

Problem Statement for Bank Loan Report

Dashboard 1: Summary

We need a report to understand how well our bank is performing in lending activities. This report will help us make better decisions, track how our loans are doing, and find trends to improve our strategies. Here's what we need to measure:

- **Total Loan Applications:** Count how many loan applications we get over a specific time, track the current month's applications (MTD), and compare it with the previous month (MoM).
- **Total Funded Amount:** Check the total loan money given out, monitor this month's total, and compare it month-over-month.
- **Total Amount Received:** Track the total money paid back by borrowers, monitor it monthly (MTD), and check changes month-over-month.
- **Average Interest Rate:** Find the average interest rate of all loans, track it monthly, and compare changes over time.
- **Average Debt-to-Income (DTI) Ratio:** Measure the average DTI of borrowers to understand their financial health, monitor it monthly, and track changes month-over-month.

Good Loan vs Bad Loan KPIs We also want to check the quality of our loans by separating them into 'Good Loans' and 'Bad Loans':

Good Loan KPIs:

1. Percentage of good loan applications ('Fully Paid' or 'Current' status).
2. Total number of good loan applications.
3. Total amount of money funded as good loans.
4. Total amount received from good loans.

Bad Loan KPIs:

1. Percentage of bad loan applications ('Charged Off' status).
2. Total number of bad loan applications.
3. Total amount funded as bad loans.
4. Total amount received from bad loans.

Loan Status Grid View: We need a table showing all loan statuses with these details:

- Total Applications
- Total Funded Amount
- Total Amount Received
- MTD Funded Amount

- MTD Amount Received
- Average Interest Rate
- Average DTI Ratio

This table will help us clearly see the overall health of our loan portfolio.

Dashboard 2: Overview

We want visual charts to make it easier to understand loan data and trends:

1. Monthly Trends (Line Chart):

- Shows how loan applications, funded amounts, and received amounts change over time.
- Helps identify patterns like seasonal trends.

2. Regional Analysis (Map):

- Displays loan data by state.
- Helps identify areas with high or low lending activity.

3. Loan Term Analysis (Donut Chart):

- Shows data for different loan lengths (e.g., 36 or 60 months).
- Helps understand the popularity of various loan terms.

4. Employee Length Analysis (Bar Chart):

- Breaks down data by borrowers' years of employment.
- Helps assess how job history affects loans.

5. Loan Purpose Breakdown (Bar Chart):

- Categorizes loans by purpose (e.g., debt consolidation, refinancing).
- Helps us understand why borrowers take loans.

6. Home Ownership Analysis (Tree Map):

- Groups loan data by borrowers' home ownership status (e.g., rent, own, mortgage).
- Shows how housing affects loans.

Dashboard 3: Details

This dashboard will give users a clear and detailed look at all loan-related data. It will be simple and user-friendly, allowing anyone to see important information about loans, borrowers, and loan performance in one place. This ensures easy access to critical data for making informed decisions.