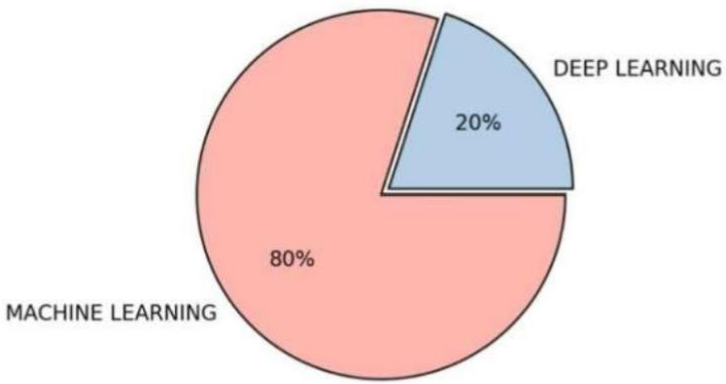
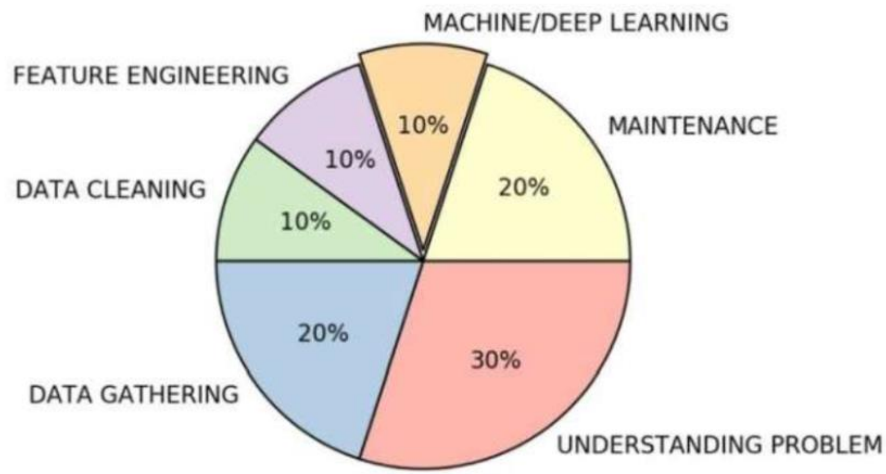
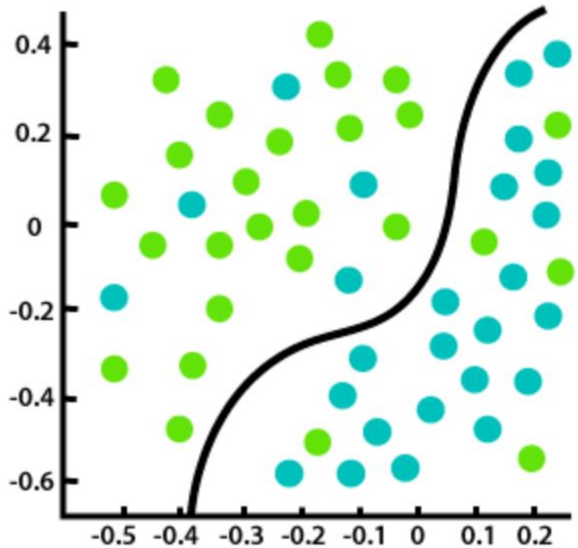
EXPECTATION



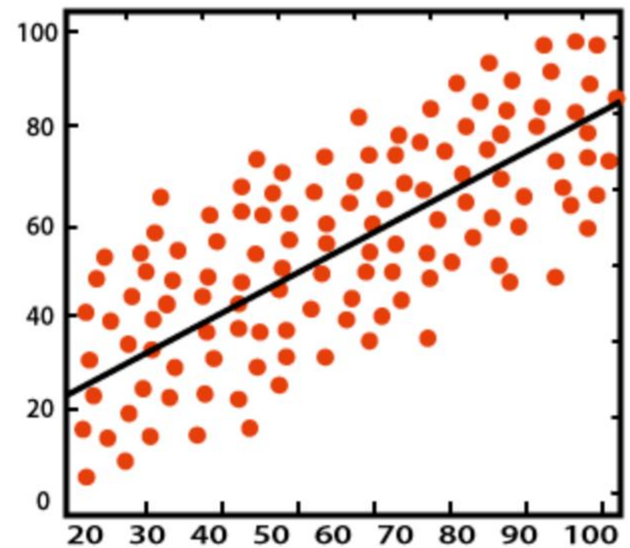
REALITY



SUPERVISIONATO

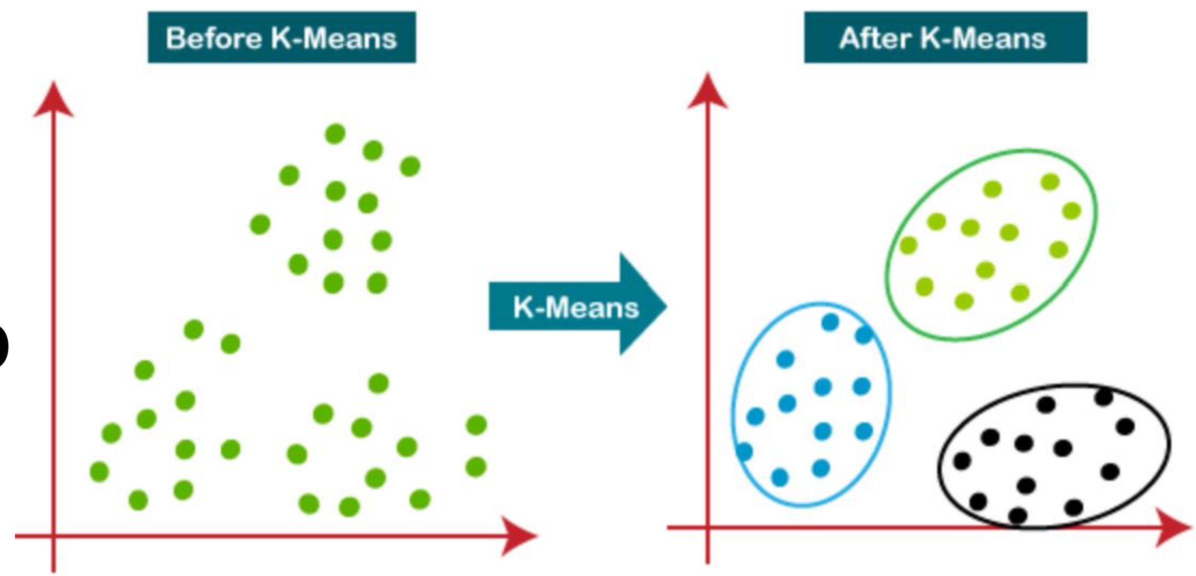


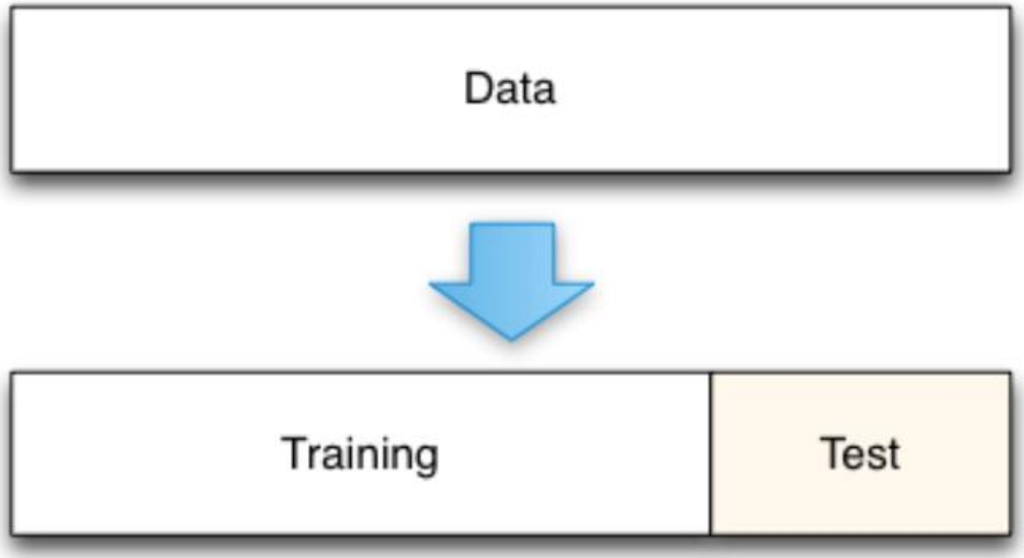
Classification



Regression

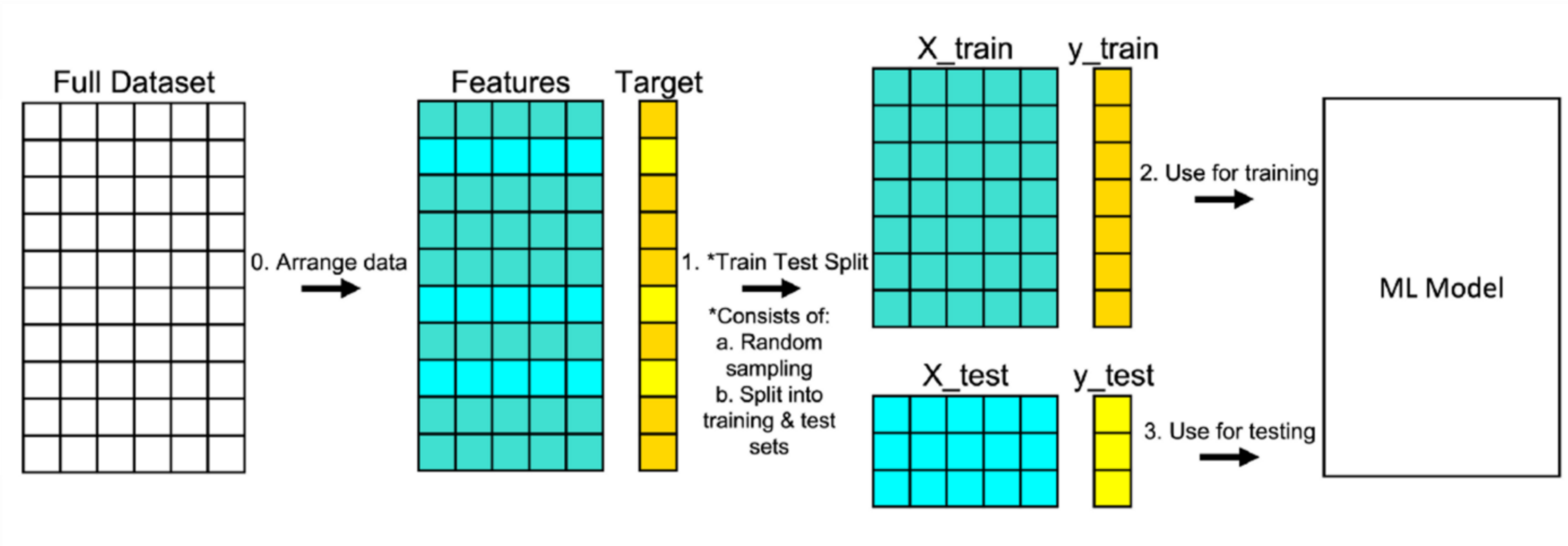
NON SUPERVISIONATO

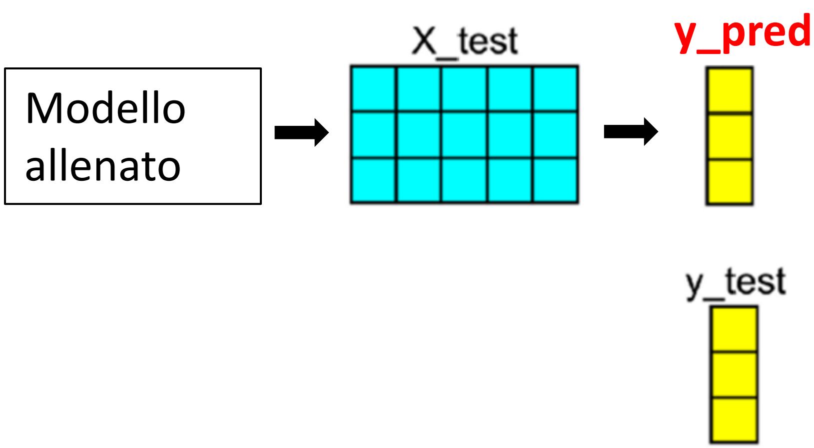



Data
Training
Test


Testing set
Training set

INPUT = FEATURES   OUTPUT = TARGET





Confronto (y_pred y_test) per valutare errori

	predetti	reali_test
0	27.609031	22.6
1	22.099034	50.0
2	26.529255	23.0
3	12.507986	8.3
4	22.254879	21.2
...	...	...
97	28.271228	24.7
98	18.467419	14.1
99	18.558070	18.7
100	24.681964	28.1
101	20.826879	19.8

	predetti	reali_test
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1	22.099034	50.0
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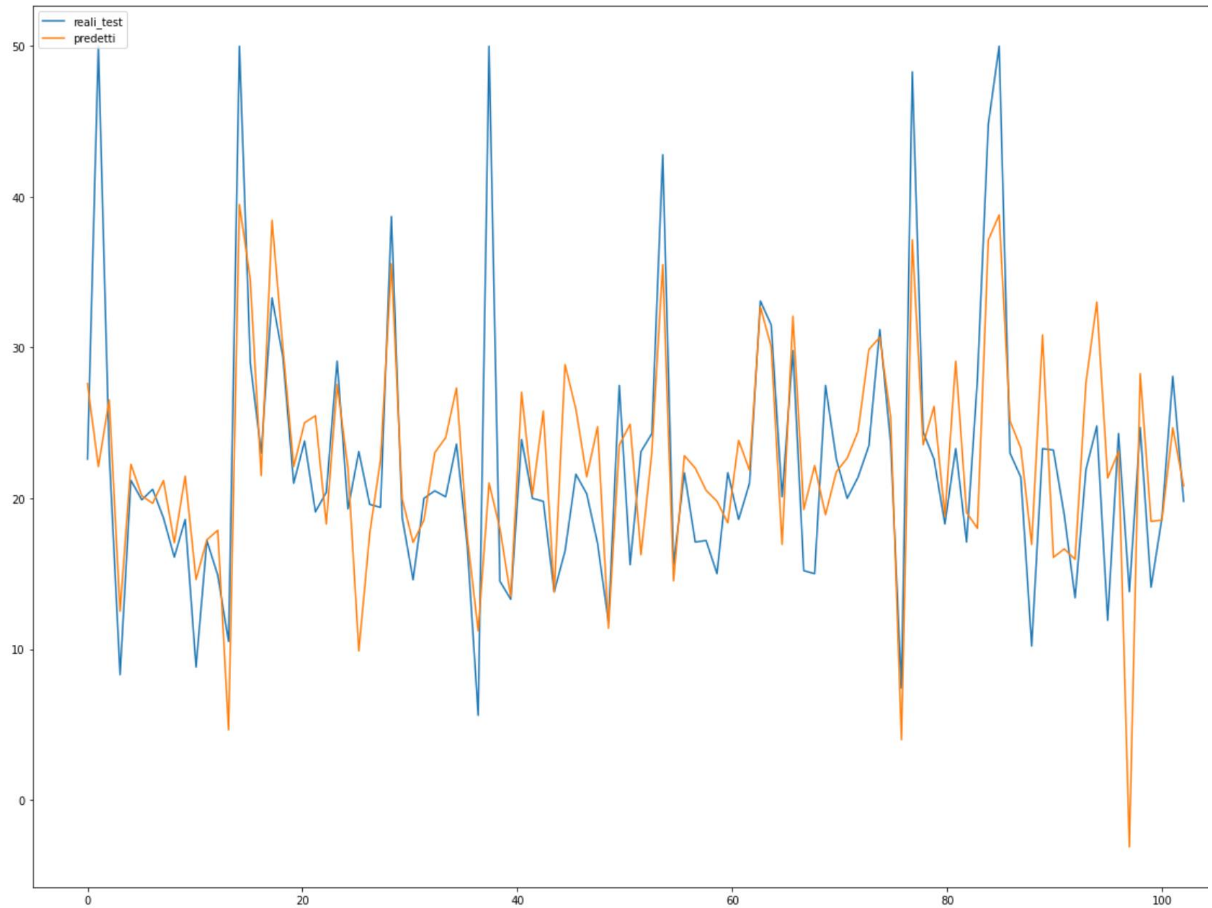

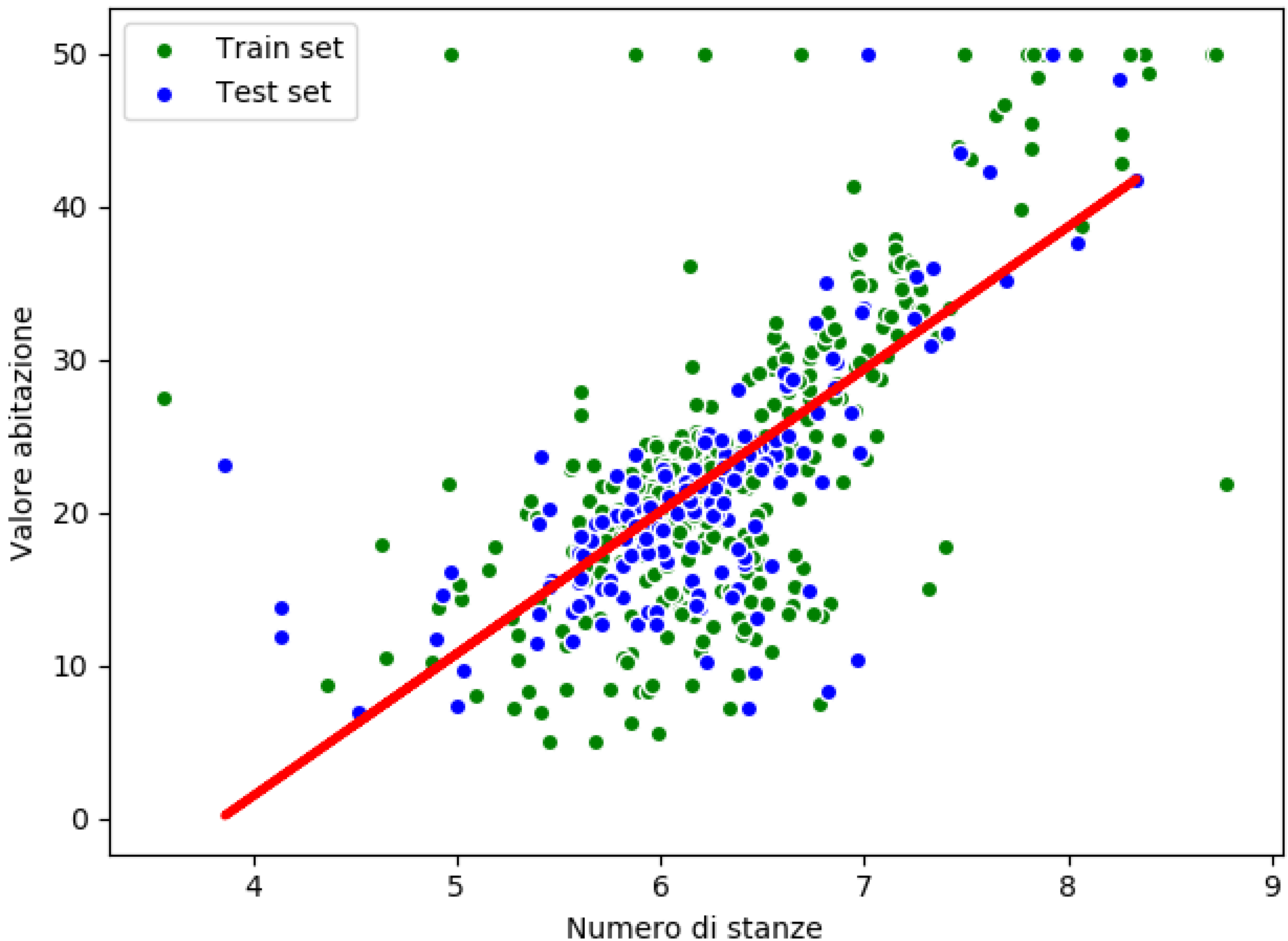

Train set
Test set
Valore abitazione
Numero di stanze
0
10
20
30
40
50
4
5
6
7
8
9

Introducendo opportune assunzioni si ottiene il modello di regressione lineare semplice.

Assunzione 1:

$Y_i = \beta_0 + \beta_1 x_i + \varepsilon_i$ **per ogni osservazione i=1,...n**

Assunzione 2:

Le ε_i sono variabili casuali indipendenti con valore atteso $E(\varepsilon_i)=0$ e varianza costante $V(\varepsilon_i)=\sigma^2$ per ogni i=1,...,n

Assunzione 3:

I valori x_i della variabile esplicativa X sono noti senza errore