Bank Loan Report (SQL queries with output)

Total Loan Applications:

```sql
SELECT * FROM bank_loan_data;
SELECT COUNT(id) as Total_Loan_Applications FROM bank_loan_data
```

	Total_Loan_Applications
1	38576

MTD for December:

```sql
SELECT COUNT(id) as MTD_Total_Loan_Applications FROM bank_loan_data
WHERE MONTH(issue_date)=12
```
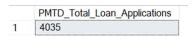
	MTD_Total_Loan_Applications
1	4314

Previous MTD :

```sql
SELECT COUNT(id) as PMTD_Total_Loan_Applications FROM bank_loan_data
WHERE MONTH(issue_date)=11
```

	PMTD_Total_Loan_Applications
1	4035

Total Funded Amount:

```sql
SELECT SUM(loan_amount) as Total_Funded_Amount FROM bank_loan_data
```

	Total_Funded_Amount
1	435757075

MTD for December:

```sql
SELECT SUM(loan_amount) as MTD_Total_Funded_Amount FROM bank_loan_data
WHERE MONTH(issue_date)=12
```

	MTD_Total_Funded_Amount
1	53981425

Previous MTD :

```sql
SELECT SUM(loan_amount) as PMTD_Total_Funded_Amount FROM bank_loan_data
WHERE MONTH(issue_date)=11
```

	PMTD_Total_Funded_Amount
1	47754825

Total Received Amount:

```
SELECT SUM(total_payment) as Total_Recieved_Amount FROM bank_loan_data
```

	Total_Recieved_Amount
1	473070933

MTD for December:

```
SELECT SUM(total_payment) as MTD_Total_Recieved_Amount FROM bank_loan_data
WHERE MONTH(issue_date)=12
```

	MTD_Total_Recieved_Amount
1	58074380

Previous MTD :

```
SELECT SUM(total_payment) as PMTD_Total_Recieved_Amount FROM bank_loan_data
WHERE MONTH(issue_date)=11
```

	PMTD_Total_Recieved_Amount
1	50132030

Average Rate of Interest:

```
SELECT ROUND(AVG(int_rate),4)*100 as Average_Rate_of_Interest FROM bank_loan_data
```

	Average_Rate_of_Interest
1	12.05

MTD for December:

```
SELECT ROUND(AVG(int_rate),4)*100 as MTD_Average_Rate_of_Interest FROM bank_loan_data
WHERE MONTH(issue_date)=12
```

	MTD_Average_Rate_of_Interest
1	12.36

Previous MTD :

```
SELECT ROUND(AVG(int_rate),4)*100 as PMTD_Average_Rate_of_Interest FROM bank_loan_data
WHERE MONTH(issue date)=11
```

	PMTD_Average_Rate_of_Interest
1	11.94

Average Debt to Income Ratio:

```
SELECT ROUND(AVG(dti),4)*100 as Average_Debt_to_Income_Ratio FROM bank_loan_data
```

	Average_Debt_to_Income_Ratio
1	13.33

MTD for December:

```sql
SELECT ROUND(AVG(dti),4)*100 as MTD_Average_Debt_to_Income_Ratio FROM bank_loan_data
WHERE MONTH(issue_date)=12
```

	MTD_Average_Debt_to_Income_Ratio
1	13.67

Previous MTD :

```sql
SELECT ROUND(AVG(dti),4)*100 as PMTD_Average_Debt_to_Income_Ratio FROM bank_loan_data
WHERE MONTH(issue_date)=11
```

	PMTD_Average_Debt_to_Income_Ratio
1	13.3

Good Loan vs Bad loan

Good Loan:

```sql
SELECT COUNT(loan_status) as Good_loan from Bank_loan_data
WHERE  loan_status='Fully Paid' or loan_status='Current';
```

	Good_loan
1	33243

Good Loan Percentage:

```sql
SELECT
    (COUNT(CASE WHEN loan_status IN ('Fully Paid', 'Current') THEN id END) * 100.0)
    / NULLIF(COUNT(id), 0) AS Good_Loan_Percentage
FROM bank_loan_data;
```

	Good_Loan_Percentage
1	86.175342181667

Good Loan Funded Amount:

```sql
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
1	370224850

Total amount received from Good Loan:

```sql
SELECT SUM(total_payment) as Good_Loan_Recieved_Amount from Bank_loan_data
WHERE  loan_status='Fully Paid' or loan_status='Current';
```

	Good_Loan_Recieved_Amount
1	435786170

Bad Loan:

```sql
SELECT COUNT(loan_status) as Bad_loan from Bank_loan_data
WHERE  loan_status='Charged off';
```

	Bad_loan
1	5333

Bad Loan Percentage:

```sql
SELECT
    (COUNT(CASE WHEN loan_status IN ('Charged off') THEN id END) * 100.0)
    / NULLIF(COUNT(id), 0) AS Bad_Loan_Percentage
FROM bank_loan_data;
```

	Bad_Loan_Percentage
1	13.824657818332

Bad Loan Funded Amount:

```sql
SELECT SUM(loan_amount) as Bad_loan_Funded_Amount from Bank_loan_data
WHERE  loan_status='Charged off';
```

	Bad_loan_Funded_Amount
1	65532225

Total amount received from Bad Loan:

```sql
SELECT SUM(total_payment) as Bad_Loan_Recieved_Amount from Bank_loan_data
WHERE  loan_status='Charged off';
```

	Bad_Loan_Recieved_Amount
1	37284763

Loan Status Grid View:

```sql
SELECT
    loan_status,
    COUNT(id) as Total_Loan_Applications,
    SUM(loan_amount) as Total_Funded_Amount,
    SUM(total_payment) as Total_Recieved_Amount,
    ROUND(AVG(int_rate),4)*100 as Average_Rate_of_Interest,
    ROUND(AVG(dti),4)*100 as Average_Debt_to_Income_Ratio
FROM
    bank_loan_data
GROUP BY
    loan_status
```

	loan_status	Total_Loan_Applications	Total_Funded_Amount	Total_Recieved_Amount	Average_Rate_of_Interest	Average_Debt_to_Income_Ratio
1	Fully Paid	32145	351358350	411586256	11.64	13.17
2	Charged Off	5333	65532225	37284763	13.88	14
3	Current	1098	18866500	24199914	15.1	14.72

Trend by Month-wise:

```sql
SELECT
    MONTH(issue_date) as Month_No,
    DATENAME(MONTH,issue_date)
    loan_status,
    COUNT(id) as Total_Loan_Applications,
    SUM(loan_amount) as Total_Funded_Amount,
    SUM(total_payment) as Total_Recieved_Amount
FROM
    bank_loan_data
GROUP BY
     MONTH(issue_date),DATENAME(MONTH,issue_date)
ORDER BY
     MONTH(issue_date)
```

⊞ Results   🗐 Messages

	Month_No	loan_status	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

Trend by State wise:

```sql
SELECT
    address_state,
    COUNT(id) as Total_Loan_Applications,
    SUM(loan_amount) as Total_Funded_Amount,
    SUM(total_payment) as Total_Recieved_Amount
FROM
    bank_loan_data
GROUP BY
    address_state
```

	address_state	Total_Loan_Applications	Total_Funded_Amount	Total_Recieved_Amount
1	UT	252	2849225	2952412
2	NC	759	8787575	9534813
3	WI	446	5070450	5485161
4	MA	1310	15051000	16676279
5	MI	685	7829900	8543660
6	TN	17	162175	141522
7	NH	161	1917900	2101386
8	AK	78	1031800	1108570
9	OK	293	3365725	3712649
10	KY	320	3504100	3792530
11	CO	770	8976000	9845810
12	NV	482	5307375	5451443
13	SD	63	606150	656514
14	PA	1482	15826525	17462908
15	WV	167	1830525	1991936
16	GA	1355	15480325	16728040
17	RI	196	1883025	2001774
18	IN	9	86225	85521
19	DC	214	2652350	2921854
20	MD	1027	11911400	12985170
21	OR	436	4720150	4966903
22	CT	730	8435575	9357612
23	AR	236	2529700	2777875
24	MN	592	6302600	6750746
25	AL	432	4949225	5492272

	address_state	Total_Loan_Applications	Total_Funded_Amount	Total_Recieved_Amount
26	ID	6	59750	65329
27	TX	2664	31236650	34392715
28	NM	183	1916775	2084485
29	ME	3	9200	10808
30	IL	1486	17124225	18875941
31	MO	660	7151175	7692732
32	SC	464	5080475	5462458
33	DE	110	1138100	1269136
34	FL	2773	30046125	31601905
35	CA	6894	78484125	83901234
36	WY	79	890750	1046050
37	HI	170	1850525	2080184
38	OH	1188	12991375	14330148
39	NE	5	31700	24542
40	VT	54	504100	534973
41	NY	3701	42077050	46108181
42	MS	19	139125	149342
43	NJ	1822	21657475	23425159
44	IA	5	56450	64482
45	KS	260	2872325	3247394
46	LA	426	4498900	5001160
47	WA	805	8855525	9531739
48	AZ	833	9206000	10041986
49	VA	1375	15982650	17711443
50	MT	79	829525	892047

Trend by Term wise:

```sql
SELECT
    term,
    COUNT(id) as Total_Loan_Applications,
    SUM(loan_amount) as Total_Funded_Amount,
    SUM(total_payment) as Total_Recieved_Amount
FROM
    bank_loan_data
GROUP BY
    term
ORDER BY
    term
```

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

Trend by Emp_ length:

```sql
SELECT
    emp_length,
    COUNT(id) as Total_Loan_Applications,
    SUM(loan_amount) as Total_Funded_Amount,
    SUM(total_payment) as Total_Recieved_Amount
FROM
    bank_loan_data
GROUP BY
    emp_length
ORDER BY
    COUNT(id) desc
```

100 %

Results Messages

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

Trend by Purpose:

```sql
SELECT
    purpose,
    COUNT(id) as Total_Loan_Applications,
    SUM(loan_amount) as Total_Funded_Amount,
    SUM(total_payment) as Total_Recieved_Amount
FROM
    bank_loan_data
GROUP BY
    purpose
ORDER BY
    COUNT(id) desc
```

Results Messages

	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

Trend by Home Ownership:

```sql
SELECT
    home_ownership,
    COUNT(id) as Total_Loan_Applications,
    SUM(loan_amount) as Total_Funded_Amount,
    SUM(total_payment) as Total_Recieved_Amount
FROM
    bank_loan_data
GROUP BY
    home_ownership
ORDER BY
    COUNT(id) desc
```

) % ▼ ◀

Results 🗐 Messages

home_ownership	Total_Loan_Applications	Total_Funded_Amount	Total_Recieved_Amount
RENT	18439	185768475	201823056
MORTGAGE	17198	219329150	238474438
OWN	2838	29597675	31729129
OTHER	98	1044975	1025257
NONE	3	16800	19053

Impact of verification of docs:

```sql
Select count(id) as Non_Verified_and_Charged_Off from bank_loan_data
where loan_status='Charged Off' and verification_status='Not Verified'
```

	Non_Verified_and_Charged_Off
1	2015