

# BANK LOAN ANALYSIS – PROBLEM STATEMENT & BUSINESS REQUIREMENTS

## Problem Statement

The financial institution needs a centralized analytics solution to monitor and evaluate its loan portfolio performance. With thousands of loan applications, funded amounts, and repayment records, the bank lacks a unified dashboard that provides clear visibility into loan quality, borrower behavior, repayment performance, and regional trends.

The goal is to build a comprehensive Power BI dashboard that consolidates all essential loan metrics for better decision-making, risk assessment, and operational insights.

## Business Requirements

### 1. Summary Dashboard Requirements

The dashboard must display core loan performance KPIs including:

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

### 2. Good Loan vs Bad Loan Analysis

Provide a complete segmentation of loan quality:

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

Loan Status Grid:

Must include per-status metrics:

- Total Applications
- Total Funded Amount
- Total Amount Received
- Average Interest Rate
- Average DTI

### 3. Overview Dashboard Requirements

The dashboard must include visual analytics for:

- Monthly Trend by Issue Date (Line Chart)
- Regional Analysis by State (Filled Map)
- Loan Term Distribution (Donut Chart)
- Employment Length Distribution (Bar Chart)
- Loan Purpose Breakdown (Bar Chart)
- Home Ownership Analysis (Tree Map)

Each visualization must display:

- Total Applications
- Total Funded Amount
- Total Amount Received

## 4. Details Dashboard Requirements

Provide a full, record-level detailed view including:

- Loan details
- Borrower details
- Funding and repayment information
- Risk indicators

With filtering by:

- Loan Status
- Issue Date
- State
- Loan Purpose
- Loan Term
- Employment Length
- Home Ownership

### Objective:

To create a fully interactive dashboard that enables managers and analysts to explore key insights, understand portfolio performance, and make informed decisions.