

Week 7: Deliverables

Individual Project:

I have done this project individually

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Specialization: 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 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).

My goal as a data scientist is to build a machine learning model that learns the unknown patterns, maps and several input features classifying whether the client will subscribe for deposit or not.

- **Business understanding**

ABC Bank is a banking institution in Portuguese that offers direct marketing campaigns which are phone call based. As the marketing campaigns are phone call based, this presented some limitations and therefore this resulted in decreasing the operating efficiency of the company. Contacting many people takes a lot of time and therefore success rate is less. The consumers that are being offered deposits, mostly are people using phone calls as a method of communication. This poses some threats in the company as this will jeopardize the performance of the company, so the company is

coming up with innovative ways to increase the efficiency by making fewer calls but improves the success rate.

• **Project lifecycle along with deadline**

A project lifecycle requires a sequence of phases to accomplish the goal of completing the project. The Project Management Lifecycle should define the following aspects:

- What work needs to be achieved?
- Who will be involved in the team?
- What are the project deliverables?
- How to monitor the performance of each phase?

I've applied the 5 phases of the Project Management Lifecycle which are as follows:

- **Project Initiation phase**
- **Project planning phase**
- **Project Execution phase**
- **Project Monitoring and Control phase**
- **Project Closure phase**

➤ **Project initiation phase**

This phase involves undertaking a feasibility study of the project, identifying the project scope and deliverables.

I've done some feasibility study to see if the project is viable from the technical aspects. The technical aspects such as tools and technologies required to complete the project are already anticipated. This project requires some technical stack such as python, and other Microsoft office tools such as Word and Powerpoint presentation to accomplish my goal of completing the project.

As identifying the project scope involves defining the length, breadth, and depth of the project, on the other hand its very essential to outline the deadline and tasks for the project. The deadline or due date by 15 August 2021 and the tasks or deliverables for the project are outlined as follows:

- **Business Understanding**
- **Data Understanding**
- **Data cleansing and transformation on the data**
- **Exploratory Data Analysis (EDA) and Final Recommendation**
- **Exploratory Data Analysis (EDA) presentation and proposed modeling techniques**
- **Model Building and Model Building**
- **Final Project Report and Code**

➤ **Project Planning phase**

This phase is where a lot of planning related to the project takes place. There must be sufficient resources gathered to complete the tasks of the project. As this project is a virtual online project, resources such as laptops, required softwares (Python, Anaconda, Jupyter notebook, Microsoft office programs), and internet connection must be readily available.

➤ **Project Execution phase**

Project execution is the phase where project-related processes are implemented, tasks are assigned, and resources allocated. As I'm working on the project alone, there is no supervision involved. All the project tasks and deliverables are done by me, so there is no need to assign tasks to somebody.

A team project requires some supervision because tasks are assigned to each team member and project managers or team leaders must ensure that the team members complete their tasks on time, and they are kept focused. Reporting of the project progressions is done among the team members. This is where the team members update each other, and they accomplish this by holding regular meetings.

➤ **Project Monitoring and Control phase**

The project monitoring and control phase is all about measuring the performance of the project and tracking progress. It is implemented during the execution phase.

As I'm doing the project alone, I am the one who must be accountable and responsible for everything to ensure that that everything is on the right track.

No team leader or project is monitoring me.

➤ **Project Closure phase**

The project closure phase represents the final phase of the Project Management life cycle, which is also known as the "follow-up" phase. The final project is ready for delivery.

Data Intake Report

Name: **Week 7: Deliverables**

Report date: 15 August 2021

Internship Batch: **LISMU01**

Version: 1.0

Data intake by: **Nkululeko Freedom Mqadi**

Data intake reviewer: **Nkululeko Freedom Mqadi**

Data storage location: <https://github.com/Nkululeko353/Week-7-Deliverables>

Tabular data details: bank-additional-full

Total number of observations	41188
Total number of files	1
Total number of features	21
Base format of the file	.CSV
Size of the data	5.56 MB

Proposed Approach:

- There are no null/missing values in the dataset.
 - There are duplicate rows in a dataset. We have 12 duplicate rows, and these rows can be dropped.

Github Repo link: <https://github.com/Nkululeko353/Week-7-Deliverables>