**BANK LOAN REPORT QUERY DOCUMENT**

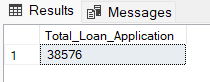
1. **BANK LOAN REPORT | SUMMARY**

KPI’s:

------------------------------------Summary Page------------------------------------

Total Loan Applications:

select count(\*) as Total\_Loan\_Application from bank\_loan\_data;



MTD Loan Applications:

select count(\*) as MTD\_Total\_Loan\_Application from bank\_loan\_data where MONTH(issue\_date) = (select MAX(MONTH(issue\_date)) from bank\_loan\_data);

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PMTD Loan Applications:

select count(\*) as Previous\_Month\_Applications from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date)-1) from bank\_loan\_data);

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MTM Total Loan Applications change:

with Current\_month\_application as

(select count(\*) as MTD\_Total\_Loan\_Application from bank\_loan\_data where MONTH(issue\_date) = (select MAX(MONTH(issue\_date)) from bank\_loan\_data)),

Previous\_month\_application as

(select count(\*) as Previous\_Month\_Applications from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date)-1) from bank\_loan\_data))

select CAST((100.0\*(MTD\_Total\_Loan\_Application-Previous\_Month\_Applications)/Previous\_Month\_Applications) as DECIMAL(10,2)) as Total\_MTM\_Growth

from Current\_month\_application,Previous\_month\_application;

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Total Funded Amount:

select ROUND(SUM(loan\_amount),2) as Total\_Funded\_Amount from bank\_loan\_data;

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MTD Total Funded Amount:

select ROUND(SUM(loan\_amount),2) as MTD\_Total\_Funded\_Amount from bank\_loan\_data where MONTH(issue\_date) = (select MAX(MONTH(issue\_date)) from bank\_loan\_data);

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PMTD Total Funded Amount:

select ROUND(SUM(loan\_amount),2) as PMTD\_Total\_Funded\_Amount from bank\_loan\_data where MONTH(issue\_date) = (select MAX(MONTH(issue\_date))-1 from bank\_loan\_data);

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MTM Total Fund Amount change:

with CM\_Fund\_Amount as

(select ROUND(SUM(loan\_amount),2) as MTD\_Total\_Funded\_Amount from bank\_loan\_data where MONTH(issue\_date) = (select MAX(MONTH(issue\_date)) from bank\_loan\_data)),

PM\_Fund\_Amount as

(select ROUND(SUM(loan\_amount),2) as PMTD\_Total\_Funded\_Amount from bank\_loan\_data where MONTH(issue\_date) = (select MAX(MONTH(issue\_date))-1 from bank\_loan\_data))

select CAST((100.0\*(MTD\_Total\_Funded\_Amount-PMTD\_Total\_Funded\_Amount)/PMTD\_Total\_Funded\_Amount) as DECIMAL(10,2)) as Total\_MTM\_Fund\_Growth

from CM\_Fund\_Amount,PM\_Fund\_Amount;

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Total Received Amount:

select ROUND(SUM(total\_payment),2) as Total\_Amount\_Received from bank\_loan\_data;

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MTD Total Received Amount:

select ROUND(SUM(total\_payment),2) as MTD\_Total\_Recieved from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date)) from bank\_loan\_data);

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PMTD Total Received Amount:

select ROUND(SUM(total\_payment),2) as PMTD\_Total\_Recieved from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date))-1 from bank\_loan\_data);

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MTM Total Received Amount:

with CM\_Recieve\_Amount as

(select ROUND(SUM(total\_payment),2) as MTD\_Total\_Received\_Amount from bank\_loan\_data where MONTH(issue\_date) = (select MAX(MONTH(issue\_date)) from bank\_loan\_data)),

PM\_Receive\_Amount as

(select ROUND(SUM(total\_payment),2) as PMTD\_Total\_Received\_Amount from bank\_loan\_data where MONTH(issue\_date) = (select MAX(MONTH(issue\_date))-1 from bank\_loan\_data))

select CAST((100.0\*(MTD\_Total\_Received\_Amount-PMTD\_Total\_Received\_Amount)/PMTD\_Total\_Received\_Amount) as DECIMAL(10,2)) as Total\_MTM\_Received\_Growth

from CM\_Recieve\_Amount,PM\_Receive\_Amount;

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Average Interest Rate:

select ROUND(100\*avg(int\_rate),2) as Average\_Interest\_Rate from bank\_loan\_data;

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MTD Average Interest Rate:

select ROUND(100\*avg(int\_rate),2) as MTD\_Average\_Interest\_Rate from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date)) from bank\_loan\_data);

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PMTD Average Interest Rate:

select ROUND(100\*avg(int\_rate),2) as PMTD\_Average\_Interest\_Rate from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date))-1 from bank\_loan\_data);

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MTM Average Interest Rate Change:

with CM\_Average\_Interest\_Rate as

(select ROUND(100\*avg(int\_rate),2) as MTD\_Average\_Interest\_Rate from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date)) from bank\_loan\_data)),

PM\_Average\_Interest\_Rate as

(select ROUND(100\*avg(int\_rate),2) as PMTD\_Average\_Interest\_Rate from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date))-1 from bank\_loan\_data))

select CAST((100.0\*(MTD\_Average\_Interest\_Rate-PMTD\_Average\_Interest\_Rate)/PMTD\_Average\_Interest\_Rate) as DECIMAL(10,2)) as MTM\_Average\_Interest\_Rate\_Growth

from CM\_Average\_Interest\_Rate,PM\_Average\_Interest\_Rate;

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Average Debt to Income Ratio:

select ROUND(100\*avg(dti),2) as Average\_DTI from bank\_loan\_data;

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MTD Debt to Income Ratio:

select ROUND(100\*avg(dti),2) as MTD\_Average\_DTI from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date)) from bank\_loan\_data);

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PMTD DTI:

select ROUND(100\*avg(dti),2) as PMTD\_Average\_DTI from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date))-1 from bank\_loan\_data);

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MTM DTI Change:

with CM\_Average\_DTI as

(select ROUND(100\*avg(dti),2) as MTD\_Average\_DTI from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date)) from bank\_loan\_data)),

PM\_Average\_DTI as

(select ROUND(100\*avg(dti),2) as PMTD\_Average\_DTI from bank\_loan\_data where MONTH(issue\_date)=(select MAX(MONTH(issue\_date))-1 from bank\_loan\_data))

select CAST((100.0\*(MTD\_Average\_DTI-PMTD\_Average\_DTI)/PMTD\_Average\_DTI) as DECIMAL(10,2)) as MTM\_Average\_DTI\_Growth

from CM\_Average\_DTI,PM\_Average\_DTI;

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Good Loan Applications:

select count(\*) as total\_good\_loan\_applications from bank\_loan\_data where loan\_status in ('fully paid','current');

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Good Loan Application Percentage:

with total\_application as

(select count(\*) as Total\_Loan\_Application from bank\_loan\_data),

good\_applications as

(select count(\*) as total\_good\_loan\_applications from bank\_loan\_data where loan\_status in ('fully paid','current'))

select CAST((100\*CAST(total\_good\_loan\_applications as DECIMAL(10,2))/CAST((Total\_Loan\_Application) as DECIMAL(10,2))) as DECIMAL(10,2))

as percentage\_of\_good\_loans from total\_application,good\_applications;

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Good Loan Funded Amount:

select ROUND(SUM(loan\_amount),2) as total\_good\_loan\_fund\_amount from bank\_loan\_data where loan\_status in ('fully paid','current');

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Good Loan Received Amount:

select ROUND(SUM(total\_payment),2) as total\_good\_loan\_recieved\_amount from bank\_loan\_data where loan\_status in ('fully paid','current');

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Total Bad Loan Applications:

select count(\*) as total\_bad\_loan\_applications from bank\_loan\_data where loan\_status='charged off';

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Bad Loan Applications Percentage:

with total\_application as

(select count(\*) as Total\_Loan\_Application from bank\_loan\_data),

bad\_applications as

(select count(\*) as total\_bad\_loan\_applications from bank\_loan\_data where loan\_status='charged off')

select CAST((100\*CAST(total\_bad\_loan\_applications as DECIMAL(10,2))/CAST((Total\_Loan\_Application) as DECIMAL(10,2))) as DECIMAL(10,2))

as percentage\_of\_bad\_loans from total\_application,bad\_applications;

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Bad Loan Funded Amount:

select ROUND(SUM(loan\_amount),2) as total\_bad\_loan\_fund\_amount from bank\_loan\_data where loan\_status='charged off';

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Bad Loan Received Amount:

select ROUND(SUM(total\_payment),2) as total\_bad\_loan\_received\_amount from bank\_loan\_data where loan\_status='charged off';

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Loan Status Grid View:

select loan\_status,COUNT(\*) as total\_loan\_application,SUM(loan\_amount) as total\_loan\_amount,SUM(total\_payment) as total\_amount\_received,

ROUND(100\*AVG(int\_rate),2) as average\_interest\_rate,ROUND(100\*AVG(dti),2) as average\_debt\_to\_income from bank\_loan\_data group by loan\_status;

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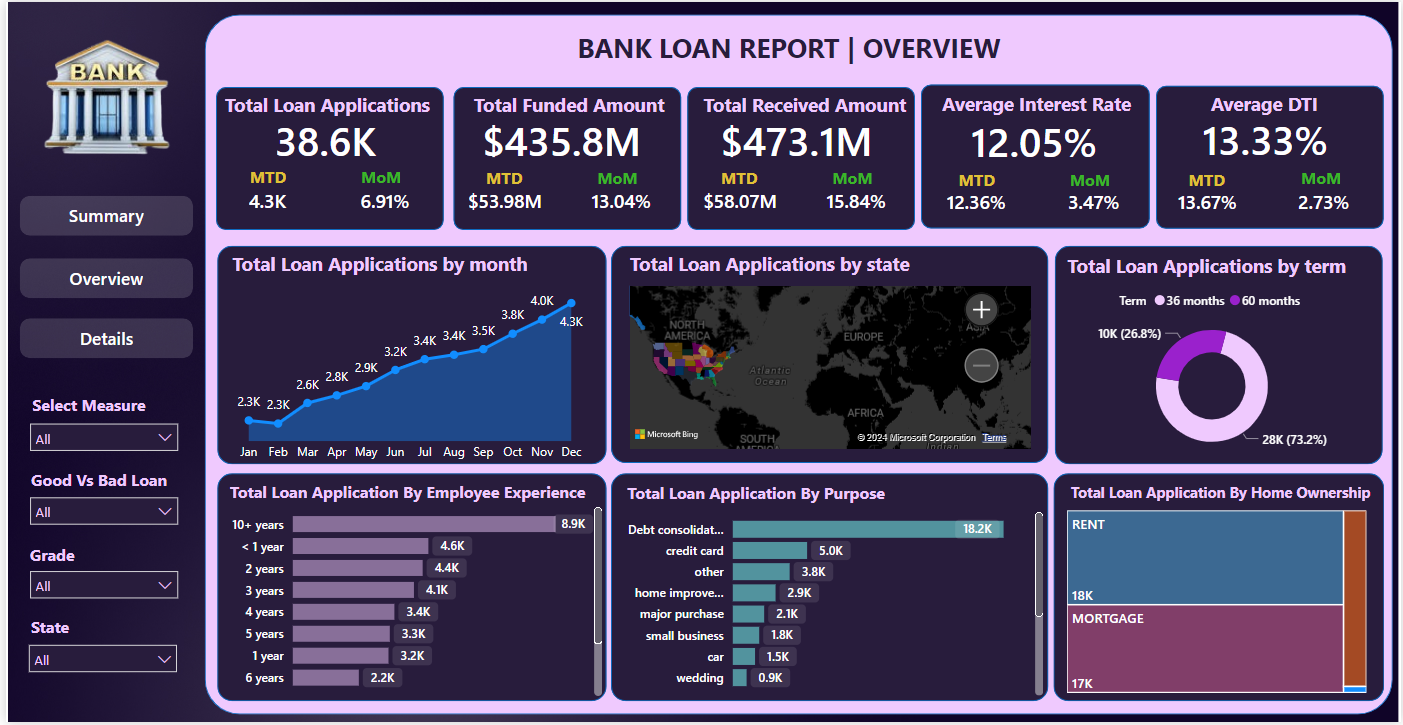
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select loan\_status,ROUND(SUM(loan\_amount),2) as MTD\_Total\_Funded\_Amount,ROUND(SUM(total\_payment),2) as MTD\_Total\_Recieved\_Amount from bank\_loan\_data where MONTH(issue\_date) = (select MAX(MONTH(issue\_date)) from bank\_loan\_data) group by loan\_status;

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-------------------------------------------Overview Page------------------------------------------



Total Loan Applications by Month:

select MONTH(issue\_date) as month\_no,DATENAME(MONTH,issue\_date) as month,COUNT(\*) as total\_applications ,

SUM(loan\_amount) as total\_funded\_amount,SUM(total\_payment) as total\_received\_amount

from bank\_loan\_data

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

order by MONTH(issue\_date);

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Total Loan Applications State Wise:

select address\_state as State,COUNT(\*) as total\_applications ,

SUM(loan\_amount) as total\_funded\_amount,SUM(total\_payment) as total\_received\_amount

from bank\_loan\_data

group by address\_state

order by total\_applications desc,total\_funded\_amount desc;

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Term Wise Percentage:

select term,COUNT(\*) as total\_applications ,

SUM(loan\_amount) as total\_funded\_amount,SUM(total\_payment) as total\_received\_amount,

(CASE

When term='36 months' then 100\*CAST((select count(\*) from bank\_loan\_data where term='36 months') as decimal(10,2))/CAST((select count(\*) from bank\_loan\_data ) as decimal(10,2))

When term='60 months' then 100\*CAST((select count(\*) from bank\_loan\_data where term='60 months') as decimal(10,2))/CAST((select count(\*) from bank\_loan\_data) as decimal(10,2))

END) as percentage\_of\_composition

from bank\_loan\_data

group by term;

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Employee Experience Wise:

select emp\_length,COUNT(\*) as total\_applications ,

SUM(loan\_amount) as total\_funded\_amount,SUM(total\_payment) as total\_received\_amount

from bank\_loan\_data

group by emp\_length

order by total\_applications desc , total\_funded\_amount desc;

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Purpose Wise:

select purpose,COUNT(\*) as total\_applications ,

SUM(loan\_amount) as total\_funded\_amount,SUM(total\_payment) as total\_received\_amount

from bank\_loan\_data

group by purpose

order by total\_applications desc , total\_funded\_amount desc;

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Home Ownership Wise:

select home\_ownership,COUNT(\*) as total\_applications ,

SUM(loan\_amount) as total\_funded\_amount,SUM(total\_payment) as total\_received\_amount

from bank\_loan\_data

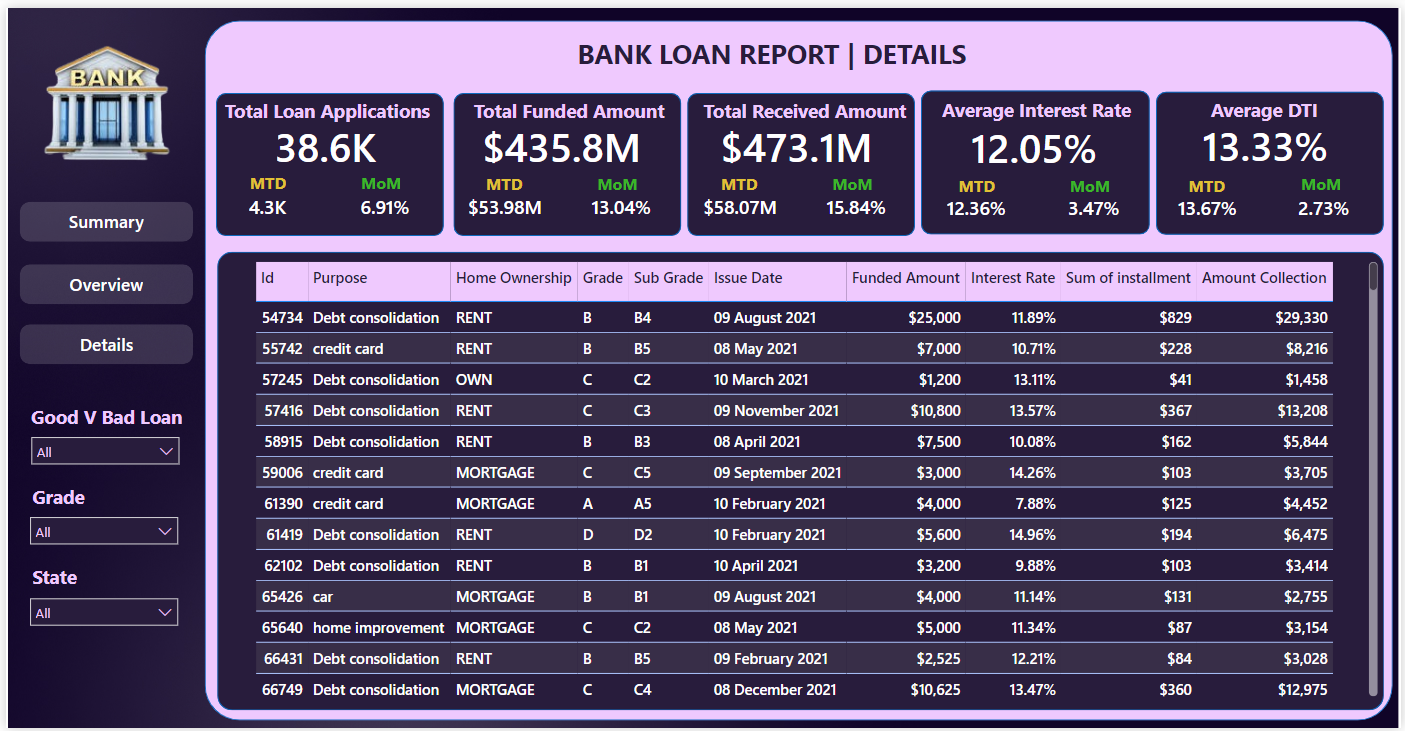
group by home\_ownership

order by total\_applications desc , total\_funded\_amount desc;

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----------------------------------Details Dashboard ----------------------------------------------

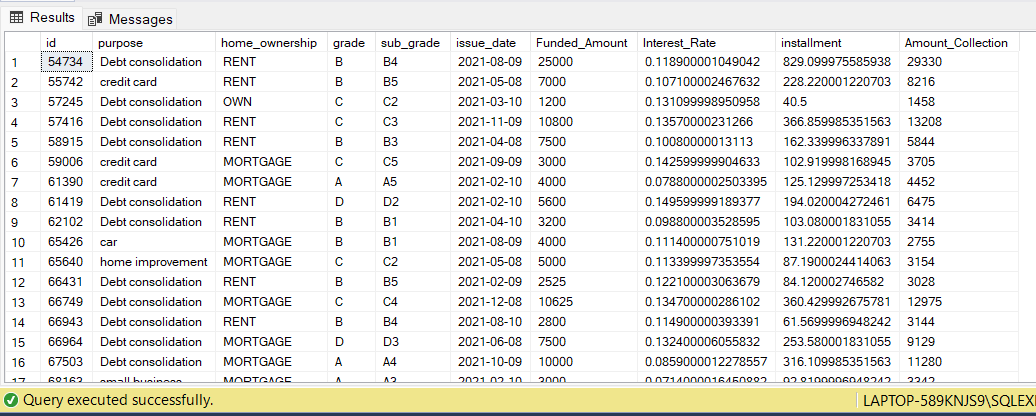


Details:

select id,purpose,home\_ownership,grade,sub\_grade,issue\_date,loan\_amount as Funded\_Amount,int\_rate as Interest\_Rate,installment,total\_payment as Amount\_Collection

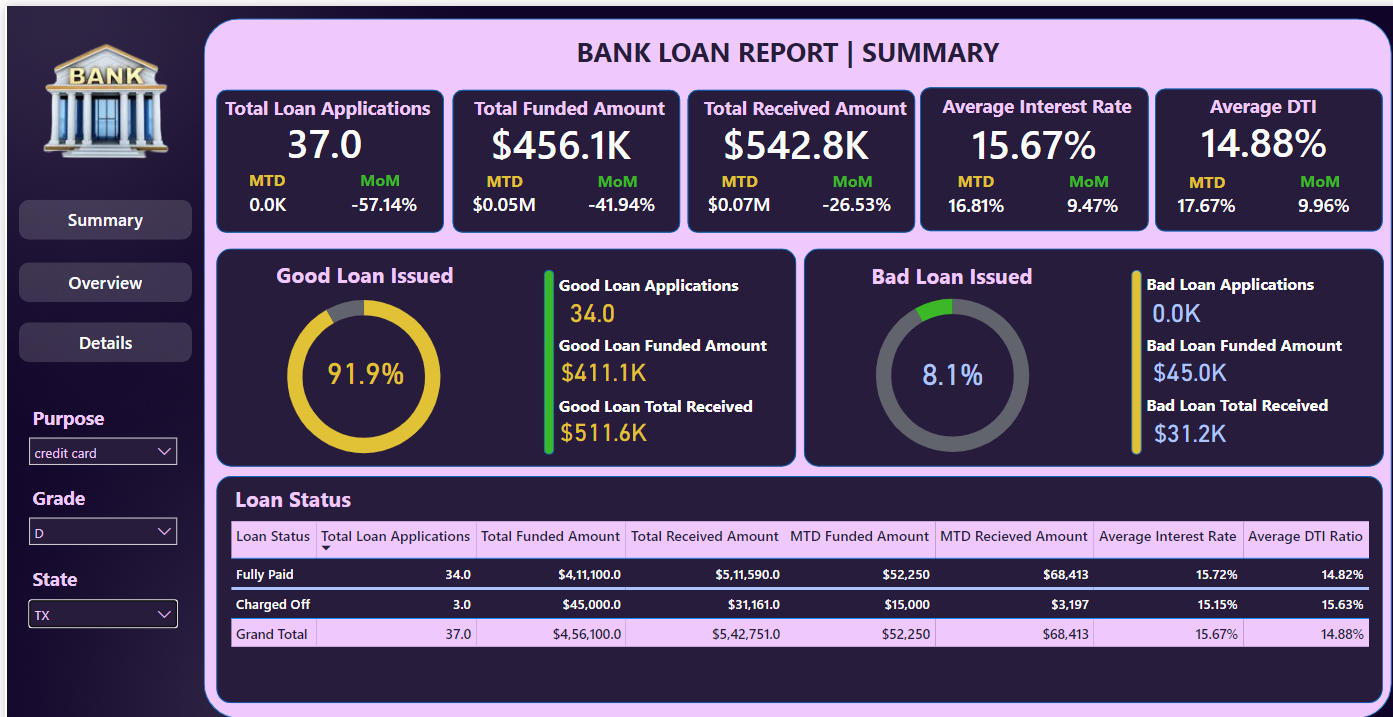
from bank\_loan\_data

order by id;



-------------------------------------------------Filters------------------------------------------------

1: Purpose Credit Card , Grade D , State – TX (Texas)



select COUNT(\*) as total\_applications ,SUM(loan\_amount) as Funded\_Amount , SUM(total\_payment) as Received\_Amount from bank\_loan\_data

group by purpose,grade,address\_state

having purpose='credit card' and grade='D' and address\_state='TX';

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2.Bad Loan , Grade C , Find Total Applications by purpose

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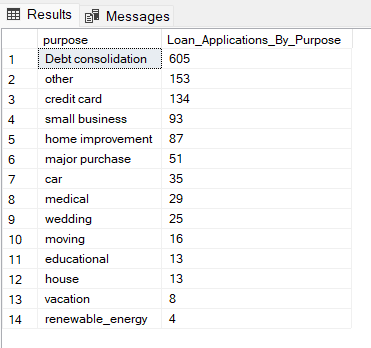
select purpose , COUNT(\*) as Loan\_Applications\_By\_Purpose from bank\_loan\_data

where loan\_status='charged off'

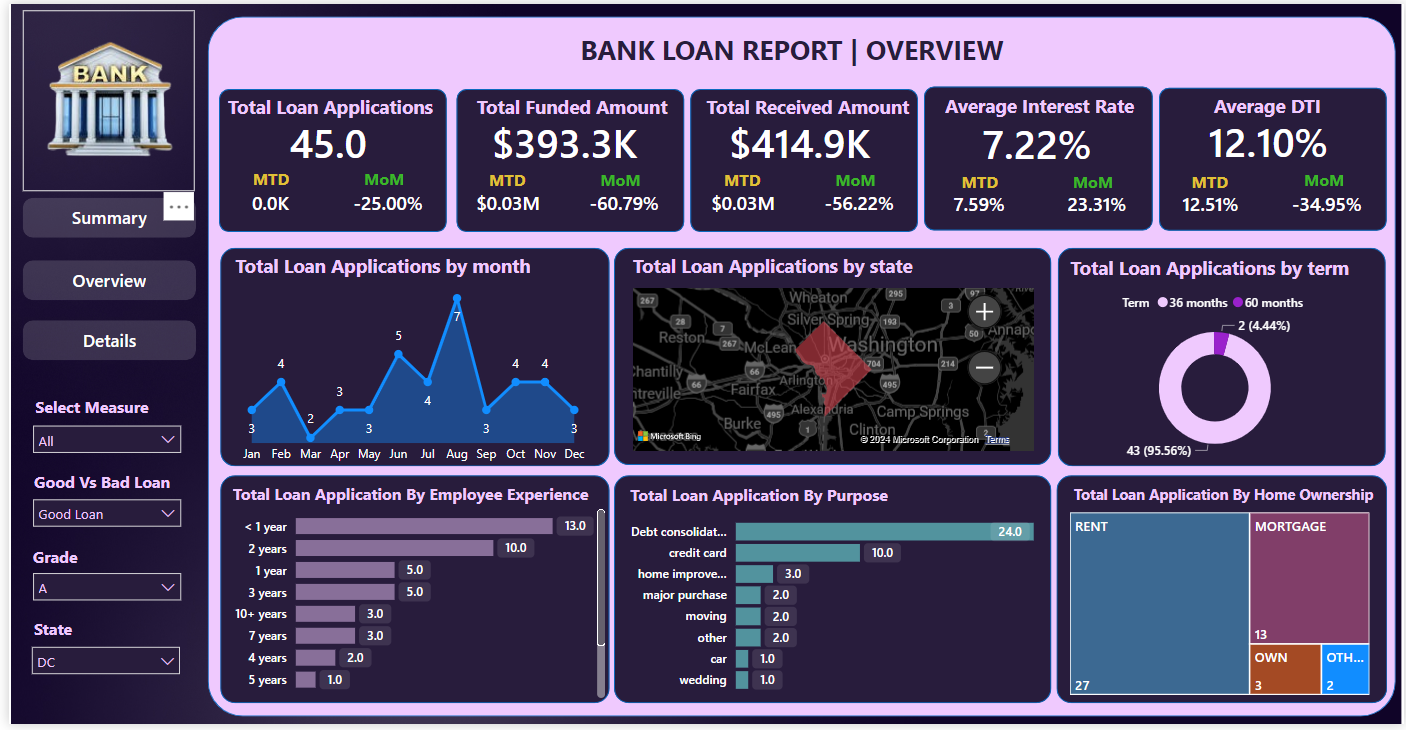
group by grade,purpose

having grade='C'

order by Loan\_Applications\_By\_Purpose desc;



3:Good Loan , Grade -A, State-DC, Find Total Loan Application by term



select term,COUNT(\*) as total\_loan\_applications\_by\_term from bank\_loan\_data

where loan\_status not in ('charged off')

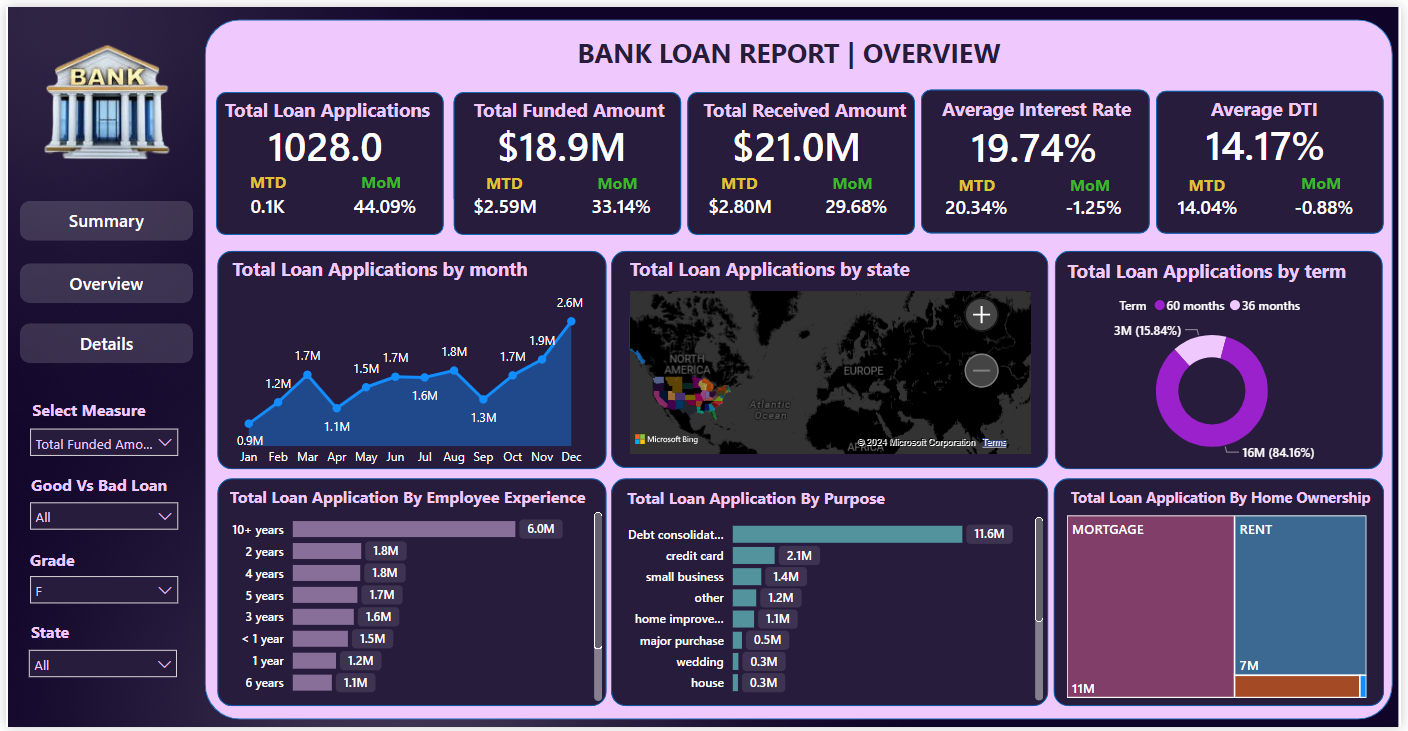
group by term,grade,address\_state

having grade='A' and address\_state='DC';

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4:Grade-F , Month on Month Funded Amount



select MONTH(issue\_date) as month\_no,DATENAME(MONTH,issue\_date) as month\_name ,SUM(loan\_amount) as funded\_amount from bank\_loan\_data

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

having grade='F'

order by month\_no;

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5:Bad Loan , Grade-G , State- CA , Find Details

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select id,purpose,home\_ownership,grade,sub\_grade,issue\_date,loan\_amount as Funded\_Amount,int\_rate as Interest\_Rate,installment,total\_payment as Amount\_Collection

from bank\_loan\_data

where grade='G' and address\_state='CA' and loan\_status='charged off'

order by id;

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Thanks For Reading

Regards

Dhruvik Detroja