

3 Types of Machine Learning.



Supervised ML Technique

Predict House price

- Regression ✓
- Classification ✓

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

<u>Dataset</u>		
Size of House	# of Rooms	Price
Independent feature		Dependent or o/p feature
5000	5	450K
6000	6	500K
—	—	—
—	—	—

- ① Dependent or o/p feature
- ② Continuous → Regression
- ③ Categorical → Classification

Continuous (Real numbers)

Classification

No. of study hours	No. of play hours	Dependent Feature Pass/Fail	
7	3	Pass	Binary Classification OR Multiclass classification
2	6	Fail	
May Be			

② Unsupervised ML ÷ Eg: Customer Segmentation → Clusters

Salary

20000

45000

-

-

-

Spending Score (1-10)

9

2

-

-

-

Spending



Ecommerce Company



Email

with some discount to



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

Supervised ML

Unsupervised ML

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

- ① K Means
- ② Hierarchical Mean
- ③ DBScan clustering

Reinforcement Learning