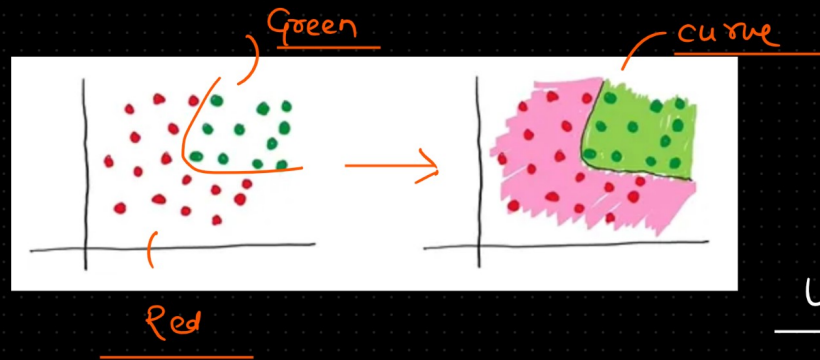


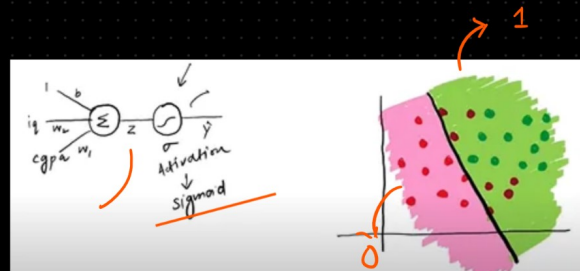
MultiLayer Perceptron



to capture
the non-
linear
relationship

Application → Regression & Classification

<u>IQ</u>	<u>C GPA</u>	<u>Placement</u>



$$z = w_1 * \text{c gpa} + w_2 * \text{IQ} + b$$

$$z = w_1 * \text{c gpa} + w_2 * \text{IQ} + b$$

Sigmoid

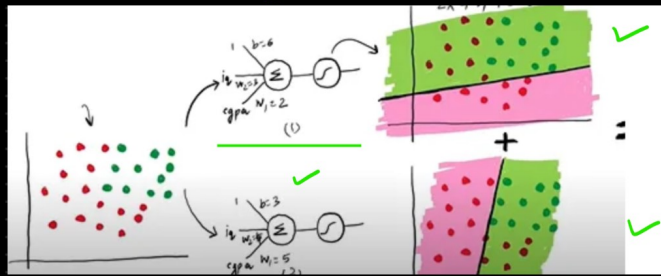
Logistic Regression

$$f(z) = \frac{1}{1 + e^{-z}}$$

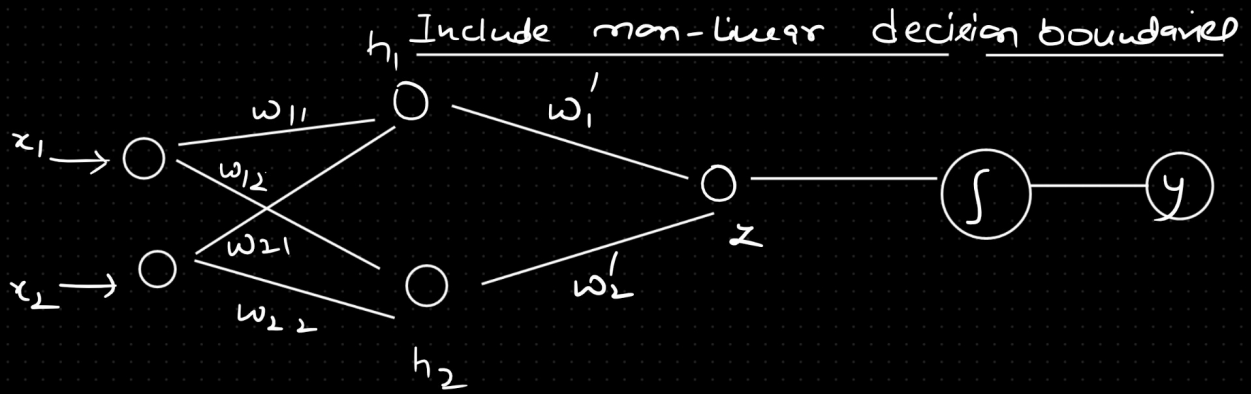
(Activation function)

(Probability)

$$\left. \begin{array}{l} > 0.5 \longrightarrow 1 \\ < 0.5 \longrightarrow 0 \end{array} \right\}$$



superimpose



$$h_1 = x_1 * w_{11} + x_2 * w_{21}$$

$$h_2 = x_1 * w_{12} + x_2 * w_{22}$$

