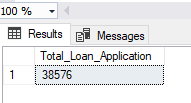
**(KPIs) Requirements calculated solutions :**

1. **Total Loan Applications:** We need to calculate the total number of loan applications received during a specified period.

SELECT COUNT(id) as Total\_Loan\_Application

FROM financial\_loan

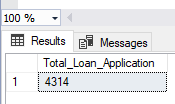


Additionally, it is essential to monitor the **Month-to-Date (MTD)** Loan Applications and track changes Month-over-Month (MoM).

SELECT COUNT(id) as Total\_Loan\_Application

FROM financial\_loan

WHERE MONTH(issue\_date) = 12 AND YEAR(issue\_date) = 2021

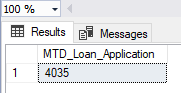


**Previous Month-to-Date (MTD)** Loan Applications

SELECT COUNT(id) as MTD\_Loan\_Application

FROM financial\_loan

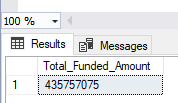
WHERE MONTH(issue\_date) = 11 AND YEAR(issue\_date) = 2021



**2.Total Funded Amount:**

SELECT SUM(loan\_amount) as Total\_Funded\_Amount

FROM financial\_loan

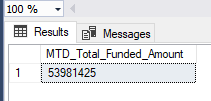


**-MTD\_Total Funded Amount:**

SELECT SUM(loan\_amount) as MTD\_Total\_Funded\_Amount

FROM financial\_loan

WHERE MONTH(issue\_date) = 12 AND YEAR(issue\_date) = 2021

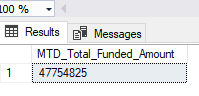


-- **PMTD\_Total Funded Amount:**

SELECT SUM(loan\_amount) as MTD\_Total\_Funded\_Amount

FROM financial\_loan

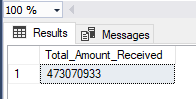
WHERE MONTH(issue\_date) = 11 AND YEAR(issue\_date) = 2021



**3.Total Amount Received:**

SELECT SUM(total\_payment) as Total\_Amount\_Received

FROM financial\_loan

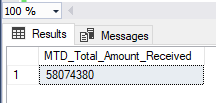


**MTD\_Total Amount Received:**

SELECT SUM(total\_payment) as MTD\_Total\_Amount\_Received

FROM financial\_loan

WHERE MONTH(issue\_date) = 12 AND YEAR(issue\_date) = 2021



-- PMTD\_Total Amount Received:

SELECT SUM(total\_payment) as PMTD\_Total\_Amount\_Received

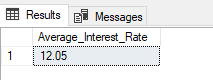
FROM financial\_loan

WHERE MONTH(issue\_date) = 11 AND YEAR(issue\_date) = 2021

**4. Average Interest Rate:**

SELECT ROUND(AVG(int\_rate),4) \* 100 as Average\_Interest\_Rate

FROM financial\_loan



-- **MTD\_Average Interest Rate:**

SELECT ROUND(AVG(int\_rate),4) \* 100 as Average\_Interest\_Rate

FROM financial\_loan

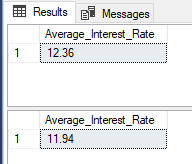
WHERE MONTH(issue\_date) = 12 AND YEAR(issue\_date) = 2021

-- **PMTD\_Average Interest Rate:**

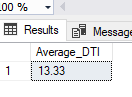
SELECT ROUND(AVG(int\_rate),4) \* 100 as Average\_Interest\_Rate

FROM financial\_loan

WHERE MONTH(issue\_date) = 11 AND YEAR(issue\_date) = 2021



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



--**MTD\_Average Debt-to-Income Ratio (DTI):**

SELECT ROUND(AVG(dti),4) \* 100 as MTD\_Average\_DTI

FROM financial\_loan

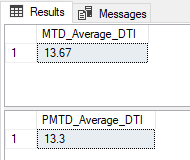
WHERE MONTH(issue\_date) = 12 AND YEAR(issue\_date) = 2021

--**PMTD\_Average Debt-to-Income Ratio (DTI):**

SELECT ROUND(AVG(dti),4) \* 100 as PMTD\_ Average\_DTI

FROM financial\_loan

WHERE MONTH(issue\_date) = 11 AND YEAR(issue\_date) = 2021



**--1. Good Loan Percentage:**

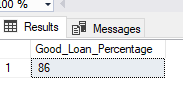
SELECT

( COUNT(CASE WHEN loan\_status = 'Fully Paid' OR loan\_status = 'Current' THEN id END) \* 100)

/

COUNT(id) as Good\_Loan\_Percentage

FROM financial\_loan

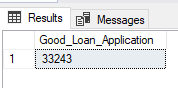


--1. **Good Loan Application**

SELECT COUNT(id) AS Good\_Loan\_Application

FROM financial\_loan

WHERE loan\_status = 'Fully Paid' OR loan\_status = 'Current'

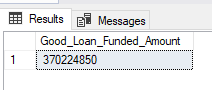


--3. **Good Loan Funded Amount:**

SELECT SUM(loan\_amount) AS Good\_Loan\_Funded\_Amount

FROM financial\_loan

WHERE loan\_status = 'Fully Paid' OR loan\_status = 'Current'

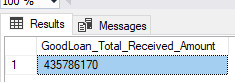


--4. **Good Loan Total Received Amount:**

SELECT SUM(total\_payment) AS GoodLoan\_Total\_Received\_Amount

from [Bank loan project DB].[dbo].[financial\_loan]

WHERE loan\_status IN ('Fully Paid','Current')



**--Bad Loan KPIs:**

**--1. Bad Loan Percentage:**

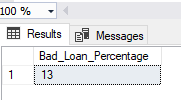
SELECT

( COUNT(CASE WHEN loan\_status = 'Charged off' THEN id END) \* 100)

/

COUNT(id) as Good\_Loan\_Percentage

FROM [Bank loan project DB].[dbo].[financial\_loan]

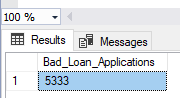


--3. **Bad Loan Applications**

SELECT COUNT(id) as Bad\_Loan\_Applications

FROM [Bank loan project DB].[dbo].[financial\_loan]

WHERE loan\_status = 'Charged off'

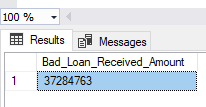


**--4. Bad Loan Total Received Amount:**

SELECT SUM(total\_payment) as Bad\_Loan\_Received\_Amount

FROM [Bank loan project DB].[dbo].[financial\_loan]

WHERE loan\_status = 'Charged off'



**--Loan Status**

select

loan\_status,

COUNT(id) AS Total\_Loan\_Applications,

SUM(total\_payment) AS Total\_Amount\_Received,

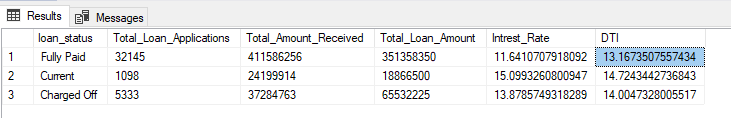
SUM(loan\_amount) AS Total\_Loan\_Amount,

AVG(int\_rate \* 100) AS Intrest\_Rate,

AVG(dti \* 100) AS DTI

from [Bank loan project DB].[dbo].[financial\_loan]

GROUP BY loan\_status



--**Loan Status Month to Date**

select

loan\_status,

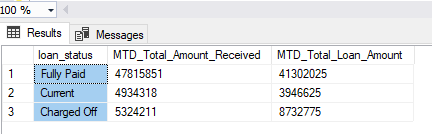
SUM(total\_payment) AS MTD\_Total\_Amount\_Received,

SUM(loan\_amount) AS MTD\_Total\_Loan\_Amount

from [Bank loan project DB].[dbo].[financial\_loan]

where MONTH(issue\_date) = 12

GROUP BY loan\_status



1. **Monthly Trends by Issue Date (Line Chart):**

SELECT

MONTH (issue\_date) AS Month\_Number,

DATENAME(MONTH, issue\_date) AS Month\_Name,

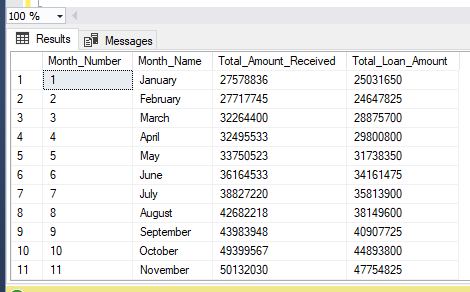
SUM(total\_payment) AS Total\_Amount\_Received,

SUM(loan\_amount) AS Total\_Loan\_Amount

FROM [Bank loan project DB].[dbo].[financial\_loan]

GROUP BY MONTH (issue\_date),DATENAME(MONTH, issue\_date)

ORDER BY MONTH (issue\_date)



**--2. Regional Analysis by State (Filled Map):**

SELECT

address\_state,

COUNT(id) AS Total\_Loan\_Applications,

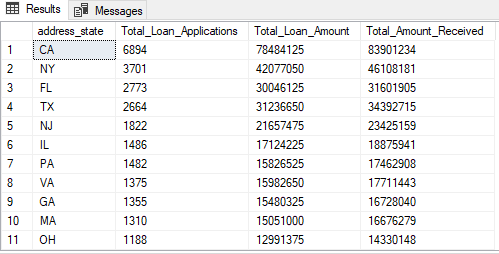
SUM(loan\_amount) AS Total\_Loan\_Amount,

SUM(total\_payment) AS Total\_Amount\_Received

FROM [Bank loan project DB].[dbo].[financial\_loan]

GROUP BY address\_state

ORDER BY COUNT(id) DESC



**--3. Loan Term Analysis (Donut Chart):**

SELECT

term,

COUNT(id) AS Total\_Loan\_Applications,

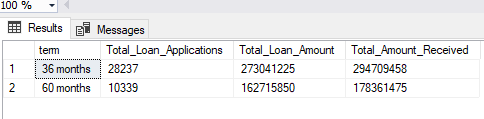
SUM(loan\_amount) AS Total\_Loan\_Amount,

SUM(total\_payment) AS Total\_Amount\_Received

FROM [Bank loan project DB].[dbo].[financial\_loan]

GROUP BY term

ORDER BY term



**4. Employee Length Analysis (Bar Chart):**

SELECT

emp\_length,

COUNT(id) AS Total\_Loan\_Applications,

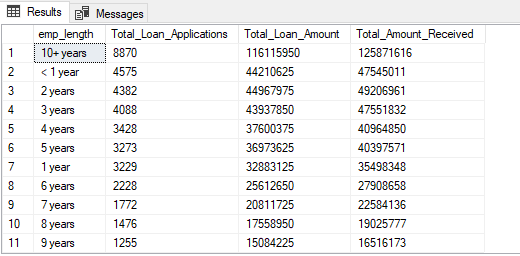
SUM(loan\_amount) AS Total\_Loan\_Amount,

SUM(total\_payment) AS Total\_Amount\_Received

FROM [Bank loan project DB].[dbo].[financial\_loan]

GROUP BY emp\_length

ORDER BY COUNT(id) DESC



**--5. Loan Purpose Breakdown (Bar Chart):**

SELECT

purpose,

COUNT(id) AS Total\_Loan\_Applications,

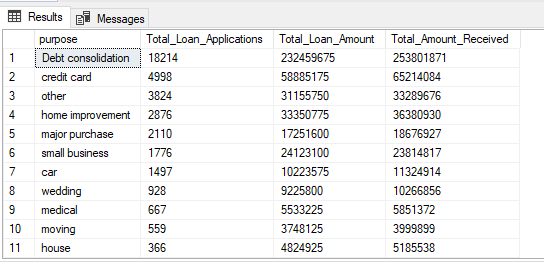
SUM(loan\_amount) AS Total\_Loan\_Amount,

SUM(total\_payment) AS Total\_Amount\_Received

FROM [Bank loan project DB].[dbo].[financial\_loan]

GROUP BY purpose

ORDER BY COUNT(id) DESC



**--6. Home Ownership Analysis (Tree Map):**

SELECT

home\_ownership,

COUNT(id) AS Total\_Loan\_Applications,

SUM(loan\_amount) AS Total\_Loan\_Amount,

SUM(total\_payment) AS Total\_Amount\_Received

FROM [Bank loan project DB].[dbo].[financial\_loan]

GROUP BY home\_ownership

ORDER BY COUNT(id) DESC

