... tensor flow playground.

MLP Notation

- To understand back propogation we have to learn MLP notation (we build neural network it comes with biases and weights, if we not able to denote this notation properly then back propogation and time confusion बहुत होता है).

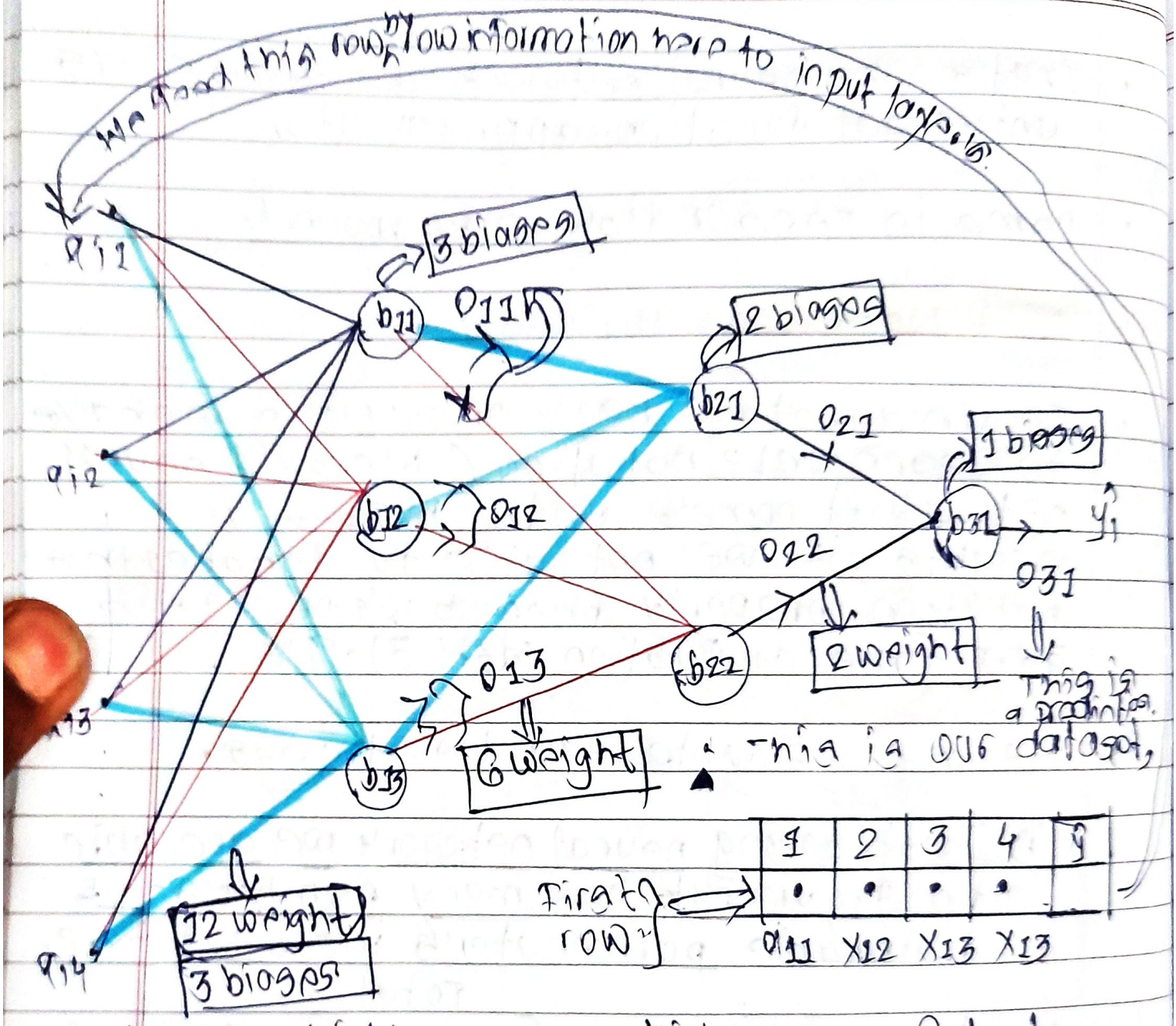
- We are going to learn two things,

i) Just seeing neural network we are able to figure out how many numbers of trainable parameters included here.

trainable parameters } = Total (No. of weights and biases).

↕ जिसका value हमे find करना है.

ii) How we denote this weight and biases of this neural network.



∴ this is our dataset,

1	2	3	4	y
•	•	•	•	

First row → x_{11} x_{12} x_{13} x_{13}

- We have here 4 diamentional data,

m ⟹ rows 1, 2, 3 ... n

n : 4 ⟹ columns

- First question is, how many trainable parameters we have?

- Since we have to know this before, how many parameters does our both propotion ~~has~~ going to calculate while training/ before ~~training~~ training.

- Total no. of weight,

$12 + 6 + 2 = 20$ weights

+

$3 + 2 + 1 = 6$ biases

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26 (Trainable parameter)

weight

** How we denotes ~~notes~~ and biases in MLP?

- **Biases**

b_{ij}

$i \Rightarrow$ layer number

$j \Rightarrow$ node number.

- **Output**

O_{ij}

i => layer number
j => node number

- **Weights**

- We need three things,
  i, j, k

k => weight कोणसे layer मे घुस रहा है.
i => current layer से कोणसे no. of nodes से निकल रहा है.
j => जिस layer मे घुस रहा है, उस layer में कोणसे number वाली node मे घुस रहा है.