

In [2]: *# Importing required Libraries*

```
import pandas as pd
from tabulate import tabulate
from sklearn.tree import DecisionTreeClassifier
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score
import warnings
warnings.filterwarnings("ignore", category=UserWarning)
```

In [3]: *# Loading the dummy dataset*

```
data = pd.read_csv(r"movie.csv")
```

In [4]: data

```
# 1 representa Male
# 0 represents Female
```

Out[4]:

	age	gender	genre
0	20	1	Action
1	23	1	Action
2	25	1	Action
3	26	1	Thriller
4	29	1	Thriller
5	30	1	Thriller
6	31	1	Drama
7	33	1	Drama
8	37	1	Drama
9	20	0	Animation
10	21	0	Animation
11	25	0	Animation
12	26	0	Romantic
13	27	0	Romantic
14	30	0	Romantic
15	31	0	Musical
16	34	0	Musical
17	35	0	Musical

```
In [5]: # Processing data for out requirement
```

```
X = data.drop(columns=['genre'])  
Y = data['genre']
```

```
In [29]: total = 0  
n=10  
for i in range (0,n):  
    XTrain, XTest, YTrain, YTest =train_test_split(X,Y,test_size=0.2)  
    model = DecisionTreeClassifier()  
    model.fit(XTrain,YTrain)  
    prediction = model.predict(XTest)  
    score = accuracy_score(YTest, prediction)  
    print("Acuracy of our prediction : ", score)  
    total += score  
  
avg = total/n  
print("\n\nAverage accuracy of our prediction :", avg)
```

```
Acuracy of our prediction : 1.0  
Acuracy of our prediction : 1.0  
Acuracy of our prediction : 1.0  
Acuracy of our prediction : 1.0  
Acuracy of our prediction : 1.0  
Acuracy of our prediction : 1.0  
Acuracy of our prediction : 1.0  
Acuracy of our prediction : 0.75  
Acuracy of our prediction : 1.0  
Acuracy of our prediction : 0.25
```

```
Average accuracy of our prediction : 0.9
```