***TRAINING MODEL FOR LEFT WHEEL***

import pandas as pd

file\_ = pd.read\_csv("C:/Users/SJ/Desktop/Book4.csv")

file\_=file\_.drop('TIME',axis=1)

file\_.head()

x = file\_["US"]

y1=file\_["IR1"]

y2=file\_["IR2"]

y1.head(),y2.head(), x.head()

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

x\_train, x\_test, y\_train, y\_test = train\_test\_split(x,y1,test\_size=0.2,random\_state=10)

x\_train

import numpy as np

x\_train = np.array(x\_train)

x\_train=np.reshape(x\_train,(-1,1))

x\_test = np.array(x\_test)

x\_test = np.reshape(x\_test,(-1,1))

y\_test = np.array(y\_test)

y\_train = np.array(y\_train)

addSqlcol = lambda x: np.concatenate((x\*\*2,x ,np.ones((x.shape[0], 1))),axis=1)

A = addSqlcol(x\_train)

Y = y\_train

A.shape

w=np.linalg.inv(A.T.dot(A)).dot(A.T.dot(y\_train))

print(w)

//CHECKING OUTPUT

a = int(input())

a = [a\*\*2,a,1]

a = np.array(a)

print(a)

y = a.dot(w)

y