

## **DELIVERABLE WEEK 7**

**Specialization:** Data Science

**Name** : Mohammed Maqsood  
**Email** : [mohammedmaqsood48@gmail.com](mailto:mohammedmaqsood48@gmail.com)  
**Country** : Germany  
**College** : Otto von Guericke University  
**Specialization** : Chemical and Energy Engineering

### **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 in understanding whether a particular customer will buy their product or not (based on customer's past interaction with bank or other Financial Institution).

### **Business Understanding**

The plan is to help ABC company to provide a short list of customers that are more likely to buy their product based on their bank details information such as loan, Marital status, account balance etc. This goal will be achievable by using a sophisticated machine learning algorithm capable of using a customer record to predict their future action in a blink of an eye to reduce the company's time and resources.

A well detail objective and success criteria is explained below

- **Objective:** ABC Bank wants to use ML model to shortlist customer whose chances of buying the product is more so that their marketing channel (tele marketing, SMS/email marketing etc) can focus only to those customers whose chances of buying the product is more.
- **The success criteria:** for this business problem would be based on how much maximum number of customers we are able to predict who have subscribed to the product.

### **Project Lifecycle along with Deadline**

This project lifecycle is a compression all the major and minor tasks that need to be completed for the successful of this project with their deadlines.

<b>Major Task</b>	<b>Minor Task</b>	<b>Deadline</b>
<b>Business and Data Understanding</b>	<ul style="list-style-type: none"><li>○ Make research on Bank Business</li><li>○ Understanding Problem statement and project goal</li><li>○ Build a Data intake Report</li><li>○ Understand the data variables</li><li>○ Checking and providing solutions to issues in the data</li></ul>	<b>Week 7 &amp; 8</b>  Start: 19/07/2022    End : 26/07/2022

<b>Data Acquisition &amp; Preparation</b>	<ul style="list-style-type: none"> <li>○ Prepare different data cleaningsolution</li> <li>○ Perform EDA</li> <li>○ Create EDA ppt presentation</li> <li>○ Find Best algorithms for thedata</li> </ul>	<b>Week 9 &amp; 10 &amp; 11</b>  Start : 02/08/2022  End : 16/08/2022
<b>Modeling</b>	<ul style="list-style-type: none"> <li>○ Select algorithms</li> <li>○ Test different algorithmcategory</li> <li>○ Compare Algorithm based onperformance</li> <li>○ Choose the best algorithm for themodel</li> </ul>	<b>Week 12</b>  Start : 16/08/2022  End : 23/08/2022
<b>Deployment</b>	<ul style="list-style-type: none"> <li>○ Final Project and code report</li> <li>○ Final PowerPoint presentation</li> </ul>	<b>Week 13</b> Start: 23/08/2022 End: 30/08/2022

## Data Intake Report

Name : Bank Marketing (Campaign)

Report date : 19/07/2022

Internship Batch : LISUM10

Data intake by : Mohammed Maqsood

Data intake reviewer : Data Glacier

Data storage location :

<https://github.com/Maqsood8/Group-Project-Bank-Marketing.git>

### Tabular data details:

<b>Total number of observations</b>	45212
<b>Total number of files</b>	1
<b>Total number of features</b>	16
<b>Base format of the file</b>	.csv
<b>Size of the data</b>	4.39 MB

### Approaches:

- Data looks pretty clean
- We have unbalanced classes for our target
- There are a few peaks in 'yes' for some levels of categorical variables to look at
- We looked at a few of the numeric features, and the ones that are skewed will need to be transformed
- The dataset is heavily skewed

### **GitHub Repo link**

<https://github.com/Magsood8/Group-Project-Bank-Marketing.git>