BANK LOAN REPORT QUERY DOCUMENT

A. BANK LOAN REPORT | SUMMARY

KPI's:

Total Loan Applications

```sql
SELECT COUNT(id) AS Total_loan_applications FROM Bank_loan_data
```

	Total_loan_application
1	38576

MTD Loan Applications

```sql
SELECT COUNT(id) AS MTD_Total_loan_application FROM Bank_loan_data
WHERE MONTH(issue_date) = 12
```

	MTD_Total_loan_application
1	4314

PMTD Loan Applications

```sql
SELECT COUNT(id) AS PMTD_Total_loan_application FROM Bank_loan_data
WHERE MONTH(issue_date) = 11
```

	PMTD_Total_loan_application
1	4035

Total Funded Amount

```sql
SELECT SUM(loan_amount) AS Total_Funded_Amount FROM Bank_loan_data
```

	Total_Funded_Amount
1	435757075

MTD Total Funded Amount

```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

PMTD Total Funded Amount

```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 Amount Received

```sql
SELECT SUM(total_payment) AS Total_Amount_Collected FROM Bank_loan_data
```

	Total_Amount_Collected
1	473070933

MTD Total Amount Received

```sql
SELECT SUM(total_payment) AS MTD_total_received_amount FROM Bank_loan_data
WHERE MONTH(issue_date) = 12
```

	MTD_total_recived_amount
1	58074380

PMTD Total Amount Received

```sql
SELECT SUM(total_payment) AS PMTD_total_received_amount FROM Bank_loan_data
WHERE MONTH(issue_date) = 11
```

	PMTD_total_recived_amount
1	50132030

Average Interest Rate

```sql
SELECT AVG(int_rate)*100 AS Avg_Int_Rate FROM Bank_loan_data
```

	Avg_Int_Rate
1	12.0488314172048

MTD Average Interest

```sql
SELECT ROUND(AVG(int_rate),4)*100 AS MTD_avg_Interest_rate FROM Bank_loan_data
WHERE MONTH(issue_date) = 12
```

	MTD_avg_interest_rate
1	12.36

PMTD Average Interest

```sql
SELECT ROUND(AVG(int_rate),4)*100 AS PMTD_avg_Interest_rate FROM Bank_loan_data
WHERE MONTH(issue_date) = 11
```

	PMTD_avg_interest_rate
1	11.94

Avg DTI

```sql
SELECT AVG(dti)*100 AS Avg_DTI FROM bank_loan_data
```

	Avg_DTI
1	13.3274331211432

MTD Avg DTI

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

	MTD_avg_dti
1	13.67

PMTD Avg DTI

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

	PMTD_avg_dti
1	13.3

GOOD LOAN ISSUED

Good Loan Percentage

```sql
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

Good Loan Applications

```sql
SELECT COUNT(id) AS good_Loan_applications FROM Bank_loan_data
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'
```

	good_loan_application
1	33243

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

Good Loan Amount Received

```sql
SELECT SUM(total_payment) AS good_loan_amount_received FROM Bank_loan_data
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'
```

	good_loan_recieved
1	435786170

BAD LOAN ISSUED

Bad Loan Percentage

```sql
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

```sql
SELECT COUNT(id) AS bad_loan_applications FROM Bank_loan_data
WHERE loan_status = 'Charged Off'
```

	bad_loan_application
1	5333

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

Bad Loan Amount Received

```sql
SELECT SUM(total_payment) AS bad_loan_received FROM Bank_loan_data
WHERE loan_status = 'Charged Off'
```

	bad_loan_recieved
1	37284763

LOAN STATUS

```sql
SELECT
  loan_status,
  COUNT(id) AS total_loan_application,
  SUM(loan_amount) AS total_funded_amount,
  SUM(total_payment) AS Total_Received_amount,
  AVG(int_rate * 100) AS interest_rate,
  AVG(dti * 100) AS dti
FROM
  Bank_loan_data
GROUP BY
  loan_status
```

	loan_status	total_loan_application	total_funded_amount	total_recived_amount	intrest_rate	dit
1	Fully Paid	32145	351358350	411586256	0.116410707918092	13.1673507557434
2	Current	1098	18866500	24199914	0.150993260800947	14.7243442736843
3	Charged Off	5333	65532225	37284763	0.138785749318289	14.0047328005517

```sql
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	Current	4934318	3946625
3	Charged Off	5324211	8732775

B. BANK LOAN REPORT | OVERVIEW

MONTH

```sql
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_Received_amount
FROM bank_loan_data
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_recevied_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

STATE

```sql
SELECT
        address_state AS State,
        COUNT(id) AS total_loan_applications,
        SUM(loan_amount) AS total_funded_amount,
        SUM(total_payment) AS total_received_amount
FROM bank_loan_data
GROUP BY address_state
ORDER BY COUNT(id)desc
```

	address_state	total_loan_applications	total_funded_amount	total_recevied_amount
1	CA	6894	78484125	83901234
2	NY	3701	42077050	46108181
3	FL	2773	30046125	31601905
4	TX	2664	31236650	34392715
5	NJ	1822	21657475	23425159
6	IL	1486	17124225	18875941
7	PA	1482	15826525	17462908
8	VA	1375	15982650	17711443
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	WA	805	8855525	9531739
15	CO	770	8976000	9845810
16	NC	759	8787575	9534813
17	CT	730	8435575	9357612
18	MI	685	7829900	8543660
19	MO	660	7151175	7692732
20	MN	592	6302600	6750746
21	NV	482	5307375	5451443
22	SC	464	5080475	5462458
23	WI	446	5070450	5485161
24	OR	436	4720150	4966903
25	AL	432	4949225	5492272
26	LA	426	4498900	5001160
27	KY	320	3504100	3792530
28	OK	293	3365725	3712649
29	KS	260	2872325	3247394

TERM

```sql
SELECT
      term
      COUNT(id) AS total_loan_applications,
      SUM(loan_amount) AS total_funded_amount,
      SUM(total_payment) AS total_Received_amount
FROM Bank_loan_data
GROUP BY term
ORDER BY COUNT(id)
```

	term	total_loan_applications	total_funded_amount	total_recevied_amount
1	60 months	10339	162715850	178361475
2	36 months	28237	273041225	294709458

EMPLOYEE LENGTH

```sql
SELECT
      emp_length,
      COUNT(id) AS total_loan_applications,
      SUM(loan_amount) AS total_funded_amount,
      SUM(total_payment) AS total_Received_amount
FROM bank_loan_data
GROUP BY emp_length
ORDER BY SUM(loan_amount)desc
```

	emp_length	total_loan_applications	total_funded_amount	total_recevied_amount
1	10+ years	8870	116115950	125871616
2	2 years	4382	44967975	49206961
3	< 1 year	4575	44210625	47545011
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

PURPOSE

```sql
SELECT
      purpose,
      COUNT(id) AS total_loan_applications,
      SUM(loan_amount) AS total_funded_amount,
      SUM(total_payment) AS total_Received_amount
FROM bank_loan_data
GROUP BY purpose

ORDER BY COUNT(id) desc
```

	purpose	total_loan_applications	total_funded_amount	total_recevied_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

```sql
SELECT
      home_ownership,
      COUNT(id) AS total_loan_applications,
      SUM(loan_amount) AS total_funded_amount,
      SUM(total_payment) AS total_Received_amount
FROM Bank_loan_data
WHERE grade = 'A' and address_state = 'CA'
GROUP BY home_ownership
ORDER BY ORDER BY COUNT(id) desc
```

	home_ownership	total_loan_applications	total_funded_amount	total_recevied_amount
1	RENT	894	7359175	7680797
2	MORTGAGE	612	6276375	6490097
3	OWN	93	802100	844556
4	OTHER	2	14000	15340