#knn algorithm with confusion matrix

from pandas import DataFrame  
from sklearn.datasets import load\_iris  
from sklearn.neighbors import KNeighborsClassifier  
from sklearn import metrics  
from sklearn.metrics import confusion\_matrix  
from sklearn.model\_selection import train\_test\_split  
data\_b=load\_iris()  
df=DataFrame(data\_b.data,columns=data\_b.feature\_names)  
df['target']=data\_b.target  
print("Dataset Labels=",data\_b.feature\_names)  
x\_train,x\_test,y\_train,y\_test=train\_test\_split(df[data\_b.feature\_names],df['target'],random\_state=1)  
print(x\_train.head(6))  
print(y\_train.head(6))  
print(x\_test.head())  
clf=KNeighborsClassifier(n\_neighbors=6)  
clf.fit(x\_train,y\_train)  
y\_pred=clf.predict(x\_test)  
print("Accuracy:",metrics.accuracy\_score(y\_test,y\_pred))  
cm=confusion\_matrix(y\_test,y\_pred)  
print("confusion matrix")  
print(cm)