Management Information System

Final Project
Fall 2024

Instructions:

- Maximum of 4 students per group are allowed.
- Marks of each group will be highly dependent on how much detail they added to the project presentation and individual's viva.
- Late submissions won't be entertained.
- **Plagiarism will not be entertained.**
- **Deadline for the project is December 02, 2024.**

Submission Guidelines:

You are required to submit:

- Power BI Project (.pbix) file.
- Pdf report of BI Dashboard.
- Comprehensive project report.

Failed to comply upon any of the above-mentioned guidelines will result in negative marking.

Submission One (Group Activity)

Introduction:

Imagine walking into a store where everything feels super easy and quick. That's Imtiaz Go! It's not like other stores you've been to. You just pick up what you want, like you always do, but here's the cool part: the store has special cameras and computers that watch what you take. It's like having a secret helper keeping track of your shopping. When you're done shopping and ready to leave, you don't have to wait in line or deal with cash or cards. As you walk out, Amazon's cool technology does all the work for you. It adds up what you've taken and charges your Amazon account.

That's why Imtiaz Go is awesome. It saves you time and hassle. No more waiting in lines or dealing with cash. It's all about making shopping super convenient for you. It's like stepping into the future of shopping, where everything is designed to make your life easier.

Welcome to the Imtiaz Go project, where you'll step into the shoes of a senior business analyst for one of the most exciting ventures in modern retail! In this manual, we'll guide you through the process of analyzing this ambitious project, exploring each deliverable in detail and providing you with the tools you need to succeed.

Project Overview:

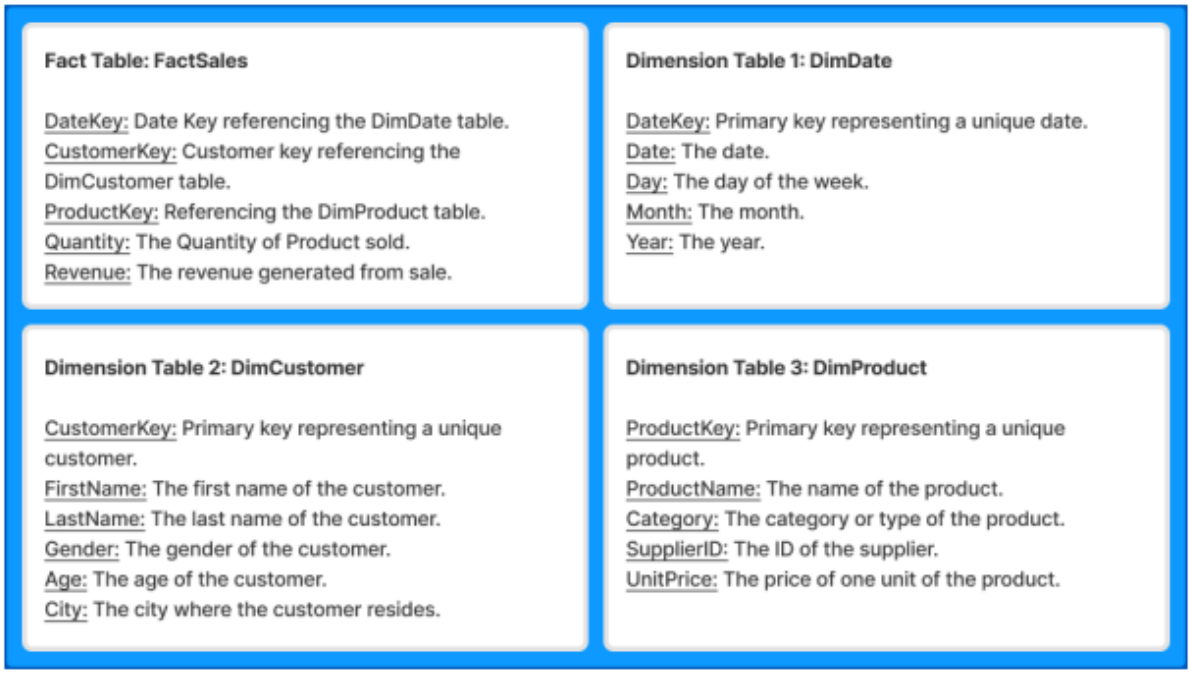
Imtiaz Go aims to revolutionize the retail experience by eliminating checkout lines and streamlining the shopping process. As senior business analyst, your goal is to analyze the trends of Imtiaz GO and lead the finance team of Imtiaz Superstores to make better decisions by relying on accurate information, ensuring that the final product meets the needs of both the business and its customers.

Deliverable 1 Data Acquisition and Integration Plan:

- Utilize Power BI Desktop to import and combine CSV data file provided including sales data, inventory records, and customer demographics.
- Apply basic data cleansing techniques, such as removing duplicates and handling missing values, to ensure data quality and integrity.
- Use Power Query Editor to perform transformations, such as data type conversion and column renaming, for better compatibility with Power BI data model.

Deliverable 2 Data Modeling and Visualization:

- Design a simple star schema data model in Power BI using Fact and Dimension tables to organize data logically.
- Create basic calculated columns and measures using DAX functions to calculate key performance indicators (KPIs) such as total sales, average order value, and product profitability.
- Develop basic visualizations, such as bar charts, line graphs, and pie charts, to visualize sales trends, product performance, and customer demographics.



Deliverable 3 Operational Optimization Analysis:

- Identify trends and patterns in sales data, such as peak sales hours, popular products, and seasonal trends.
- Utilize simple statistical functions, such as AVERAGE and COUNT, to analyze operational metrics, including inventory turnover rate and employee productivity.
- Generate straightforward recommendations based on EDA findings to optimize operational processes, such as adjusting inventory levels and scheduling staff shifts.

Deliverable 4 Customer Segmentation and Personalization Strategy:

- Implement basic segmentation techniques, such as RFM (Recency, Frequency, Monetary) analysis or customer clustering, to divide customers into meaningful segments based on their purchasing behavior.
- Develop basic personalized marketing strategies, such as targeted promotions or product recommendations, for each customer segment to improve customer engagement and retention.
- Evaluate the effectiveness of segmentation and personalization efforts using basic performance metrics, such as conversion rates and customer lifetime value.

Deliverable 5 Performance Monitoring Dashboard:

- Design a simple dashboard in Power BI to track key performance metrics, including sales revenue, profit margins, and inventory levels, using basic visuals such as cards, and tables.
- Incorporate basic interactivity features, such as slicers and filters, to enable users to explore data dynamically and drill down into specific details.
- Implement basic conditional formatting and alerts to highlight important insights and notify stakeholders of significant deviations from predefined thresholds.

Deliverable 6: Forecasting and Demand Planning:

- Utilize Power BI's forecasting capabilities to predict future sales trends and demand patterns based on historical data.
- Develop a demand planning model to optimize inventory levels and procurement strategies, ensuring sufficient stock availability while minimizing excess inventory costs.
- Evaluate forecast accuracy and adjust forecasting models accordingly to improve prediction performance over time.

Deliverable 7: Cross-Sell and Upsell Analysis:

- Analyze transactional data to identify opportunities for cross-selling and upselling additional products to customers.
- Generate recommendations for cross-selling and upselling strategies to maximize revenue and enhance the customer shopping experience.

Apply formatting as much as possible to make the dashboard more attractive.

Submission Two (Individual Activity)

Deliverable 1 SAP HCM Module:

- Complete the SAP Human Capital Management module using the global bike case study.

Good Luck

Do Your Best