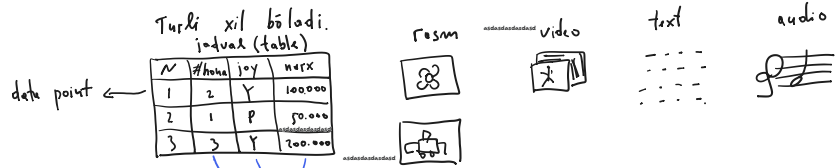


1. Supervised learning
2. Unsupervised l.
3. Reinforcement l. X

## DATA



xususiyatlar (features)

Belgi (label)

- Labeled data (belgilangan)

- Unlabeled data (belgilanmagan)

- 1) Numer asosida eg 4, 0.5
- 2) kategoriya asosida spam/spammas, mushak/it
- Regression model
- Classification model
- Clustering (klastirlash, gruppalash)
  - K-means

1) Supervised

- 1) Linear regression
- 2) Logistic regression
- 3) K-nearest neighbours
- 4) Neural Networks

2) Unsupervised

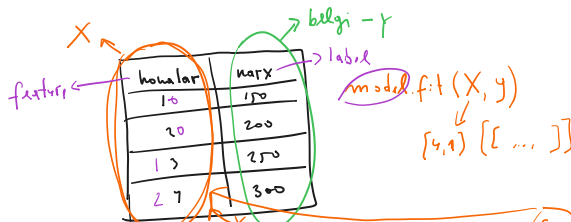
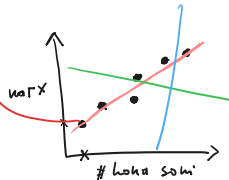
- 1) K-means

1) Linear regression

- hokimlar soni
- narxi

Data =>

#hona	narx
1	150
2	200
3	250
4	300
5	350
6	400
7	?



$X\_list = [1, 2, 3, 4]$

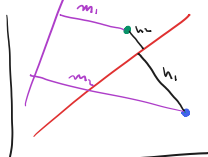
$X\_np = np.array(X\_list) \Rightarrow [1, 2, 3, 4] \Rightarrow reshape \Rightarrow$

$\begin{bmatrix} 1 \\ 2 \\ 3 \\ 4 \end{bmatrix}$

$f_1$	$f_2$	$f_3$	$f_4$	price

(-1, 4)

$X = [3, 4]$   $y = [1, \dots, 3]$



$h_1 > h_2$