

**Group Name:** Data Pro 2023

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**Country:** Costa Rica

**College/Company:** Universidad Estatal a Distancia de Costa Rica

**Specialization:** Data Science

**Problem description:** Bank Marketing (Campaign). A bank wants to perform a commercial campaign in order to promote their term deposit product to clients, but they want it to be shortlisted to customers with a highest probability of buying their products. The idea is to use a ML model which allow this identification of customers to be utilized for their marketing channel.

**Business understanding:** The objective to develop this model is to identify the customers who are more likely to buy the product that the bank is offering (term deposit), based on the past interactions of these clients, this with the intention of saving costs and time to the bank's marketing department, so they can focus their marketing campaign in these clients.

### Project lifecycle along with deadline

Tasks	19/11/2022	26/11/2022	3/12/2022	10/12/2022	17/12/2022	24/12/2022	31/12/2022
Business Understanding	Done						
Data understanding	Done						
Exploratory data Analysis							
Data Preparation							
Model Building							
Model Selection							
Performance reporting							
Deploy the model							
Converting ML metrics into Business metric							
Prepare presentation for non technical persons.							

# Data Intake Report

Name: Bank Marketing (Campaign)

Report date: 14/11/2022

Internship Batch: LISUM14

Version: 1.0

Data intake by: Ana Lilliam Recio Garcia

Data intake reviewer: NA

Data storage location: <https://github.com/AnaRecio/Bank-Marketing-Campaign>

**Tabular data details:** bank-additional-full.csv

<b>Total number of observations</b>	864969
<b>Total number of files</b>	41188
<b>Total number of features</b>	21
<b>Base format of the file</b>	csv
<b>Size of the data</b>	372 KB

**Tabular data details:** bankfull.csv

<b>Total number of observations</b>	768604
<b>Total number of files</b>	45211
<b>Total number of features</b>	17
<b>Base format of the file</b>	csv
<b>Size of the data</b>	503 KB

**What type of data you have got for analysis:**

I've tried to analyze the numerical columns in both data sets to look for skewed data and outliers.

**What are the problems in the data:**

No NA values were found.

Although many of the data analyzed was skewed to the right (balance, age, duration)

We can see outliers in age where the mean is 40 and the max is 98 and in balance where the mean is 1362 and the max is 102127.

**What approaches you are trying to apply on your data set to overcome problems like NA value, outlier, etc., and why?**

Still need to analyze the information in the data frames to decide if it's important to keep the outliers or to delete them.