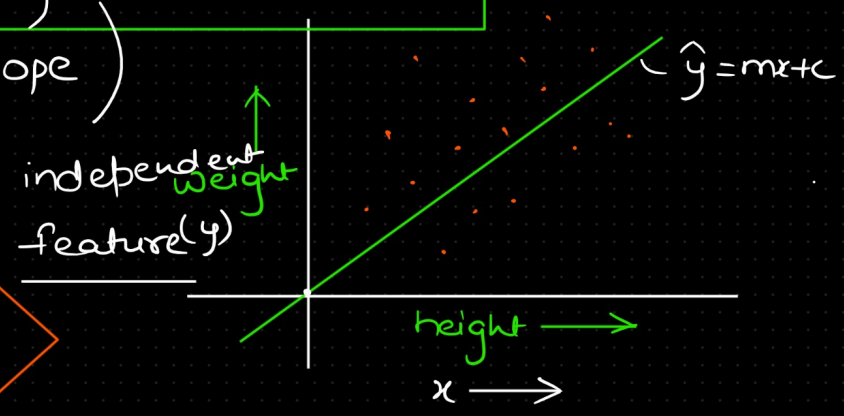
Types of Linear Regression

Simple Linear Regression

(1) $\hat{y} = mx + c$ (c: intercept, m: slope)

Note: Deals only with linear relationship b/w dependent & independent feature



Multiple Linear Regression

Real time usecase

↳ multiple independent features

Independent features: x_1 x_2 x_3 x_4

dependent feature (target): y (Price)

↳ House Price Prediction

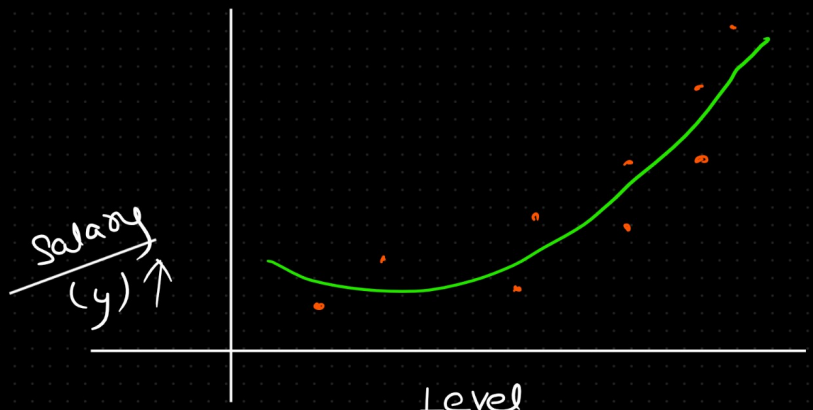
(2) $\hat{y} = m_1x_1 + m_2x_2 + m_3x_3 + m_4x_4 + c$

(m_1, m_2, m_3, m_4) → Slopes

c → intercept

Polynomial Linear Regression

↳ Non-Linear relationship



degree = 3

$$\hat{y} = m_1 x + m_2 x^2 + m_3 x^3 + c$$

degree = 2

$$\hat{y} = m_1 x + m_2 x^2 + c$$