✱ NEURAL NETWORKS INTUITION

✱✱ Welcome

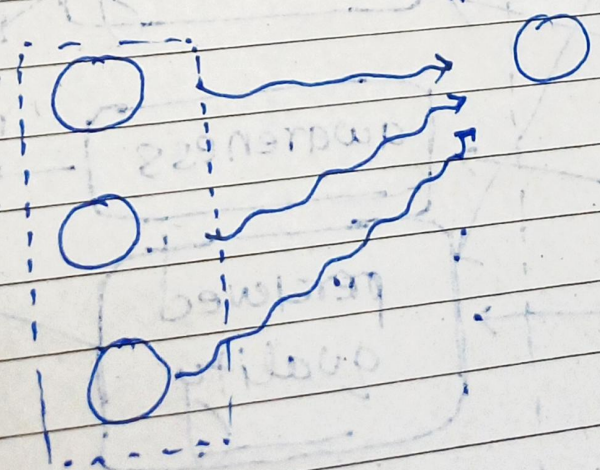
1. Neural networks (inference & training)
2. practical advice for building neural networks
3. Decision trees

✱✱ How Human brain & Neurons work

⇒ Neural networks try to mimic the brain

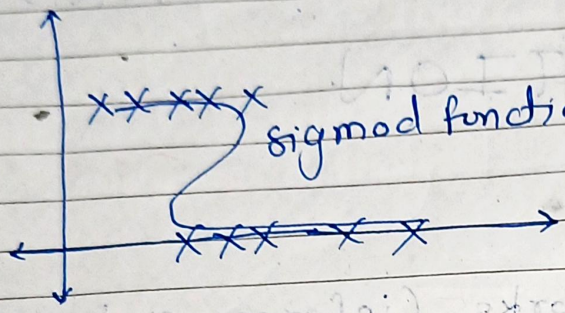
⇒ major application (speech reocog, image recog, etc).

⇒ mathematical model of neurons



⊛⊛ Demand Prediction

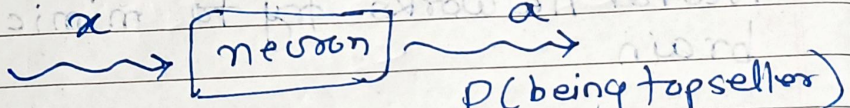
⇒



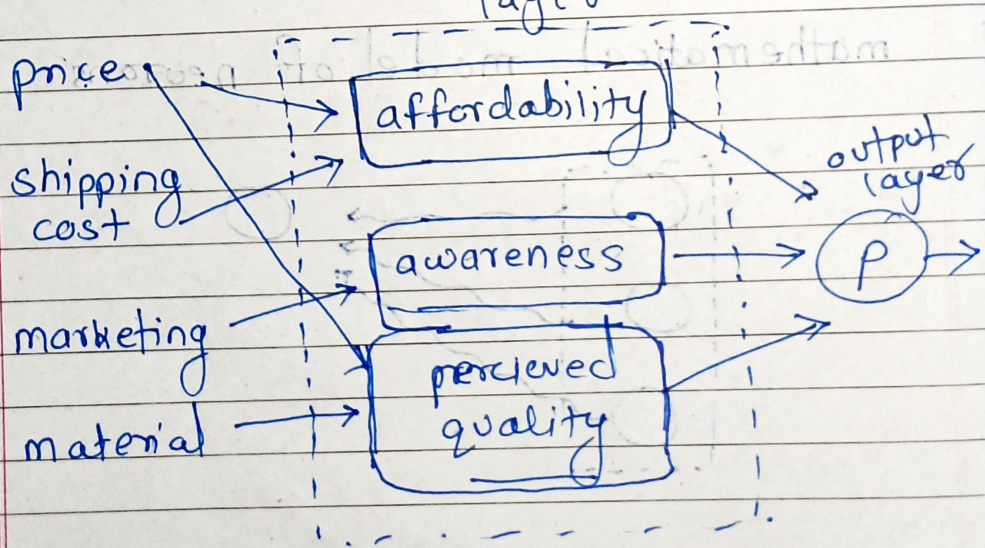
→ input ⇒ x ⇒ price

output ⇒ $f(x) = a = \frac{1}{1 + e^{-(wx+b)}}$
(activation)

⇒

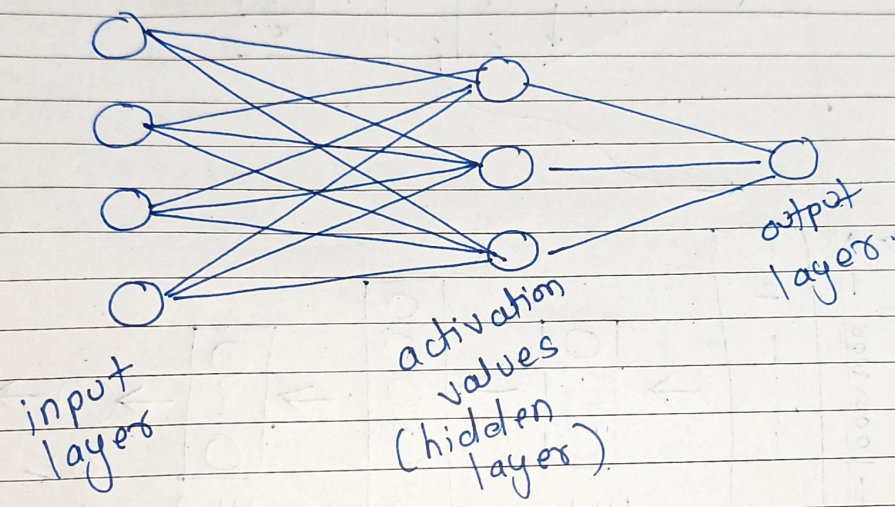


⇒ features of top seller T-shirt



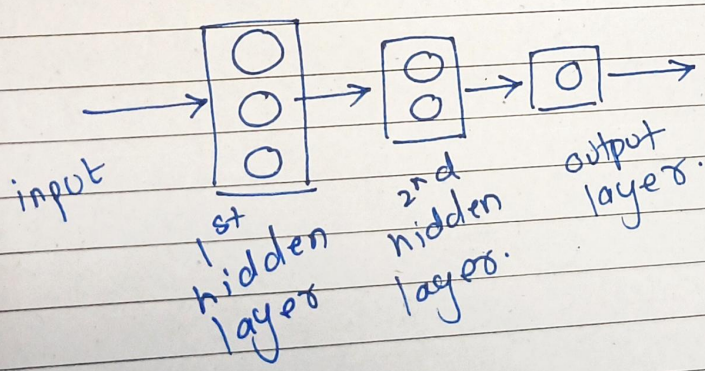
⇒ diagram ⇝

4 number (input layer) → 3 numbers → 1 number

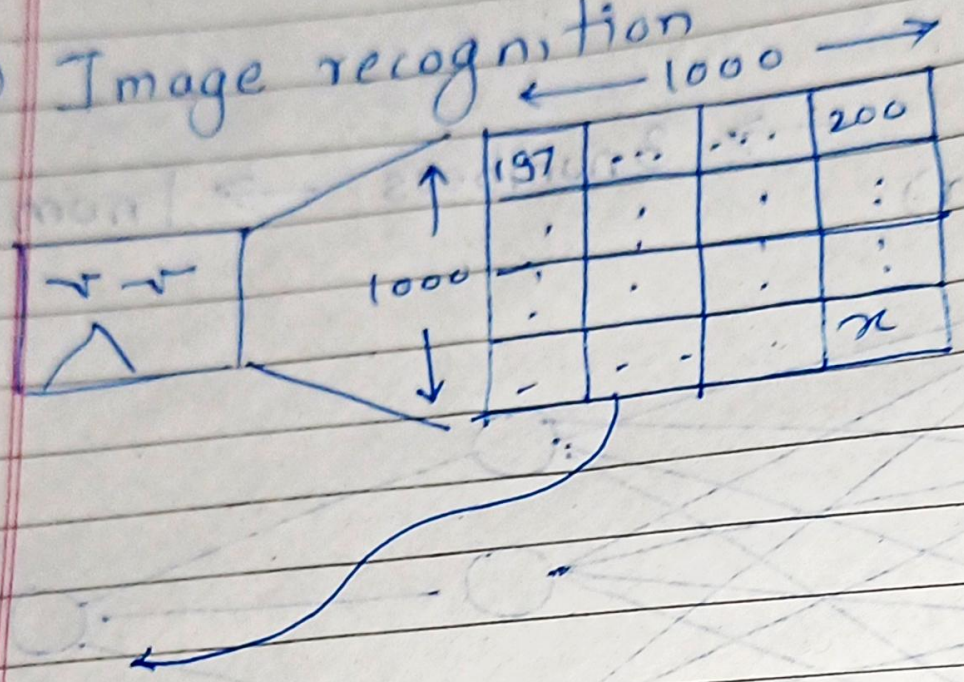


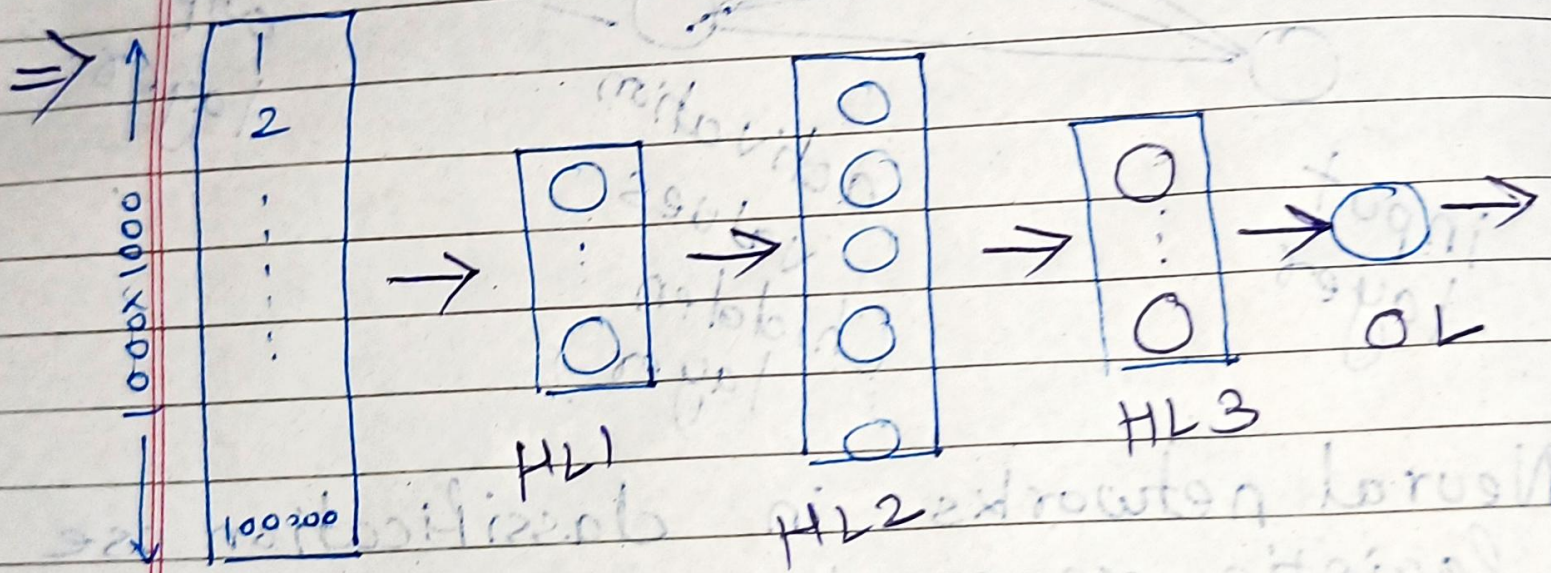
⇒ Neural networks in classification use logistic regressions.

e.g



⊛⊛ Image recognition





input layer