

Métodos Descritivos de Data Mining

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# Business understanding

This project is related to a fictional insurance company in Portugal and has as objective the creation of a Customer Segmentation that will enable the Marketing Department to better understand the customer profiles. Better understand of the customer profiles can lead to specific/direct/targeted Marketing campaigns which can lead to more revenue and company growth.

In order to accomplish this goal, we developed all the logic of the segmentation in Python and we ran it on Jupyter Notebook.

We followed CRISP-DM’s methodology, which stands for Cross-industry standard process for Data Mining. It starts on the Business/data understanding, passing through the data preparation stage, which is always where data related projects take more time, and finally the cluster modelling, using the K-means algorithm. After the modeling we assessed the cluster results, and now the Marketing Department can target specific customer that they think will use their product, according to the customer’s characteristics.

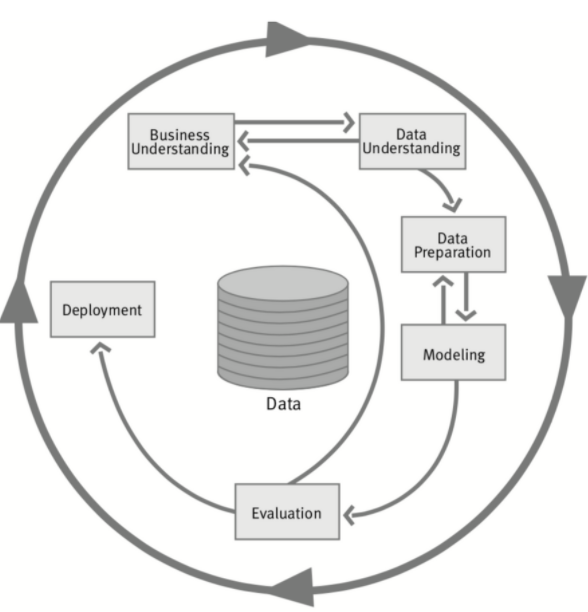


Figure 1 – CRISP DM

# Data understanding

## Shape

## Info

## Head

# Data preparation

## Columns dropping and creation

## Outliers

### Interval Variables

### Categorical Variables

## Data Exploration

## NaN Values

# Modeling

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## Plotting Model results

# Evaluation

## Optimal number of clusters

## Top features

## Cluster results visualization

## Recommendations for future Marketing Campaigns

## 

# Conclusions