Ex no: 12. IMPLEMENTATION OF DECISION TREE CLASSIFICATION TECHNIQUES :-

AIM :-

To implement a decision tree classification technique for gender classification using python

EXPLANATION :-

-> Import tree from sklearn.
-> call the function DecisionTreeClassifier() from tree.
-> Assign values for x & y.
-> call the function predict for predicting on the basis of given feature.
-> display the output.

SOURCE CODE :-

```
from sklearn import tree
#Using DecisionTree classifier for prediction
clf = tree.DecisionTreeClassifier()

x = [[181, 80, 91], [182, 90, 92], [183, 100, 92],
     [184, 200, 93], [185, 300, 94], [186, 400, 95],
     [187, 500, 96], [189, 600, 6], [190, 700, 78],
     [191, 800, 99], [192, 900, 100] [193, 1000, 101]]
y = ['male', 'male', 'female', 'male', 'female',
     'male', 'female', 'male', 'female', 'male', 'female',
     'male']
```

```
clf = clf.fit(x,y)
prediction1 = clf.predict([[181, 80, 91]])
prediction2 = clf.predict([[183, 100, 92]])
print(prediction1)
print(prediction2)
```

OUTPUT:-

['male']

['female']

RESULT:-

The program is successfully executed & the output is verified.