

Problem Statement:

Financial institutions rely on effective analysis of customer loan data to make informed decisions regarding loan approvals, interest rates, and repayment plans. The provided dataset contains detailed records of customer loans, including loan amounts, interest rates, payment statuses, and customer demographics.

However, the bank faces the following challenges:

1. Understanding Loan Trends:

- Identifying year-wise trends in loan disbursements to optimize resource allocation.
- Assessing grade and sub-grade wise revolving balances to understand customer repayment behaviors.

2. Risk Assessment:

- Comparing total payments between Verified and Non-Verified borrowers to evaluate creditworthiness and risk factors.
- Analyzing loan statuses across states and months to identify geographic or seasonal patterns in loan defaults or repayments.

3. Payment Behavior Insights:

- Examining the impact of home ownership categories (Rent, Own, Mortgage) on loan repayment and last payment dates to design targeted repayment plans.

The goal of this analysis is to uncover actionable insights that enable the bank to:

- Minimize loan defaults.
- Improve loan approval strategies.
- Develop personalized repayment options.
- Enhance overall financial performance.

By addressing these challenges, the bank can streamline its lending process, promote financial inclusion, and ensure sustainable growth.