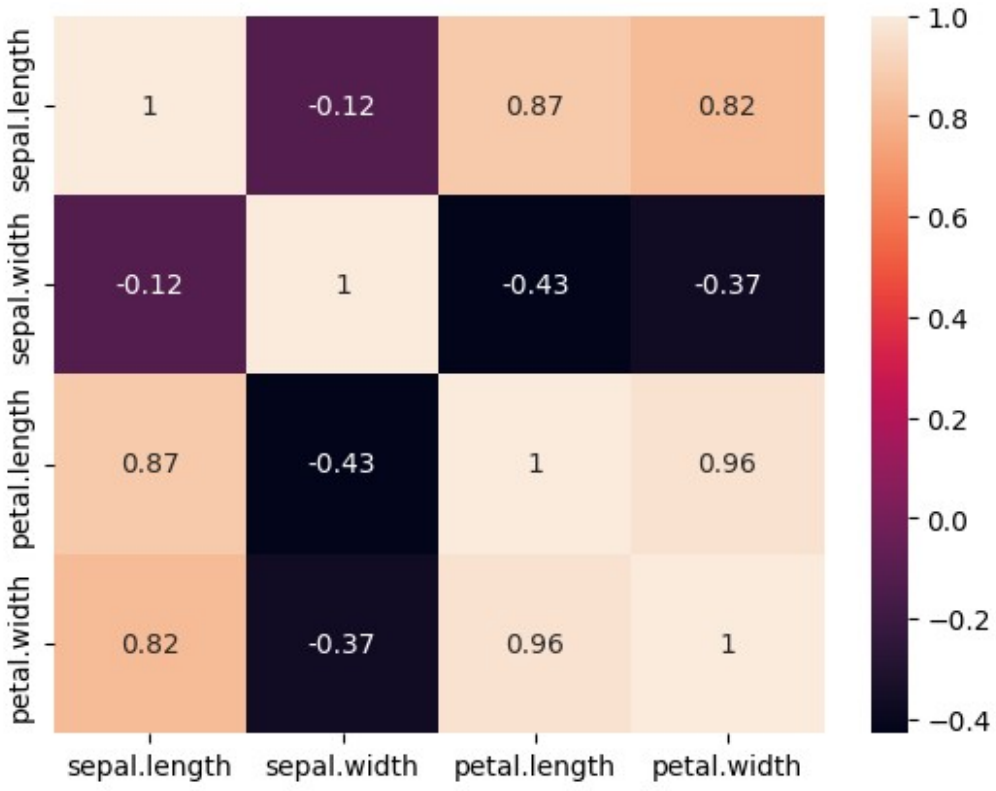
```
from sklearn.naive_bayes import GaussianNB
from sklearn.model_selection import train_test_split
from sklearn.metrics import confusion_matrix
import seaborn as sns
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
from sklearn import metrics

iris=pd.read_csv("iris.csv")
X = iris[['sepal.length', 'sepal.width', 'petal.length',
'petal.width']].values
y = iris['variety'].values

iris.head()
```

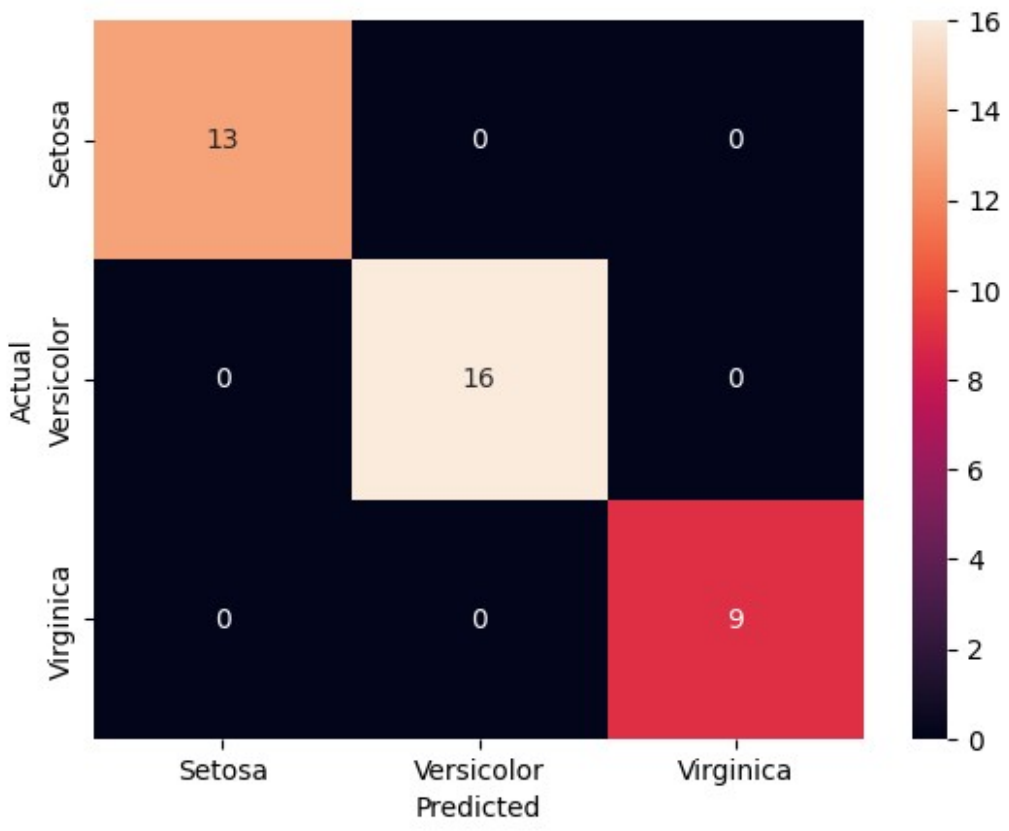
	sepal.length	sepal.width	petal.length	petal.width	variety
0	5.1	3.5	1.4	0.2	Setosa
1	4.9	3.0	1.4	0.2	Setosa
2	4.7	3.2	1.3	0.2	Setosa
3	4.6	3.1	1.5	0.2	Setosa
4	5.0	3.6	1.4	0.2	Setosa

```
dataplot=sns.heatmap(iris.corr(),annot=True)
plt.show()
```

```
<ipython-input-12-8ec05071df31>:1: FutureWarning: The default value of
numeric_only in DataFrame.corr is deprecated. In a future version, it
will default to False. Select only valid columns or specify the value
of numeric_only to silence this warning.
  dataplot=sns.heatmap(iris.corr(),annot=True)
```




```
X_train,X_test,y_train,y_test=train_test_split(X,y,test_size=0.25,rand
om_state=0)

NB=GaussianNB()
NB.fit(X_train,y_train)

GaussianNB()

Y_pred=NB.predict(X_test)
cm=confusion_matrix(y_test,Y_pred)
df_cm=pd.DataFrame(cm,columns=np.unique(y_test),index=np.unique(y_test
))
df_cm.index.name='Actual'
df_cm.columns.name='Predicted'
sns.heatmap(df_cm,annot=True)
plt.show()
```




```
accuracy=metrics.accuracy_score(y_test,Y_pred)
print(f"Accuracy{accuracy:.2f}")
```

```
Accuracy1.00
```