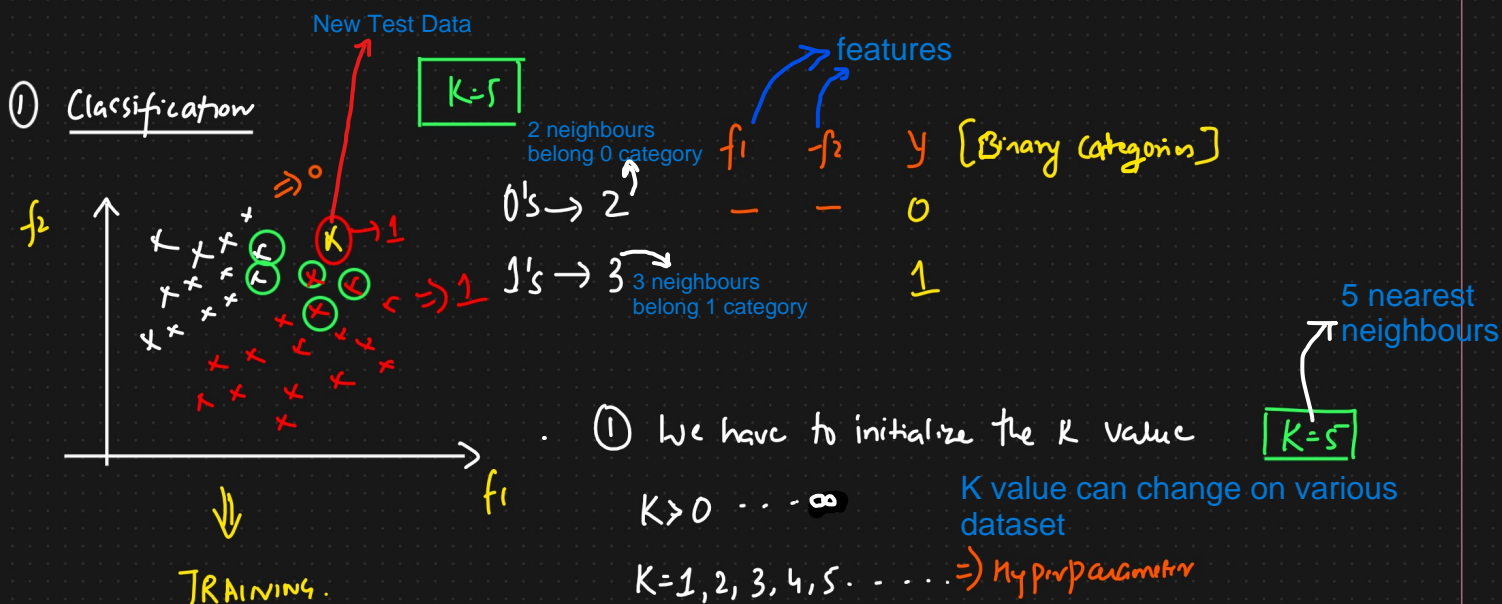


K Nearest Neighbour (KNN)

Used for

- ① Classification
- ② Regression

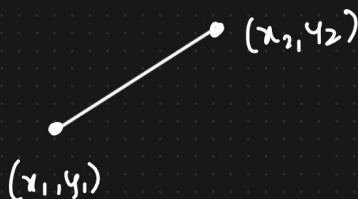


② Find the K Nearest Neighbour for The Test Data.

③ From those $K=5$ how many neighbour belong to 0 Category and 1 Category

How to find k-nearest neighbors :-

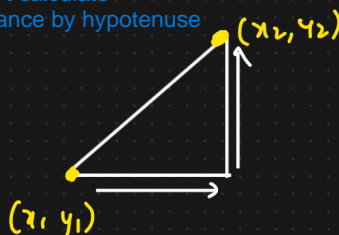
① Euclidean Distance



$$\text{Distance} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

② Manhattan Distance

Don't calculate distance by hypotenuse



② Regression

House
price



Median

⇒ Average of all these points to find out the o/p,
If there are outliers.

Size

Time complexity

$O(n)$ ⇒ Million of data point

{ ① KD Tree
② Ball Tree } ⇒ Optimize

⇓
Binary Tree

