

Gaussian NB, Bernoulli NB and Multinomial NB

```
import numpy as np

import pandas as pd

import matplotlib.pyplot as plt


dataset = pd.read_csv(r'D:\Samsom - All Data\Naresh IT Institute\New folder\logit
classification.csv')


x = dataset.iloc[:, [2, 3]].values
y = dataset.iloc[:, -1].values


# Splitting the dataset into the Training set and Test set
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)


# Feature Scaling
from sklearn.preprocessing import Normalizer/StandardScaler
sc = Normalizer/StandardScaler()
x_train = sc.fit_transform(x_train)
x_test = sc.transform(x_test)


from sklearn.naive_bayes import MultinomialNB/GuassiaNB/BernoulliNB
classifier = MultinomialNB/GuassiaNB/BernoulliNB()
classifier.fit(x_train, y_train)


# Predicting the Test set results
y_pred = classifier.predict(x_test)
```

```
from sklearn.metrics import confusion_matrix  
cm = confusion_matrix(y_test, y_pred)  
print(cm)
```

```
from sklearn.metrics import accuracy_score  
ac = accuracy_score(y_test, y_pred)  
print(ac)
```

```
from sklearn.metrics import classification_report  
cr = classification_report(y_test, y_pred)  
cr
```

```
bias = classifier.score(x_train, y_train)  
print(bias)
```

```
variance = classifier.score(x_test, y_test)  
print(variance)
```