**SOLUTION FOR BANK LOAN PROBLEM**

1. **BANK LOAN REPORT | SUMMARY**

**KPI’S**

1. TOTAL LOAN APPLICATION

SELECT COUNT(ID) AS TOTAL\_lOAN\_APPLICATIONS FROM bank\_loan\_data



1. MTD TOTAL LOAN APPLICATION

SELECT COUNT(ID) AS MTD\_TOTAL\_lOAN\_APPLICATIONS FROM bank\_loan\_data WHERE MONTH(issue\_date) = 12 AND YEAR(ISSUE\_DATE) = 2021



1. PMTD TOTAL LOAN APPLICATION

SELECT COUNT(ID) AS PMTD\_TOTAL\_lOAN\_APPLICATIONS FROM bank\_loan\_data WHERE MONTH(issue\_date) = 11 AND YEAR(ISSUE\_DATE) = 2021



1. TOTAL FUNDED AMOUNT

SELECT SUM(LOAN\_AMOUNT) AS TOTAL\_FUNDED\_AMOUNT FROM bank\_loan\_data



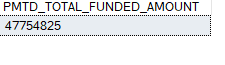
1. MTD TOTAL FUNDED AMOUNT

SELECT SUM(LOAN\_AMOUNT) AS TOTAL\_FUNDED\_AMOUNT FROM bank\_loan\_data WHERE MONTH(issue\_date) = 12 AND YEAR(ISSUE\_DATE) = 2021



1. PMTD TOTAL FUNDED AMOUNT

SELECT SUM(LOAN\_AMOUNT) AS PMTD\_TOTAL\_FUNDED\_AMOUNT FROM bank\_loan\_data WHERE MONTH(issue\_date) = 11 AND YEAR(ISSUE\_DATE) = 2021



1. TOTAL RECEIVED AMOUNT

SELECT SUM(TOTAL\_PAYMENT) AS TOTAL\_RECIEVED\_AMOUNT FROM bank\_loan\_data



1. MTD TOTAL RECEIVED AMOUNT

SELECT SUM(TOTAL\_PAYMENT) AS MTD\_TOTAL\_RECIEVED\_AMOUNT FROM bank\_loan\_data WHERE MONTH(issue\_date) = 12 AND YEAR(ISSUE\_DATE) = 2021



1. PMTD TOTAL RECEIVED AMOUNT

SELECT SUM(TOTAL\_PAYMENT) AS PMTD\_TOTAL\_RECIEVED\_AMOUNT FROM bank\_loan\_data WHERE MONTH(issue\_date) = 11 AND YEAR(ISSUE\_DATE) = 2021



1. AVG INT RATE

SELECT ROUND(AVG(int\_rate), 4) \* 100 AS AVG\_INT\_RATE FROM bank\_loan\_data



1. MTD AVG INT RATE

SELECT AVG(int\_rate)\*100 AS MTD\_AVG\_INT\_RATE FROM bank\_loan\_data WHERE MONTH(issue\_date) = 12 AND YEAR(ISSUE\_DATE) = 2021



1. PMTD AVG INT RATE

SELECT AVG(int\_rate)\*100 AS PMTD\_AVG\_INT\_RATE FROM bank\_loan\_data WHERE MONTH(issue\_date) = 11 AND YEAR(ISSUE\_DATE) = 2021



1. AVG\_DEBT\_TO\_INCOME\_RATIO

SELECT ROUND(AVG(dti), 4) \* 100 AS AVG\_DTI\_RATIO FROM bank\_loan\_data



1. MTD\_AVG\_DEBT\_TO\_INCOME\_RATIO

SELECT ROUND(AVG(dti), 4) \* 100 AS MTD\_AVG\_DTI\_RATIO FROM bank\_loan\_data WHERE MONTH(issue\_date) = 12 AND YEAR(ISSUE\_DATE) = 2021



1. PMTD\_AVG\_DEBT\_TO\_INCOME\_RATIO

SELECT ROUND(AVG(dti), 4) \* 100 AS PMTD\_AVG\_DTI\_RATIO FROM bank\_loan\_data WHERE MONTH(issue\_date) = 11 AND YEAR(ISSUE\_DATE) = 2021



1. GOOD LOAN APPLICATION 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



1. GOOD LOAN APPLICATIONS

SELECT COUNT(ID) AS GOOD\_LOAN\_APPLICATIONS FROM bank\_loan\_data WHERE loan\_status = 'FULLY PAID' OR loan\_status = 'CURRENT'



1. 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'



1. GOOD LOAN TOT RECEIVED AMOUNT

SELECT SUM(total\_payment) AS GOOD\_LOAN\_TOT\_RECIEVED\_AMOUNT FROM bank\_loan\_data WHERE loan\_status = 'FULLY PAID' OR loan\_status = 'CURRENT'



1. BAD LOAN APPLICATION PERCENTAGE

SELECT (COUNT(CASE WHEN LOAN\_STATUS = 'CHARGED OFF' THEN ID END) \* 100) / COUNT(ID) AS BAD\_LOAN\_PERCENTAGE FROM bank\_loan\_data



1. BAD\_LOAN\_APPLICATIONS

SELECT COUNT(ID) AS BAD\_LOAN\_APPLICATIONS FROM bank\_loan\_data WHERE loan\_status = 'CHARGED OFF'



1. BAD\_LOAN\_FUNDED\_AMOUNT

SELECT SUM(loan\_amount) AS BAD\_LOAN\_FUNDED\_AMOUNT FROM bank\_loan\_data WHERE loan\_status = 'CHARGED OFF'



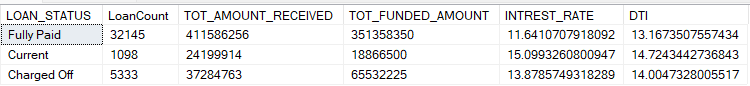
1. BAD\_LOAN\_TOT\_RECIEVED\_AMOUNT

SELECT SUM(total\_payment) AS BAD\_LOAN\_TOT\_RECIEVED\_AMOUNT FROM bank\_loan\_data WHERE loan\_status = 'CHARGED OFF'



1. LOAN STATUS

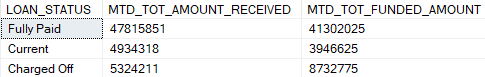
SELECT LOAN\_STATUS, COUNT(ID) AS LoanCount, SUM(TOTAL\_PAYMENT) AS TOT\_AMOUNT\_RECEIVED, SUM(LOAN\_AMOUNT) AS TOT\_FUNDED\_AMOUNT, AVG(INT\_RATE \* 100) AS INTREST\_RATE, AVG(DTI \* 100) AS DTI FROM bank\_loan\_data GROUP BY loan\_status



1. MTD LOAN STATUS

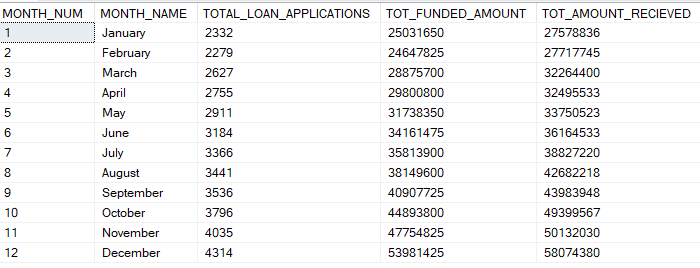
SELECT LOAN\_STATUS, SUM(TOTAL\_PAYMENT) AS MTD\_TOT\_AMOUNT\_RECEIVED,

SUM(LOAN\_AMOUNT) AS MTD\_TOT\_FUNDED\_AMOUNT FROM bank\_loan\_data WHERE MONTH(issue\_date) = 12 AND YEAR(ISSUE\_DATE) = 2021 GROUP BY loan\_status



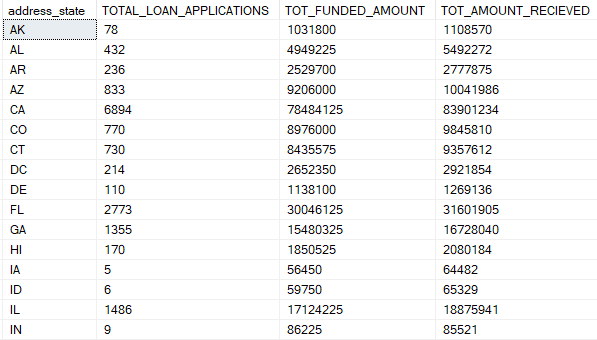
1. **OVERVIEW DASHBOARD**
2. MONTHLY TRENDS BY ISSUE DATE

SELECT MONTH(ISSUE\_DATE) AS MONTH\_NUM, DATENAME(MONTH, ISSUE\_DATE) AS MONTH\_NAME, COUNT(ID) AS TOTAL\_LOAN\_APPLICATIONS, SUM(LOAN\_AMOUNT) AS TOT\_FUNDED\_AMOUNT, SUM(total\_payment) AS TOT\_AMOUNT\_RECIEVED FROM bank\_loan\_data GROUP BY MONTH(ISSUE\_DATE), DATENAME(MONTH, ISSUE\_DATE) ORDER BY MONTH(ISSUE\_DATE)



1. REGIONAL ANALYSIS BY STATE

SELECT address\_state, COUNT(ID) AS TOTAL\_LOAN\_APPLICATIONS, SUM(LOAN\_AMOUNT) AS TOT\_FUNDED\_AMOUNT, SUM(total\_payment) AS TOT\_AMOUNT\_RECIEVED FROM bank\_loan\_data GROUP BY address\_state ORDER BY address\_state



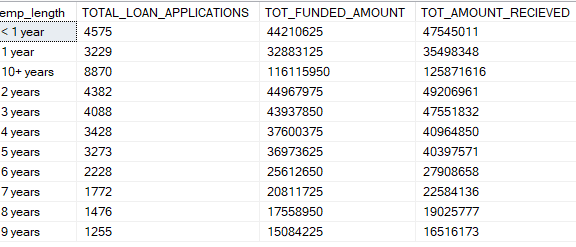
1. LOAN TERM ANALYSIS

SELECT term, COUNT(ID) AS TOTAL\_LOAN\_APPLICATIONS, SUM(LOAN\_AMOUNT) AS TOT\_FUNDED\_AMOUNT, SUM(total\_payment) AS TOT\_AMOUNT\_RECIEVED FROM bank\_loan\_data GROUP BY term ORDER BY term



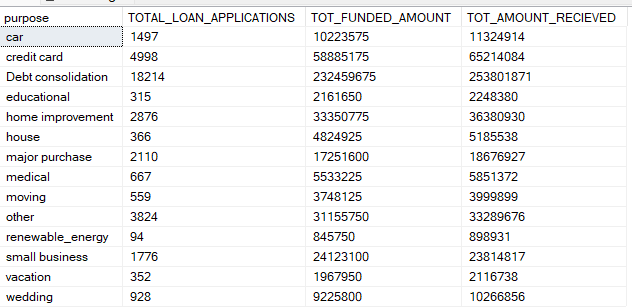
1. EMPLOYEE LENGTH ANALYSIS

SELECT emp\_length, COUNT(ID) AS TOTAL\_LOAN\_APPLICATIONS, SUM(LOAN\_AMOUNT) AS TOT\_FUNDED\_AMOUNT, SUM(total\_payment) AS TOT\_AMOUNT\_RECIEVED FROM bank\_loan\_data GROUP BY emp\_length ORDER BY emp\_length



1. LOAN PURPOSE BREAKDOWN

SELECT purpose, COUNT(ID) AS TOTAL\_LOAN\_APPLICATIONS, SUM(LOAN\_AMOUNT) AS TOT\_FUNDED\_AMOUNT, SUM(total\_payment) AS TOT\_AMOUNT\_RECIEVED FROM bank\_loan\_data GROUP BY purpose ORDER BY purpose



1. HOME OWNERSHIP ANALYSIS

SELECT home\_ownership, COUNT(ID) AS TOTAL\_LOAN\_APPLICATIONS, SUM(LOAN\_AMOUNT) AS TOT\_FUNDED\_AMOUNT, SUM(total\_payment) AS TOT\_AMOUNT\_RECIEVED FROM bank\_loan\_data GROUP BY home\_ownership ORDER BY home\_ownership

