Supervised ML Algorithms

1. Regression : prediction

1.1 Linear Regression → Line → $y = mx + c$

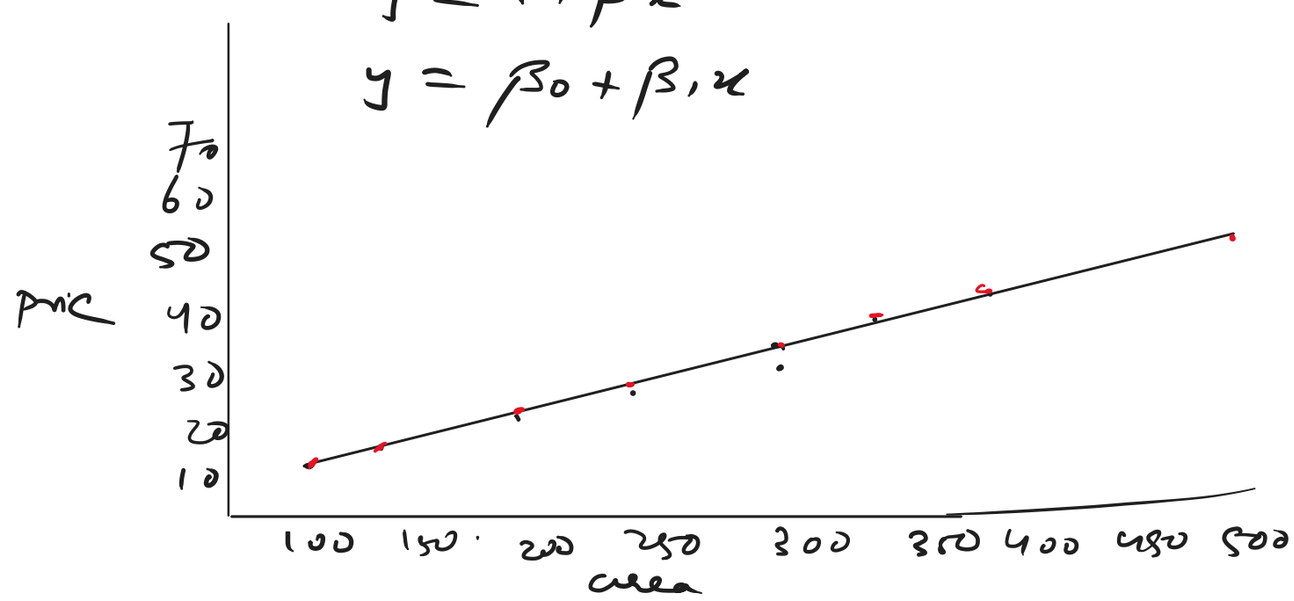
$y = ax + b$

$y = \alpha + \beta x$

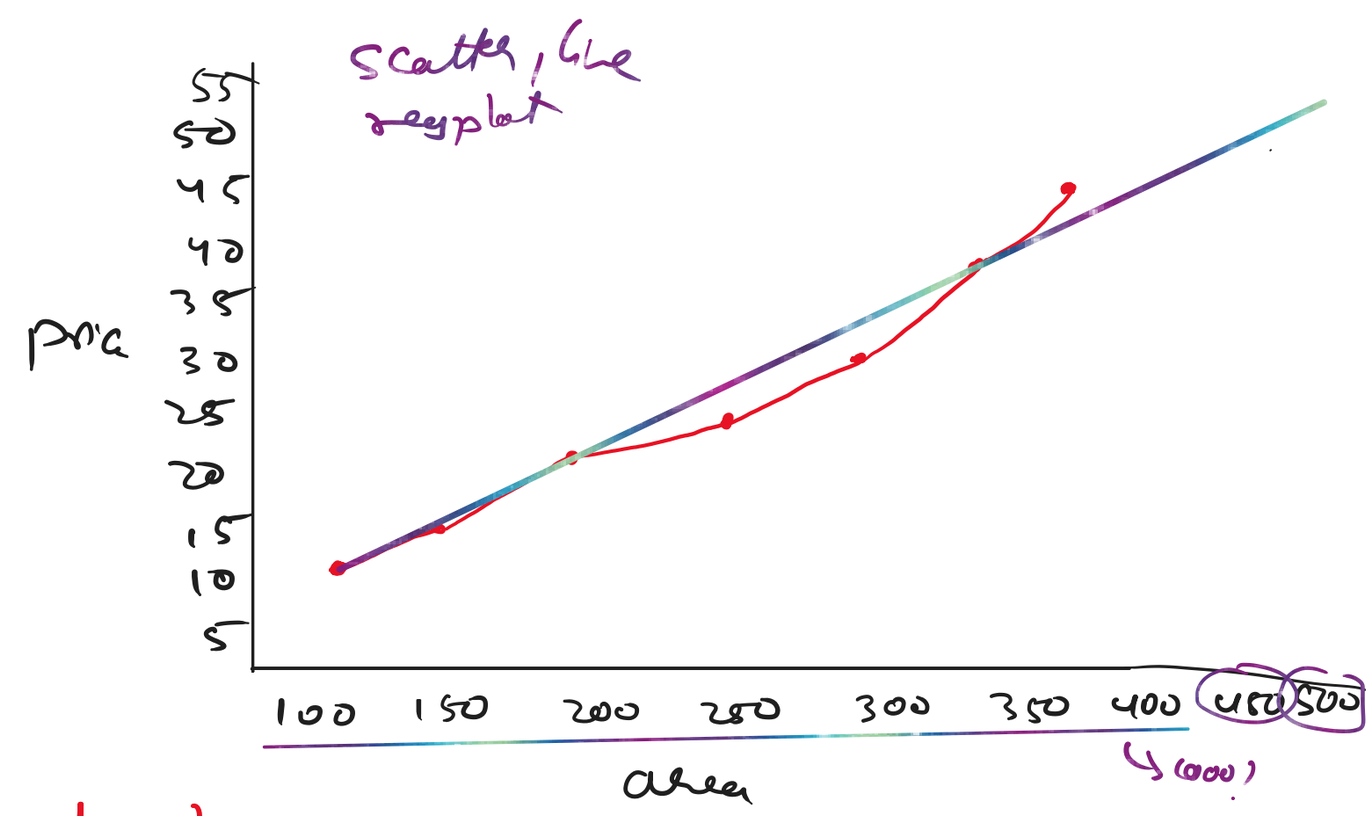
$y = \beta_0 + \beta_1 x$

↓ Line ↓ prediction

area	price
100	10
150	15
200	20
250	25
300	30
400	40



area	price
100	10
150	14
200	22
250	24
300	29
350	35
400	41
500	?



Line → $y = mx + c$ → y-intercept

slope

$y = \beta_0 + \beta_1 x$

$m = \beta_1 =$ slope

$c = \beta_0 =$ y-intercept

} yes

house price prediction

$$y = \underbrace{\beta_0 + \beta_1 (x)}_{c \;+\; m(x)}$$

$=$

Note : Birth of ML is from a line based