**Bank Loan Analysis SQL Query Document**

**A. Bank Loan Summary:**

**Key Performance Indicators (KPIs)**

**1. Total Loan Applications:**

select COUNT(id) as [Total Applications] from Bank\_loan\_data



**MTD Applications:**

select COUNT(id) as [Total Applications\_MTD] from Bank\_loan\_data

where month(issue\_date) = 12 and YEAR(issue\_date) = 2021;

go

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**Month-over-month Applications:**

select COUNT(id) as [Total\_Applications\_Previous\_month] from Bank\_loan\_data

where YEAR(issue\_date) = 2021 and MONTH(issue\_date)= 11;

go

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**2. Total Funded Amount:**

select format(SUM(loan\_amount),'$ #,##0','en-US') as [Total Funded Amount] from Bank\_loan\_data

go



**Total Funded Amount MTD:**

select format(SUM(loan\_amount),'$ #,##0','en-US') as [Total Funded Amount\_MTD] from Bank\_loan\_data

where MONTH(issue\_date) = 12 and YEAR(issue\_date) = 2021;

go

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**Total Funded Amount MoM:**

SELECT FORMAT(SUM(loan\_amount), '$ #,##0', 'en-US') AS [Total Funded Amount (Previous\_month)]

FROM Bank\_loan\_data

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



**3. Total Amount Received:**

select FORMAT(sum(total\_payment),'$ #,##0','en-US') as [Total Payment Recieved ] from bank\_loan\_data

go



**Total Amount received MTD :**

select FORMAT(sum(total\_payment),'$ #,##0','en-US') as [Total Payment Recieved ] from bank\_loan\_data

where YEAR(issue\_date) = 2021 and MONTH(issue\_date) = 12

go



**Total Amount received MoM :**

select FORMAT(sum(total\_payment),'$ #,##0','en-US') as [Total Payment Recieved ] from bank\_loan\_data

where YEAR(issue\_date) = 2021 and MONTH(issue\_date) = 11

go



**4. Average Interest Rate:**

select ROUND(AVG(int\_rate),4)\*100 as [Average Interest Rate] from bank\_loan\_data

go



**Average Interest Rate MTD:**

select ROUND(AVG(int\_rate),4)\*100as [Average Interest Rate MTD] from bank\_loan\_data

where YEAR(issue\_date) = 2021 and MONTH(issue\_date) = 12

go



**Average Interest Rate MoM:**

select ROUND(AVG(int\_rate),4)\*100 as [Average Interest Rate MoM] from bank\_loan\_data

where YEAR(issue\_date) = 2021 and MONTH(issue\_date) = 11

go



**5. Average Debt to interest ratio:**

select ROUND(AVG(dti),4)\*100 as [Average DTI] from bank\_loan\_data

go



**Average Debt to interest ratio MTD:**

select ROUND(AVG(dti),4)\*100 as [Average DTI MTD] from bank\_loan\_data

where YEAR(issue\_date) = 2021 and MONTH(issue\_date) = 12

go



**Average Debt to interest ratio MoM:**

select ROUND(AVG(dti),4)\*100 as [Average DTI MoM] from bank\_loan\_data

where YEAR(issue\_date) = 2021 and MONTH(issue\_date) = 11

go

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**B. Good Loan Vs. Bad Loan KPIs:**

**Distinct Values in Loan Status:**

Select distinct loan\_status from Bank\_loan\_data

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**1. Good Loan KPIs:**

**Good Loan Applications Percentage :**

select ROUND(COUNT(case when loan\_status ='Fully Paid' OR loan\_status ='Current' then id end)\*100 /count(id),4) as [Good Loan Application Percentage]

from Bank\_loan\_data;

go



**Good laon Applications**

select COUNT(id) as [Total Good Laon Applications] from Bank\_loan\_data

where loan\_status= 'Fully Paid' or loan\_status = 'Current'

go



**Good Loan Funded Amount:**

select Format((SUM(loan\_amount)),'$ #,##0', 'es-Us') as [Total Amount Disburshed for Good Loans] from Bank\_loan\_data

where loan\_status= 'Fully Paid' or loan\_status = 'Current'

go



**Good Loan Total Received Amount:**

select Format((SUM(loan\_amount)),'$ #,##0', 'es-Us') as [Total Amount Received for Good Loans] from Bank\_loan\_data

where loan\_status= 'Fully Paid' or loan\_status = 'Current'

go



**2. Bad Loans KPIs:**

**Bad Loan Application Percentage:**

select ROUND(COUNT(case when loan\_status ='Charged Off' then id end)\*100 /count(id),4) as [Bad Loan Application Percentage]

from Bank\_loan\_data;

go



**Bad laon Applications:**

select COUNT(id) as [Total Bad Laon Applications] from Bank\_loan\_data

where loan\_status= 'Charged Off';

go



**Bad Loan Funded Amount:**

select Format((SUM(loan\_amount)),'$ #,##0', 'es-Us') as [Total Amount Disbursed for Bad Loans] from Bank\_loan\_data

where loan\_status= 'Charged Off';

go



**Bad Loan Total Received Amount:**

select Format((SUM(loan\_amount)),'$ #,##0', 'es-Us') as [Total Amount Received for Bad Loans] from Bank\_loan\_data

where loan\_status= 'Charged Off';

go



**C. Loan Status Overview:**

**Loan Status Analysis:**

SELECT

loan\_status,

COUNT(id) AS [Total Loan Application],

SUM(total\_payment) AS [Total Amount Received],

SUM(loan\_amount) AS [Total Amount Disbursed],

AVG(int\_rate \* 100) AS [Interest Rate],

AVG(dti \* 100) AS DTI

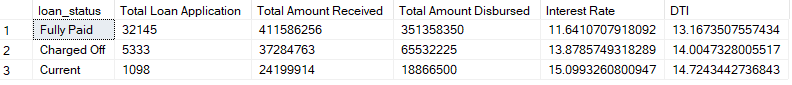
FROM

bank\_loan\_data

GROUP BY

loan\_status

go



**MTD Loan Status Analysis:**

SELECT

loan\_status,

SUM(total\_payment) AS [MTD Total Amount Received],

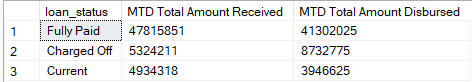
SUM(loan\_amount) AS [MTD Total Amount Disbursed]

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 12

GROUP BY loan\_status

Go

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**D. BANK LOAN REPORT/ OVERVIEW:**

**Monthly overview.**

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],

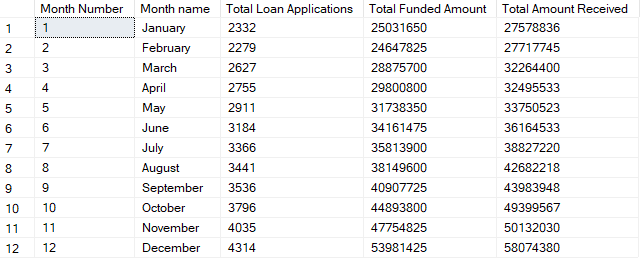
SUM(total\_payment) AS [Total Amount Received]

FROM bank\_loan\_data

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

ORDER BY MONTH(issue\_date)

Go



**Statewise Overview:**

SELECT

address\_state AS State,

COUNT(id) AS [Total Loan Applications],

SUM(loan\_amount) AS [Total Funded Amount],

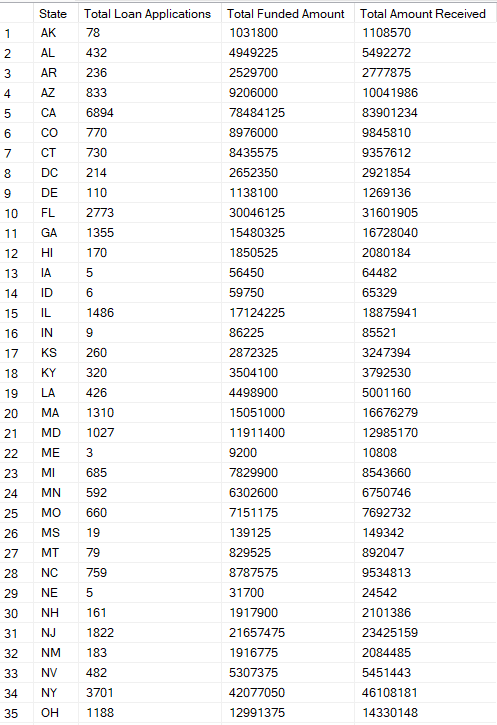
SUM(total\_payment) AS [Total Amount Received]

FROM bank\_loan\_data

GROUP BY address\_state

ORDER BY address\_state

go



**Term wise overview:**

SELECT

term AS Term,

COUNT(id) AS [Total Loan Applications],

SUM(loan\_amount) AS [Total Funded Amount],

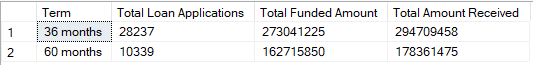
SUM(total\_payment) AS [Total Amount Received]

FROM bank\_loan\_data

GROUP BY term

ORDER BY term

go



**Employee Length wise Overview:**

SELECT

emp\_length AS [Employee Length],

COUNT(id) AS [Total Loan Applications],

SUM(loan\_amount) AS [Total Funded Amount],

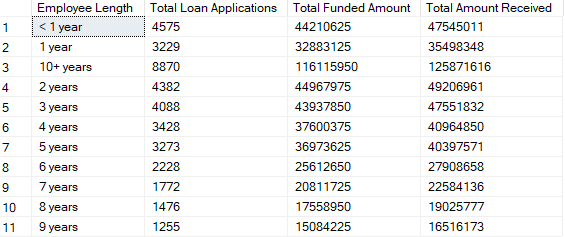
SUM(total\_payment) AS [Total Amount Received]

FROM bank\_loan\_data

GROUP BY emp\_length

ORDER BY emp\_length

Go



**Purpose wise Overview:**

SELECT

purpose AS PURPOSE,

COUNT(id) AS [Total Loan Applications],

SUM(loan\_amount) AS [Total Funded Amount],

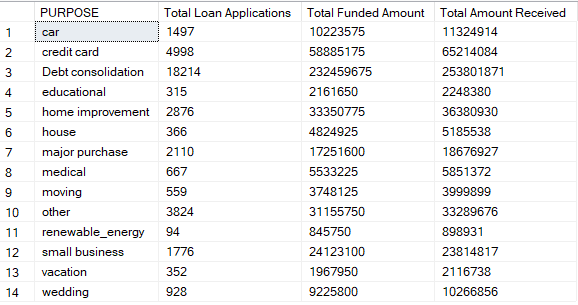
SUM(total\_payment) AS [Total Amount Received]

FROM bank\_loan\_data

GROUP BY purpose

ORDER BY purpose

go



**Homeownership Overview:**

SELECT

home\_ownership AS Home\_Ownership,

COUNT(id) AS [Total Loan Applications],

SUM(loan\_amount) AS [Total Funded Amount],

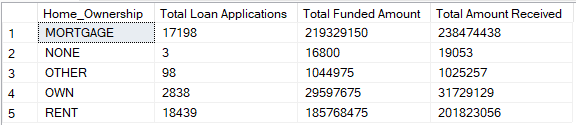
SUM(total\_payment) AS [Total Amount Received]

FROM bank\_loan\_data

GROUP BY home\_ownership

ORDER BY home\_ownership

go

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*Note: This document has been created to validate the Tableau dashboard. The project is intended for learning purposes and is inspired by Data Tutorials.*