EX.NO:13

DATE:

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 and Y.
- Call the function to predict for Predicting on the basis of given random values for each given feature.
- Display the output.

SOURCE CODE:

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

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#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]] <math display="block">Y = [\text{'male', 'male', 'female', 'male', 'male', 'female', 'male', 'male', 'female', 'male', 'female', 'male', 'female', 'male', 'male', 'female', 'male', 'female', 'male', 'm
```

#Predicting on the basis of given random values for each 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 to implement a decision tree classification technique for gender classification using Python is successfully executed.