

BANK LOAN REPORT QUERY DOCUMENT

Project Title: **Credit Risk Strategic Analytics**

Prepared By: **Rudra Pratap Singh**

BANK LOAN REPORT | SUMMARY

KPI's:

Total Loan Applications

```
select count(id) as Total_Loan_Application from financial_loan_table
```

	Total_Loan_Application
1	38576

MTD Loan Applications for December

```
select count(id) as MTD_Total_Loan_Application from financial_loan_table  
where month(issue_date)=12 and year(issue_date)=2021
```

	MTD_Total_Loan_Application
1	4314

PMTD Loan Applications

```
select count(id) as PMTD_Total_Loan_Application from financial_loan_table  
where month(issue_date)=11 and year(issue_date)=2021
```

	PMTD_Total_Loan_Application
1	4035

TOTAL FUNDED AMOUNT

```
SELECT SUM(loan_amount) as TOTAL_FUNDED_AMOUNT from financial_loan_table
```

	TOTAL_FUNDED_AMOUNT
1	435757075

TOTAL FUNDED AMOUNT MONTH TO DATE (FOR DECEMBER)

```
SELECT SUM(loan_amount) as MTD_TOTAL_FUNDED_AMOUNT from financial_loan_table  
where month(issue_date)=12 and year(issue_date)=2021
```

	MTD_TOTAL_FUNDED_AMOUNT
1	53981425

TOTAL FUNDED AMOUNT PPREVIOUS MONTH TO DATE

```
SELECT SUM(loan_amount) as PMTD_TOTAL_FUNDED_AMOUNT from financial_loan_table
where month(issue_date)=11 and year(issue_date)=2021
```

	PMTD_TOTAL_FUNDED_AMOUNT
1	47754825

TOTAL AMOUNT RECEIVED

```
SELECT SUM(total_payment) as TOTAL_AMOUNT_RECEIVED from financial_loan_table
```

	TOTAL_AMOUNT_RECEIVED
1	473070933

TOTAL AMOUNT RECEIVED MONTH TO DATE

```
SELECT SUM(total_payment) as MTD_TOTAL_AMOUNT_RECEIVED from financial_loan_table
where month(issue_date)=12 and year(issue_date)=2021
```

	MTD_TOTAL_AMOUNT_RECEIVED
1	58074380

TOTAL AMOUNT RECEIVED PREVIOUS MONTH TO DATE

```
SELECT SUM(total_payment) as PMTD_TOTAL_AMOUNT_RECEIVED from financial_loan_table
where month(issue_date)=11 and year(issue_date)=2021
```

	PMTD_TOTAL_AMOUNT_RECEIVED
1	50132030

AVERAGE INTEREST RATE

```
SELECT AVG(int_rate)*100 as AVERAGE_INTEREST_RATE from financial_loan_table
```

	AVERAGE_INTEREST_RATE
1	12.0488314172048

--AVERAGE INTEREST RATE MONTH TO DATE FOR DECEMBER

```
SELECT ROUND(AVG(int_rate),4)*100 as MTD_AVERAGE_INTEREST_RATE from financial_loan_table
where month(issue_date)=12 and year(issue_date)=2021
```

	MTD_AVERAGE_INTEREST_RATE
1	12.36

--AVERAGE INTEREST RATE PREVIOUS MONTH

```
SELECT ROUND(AVG(int_rate),4)*100 as PMTD_AVERAGE_INTEREST_RATE from financial_loan_table
where month(issue_date)=11 and year(issue_date)=2021
```

	PMTD_AVERAGE_INTEREST_RATE
1	11.94

AVERAGE DEBT TO INTEREST RATIO

```
select ROUND(avg(dti),4) as AVG_DTI from financial_loan_table
```

	AVG_DTI
1	0.1333

--AVERAGE DEPTH TO INTEREST RATIO MONTH TO DATE

```
select ROUND(avg(dti),4) as MTD_AVG_DTI from financial_loan_table
where month(issue_date)=12 and year(issue_date)=2021
```

	MTD_AVG_DTI
1	0.1367

--AVERAGE DEPTH TO INTEREST RATIO PREVIOUS MONTH TO DATE

```
select ROUND(avg(dti),4) as PMTD_AVG_DTI from financial_loan_table
where month(issue_date)=11 and year(issue_date)=2021
```

	PMTD_AVG_DTI
1	0.133

GOOD LOAN AND BAD LOAN

--GOOD LOAN PERCENTAGE

```
SELECT
(COUNT(case when loan_status='Fully Paid ' OR loan_status='Current' then id end)*100
/
count(id) )as Good_loan_percentage from financial_loan_table
```

	Good_loan_percentage
1	86

-GOOD LOAN APPLICATIONS

```
select count(id) as Good_loan_applications from financial_loan_table
where loan_status='FULLY Paid' or loan_status='Current'
```

	Good_loan_applications
1	33243

GOOD LOAN FUNDED AMOUNT

```
SELECT sum(loan_amount) as Goodloan_funded_amount from financial_loan_table
where loan_status='FULLY Paid' or loan_status='Current'
```

	Good_loan_applications
1	33243

-GOOD LOAN TOTAL RECIEVED AMOUNT

```
SELECT SUM(total_payment) as goodloan_received_amount from financial_loan_table
where loan_status='FULLY Paid' or loan_status='Current'
```

	goodloan_received_amount
1	435786170

--TOTAL PERCENTAGE BAD LOAN

```
SELECT
(COUNT(case when loan_status='Charged Off' then id end)*100
/
count(id) )as Bad_loan_percentage from financial_loan_table
```

	Bad_loan_percentage
1	13

-TOTAL BAD LOAN APPLICATIONS

```
select count(id) as BAD_loan_applications from financial_loan_table
where loan_status='Charged Off'
```

	BAD_loan_applications
1	5333

-- BAD LOAN FUNDED AMOUNT

```
SELECT sum(loan_amount) as BAD_loan_funded_amount from financial_loan_table
where loan_status='Charged Off'
```

	BAD_loan_funded_amount
1	65532225

-BAD LOAN TOTAL RECIEVED AMOUNT

```
SELECT SUM(total_payment) as BAD_loan_received_amount from financial_loan_table
where loan_status='Charged Off'
```

	BAD_loan_received_amount
1	37284763

LOAN STATUS GRIDVIEW

```
SELECT
loan_status,
COUNT(ID) AS TOTAL_LOAN_APPLICATIONS,
SUM(total_payment) as TOTAL_AMOUNT_RECIEVED,
SUM(loan_amount) as TOTAL_FUNDED_AMOUNT,
AVG(int_rate *100) as INTEREST_RATE,
AVG(dti *100) as DTI
from
financial_loan_table
GROUP BY
loan_status
```

	loan_status	TOTAL_LOAN_APPLICATIONS	TOTAL_AMOUNT_RECIEVED	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

```

SELECT
    loan_status,
    SUM(total_payment) AS MTD_Total_Amount_Received,
    SUM(loan_amount) AS MTD_Total_Funded_Amount
FROM
    financial_loan_table
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	Charged Off	5324211	8732775
3	Current	4934318	3946625

DASHBOARD 2 : OVERVIEW

MONTHLY TRENDS BY ISSUE DATE

```

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_recieved_amount
from financial_loan_table
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_recieved_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

REGIONAL ANALYSIS BY STATE


```

SELECT
    address_state,
    COUNT(id) as Total_loan_applications,
    SUM(loan_amount) as Total_funded_amount,
    SUM(total_payment) as Total_recieved_amount
from financial_loan_table
GROUP BY address_state
ORDER BY address_state

```

	address_state	Total_loan_applications	Total_funded_amount	Total_recieved_amount
1	AK	78	1031800	1108570
2	AL	432	4949225	5492272
3	AR	236	2529700	2777875
4	AZ	833	9206000	10041986
5	CA	6894	78484125	83901234
6	CO	770	8976000	9845810
7	CT	730	8435575	9357612
8	DC	214	2652350	2921854
9	DE	110	1138100	1269136
10	FL	2773	30046125	31601905
11	GA	1355	15480325	16728040
12	HI	170	1850525	2080184
13	IA	5	56450	64482
14	ID	6	59750	65329
15	IL	1486	17124225	18875941
16	IN	9	86225	85521
17	KS	260	2872325	3247394
18	KY	320	3504100	3792530
19	LA	426	4498900	5001160
20	MA	1310	15051000	16676279
21	MD	1027	11911400	12985170
22	ME	3	9200	10808
23	MI	685	7829900	8543660
24	MN	592	6302600	6750746
25	MO	660	7151175	7692732
26	MS	19	139125	149342
27	MT	79	829525	892047
28	NC	759	8787575	9534813
29	NE	5	31700	24542
30	NH	161	1917900	2101386
31	NJ	1822	21657475	23425159
32	NM	183	1916775	2084485

31	NJ	1822	21657475	23425159
32	NM	183	1916775	2084485
33	NV	482	5307375	5451443
34	NY	3701	42077050	46108181
35	OH	1188	12991375	14330148
36	OK	293	3365725	3712649
37	OR	436	4720150	4966903
38	PA	1482	15826525	17462908
39	RI	196	1883025	2001774
40	SC	464	5080475	5462458
41	SD	63	606150	656514
42	TN	17	162175	141522
43	TX	2664	31236650	34392715
44	UT	252	2849225	2952412
45	VA	1375	15982650	17711443
46	VT	54	504100	534973
47	WA	805	8855525	9531739
48	WI	446	5070450	5485161
49	WV	167	1830525	1991936
50	WY	79	890750	1046050

```

SELECT
    address_state,
    COUNT(id) as Total_loan_applications,
    SUM(loan_amount) as Total_funded_amount,
    SUM(total_payment) as Total_recieved_amount
from financial_loan_table
GROUP BY address_state
ORDER BY SUM(loan_amount) DESC

```

	address_state	Total_loan_applications	Total_funded_amount	Total_recieved_amount
1	CA	6894	78484125	83901234
2	NY	3701	42077050	46108181
3	TX	2664	31236650	34392715
4	FL	2773	30046125	31601905
5	NJ	1822	21657475	23425159
6	IL	1486	17124225	18875941
7	VA	1375	15982650	17711443
8	PA	1482	15826525	17462908
9	GA	1355	15480325	16728040
10	MA	1310	15051000	16676279
11	OH	1188	12991375	14330148
12	MD	1027	11911400	12985170
13	AZ	833	9206000	10041986
14	CO	770	8976000	9845810
15	WA	805	8855525	9531739
16	NC	759	8787575	9534813
17	CT	730	8435575	9357612

TERM BASIS

```

SELECT
    term,
    COUNT(id) as Total_loan_applications,
    SUM(loan_amount) as Total_funded_amount,
    SUM(total_payment) as Total_recieved_amount
from financial_loan_table
GROUP BY term

```

	term	Total_loan_applications	Total_funded_amount	Total_recieved_amount
1	36 months	28237	273041225	294709458
2	60 months	10339	162715850	178361475

-EMPLOYEE LENGTH ANALYSIS

```

SELECT
    emp_length,
    COUNT(id) as Total_loan_applications,
    SUM(loan_amount) as Total_funded_amount,
    SUM(total_payment) as Total_recieved_amount
from financial_loan_table
GROUP BY emp_length
order by emp_length

```

	emp_length	Total_loan_applications	Total_funded_amount	Total_recieved_amount
1	< 1 year	4575	44210625	47545011
2	1 year	3229	32883125	35498348
3	10+ years	8870	116115950	125871616
4	2 years	4382	44967975	49206961
5	3 years	4088	43937850	47551832
6	4 years	3428	37600375	40964850
7	5 years	3273	36973625	40397571
8	6 years	2228	25612650	27908658
9	7 years	1772	20811725	22584136
10	8 years	1476	17558950	19025777
11	9 years	1255	15084225	16516173

--PURPOSE

```

SELECT
    purpose,
    COUNT(id) as Total_loan_applications,
    SUM(loan_amount) as Total_funded_amount,
    SUM(total_payment) as Total_recieved_amount
from financial_loan_table
GROUP BY purpose
order by count(id) desc

```


	purpose	Total_loan_applications	Total_funded_amount	Total_recieved_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

```

SELECT
    home_ownership,
    COUNT(id) as Total_loan_applications,
    SUM(loan_amount) as Total_funded_amount,
    SUM(total_payment) as Total_recieved_amount
from financial_loan_table
GROUP BY home_ownership
order by count(id) desc

```

	home_ownership	Total_loan_applications	Total_funded_amount	Total_recieved_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