

# Machine Learning Course | Arabic

## Data Preprocessing

Level - 01

[Link to Lecture on Youtube](#)

# Terminologies

**Features / Independent variables**

**Target / Dependent variable**

**Samples / Points**

	weight	height	drinks alcohol	healthy
0	112	181	0	0
1	123	165	1	1
2	176	167	1	1
3	145	154	1	1
4	198	181	0	0
5	211	202	1	0
6	145	201	1	1
7	181	153	1	1
8	90	142	0	1
9	101	169	1	1

# Introduction

What are the problems that the data include?

- Missing Values.
- Duplicates.
- String, computers aren't work with strings.
- Outliers.
- Non useful features.
- Highly correlation features.

	weight	height	drinks alcohol	healthy
0	112	181	0	0
1	123	165	1	1
2	176	167	1	1
3	145	154	1	1
4	198	181	0	0
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# Introduction

What is data preprocessing?

Data preprocessing is the process of **handling** and **cleaning** up all the previously mentioned issues.

# Introduction

## Why descriptive statistics is important?

- It can summarize the data and give us an intuition about what the data is talking about.
- No need to read data line by line to understand it.

# Table of contents

**1 - Mean / Median / Mode**

**2 - Min / Max / Range**

**3 - Percentiles / IQR / Outliers**

**4 - STD / Variance**

**5 - Covariance**

**6 - Correlation / Causation**

**7 - Normal Distribution**

**8 - Skewness**

# Table of contents

**9 - Kurtosis**

**10 - Z - score**

# Thank You!

## Do you have any questions?

Write them in the comments

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