

# Bank Loan Analysis

## Business Requirement Document (BRD)

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### Project Title: Loan Dashboard Reporting System

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## 1. Executive Summary

This document outlines the business requirements for developing a comprehensive Loan Dashboard Reporting System. The system is intended to deliver insightful visualizations and metrics that support data-driven decisions and provide a holistic view of lending operations.

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## 2. Dashboard 1: Summary

### 2.1 Key Performance Indicators (KPIs)

#### 1. Total Loan Applications

- Calculate the total number of loan applications submitted during a specific period.
- Monitor Month-to-Date (MTD) applications.
- Analyze Month-over-Month (MoM) trends for performance evaluation.

#### 2. Total Funded Amount

- Track total disbursed funds to borrowers.
- Evaluate MTD funded amounts and MoM variations.

#### 3. Total Amount Received

- Assess total repayments received from borrowers.
- Review MTD collections and observe MoM changes to gauge financial flow.

#### 4. Average Interest Rate

- Calculate average interest rates across all loans.

- Monitor interest rate fluctuations on an MTD and MoM basis for cost insights.

## **5. Average Debt-to-Income Ratio (DTI)**

- Measure the average DTI across all loans.
  - Use this as a financial health indicator, tracking it MTD and MoM.
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## **2.2 Good Loan vs. Bad Loan KPIs**

### **Good Loan KPIs:**

- Good Loan Application Percentage
- Good Loan Applications
- Good Loan Funded Amount
- Good Loan Total Received Amount

### **Bad Loan KPIs:**

- Bad Loan Application Percentage
  - Bad Loan Applications
  - Bad Loan Funded Amount
  - Bad Loan Total Received Amount
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## **2.3 Loan Status Grid View**

To provide a clear view of loan performance, a grid report will be designed, categorized by loan status. This view will incorporate the following metrics:

- Total Loan Applications
- Total Funded Amount
- Total Amount Received
- MTD Funded Amount
- MTD Amount Received
- Average Interest Rate
- Average Debt-to-Income Ratio (DTI)

This dynamic grid will serve as a strategic tool to evaluate loan performance and identify areas for improvement.

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## **3. Dashboard 2: Overview**

### **3.1 Charts & Visualizations**

#### **1. Monthly Trends by Issue Date (Line Chart)**

- Detect seasonal patterns and long-term growth trends.

#### **2. Regional Analysis by State (Filled Map)**

- Highlight states with the highest and lowest lending activity.

#### **3. Loan Term Analysis (Donut Chart)**

- Display the distribution of loans based on term durations.

#### **4. Employee Length Analysis (Bar Chart)**

- Analyze loan metrics by borrower employment duration.

#### **5. Loan Purpose Breakdown (Bar Chart)**

- Categorize loans by stated purposes for deeper understanding of borrower needs.

#### **6. Home Ownership Analysis (Tree Map)**

- Assess the impact of home ownership on loan application volume and disbursements.

#### **Key Metrics to Display:**

- Total Loan Applications
  - Total Funded Amount
  - Total Amount Received
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## **4. Conclusion**

This dashboard initiative aims to streamline lending performance analysis and optimize loan management. By integrating intuitive visualizations and KPIs, the dashboards will empower stakeholders with actionable insights and drive strategic planning.

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