

Bank Loan Report

CREATED BY: NILIMA PANDYA



PROBLEM STATEMENT for Dashboard

► Key Performance Indicators (KPIs) Requirements:

1. **Total Loan Applications:** We need to calculate the total number of loan applications received during a specified period. Additionally, it is essential to monitor the Month-to-Date (MTD) Loan Applications and track changes Month-over-Month (MoM).
2. **Total Funded Amount:** Understanding the total amount of funds disbursed as loans is crucial. We also want to keep an eye on the MTD Total Funded Amount and analyse the Month-over-Month (MoM) changes in this metric.
3. **Total Amount Received:** Tracking the total amount received from borrowers is essential for assessing the bank's cash flow and loan repayment. We should analyse the Month-to-Date (MTD) Total Amount Received and observe the Month-over-Month (MoM) changes.
4. **Average Interest Rate:** Calculating the average interest rate across all loans, MTD, and monitoring the Month-over-Month (MoM) variations in interest rates will provide insights into our lending portfolio's overall cost.
5. **Average Debt-to-Income Ratio (DTI):** Evaluating the average DTI for our borrowers helps us gauge their financial health. We need to compute the average DTI for all loans, MTD, and track Month-over-Month (MoM) fluctuations.

Bank Loan Report (Summary)

Total Loan Applications

38.58K

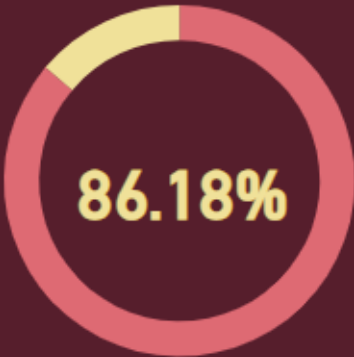
Total Funded Amount

435.76M

Total Amount Received

473.07M

GOOD LOAN ISSUED



Good Loan Total Received

436M

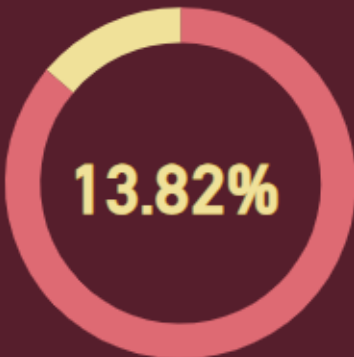
Good Loan Funded Amount

370M

Good Loan Applications

33K

BAD LOAN ISSUED



Bad Loan Total Received

37M

Bad Loan Funded Amount

66M

Bad Loan Applications

5K

Purpose

All

State

All

Grade

All

loan_status	Total amount received	Total Funded amount	Total Loan Applications	Average Interest	Sum of dti	Sum of int_rate	Sum of installment
Fully Paid	411586256	351358350	32145	0.12	4,232.64	3,742.02	10,353,683.68
Charged Off	37284763	65532225	5333	0.14	746.87	740.14	1,817,369.48
Current	24199914	18866500	1098	0.15	161.67	165.79	438,012.58
Total	473070933	435757075	38576	0.12	5,141.19	4,647.96	12,609,065.74

Report When
the loan is taken
for Car, when
state is AR and
Grade is D



SQL Queries for problem Statements

- Total Loan Applications

```
SELECT  
    COUNT(id) AS Total_loan_application  
FROM  
    financial_loan_data;
```

Answer:

Total_Applications
38576

MTD applications

- MTD Loan Applications

```
SELECT count(id) AS Total_Applications FROM financial_loan_data  
WHERE issue_date like '%12%';
```

Answer:

Total_Applications
4314

•Total Funding Amount

```
Select sum(loan_amount) as Total_funded_amount  
from financial_loan_data;
```

Answer:

Total_Funded_Amount
435757075

•Month To Date Total Funding Amount

SELECT

```
SUM(loan_amount) AS MTD_Total_funded_amount
```

FROM

```
financial_loan_data
```

WHERE

```
issue_date LIKE '%12%';
```

Answer:

Total_Funded_Amount
53981425

•Total Amount Received

```
SELECT
    SUM(total_payment) AS Total_Amount_Received
FROM
    financial_loan_data;
```

Answer:

Result Grid		Filter Rows:
	Total_Amount_Received	
▶	354737566	

•Average Interest Rate

```
SELECT
    round(avg(int_rate) * 100, 2) AS Average_Interest_Rate
FROM
    financial_loan_data;
```

Answer:

Result Grid		Filter Rows:
	Average_Interest_Rate	
▶	12.08	

•Average DTI

```
SELECT
    round(avg(dti) * 100, 2) AS Average_Interest_Rate
FROM
    financial_loan_data;
```

Answer:

Result Grid	
	Average_DTI
▶	14.02

•MTD Average DTI

```
SELECT
    round(avg(dti) * 100, 2) AS MTD_Average_DTI
FROM
    financial_loan_data
where
    issue_date like '%12%';
```

Answer:

Result Grid	
	MTD_Average_DTI
▶	14.33

Good Loan KPI's

► Good Loan:

1. Good Loan Application Percentage
2. Good Loan Applications
3. Good Loan Funded Amount
4. Good Loan Total Received Amount

•Good Loan Percentage

```
SELECT
  (COUNT(CASE
    WHEN
      loan_status = 'Fully Paid'
      OR loan_status = 'Current'
    THEN
      id
    END) * 100.0) / COUNT(id) AS Good_Loan_Percentage
FROM
  financial_loan_data;
```

Answer:

Result Grid	
	Good_Loan_Percentage
▶	86.80522

Good Loan Applications

```
SELECT
    COUNT(id) AS Good_Loan_Applications
FROM
    financial_loan_data
WHERE
    loan_status = 'Fully Paid'
    OR loan_status = 'Current'
```

Answer:

Good_Loan_Applications
33243

•Good Loan Total Amount Funded

```
SELECT
    SUM(loan_amount) AS Good_Loan_Funded_amount
FROM
    financial_loan_data
WHERE
    loan_status = 'Fully Paid'
    OR loan_status = 'Current';
```

Answer:

Good_Loan_Funded_amount
370224850

•Good Loan Total Amount Received

```
SELECT
    SUM(total_payment) AS Good_Loan_amount_received
FROM
    financial_loan_data
WHERE
    loan_status = 'Fully Paid'
    OR loan_status = 'Current';
```

Answer:

Good_Loan_amount_received
435786170

Bad Loan KPI's

► Bad Loan

1. Bad Loan Application Percentage
2. Bad Loan Applications
3. Bad Loan Funded Amount
4. Bad Loan Total Received Amount

- Bad Loan Percentage

```
SELECT
  (COUNT(CASE WHEN loan_status = 'Charged Off' THEN id END) * 100.0) /
  COUNT(id) AS Bad_Loan_Percentage
FROM financial_loan_data;
```

Answer:

Bad_Loan_Percentage
13.824657818332

- Bad Loan Applications

```
SELECT COUNT(id) AS Bad_Loan_Applications FROM financial_loan_data
WHERE loan_status = 'Charged Off';
```

Answer:

Bad_Loan_Applications
5333

•Bad Loan Funded amount

```
SELECT SUM(loan_amount) AS Bad_Loan_Funded_amount FROM financial_loan_data  
WHERE loan_status = 'Charged Off';
```

Answer:

Bad_Loan_Funded_amount
65532225

•Bad Loan Amount Received

```
SELECT  
    SUM(total_payment) AS Bad_Loan_amount_received  
FROM  
    financial_loan_data  
WHERE  
    loan_status = 'Charged Off';
```

Answer:

Bad_Loan_amount_received
37284763

Loan Status

```
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 AVG_DTI
FROM
    financial_loan_data
GROUP BY
    loan_status;
```

Answer:

	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

Bank Loan Report / Overview

```
SELECT
```

```
    issue_date AS Date_of_issue,
```

```
    COUNT(id) AS Total_Loan_Applications,
```

```
    SUM(loan_amount) AS Total_Funded_Amount,
```

```
    SUM(total_payment) AS Total_Amount_Received
```

```
FROM financial_loan_data
```

```
GROUP BY issue_date
```

```
order by issue_date;
```




Answer:

Result Grid Filter Rows: Export: Wrap Cell Content:				
	Date_of_issue	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
	07-09-2021	12	99550	110117
	07-10-2021	24	153725	147389
	07-11-2021	24	261725	258539
	07-12-2021	53	637625	665701
	08-01-2021	116	1282800	1336822
	08-02-2021	129	1212850	1296866
	08-03-2021	175	2011975	2100639
	08-04-2021	109	1089600	813540
	08-05-2021	53	322150	322617
	08-06-2021	49	280950	290385
	08-07-2021	49	319200	304416
	08-08-2021	43	266400	223302
	08-09-2021	24	145925	129605
	08-10-2021	60	507125	507710

State wise bank loan Report

```
SELECT
    address_state AS State,
    COUNT(id) AS Total_Loan_Applications,
    SUM(loan_amount) AS Total_Funded_Amount,
    SUM(total_payment) AS Total_Amount_Received
FROM financial_loan_data
GROUP BY address_state
ORDER BY address_state
```

Answer:

Result Grid  Filter Rows: <input type="text"/> Export:  Wrap Cell Content: 				
	State	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
▶	AK	52	712075	768520
	AL	321	3758200	4230328
	AR	169	1915275	2135621
	AZ	554	6390100	6993527
	CA	4932	59624400	64191008
	CO	569	6878100	7623452
	CT	523	6356900	7074404
	DC	163	2168850	2414800
	DE	73	724450	840149
	FL	1895	21499325	22713974
	GA	928	11421050	12459949
	HI	116	1410075	1629842
	IA	3	47600	54248

Term wise bank loan Report

SELECT

```
term AS Term,  
COUNT(id) AS Total_Loan_Applications,  
SUM(loan_amount) AS Total_Funded_Amount,  
SUM(total_payment) AS Total_Amount_Received
```

FROM financial_loan_data

GROUP BY term

ORDER BY term

Answer:

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Term	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
▶	36 months	20069	208718925	226881475
	60 months	7116	115829075	127856091