



# **Week 7: Final Project**

## **Bank Marketing Campaign**

### **- Data Science -**

## Team member's details:

Group Name: <i>Data Science Enthusiasts</i>					
	Name	Email	Country	College/Company	Specialization
1	Amira Asta	amira.asta02@gmail.com	Tunisia	Afrikanda	Data Science
2	Vatsal Vinesh Mandalia	vatsalvm10@outlook.com	Oman	Graduated	Data Science

## Problem description:

ABC Bank wants to sell its term deposit product to customers and before launching the product they want to develop a model which helps them understand whether a particular customer will buy their product or not. In order to achieve this task, they approached an Analytics company to automate this process of classification. The Analytics company has given responsibility to the **Data Science Enthusiasts** Team and has asked to come up with a ML model to shortlist customers whose chance of buying the product is higher, so that ABC's marketing channel can focus only on those customers.

## Business understanding:

There has been a revenue decline for the ABC bank and they would like to know what actions to take. After investigation, they found out that the root cause is that their clients are not depositing as frequently as before. Knowing that term deposits allow banks to hold onto a deposit for a specific amount of time, banks can invest in higher gain financial products to make a profit.

In addition, banks also hold better chances to persuade term deposit clients into buying other products such as funds or insurance to further increase their revenues. As a result, the ABC bank

would like to identify existing clients that have higher chances to subscribe for a term deposit and focus marketing efforts on such clients. The classification goal is to predict if the client/customer will subscribe to a term deposit or not.

## Project lifecycle:

Tasks	August 7th	August 8th	August 10th	August 12th	August 15th
Week 7					
Week 8					
Week 9					
Week 10					
Week 11					
Week 12					

## Data Intake report:

**Name:** Bank Marketing Campaign - Data Science

**Report date:** August 7th, 2021

**Internship Batch:** LISUM01

**Version:** 1.0

**Data intake by:** Data Science Enthusiasts Team

**Data intake reviewer:** Amira Asta

**Data storage location:** <https://github.com/AsAmira02/Bank-Marketing-Campaign-DSEnthusiasts2021>

**Tabular data details: 'bank.csv'**

<b>Total number of observations</b>	4521
<b>Total number of files</b>	1
<b>Total number of features</b>	17
<b>Base format of the file</b>	.csv
<b>Size of the data</b>	461 KB

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

<b>Total number of observations</b>	45211
<b>Total number of files</b>	1
<b>Total number of features</b>	17
<b>Base format of the file</b>	.csv
<b>Size of the data</b>	4.61 MB

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

<b>Total number of observations</b>	4119
<b>Total number of files</b>	1
<b>Total number of features</b>	21
<b>Base format of the file</b>	.csv
<b>Size of the data</b>	584 KB

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

<b>Total number of observations</b>	41118
<b>Total number of files</b>	1
<b>Total number of features</b>	21
<b>Base format of the file</b>	.csv
<b>Size of the data</b>	5.8 MB

**Proposed Approach:**

- There are 12 rows of duplicated data in the 'bank-additional-full' dataset.
- There are no missing values in all datasets.

**Github Repo link:**

<https://github.com/AsAmira02/Bank-Marketing-Campaign-DSEnthusiasts2021>

This repository includes the four datasets, model code and necessary files used in this project.