BANK LOAN REPORT QUERY DOCUMENT

A. BANK LOAN REPORT | SUMMARY

- Dataset:

```
use [Bank Loan DB];
select * from bank_loan_data;
```

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Results Messages

	id	address_state	application_type	emp_length	emp_title	grade	home_ownership	issue_date	last_credit_pull_date	last_payment_date	loan_status	next_payment_date	member_id	purpose
1	54734	CA	INDIVIDUAL	< 1 year	NULL	B	RENT	2021-08-09	2021-08-12	2021-10-11	Fully Paid	2021-11-11	80364	Debt consolidation
2	55742	NY	INDIVIDUAL	< 1 year	CNN	B	RENT	2021-05-08	2021-08-12	2021-06-11	Fully Paid	2021-07-11	114426	credit card
3	57245	TX	INDIVIDUAL	10+ years	city of beaumont texas	C	OWN	2021-03-10	2021-05-16	2021-03-13	Fully Paid	2021-04-13	138150	Debt consolidation
4	57416	CT	INDIVIDUAL	6 years	State Farm Insurance	C	RENT	2021-11-09	2021-05-16	2021-11-12	Fully Paid	2021-12-12	139635	Debt consolidation
5	58915	CA	INDIVIDUAL	3 years	QUalcomm Inc	B	RENT	2021-04-08	2021-03-14	2021-04-11	Fully Paid	2021-05-11	153417	Debt consolidation
6	59006	TX	INDIVIDUAL	3 years	NULL	C	MORTGAGE	2021-09-09	2021-09-12	2021-10-12	Fully Paid	2021-11-12	154254	credit card
7	61390	TX	INDIVIDUAL	< 1 year	NULL	A	MORTGAGE	2021-02-10	2021-03-12	2021-03-12	Fully Paid	2021-04-12	182594	credit card
8	61419	MD	INDIVIDUAL	1 year	Pension Benefit Guaranty Corporation	D	RENT	2021-02-10	2021-03-13	2021-10-12	Charged Off	2021-11-12	182917	Debt consolidation
9	62102	MA	INDIVIDUAL	5 years	Rockwell Automation Inc.	B	RENT	2021-04-10	2021-03-13	2021-02-11	Fully Paid	2021-03-11	191024	Debt consolidation
10	65426	MI	INDIVIDUAL	< 1 year	Infotrieve, Inc.	B	MORTGAGE	2021-08-09	2021-05-16	2021-06-11	Charged Off	2021-07-11	232106	car
11	65640	CA	INDIVIDUAL	10+ years	kmex/univision	C	MORTGAGE	2021-05-08	2021-04-15	2021-05-11	Fully Paid	2021-06-11	234569	home improvement
12	66431	KY	INDIVIDUAL	3 years	Video Monitoring Services	B	RENT	2021-02-09	2021-03-12	2021-03-12	Fully Paid	2021-04-12	243540	Debt consolidation
13	66749	MS	INDIVIDUAL	10+ years	crown cork & seal	C	MORTGAGE	2021-12-08	2021-12-11	2021-01-12	Fully Paid	2021-02-12	246329	Debt consolidation
14	66943	CA	INDIVIDUAL	< 1 year	The Coggins Co.	B	RENT	2021-08-10	2021-07-14	2021-10-11	Fully Paid	2021-11-11	247802	Debt consolidation
15	66964	KS	INDIVIDUAL	3 years	Acquity	D	MORTGAGE	2021-06-08	2021-06-11	2021-06-11	Fully Paid	2021-07-11	247990	Debt consolidation

- Total Loan Applications:

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

100 % 1 0

Results Messages

	Total_Loan_Applications
1	38576

- MTD Total Loan Applications:

```
select count(id) as MTD_Total_Loan_Applications from bank_loan_data where
MONTH(issue_date)=12;
```

100 % 1 0

Results Messages

	MTD_Total_Loan_Applications
1	4314

- PMTD Total Loan Applications:

```
select count(id) as PMTD_Total_Loan_Applications from bank_loan_data where
MONTH(issue_date)=11;
```

100 % 1 0

Results Messages

	PMTD_Total_Loan_Applications
1	4035

- Total Funded Amount

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

100 % 1 0

Results Messages

	Total_Funded_Amount
1	435757075

- MTD Total Funded Amount

```
select sum(loan_amount) as MTD_Total_Funded_Amount from bank_loan_data where
month(issue_date)=12;
```

100 % 1 0

Results Messages

	MTD_Total_Funded_Amount
1	53981425

- PMTD Total Funded Amount

```
select sum(loan_amount) as PMTD_Total_Funded_Amount from bank_loan_data where
month(issue_date)=11;
```

100 % 1 0

Results Messages

	PMTD_Total_Funded_Amount
1	47754825

- Total Collected Amount

```
select sum(total_payment) as Total_Amount_Collected from bank_loan_data;
```

100 % 1 0

Results Messages

	Total_Amount_Collected
1	473070933

- MTD Total Collected Amount

```
select sum(total_payment) as MTD_Total_Amount_Collected from bank_loan_data where
month(issue_date)=12;
```

100 % 1 0

Results Messages

	MTD_Total_Amount_Collected
1	58074380

- PMTD Total Collected Amount

```
select sum(total_payment) as PMTD_Total_Amount_Collected from bank_loan_data where
month(issue_date)=11;
```

100 % 1 0

Results Messages

	PMTD_Total_Amount_Collected
1	50132030

- Average Interest Rate

```
select avg(int_rate)*100 as Average_Interest_Rate from bank_loan_data;
```

100 % 1 0

Results Messages

	Average_Interest_Rate
1	12.0488314172048

- MTD Average Interest Rate

```
select avg(int_rate)*100 as MTD_Average_Interest_Rate from bank_loan_data where
month(issue_date)=12;
```

100 % 1 0

Results Messages

	MTD_Average_Interest_Rate
1	12.3560408676042

- PMTD Average Interest Rate

```
select avg(int_rate)*100 as PMTD_Average_Interest_Rate from bank_loan_data where
month(issue_date)=11;
```

100 % 1 0

Results Messages

	PMTD_Average_Interest_Rate
1	11.9417175498261

- Average Debt to Income

```
select avg(dti)*100 as Average_Debt_to_Income from bank_loan_data;
```

100 % 1 0

Results Messages

	Average_Debt_to_Income
1	13.3274331211432

- MTD Average Debt to Income

```
select avg(dti)*100 as MTD_Average_Debt_to_Income from bank_loan_data where
month(issue_date)=12;
```

100 % 1 0

Results Messages

	MTD_Average_Debt_to_Income
1	13.6655377880425

- PMTD Average Debt to Income

```
select avg(dti)*100 as PMTD_Average_Debt_to_Income from bank_loan_data where
month(issue_date)=11;
```

100 % 1 0

Results Messages

	PMTD_Average_Debt_to_Income
1	13.3027335836364

- 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 bank_loan_data;
```

100 % 1 0

Results Messages

	Good_Loan_Percentage
1	86.175342181667

- Good Loan Applications

```
select count(id) as Good_Loan_Applications from bank_loan_data where
loan_status='Fully Paid' or loan_status='Current';
```

100 % 99+ 0

Results Messages

	Good_Loan_Applications
1	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';
```

100 % 99+ 0

Results Messages

	Good_Loan_Funded_Amount
1	370224850

- Good Loan Amount Received

```
select sum(total_payment) as Good_Loan_Amount_Received from bank_loan_data where
loan_status='Fully Paid' or loan_status='Current';
```

100 % 99+ 0

Results | Messages

	Good_Loan_Amount_Received
1	435786170

- Bad Loan Percentage

```
select (count(case when loan_status='Charged Off' then id end)*100.0)/count(id) as
Bad_Loan_Percentage from bank_loan_data;
```

100 % 99+ 0

Results | Messages

	Bad_Loan_Percentage
1	13.824657818332

- Bad Loan Applications

```
select count(id) as Bad_Loan_Applications from bank_loan_data where
loan_status='Charged Off';
```

100 % 99+ 0

Results | Messages

	Bad_Loan_Applications
1	5333

- Bad Loan Funded Amount

```
select sum(loan_amount) as Bad_Loan_Funded_Amount from bank_loan_data where
loan_status='Charged Off';
```

100 % 99+ 0

Results | Messages

	Bad_Loan_Funded_Amount
1	65532225

- Bad Loan Amount Received

```
select sum(total_payment) as Bad_Loan_Amount_Received from bank_loan_data where
loan_status='Charged Off';
```

100 % 99+ 0

Results | Messages

	Bad_Loan_Amount_Received
1	37284763

- Loan Status Summary

```
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 DTI
FROM bank_loan_data GROUP BY loan_status;
```

100 % 62 0

Results Messages

	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

- Loan Status Summary Monthly

```
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;
```

100 % 62 0

Results Messages

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

B. BANK LOAN REPORT | OVERVIEW

- Month-Wise

```
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_Amount_Received
FROM bank_loan_data GROUP BY MONTH(issue_date), DATENAME(MONTH, issue_date) ORDER BY
MONTH(issue_date);
```

100 % 62 0

Results Messages

	Month_Number	Month_name	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
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

- State-Wise

```
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 bank_loan_data GROUP BY address_state ORDER BY address_state;
```

100 % 39 0

Results Messages

	State	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
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

- Term-Wise

```
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 bank_loan_data GROUP BY term ORDER BY term;
```

100 % 39 0

Results Messages

	Term	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	36 months	28237	273041225	294709458
2	60 months	10339	162715850	178361475

- Employee Length-Wise

```
SELECT emp_length AS Employee_Length,
       COUNT(id) AS Total_Loan_Applications,
       SUM(loan_amount) AS Total_Funded_Amount,
       SUM(total_payment) AS Total_Amount_Received
FROM bank_loan_data GROUP BY emp_length ORDER BY emp_length;
```

100 % 39 0

Results Messages

	Employee_Length	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
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-Wise

```sql
select purpose as Purpose,
       count(id) as Total_Loan_Applications,
       sum(loan_amount) as Total_Funded_Amount,
       sum(total_payment) as Total_Amount_Received
from bank_loan_data group by purpose order by purpose;
```

100 % 39 0

Results Messages

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

- Home Ownership-Wise

```sql
SELECT home_ownership AS Home_Ownership,
       COUNT(id) AS Total_Loan_Applications,
       SUM(loan_amount) AS Total_Funded_Amount,
       SUM(total_payment) AS Total_Amount_Received
FROM bank_loan_data GROUP BY home_ownership ORDER BY home_ownership;
```

100 % 39 0

Results Messages

	Home_Ownership	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
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