PARSHWANATH CHARITABLE TRUST'S



## A.P. SHAH INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering Data Science



Semester: Subject: Slatistics for NJLDS Academic Year: 2033 2024
LINEAR REGREGION:
10h at is rearried ?
Regression is used to find the relationship between
Variations.
What is Linear Regression?
Linear regression gives you the relation between
What is Linear Regression? Lineau regression gives you the relation between dependent variable and independent variable.
Equation of Linear Regression: Y=mx+b.
* > remesents the dependent variable.
x xepresents the independent runder
m is the slope of line thow much )
p _ unof change (n X).
b is the intercept (the value of Y when X is 0).
Francisco de la companya della companya della companya de la companya de la companya della compa
Project: Predicting 1133a 1773es.
Step 4: Dala Collection.
Ctipa. Calculations.
Sleps: Predictions.
OF Wendization

Subject Incharge: Prof. Sarala Mary

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## A.P. SHAH INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering





Subject: Statistics for AJLOS Academic Year: 2023 2024.

Daneter in Inchu X	Price(Y) in Dollau	Mean (x) ≤(x)/ <sub>h</sub>	(3)	Deviation (X) . 7-X	Deviation (Y)	Product Of Deviation	Sumof Product of Dev.	Square of Dev- retion	for X
8	lo	10	13	-2	- 3	6	12	4	
10	13			o	6	٥		0	
12	16			2	3	6		4.	

Y=mX+b

Calculate m = Sum of product of deviations

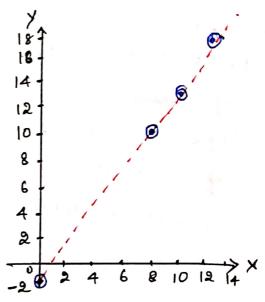
Sum of square of deviation for X.

Calculate b = Mean of Y - (m x mean of x)

$$= 13 - (1.5 \times 10)$$

$$= 10.$$
(X=20)
$$Y = (1.5)(20) + (-2)$$

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