DECISION TREE PYTHON CODE

pip install scikit-learn

# Import the necessary libraries

from sklearn import datasets

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

from sklearn.tree import DecisionTreeClassifier

from sklearn.metrics import accuracy\_score

# Load a sample dataset (Iris dataset as an example)

iris = datasets.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=0.3, random\_state=42)

# Create a Decision Tree Classifier

clf = DecisionTreeClassifier(random\_state=42)

# Train the classifier on the training data

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

# Make predictions on the testing data

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

# Calculate the accuracy of the classifier

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

print(f"Accuracy: {accuracy \* 100:.2f}%")