Program No:5

Date:08-12-2021

Aim: Program to implement Naïve Bayes algorithm using any standard dataset available in the public domain and find the accuracy of the algorithm

Program code

import numpy as np

import matplotlib.pyplot as plt

import pandas as pd

dataset=pd.read\_csv(Social\_Network\_Ads.csv)

x=dataset.iloc[:,[2, 3]].values

y=dataset.iloc[:, -1].values

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

x\_train, x\_test,y\_train,y\_test=train\_test\_split(x,y,test\_size=0.20,random\_state=0)

from sklearn.preprocessing import StandardScaler

sc=StandardScaler()

x\_train=sc.transform(x\_train)

x\_test=sc.transform(x\_test)

print(x\_train)

print(x\_test)

from sklearn.naive\_bayes import GaussianNB

classifier = GaussianNB()

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

y\_pred=classifier.predict(x\_test)

print(y\_pred)

from sklearn.metrics import confusion\_matrix, accuracy\_score

ac=accuracy\_score(y\_test,y\_pred)

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

print(ac)

print(cm)

OUTPUT

