**Import Libraries:**

# Step 1: Import necessary libraries

import pandas as pd

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

from sklearn.tree import DecisionTreeClassifier

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

**Loading and Preparing Data**

# Step 2: Load and prepare data

# Assuming you have the data stored in a CSV file named 'diabetes\_data.csv'

data = pd.read\_csv('diabetes\_data.csv')

# Display the first few rows of the dataset

print(data.head())

# Separate features (X) and target variable (y)

X = data.drop('Outcome', axis=1) # Features

y = data['Outcome'] # Target variable

**Splitting Data**

# Step 3: Split the data 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)

**Train the Decision Tree Model:**

# Step 4: Train the Decision Tree model

model DecisionTreeClassifier(random\_state=42)

model.fit (X\_train, y train)

**Evaluate the model**

# Step 5: Evaluate the model

y\_pred = model.predict(X test)

# Calculate accuracy

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

print(f"Accuracy: {accuracy:.2f}")

# Display classification report and confusion matrix print("\nClassification Report:")

print(classification\_report(y\_test, y\_pred))

print("\nConfusion Matrix:")

print(confusion\_matrix(y\_test, y pred))