Experiment No 2: Linear Regression using python

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Date: 29th January 2019

**CODE:**

x=[0,0,0,0,0,0,0,0,0,0,0,0]

y=[0,0,0,0,0,0,0,0,0,0,0,0]

xdif=[0,0,0,0,0,0,0,0,0,0,0,0]

ydif=[0,0,0,0,0,0,0,0,0,0,0,0]

x\_sq=[0,0,0,0,0,0,0,0,0,0,0,0]

xy\_prod=[0,0,0,0,0,0,0,0,0,0,0,0]

xsum=0

ysum=0

x\_fs=0

xy\_prod1=0

n=int(input("enter number of training sets : "))

for i in range (n):

x[i]=int(input("enter value of x: "))

y[i]=int(input("enter value of y: "))

xsum=xsum+x[i]

ysum=ysum+y[i]

xavg=xsum/n

yavg=ysum/n

for i in range (n):

xdif[i]=x[i]-xavg

ydif[i]=y[i]-yavg

x\_sq[i]=xdif[i]\*xdif[i]

xy\_prod[i]=xdif[i]\*ydif[i]

x\_fs=x\_fs+x\_sq[i]

xy\_prod1=xy\_prod1+xy\_prod[i]

slope=xy\_prod1/x\_fs

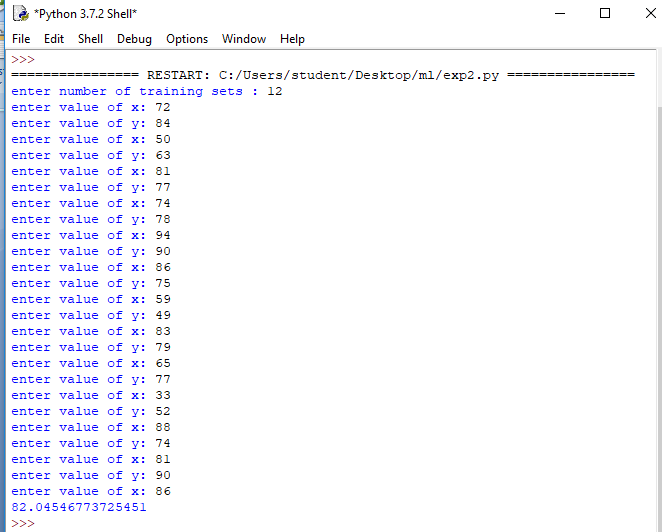
intercept=yavg-(slope\*xavg)

x=int(input("enter value of x: "))

y=intercept+(slope\*x)

print(y)

**OUTPUT:**

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