**import numpy as np**

**import pandas as pd**

**from sklearn.datasets import load\_iris**

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

**from sklearn.tree import DecisionTreeRegressor, plot\_tree**

**from sklearn.metrics import mean\_squared\_error**

**import matplotlib.pyplot as plt**

**iris = load\_iris()**

**df = pd.DataFrame(data=iris.data, columns=iris.feature\_names)**

**df['target'] = iris.target**

**X = df[['sepal length (cm)', 'sepal width (cm)', 'petal length (cm)']]**

**y = df['target']**

**X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.3, random\_state=42)**

**regressor = DecisionTreeRegressor()**

**regressor.fit(X\_train, y\_train)**

**y\_pred = regressor.predict(X\_test)**

**mse = mean\_squared\_error(y\_test, y\_pred)**

**print("Mean Squared Error: ", mse)**

**plt.figure(figsize=(20,10))**

**plot\_tree(regressor, feature\_names=X.columns, filled=True, rounded=True)**

**plt.show()**

**user\_input = np.array([[5.1, 3.5, 1.4]])**

**predicted\_petal\_width = regressor.predict(user\_input)**

**print(f"Predicted Petal Width: ", predicted\_petal\_width[0])**