Finance Data Analysis Project - SQL Queries (MySQL)

# About

This project analyzes financial loan data using MySQL to extract insights and KPIs. Data is later visualized and summarized in Excel.

# Dataset

- finance\_1.csv: Loan application details (loan amount, grade, status, etc.)  
- finance\_2.csv: Payment behavior and credit stats  
Joined using: finance\_1.member\_id = finance\_2.id

# Primary KPIs & Queries

## Total Loan Disbursed

SELECT SUM(loan\_amnt) AS Total\_Loan\_Disbursed FROM finance\_1;

## Average Loan Amount per Customer

SELECT AVG(loan\_amnt) AS Average\_Loan\_Amount FROM finance\_1;

## Loan Repayment & Default Rate

SELECT   
 loan\_status,  
 COUNT(\*) AS Count,  
 ROUND(COUNT(\*) \* 100.0 / (SELECT COUNT(\*) FROM finance\_1), 2) AS Percentage  
 FROM finance\_1  
 GROUP BY loan\_status;

## Total Payments Collected

SELECT SUM(total\_pymnt) AS Total\_Payments FROM finance\_2;

## Average Payment per Loan

SELECT   
 AVG(f2.total\_pymnt / f1.loan\_amnt) AS Avg\_Payment\_Per\_Loan  
 FROM finance\_1 f1  
 JOIN finance\_2 f2 ON f1.member\_id = f2.id  
 WHERE f1.loan\_amnt > 0;

## Customer Credit Utilization Ratio

SELECT   
 AVG(f2.revol\_bal / f1.loan\_amnt) AS Avg\_Credit\_Utilization  
 FROM finance\_1 f1  
 JOIN finance\_2 f2 ON f1.member\_id = f2.id  
 WHERE f1.loan\_amnt > 0;

# Secondary KPIs & Queries

## Loan Grade Distribution

SELECT grade, COUNT(\*) AS Count  
 FROM finance\_1  
 GROUP BY grade  
 ORDER BY grade;

## Top States by Loan Volume

SELECT addr\_state, SUM(loan\_amnt) AS Total\_Loan  
 FROM finance\_1  
 GROUP BY addr\_state  
 ORDER BY Total\_Loan DESC;

## Verification Status Breakdown

SELECT verification\_status, COUNT(\*) AS Count  
 FROM finance\_1  
 GROUP BY verification\_status;

# Conclusion

These SQL queries extract and aggregate key business metrics for loan and repayment analysis. The results can be loaded into Excel for pivot tables, dashboards, and decision-making insights.