**Program 5 : Develop a program to implement Multiple Linear Regression model and evaluate the model by verifying the performance**

**import pandas as pd  
from sklearn.linear\_model import LinearRegression**

**from sklearn.model\_selection import train\_test\_split  
X\_train,X\_test,y\_train,y\_test=train\_test\_split(X,y,random\_state=0,test\_size=0.30)**

**LR=LinearRegression()  
LR.fit(X\_train,y\_train)  
y\_pred=LR.predict(X\_test)  
y\_pred**

array([105.18884645, 101.50616906, 101.37403687, 106.00000898,  
 105.85520658, 101.35291985, 96.66057997, 95.73357552,  
 98.45908129, 105.16410937, 105.17617624])

#predict the CO2 emission of a car where the weight is 2300kg, and the volume is 1300cm3:  
**predictedCO2 = LR.predict([[2300, 1300]])  
  
print(predictedCO2)**

[99.24946107]

**from sklearn import metrics  
R2=metrics.r2\_score(y\_test,y\_pred)  
R2**

0.3571844578640311