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**Practical No:-10 Practical Name:-Write the program to implement the naive Bayesian Classifier for a sample training dataset stored as a .CSV file. Compute the accuracy of the classifier considering a few test dataset.**

import numpy as np  
import pandas as pd  
import matplotlib.pyplot as plt  
from sklearn.model\_selection import train\_test\_split  
from sklearn import datasets  
from sklearn.naive\_bayes import GaussianNB  
from sklearn.metrics import confusion\_matrix  
iris = datasets.load\_iris() *#load dataset*x = iris.data *#input*y = iris.target *#traget*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")  
print(cm)

**OUTPUT:**

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

Confusion Matrix

[[13 0 0]

[ 0 16 0]

[ 0 0 9]]