Multiple linear Regression

Dataset

$g|p$ $o|p$

| weight | height |

→ Best fit line
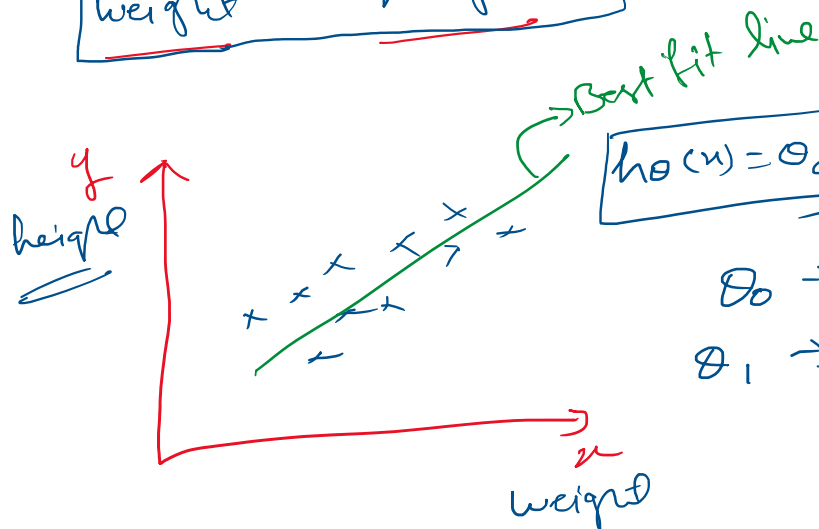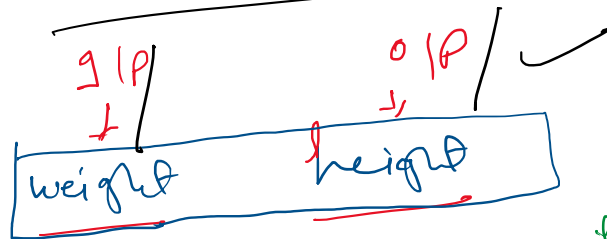
$$h_\theta(x) = \theta_0 + \theta_1 x_1$$

2D

$\theta_0 \Rightarrow$ Intercept

$\theta_1 \Rightarrow$ Coefficient of slope

y → height

x → weight

Ex

House Pricing Dataset

→ Independent feature i/p

x_1 — No. of Rooms

x_2 — Size of Room

y — Price $\xrightarrow{o/p}$ Dependent feature

hapy

$$h_\theta(x) = \theta_0 + \theta_1 x_1 + \theta_2 x_2$$

3D

$\theta_1 \& \theta_2 \Rightarrow$ slope or cofficient

$\theta_0 \Rightarrow$ Intercept

Simple linear Regression
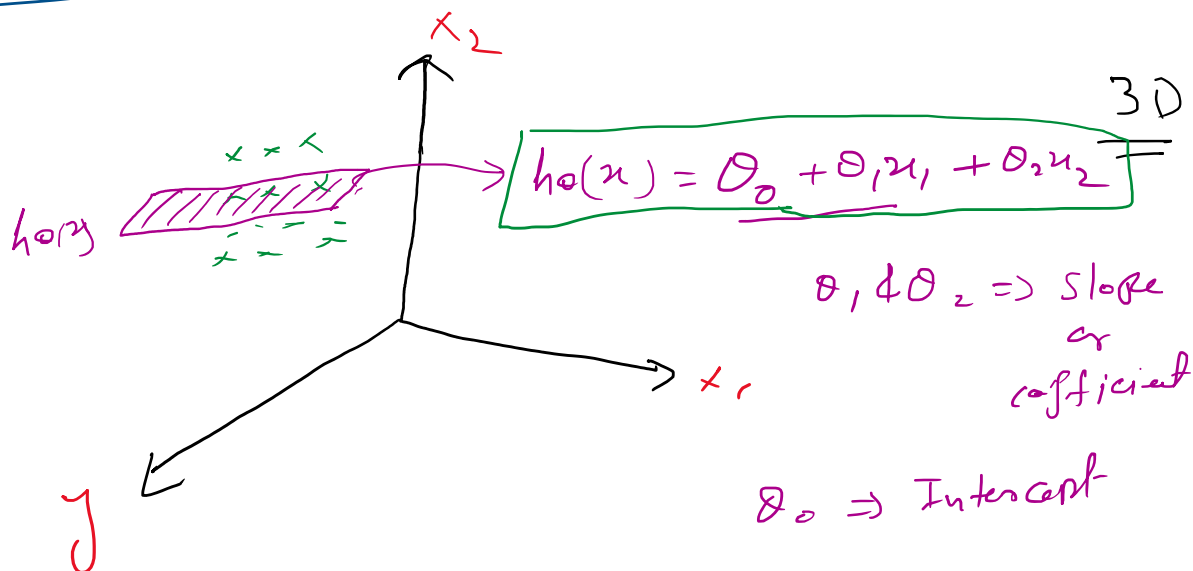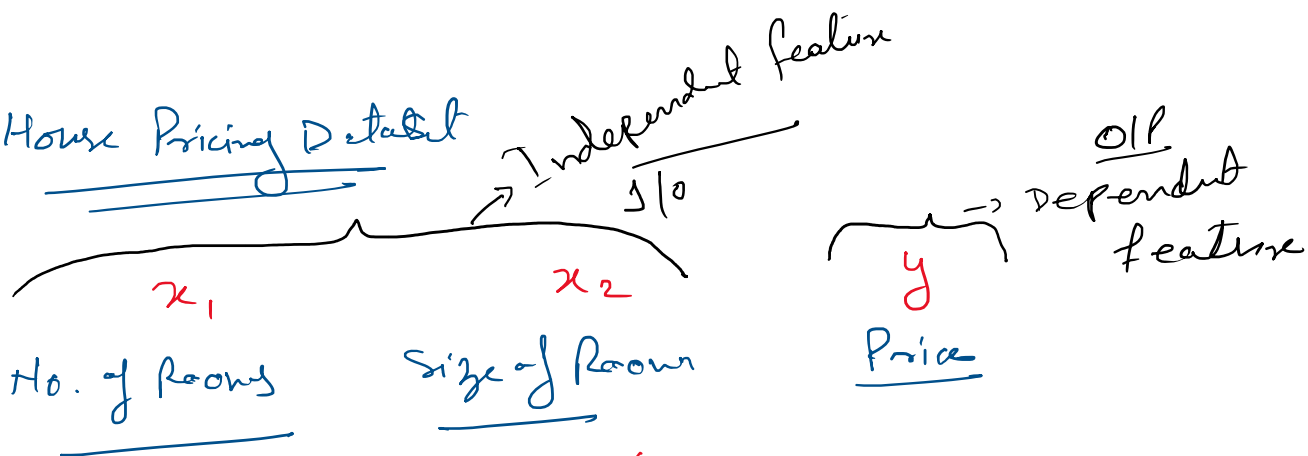
$$h_\theta(x) = \theta_0 + \theta_1 x_1$$

Generic Equation Multiple Linear Regression

$$h_\theta(x) = \theta_0 + \theta_1 x_1 + \theta_2 x_2 + \theta_3 x_3 \cdots \theta_n x_n$$