SQL Queries for Bank Loan Analysis

Total Loan Applications

SELECT COUNT(loan_id) AS Total_Loan_Applications FROM bank_loan_data

	Total_Loan_Applications
1	38576

MTD Loan Applications

SELECT COUNT(loan_id) AS MTD_Total_Loan_Applications FROM bank_loan_data

WHERE MONTH(issue_date) = 12

	MTD_Total__Loan_Applications
1	4314

PMTD Loan Applications

SELECT COUNT(loan_id) AS PMTD_Total_Loan_Applications FROM bank_loan_data

WHERE MONTH(issue_date) = 11

	PMTD_Total_Loan_Applications
1	4035

Total Funded Amount

SELECT SUM(loan_amount) AS Total_Funded_Amount FROM bank_loan_data

	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 AND YEAR(issue_date) = 2021

	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

	PMTD_Total_Funded_Amount
1	47754825

Total Amount Received

SELECT SUM(total_payment) AS Total_Amount_Received FROM bank_loan_data

	Total_Amount_Received
1	473070933

MTD Total Amount Received

SELECT SUM(total_payment) AS MTD_Total_Amount_Received FROM bank_loan_data

WHERE MONTH(issue_date) = 12

	MTD_Total_Amount_Received
1	58074380

PMTD Total Amount Received

SELECT SUM(total_payment) AS PMTD_Total_Amount_Received FROM bank_loan_data

WHERE MONTH(issue_date) = 11

	PMTD_Total_Amount_Received
1	50132030

Average Interest Rate

SELECT AVG(int_rate)*100 AS Avg_Int_Rate FROM bank_loan_data

	Avg_Int_Rate
1	12.0488314172048

MTD Average Interest Rate

SELECT AVG(int_rate)*100 AS MTD_Avg_Int_Rate FROM bank_loan_data

WHERE MONTH(issue_date) = 12

	MTD_Avg_Int_Rate
1	12.3560408676042

PMTD Average Interest Rate

SELECT AVG(int_rate)*100 AS PMTD_Avg_Int_Rate FROM bank_loan_data

WHERE MONTH(issue_date) = 11

	PMTD_Avg_Int_Rate
1	11.9417175498261

Avg DTI

SELECT AVG(dti)*100 AS Avg_DTI FROM bank_loan_data

	Avg_DTI
1	13.3274331211432

MTD Avg DTI

SELECT AVG(dti)*100 AS MTD_Avg_DTI FROM bank_loan_data

WHERE MONTH(issue_date) = 12

	MTD_Avg_DTI
1	13.6655377880425

PMTD Avg DTI

SELECT AVG(dti)*100 AS PMTD_Avg_DTI FROM bank_loan_data

WHERE MONTH(issue_date) = 11

	PMTD_Avg_DTI
1	13.3027335836364

Good Loan Percentage

SELECT

  (COUNT(CASE WHEN loan_status = 'Fully Paid' OR loan_status = 'Current' THEN loan_id END) * 100.0) /

     COUNT(loan_id) AS Good_Loan_Percentage

FROM bank_loan_data

	Good_Loan_Percentage
1	86.175342181667

Good Loan Applications

SELECT COUNT(loan_id) AS Good_Loan_Applications FROM bank_loan_data

WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'

	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'

	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'

	Good_Loan_amount_received
1	435786170

Bad Loan Percentage

SELECT

  (COUNT(CASE WHEN loan_status = 'Charged Off' THEN loan_id END) * 100.0) /

      COUNT(loan_id) AS Bad_Loan_Percentage

FROM bank_loan_data

	Bad_Loan_Percentage
1	13.824657818332

Bad Loan Applications

SELECT COUNT(loan_id) AS Bad_Loan_Applications FROM bank_loan_data

WHERE loan_status = 'Charged Off'

	Bad_Loan_Applications
1	5333

Results | Messages

Bad Loan Funded Amount

SELECT SUM(loan_amount) AS Bad_Loan_Funded_amount FROM bank_loan_data

WHERE loan_status = 'Charged Off'

	Bad_Loan_Funded_amount
1	65532225

Results | Messages

Bad Loan Amount Received

SELECT SUM(total_payment) AS Bad_Loan_amount_received FROM bank_loan_data

WHERE loan_status = 'Charged Off'

	Bad_Loan_amount_received
1	37284763

Results | Messages

LOAN STATUS

```
    SELECT

    loan_status as Loan_Status,

    COUNT(loan_id) AS Total_Loan_Applications,

    SUM(loan_amount) AS Total_Funded_Amount,

    SUM(total_payment) AS Total_Amount_Received,

    AVG(int_rate * 100) AS Avg_Interest_Rate,

    AVG(dti * 100) AS Avg_DTI

  FROM
```

bank_loan_data

GROUP BY

loan_status

	Loan_Status	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received	Avg_Interest_Rate	Avg_DTI
1	Fully Paid	32145	351358350	411586256	11.6410707918092	13.1673507557434
2	Charged Off	5333	65532225	37284763	13.8785749318289	14.0047328005517
3	Current	1098	18866500	24199914	15.0993260800947	14.7243442736843

LOAN STATUS

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

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

MONTH

SELECT

    MONTH(issue_date) AS Month_Munber,

    DATENAME(MONTH, issue_date) AS Month_name,

```
        COUNT(loan_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)
```

Results | Messages

Month_Munber	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

```
SELECT

        address_state AS State,

        COUNT(loan_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
```

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
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

Results | Messages

	State	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
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
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

TERM

```
SELECT

       term AS Term,

       COUNT(loan_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
```

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

EMPLOYEE LENGTH

```
SELECT

       emp_length AS Employee_Length,

       COUNT(loan_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
```

	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

SELECT

purpose AS Purpose,

COUNT(loan_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

	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

SELECT

    home_ownership AS Home_Ownership,

    COUNT(loan_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

	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