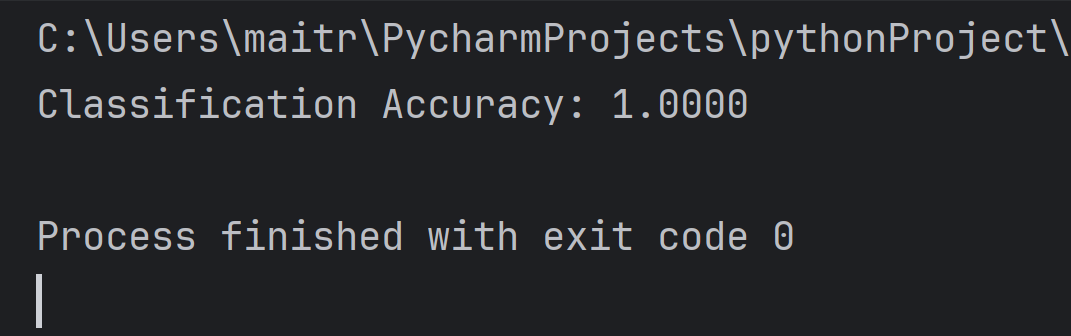
**PRACTICAL 10**

**AIM : CART**

**INPUT(CLASSIFICATION):**

# Importing necessary libraries  
from sklearn.tree import DecisionTreeClassifier  
from sklearn.model\_selection import train\_test\_split  
from sklearn.metrics import accuracy\_score  
from sklearn.datasets import load\_iris  
  
# Load the Iris dataset (classification example)  
iris = load\_iris()  
X = iris.data  
y = iris.target  
  
# Split the dataset into training and testing sets  
X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.2, random\_state=42)  
  
# Create a CART model (Decision Tree for classification)  
cart\_classifier = DecisionTreeClassifier(criterion='gini', random\_state=42)  
  
# Train the classifier  
cart\_classifier.fit(X\_train, y\_train)  
  
# Make predictions on the test set  
y\_pred = cart\_classifier.predict(X\_test)  
  
# Evaluate the model's performance  
accuracy = accuracy\_score(y\_test, y\_pred)  
print(f'Classification Accuracy: {accuracy:.4f}')

**OUTPUT:**