

# Banking Analytics Project – Business Requirements Document

## Project Title:

**Banking Customer & Operations Analytics Dashboard**

## Objective:

To build a data-driven banking analytics system that enables monitoring of customer activity, account performance, transaction behavior, loan utilization, card issuance, and customer support efficiency — helping teams improve customer retention, risk assessment, and service quality.

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## Data Sources (Sheets/Tables):

1. **Customers** – Basic customer info and registration date.
  2. **Accounts** – Linked to customers with balance and account types.
  3. **Transactions** – All financial transactions with types and amounts.
  4. **Loans** – Loan records with start/end dates, amounts, and interest rates.
  5. **Cards** – Issued cards with types, numbers, and expiration dates.
  6. **SupportCalls** – Customer service calls including issue type and resolution status.
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## Key Metrics & KPIs to Analyze:

### Customer Analytics

- Total active customers
- Monthly new customers
- Average account per customer

- Churn risks (e.g., no transaction in 6 months)
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### **Account & Balance Analysis**

- Total balance by account type (Savings, Checking, Business)
  - Average balance per customer
  - Dormant accounts (no recent transactions)
  - Account age vs balance correlation
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### **Transaction Analytics**

- Total transaction volume (monthly/yearly)
  - Top transaction types (Deposits vs Withdrawals)
  - Avg transaction value by account type
  - Fraud or anomaly detection (high-value or frequent transfers)
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### **Loan Portfolio Overview**

- Total loan amount disbursed by type (Home, Car, Personal...)
  - Avg interest rate per loan type
  - Loan-to-income ratio analysis (if income available)
  - Upcoming maturity trends (loans ending this year)
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### **Card Issuance & Activity**

- Card issuance trend over time

- Active vs expired cards
  - Card type distribution (Credit, Debit, Prepaid)
  - Avg customer holding per card type
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## **Customer Support Insights**

- Total number of support calls
  - Resolved vs unresolved rate
  - Top issue categories
  - Avg resolution time (if timestamps available)
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## **Suggested Dashboards:**

### **1. Executive Banking Overview**

- Total customers, total balances, total transactions
- Loan and card KPIs, support case summary

### **2. Customer Insights Dashboard**

- Churn risk tagging, onboarding funnel
- Customer segmentation by behavior or balance

### **3. Transactions Dashboard**

- Transaction heatmap (monthly/daily)
- Top active accounts, most frequent transaction types

### **4. Loan Monitoring Dashboard**

- Loan distribution map, interest rate buckets
- Upcoming loan closures, defaults risk (if overdue fields added)

## 5. Support & Satisfaction Dashboard

- Resolution rate by issue type
  - Agent performance (if call handler is tracked)
  - Call frequency trends
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## Optional Add-ons for Enrichment:

- RFM Segmentation (Recency, Frequency, Monetary) for customers
- Predictive loan default model (with credit score, overdue)
- Real-time fraud detection using AI (for large transactions)
- Alerts for inactive high-value accounts
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