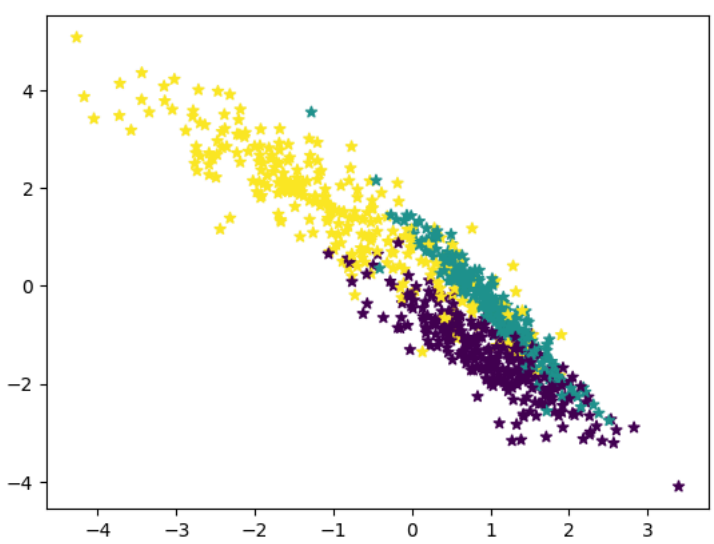
```
from sklearn.datasets import make_classification
x,y = make_classification(n_features=6,n_classes=3,n_samples=800,n_informative=2,random_state=1,n_clusters_per_class=1,)
import matplotlib.pyplot as plt
plt.scatter(x[:,0],x[:,1],c=y,marker="*");
```



```
from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=0.33,random_state=125)
from sklearn.naive_bayes import GaussianNB
model=GaussianNB()
model.fit(x_train,y_train)
predicted = model.predict([x_test[6]])
print("Actual Value:",y_test[6])
print("Predicted Value:",predicted[0])
from sklearn.metrics import (accuracy_score,confusion_matrix,ConfusionMatrixDisplay,f1_score,)
y_pred=model.predict(x_test)
accuracy=accuracy_score(y_pred,y_test)
f1=f1_score(y_pred,y_test,average="weighted")
print("Accuracy:",accuracy)
print("F1 score:",f1)
labels=[0,1,2]
cm=confusion_matrix(y_test,y_pred,labels=labels)
disp=ConfusionMatrixDisplay(confusion_matrix=cm,display_labels=labels)
disp.plot();
```

```
Actual Value: 0
Predicted Value: 0
Accuracy: 0.8484848484848485
F1 score: 0.8491119695890328
```