Experiment No.: 13 Implementation of Decision Tree classification Techniques

Aim:

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

Source code:

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

# Here the array contains three values which are height, weight and shoe size.

X = [[181, 80, 91], [182, 90, 92], [183, 100, 92], [184, 200, 93],
 [185, 300, 94], [186, 400, 95], [187, 500, 96], [189, 600, 97],
 [190, 700, 98], [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)

# Predicting on basis of given random values for given feature
predictionf = clf.predict([[181, 80, 91]])
predictionm = clf.predict([[183, 100, 92]])

# Printing final prediction
print(predictionf)
print(predictionm)
```

Output: ['male'] ['female']

Result: Thus the program is successfully executed and output is verified.