**SQL QUERY DOCUMENT**

@EmpowerInc.

**Asma Aamir – Bank Loan Analysis Report**

**KPI’s:**

**Total Loan Applications**

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

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**MTD Loan Applications**

SELECT COUNT(id) AS MTD\_Total\_Loan\_Applications FROM bank\_loan\_data

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



**PMTD Loan Applications**  
SELECT COUNT(id) AS PMTD\_Total\_Loan\_Applications FROM bank\_loan\_data

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



**Total Funded Amount**

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



**MTD Total Funded Amount**

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

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



**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



**Total Amount Received**

SELECT SUM(total\_payment) AS Total\_Amount\_Collected FROM bank\_loan\_data



**MTD Total Amount Received**

SELECT SUM(total\_payment) AS MTD\_Total\_Amount\_Collected FROM bank\_loan\_data

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



**PMTD Total Amount Received**

SELECT SUM(total\_payment) AS PMTD\_Total\_Amount\_Collected FROM bank\_loan\_data

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

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**Average Interest Rate**

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



**MTD Average Interest**

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

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



**PMTD Average Interest**

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

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



**Avg DTI**

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



**MTD Avg DTI**

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

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



**PMTD Avg DTI**

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

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



**GOOD LOAN ISSUED:**

**Good Loan Percentage**

SELECT

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

COUNT(id) AS Good\_Loan\_Percentage

FROM bank\_loan\_data

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**Good Loan Applications**

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

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

****

**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'

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**Good Loan Amount Received**

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

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

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**BAD LOAN ISSUED:**

**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 Applications**

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

WHERE loan\_status = 'Charged Off'

****

**Bad Loan Funded Amount**

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

WHERE loan\_status = 'Charged Off'

****

**Bad Loan Amount Received**

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

WHERE loan\_status = 'Charged Off'

****

**LOAN STATUS:**

SELECT

loan\_status,

COUNT(id) AS LoanCount,

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

****

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

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**MONTH**

SELECT

MONTH(issue\_date) AS Month\_Munber,

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)

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**STATE**

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

****

**TERM**

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

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**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\_Amount\_Received

FROM bank\_loan\_data

GROUP BY emp\_length

ORDER BY emp\_length

****

**PURPOSE**

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

**A screenshot of a table

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**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\_Amount\_Received

FROM bank\_loan\_data

GROUP BY home\_ownership

ORDER BY home\_ownership

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*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.*

*For e.g*

*See the results when we hit the Grade A in the filters for dashboards.*

*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*

*WHERE grade = 'A'*

*GROUP BY purpose*

*ORDER BY purpose*