

8.5) Decision Tree

```
from sklearn.tree import DecisionTreeClassifier
dt = DecisionTreeClassifier()
dt.fit(X_train,y_train)
```

8.6) Random Forest

```
from sklearn.ensemble import RandomForestClassifier
rf = RandomForestClassifier(criterion='entropy')
rf.fit(X_train,y_train)
```

Step 8: Making Prediction

9.1) Making Prediction using Logistic Regression

```
lr_pred = lr.predict(X_test)
```

9.2) Making Prediction using KNN

```
knn_pred = knn.predict(X_test)
```

9.3) Making Prediction using Naive Bayes

```
nb_pred = nb.predict(X_test)
```

9.4) Making Prediction using SVM

```
sv_pred = sv.predict(X_test)
```

9.5) Making Prediction using Decision Tree

```
dt_pred = dt.predict(X_test)
```

9.6) Making Prediction using Random Forest

```
rf_pred = rf.predict(X_test)
```

Step 9: Model Evaluation

10.1) Train & Test Scores

```
from sklearn.metrics import accuracy_score

# Train & Test Scores of Logistic Regression
print("Accuracy (Train) score of Logistic Regression ",lr.score(X_train,y_train)*100)
print("Accuracy (Test) score of Logistic Regression ",
lr.score(X_test,y_test)*100)
print("Accuracy score of Logistic Regression ",
accuracy_score(y_test,lr_pred)*100)

# Train & Test Scores of KNN
print("Accuracy (Train) score of KNN ",knn.score(X_train,y_train)*100)
```