Problem Statement – Loan Portfolio Performance & Credit Risk Monitoring

Financial institutions must continuously balance loan growth with credit risk control. Unmonitored lending activity can lead to rising defaults, reduced profitability, and capital exposure.

The core business challenge addressed in this project is:

How can we monitor lending performance, evaluate portfolio quality, and identify high-risk segments using data-driven analysis?

This project develops a structured Loan Performance Dashboard to support credit risk evaluation, portfolio monitoring, and strategic decision-making.

Strategic Objectives

The analysis focuses on three key areas:

1️⃣ Portfolio Growth & Performance Monitoring

Track overall lending activity and financial performance using:

- Total Loan Applications
- Total Funded Amount
- Total Amount Received
- Month-to-Date (MTD) trends
- Month-over-Month (MoM) growth patterns

Business Impact:
Provides visibility into loan book expansion, cash flow behaviour, and growth consistency.

2️⃣ Portfolio Quality Assessment (Good vs Bad Loans)

To evaluate credit quality, loans are segmented into:

- **Good Loans:** Fully Paid & Current
- **Bad Loans:** Charged Off

Key performance indicators include:

- Good Loan % vs Bad Loan %
- Funded Amount exposure in high-risk loans
- Recovery performance on charged-off loans

Business Impact:
Helps quantify default exposure, identify risk-heavy segments, and evaluate underwriting effectiveness.

3️⃣ Risk Segmentation & Behavioural Insights

To understand what drives loan performance, the analysis examines:

- Monthly lending trends
- Regional risk concentration (State-wise analysis)
- Loan term distribution (36 vs 60 months)
- Employment length impact
- Loan purpose risk patterns
- Home ownership influence on repayment behaviour

Business Impact:
Enables targeted credit policy adjustments and risk-based lending strategy refinement.

Decision-Support Objective

The dashboard is designed to function as a credit risk monitoring tool that:

- Identifies early warning signals in portfolio performance
- Highlights concentration risk across geographies and segments
- Supports underwriting policy optimization
- Improves visibility into repayment behaviour trends

Analytical Outcome

By transforming raw loan data into structured KPIs and visual insights, this project simulates how financial institutions:

- Monitor credit exposure
- Reduce default risk
- Optimize loan portfolio profitability
- Balance growth with risk control

The focus is not just reporting metrics, but generating insights that could directly influence lending decisions.