**NAÏVE BAYES ALGORITHM PROGRAM**

weather=['sunny','sunny','overcast','rainy','rainy','rainy','overcast','sunny','sunny','rainy','sunny','overcast','overcast','rainy']

temp=['hot','hot','hot','mild','cool','cool','cool','mild','cool','mild','mild','mild','hot','mild']

play=['no','no','yes','yes','yes','no','yes','no','yes','yes','yes','yes','yes','no']

from cProfile import label

from cgi import MiniFieldStorage

from heapq import merge

from sklearn import preprocessing

le=preprocessing.LabelEncoder()

weather\_encoded=le.fit\_transform(weather)

print("Weather",weather\_encoded)

temp\_encoded=le.fit\_transform(temp)

label=le.fit\_transform(play)

print("Temp",temp\_encoded)

print("Play",label)

features=list(zip(weather\_encoded,temp\_encoded))

print(features)

from sklearn.naive\_bayes import GaussianNB

model=GaussianNB()

model.fit(features,label)

predicted=model.predict([[0,2]])

print("Predicted value",predicted)

**OUTPUT**

