BANK LOAN ANALYSIS USING SQL - REPORT

**A. BANK LOAN REPORT | SUMMARY**

**KPI’s:**

**1. Total Loan Application**

**Sql query**

SELECT COUNT (id) AS total\_loan\_applicants

FROM bank\_loan\_data;

**Result/Output**

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**2. MTD Loan Applications**

**Sql query**

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

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT MAX(MONTH(issue\_date))

FROM bank\_loan\_data

);

**Result/Output**

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**3. PMTD Loan Applications**

**Sql query**

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

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT MAX(MONTH(issue\_date)) -1

FROM bank\_loan\_data

);

**Result/Output**

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**4. Total Funded Amount**

**Sql query**

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

FROM bank\_loan\_data;

**Result/Output**

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**5. MTD Total Funded Amount**

**Sql query**

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

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT MAX(MONTH(issue\_date))

FROM bank\_loan\_data

);

**Result/Output**

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**6. PMTD Total Funded Amount**

**Sql query**

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

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT MAX(MONTH(issue\_date)) - 1

FROM bank\_loan\_data

);

**Result/Output**

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**7. Total Amount Received**

**Sql query**

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

FROM bank\_loan\_data;

**Result/Output**

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**8. MTD Total Amount Received**

**Sql query**

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

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT MAX(MONTH(issue\_date))

FROM bank\_loan\_data

);

**Result/Output**

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**9. PMTD Total Amount Received**

**Sql query**

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

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT MAX(MONTH(issue\_date)) - 1

FROM bank\_loan\_data

);

**Result/Output**

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**10. Average Interest Rate**

**Sql query**

SELECT ROUND(AVG(int\_rate) \* 100,2) AS Avg\_Interest\_Rate

FROM bank\_loan\_data;

**Result/Output**

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**11. MTD Average Interest Rate**

**Sql query**

SELECT ROUND(AVG(int\_rate) \* 100,2) AS MTD\_Avg\_Interest\_Rate

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT MAX(MONTH(issue\_date))

FROM bank\_loan\_data

);

**Result/Output**

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**12. PMTD Average Interest Rate**

**Sql query**

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

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT MAX(MONTH(issue\_date)) - 1

FROM bank\_loan\_data

);

**Result/Output**

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**13. Average Debt to Income Ratio (DTI)**

**Sql query**

SELECT ROUND(AVG(dti) \* 100, 2) AS Avg\_DTI

FROM bank\_loan\_data;

**Result/Output**

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**14. MTD Debt to Income Ratio (DTI)**

**Sql query**

SELECT ROUND(AVG(dti) \* 100, 2) AS MTD\_Avg\_DTI

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT(MAX(MONTH(issue\_date)))

FROM bank\_loan\_data

);

**Result/Output**

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**15. PMTD Debt to Income Ratio (DTI)**

**Sql query**

SELECT ROUND(AVG(dti) \* 100, 2) AS PMTD\_Avg\_DTI

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

SELECT(MAX(MONTH(issue\_date))) - 1

FROM bank\_loan\_data

);

**Result/Output**

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**16. Total Good Loan Application**

**Sql query**

SELECT COUNT(id) AS Total\_Good\_Loan\_Applications

FROM bank\_loan\_data

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

**Result/Output**

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**17. Percentage of Good Loan**

**Sql query**

SELECT

ROUND(

(COUNT(CASE WHEN loan\_status IN ('Fully Paid', 'Current') THEN id END) \* 100 / COUNT(id)),

2

) AS Good\_loan\_applications\_percentage

FROM bank\_loan\_data;

**Result/Output**

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**18. Total Good Loan Funded Amount**

**Sql query**

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

FROM bank\_loan\_data

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

**Result/Output**

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**19. Total Bad Loan Applications**

**Sql query**

SELECT COUNT(id) AS Total\_Bad\_Loan\_Applications

FROM bank\_loan\_data

WHERE loan\_status = 'Charged Off';

**Result/Output**

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**20. Percentage of Bad Loan Applications**

**Sql query**

SELECT

ROUND(

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

2

) AS Bad\_loan\_percentage

FROM bank\_loan\_data;

**Result/Output**

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**21. Total Bad Loan Funded Amount**

**Sql query**

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

FROM bank\_loan\_data

WHERE loan\_status = 'Charged Off';

**Result/Output**

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**22. Summary by loan status**

**Sql query**

SELECT loan\_status,

COUNT(id) AS Total\_Loan\_Applications,

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

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

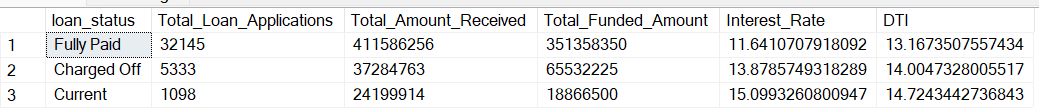
AVG(int\_rate \*100) AS Interest\_Rate,

AVG(dti \* 100) AS DTI

FROM bank\_loan\_data

GROUP BY loan\_status;

**Result/Output**

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**22. MTD Total Amount Funded, Total Amount Received by Loan Status**

**Sql query**

SELECT loan\_status,

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

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

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

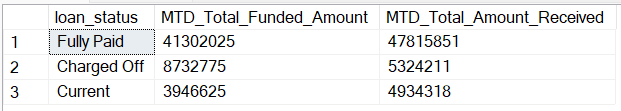
SELECT MAX(MONTH(issue\_date))

FROM bank\_loan\_data

)

GROUP BY loan\_status;

**Result/Output**

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**22. PMTD Total Amount Funded, Total Amount Received by Loan Status**

**Sql query**

SELECT loan\_status,

SUM(loan\_amount) AS PMTD\_Total\_Funded\_Amount,

SUM(total\_payment) AS PMTD\_Total\_Amount\_Received

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = (

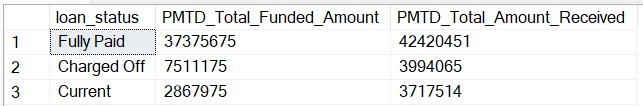
SELECT MAX(MONTH(issue\_date))

FROM bank\_loan\_data

) - 1

GROUP BY loan\_status;

**Result/Output**

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**B. BANK LOAN REPORT | OVERVIEW**

**1. Monthly Trend by Issue Date**

**Sql query**

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

MONTH(issue\_date) AS Month\_No,

COUNT(id) AS Total\_Loan\_Applications,

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

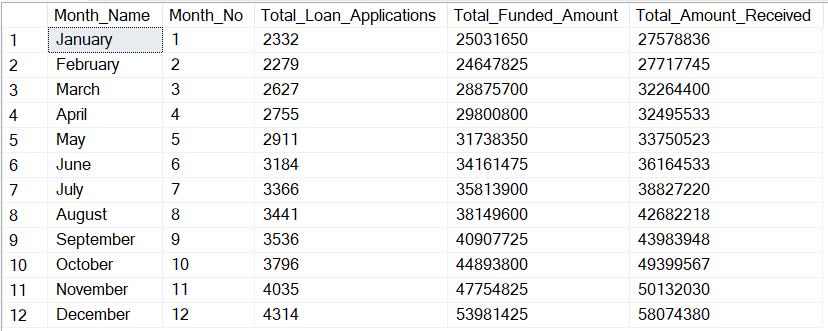
SUM(total\_payment) AS Total\_Amount\_Received

FROM bank\_loan\_data

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

ORDER BY Month\_No;

**Result/Output**

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**2. Regional Analysis by State**

**Sql query**

SELECT address\_state AS Region,

COUNT(id) AS Total\_Loan\_Applications,

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

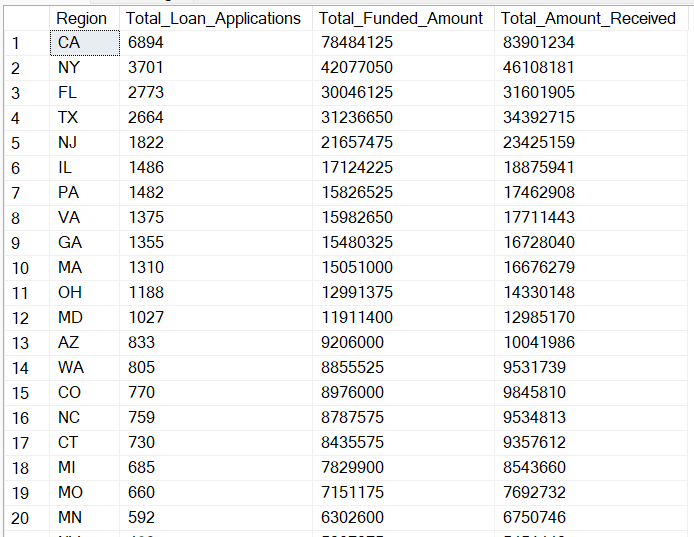
SUM(total\_payment) AS Total\_Amount\_Received

FROM bank\_loan\_data

GROUP BY address\_state

ORDER BY COUNT(id) DESC;

**Result/Output**

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**3. Loan Term Analysis**

**Sql query**

SELECT term AS Loan\_Term,

COUNT(id) AS Total\_Loan\_Applications,

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

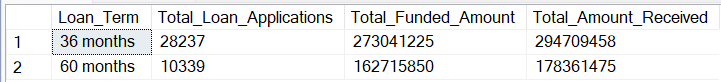
SUM(total\_payment) AS Total\_Amount\_Received

FROM bank\_loan\_data

GROUP BY term

ORDER BY term;

**Result/Output**

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**4. Employee Length Analysis**

**Sql query**

SELECT emp\_length,

COUNT(id) AS Total\_Loan\_Applications,

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

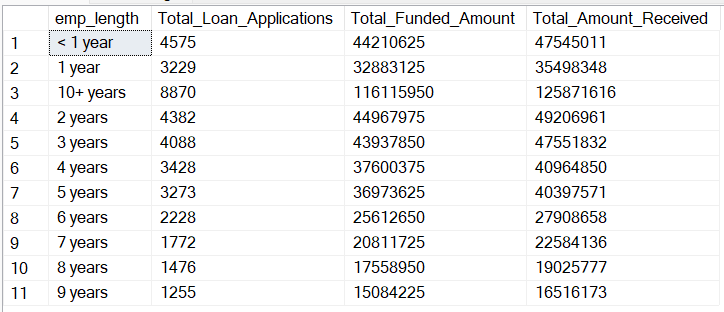
SUM(total\_payment) AS Total\_Amount\_Received

FROM bank\_loan\_data

GROUP BY emp\_length

ORDER BY emp\_length;

**Result/Output**

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**5. Loan Purpose Breakdown**

**Sql query**

SELECT purpose AS Loan\_Purpose,

COUNT(id) AS Total\_Loan\_Applications,

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

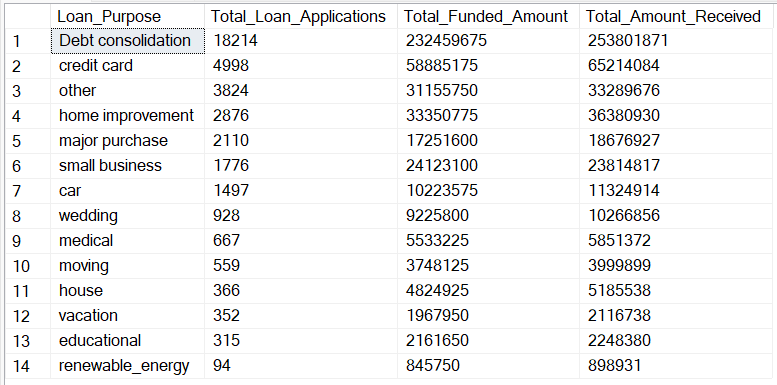
SUM(total\_payment) AS Total\_Amount\_Received

FROM bank\_loan\_data

GROUP BY purpose

ORDER BY COUNT(id) DESC;

**Result/Output**

****

**6. Home Ownership Analysis**

**Sql query**

SELECT home\_ownership,

COUNT(id) AS Total\_Loan\_Applications,

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

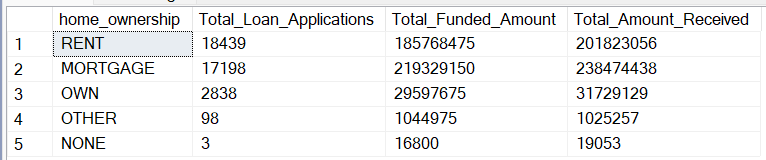
SUM(total\_payment) AS Total\_Amount\_Received

FROM bank\_loan\_data

GROUP BY home\_ownership

ORDER BY COUNT(id) DESC;

**Result/Output**

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