**.NAME:-HARSHIT ATUL CHILVIRWAR**

**ROLL NO:- 45**

**PRACTICAL NO. :-**

**PRACTICAL NAME :- . WRITE A PROGRAM TO IMPLEMENT THE NAÏVE BAYESIAN CLASSIFIER FOR A SAMPLE TRAINING DATASET STORED AS A . CSV FILE. COMPUTE THE ACCURACY OF THE CLASSIFIER, CONSIDERING A FEW TEST DATA SETS.**

from sklearn.model\_selection import train\_test\_split

from sklearn.naive\_bayes import GaussianNB

from sklearn.metrics import confusion\_matrix

from sklearn import datasets

iris = datasets.load\_iris() # loading dataset

x = iris.data[:, ] # input

y = iris.target # target

print("Features : ", iris['feature\_names'])

x\_train, x\_test, y\_train, y\_test = train\_test\_split(x, y, test\_size=0.25, random\_state=0)

NB = GaussianNB()

NB.fit(x\_train, y\_train)

Y\_pred = NB.predict(x\_test)

cm = confusion\_matrix(y\_test, Y\_pred)

print("Confusion Matrix:- ", cm)

**OUTPUT:**

C:\Users\sejal\MCA-I\_ML\Scripts\python.exe C:/Users/sejal/PycharmProjects/MCA-I\_ML/Naive\_bays\_short.py

Features : ['sepal length (cm)', 'sepal width (cm)', 'petal length (cm)', 'petal width (cm)']

Confusion Matrix:- [[13 0 0]

[ 0 16 0]

[ 0 0 9]]

Process finished with exit code 0