

## BANK LOAN REPORT QUERY DOCUMENT

### A. BANK LOAN REPORT | SUMMARY

KIP's:

Total Loan Application

```
select count(id) as Total_Loan_Applications from bank_loan_data;
```

Total_Loan_Applications
-------------------------

38576
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MTD Total Loan Applications

```
select count(id) as MTD_Total_loand_Applications from bank_loan_data  
where MONTH(issue_date) = 12 and YEAR(issue_date) = 2021
```

MTD_Total_loand_Applications
------------------------------

4314
------

PMTD Total Loan Applications

```
select count(id) as PMTD_Total_load_Applications from bank_loan_data  
where MONTH(issue_date) = 11 and YEAR(issue_date) = 2021;
```

PMTD_Total_load_Applications
------------------------------

4035
------

/\*Total Fund Amount\*/

```
select sum(loan_amount) as Total_Fond_Amount from bank_loan_data;
```

Total_Fond_Amount
-------------------

435757075
-----------

/\*MTD Total Fund Amount\*/

```
select sum(loan_amount) as MTD_Total_Fond_Amount from bank_loan_data  
where MONTH(issue_date) = 12 and YEAR(issue_date) = 2021;
```

MTD_Total_Fond_Amount
-----------------------

53981425
----------

/\*PMTD Total Fund Amount\*/

```
select sum(loan_amount) as PMTD_Total_Fond_Amount from bank_loan_data  
where MONTH(issue_date) = 11 and YEAR(issue_date) = 2021;
```

PMTD_Total_Fond_Amount
------------------------

47754825
----------

/\*Total Amount Received\*/

```
select sum(total_payment) as Total_Amount_Receive from bank_loan_data
```

Total_Amount_Receive
----------------------

473070933
-----------

/\*MTD Total Amount Received\*/

```
select sum(total_payment) as MTD_Total_Amount_Receive from bank_loan_data  
where MONTH(issue_date) = 12 and YEAR(issue_date) = 2021
```

MTD_Total_Amount_Receive
--------------------------

58074380
----------

/\*PMTD Total Amount Recived\*/

```
select sum(total_payment) as PMTD_Total_Amount_Receive from bank_loan_data
where MONTH(issue_date) = 11 and YEAR(issue_date) = 2021;
PMTD_Total_Amount_Receive
50132030
```

```
/*Average Interest Rate*/
select avg(int_rate) as AVG_Interest_Rate from bank_loan_data;
```

AVG_Interest_Rate
0.120488314172048

```
/*MTD Average Interest Rate*/
select avg(int_rate) as MTD_AVG_Interest_Rate from bank_loan_data
where MONTH(issue_date) = 12 and YEAR(issue_date) = 2021;
```

MTD_AVG_Interest_Rate
0.123560408676042

```
/*PMTD Average Interest Rate*/
select avg(int_rate) as PMTD_AVG_Interest_Rate from bank_loan_data
where MONTH(issue_date) = 11 and YEAR(issue_date) = 2021
```

PMTD_AVG_Interest_Rate
0.119417175498261

```
/*Average Debt-to-Income Ratio */
select round(avg(dti)*100,2) as AVG_DTI_Rate from bank_loan_data
```

AVG_Interest_Rate
13.33

```
/*MTD Average Debt-to-Income Ratio */
select round(avg(dti)*100,2) as MTD_AVG_DTI_Rate from bank_loan_data
where MONTH(issue_date) = 12 and YEAR(issue_date) = 2021
```

DTD_AVG_Interest_Rate
13.67

```
/*PMTD Average Debt-to-Income Ratio */
select round(avg(dti)*100,2) as PMTD_AVG_DTI_Rate from bank_loan_data
where MONTH(issue_date) = 12 and YEAR(issue_date) = 2021
```

PDTD_AVG_Interest_Rate
13.3

```
/*Good Loan Application Percentage*/
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

```
/*Good Loan Applications*/
select count(id) as Good_Loan_Applications from bank_loan_data
where loan_status = 'fully Paid' or loan_status = 'Current';
```

Good_Loan_Applications
33243

```
/*Good Loan Funded Amount*/
select sum(loan_amount) as Good_Loan_Funded_Amount from bank_loan_data
where loan_status = 'Fully Paid' or loan_status = 'Current';
```

Good_Loan_Funded_Amount
370224850

```
/*Good Loan Total Received Amount*/
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 Application Percentage*/
select count(case when loan_status ='Charged Off' then id end)*100 / count(id) as
Bad_Loan_Percentage from bank_loan_data
```

Bad_Loan_Percentage
13

```
/*Bad Load Applications*/
select count(id) as Bad_Load_Applications from bank_loan_data
where loan_status = 'Charged Off';
```

Bad_Load_Applications
5333

```
/*Bad Loan Fund Amount*/
select sum(loan_amount) as Bad_Load_Fund_Amount from bank_loan_data
where loan_status = 'Charged Off';
```

Bad_Load_Fund_Amount
6553225

```
/*Bad Loan Total Recieve Amount*/
select sum(total_payment) as Bad_Loand_Recieve_Amount from bank_loan_data
where loan_status = 'Charged Off';
```

Bad_Loand_Recieve_Amount
37284763

```

/*Loan Status Grid View*/
select
    loan_status,
    count(id) as Total_Loan_Applications,
    sum(total_payment) as Total_Amount_Recieved,
    sum(loan_amount) as Total_Founded_Amount,
    avg(int_rate)*100 as AVG_Interest_Rate,
    avg(dt) as DIT
from bank_loan_data
group by loan_status

```

loan_status	Total_Loan_Applications	Total_Amount_Recieved	Total_Founded_Amount	AVG_Interest_Rate	DIT
Fully Paid	32145	411586256	351358350	11.6410707918092	13.1673507557434
Charged Off	5333	37284763	65532225	13.8785749318289	14.0047328005517
Current	1098	24199914	18866500	15.0993260800947	14.7243442736843

```

/*MTD Loan Status Grid View*/
select
    loan_status,
    sum(total_payment) as MTD_Total_Amount_Recieved,
    sum(loan_amount) as MTD_Total_Founded_Amount
from bank_loan_data
where MONTH(issue_date) = 12 and YEAR(issue_date) = 2021
group by loan_status

```

loan_status	MTD_Total_Amount_Recieved	MTD_Total_Founded_Amount
Fully Paid	47815851	41302025
Charged Off	5324211	8732775
Current	4934318	3946625

```

/* Monthly Trends by Issue Date (Line Chart)*/
Select

```

```

    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_Recieve_Amount
from bank_loan_data
group by DATENAME(MONTH, issue_date)
order by DATENAME(MONTH, issue_date)

```

Month_Name	Total_Loan_Applications	Total_Funded_Amount	Total_Recieve_Amount
April	2755	29800800	32495533
August	3441	38149600	42682218
December	4314	53981425	58074380
February	2279	24647825	27717745
January	2332	25031650	27578836
July	3366	35813900	38827220
June	3184	34161475	36164533
March	2627	28875700	32264400
May	2911	31738350	33750523
November	4035	47754825	50132030
October	3796	44893800	49399567
September	3536	40907725	43983948

```

/* Monthly Trends by Issue Date (Line Chart)*/
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_Recieve_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_Recieve_Amount
1	January	2332	25031650	27578836
2	February	2279	24647825	27717745
3	March	2627	28875700	32264400
4	April	2755	29800800	32495533
5	May	2911	31738350	33750523
6	June	3184	34161475	36164533
7	July	3366	35813900	38827220
8	August	3441	38149600	42682218
9	September	3536	40907725	43983948
10	October	3796	44893800	49399567
11	November	4035	47754825	50132030
12	December	4314	53981425	58074380

```

/*Regional Analysis by State (Filled Map):*/
select
    address_state,
    count(id) as Total_Loan_Applications,
    sum(loan_amount) as Total_Funded_Amount,
    sum(total_payment) as Total_Recieve_Amount
from bank_loan_data
group by address_state
order by count(id) DESC

```

address_state	Total_Loan_Applications	Total_Funded_Amount	Total_Recieve_Amount
CA	6894	78484125	83901234
NY	3701	42077050	46108181
FL	2773	30046125	31601905
TX	2664	31236650	34392715
NJ	1822	21657475	23425159
IL	1486	17124225	18875941
PA	1482	15826525	17462908
VA	1375	15982650	17711443
GA	1355	15480325	16728040
MA	1310	15051000	16676279
OH	1188	12991375	14330148
MD	1027	11911400	12985170
AZ	833	9206000	10041986

Query executed successfully. PI\SQLEXPRESS01 (17.0 RTM) PI\DATA (52) Bank Loan DB 00:00:00 50 rows

```

/*Loan Term Analysis (Donut Chart)*/
select
    term,
    count(id) as Total_Loan_Applications,
    sum(loan_amount) as Total_Funded_Amount,
    sum(total_payment) as Total_Recieve_Amount
from bank_loan_data
group by term
order by count(id) DESC

```

term	Total_Loan_Applications	Total_Funded_Amount	Total_Recieve_Amount
36 months	28237	273041225	294709458
60 months	10339	162715850	178361475

```
/*Employee Length Analysis (Bar Chart):*/
select
    emp_length,
    count(id) as Total_Loan_Applications,
    sum(loan_amount) as Total_Funded_Amount,
    sum(total_payment) as Total_Recieve_Amount
from bank_loan_data
group by emp_length
order by count(id) DESC
```

emp_length	Total_Loan_Applications	Total_Funded_Amount	Total_Recieve_Amount
10+ years	8870	116115950	125871616
< 1 year	4575	44210625	47545011
2 years	4382	44967975	49206961
3 years	4088	43937850	47551832
4 years	3428	37600375	40964850
5 years	3273	36973625	40397571
1 year	3229	32883125	35498348
6 years	2228	25612650	27908658
7 years	1772	20811725	22584136
8 years	1476	17558950	19025777
9 years	1255	15084225	16516173

```
/* Loan Purpose Breakdown (Bar Chart)*/
select
    purpose,
    count(id) as Total_Loan_Applications,
    sum(loan_amount) as Total_Funded_Amount,
    sum(total_payment) as Total_Recieve_Amount
from bank_loan_data
group by purpose
order by count(id) DESC
```

	purpose	Total_Loan_Applications	Total_Funded_Amount	Total_Recieve_Amount
1	Debt consolidation	18214	232459675	253801871
2	credit card	4998	58885175	65214084
3	other	3824	31155750	33289676
4	home improvement	2876	33350775	36380930
5	major purchase	2110	17251600	18676927
6	small business	1776	24123100	23814817
7	car	1497	10223575	11324914
8	wedding	928	9225800	10266856
9	medical	667	5533225	5851372
10	moving	559	3748125	3999899
11	house	366	4824925	5185538
12	vacation	352	1967950	2116738
13	educational	315	2161650	2248380
14	renewable_energy	94	845750	898931

```
/* Home Ownership Analysis (Tree Map)*/
select
    home_ownership,
    count(id) as Total_Loan_Applications,
    sum(loan_amount) as Total_Funded_Amount,
    sum(total_payment) as Total_Recieve_Amount
from bank_loan_data
group by home_ownership
order by count(id) DESC
```

	home_ownership	Total_Loan_Applications	Total_Funded_Amount	Total_Recieve_Amount
1	RENT	18439	185768475	201823056
2	MORTGAGE	17198	219329150	238474438
3	OWN	2838	29597675	31729129
4	OTHER	98	1044975	1025257
5	NONE	3	16800	19053