

AI = Intelligence achieved Artificially

↑
AV, ML, DL, NPL → Are ways to achieve this

ML = type of AI that provides computers with ability to learn without explicitly programmed.

→ Data is growing at rapid scale
So ML is needed to make sense out of it.

Supervised Learning :- You use labeled data to train data

G	A	Solbg	Chsl

Y-variable
predictor
dependent Var

↑
Model predict
this

X-Var
features
Independent Var

← train on this

↳ Classification Problem

Supervised Learning of two types:-

Classification :- Credit Card, Bank Credit Card fraud, Disease Detection

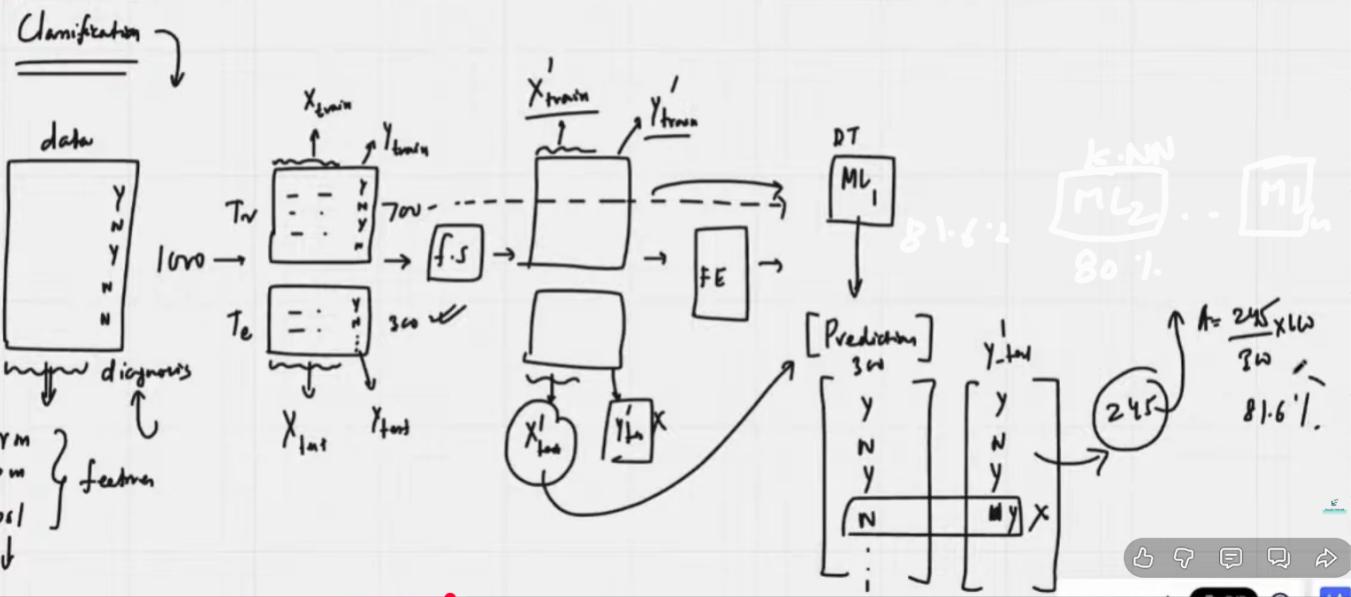
Regression :- Temperature, Stock Price Prediction

Unsupervised Learning :- Unlabelled data

- ↳ Clustering
- ↳ Recommendation Eg:- Netflix

Reinforcement Learning :-

Eg:- Gaming, DL



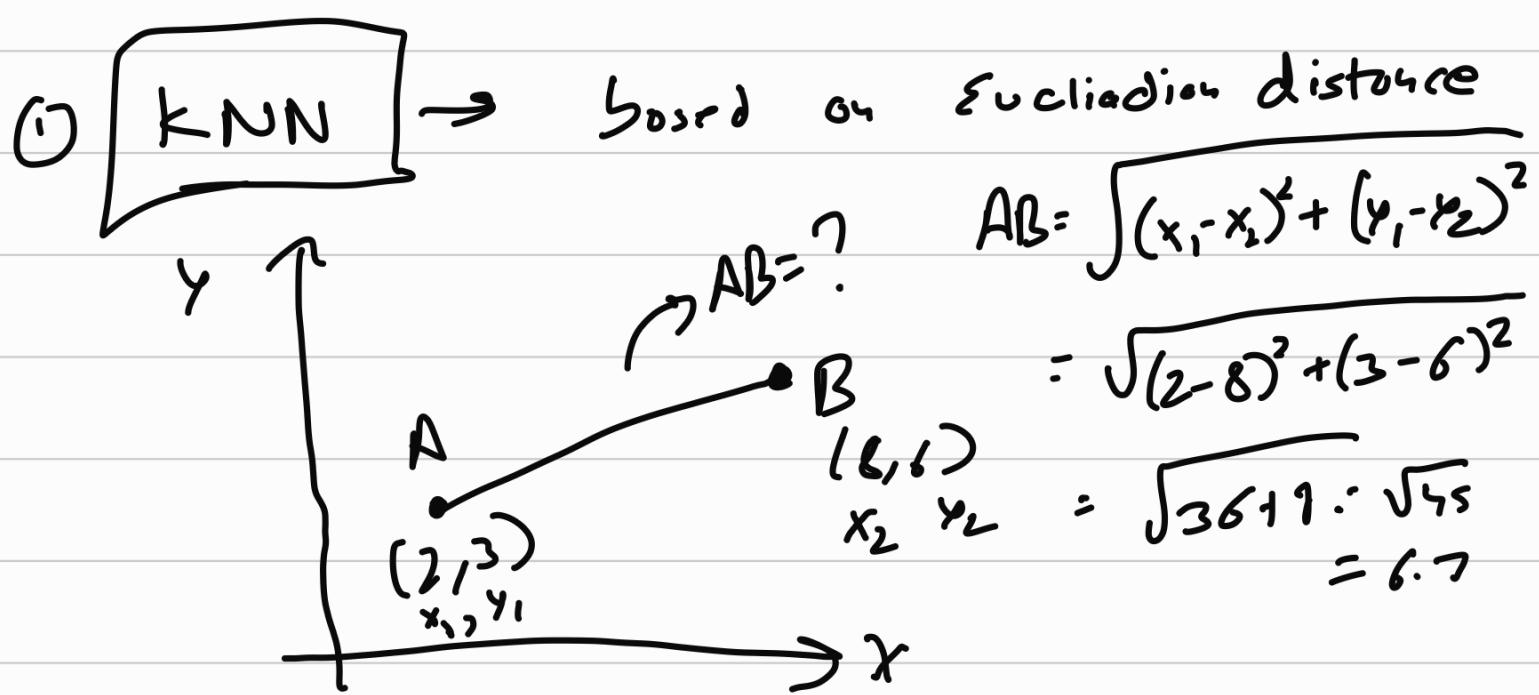
Best Model

DT 81%. ML_k 82%.

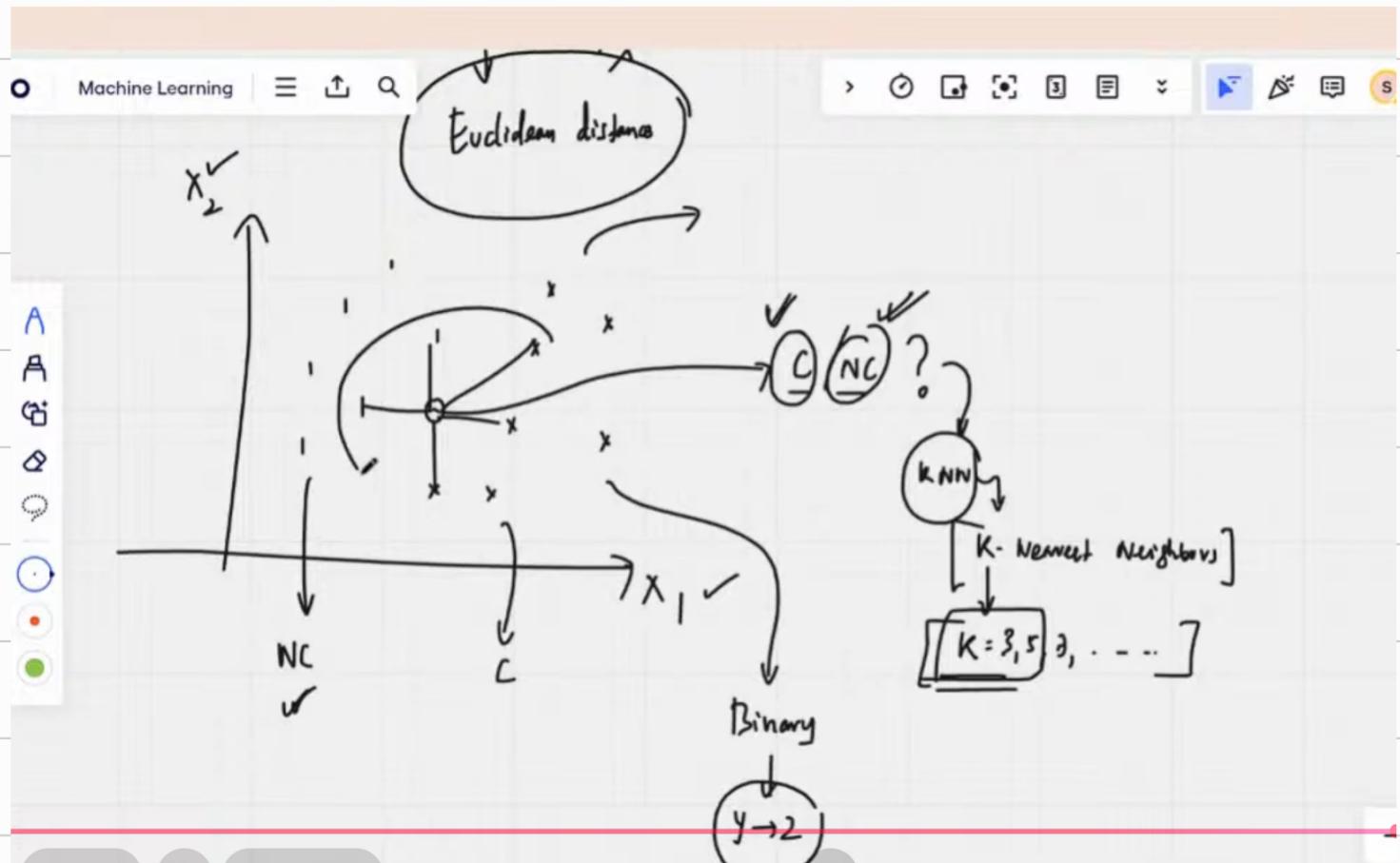
UPD \rightarrow hyper parameter optimization

Accuracy is Not right
Metric to judge Model
it is Worst

Classification:-



$k \rightarrow$ Hyper Metro (Default Value = 5)



Age Gender Gender_New Game Euclidean Distance

25	M	1	Cricket	9 ✓ → C
29	M	1	Cricket	5 ✓ → C
11	M	1	Cricket	23
18	M	1	Football	16
29	M	1	Cricket	5 ✓ → C
35	M	1	Football	1 ✓ → F
18	F	0	Cricket	16.0 ✓ → C
21	F	0	Football	17.05 ✓ → F
22	F	0	Football	12.5 ✓ → F
31	M	1	Football	3 ✓ → F
34	M	1	Cricket/Football	

$\sqrt{(34-18)^2 + 1} =$

(34, 1)

$\left\{ \begin{array}{l} \text{C} \\ \text{F} \end{array} \right.$

$K=5$

Out of 5, 3 Neighbours are saying Cricket & 2 are saying Football

