

BANK LOAN DATABASE SQL QUERY DOCUMENT

PART A - SUMMARY

1. KPI's:

- Total Loan Applications

```
SELECT COUNT(id) AS Total_Applications FROM bank_loan_data
```

	Total_Loan_Applications
1	38576

- MTD Loan Applications

```
SELECT COUNT(id) AS MTD_Total_Applications FROM bank_loan_data  
WHERE MONTH(issue_date) = 12
```

	MTD_Total_Loan_Applications
1	4314

- PMTD Loan Applications

```
SELECT COUNT(id) AS PMTD_Total_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 Total_Funded_Amount FROM bank_loan_data  
WHERE MONTH(issue_date) = 12
```

	MTD_Total_Funded_Amount
1	53981425

- **PMTD Total Funded Amount**

```
SELECT SUM(loan_amount) AS 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 Total_Amount_Collected FROM bank_loan_data
WHERE MONTH(issue_date) = 12
```

	MTD_Total_Amount_Received
1	58074380

- **PMTD Total Amount Received**

```
SELECT SUM(total_payment) AS Total_Amount_Collected 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**

```
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**

```
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

2. GOOD LOAN ISSUED

- 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

	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'

	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

3. BAD LOAN ISSUED

- 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

	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'
```

	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'
```

	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'
```

	Bad_Loan_amount_received
1	37284763

4. LOAN STATUS

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

	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

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

B. OVERVIEW

1. MONTH

```

SELECT

    MONTH(issue_date) AS Month_Munber,

    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)

```

	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

2. STATE

```

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

```

	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	7820000	8512660

3. TERM

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

	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(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(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(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