Bank Marketing Campaign and Power BI

Introduction The objective of this document is to outline the low-level design (LLD) of a bank marketing campaign dashboard using Power BI. This document explains the logical design of the program code for the dashboard. It describes the modules so that the programmer can directly code the program from the document.

1.1 What is Low-Level Design Document?

Low-Level Design Document (LLDD) is a document that defines the internal logic design of the actual program code for a software project. LLD describes the class diagrams with the methods and relations between classes and program specifications. Overall, the data organization may be defined during the requirement analysis and then refined during data design work.

1.2 Scope

This LLD document outlines the architecture, design, and data flow for the bank marketing campaign dashboard.

Architecture

The bank marketing campaign dashboard is built on the Power BI platform, which has a scalable n-tier client-server architecture that serves web and mobile clients. Power BI server architecture supports fast and flexible deployments.

Architecture Description 3.1

Data Description The dataset contains customer information, including age, job, marital status, education, credit default status, and the success of the marketing campaign.

3.2 Data Integration

Data integration involves combining customer data from various sources and transforming it into a single format. The data can be extracted using APIs or web scraping tools.

3.3 Data Transformation

In the transformation process, we will convert our original datasets with other necessary attributes format. And will merge it with the Scrapped dataset.

3.4 Data Insertion into Database

a. Database Creation and connection - Create a database with name passed. If the database is already created, open the connection to the database. b. Table creation in the database. c. Insertion of files in the table

3.5 Connection with SQL server

The Power BI dashboard is connected with the SQL server database to fetch and visualize the data.

3.6 Deployment

The dashboard is deployed on the Power BI server for users to access it.

Unit Test Cases Unit test cases are created to validate the functionality of each module in the dashboard. The test cases will ensure that the dashboard performs as expected and meets the requirements of the stakeholders.

In conclusion, this document outlines the low-level design of the bank marketing campaign dashboard using Power BI. The architecture, data flow, and deployment process are described in detail to enable the programmer to directly code the program from the document. Unit test cases are also included to ensure the functionality of each module.