



# Lab - 2

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## Data preprocessing

### Feature Transformation

- Feature scaling
  - Ideal range  $\rightarrow (-1, 1)$
  - MinMax Scaling
    - $x_i - x_{\min} / x_{\max} - x_{\min}$
  - Pre read
    - Mean normalisation
    - divide by max
- Feature encoding
- Label encoding
  - based on the priority we give the numerical forms
    - btext - 0

- m.tect - 1
- phd - 2
- One hot encoding
  - based on the row or the iteration the value of it changes

Sex	NUM(Male)	NUM(Female)
Male	1	0
Female	0	1

```
from sklearn.preprocessing import OneHotEncoder, LabelEncoder
```