1. Write a program to implement the naïve Bayesian classifier for a sample training data set stored as a .csv file . compute the accuracy of the classifier , considering few test data sets.

```
import numpy as np
import pandas as pd

dataset=pd.read_csv('datanvc.csv')
X=dataset.iloc[:,:-1].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=0.25,random_state=0)

from sklearn.preprocessing import StandardScaler
sc=StandardScaler()
X_train=sc.fit_transform(X_train)
X_test=sc.transform(X_test)

from sklearn.naive_bayes import GaussianNB
classifier=GaussianNB()
classifier.fit(X_train,y_train)
```

```
output : GaussianNB()
```

```
GaussianNB(priors=None,var_smoothing=1e-09)
```

```
output : GaussianNB()
```

```
from  sklearn.metrics import confusion_matrix,accuracy_score
y_pred=classifier.predict(X_test)
cm=confusion_matrix(y_test,y_pred)
print(cm)
accuracy_score(y_test,y_pred)
```

```
output : [[105  15]
 [ 32  40]]
```

```
Out[14]:
0.7552083333333334
```