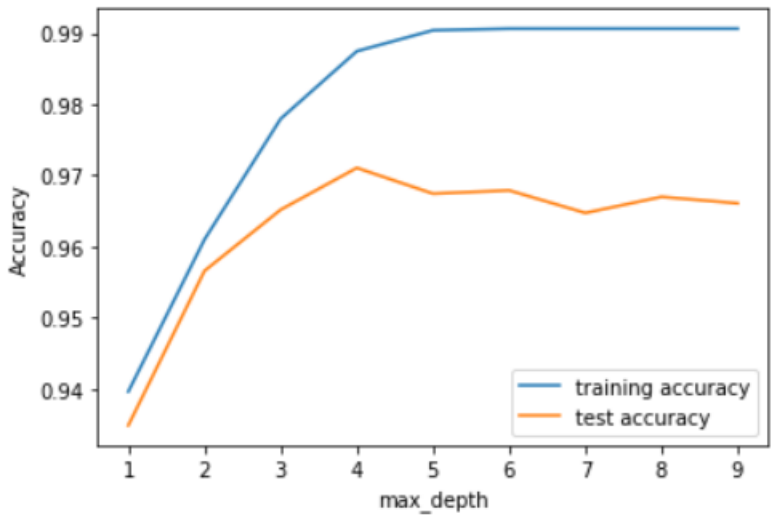
Model Performance Testing:

S.No.	Parameter	Values
1.	Metrics	Logistic Regression Accuracy score = 92.40
2.	Tune the Model	Hyperparameter -Validation Method-

1.Metrics
Classification report

	ML Model	Accuracy	f1_score	Recall	Precision
0	Logistic Regression	0.924	0.933	0.947	0.927
1	K-Nearest Neighbors	0.953	0.959	0.990	0.989
2	Support Vector Machine	0.957	0.963	0.982	0.966
3	Naive Bayes Classifier	0.583	0.420	0.291	0.996
4	Decision Tree	0.959	0.964	0.992	0.991
5	Random Forest	0.966	0.970	0.994	0.987
6	Gradient Boosting Classifier	0.971	0.975	0.992	0.985
7	CatBoost Classifier	0.972	0.976	0.994	0.987
8	XGBoost Classifier	0.548	0.548	0.963	0.947
9	Multi-layer Perceptron	0.559	0.559	0.997	0.978

Performance:



Tune the model:

```
from sklearn.metrics import r2_score
from sklearn.metrics import mean_absolute_error
from sklearn.metrics import mean_squared_error
```

```
print('R Squared=',r2_score(y_test,y_pred1))
print('Mean Absolute Error=',mean_absolute_error(y_test,y_pred1))
print('Mean Squared error=',mean_squared_error(y_test,y_pred1))
```

```
R Squared= 0.690403240594109
Mean Absolute Error= 0.1519674355495251
Mean Squared error= 0.3039348710990502
```