3 Types of Machine Learning.

Machine Learning Techniques

- Supervised ML
- Unsupervised ML
- Reinforcement Learning

Supervised ML Technique

→ Regression ✓

→ Classification ✓

In Supervised ML model is trained on a labeled dataset, meaning each input has a corresponding correct output.

Predict House price

Dataset

→ Independent feature → Dependent or O/p feature

Size of House	# of Rooms	Price
5000	5	450K
6000	6	500K
—	—	—
—	—	—

Continuous

① Dependent or O/p feature

② Continuous → Regression

③ Categorical → Classification

Classification

↓ Dependent / Feature

No. of study hours	No. of play hours	Pass/Fail
7	3	Pass
2	6	Fail

Binary Classification

OR

Multiclass classification

May Be

② Unsupervised ML : Eg: Customer Segmentation → Clusters

Salary	Spending Score (1-10)
20000	9
45000	2
—	—
—	—
—	—

Ecommerce Company
⇓   ⇓
Email with some discount to

Spending

Salary

} the model is trained on data that has no labeled outputs. It identifies patterns, structures, or relationships within the data.

Supervised ML

① Linear Regression
② Ridge & Lasso
③ ElasticNet
④ Logistic Regression (Classification)
⑤ Decision Tree ⎫
⑥ Random Forest ⎬ Both
⑦ AdaBoost   ⎪ Classification
⑧ Xgboost   ⎭ & Regression

Reinforcement Learning

Unsupervised ML

① K Means
② Hierarchichel Mean
③ DBScan clustering