


BANK LOAN REPORT QUERY DOCUMENT

A. BANK LOAN REPORT | SUMMARY

KPI's:

Total Loan Applications:

```
SELECT COUNT(id) AS Total_Loan_Applications FROM Bank_Loan_DB
```

total_loan_applications 
bigint
38576


MTD Loan Applications:

```
SELECT COUNT(id) AS MTD_Total_loan_ApplicationsFROM Bank_Loan_DB
```

```
WHERE EXTRACT(MONTH FROM issue_date) = 12
```

```
AND EXTRACT(YEAR FROM issue_date) = ( SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM  
Bank_Loan_DB
```

```
WHERE EXTRACT(MONTH FROM issue_date) = 12)
```

mtd_total_loan_applications 
bigint
4314


PMTD Loan Applications:

```
SELECT COUNT(id) AS PMTD_Total_loan_ApplicationsFROM Bank_Loan_DB
```

```
WHERE EXTRACT(MONTH FROM issue_date) = 11
```

```
AND EXTRACT(YEAR FROM issue_date) = ( SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM  
Bank_Loan_DB
```

```
WHERE EXTRACT(MONTH FROM issue_date) = 12)
```

pmtd_total_loan_applications 
bigint
4035


Total Funded Amount:

```
SELECT SUM(loan_amount) AS Total_Funded_Amount FROM bank_loan_db
```

total_funded_amount 
bigint
435757075

MTD Total Funded Amount:

```
SELECT SUM(loan_amount) AS Total_Funded_Amount
    FROM bank_loan_db
WHERE EXTRACT(MONTH FROM issue_date) = 12
AND EXTRACT(YEAR FROM issue_date) = (
    SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM bank_loan_db
    WHERE EXTRACT(MONTH FROM issue_date) = 12)
```

mtd_total_funded_amount 
bigint
53981425

PMTD Total Funded Amount:

```
SELECT SUM(loan_amount) AS PMTD_Total_Funded_Amount
    FROM bank_loan_db
WHERE EXTRACT(MONTH FROM issue_date) = 11
AND EXTRACT(YEAR FROM issue_date) = (
    SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM bank_loan_db
    WHERE EXTRACT(MONTH FROM issue_date) = 12)
```

pmtd_total_funded_amount bigint	
	47754825

Total Amount Received:

```
SELECT SUM(total_payment) AS Total_Payment_Received FROM bank_loan_db
```

total_payment_received bigint	
	473070933

MTD Total Amount Received:

```
SELECT SUM(total_payment) AS MTD_Total_Payment_Received
      FROM bank_loan_db
WHERE EXTRACT(MONTH FROM issue_date) = 12
AND EXTRACT(YEAR FROM issue_date) = (
      SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM bank_loan_db
      WHERE EXTRACT(MONTH FROM issue_date) = 12)
```

mtd_total_payment_received bigint	
	58074380

PMTD Total Amount Received:

```
SELECT SUM(total_payment) AS PMTD_Total_Payment_Received
      FROM bank_loan_db
WHERE EXTRACT(MONTH FROM issue_date) = 11
AND EXTRACT(YEAR FROM issue_date) = (
      SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM bank_loan_db
```

WHERE EXTRACT(MONTH FROM issue_date) = 12)

pmtd_total_payment_received bigint	
	50132030

Average Interest Rate:

```
SELECT ROUND(CAST(AVG(int_rate) * 100 AS numeric), 2) AS Average_Interest_Rate  
FROM bank_loan_db
```

average_interest_rate numeric	
	12.05

MTD Average Interest:

```
SELECT ROUND(CAST(AVG(int_rate) * 100 AS numeric), 2) AS MTD_Average_Interest_Rate  
FROM bank_loan_db  
WHERE EXTRACT(MONTH FROM issue_date) = 12  
AND EXTRACT(YEAR FROM issue_date) = (  
    SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM bank_loan_db  
    WHERE EXTRACT(MONTH FROM issue_date) = 12)
```

mtd_average_interest_rate numeric	
	12.36

PMTD Average Interest:

```
SELECT ROUND(CAST(AVG(int_rate) * 100 AS numeric), 2) AS PMTD_Average_Interest_Rate  
FROM bank_loan_db
```

```

WHERE EXTRACT(MONTH FROM issue_date) = 11
AND EXTRACT(YEAR FROM issue_date) = (
    SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM bank_loan_db
    WHERE EXTRACT(MONTH FROM issue_date) = 12)

```

pmtd_average_interest_rate numeric	
	11.94

Avg DTI:

```

SELECT ROUND(CAST(AVG(dti) * 100 AS numeric), 2) AS Average_DTI
FROM bank_loan_db

```

average_dti numeric	
	13.33

MTD Avg DTI:

```

SELECT ROUND(CAST(AVG(dti) * 100 AS numeric), 2) AS MTD_Average_DTI
FROM bank_loan_db
WHERE EXTRACT(MONTH FROM issue_date) = 12
AND EXTRACT(YEAR FROM issue_date) = (
    SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM bank_loan_db
    WHERE EXTRACT(MONTH FROM issue_date) = 12)

```

mtd_average_dti numeric	
	13.67

PMTD Avg DTI:

```
SELECT ROUND(CAST(AVG(dti) * 100 AS numeric), 2) AS MTD_Average_DTI
FROM bank_loan_db
WHERE EXTRACT(MONTH FROM issue_date) = 11
AND EXTRACT(YEAR FROM issue_date) = (
    SELECT MAX(EXTRACT(YEAR FROM issue_date)) FROM bank_loan_db
    WHERE EXTRACT(MONTH FROM issue_date) = 12)
```

mtd_average_dti numeric	
	13.30

GOOD LOAN ISSUED


Good Loan Percentage:

```
SELECT
    ROUND(CAST(COUNT(CASE WHEN loan_status = 'Fully Paid' OR loan_status = 'Current' THEN id END) *
    100.0 / COUNT(id) AS numeric),2) AS Good_Loan_Percentage
FROM bank_loan_db;
```

good_loan_percentage numeric	
	86.18

Good Loan Applications:

```
SELECT COUNT(id) AS Good_Loan_Applications FROM bank_loan_db
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'
OR
SELECT COUNT(id) AS Good_Loan_Applications FROM bank_loan_db
WHERE loan_status IN ('Fully Paid','Current')
```

good_loan_applications bigint	
33243	

Good Loan Funded Amount:

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

OR

```
SELECT SUM(loan_amount) AS Good_Loan_Funded_Amount FROM bank_loan_db
WHERE loan_status IN ('Fully Paid','Current')
```


good_loan_funded_amount bigint	
370224850	

Good Loan Amount Received:

```
SELECT SUM(total_payment) AS Good_Loan_Received_Amount FROM bank_loan_db
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'
```

OR


```
SELECT SUM(total_payment) AS Good_Loan_Received_Amount FROM bank_loan_db
WHERE loan_status IN ('Fully Paid','Current')
```

good_loan_received_amount bigint	
435786170	

BAD LOAN ISSUED


Bad Loan Percentage:

```
SELECT  
ROUND(CAST(COUNT(CASE WHEN loan_status = 'Charged Off' THEN id END)  
* 100.0 / COUNT(id) AS NUMERIC),2) AS Bad_Loan_Percentage  
FROM bank_loan_db
```

bad_loan_percentage numeric	
13.82	


Bad Loan Applications:

```
SELECT COUNT(id) AS Bad_Loan_Application from bank_loan_db  
WHERE loan_status = 'Charged Off'
```

bad_loan_application bigint	
5333	

Bad Loan Funded Amount:

```
SELECT SUM(loan_amount) AS Bad_Loan_Funded_Amount from bank_loan_db  
WHERE loan_status = 'Charged Off'
```

bad_loan_funded_amount bigint	
65532225	

Bad Loan Amount Received:

```
SELECT SUM(total_payment) AS Bad_Loan_Received_Amount from bank_loan_db  
WHERE loan_status = 'Charged Off'
```

bad_loan_received_amount bigint
37284763

LOAN STATUS

```
SELECT  
    loan_status,  
    COUNT(id) AS Total_Loan_Application,  
    SUM(total_payment) AS Total_Loan_Received_Payment,  
    SUM(loan_amount) AS Total_Found_Amount,  
    ROUND(CAST(AVG(int_rate * 100)AS NUMERIC),2) AS Interest_Rate,  
    ROUND(CAST(AVG(dti * 100) AS NUMERIC),2) AS DTI  
FROM bank_loan_db  
GROUP BY loan_status
```

loan_status character varying (50)	total_loan_application bigint	total_loan_received_payment bigint	total_found_amount bigint	interest_rate numeric	dti numeric
Current	1098	24199914	18866500	15.10	14.72
Fully Paid	32145	411586256	351358350	11.64	13.17
Charged Off	5333	37284763	65532225	13.88	14.00

```
SELECT  
    loan_status,  
    SUM(total_payment) AS MTD_Total_Recieved_payment,  
    SUM(loan_amount) AS MTD_Total_Found_Amount  
FROM bank_loan_db  
WHERE EXTRACT(MONTH FROM issue_date) = 12
```

GROUP BY loan_status

loan_status character varying (50) 🔒	mtd_total_recieved_payment bigint 🔒	mtd_total_found_amount bigint 🔒
Charged Off	5324211	8732775
Current	4934318	3946625
Fully Paid	47815851	41302025

B. BANK LOAN REPORT | OVERVIEW

MONTH

SELECT

EXTRACT(MONTH FROM issue_date) AS Month_Number,

TO_CHAR(issue_date, 'Month') AS Month_Name,

COUNT(id) AS Total_Loan_Application,

SUM(total_payment) AS Total_Payment_Received,

SUM(loan_amount) AS Total_Found_Amount

FROM bank_loan_db

GROUP BY Month_Number, Month_Name

ORDER BY Month_Number

month_number numeric	month_name text	total_loan_application bigint	total_payment_received bigint	total_found_amount bigint
1	January	2332	27578836	25031650
2	February	2279	27717745	24647825
3	March	2627	32264400	28875700
4	April	2755	32495533	29800800
5	May	2911	33750523	31738350
6	June	3184	36164533	34161475
7	July	3366	38827220	35813900
8	August	3441	42682218	38149600
9	September	3536	43983948	40907725
10	October	3796	49399567	44893800
11	November	4035	50132030	47754825
12	December	4314	58074380	53981425

STATE

SELECT

address_state,

COUNT(id) AS Total_Loan_Application,





SUM(total_payment) AS Total_Payment_Received,

SUM(loan_amount) AS Total_Found_Amount

FROM bank_loan_db

GROUP BY address_state

ORDER BY address_state

address_state  character varying (50)	total_loan_application  bigint	total_payment_received  bigint	total_found_amount  bigint
AK	78	1108570	1031800
AL	432	5492272	4949225
AR	236	2777875	2529700
AZ	833	10041986	9206000
CA	6894	83901234	78484125
CO	770	9845810	8976000
CT	730	9357612	8435575
DC	214	2921854	2652350
DE	110	1269136	1138100
FL	2773	31601905	30046125
GA	1355	16728040	15480325
HI	170	2080184	1850525
IA	5	64482	56450
ID	6	65329	59750
IL	1486	18875941	17124225
IN	9	85521	86225

TERM

SELECT

term,

COUNT(id) AS Total_Loan_Application,

SUM(total_payment) AS Total_Payment_Received,

SUM(loan_amount) AS Total_Found_Amount

FROM bank_loan_db

GROUP BY term

ORDER BY term

term character varying (50) 🔒	total_loan_application bigint 🔒	total_payment_received bigint 🔒	total_found_amount bigint 🔒
36 months	28237	294709458	273041225
60 months	10339	178361475	162715850

EMPLOYEE LENGTH

SELECT

emp_length,

COUNT(id) AS Total_Loan_Application,

SUM(total_payment) AS Total_Payment_Received,

SUM(loan_amount) AS Total_Found_Amount

FROM bank_loan_db

GROUP BY emp_length

ORDER BY emp_length

emp_length character varying (50) 🔒	total_loan_application bigint 🔒	total_payment_received bigint 🔒	total_found_amount bigint 🔒
< 1 year	4575	47545011	44210625
1 year	3229	35498348	32883125
10+ years	8870	125871616	116115950
2 years	4382	49206961	44967975
3 years	4088	47551832	43937850
4 years	3428	40964850	37600375
5 years	3273	40397571	36973625
6 years	2228	27908658	25612650
7 years	1772	22584136	20811725
8 years	1476	19025777	17558950
9 years	1255	16516173	15084225

PURPOSE

SELECT

purpose,

COUNT(id) AS Total_Loan_Application,





SUM(total_payment) AS Total_Payment_Received,

SUM(loan_amount) AS Total_Found_Amount

FROM bank_loan_db

GROUP BY purpose

ORDER BY purpose

purpose character varying (50) 	total_loan_application bigint 	total_payment_received bigint 	total_found_amount bigint 
car	1497	11324914	10223575
credit card	4998	65214084	58885175
Debt consolidation	18214	253801871	232459675
educational	315	2248380	2161650
home improvement	2876	36380930	33350775
house	366	5185538	4824925
major purchase	2110	18676927	17251600
medical	667	5851372	5533225
moving	559	3999899	3748125
other	3824	33289676	31155750
renewable_energy	94	898931	845750
small business	1776	23814817	24123100
vacation	352	2116738	1967950
wedding	928	10266856	9225800

HOME OWNERSHIP

SELECT

home_ownership,
COUNT(id) AS Total_Loan_Application,
SUM(total_payment) AS Total_Payment_Received,
SUM(loan_amount) AS Total_Found_Amount

FROM bank_loan_db

GROUP BY home_ownership

ORDER BY home_ownership

home_ownership character varying (50) 🔒	total_loan_application bigint 🔒	total_payment_received bigint 🔒	total_found_amount bigint 🔒
MORTGAGE	17198	238474438	219329150
NONE	3	19053	16800
OTHER	98	1025257	1044975
OWN	2838	31729129	29597675
RENT	18439	201823056	185768475

Note: We have applied multiple Filters on all the dashboards. You can check the results for the filters as well by modifying the query and comparing the results.

For e.g

See the results when we hit the Grade A in the filters for dashboards.

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_db

WHERE grade = 'A'

GROUP BY home_ownership

ORDER BY Total_Loan_Applications desc

home_ownership character varying (50) 🔒	total_loan_applications bigint 🔒	total_funded_amount bigint 🔒	total_amount_received bigint 🔒
MORTGAGE	4973	45908575	47963188
RENT	3918	31825075	33290992
OWN	773	6340100	6618219
OTHER	24	168475	167924
NONE	1	10000	11240