BANK LOAN REPORT QUERY DOCUMENT

A. BANK LOAN REPORT | SUMMARY

KPI's:

1. **Total Loan Applications:**

Total Loan Applications

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

	Total_Loan_Amount
1	435757075

MTD Loan Applications

```
SELECT COUNT(id) AS MTD_Loan_Applications FROM bank_loan_data
WHERE MONTH(issue_date) = 12 AND YEAR(issue_date)=2021;
```

	MTD_Loan_Applications
1	4314

PMTD Loan Applications

```
SELECT COUNT(id) AS MTD_Loan_Applications FROM bank_loan_data
WHERE MONTH(issue_date) = 11 AND YEAR(issue_date)=2021;
```

	MTD_Loan_Applications
1	4035

2. **Total Funded Amount :**

Total Funded Amount

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

Total_Funded_Amount
435757075

MTD Total Funded Amount

```
SELECT SUM(loan_amount) as Total_Funded_Amount FROM bank_loan_data
WHERE MONTH(issue_date) = 12;
```

Total_Funded_Amount
53981425

PMTD Total Funded Amount

```
SELECT SUM(loan_amount) as Total_Funded_Amount FROM bank_loan_data
WHERE MONTH(issue_date) = 11;
```

Total_Funded_Amount
47754825

3. Total Amount Received:

Total Amount Received

```sql
SELECT SUM(total_payment) AS Total_Amount_Received FROM bank_loan_data
```

	Total_Amount_Received
1	473070933

MTD Total Amount Received

```sql
SELECT SUM(total_payment) AS Total_Amount_Received FROM bank_loan_data
WHERE MONTH(issue_date) = 12
```

	Total_Amount_Received
1	58074380

PMTD Total Amount Received

```sql
SELECT SUM(total_payment) AS Total_Amount_Received FROM bank_loan_data
WHERE MONTH(issue_date) = 11
```

	Total_Amount_Received
1	50132030

4. Average Interest Rate:

Average Interest Rate

```sql
SELECT AVG(int_rate)*100 AS Average_Interest_Rate FROM bank_loan_data
```

	Average_Interest_Rate
1	12.0488314172048

MTD Average Interest

```sql
SELECT AVG(int_rate)*100 AS MTD_Average_Interest_Rate FROM bank_loan_data
WHERE MONTH(issue_date)=12
```

	MTD_Average_Interest_Rate
1	12.3560408676042

PMTD Average Interest

```sql
SELE PMTD_Average_Interest_Rate FROM bank_loan_data
WHERE MONTH(issue_date)=11
```

	PMTD_Average_Interest_Rate
1	11.9417175498261

5. Average Debt-to-Income Ratio (DTI):

Average Debt-to-Income Ratio:

```
SELECT AVG(dti)*100 AS AVG_Debt_To_Income FROM bank_loan_data
```

	AVG_Debt_To_Income
1	13.3274331211432

MTD Average Debt-to-Income Ratio:

```
SELECT AVG(dti)*100 AS MTD_AVG_Debt_To_Income FROM bank_loan_data
WHERE MONTH(issue_date)=12
```

	MTD_AVG_Debt_To_Income
1	13.6655377880425

PMTD Average Debt-to-Income Ratio

```
SELECT AVG(dti)*100 AS PMTD_AVG_Debt_To_Income FROM bank_loan_data
WHERE MONTH(issue_date)=11
```

	PMTD_AVG_Debt_To_Income
1	13.3027335836364

6. Average Loan Size per Grade:

Average Loan Size per Grade:

```
SELECT grade, AVG(loan_amount) AS Average_Loan_Size
FROM bank_loan_data
GROUP BY grade
ORDER BY grade;
```

	grade	Average_Loan_Size
1	A	8695
2	B	11196
3	C	11064
4	D	12335
5	E	15852
6	F	18395
7	G	20281

Average Loan Size per Grade by Quarter (every 3 months)

```
SELECT CONCAT ('Q',DATEPART(QUARTER, issue_date)) AS Quarter,
grade, AVG(loan_amount) as avg_loan_size
FROM bank_loan_data
GROUP BY DATEPART(QUARTER, issue_date), grade
ORDER BY DATEPART(QUARTER, issue_date), grade;
```

	Quarter	grade	avg_loan_size
1	Q1	A	7957
2	Q1	B	10420
3	Q1	C	10748
4	Q1	D	12451
5	Q1	E	15475
6	Q1	F	18310
7	Q1	G	19670
8	Q2	A	7755
9	Q2	B	10852
10	Q2	C	10764
11	Q2	D	11919
12	Q2	E	15092
13	Q2	F	18015
14	Q2	G	19118
15	Q3	A	8573
16	Q3	B	11157
17	Q3	C	11090
18	Q3	D	11729
19	Q3	E	15501
20	Q3	F	17309
21	Q3	G	19626
22	Q4	A	9820
23	Q4	B	11928
24	Q4	C	11466
25	Q4	D	13142
26	Q4	E	16973
27	Q4	F	19662
28	Q4	G	21887

7. Top 5 States by Total Funding:

```
SELECT TOP 5 address_state, FORMAT(SUM(loan_amount), 'N0') as Total_Funding
FROM bank_loan_data
GROUP BY address_state
ORDER BY SUM(loan_amount) DESC
```

	address_state	Total_Funding
1	CA	78,484,125
2	NY	42,077,050
3	TX	31,236,650
4	FL	30,046,125
5	NJ	21,657,475

8. Average Income per Employment Length:

```
SELECT emp_length, FORMAT(AVG(annual_income), 'N2') AS avg_income_by_length
```

```
FROM bank_loan_data
GROUP BY emp_length
ORDER BY emp_length
```

	emp_length	avg_income_by_length
1	< 1 year	60,896.89
2	1 year	62,739.25
3	10+ years	81,713.05
4	2 years	63,296.40
5	3 years	66,838.14
6	4 years	66,618.90
7	5 years	68,289.65
8	6 years	68,195.83
9	7 years	69,165.71
10	8 years	74,619.24
11	9 years	74,505.20

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
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
33243

Good Loan Funded Amount

```
SELECT SUM(loan_amount) AS Good_Loan_Fundered_amount FROM bank_loan_data
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'
```

Good_Loan_Funded_amount
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
435786170

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
13.824657818332

Bad Loan Applications

SELECT COUNT(id) AS Bad_Loan_Applications FROM bank_loan_data

WHERE loan_status = 'Charged Off'

Bad_Loan_Applications
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
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
37284763

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	Current	1098	24199914	18866500	15.0993260800947	14.7243442736843
3	Charged Off	5333	37284763	65532225	13.8785749318289	14.0047328005517

```
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

A. BANK LOAN REPORT | OVERVIEW

MONTH

```
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)
```

	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

```
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	7829900	8543660
24	MN	592	6302600	6750746
25	MO	660	7151175	7692732
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

TERM

```sql
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 year	4575	44210625	47545011
1 year	3229	32883125	35498348
10+ years	8870	116115950	125871616
2 years	4382	44967975	49206961
3 years	4088	43937850	47551832
4 years	3428	37600375	40964850
5 years	3273	36973625	40397571
6 years	2228	25612650	27908658
7 years	1772	20811725	22584136
8 years	1476	17558950	19025777
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
car	1497	10223575	11324914
credit card	4998	58885175	65214084
Debt consolidation	18214	232459675	253801871
educational	315	2161650	2248380
home improvement	2876	33350775	36380930
house	366	4824925	5185538
major purchase	2110	17251600	18676927
medical	667	5533225	5851372
moving	559	3748125	3999899
other	3824	31155750	33289676
renewable_energy	94	845750	898931
small business	1776	24123100	23814817
vacation	352	1967950	2116738
wedding	928	9225800	10266856

HOME OWNERSHIP

SELECT home_ownership AS Home_Ownership,

COUNT(id) AS Total_Loan_Applications,

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

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

WHERE grade = 'A'

GROUP BY purpose

	PURPOSE	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	car	577	3629475	3805538
2	credit card	1353	12636075	13339495
3	Debt consolidation	3753	37216300	38822971
4	educational	79	484000	515639
5	home improvement	933	8359175	8744006
6	house	91	916575	957878
7	major purchase	796	5344575	5604259
8	medical	197	1471850	1526882
9	moving	164	1069450	1099875
10	other	1024	7043175	7397982
11	renewable_energy	29	224150	225827
12	small business	334	3172075	3190467
13	vacation	122	683625	694542
14	wedding	237	2001725	2126202