**BANK LOAN ANALYSIS REPORT - QUERY DOCUMENT**

1. **BANK LOAN REPORT | SUMMARY**

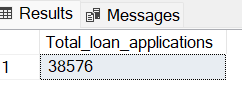
**KPI’s**

**1.a. Total Loan Application**

SELECT

COUNT(id) as Total\_loan\_applications

FROM bank\_loan



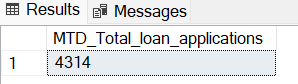
**b. MTD Loan Applications**

SELECT

COUNT(id) as MTD\_Total\_loan\_applications

FROM bank\_loan

WHERE MONTH(issue\_date) = 12



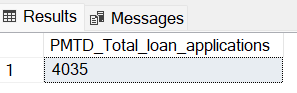
**c. PMTD**

SELECT

COUNT(id) as PMTD\_Total\_loan\_applications

FROM bank\_loan

WHERE MONTH(issue\_date) = 11

****

**d.** **MOM expressed as a percentage.**

SELECT

ROUND(

100 \* (

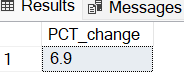
CAST((SELECT COUNT(id) FROM bank\_loan WHERE MONTH(issue\_date) = 12) AS FLOAT) -

CAST((SELECT COUNT(id) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT))/

CAST((SELECT COUNT(id) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT),

1

) AS PCT\_change

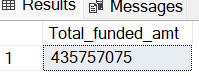
****

**2.a.** **Total Funded Amount**

SELECT

SUM(loan\_amount) as Total\_funded\_amt

FROM bank\_loan

****

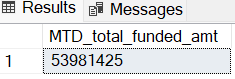
**b.** **MTD Total Funded Amount**

SELECT

SUM(loan\_amount) as MTD\_total\_funded\_amt

FROM bank\_loan

WHERE MONTH(issue\_date) = 12



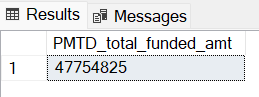
**c. PMTD Total Funded Amount**

SELECT

SUM(loan\_amount) as PMTD\_total\_funded\_amt

FROM bank\_loan

WHERE MONTH(issue\_date) = 11



**d. MoM on Total Funded Amount**

SELECT

ROUND(

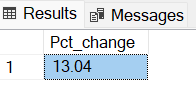
100\*(

CAST((SELECT SUM(loan\_amount) FROM bank\_loan WHERE MONTH(issue\_date) = 12) AS FLOAT)-

CAST((SELECT SUM(loan\_amount) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT))/

CAST((SELECT SUM(loan\_amount) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT), 2)

AS Pct\_change

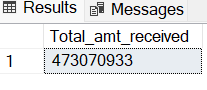


**3.a. Total Amount Received/Collected**

SELECT

SUM(total\_payment) as Total\_amt\_received

FROM bank\_loan

****

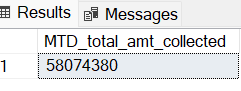
**b. MTD Total Amount Collected**

SELECT

SUM(total\_payment) as MTD\_total\_amt\_collected

FROM bank\_loan

WHERE MONTH(issue\_date) = 12

****

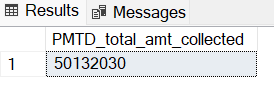
**c. PMTD Total Amount Collected**

SELECT

SUM(total\_payment) as PMTD\_total\_amt\_collected

FROM bank\_loan

WHERE MONTH(issue\_date) = 11

****

**d. MoM on Total Amount Collected**

SELECT

ROUND(

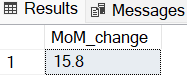
100\*(

CAST((SELECT SUM(total\_payment) FROM bank\_loan WHERE MONTH(issue\_date) = 12) AS FLOAT)-

CAST((SELECT SUM(total\_payment) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT))/

CAST((SELECT SUM(total\_payment) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT), 1)

AS MoM\_change

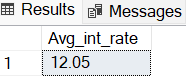
****

**4.a. Average Interest Rate**

SELECT

ROUND(AVG(int\_rate) \* 100, 2) as Avg\_int\_rate

FROM bank\_loan

****

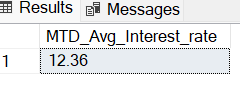
**b. MTD Avg Interest Rate**

SELECT

ROUND(AVG(int\_rate) \* 100, 2) as MTD\_Avg\_Interest\_rate

FROM bank\_loan

WHERE MONTH(issue\_date) = 12

****

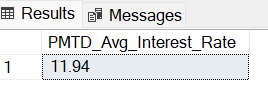
**c. PMTD Average Interest Rate**

SELECT

ROUND(AVG(int\_rate) \* 100, 2) as PMTD\_Avg\_Interest\_Rate

FROM bank\_loan

WHERE MONTH(issue\_date) = 11



**d. MoM on Avg Interest Rate**

SELECT

ROUND(

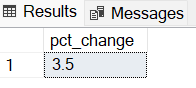
100 \*(

CAST((SELECT (AVG(int\_rate) \* 100) FROM bank\_loan WHERE MONTH(issue\_date) = 12) AS FLOAT)-

CAST((SELECT (AVG(int\_rate) \* 100) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT))/

CAST((SELECT (AVG(int\_rate) \* 100) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT), 1)

AS pct\_change

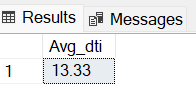


**5.a. Average Debt-to-Income Ratio (DTI)**

SELECT

ROUND(AVG(dti) \* 100, 2) as Avg\_dti

FROM bank\_loan



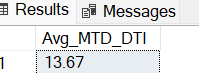
**b. MTD dti**

SELECT

ROUND(AVG(dti) \* 100, 2) as Avg\_MTD\_DTI

FROM bank\_loan

WHERE MONTH(issue\_date) = 12



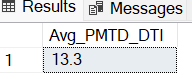
**c.PMTD DTI**

SELECT

ROUND(AVG(dti) \* 100, 2) as Avg\_PMTD\_DTI

FROM bank\_loan

WHERE MONTH(issue\_date) = 11



**C. MoM on DTI**

SELECT

ROUND(

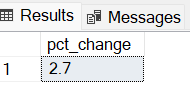
100 \*(

CAST((SELECT (AVG(dti) \* 100) FROM bank\_loan WHERE MONTH(issue\_date) = 12) AS FLOAT)-

CAST((SELECT (AVG(dti) \* 100) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT))/

CAST((SELECT (AVG(dti) \* 100) FROM bank\_loan WHERE MONTH(issue\_date) = 11) AS FLOAT), 1)

AS pct\_change



**GOOD LOAN VS BAD LOAN KPI’S**

**1.GOOD LOAN**

**a.Good Loan issued**

SELECT

loan\_status,

CASE

WHEN loan\_status = 'Charged Off' THEN 'BadLoan'

ELSE 'GoodLoan'

END AS Loan\_Classification

FROM bank\_loan

ALTER TABLE bank\_loan

ADD Loan\_Classification Varchar(20)

UPDATE bank\_loan

SET Loan\_Classification =

(

CASE

WHEN loan\_status = 'Charged Off' THEN 'BadLoan'

ELSE 'GoodLoan'

END

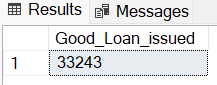
)

SELECT

COUNT(Loan\_Classification) as Good\_Loan\_issued

FROM bank\_loan

WHERE Loan\_Classification = 'GoodLoan'

****

**b. Percentage of Total Good Loan Applications**

SELECT

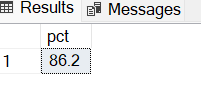
ROUND(

100 \*

CAST((SELECT COUNT(Loan\_Classification) as Good\_Loan\_applications FROM bank\_loan WHERE Loan\_Classification = 'GoodLoan') AS FLOAT)/

CAST((SELECT COUNT(id) as Total\_loan\_applications FROM bank\_loan) AS FLOAT), 1)

as pct

****

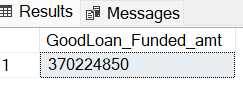
**c. Good Loan Funded amount**

SELECT

SUM(loan\_amount) as GoodLoan\_Funded\_amt

FROM bank\_loan

WHERE Loan\_Classification = 'GoodLoan'



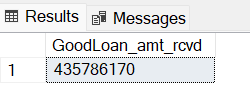
**d. Good Loan Total Received Amount**

SELECT

SUM(total\_payment) as GoodLoan\_amt\_rcvd

FROM bank\_loan

WHERE Loan\_Classification = 'GoodLoan'



**1.BAD LOAN**

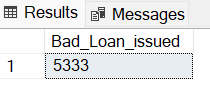
**a. Bad Loan issued**

SELECT

COUNT(Loan\_Classification) as Bad\_Loan\_issued

FROM bank\_loan

WHERE Loan\_Classification = 'BadLoan'

****

**b. Percentage of Total Bad Loan Applications**

SELECT

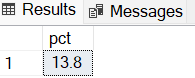
ROUND(

100 \*

CAST((SELECT COUNT(Loan\_Classification) as Good\_Loan\_applications FROM bank\_loan WHERE Loan\_Classification = 'BadLoan') AS FLOAT)/

CAST((SELECT COUNT(id) as Total\_loan\_applications FROM bank\_loan) AS FLOAT), 1)

as pct

****

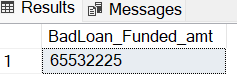
**c. Bad Loan Funded amount**

SELECT

SUM(loan\_amount) as BadLoan\_Funded\_amt

FROM bank\_loan

WHERE Loan\_Classification = 'BadLoan'

****

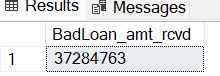
**d. Bad Loan Total Received Amount**

SELECT

SUM(total\_payment) as BadLoan\_amt\_rcvd

FROM bank\_loan

WHERE Loan\_Classification = 'BadLoan'



**LOAN STATUS GRID VIEW.**

SELECT

loan\_status,

COUNT(id) AS Total\_Applications,

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

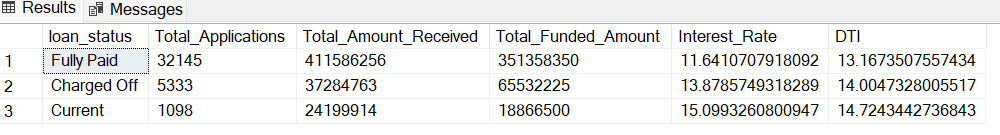
SUM(loan\_amount) AS Total\_Funded\_Amount,

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

AVG(dti \* 100) AS DTI

FROM bank\_loan

GROUP BY loan\_status

****

SELECT

loan\_status,

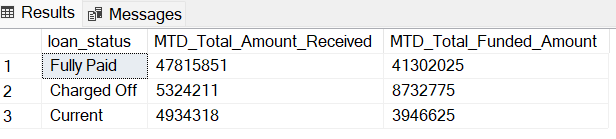
SUM(total\_payment) AS MTD\_Total\_Amount\_Received,

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

FROM bank\_loan

WHERE MONTH(issue\_date) = 12

GROUP BY loan\_status

****

1. **BANK LOAN REPORT | OVERVIEW**

**MONTH**

SELECT

MONTH(issue\_date) as Month\_number,

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

COUNT(id) as Total\_Applications,

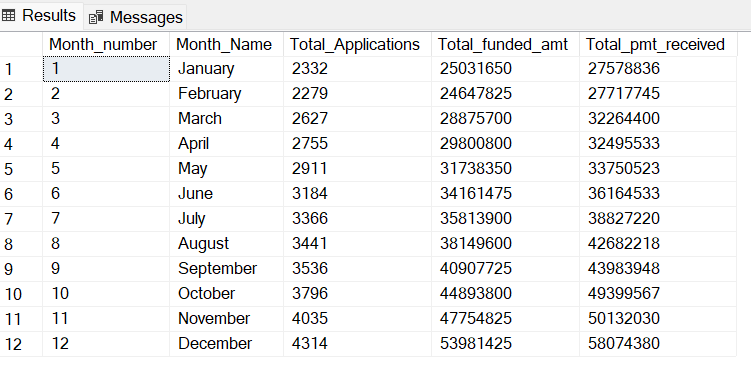
SUM(loan\_amount) as Total\_funded\_amt,

SUM(total\_payment) as Total\_pmt\_received

FROM bank\_loan

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

ORDER BY 1,2

****

**STATE**

SELECT

address\_state,

COUNT(id) as Total\_Applications,

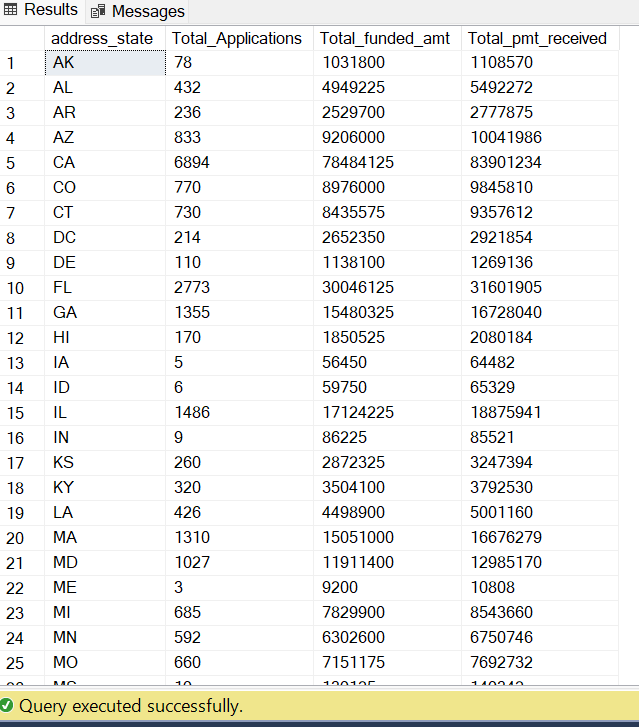
SUM(loan\_amount) as Total\_funded\_amt,

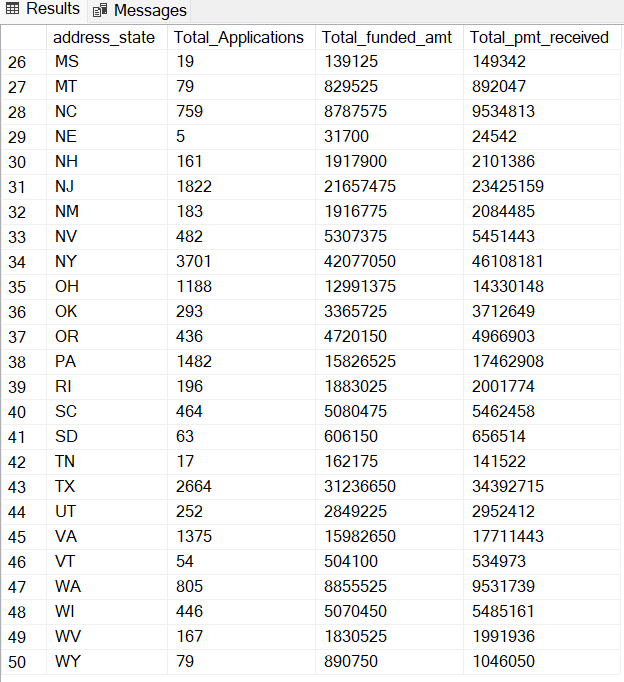
SUM(total\_payment) as Total\_pmt\_received

FROM bank\_loan

GROUP BY address\_state

ORDER BY 1

****

****

**TERM**

SELECT

term,

COUNT(id) as Total\_Applications,

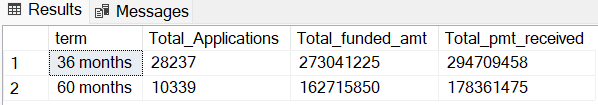
SUM(loan\_amount) as Total\_funded\_amt,

SUM(total\_payment) as Total\_pmt\_received

FROM bank\_loan

GROUP BY term

ORDER BY 1



**EMPLOYMENT LENGTH**

SELECT

emp\_length,

COUNT(id) as Total\_Applications,

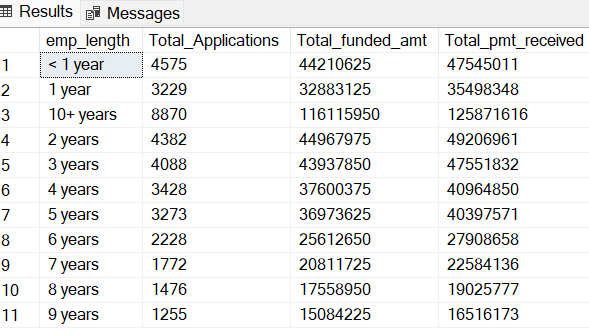
SUM(loan\_amount) as Total\_funded\_amt,

SUM(total\_payment) as Total\_pmt\_received

FROM bank\_loan

GROUP BY emp\_length

ORDER BY 1



**PURPOSE**

SELECT

purpose,

COUNT(id) as Total\_Applications,

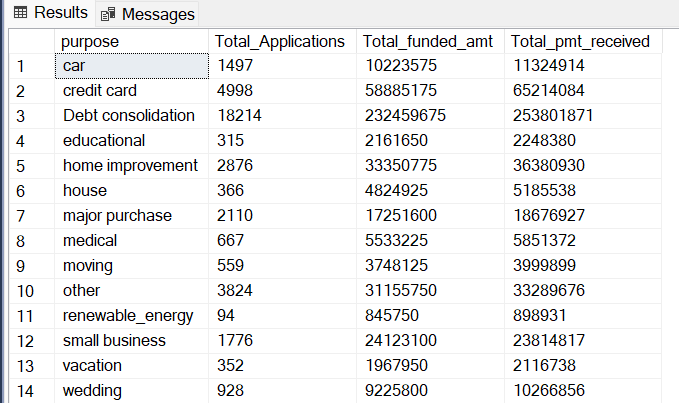
SUM(loan\_amount) as Total\_funded\_amt,

SUM(total\_payment) as Total\_pmt\_received

FROM bank\_loan

GROUP BY purpose

ORDER BY 1



**HOME OWNERSHIP**

SELECT

home\_ownership,

COUNT(id) as Total\_Applications,

SUM(loan\_amount) as Total\_funded\_amt,

SUM(total\_payment) as Total\_pmt\_received

FROM bank\_loan

GROUP BY home\_ownership

ORDER BY 1

