DELIVERABLE WEEK 7

Group Name: Walther Rathenau Team
Specialization: Data Science

Team Members:

1. Name   **:** Mohammed Maqsood
   Email   **:** mohammedmaqsood48@gmail.com
   Country   **:** Germany
   College   **:** Otto von Guericke University
   Specialization **:** Chemical and Energy Engineering

2. Name   **:** Davangam Sreedhar Saikiran
   Email   **:** saikiran.davangams@gmail.com
   Country   **:** Germany
   College   **:** Otto von Guericke University
   Specialization **:** Chemical and Energy Engineering

Problem description

ABC Bank wants to sell it's term deposit product to customers and before launching the product they want to develop a model which help 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 customer 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.

Major Task	Minor Task	Deadline
Business and Data Understanding	o Make research on Bank Business o Understanding Problem statement and project goal o Build a Data intake Report o Understand the data variables o Checking and providing solutions to issues in the data	**Week 7 & 8** Start: 19/07/2022 End : 26/07/2022

Data Acquisition & Preparation	o Prepare different data cleaningsolution o Perform EDA o Create EDA ppt presentation o Find Best algorithms for thedata	**Week 9 & 10 & 11** Start : 02/08/2022 End : 16/08/2022
Modeling	o Select algorithms o Test different algorithmcategory o Compare Algorithm based onperformance o Choose the best algorithm for themodel	**Week 12** Start : 16/08/2022 End : 23/08/2022
Deployment	o Final Project and code report o Final PowerPoint presentation	**Week 13** 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 : Davangam Sreedhar Saikiran

Data storage location :

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

Tabular data details:

Total number of observations	45212
Total number of files	1
Total number of features	16
Base format of the file	.csv
Size of the data	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/Maqsood8/Group-Project-Bank-Marketing.git