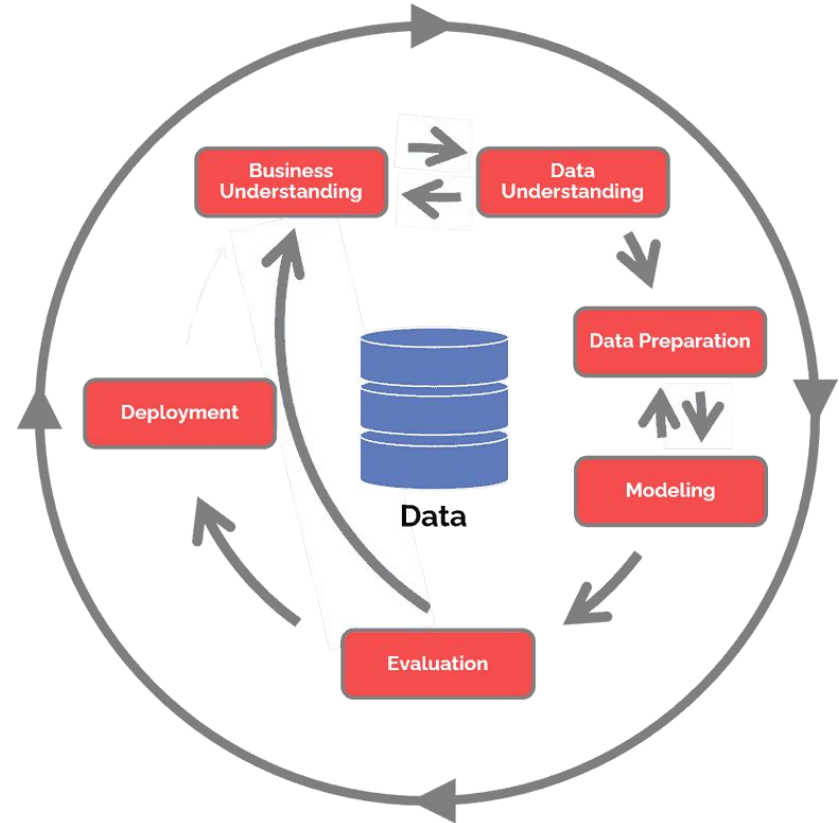


Bank Marketing

Predicting client subscription to a term deposit
using Machine Learning

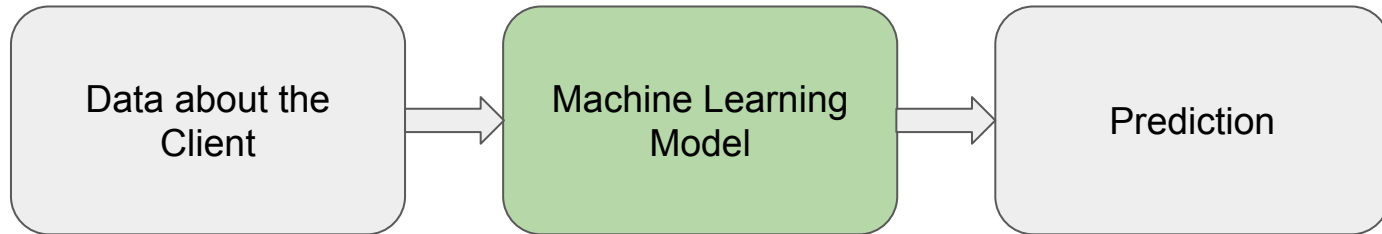
Methodology

- Evaluate the data
- Format the data
 - Add missing values with the most common ones
 - Scale the numerical data to the range from 0 to 1 to help learning
 - Add additional data for underrepresented class of positive result
- Build Machine Learning Models
- Evaluate the Model Performance by evaluating model accuracy
- Selection of the best Model



Model Usage

Providing the information about the client such as age, occupancy, marital status, previous marketing campaign information we can predict either he/she will subscribe to the term deposit.



Most Important Information

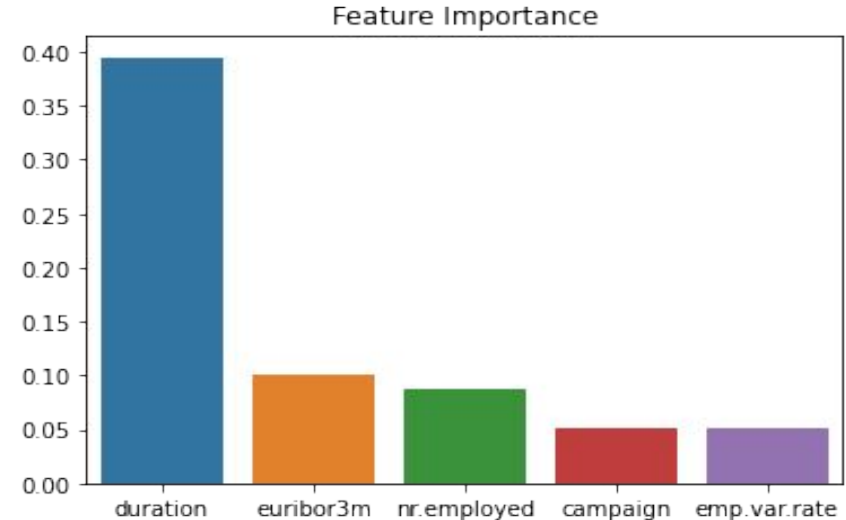
Duration: last contact duration, in seconds

Euribor 3 month rate - daily indicator

Number of employees - quarterly indicator

Employment variation rate - quarterly indicator

Campaign - number of contacts performed during
this campaign and for this client



Duration alone is the most important information about the client used for predicting result. And it is determined that the longer the duration the bigger likelihood of the client subscribing to the Bank services. In this case the campaigns should be pushed longer for the clients and reached out only after long exposure to the campaign.