# BANK LOAN REPORT QUERY DOCUMENT

```
USE [Bank Loan DB]
GO
SELECT * FROM bank_loan_data
```

## DASHBOARD-1 BANK LOAN REPORT | SUMMARY

### 1. TOTAL LOAN APPLICATION

```
SELECT COUNT(id) As Total_Loan_Applications FROM bank_loan_data
```

| | Total_Loan_Applications |
|---|---|
| 1 | 38576 |

```
SELECT COUNT(id) As MTD_Total_Loan_Applications FROM bank_loan_data
WHERE MONTH(issue_date) = 12 AND YEAR(issue_date) = 2021
```

| | MTD_Total_Loan_Applications |
|---|---|
| 1 | 4314 |

```
SELECT COUNT(id) As PMTD_Total_Loan_Applications FROM bank_loan_data
WHERE MONTH(issue_date) = 11 AND YEAR(issue_date) = 2021
```

| | PMTD_Total_Loan_Applications |
|---|---|
| 1 | 4035 |

### 2. TOTAL FUNDED AMOUNT

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

| | Total_Funded_Amount |
|---|---|
| 1 | 435757075 |

```
SELECT SUM(loan_amount) As MTD_Total_Funded_Amount FROM bank_loan_data
WHERE MONTH(issue_date) =12 AND YEAR(issue_date)=2021
```

| | MTD_Total_Funded_Amount |
|---|---|
| 1 | 53981425 |

```
SELECT SUM(loan_amount) As PMTD_Total_Funded_Amount FROM bank_loan_data
WHERE MONTH(issue_date) =11 AND YEAR(issue_date)=2021
```

| | PMTD_Total_Funded_Amount |
|---|---|
| 1 | 47754825 |

### 3. TOTAL AMOUNT RECEIVED

```
SELECT SUM(total_payment) As Total_Amount_Received FROM bank_loan_data
```

| | Total_Amount_Received |
|---|---|
| 1 | 473070933 |

```
SELECT SUM(total_payment) As MTD_Total_Amount_Received FROM bank_loan_data
WHERE MONTH(issue_date) =12 AND YEAR(issue_date)=2021
```

| | MTD_Total_Amount_Received |
|---|---|
| 1 | 58074380 |

```
SELECT SUM(total_payment) As PMTD_Total_Amount_Received FROM bank_loan_data
WHERE MONTH(issue_date) =11 AND YEAR(issue_date)=2021
```

| | PMTD_Total_Amount_Received |
|---|---|
| 1 | 50132030 |

### 4. AVERAGE INTEREST RATE

```
SELECT ROUND(AVG(int_rate),4)*100 As Average_Interest_Rate FROM bank_loan_data
```

| | Average_Interest_Rate |
|---|---|
| 1 | 12.05 |

```
SELECT ROUND(AVG(int_rate),4)*100 As MTD_Average_Interest_Rate
FROM bank_loan_data
WHERE MONTH(issue_date) =12 AND YEAR(issue_date)=2021
```

| | MTD_Average_Interest_Rate |
|---|---|
| 1 | 12.36 |

```
SELECT ROUND(AVG(int_rate),4)*100 As PMTD_Average_Interest_Rate
FROM bank_loan_data
WHERE MONTH(issue_date) =11 AND YEAR(issue_date)=2021
```

| | PMTD_Average_Interest_Rate |
|---|---|
| 1 | 11.94 |

### 5. AVERAGE DEBT-TO-INCOME RATIO (DTI)

SELECT ROUND(AVG(dti),4)*100 As Average_DTI FROM bank_loan_data

| | Average_DTI |
|---|---|
| 1 | 13.33 |

SELECT ROUND(AVG(dti),4)*100 As MTD_Average_DTI FROM bank_loan_data

WHERE MONTH(issue_date) =12 AND YEAR(issue_date)=2021

| | MTD_Average_DTI |
|---|---|
| 1 | 13.67 |

SELECT ROUND(AVG(dti),4)*100 As PMTD_Average_DTI FROM bank_loan_data

WHERE MONTH(issue_date) =11 AND YEAR(issue_date)=2021

| | PMTD_Average_DTI |
|---|---|
| 1 | 13.3 |

## GOOD LOAN

### 1. GOOD LOAN PERCENTAGE

SELECT

(COUNT(CASE WHEN loan_status = 'Fully Paid' OR loan_status = 'Current' THEN id END)*100) /COUNT(id) AS Good_loan_percentage

FROM bank_loan_data

| | Good_loan_percentage |
|---|---|
| 1 | 86 |

### 2. GOOD LOAN APPLICATION

SELECT COUNT(id) AS Good_Loan_Application FROM bank_loan_data

WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'

| | Good_Loan_Application |
|---|---|
| 1 | 33243 |

### 3. 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 |

### 4. GOOD LOAN AMOUNT RECEIVED

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

| | Good_Loan_Amount_Recieved |
|---|---|
| 1 | 435786170 |

## BAD LOAN

### 1. 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 |

### 2. BAD LOAN APPLICATION

```
SELECT COUNT(id) AS Bad_Loan_Application FROM bank_loan_data
WHERE loan_status = 'Charged Off'
```

| | Bad_Loan_Application |
|---|---|
| 1 | 5333 |

### 3. 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 |

### 4. BAD LOAN AMOUNT RECEIVED

```
SELECT SUM(total_payment) AS Bad_Loan_Amount_Recieved FROM bank_loan_data
WHERE loan_status = 'Charged Off'
```

| | Bad_Loan_Amount_Recieved |
|---|---|
| 1 | 37284763 |

# GRID VIEW

## 1. LOAN STATUS GRID VIEW

```
SELECT
    loan_status,
    COUNT(id) AS Total_Loan_Application,
    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 | Total_Loan_Application | 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 |

## 2. LOAN STATUS MTD GRID VIEW

```
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 |

# DASHBOARD-2 BANK LOAN REPORT | OVERVIEW

## 1. 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_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 |

## 2. REGIONAL ANALYSIS BY START

```
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 |

## 3. LOAN TERM ANALYSIS

```
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 |

## 4. EMPLOYEE LENGTH ANALYSIS

```
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 |

## 5. LOAN PURPOSE BREAKDOWN

```
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 |

## 6. HOME OWNERSHIP ANALYSIS

```
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 |

**If we want to apply filter grade, then use WHERE Clause also we can use different filter**

```
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
WHERE grade='A'
GROUP BY home_ownership
ORDER BY home_ownership
```

| | Home_Ownership | Total_Loan_Applications | Total_Funded_Amount | Total_Amount_Received |
|---|---|---|---|---|
| 1 | MORTGAGE | 4973 | 45908575 | 47963188 |
| 2 | NONE | 1 | 10000 | 11240 |
| 3 | OTHER | 24 | 168475 | 167924 |
| 4 | OWN | 773 | 6340100 | 6618219 |
| 5 | RENT | 3918 | 31825075 | 33290992 |