FUNCTIONAL REQUIREMENTS DOCUMENT (FRD)

Project Title:
Mitron Bank Credit Card Market Analysis Dashboard

2. Dashboard Sections
This project consists of three interactive dashboards, designed to provide comprehensive insights into customer demographics, spending behavior, and payment patterns.

Dashboard Section	Description
Main Dashboard (Navigation Page)	Acts as a control panel to access both detailed dashboards. Displays project overview and navigation buttons.
Customer Profile Dashboard	Provides insights into customer demographics, average spending behavior, and occupation-based segmentation.
Spending Behavior & Payment Insights Dashboard	Analyzes overall spending patterns, category-wise spend, monthly trends, and payment method distribution.

3. Data Requirements

Dashboard Section	Data Fields Needed	Source
Customer Profile Dashboard	Customer_ID, City, Gender, Age, Occupation, Total Spend	project.xlsx
Spending Behavior & Payment Insights	Category, Payment_Method, Month, Spend, City, Occupation	project.xlsx
KPIs / Summary Metrics	SUM(Spend), COUNTD(Customer_ID),	project.xlsx

AVG(Spend), MAX(Spend)

4. Filters / Slicers

The dashboards include the following filters to allow dynamic data exploration:

- City

- Occupation

- Category

- Payment Type

- Gender

- Age Group

These filters are interlinked across charts for synchronized updates.

5. Visuals / Charts

Dashboard Section	Visual Type(s)
Customer Profile Dashboard	KPIs (Total Customers, Total Spend, Average Spend per Customer, Top Customer Spend), Donut Chart (Gender Spend Share), Treemap (Occupation Spend Distribution), Bar Chart (Spend by Age Group), City-wise Spend Bar Chart
Spending Behavior & Payment Insights Dashboard	KPIs (Monthly Spend, Top Occupation, Top City), Bar Chart (Spend by Category), Line Chart (Monthly Spend Trend), Stacked Bar Chart (Payment Type by Occupation), Pie Chart (Spend Share by Category)
Main Dashboard	Navigation Buttons, Project Overview Text Card, Image/Icon for Bank Branding

6. Interactivity

The dashboards include multiple interactive features for data exploration:

- Filter Actions: Filters (City, Occupation, Category) affect all charts dynamically.
- Navigation Buttons: Enable movement between dashboards (Main → Customer Profile → Spending Behavior).
- Drill-downs: Charts allow exploration by city, category, or occupation.
- Parameters: Used to switch chart dimensions dynamically (e.g., view by City / Occupation / Category).
- Hover Tooltips: Display detailed information for each bar or data point.

7. Calculations / Measures

Calculation Name	Formula	Purpose
Total Customers	COUNTD([Customer_ID])	To identify the number of unique customers.
Total Spend	SUM([Spend])	To calculate total customer spending.
Average Spend per Customer	SUM([Spend]) / COUNTD([Customer_ID])	To find average spend per customer.
Top Customer Spend	{ FIXED [Customer_ID] : SUM([Spend]) }	To find the highest-spending customer.
Monthly Spend	{ FIXED [Month] : SUM([Spend]) }	To analyze spending trends by month.
Spend by Category	SUM([Spend]) / TOTAL(SUM([Spend]))	To compute share of each category.
Payment Method Share	SUM([Spend]) / TOTAL(SUM([Spend]))	To identify preferred payment types.
Top City Spend	{ FIXED [City]SUM([Spend]}	To find top-perform cities.

8. Notes / Special Instructions

- Use a consistent dark theme (black background with purple borders) across all dashboards.

- Maintain uniform KPI card styling with rounded edges and shadow effects.

- Hide unnecessary x-axis labels (e.g., Spend by Category chart).

- Ensure navigation buttons (arrows, labels) are correctly linked between dashboards.

- Filters should apply across both dashboards for unified analysis.

- Use dynamic titles that reflect selected filters (e.g., "Spending by Category – [City]").