**BANK LOAN REPORT**

**KPI**

--Total Loan Application

select COUNT(id)as tot\_loan\_applications from bank\_loan\_data



-- Month on Month % changes in loan\_applications

**-- formula 100 \* (current count - previous count) / previous count**

SELECT

month,

loan\_applications,

CASE WHEN LAG(loan\_applications, 1) OVER (ORDER BY month) IS NOT NULL THEN

100 \* (loan\_applications - LAG(loan\_applications, 1) OVER (ORDER BY month)) / LAG(loan\_applications, 1) OVER (ORDER BY month)

ELSE NULL END AS pct\_change

FROM (

SELECT

MONTH(issue\_date) AS month,

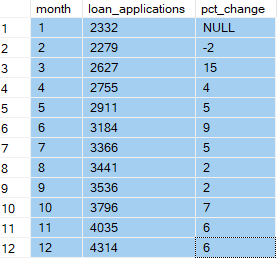
COUNT(id) AS loan\_applications

FROM bank\_loan\_data

GROUP BY MONTH(issue\_date)

) AS subquery

ORDER BY month;

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--- Total Funded Amount

select sum(loan\_amount) as total\_funded\_amount from bank\_loan\_data

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-- Get data for latest month

select sum(loan\_amount) as MTD\_funded\_amount from bank\_loan\_data

where MONTH(issue\_date) = 12

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-- Month on Month % changes in loan\_amount

SELECT

month,

monthly\_loan\_amount,

CASE WHEN LAG(monthly\_loan\_amount, 1) OVER (ORDER BY month) IS NOT NULL THEN

100 \* (monthly\_loan\_amount - LAG(monthly\_loan\_amount, 1) OVER (ORDER BY month)) / LAG(monthly\_loan\_amount, 1) OVER (ORDER BY month)

ELSE NULL END AS pct\_change

FROM (

SELECT

MONTH(issue\_date) AS month,

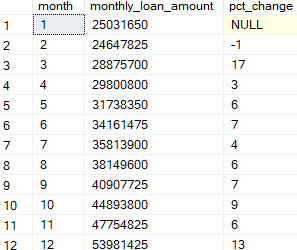
sum(loan\_amount) AS monthly\_loan\_amount

FROM bank\_loan\_data

GROUP BY MONTH(issue\_date)

) AS subquery

ORDER BY month



-- Total Recieved Amount

select sum(total\_payment)as Total\_amount\_recieved from bank\_loan\_data

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-- Month on Month % changes in Avg\_Int\_Rate

SELECT

month,

Total\_amount\_recieved,

CASE WHEN LAG(Total\_amount\_recieved, 1) OVER (ORDER BY month) IS NOT NULL THEN

100 \* (Total\_amount\_recieved - LAG(Total\_amount\_recieved, 1) OVER (ORDER BY month)) / LAG(Total\_amount\_recieved, 1) OVER (ORDER BY month)

ELSE NULL END AS pct\_change

FROM (

SELECT

MONTH(issue\_date) AS month,

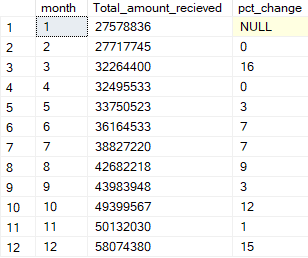
sum(total\_payment)as Total\_amount\_recieved

FROM bank\_loan\_data

GROUP BY MONTH(issue\_date)

) AS subquery

ORDER BY month;



-- Average Interest Rate

select ROUND(AVG(int\_rate)\*100,2) as Avg\_Int\_Rate from bank\_loan\_data

****

-- Month on Month % changes in Avg\_Int\_Rate

SELECT

month,

Avg\_Int\_Rate,

CASE WHEN LAG(Avg\_Int\_Rate, 1) OVER (ORDER BY month) IS NOT NULL THEN

100 \* (Avg\_Int\_Rate - LAG(Avg\_Int\_Rate, 1) OVER (ORDER BY month)) / LAG(Avg\_Int\_Rate, 1) OVER (ORDER BY month)

ELSE NULL END AS pct\_change

FROM (

SELECT

MONTH(issue\_date) AS month,

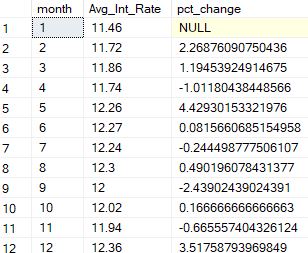
ROUND(AVG(int\_rate)\*100,2) as Avg\_Int\_Rate

FROM bank\_loan\_data

GROUP BY MONTH(issue\_date)

) AS subquery

ORDER BY month;

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-- Average Debt to income Ratio

select Round(AVG(dti)\*100,2) as Avg\_dti from bank\_loan\_data

****

-- Good Loan Application % (Good loan are Current and Fully Paid)

select

COUNT(Case when loan\_status IN('Fully Paid','Current') THEN id END) \*100 / COUNT(id) as Good\_Loan\_percentage

from bank\_loan\_data

****

-- Good loan Application

select count(id) as Good\_Loan\_Applications from bank\_loan\_data

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

****

--Good Loan Funded Amount

select sum(loan\_amount) as Good\_Loan\_Funded\_Amount from bank\_loan\_data

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

****

--Good Loan Total Recieved Amount

select sum(total\_payment) as Good\_Loan\_Recieved\_Amount from bank\_loan\_data

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

****

**By Dividing** Good Loan Funded Amount with Good Loan Total Recieved Amount **Bank is making profit of** **84.95%**

-- Bad Loan %

select

COUNT(Case when loan\_status IN('Charged Off') THEN id END) \*100 / COUNT(id) as Good\_Loan\_percentage

from bank\_loan\_data

****

-- Bad Loan Application

select count(id) as Good\_Loan\_Applications from bank\_loan\_data

where loan\_status IN ('Charged Off')

****

-- Bad Loan Funded Amount

select sum(loan\_amount) as Good\_Loan\_Funded\_Amount from bank\_loan\_data

where loan\_status IN ('Charged Off')

****

-- Bad Loan Total Recieved Amount

select sum(total\_payment) as Good\_Loan\_Recieved\_Amount from bank\_loan\_data

where loan\_status IN ('Charged Off')

****

**On BAD LOAN Bank is making LOSS of 175.76%**

-- Loan Status Grid View

select loan\_status, count(id) as Loan\_Applications,

sum(loan\_amount) as tot\_loan\_amt,

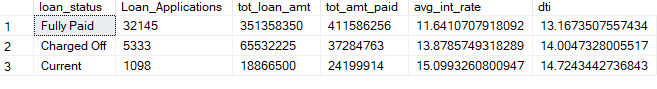
sum(total\_payment) as tot\_amt\_paid,

avg(int\_rate\*100) as avg\_int\_rate,

avg(dti \*100) as dti

from bank\_loan\_data

group by loan\_status

****

-- Monthly Trends by Issue Date

select MONTH(issue\_date)as Month\_Number,

DATENAME(month, issue\_date) as month,

count(id) as Loan\_Applications,

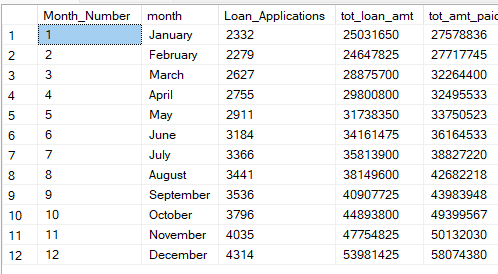
sum(loan\_amount) as tot\_loan\_amt,

sum(total\_payment) as tot\_amt\_paid

from bank\_loan\_data

group by DATENAME(month, issue\_date),MONTH(issue\_date)

order by MONTH(issue\_date)

****

-- Regional Analysis by State

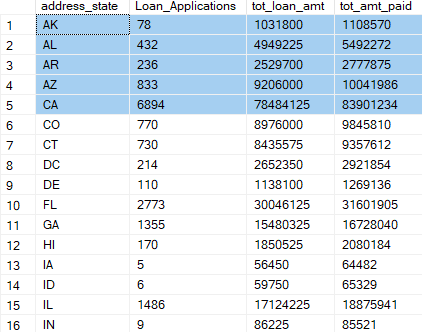
select address\_state,

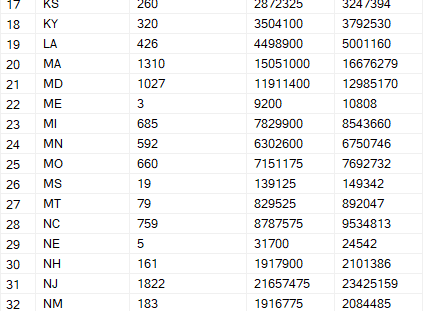
count(id) as Loan\_Applications,

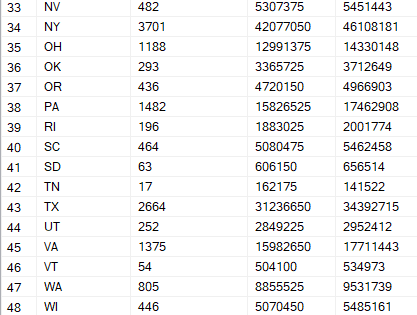
sum(loan\_amount) as tot\_loan\_amt,

sum(total\_payment) as tot\_amt\_paid

from bank\_loan\_data group by address\_state order by address\_state

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-- Loan Term Analysis

select term,count(id) as Loan\_Applications,

sum(loan\_amount) as tot\_loan\_amt,

sum(total\_payment) as tot\_amt\_paid

from bank\_loan\_data group by term order by term



-- Employee Length Analysis

select emp\_length,

count(id) as Loan\_Applications,

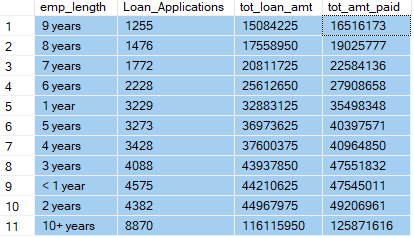
sum(loan\_amount) as tot\_loan\_amt,

sum(total\_payment) as tot\_amt\_paid

from bank\_loan\_data

group by emp\_length

order by tot\_loan\_amt

****

-- Loan Purpose Breakdown

select purpose,

count(id) as Loan\_Applications,

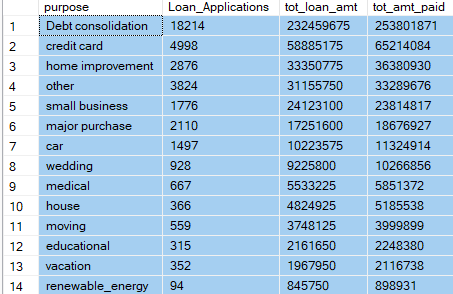
sum(loan\_amount) as tot\_loan\_amt,

sum(total\_payment) as tot\_amt\_paid

from bank\_loan\_data

group by purpose

order by tot\_loan\_amt DESC

****

-- Home Ownership Analysis

select home\_ownership,

count(id) as Loan\_Applications,

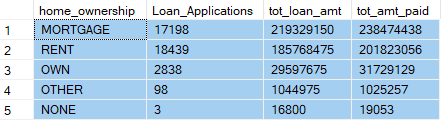
sum(loan\_amount) as tot\_loan\_amt,

sum(total\_payment) as tot\_amt\_paid

from bank\_loan\_data

group by home\_ownership

order by tot\_loan\_amt DESC

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