20MCA241– DATA SCIENCE LAB Dept. of Computer Applications

| **Name: Vyshnavi Babu S**  **Roll No:55**  **Batch: MCA-B**  **Date: 19-09-2022** |
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**DATA SCIENCE LAB**

**Experiment No.: 7**

**Aim**

Implement Naive Bayes Algorithm using iris data set

# Procedure

# load the iris dataset from sklearn.datasets import load\_iris iris = load\_iris()

# store the feature matrix (X) and response vector (y) X = iris.data y = iris.target

# splitting X and y into training and testing sets from sklearn.model\_selection import train\_test\_split

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.4, random

\_state=1)

# training the model on training set from sklearn.naive\_bayes import GaussianNB gnb = GaussianNB() gnb.fit(X\_train, y\_train)

# making predictions on the testing set y\_pred = gnb.predict(X\_test)

# comparing actual response values (y\_test) with predicted response values (y\_p red)

from sklearn import metrics

print("Gaussian Naive Bayes model accuracy(in %):", metrics.accuracy\_score(y\_te st, y\_pred)\*100)

# Output

Gaussian Naive Bayes model accuracy(in %): 95.0

Amal Jyothi College of Engineering, Kanjirappally