19/03/2025
Linear Regression of data of weeks and product
sales Usc meitrex approach for finding linear
negrosion
import numpy as pp
import pandas as pd.
data = pd. rad_csv('nw_data.csv').
x = data ('x')
y = data (iyi)
V
Knear = xmeans
4- MRAK = 9 MOON C)
X = np. column_stack ((np.oner (len ax), x))
beta = np. linalg.inv (X.T@X) @X.T@Y
10 14000
b0 = beta[0]
bl = bda[i]
print ("Slope (b1)" bt)
print ("Intercept (60)", 60).
X-next=5
y-predicted = b0 + Cb1 * M-new).
A Prediction
print ("Predicted value for X = 5 , y predicted)
The firm of the fi

Output.	
Intercept (bo): -1.5.	and the second s
Indicted value for x 25:	9.5
02) Find Lineae Rogression	a data 1 week and
produit sales.	
import pands as pd.	- 14 1 14 3 · · · · · · · · · · · · · · · · · ·
	Elit Land of the
data = pd. orad_cev ('nous_do	ta. Csv').
x = date(x')	i Ya
y = data ('yi)	
1 Charles 1 Charles	Adding the same
y-man = x, mean()	
y-mean = y-mean().	
CCV N MARGON NA C	() () () () () () ()
num = ((x-x-mean) * (
den = (cx-x-mean)**>	
b1 = num/den	
60 = 4-mean - (b) + x-m	ean
00 2 92.11211 (01	
ps ot ("Shope (b1)", b1)	
print (" They Enterer pt (60); 60	and the contract of the foreign and the specific of the contract of the contra
primar property oc	Andrew with the second of the
	and the second s

X-new = 5. 4-producted = bo + (bl 4 px new) went (producted value for x 25. 4, y produte output: Slope (b1): 2.2 Intucept (bo): -1.t Predicted value for x =5; 9.7 Graph out put for metris method. · Deta points. - Regression Line Fraph output of linear (Normal) method