

# BANK LOAN ANALYSIS

ANALYZING FACTORS INFLUENCING LOAN APPROVAL



# CONTENT IN THIS PROJECT

1. Project objective
2. Data from SQL
3. Firing SQL queries
4. Dashboard & insights
5. Export & share project



# PROJECT OVERVIEW

This project analyzes a bank loan dataset to uncover key factors that influence loan approval and repayment behavior. The analysis is presented through **three interactive dashboards**—Summary, Overview, and Details—created in **Power BI**. The goal is to support data-driven decision-making by offering insights into loan approval trends, risk factors, and financial performance.



# PROJECT OBJECTIVES

- **Analyze** loan application and approval trends.
- **Identify** factors such as credit history, income, and loan amount that influence loan approval.
- **Provide** recommendations to optimize the loan approval process and reduce risk.
- **Visualize** key metrics and trends using interactive dashboards.






# MY SQL

## IMPORT DATA





### Introduction

[Introduction](#)  
[Specify Input File](#)  
[Preview Data](#)  
[Modify Columns](#)  
[Summary](#)  
[Results](#)

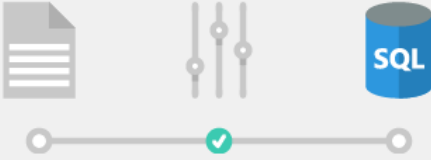
[Help](#)

#### Import Flat File

This wizard will help you import the contents of a file into a new table in your database.

To import data, you must:

- Specify the input file containing the data.
- Preview the automatically generated table schema and optionally modify columns.



To begin importing your data, click Next.  
☐ Do not show this page again.



# MY SQL

## CREATING DB



Introduction

[Introduction](#)  
[Specify Input File](#)  
[Preview Data](#)  
[Modify Columns](#)  
[Summary](#)  
[Results](#)

[Help](#)

### Import Flat File

This wizard will help you import the contents of a file into a new table in your database.

To import data, you must:

- Specify the input file containing the data.
- Preview the automatically generated table schema and optionally modify columns.

✓

To begin importing your data, click Next.

☐ Do not show this page again.



# MY SQL

## WRITING QUERIES

```
SELECT
    loan_status,
    COUNT(id) AS LoanCount,
    SUM(total_payment) AS Total_Amount_Received,
    SUM(loan_amount) AS Total_Funded_Amount,
    AVG(int_rate * 100) AS Interest_Rate,
    AVG(dti * 100) AS DTI
FROM
    bank_loan_data
GROUP BY
    loan_status
```

149 %

Results Messages

	loan_status	LoanCount	Total_Amount_Received	Total_Funded_Amount	Interest_Rate	DTI
1	Fully Paid	32145	411586256	351358350	11.6410707918092	13.1673507557434
2	Charged Off	5333	37284763	65532225	13.8785749318289	14.0047328005517
3	Current	1098	24199914	18866500	15.0993260800947	14.7243442736843



# FIRING SQL QUERIES TO SOLVE THE BUSINESS PROBLEMS

## COMPARING RESULTS WITH POWER BI

```
SELECT
    loan_status,
    COUNT(id) AS LoanCount,
    SUM(total_payment) AS Total_Amount_Received,
    SUM(loan_amount) AS Total_Funded_Amount,
    AVG(int_rate * 100) AS Interest_Rate,
    AVG(dti * 100) AS DTI
FROM
    bank_loan_data
GROUP BY
    loan_status
```

149 %

Results Messages

	loan_status	LoanCount	Total_Amount_Received	Total_Funded_Amount	Interest_Rate	DTI
1	Fully Paid	32145	411586256	351358350	11.6410707918092	13.1673507557434
2	Charged Off	5333	37284763	65532225	13.8785749318289	14.0047328005517
3	Current	1098	24199914	18866500	15.0993260800947	14.7243442736843



# PROJECT INSIGHTS

## Total Loan Applications: 38.6K

- **Good Loans Issued:** 86.2% (33.2K applications)
- **Bad Loans Issued:** 13.8% (5.3K applications)

## Financial Overview:

- **Total Funded Amount:** \$435.8M
- **Total Received Amount:** \$473.1M
- **Average Interest Rate:** 12.0%
- **Average Debt-to-Income (DTI) Ratio:** 13.3%

## Key Metrics:

- **Good Loan Funded Amount:** \$370M
- **Bad Loan Funded Amount:** \$65.5M
- **Bad Loan Received Amount:** \$37.3M

## Loan Distribution:

- **Most Funded Purposes:** Debt Consolidation, Credit Card, Home Improvement.
- **Top Home Ownership Types:** Mortgage (\$219.33M) and Rent (\$185.77M).

## Term Analysis:

- 62.66% of loans were for 36 months, and 37.34% for 60 months.

Created by: Khaja Umairuddin

