Day : 02

Ajanta
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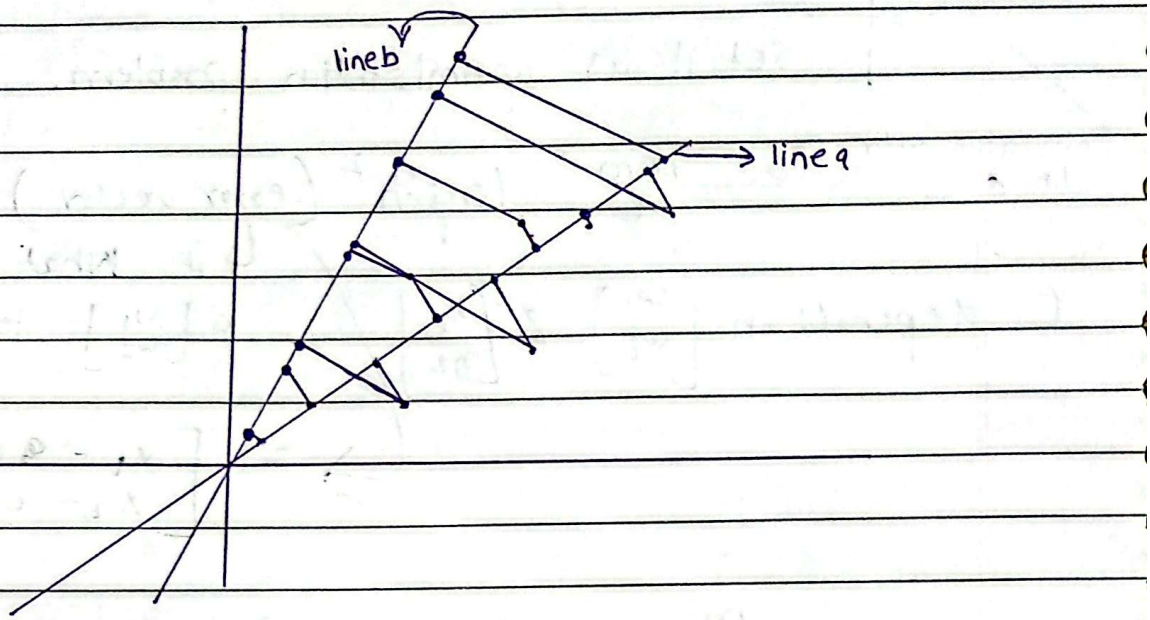
Find the proxy for a datapoint on this line, to actually find the line itself.

Goal : Develop a way to find a "compressed" representation of data when datapoints not-necessarily fall on line
↳ ~~RULE, NOT EXCEPTION~~



Reconstruction error is lesser in line a in comparision to line b ; NOT the ~~eat~~ compression ratio

How to find reconstruction error ?

Goal : Find the line that has the least "reconstruction" error

~~Unsupervised~~

Data set : $\{x_1, x_2, x_3 \ldots\ldots x_n\}$ $x_i \in \mathbb{R}^d$

Error (line, dataset)
- How do we define error for a given line w/r to dataset

$$= \sum_{i=1}^{n} \text{error}(\text{line}, x_i)$$

— ~~Sum of the error incurred by each of~~ these datapoints for a given line