Requirement Sheet: Mitron Bank

1. Business Overview

Mitron Bank, a legacy financial institution headquartered in Hyderabad, aims to expand its product portfolio by introducing a new line of credit cards tailored to modern customer needs. To ensure the product aligns with customer preferences and market trends, the bank has partnered with **IOTA Data Services** to conduct a pilot analysis using sample customer data.

The goal of this pilot is to identify high-value customer segments, understand their spending behaviors, and recommend key credit card features that increase usage and customer satisfaction. The insights from this analysis will guide Mitron Bank's strategy and help the product team develop data-driven offerings.

2. Problem Statement

Mitron Bank wants to explore opportunities in the credit card segment by leveraging customer demographic and spending data. The challenge is to analyze the sample dataset of 4,000 customers across five cities to:

- Classify customers by demographics such as age, gender, occupation, and city.
- Calculate and analyze the **average income utilization %** to identify customers most likely to use credit cards.
- Understand customer spending patterns across categories and payment types.
- Identify key customer segments that represent the highest potential for credit card adoption.
- Recommend suitable credit card features based on data insights and market research.

And You are acting as a Data or Business Analyst to explore, analyze, and interpret this data in order to provide actionable recommendations to Mitron Bank's strategy and product teams. The findings will be presented to the strategy team to support their decision-making and justify the business case for launching the new credit card products.

3. Data Description

Table: dim_customers Table – *Customer Demographics*

Column Name	Description
customer_id	Unique identifier for each customer
gender	Gender of the customer (Male, Female)
age_group	Age classification of the customer (21-24, 25-34, 35-45, 45+)
marital_status	Marital status (single, married)
city	City of residence (Mumbai, Delhi-NCR, Chennai, Hyderabad, Bengaluru)
occupation	Customer's occupation (Salaried IT Employees, Salaried Other Employees, Business Owners, Freelancers, Government Employees)
average_income	Monthly average income of the customer in INR

Table: fact_spends Table – *Customer Spending Details*

Column Name	Description
customer_id	Unique ID linking to dim_customers table
month	Month of the transaction (May to October)
category	Spending category (Entertainment, Apparel, Electronics, etc.)
payment_type	Payment method used (Debit Card, Credit Card, UPI, Net Banking)
spends	Total amount spent in INR in that month, category, and payment type

4. Key Metrics to be Analyzed

The following metrics will be analyzed and visualized to support Mitron Bank's credit card strategy:

1. **Total Customers:** Displays the total number of customers included in the dataset (4,000).

2. **Average Income:** Shows the average monthly income of all customers, helping to understand the purchasing power across segments.

3. **Average Spend:** Represents the average amount spent by customers per transaction or period, giving insight into their consumption patterns.

4. **Income Utilization:** This key metric is calculated as the ratio of average spend to average income (avg spend / avg income). It reflects how much of their income customers are using for spending and helps identify those more likely to rely on credit cards.

5. **Spends by Payment Type:** Analyzes customer preferences for payment methods such as Credit Card, UPI, Debit Card, and Net Banking. It helps in designing features and offers tailored to popular payment channels.

6. **Average Income by Customers' Occupation:** Provides insights into income distribution by occupational group, helping in profiling target segments and personalizing credit card offers.

7. **Total Spend by City:** Visualizes how spending is distributed geographically across the five cities, enabling regional targeting strategies.

8. **Total Spend by Gender:** Shows how spending is split between male and female customers, useful for identifying gender-specific preferences and needs.

9. **Total Spend by Customer Age Group and Gender:** Helps in understanding how different age groups and genders contribute to overall spending, supporting segmentation and targeted marketing.

10. **Total Spend by Category:** Highlights the categories where customers are spending the most (e.g., Bills, Groceries, Electronics, etc.), guiding the development of credit card features like reward programs or cashback offers.