Project: Bank Marketing (Campaign)

Name: Project Week 7 (Bank Marketing Campaign)
Week 7: Deliverables
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1. 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).

2. Business Understanding

ABC Bank aims to improve the efficiency of its term deposit marketing campaigns by using machine learning to predict which customers are most likely to subscribe. Traditional outreach methods are resource-intensive and yield low success rates, so the bank seeks a data-driven approach to prioritize high-potential clients. By analyzing past customer profiles and interaction history, a predictive model will be developed to guide targeted telemarketing, SMS, and email efforts. Two versions of the model will be created: one including the `duration` feature (as a benchmark) and one without it (usable in real campaigns). Since the dataset is imbalanced—with far more customers not subscribing—appropriate techniques like resampling and class weighting will be applied to ensure fair prediction performance. The ultimate goal is to optimize resource

usage, improve conversion rates, and present actionable insights to business teams in a simple, non-technical format.

3. Project life cycle along with deadline

Week	Date	Plan
Week 1	5th July 2025	Problem statement, business understanding, dataset collection
Week 2	13th July 2025	Data understanding and identifying approaches to overcome issues like missing data, outliers, imbalance
Week 3	20th July 2025	Data cleaning, preprocessing, transformation
Week 4	24th July 2025	Exploratory Data Analysis (EDA) and model recommendation
Week 5	27th July 2025	Presentation on EDA findings and proposed ML techniques
Week 6	29th July 2025	Model selection, building, hyperparameter tuning
Week 7	30th July 2025	Final project report, code packaging, and submission

4. Data Intake report

https://github.com/priyanjalipatel/Data_Glacier_Final_Project/blob/main/Data_intake_report.pdf

5. Github Repo link

https://github.com/priyanjalipatel/Data_Glacier_Final_Project/tree/main