PROJECT PROPOSAL
“Retail Sales Data Dashboard”
BIT2053 FUNDEMENTAL OF MODERN DATA

Group Member :

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Executive Summary

This proposal outlines our project plan for the BIT2053 Final Group Project. We will deeply analyze a real retail sales dataset to simulate a data-driven decision-making process. The project includes sourcing, cleaning, and preprocessing of the data using Python, and then designing an interactive Business Intelligence (BI) dashboard using Power BI.

The final objective is to conclude solid insights on sales trends, product performance, and client profiles to provide actionable business recommendations. The project will demonstrate our understanding of the end-to-end data analysis life cycle and our ability to apply computational thinking to solve business problems.

Problem Statement & Business Understanding

The retail environment is highly competitive, and success lies in the ability to quickly adapt to market trends and buying behavior. Management struggles with issues that can be resolved through our analysis:

1.Sales Trends : How do sales and quantity sold fluctuate over time (monthly/quarterly) to identify seasonal patterns?

2.Product Performance: Which product categories (Electronics, Clothing, Beauty) generate the highest revenue, and what are the best-selling products?

3. Customer Analysis: How does spending behavior differ by gender and age group? Which demographic is the most valuable?

Carrying out these analyses is necessary in order to streamline operations, maximize profitability, and become competitive.

Expected Outcomes

I. GitHub Respository which containing all files of this final project
II. Google Looker studio as BI dashboard that shows result such as sale trend, revenue by categry, revenue by gender, and average spend by age
III. Final project report
IV. Presentation Slides
V. Dataset and pre-processing code

Acknowledgement

We give our deepest gratitude to out lecturer, Sir Nazmirul Izzad Bin Nassir, for his steady guidance, and enough example provided to ease us to complete the project. His expertise and guidance played a vital part in building our knowledge of this subject.

We are also thankful to the website Kaggle.com and its community who providing a to access this high-quality public datasets. The availability of such resources was crucial for our practical learning and application.

Last but not least, we would like to acknowledge the efforts of every member of our team. The collaboration, dedication, and hard work of them were vital in overcoming the challenges ahead and achieving our project goals in order to complete it efficiently.