# Importing necessary libraries

import numpy as np

import pandas as pd

from sklearn.datasets import load\_iris

from sklearn.model\_selection import train\_test\_split

from sklearn.neighbors import KNeighborsClassifier

from sklearn.metrics import accuracy\_score, classification\_report

# Load the Iris dataset

iris = load\_iris()

# Creating a DataFrame

iris\_df = pd.DataFrame(data= np.c\_[iris['data'], iris['target']],

columns= iris['feature\_names'] + ['target'])

# Displaying the first few rows of the dataset

print(iris\_df.head())

# Splitting the data into training and testing sets

X\_train, X\_test, y\_train, y\_test = train\_test\_split(iris.data, iris.target, test\_size=0.2, random\_state=42)

# Creating a K-Nearest Neighbors classifier

knn = KNeighborsClassifier(n\_neighbors=3)

# Training the classifier

knn.fit(X\_train, y\_train)

# Making predictions

y\_pred = knn.predict(X\_test)

# Calculating accuracy

accuracy = accuracy\_score(y\_test, y\_pred)

print("Accuracy:", accuracy)

# Displaying classification report

print("Classification Report:")

print(classification\_report(y\_test, y\_pred, target\_names=iris.target\_names))

OUTPUT :

