EX.NO: 12

DECISION TREE CLASSIFICATION

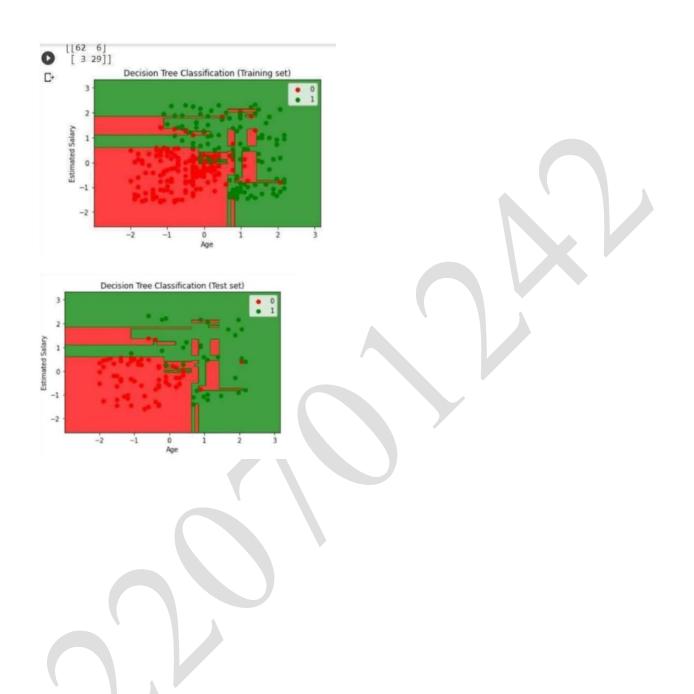
AIM:

To classify the Social Network dataset using Decision tree analysis

Source Code:

```
from google.colab import drive
drive.mount("/content/gdrive")
import pandas as pd import
numpy
                        import
           as
                  np
matplotlib.pyplot as plt
dataset=pd.read_csv('/content/gdrive/My Drive/Social_Network_Ads.csv')
X = dataset.iloc[:, [2, 3]].values y
= dataset.iloc[:, -1].values
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.25, random_state = 0)
from sklearn.preprocessing import StandardScaler
sc = StandardScaler()
X_train = sc.fit_transform(X_train)
X_{test} = sc.transform(X_{test})
from sklearn.tree import DecisionTreeClassifier
classifier = DecisionTreeClassifier(criterion = 'entropy', random_state = 0) classifier.fit(X_train,
y_train)
y_pred = classifier.predict(X_test)
from sklearn.metrics import confusion_matrix
           confusion_matrix(y_test,
cm
                                       y_pred)
print(cm)
```

OUTPUT:



RESULT: Thus the above python code is executed successfully and output is verified.