★ ML MODELS

1) Linear Regression : Supervised Learning

→ $y = \theta_1 + \theta_2 \cdot x$ (fits a straight line)

- → With 1 variable → Takes x, gives y (straight line)
- → With multiple variables → Takes x, z, w, gives y (" ")
- → Polynomial regression → Takes x, gives y: polynomial

2) Logistic Regression : Output has only 2 possible values.

3) Decision Tree Regressor : Both Classical & Categorical data

4) Support Vector Machine : High dimensional spaces
↳ in regression, for discrete values

5) Naive Bayes (Gaussian NB) → both continuous & discrete data

6) K Neighbour Classifier → easy, both classif. & reg, but slows with greater data

7) KMeans → not used much in regression

8) Random Forest Classifier : multiple decision trees then 'best out of' this

9) Gradient Boosting Classifier → High accuracy

- → GBM
- → XGBoost
- → LightBGM
- → CatBoost

10) Dimensionality Reduction Algorithms

★ CNN :- { Deep Learning }

★ For time series based predictions, following models are preferred :-

- LightGBM
- Naive Bayes
- ARIMA model

* Report : Random 5 dates

→ Put in linear regression, Decision tree, Naive Bayes, LightGBM, ARIMA model

→ Compare their results & accuracy

* → Algorithm behind LightGBM, Naive Bayes, ARIMA & all else.

Date	LinearReg	Dectree	SVM	NB	KNeigh	LightGBM	XGBoost
30-05-22							
10-06-22							
15-07-22							
01-08-22							
07-09-22							
23-09-22							