Bank Loan Report Query Document

1. Bank Loan Report | Summary

KPI's:

Total Loan Application

SELECT COUNT(id) AS Total_Applications FROM Bank_loan_data;

Total_Applications
38576

MTD Total Loan Application

SELECT COUNT(id) AS MTD_Total_Applications FROM Bank_loan_data
WHERE MONTH(issue_date) =12;

MTD_Total_Applications
4314

PMTD Total Loan Application

SELECT COUNT(id) AS PMTD_Total_Applications FROM Bank_loan_data
WHERE MONTH(issue_date) =11;

PMTD_Total_Applications
4035

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 MTD_Total_Funded_Amount FROM Bank_loan_data
WHERE MONTH(issue_date) =12;

MTD_Total_Funded_Amount
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
47754825

Total Amount received

SELECT SUM(total_payment) AS Total_Amount_Received FROM Bank_loan_data;

Total_Amount_Received
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
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
50132030

Average Interest Rate

SELECT ROUND(AVG(int_rate) *100, 2) AS Avg_Interest_Rate FROM Bank_loan_data;
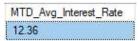
Avg_Interest_Rate
12.05

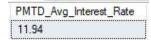## MTD Average Interest Rate

SELECT ROUND(AVG(int_rate) *100, 2) AS MTD_Avg_Interest_Rate FROM Bank_loan_data WHERE MONTH(issue_date) =12;

MTD_Avg_Interest_Rate
12.36

PMTD Average Interest Rate

SELECT ROUND(AVG(int_rate) *100, 2) AS PMTD_Avg_Interest_Rate FROM Bank_loan_data
WHERE MONTH(issue_date) =11;

PMTD_Avg_Interest_Rate
11.94

Average Debt-to-Income Ratio (DTI)

SELECT ROUND(AVG(dti) *100, 2) AS Avg_DTI FROM Bank_loan_data;

Avg_DTI
13.33

MTD Average Debt-to-Income Ratio (DTI)

SELECT ROUND(AVG(dti) *100, 2) AS MTD_Avg_DTI FROM Bank_loan_data
WHERE MONTH(issue_date) =12;

MTD_Avg_DTI
13.67

PMTD Average Debt-to-Income Ratio (DTI)

SELECT ROUND(AVG(dti) *100, 2) AS PMTD_Avg_DTI FROM Bank_loan_data
WHERE MONTH(issue_date) =11;

PMTD_Avg_DTI
13.3

GOOD LOAN ISSUED;

Good Loan Application 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 Application

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_Funded_Amout FROM Bank_loan_data
WHERE loan_status = 'Fully Paid' or loan_status = 'Current';

Good_Loan_Funded_Amout
370224850

Good Loan Total Received Amount

SELECT SUM(total_payment) As Good_Loan_Received_Amout FROM Bank_loan_data
WHERE loan_status = 'Fully Paid' or loan_status = 'Current';

Good_Loan_Received_Amout
435786170

BAD LOAN ISSUED

Bad Loan Application 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 Application

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_Amout FROM Bank_loan_data
WHERE loan_status = 'Charged Off';

Bad_Loan_Funded_Amout
65532225

Bad Loan Total Received Amount

SELECT SUM(total_payment) As Bad_Loan_Received_Amout FROM Bank_loan_data
WHERE loan_status = 'Charged Off';

Bad_Loan_Received_Amout
37284763

LOAN STATUS

Loan Status Grid View

SELECT loan_status,
      COUNT(id) AS Total_Loan_Applications,
      SUM(loan_amount) AS Total_Funded_account,
      SUM(total_payment) AS Total_Amount_Received,
      AVG(int_rate) AS Avg_Interest_Rate,
      AVG(dti) AS Avg_DTI
FROM Bank_loan_data
GROUP BY Loan_status;

loan_status	Total_Loan_Applications	Total_Funded_account	Total_Amount_Received	Avg_Interest_Rate	Avg_DTI
Fully Paid	32145	351358350	411586256	0.116410707918092	0.131673507557434
Charged Off	5333	65532225	37284763	0.138785749318289	0.140047328005517
Current	1098	18866500	24199914	0.150993260800947	0.147243442736843

MTD

SELECT loan_status,
      SUM(loan_amount) AS MTD_Total_Funded_account,
      SUM(total_payment) AS MTD_Total_Amount_Received
FROM Bank_loan_data
WHERE MONTH(issue_date) = 12
GROUP BY Loan_status;

loan_status	MTD_Total_Funded_account	MTD_Total_Amount_Received
Fully Paid	41302025	47815851
Charged Off	8732775	5324211
Current	3946625	4934318

1. Bank Loan Report | Overview

MONTH

Monthly trends by Issue Date

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

STATE

Regional Analysis by State

SELECT
   address_state,
      COUNT(id) AS Total_Loan_Applications,
      SUM(loan_amount) AS Total_Funded_account,
      SUM(total_payment) AS Total_Amount_Received
FROM Bank_loan_data
GROUP BY address_state
ORDER BY COUNT(id) DESC

address_state	Total_Loan_Applications	Total_Funded_account	Total_Amount_Received
CA	6894	78484125	83901234
NY	3701	42077050	46108181
FL	2773	30046125	31601905
TX	2664	31236650	34392715
NJ	1822	21657475	23425159
IL	1486	17124225	18875941
PA	1482	15826525	17462908
VA	1375	15982650	17711443
GA	1355	15480325	16728040
MA	1310	15051000	16676279
OH	1188	12991375	14330148
MD	1027	11911400	12985170
AZ	833	9206000	10041986
WA	805	8855525	9531739
CO	770	8976000	9845810
NC	759	8787575	9534813
CT	730	8435575	9357612
MI	685	7829900	8543660
MO	660	7151175	7692732
MN	592	6302600	6750746
NV	482	5307375	5451443
SC	464	5080475	5462458
WI	446	5070450	5485161
OR	436	4720150	4966903
AL	432	4949225	5492272

TERM

Term Loan Analysis

SELECT
   term,
       COUNT(id) AS Total_Loan_Applications,
       SUM(loan_amount) AS Total_Funded_account,
       SUM(total_payment) AS Total_Amount_Received
FROM Bank_loan_data
GROUP BY term
ORDER BY COUNT(id) DESC

term	Total_Loan_Applications	Total_Funded_account	Total_Amount_Received
36 months	28237	273041225	294709458
60 months	10339	162715850	178361475

EMPLOYEE LENGTH

Employee Length Analysis

```sql
SELECT
    emp_length,
        COUNT(id) AS Total_Loan_Applications,
        SUM(loan_amount) AS Total_Funded_account,
        SUM(total_payment) AS Total_Amount_Received
FROM Bank_loan_data
GROUP BY emp_length
ORDER BY COUNT(id) DESC
```

emp_length	Total_Loan_Applications	Total_Funded_account	Total_Amount_Received
10+ years	8870	116115950	125871616
< 1 year	4575	44210625	47545011
2 years	4382	44967975	49206961
3 years	4088	43937850	47551832
4 years	3428	37600375	40964850
5 years	3273	36973625	40397571
1 year	3229	32883125	35498348
6 years	2228	25612650	27908658
7 years	1772	20811725	22584136
8 years	1476	17558950	19025777
9 years	1255	15084225	16516173

PURPOSE

Loan Purpose Breakdown

```sql
SELECT
    purpose,
        COUNT(id) AS Total_Loan_Applications,
        SUM(loan_amount) AS Total_Funded_account,
        SUM(total_payment) AS Total_Amount_Received
FROM Bank_loan_data
GROUP BY purpose
ORDER BY COUNT(id) DESC
```

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

HOME OWNERSHIP

Home Ownership Analysis

SELECT
    home_ownership,
        COUNT(id) AS Total_Loan_Applications,
        SUM(loan_amount) AS Total_Funded_account,
        SUM(total_payment) AS Total_Amount_Received
FROM Bank_loan_data
GROUP BY home_ownership
ORDER BY COUNT(id) DESC

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