

# BANK LOAN REPORT QUERY DOCUMENT

## A. BANK LOAN REPORT | SUMMARY

### KPI's:

Total Loan Applications :

```
SELECT COUNT(*) AS total_loan_applications
FROM bank_loans_data
WHERE YEAR(issue_date) = 2021;
```

total_loan_applications
38576

Month To Date (MTD) Loan Applications :

```
SELECT COUNT(id) AS mtd_total_applications
FROM bank_loans_data
WHERE MONTH(issue_date) = 12 AND YEAR(issue_date) = 2021;
```

mtd_total_applications
4314

Previous Month To Date (PMTD) Loan Applications:

```
SELECT COUNT(id) AS pmtd_total_applications
FROM bank_loans_data
WHERE MONTH(issue_date) = 11 AND YEAR(issue_date) = 2021;
```

pmtd_total_applications
4035

Total Funded Amount:

```
SELECT CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million' ) AS
total_funded_amount
FROM bank_loans_data;
```

total_funded_amount
435.76 Million

Month To Date (MTD) Funded Amount:

```
SELECT CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million' ) AS
mtd_total_funded_amount
FROM bank_loans_data
WHERE MONTH(issue_date) = 12;
```

mtd_total_funded_amount
53.98 Million

Previous Month To Date (PMTD) Funded Amount:

```
SELECT CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million' ) AS pmtd_total_funded_amount
FROM bank_loans_data
WHERE MONTH(issue_date) = 11;

pmtd_total_funded_amount
47.75 Million
```

Total received amount:

```
SELECT CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million' ) AS total_amount_received
FROM bank_loans_data;

total_amount_received
473.07 Million
```

Month To Date (MTD) Received Amount:

```
SELECT CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million' ) AS mtd_total_amount_received
FROM bank_loans_data
WHERE MONTH(issue_date) = 12;

mtd_total_amount_received
58.07 Million
```

Previous Month To Date (PMTD) Received Amount:

```
SELECT SUM(total_payment) AS pmtd_total_amount_received
FROM bank_loans_data
WHERE MONTH(issue_date) = 11;

pmtd_total_amount_received
50132030
```

Average interest rate :

```
SELECT CONCAT(ROUND(AVG(int_rate)*100.0,2), ' ', '%' ) AS mtd_avg_interest_rate
FROM bank_loans_data
WHERE YEAR(issue_date)= 2021 AND MONTH(issue_date) = 12;

avg_interest_rate
12.05 %
```

Average interest rate MTD :

```
SELECT CONCAT(ROUND(AVG(int_rate)*100.0,2), ' ', '%' ) AS mtd_avg_interest_rate
FROM bank_loans_data
WHERE YEAR(issue_date)= 2021 AND MONTH(issue_date) = 12;

mtd_avg_interest_rate
12.36 %
```

Average interest rate PMTD :

```
SELECT CONCAT(ROUND(AVG(int_rate)*100.0,2), ' ', '%') AS pmtd_avg_interest_rate
FROM bank_loans_data
WHERE YEAR(issue_date) = 2021 AND MONTH(issue_date) = 11
```

pmtd\_avg\_interest\_rate

11.94 %

Average Debt To Income Ratio (DTI) :

```
SELECT ROUND(AVG(dtci)* 100.0,2) AS avg_dtci
FROM bank_loans_data;
```

avg\_dtci

13.33

Average Debt To Income Ratio (DTI) MTD :

```
SELECT ROUND(AVG(dtci)* 100.0,2) AS mtd_avg_dtci
FROM bank_loans_data
WHERE YEAR(issue_date) = 2021 AND MONTH(issue_date) = 12;
```

mtd\_avg\_dtci

13.67

Average Debt To Income Ratio (DTI) PMTD :

```
SELECT ROUND(AVG(dtci)* 100.0,2) AS pmtd_avg_dtci
FROM bank_loans_data
WHERE YEAR(issue_date) = 2021 AND MONTH(issue_date) = 11;
```

pmtd\_avg\_dtci

13.3

## Good Loans Issued :

Good Loan Percentage:

```
SELECT
    CONCAT(CAST(SUM(CASE WHEN loan_Status= 'Fully Paid' OR loan_Status= 'Current' THEN
        1 ELSE 0 END)*100.0 /
    COUNT(id)AS DECIMAL(10,2)), ' ', '%') AS good_loan_percentage
FROM bank_loans_data;
```

good\_loan\_percentage

86.18 %
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Total Good Loan Applications:

```
SELECT CONCAT(CAST(COUNT(*)/1000.0AS DECIMAL(10,3)), ' ', 'k') AS
total_good_loan_applications
FROM bank_loans_data
WHERE loan_status= 'Fully Paid' OR loan_Status= 'Current';
```

total\_good\_loan\_applications

33.243 k
----------

Total Good Loan Funded Amount:

```
SELECT CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS
total_good_loan_funded_amount
FROM bank_loans_data
WHERE loan_status= 'Fully Paid' OR loan_Status= 'Current';
```

total\_good\_loan\_funded\_amount

370.22 Million
----------------

Total Good Loan Received Amount:

```
SELECT CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS
total_good_loan_received_amount
FROM bank_loans_data
WHERE loan_status= 'Fully Paid' OR loan_Status= 'Current';
```

total\_good\_loan\_received\_amount

435.79 Million
----------------

## Bad Loans Issued:

Bad Loan Percentage:

```
SELECT
CONCAT(CAST(SUM(CASE WHEN loan_Status= 'Charged Off' THEN 1 ELSE 0 END)*100.0
/
COUNT(id)AS DECIMAL(10,2)), ' ', '%') AS bad_loan_percentage
FROM bank_loans_data;
```

bad\_loan\_percentage

13.82 %

Total Bad Loan Applications:

```
SELECT CONCAT(CAST(COUNT(*)/1000.0AS DECIMAL(10,2)), ' ', 'k') AS
total_bad_loan_applications
FROM bank_loans_data
WHERE loan_status= 'Charged Off';
```

total\_bad\_loan\_applications

5.33 k

Total Bad Loan Funded Amount:

```
SELECT CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS
total_bad_loan_funded_amount
FROM bank_loans_data
WHERE loan_status= 'Charged Off';
```

total\_bad\_loan\_funded\_amount

65.53 Million

Total Bad Loan Received Amount:

```
SELECT CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS
total_bad_loan_received_amount
FROM bank_loans_data
WHERE loan_status= 'Charged Off';
```

total\_bad\_loan\_received\_amount

37.28 Million

## Loan Status :

```
SELECT loan_status,
COUNT(*) AS total_loans,
CONCAT(ROUND(AVG(int_rate)*100.0,2), ' ', '%') AS avg_interest_rate,
ROUND(AVG(dtı)*100.0,2) AS avg_dtı,
CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_funded_amt,
CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_received_amt
FROM bank_loans_data
GROUP BY loan_status;
```

	loan_status	total_loans	avg_interest_rate	avg_dtı	total_funded_amt	total_received_amt
1	Fully Paid	32145	0.12 %	0.13	351.36 Million	411.59 Million
2	Current	1098	0.15 %	0.15	18.87 Million	24.20 Million
3	Charged Off	5333	0.14 %	0.14	65.53 Million	37.28 Million

```
SELECT loan_status,
COUNT(*) AS total_loans,
CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_funded_amt,
CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_received_amt
FROM bank_loans_data
WHERE MONTH(issue_date)=12 , YEAR(issue_date) = 2021
GROUP BY loan_status ;
```

loan_status	total_loans	total_funded_amt	total_received_amt
Fully Paid	3452	41.30 Million	47.82 Million
Current	213	3.95 Million	4.93 Million
Charged Off	649	8.73 Million	5.32 Million

## B. BANK LOAN REPORT | OVERVIEW

### Monthly Summary :

```
SELECT
DATENAME(MONTH,issue_date) AS month,
COUNT(*) AS total_loan_applications,
CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_funded_amt,
CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_received_amt
FROM bank_loans_data
GROUP BY DATENAME(MONTH,issue_date), MONTH(issue_date)
ORDER BY MONTH(issue_date)
```

	month	total_loan_applications	total_funded_amt	total_received_amt
1	January	2332	25.03 Million	27.58 Million
2	February	2279	24.65 Million	27.72 Million
3	March	2627	28.88 Million	32.26 Million
4	April	2755	29.80 Million	32.50 Million
5	May	2911	31.74 Million	33.75 Million
6	June	3184	34.16 Million	36.16 Million
7	July	3366	35.81 Million	38.83 Million
8	August	3441	38.15 Million	42.68 Million
9	September	3536	40.91 Million	43.98 Million
10	October	3796	44.89 Million	49.40 Million
11	November	4035	47.75 Million	50.13 Million
12	December	4314	53.98 Million	58.07 Million

### Regional Summary (STATE):

```
SELECT
address_state,
COUNT(*) AS total_loan_applications,
CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_funded_amt,
CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_received_amt
FROM bank_loans_data
GROUP BY address_state
ORDER BY SUM(loan_amount) DESC,
SUM(total_payment) DESC;
```

	address_state	total_loan_applications	total_funded_amt	total_received_amt
1	CA	6894	78.48 Million	83.90 Million
2	NY	3701	42.08 Million	46.11 Million
3	TX	2664	31.24 Million	34.39 Million
4	FL	2773	30.05 Million	31.60 Million
5	NJ	1822	21.66 Million	23.43 Million
6	IL	1486	17.12 Million	18.88 Million
7	VA	1375	15.98 Million	17.71 Million
8	PA	1482	15.83 Million	17.46 Million
9	GA	1355	15.48 Million	16.73 Million
10	MA	1310	15.05 Million	16.68 Million
11	OH	1188	12.99 Million	14.33 Million
12	MD	1027	11.91 Million	12.99 Million
13	AZ	833	9.21 Million	10.04 Million
14	CO	770	8.98 Million	9.85 Million
15	WA	805	8.86 Million	9.53 Million
16	NC	759	8.79 Million	9.53 Million
17	CT	730	8.44 Million	9.36 Million
18	MI	685	7.83 Million	8.54 Million
19	MO	660	7.15 Million	7.69 Million
20	MN	592	6.30 Million	6.75 Million
21	NV	482	5.31 Million	5.45 Million
22	SC	464	5.08 Million	5.46 Million
23	WI	446	5.07 Million	5.49 Million
24	AL	432	4.95 Million	5.49 Million
25	OR	436	4.72 Million	4.97 Million
26	LA	426	4.50 Million	5.00 Million
27	KY	320	3.50 Million	3.79 Million
28	OK	293	3.37 Million	3.71 Million
29	KS	260	2.87 Million	3.25 Million
30	UT	252	2.85 Million	2.95 Million
31	DC	214	2.65 Million	2.92 Million
32	AR	236	2.53 Million	2.78 Million
33	NH	161	1.92 Million	2.10 Million
34	NM	183	1.92 Million	2.08 Million
35	RI	196	1.88 Million	2.00 Million
36	HI	170	1.85 Million	2.08 Million
37	WV	167	1.83 Million	1.99 Million
38	DE	110	1.14 Million	1.27 Million
39	AK	78	1.03 Million	1.11 Million
40	WY	79	0.89 Million	1.05 Million
41	MT	79	0.83 Million	0.89 Million
42	SD	63	0.61 Million	0.66 Million
43	VT	54	0.50 Million	0.53 Million
44	TN	17	0.16 Million	0.14 Million
45	MS	19	0.14 Million	0.15 Million
46	IN	9	0.09 Million	0.09 Million
47	ID	6	0.06 Million	0.07 Million
48	IA	5	0.06 Million	0.06 Million
49	NE	5	0.03 Million	0.02 Million
50	ME	3	0.01 Million	0.01 Million

## Term Analysis:

```
SELECT
term,
COUNT(*) AS total_loan_applications,
CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_funded_amt,
CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_received_amt
FROM bank_loans_data
GROUP BY term;
```

	term	total_loan_applications	total_funded_amt	total_received_amt
1	60 months	10339	162.72 Million	178.36 Million
2	36 months	28237	273.04 Million	294.71 Million

## Employee Length:

```
SELECT
emp_length,
COUNT(*) AS total_loan_applications,
CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_funded_amt,
CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_received_amt
FROM bank_loans_data
GROUP BY emp_length
ORDER BY SUM(loan_amount) DESC,
SUM(total_payment)DESC;
```

	emp_length	total_loan_applications	total_funded_amt	total_received_amt
1	10+ years	8870	116.12 Million	125.87 Million
2	< 1 year	4575	44.21 Million	47.55 Million
3	2 years	4382	44.97 Million	49.21 Million
4	3 years	4088	43.94 Million	47.55 Million
5	4 years	3428	37.60 Million	40.96 Million
6	5 years	3273	36.97 Million	40.40 Million
7	1 year	3229	32.88 Million	35.50 Million
8	6 years	2228	25.61 Million	27.91 Million
9	7 years	1772	20.81 Million	22.58 Million
10	8 years	1476	17.56 Million	19.03 Million
11	9 years	1255	15.08 Million	16.52 Million

## Purpose:

```
SELECT
purpose,
COUNT(*) AS total_loan_applications,
CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_funded_amt,
CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_received_amt
FROM bank_loans_data
GROUP BY purpose
ORDER BY COUNT(*) DESC;
```

	purpose	total_loan_applications	total_funded_amt	total_received_amt
1	Debt consolidation	18214	232.46 Million	253.80 Million
2	credit card	4998	58.89 Million	65.21 Million
3	other	3824	31.16 Million	33.29 Million
4	home improvement	2876	33.35 Million	36.38 Million
5	major purchase	2110	17.25 Million	18.68 Million
6	small business	1776	24.12 Million	23.81 Million
7	car	1497	10.22 Million	11.32 Million
8	wedding	928	9.23 Million	10.27 Million
9	medical	667	5.53 Million	5.85 Million
10	moving	559	3.75 Million	4.00 Million
11	house	366	4.82 Million	5.19 Million
12	vacation	352	1.97 Million	2.12 Million
13	educational	315	2.16 Million	2.25 Million
14	renewable_energy	94	0.85 Million	0.90 Million

## Home Ownership:

```

SELECT
home_ownership,
COUNT(*) AS total_loan_applications,
CONCAT(CAST(SUM(loan_amount)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_funded_amt,
CONCAT(CAST(SUM(total_payment)/1000000.0 AS DECIMAL(10,2)), ' ', 'Million') AS total_received_amt
FROM bank_loans_data
GROUP BY home_ownership
ORDER BY COUNT(*) DESC;

```

	home_ownership	total_loan_applications	total_funded_amt	total_received_amt
1	RENT	18439	185.77 Million	201.82 Million
2	MORTGAGE	17198	219.33 Million	238.47 Million
3	OWN	2838	29.60 Million	31.73 Million
4	OTHER	98	1.04 Million	1.03 Million
5	NONE	3	0.02 Million	0.02 Million