

BANK LOAN REPORT QUERY DOCUMENT

A. BANK LOAN REPORT | SUMMARY

KPI's

- TOTAL LOAN APPLICATIONS

```
SELECT COUNT(id) AS Total_Loan_Application  
FROM bank_loan_data;
```

Total_Loan_Application
38576

- MONTH TO DATE TOTAL LOAN APPLICATIONS
- PREVIOUS MONTH TO DATE TOTAL LOAN APPLICATIONS
- MONTH OVER MONTH PERCENTAGE

```
DECLARE @MTD_Total_Loan_Application INT;  
DECLARE @PMTD_Total_Loan_Application INT;  
  
SELECT @MTD_Total_Loan_Application = COUNT(id)  
FROM bank_loan_data  
WHERE MONTH(issue_date) = 12 AND YEAR(issue_date) = 2021;  
  
SELECT @PMTD_Total_Loan_Application = COUNT(id)  
FROM bank_loan_data  
WHERE MONTH(issue_date) = 11 AND YEAR(issue_date) = 2021;  
  
SELECT  
    @MTD_Total_Loan_Application AS MTD_Total_Loan_Application,  
    @PMTD_Total_Loan_Application AS PMTD_Total_Loan_Application,  
    ROUND(  
        ((@MTD_Total_Loan_Application - @PMTD_Total_Loan_Application) * 100.0) /  
        NULLIF(@PMTD_Total_Loan_Application, 0), 2  
    ) AS MoM_Percentage_Change;
```

MTD_Total_Loan_Application	PMTD_Total_Loan_Application	MoM_Percentage_Change
4314	4035	6.910000000000

- TOTAL FUNDED AMOUNT

```
SELECT SUM(loan_amount) AS Total_Funded_Amount  
FROM bank_loan_data;
```

Total_Funded_Amount
435757075

- MONTH TO DATE TOTAL AMOUNT FUNDED
- PREVIOUS MONTH TO DATE TOTAL AMOUNT FUNDED
- MONTH OVER MONTH PERCENTAGE

```

DECLARE @MTD_Total_Funded_Amount INT;
DECLARE @PMTD_Total_Funded_Amount INT;

SELECT @MTD_Total_Funded_Amount = SUM(loan_amount)
FROM bank_loan_data
WHERE MONTH(issue_date) = 12 AND YEAR(issue_date) = 2021;

SELECT @PMTD_total_Funded_Amount = SUM(loan_amount)
FROM bank_loan_data
WHERE MONTH(issue_date) = 11 AND YEAR(issue_date) = 2021;

SELECT
    @MTD_Total_Funded_Amount AS MTD_Total_Funded_Amount,
    @PMTD_Total_Funded_Amount AS PMTD_Total_Funded_Amount,
    ROUND(
        ((@MTD_Total_Funded_Amount - @PMTD_Total_Funded_Amount)*100) /
        NULLIF(@PMTD_Total_Funded_Amount,0),2
    )AS MOM_Percentage_Change;

```

MTD_Total_Funded_Amount	PMTD_Total_Funded_Amount	MOM_Percentage_Change
53981425	47754825	13

- TOTAL AMOUNT RECEIVED

```

SELECT SUM(total_payment) AS Total_Amount_Received
FROM bank_loan_data;

```

Total_Amount_Received
473070933

- MONTH TO DATE TOTAL AMOUNT RECEIVED
- PREVIOUS MONTH TO DATE TOTAL AMOUNT RECEIVED
- MONTH OVER MONTH PERCENTAGE

```

DECLARE @MTD_Total_Amount_Received INT;
DECLARE @PMTD_Total_Amount_Received INT;

SELECT @MTD_Total_Amount_Received = SUM(total_payment)
FROM bank_loan_data
WHERE MONTH(issue_date) = 12 AND YEAR(issue_date) = 2021;

SELECT @PMTD_Total_Amount_Received = SUM(total_payment)
FROM bank_loan_data
WHERE MONTH(issue_date) = 11 AND YEAR(issue_date) = 2021;

SELECT
    @MTD_Total_Amount_Received AS MTD_Total_Funded_Amount,
    @PMTD_Total_Amount_Received AS PMTD_Total_Funded_Amount,
    ROUND(
        ((@MTD_Total_Amount_Received - @PMTD_Total_Amount_Received)*100) /
        NULLIF(@PMTD_Total_Amount_Received,0),2
    )AS MOM_Percentage_Change;

```

MTD_Total_Funded_Amount	PMTD_Total_Funded_Amount	MOM_Percentage_Change
58074380	50132030	15

- AVERAGE INTEREST RATE

```
SELECT ROUND((AVG(int_rate))*100,2) AS Avg_Interest_Rate
FROM bank_loan_data;
```

Avg_Interest_Rate
12.05

- MONTH TO DATE AVERAGE INTEREST RATE
- PREVIOUS MONTH TO DATE AVERAGE INTEREST RATE
- MONTH OVER MONTH PERCENTAGE

```
FROM bank_loan_data
WHERE MONTH(issue_date) = 12 AND YEAR(issue_date) = 2021;

-- Get the previous month's average interest rate
SELECT @PMTD_Average_Interest_Rate = ROUND(AVG(int_rate), 2)
FROM bank_loan_data
WHERE MONTH(issue_date) = 11 AND YEAR(issue_date) = 2021;

-- Calculate and display results
SELECT
    @MTD_Average_Interest_Rate AS MTD_Average_Interest_Rate,
    @PMTD_Average_Interest_Rate AS PMTD_Average_Interest_Rate,
    ROUND(
        ((@MTD_Average_Interest_Rate - @PMTD_Average_Interest_Rate) * 100.0) /
        NULLIF(@PMTD_Average_Interest_Rate, 0),
        2) AS MoM_Percentage_Change;
```

MTD_Average_Interest_Rate	PMTD_Average_Interest_Rate	MoM_Percentage_Change
0.12	0.12	0

- AVERAGE DTI

```
SELECT ROUND(AVG(dti)*100,2) AS Avg_DTI
FROM bank_loan_data;
```

Avg_DTI
13.33

- MONTH TO DATE AVERAGE DTI
- PREVIOUS MONTH TO DATE AVERAGE DTI
- MONTH OVER MONTH PERCENTAGE

```

DECLARE @MTD_Average_DTI FLOAT;
DECLARE @PMTD_Average_DTI FLOAT;

SELECT @MTD_Average_DTI = AVG(dti)
FROM bank_loan_data
WHERE MONTH(issue_date) = 12 AND YEAR(issue_date) = 2021;

SELECT @PMTD_Average_DTI = AVG(dti)
FROM bank_loan_data
WHERE MONTH(issue_date) = 11 AND YEAR(issue_date) = 2021;

SELECT
    @MTD_Average_DTI AS MTD_Average_DTI,
    @PMTD_Average_DTI AS PMTD_Average_DTI,
    ROUND(
        ((@MTD_Average_DTI - @PMTD_Average_DTI)*100) /
        NULLIF(@PMTD_Average_DTI,0),2
    )AS MOM_Percentage_Change;

```

MTD_Average_DTI	PMTD_Average_DTI	MOM_Percentage_Change
0.136655377880425	0.133027335836364	2.73

- GOOD LOAN

```

SELECT
    (COUNT(CASE WHEN loan_status = 'Fully Paid' OR loan_status = 'Current' THEN id END)*100) /
    COUNT(id) AS Good_loan_percentage
FROM bank_loan_data;

```

Good_loan_percentage
86

```

SELECT COUNT(id) FROM bank_loan_data
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'

```

(No column name)
33243

```

SELECT SUM(loan_amount) FROM bank_loan_data
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'

```

(No column name)
370224850

```
SELECT SUM(total_payment) AS Good_loan_received_Amount FROM bank_loan_data  
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'
```

Good_loan_received_Amount
435786170

- BAD LOAN

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

Bad_Loan_Percentage
13.824657818332

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

Bad_Loan_Applications
5333

```
SELECT SUM(loan_amount) AS Bad_Loan_Amount_Funded FROM bank_loan_data  
WHERE loan_status = 'Charged Off';
```

Bad_Loan_Amount_Funded
65532225

```
SELECT SUM(total_payment) AS Bad_Loan_Amount_Received FROM bank_loan_data  
WHERE loan_status = 'Charged Off';
```

Bad_Loan_Amount_Received
37284763

• GRID VIEW

```
SELECT
    loan_status,
    COUNT(id) AS Total_Loan_Application,
    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
```

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

```
SELECT
    loan_status,
    SUM(total_payment) AS MTD_Total_Amount_Received,
    SUM(loan_amount) AS MTD_Total_Funded_Amount
FROM bank_loan_data
WHERE MONTH(issue_date) = 12
GROUP BY loan_status
```

	loan_status	MTD_Total_Amount_Received	MTD_Total_Funded_Amount
1	Fully Paid	47815851	41302025
2	Current	4934318	3946625
3	Charged Off	5324211	8732775

B. BANK LOAN REPORT | OVERVIEW

```
SELECT
    MONTH(issue_date) AS Month_Number,
    DATENAME(MONTH,issue_date) AS Month_Name,
    COUNT(id) AS Total_loan_Applications,
    SUM(loan_amount) AS Total_funded_Amount,
    SUM(total_payment) AS Total_Received_Amount
FROM bank_loan_data
GROUP BY MONTH(issue_date),DATENAME(MONTH,issue_date)
ORDER BY MONTH(issue_date)
```

	Month_Number	Month_Name	Total_loan_Applications	Total_funded_Amount	Total_Received_Amount
1	1	January	2332	25031650	27578836
2	2	February	2279	24647825	27717745
3	3	March	2627	28875700	32264400
4	4	April	2755	29800800	32495533
5	5	May	2911	31738350	33750523
6	6	June	3184	34161475	36164533
7	7	July	3366	35813900	38827220
8	8	August	3441	38149600	42682218
9	9	September	3536	40907725	43983948
10	10	October	3796	44893800	49399567
11	11	November	4035	47754825	50132030
12	12	December	4314	53981425	58074380

```

SELECT
    address_state,
    COUNT(id) AS Total_loan_Applications,
    SUM(loan_amount) AS Total_funded_Amount,
    SUM(total_payment) AS Total_Received_Amount
FROM bank_loan_data
GROUP BY address_state
ORDER BY COUNT(id) DESC

```

```

SELECT
    term,
    COUNT(id) AS Total_loan_Applications,
    SUM(loan_amount) AS Total_funded_Amount,
    SUM(total_payment) AS Total_Received_Amount
FROM bank_loan_data
GROUP BY term
ORDER BY term

```

	term	Total_loan_Applications	Total_funded_Amount	Total_Received_Amount
1	36 months	28237	273041225	294709458
2	60 months	10339	162715850	178361475

```

SELECT
    emp_length AS Employee_Lenth,
    COUNT(id) AS Total_loan_Applications,
    SUM(loan_amount) AS Total_funded_Amount,
    SUM(total_payment) AS Total_Received_Amount
FROM bank_loan_data
WHERE grade = 'A'
GROUP BY emp_length
ORDER BY emp_length

```

	Employee_Lenth	Total_loan_Applications	Total_funded_Amount	Total_Received_Amount
1	< 1 year	1203	9419275	9773645
2	1 year	748	5701875	5941119
3	10+ years	2296	21530900	22459475
4	2 years	1019	8345275	8860432
5	3 years	1006	8624950	8951018
6	4 years	840	7314600	7681582
7	5 years	828	7425200	7687859
8	6 years	569	5049250	5258468
9	7 years	434	3855025	4072037
10	8 years	405	3846350	4028097
11	9 years	341	3139525	3337831

```

SELECT
    home_ownership AS Home_Ownership,
    COUNT(id) AS Total_loan_Applications,
    SUM(loan_amount) AS Total_funded_Amount,
    SUM(total_payment) AS Total_Received_Amount
FROM bank_loan_data
GROUP BY home_ownership
ORDER BY home_ownership

```

	Home_Ownership	Total_loan_Applications	Total_funded_Amount	Total_Received_Amount
1	MORTGAGE	17198	219329150	238474438
2	NONE	3	16800	19053
3	OTHER	98	1044975	1025257
4	OWN	2838	29597675	31729129
5	RENT	18439	185768475	201823056


```

SELECT
    purpose AS PURPOSE,
    COUNT(id) AS Total_loan_Applications,
    SUM(loan_amount) AS Total_funded_Amount,
    SUM(total_payment) AS Total_Received_Amount
FROM bank_loan_data
WHERE grade = 'A'
GROUP BY purpose
ORDER BY purpose

```

	PURPOSE	Total_loan_Applications	Total_funded_Amount	Total_Received_Amount
1	car	577	3629475	3805538
2	credit card	1353	12636075	13339495
3	Debt consolidation	3753	37216300	38822971
4	educational	79	484000	515639
5	home improvement	933	8359175	8744006
6	house	91	916575	957878
7	major purchase	796	5344575	5604259
8	medical	197	1471850	1526882
9	moving	164	1069450	1099875
10	other	1024	7043175	7397982
11	renewable_energy	29	224150	225827
12	small business	334	3172075	3190467
13	vacation	122	683625	694542
14	wedding	237	2001725	2126202