BANK LOAN ANALYSIS

QUERY DOCUMENT

**KPIs**

**Total Loan Applications**

SELECT COUNT (id) AS Total\_Loan\_Applications FROM bank\_loans



**Month-To-Date (MTD) Loan Applications**

SELECT COUNT (id) AS MTD\_Total\_Loan\_Applications

FROM bank\_loans

WHERE YEAR (issue\_date) = YEAR ('2021-12-31')

AND MONTH (issue\_date) = MONTH ('2021-12-31')

AND DAY (issue\_date) <= DAY ('2021-12-31')



**Previous Month-To-Date**

SELECT COUNT (id) AS PMTD\_Total\_Loan\_Applications

FROM bank\_loans

WHERE (YEAR (issue\_date) = YEAR (DATEADD (MONTH, -1, '2021-12-31'))

AND MONTH (issue\_date) = MONTH (DATEADD (MONTH, -1, '2021-12-31'))

AND DAY (issue\_date) <= DAY ('2021-12-31'))



**Total Funded Amount**

SELECT SUM (loan\_amount) AS Total\_Funded\_Amount FROM bank\_loans



**MTD Total Funded Amount**

SELECT SUM (loan\_amount) AS MTD\_Total\_Funded\_Amount FROM bank\_loans

WHERE YEAR (issue\_date) = YEAR ('2021-12-31')

AND MONTH (issue\_date) = MONTH ('2021-12-31')

AND DAY (issue\_date) <= DAY ('2021-12-31')



**PMTD Total Funded Amount**

SELECT SUM (loan\_amount) AS PMTD\_Total\_Funded\_Amount FROM bank\_loans

WHERE (YEAR (issue\_date) = YEAR (DATEADD (MONTH, -1, '2021-12-31'))

AND MONTH (issue\_date) = MONTH (DATEADD (MONTH, -1, '2021-12-31'))

AND DAY (issue\_date) <= DAY ('2021-12-31'))



**Total Loan Paid**

SELECT SUM (total\_payment) AS Total\_Loan\_Payment FROM bank\_loans



**MTD Total Loan Paid**

SELECT SUM (total\_payment) AS MTD\_Total\_Loan\_Payment FROM bank\_loans

WHERE YEAR (issue\_date) = YEAR ('2021-12-31')

AND MONTH (issue\_date) = MONTH ('2021-12-31')

AND DAY (issue\_date) <= DAY ('2021-12-31')

****

**PMTD Total Loan Paid**

SELECT SUM (total\_payment) AS PMTD\_ Total\_Loan\_Payment FROM bank\_loans

WHERE (YEAR (issue\_date) = YEAR (DATEADD (MONTH, -1, '2021-12-31'))

AND MONTH (issue\_date) = MONTH (DATEADD (MONTH, -1, '2021-12-31'))

AND DAY (issue\_date) <= DAY ('2021-12-31'))

****

**Average Interest Rate**

SELECT ROUND (AVG (int\_rate), 4)\*100 AS Avg\_Interest\_Rate FROM bank\_loans



**MTD Average Interest**

SELECT ROUND (AVG (int\_rate), 4)\*100 AS MTD\_Avg\_Interest\_Rate

FROM bank\_loans

WHERE YEAR (issue\_date) = YEAR ('2021-12-31')

AND MONTH (issue\_date) = MONTH ('2021-12-31')

AND DAY (issue\_date) <= DAY ('2021-12-31')



**PMTD Average Interest**

SELECT ROUND (AVG (int\_rate), 4)\*100 AS PMTD\_Avg\_Interest\_Rate FROM bank\_loans

WHERE (YEAR (issue\_date) = YEAR (DATEADD (MONTH, -1, '2021-12-31'))

AND MONTH (issue\_date) = MONTH (DATEADD (MONTH, -1, '2021-12-31'))

AND DAY (issue\_date) <= DAY ('2021-12-31'))



**Average Debt-To-Income Ratio (DTI)**

SELECT ROUND (AVG (dti), 4) \*100 AS Avg\_DTI FROM bank\_loans



**MTD Average DTI**

SELECT ROUND (AVG (dti), 4)\*100 AS MTD\_Avg\_DTI FROM bank\_loans

WHERE YEAR (issue\_date) = YEAR ('2021-12-31')

AND MONTH (issue\_date) = MONTH ('2021-12-31')

AND DAY (issue\_date) <= DAY ('2021-12-31')



**PMTD Average DTI**

SELECT ROUND (AVG (dti), 4) \*100 AS PMTD\_Avg\_DTI FROM bank\_loans

WHERE (YEAR (issue\_date) = YEAR (DATEADD (MONTH, -1, '2021-12-31'))

AND MONTH (issue\_date) = MONTH (DATEADD (MONTH, -1, '2021-12-31'))

AND DAY (issue\_date) <= DAY ('2021-12-31'))



**GOOD LOAN ISSUED**

**Good Loan Percentage**

SELECT ROUND (CAST (COUNT (CASE WHEN loan\_status = 'Fully Paid' OR loan\_status = 'Current' THEN id END) \*100.0

/ COUNT (id) AS DECIMAL (18, 2)), 2) AS Good\_Loan\_Percentage

FROM bank\_loans



**Good Loan Applications**

SELECT COUNT (id) AS Good\_Loan\_Applications FROM bank\_loans

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



**Good Loan Funded Amount**

SELECT SUM (loan\_amount) AS Good\_Loan\_Funded\_amount FROM bank\_loans

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



**Good Loan Payment**

SELECT SUM (total\_payment) AS Good\_Loan\_amount\_received FROM bank\_loans

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

****

**BAD LOAN ISSUED**

**Bad Loan Percentage**

SELECT ROUND (CAST (COUNT (CASE WHEN loan\_status = 'Charged Off' THEN id END) \* 100.0 /

COUNT (id) AS DECIMAL (18, 2)), 2) AS Bad\_Loan\_Percentage

FROM bank\_loans



**Bad Loan Applications**

SELECT COUNT (id) AS Bad\_Loan\_Applications FROM bank\_loans

WHERE loan\_status = 'Charged Off'

****

**Bad Loan Funded Amount**

SELECT SUM (loan\_amount) AS Bad\_Loan\_Funded\_amount FROM bank\_loans

WHERE loan\_status = 'Charged Off'



**Bad Loan Payment**

SELECT SUM (total\_payment) AS Bad\_Loan\_amount\_received FROM bank\_loans

WHERE loan\_status = 'Charged Off'



**LOAN STATUS**

SELECT

loan\_status

COUNT (id) AS Total\_Loan\_Applications,

SUM (total\_payment) AS Total\_Loan\_Paid,

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

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

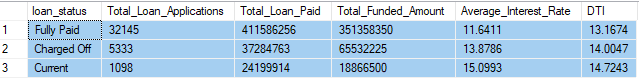
ROUND (AVG (dti \* 100), 4) AS Average\_DTI

FROM

bank\_loans

GROUP BY

loan\_status

****

**OVERVIEW**

**Monthly Trend**

SELECT

MONTH (issue\_date) AS Month\_Number,

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

COUNT (id) AS Total\_Loan\_Applications,

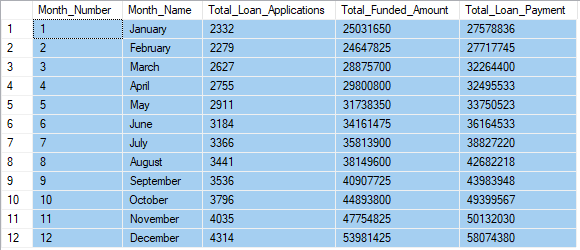
SUM (loan\_amount) AS Total\_Funded\_Amount,

SUM (total\_payment) AS Total\_Loan\_Payment

FROM bank\_loans

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

ORDER BY MONTH (issue\_date)



**State**

SELECT

address\_state AS State,

COUNT (id) AS Total\_Loan\_Applications,

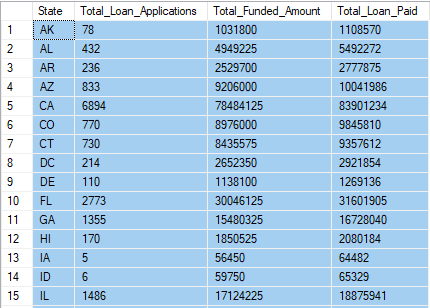
SUM (loan\_amount) AS Total\_Funded\_Amount,

SUM (total\_payment) AS Total\_Loan\_Paid

FROM bank\_loans

GROUP BY address\_state

ORDER BY address\_state

 *(truncated)*

**Term**

SELECT

term AS Term,

COUNT (id) AS Total\_Loan\_Applications,

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

SUM (total\_payment) AS Total\_Loan\_Paid

FROM bank\_loans

GROUP BY term

ORDER BY term



**Employee Length**

SELECT

emp\_length AS Employee\_Length,

COUNT (id) AS Total\_Loan\_Applications,

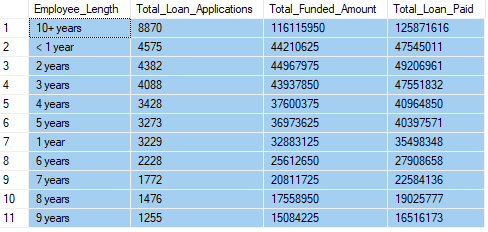
SUM (loan\_amount) AS Total\_Funded\_Amount,

SUM (total\_payment) AS Total\_Loan\_Paid

FROM bank\_loans

GROUP BY emp\_length

ORDER BY COUNT (id) DESC



**Purpose**

SELECT

purpose AS Purpose,

COUNT (id) AS Total\_Loan\_Applications,

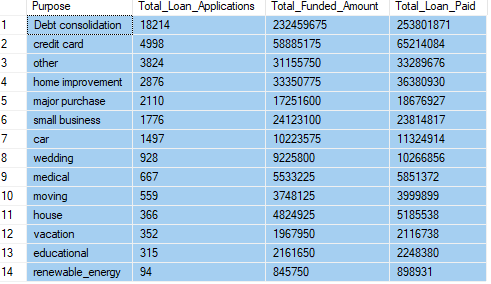
SUM (loan\_amount) AS Total\_Funded\_Amount,

SUM (total\_payment) AS Total\_Loan\_Paid

FROM bank\_loans

GROUP BY purpose

ORDER BY COUNT (id) DESC



**Home Ownership**

SELECT

home\_ownership AS Home\_Ownership,

COUNT (id) AS Total\_Loan\_Applications,

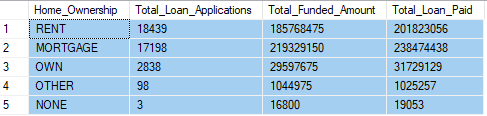
SUM (loan\_amount) AS Total\_Funded\_Amount,

SUM (total\_payment) AS Total\_Loan\_Paid

FROM bank\_loans

GROUP BY home\_ownership

ORDER BY COUNT (id)



*Note: We have applied multiple Filters on all the dashboards. You can check the results for the filters as well by modifying the query and comparing the results.*