What is Machine Learning??

Grade Calculator: It can not take its own decision: It is rule based paradigm

Dumb programming

Data 🡪 Rules 🡪 Result Rule based programming paradigm

Human can take decisions as per the situation due to intelligence

Intelligence: if something out of routine happens, you must be able to take decisions

Genome Sequencing: DNA (A T G C)

AI: is a empty brain, we have to train it.

Grading system

Classical Programming Paradigm: Rules/Logic + Data/Input = Result

Machine Learning Paradigm: Data/Input + Answer/Output = Rules/Logic

Types of ML:

Supervised = Data + Answers (find the pattern)

Unsupervised = We don’t have answers, we have data and some parametric values

Semi-supervised / Reinforcement

Supervised Learning:

1. Regression
2. Classification

Regression: whenever we have to predict a numerical value, we will use regression algorithm.

Exampls: predict price, weight, temperature, sales, salary, age, cgpa

Classification: whenever we need to predict a categorical value (non number), we will use classification algorithm.

Example: disease(yes/no), T/F, like/dislike, gender

What is regression?

What is Variance? How much the data is varying from the mean

Covariance? Difference between two variables. Direction

Correlation= Quantifies the strength of the relation between two variables