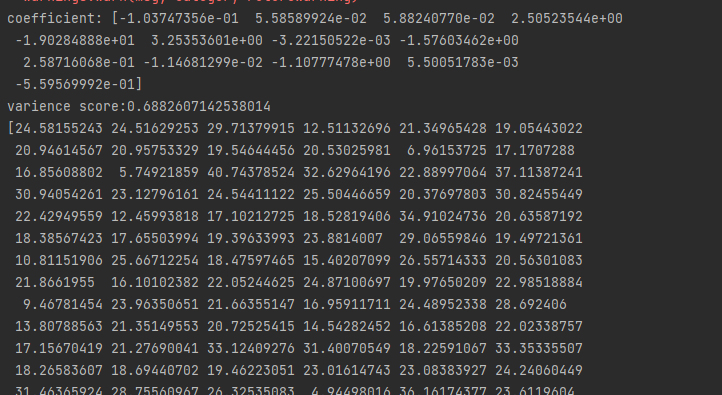
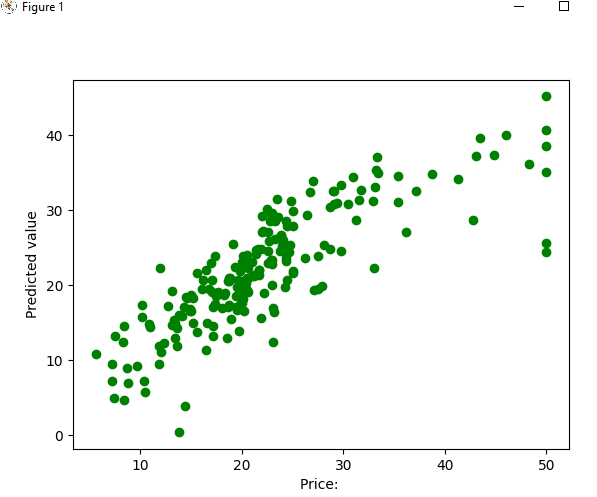
Program 6

Aim: Program to implement Multiple regression techniques using any standard dataset aavailable in the public domain and evaluate its performance

Source code: 1

import matplotlib.pyplot as plt  
import numpy as np  
from sklearn import datasets, linear\_model, metrics  
  
boston= datasets.load\_boston(return\_X\_y=False)  
  
x=boston.data  
y=boston.target  
  
from sklearn.model\_selection import train\_test\_split  
x\_train, x\_test, y\_train, y\_test=train\_test\_split(x, y, test\_size=0.4, random\_state=0)  
  
reg= linear\_model.LinearRegression()  
reg.fit(x\_train, y\_train)  
print('coefficient:',reg.coef\_)  
print('varience score:{}'.format(reg.score(x\_test, y\_test)))  
  
y\_pred = reg.predict(x\_test)  
print(y\_pred)  
plt.scatter(y\_test, y\_pred, c = 'green')  
plt.xlabel("Price: ")  
plt.ylabel("Predicted value")  
plt.show()

Output



Source code2:

import pandas  
df = pandas.read\_csv("cars.csv")  
x = df[['Weight', 'Volume']]  
y = df['CO2']  
from sklearn import linear\_model  
regr = linear\_model.LinearRegression()  
regr.fit(x,y)  
predictedCO2 = regr.predict([[1500, 1465]])  
print(predictedCO2)

Output:

