Date:15-12-2021

**Program - 7**

**Aim:**

Program to implement multiple regression techniques using any standard dataset available in the public domain and evaluate its performance.

**Program 1:**

import pandas

df=pandas.read\_csv("cars.csv")

x=df[['Weight','Volume']]

y=df['CO2']

from sklearn import linear\_model

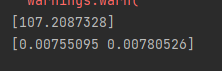
regr=linear\_model.LinearRegression()

regr.fit(x,y)

predictedco2=regr.predict([[2300,1300]])

print(predictedco2)

**OUTPUT**

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**Program 2:**

import matplotlib.pyplot as plt

from sklearn import datasets,linear\_model,metrics

boston=datasets.load\_boston()

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=1)

reg=linear\_model.LinearRegression()

reg.fit(x\_train,y\_train)

pre=reg.predict(x\_test)

print("Prediction : ",pre)

print('Coefficients: ',reg.coef\_)

print('Variance Score:{}'.format(reg.score(x\_test,y\_test)))

**OUTPUT**

