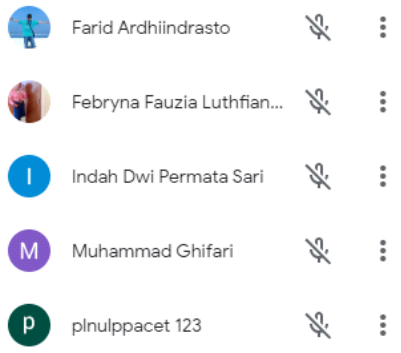
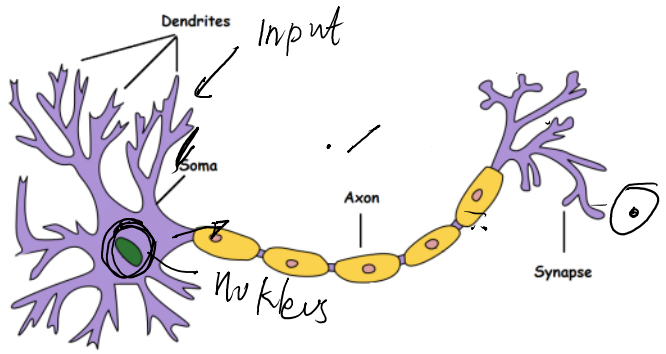
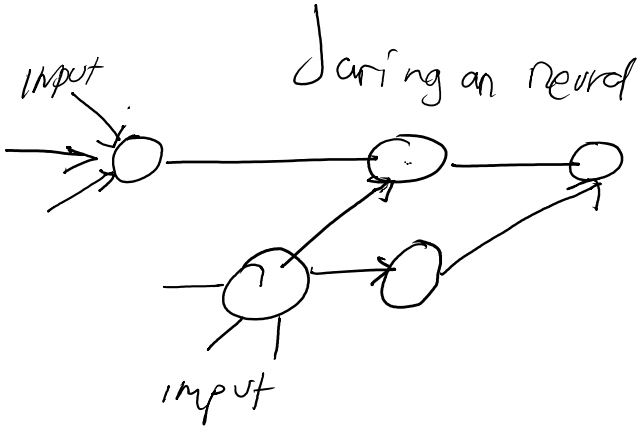
Pertemuan 2

Jumat, 15 September 2023 18.40

Daftar hadir 15 september 2023





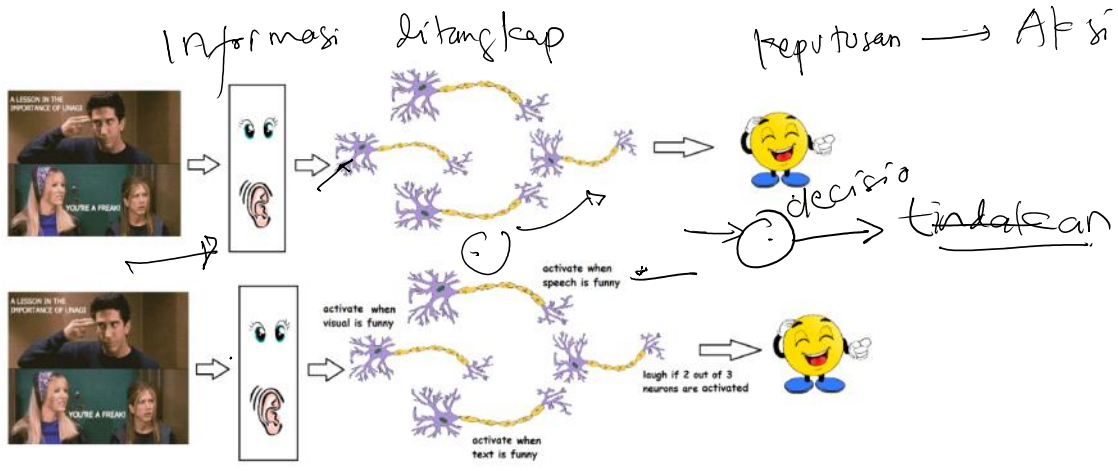


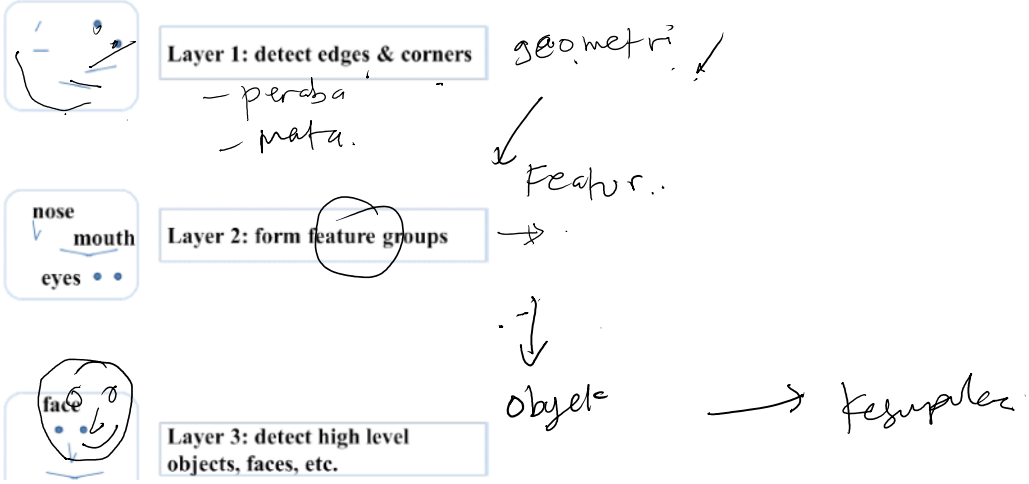
Dendrite: Menerima sinyal dari neuron lain

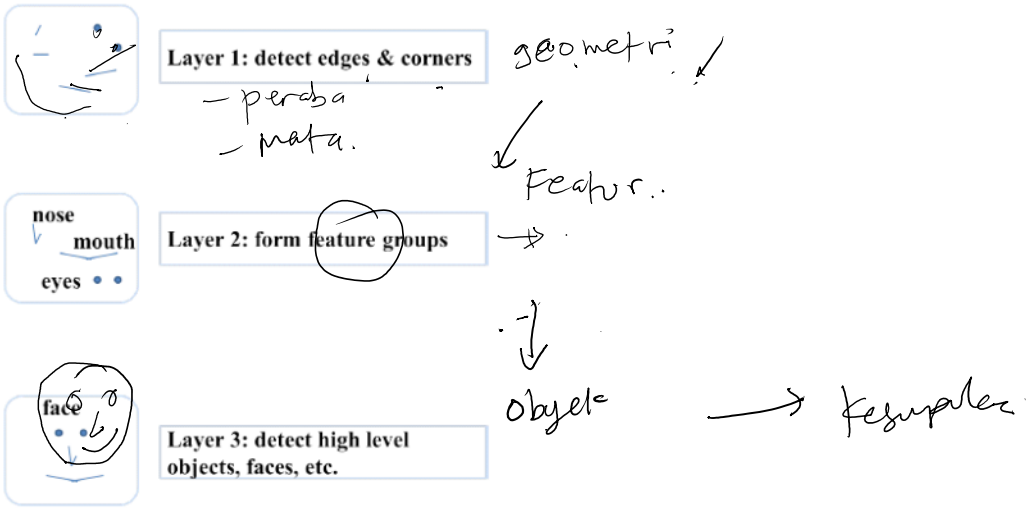
Soma: Mengolah Informasi

Axon: Mentransmisikan output

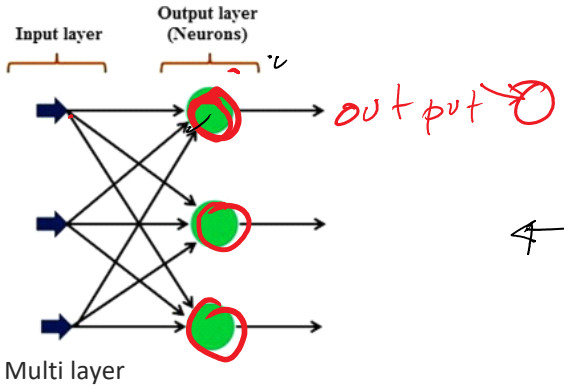
Synapse: titik koneksi dengan neuron lain

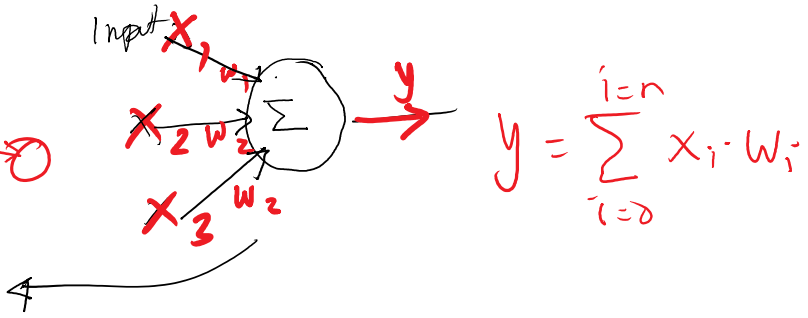






Single Layer





Multi layer

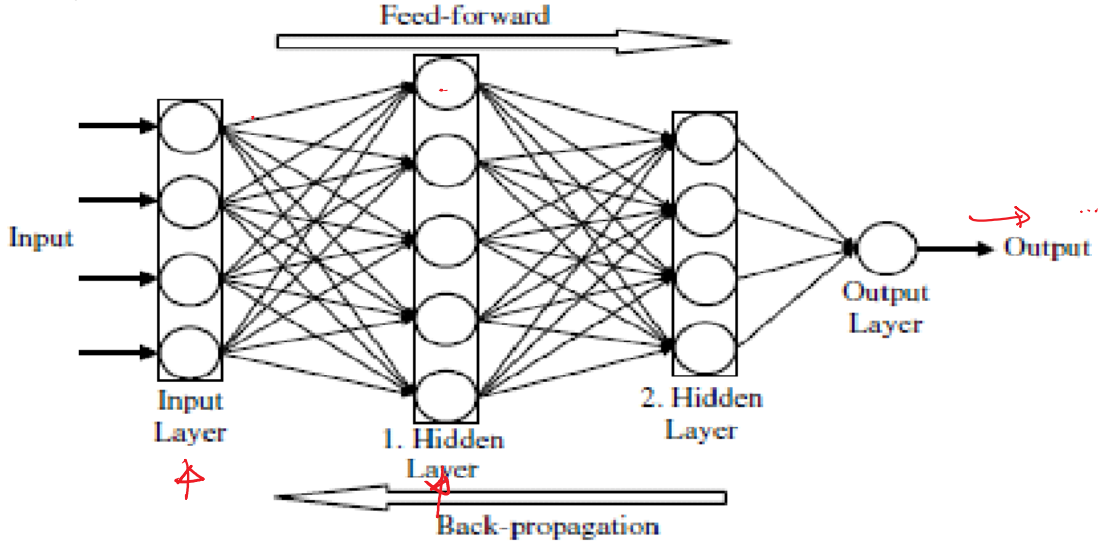


Figure 2: Architecture of a multilayer neural network

Bias dan Threshold

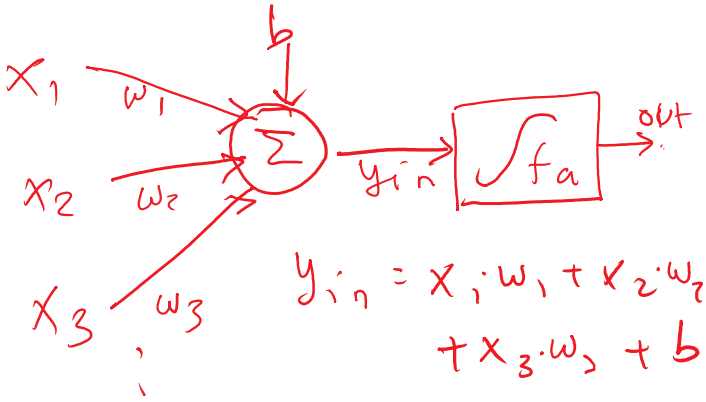
Linear sperability

$$y_{in} = b + \sum_i x_i w_i$$

Untuk output dengan jawaban ya/tidak, respon di tentukan dengan Nilai output 0 atau 1

$$b + \sum_i x_i w_i = 0$$

Y in ditentukan dengan $y_{in} > 0$ *atau* $y_{in} < 0$



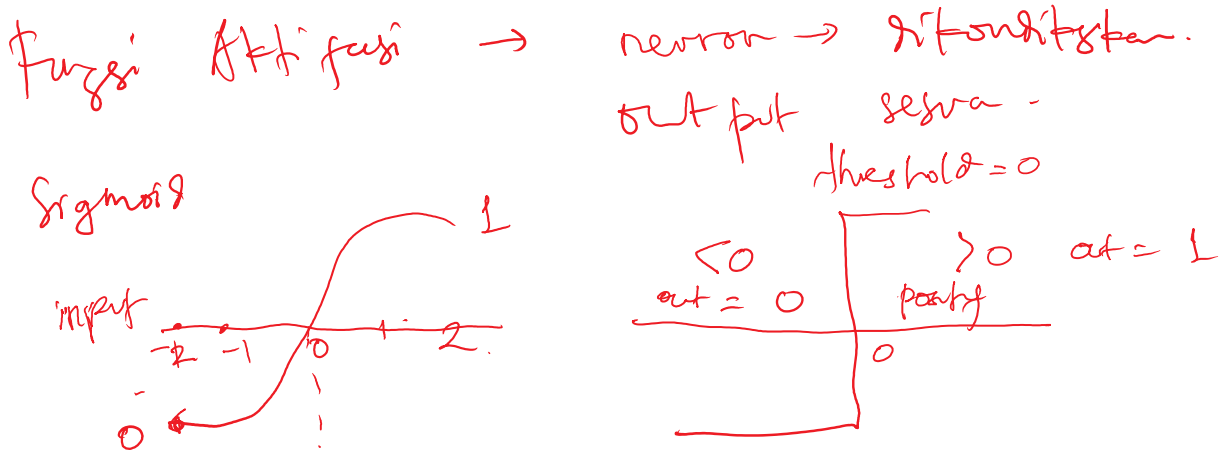
$$b + \sum_i x_i w_i = 0$$

Y in ditentukan dengan $y_{in} > 0$ *atau* $y_{in} < 0$

Persamaan garis pembatas:

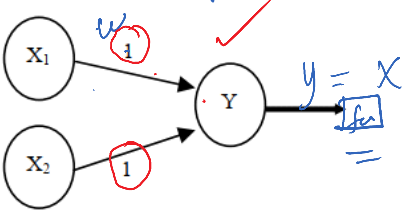
$$x_2 = -\frac{w_1}{w_2} x_1 - \frac{b}{w_2}.$$

Bias : bobot untuk input dengan nilai selalu 1



Contoh :
OPERASI AND

X1	X2	Y
1	1	1
1	0	0
0	1	0
0	0	0



Threshold(*Y*) = 2

$y = x_1 \cdot w_1 + x_2 \cdot w_2 = 1 \cdot 1 + 1 \cdot 1 = 2$

bobot = 2

$y = x_1 \cdot w_1 + x_2 \cdot w_2 = x_1 \cdot 2 + x_2 \cdot 2$

$y_{in} = \sum x_i \cdot w_i + b$

Input

x_1 x_2 .. x_n

output / Target

$y_{in} \rightarrow fa \rightarrow y$.

w.

$x_1 w_1 + x_2 w + x_3 w + x_4 w$

Dataset :

Harga Motor.

Banyak	x_1 Merk	x_2 umur	x_3 cc	x_4 km	Harga.
Training	beat → 1	9th	125	13.000	11jt
	beat → 1	2th	125	500.	20jt
	vario 2	3th	125	6000	→ ?

beat

w_1 , w_2 = ?

Mesin. → menentukan bobot → algoritma

AI

atau $3x + 4y + 5z = 2$

$3x + 6y + 7z = 10$ 2 aljabar linear →

Supervise learning. $x =$ $y =$ $z =$

MATRIX , Regresi , Statistik