**SQL Query Code and Result**

## SQL Code:

SELECT \* FROM bank\_loan\_data

/\* ------------ Dashboard 1: Summary------------ \*/  
/\* -----KPI's------ \*/  
**1. Total Loan Applications**  
SELECT COUNT(id) Total\_Applications  
FROM bank\_loan\_data

  
  
--MTD Loan Applications  
SELECT COUNT(id) MTD\_Total\_Applications  
FROM bank\_loan\_data  
WHERE MONTH(issue\_date) = 12

  
  
--PMTD Loan Applications  
SELECT COUNT(id) AS PMTD\_Total\_Applications FROM bank\_loan\_data  
WHERE MONTH(issue\_date) = 11

  
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**2.Total Funded Amount**  
SELECT SUM(loan\_amount) Total\_Funded\_Amount  
FROM bank\_loan\_data



--MTD Loan Applications  
SELECT SUM(loan\_amount) 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



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**3.Total Amount Received**SELECT SUM(total\_payment) Total\_Amount\_Received  
FROM bank\_loan\_data



--MTD Total Amount Received  
SELECT SUM(total\_payment) AS MTD\_Total\_Amount\_Received FROM bank\_loan\_data  
WHERE MONTH(issue\_date) = 12



--PMTD Total Amount Received  
SELECT SUM(total\_payment) AS PMTD\_Total\_Amount\_Received FROM bank\_loan\_data  
WHERE MONTH(issue\_date) = 11

  
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**4. Average Interest Rate**  
SELECT ROUND(AVG(int\_rate),4)\*100 As Average\_Interest\_Rate  
FROM bank\_loan\_data



--MTD Average Interest  
SELECT AVG(int\_rate)\*100 AS MTD\_Avg\_Int\_Rate FROM bank\_loan\_data  
WHERE MONTH(issue\_date) = 12



--PMTD Average Interest  
SELECT AVG(int\_rate)\*100 AS PMTD\_Avg\_Int\_Rate FROM bank\_loan\_data  
WHERE MONTH(issue\_date) = 11



**5.Average Debt-to-Income Ratio (DTI)**  
SELECT ROUND(AVG(dti),4)\*100 Average\_DTI  
FROM bank\_loan\_data



--MTD Avg DTI  
SELECT AVG(dti)\*100 AS MTD\_Avg\_DTI FROM bank\_loan\_data  
WHERE MONTH(issue\_date) = 12



--PMTD Avg DTI  
SELECT AVG(dti)\*100 AS PMTD\_Avg\_DTI FROM bank\_loan\_data  
WHERE MONTH(issue\_date) = 11



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/\* ------------Good Loan Issued-----------\*/  
**1. Good Loan Percentage**  
SELECT   
 (COUNT(CASE WHEN loan\_status = 'Fully paid' OR loan\_status = 'Current'  
 THEN id END)\*100)  
 / COUNT(id) Good\_Loan\_Percentage  
FROM bank\_loan\_data

  
  
**2. Good Loan Applications**  
SELECT COUNT(id) Good\_Loan\_Applications  
FROM bank\_loan\_data  
WHERE loan\_status = 'Fully paid' OR loan\_status = 'Current'

  
  
**3.Good Loan Funded Amount**  
SELECT SUM(loan\_amount) Good\_Loan\_Funded\_Amount  
FROM bank\_loan\_data  
WHERE loan\_status = 'Fully paid' OR loan\_status = 'Current'

  
  
**4.Good Loan Amount Received**  
SELECT SUM(total\_payment) Good\_Loan\_Amount\_Received  
FROM bank\_loan\_data  
WHERE loan\_status = 'Fully paid' OR loan\_status = 'Current'



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/\* ------------Bad Loan Issued-----------\*/  
**1. Bad Loan Percentage**  
SELECT   
 (COUNT(CASE WHEN loan\_status = 'Charged Off' THEN id END)\*100)  
 / COUNT(id) Bad\_Loan\_Percentage  
FROM bank\_loan\_data

  
  
**2. Bad Loan Applications**  
SELECT COUNT(id) Bad\_Loan\_Applications  
FROM bank\_loan\_data  
WHERE loan\_status = 'Charged Off'

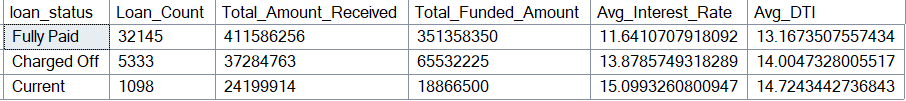
  
  
**3.Bad Loan Funded Amount**SELECT SUM(loan\_amount) Bad\_Loan\_Funded\_Amount  
FROM bank\_loan\_data  
WHERE loan\_status = 'Charged Off'

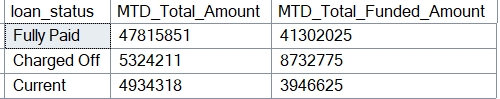
  
  
**4.Bad Loan Amount Received**SELECT SUM(total\_payment) Bad\_Loan\_Amount\_Received  
FROM bank\_loan\_data  
WHERE loan\_status = 'Charged Off'



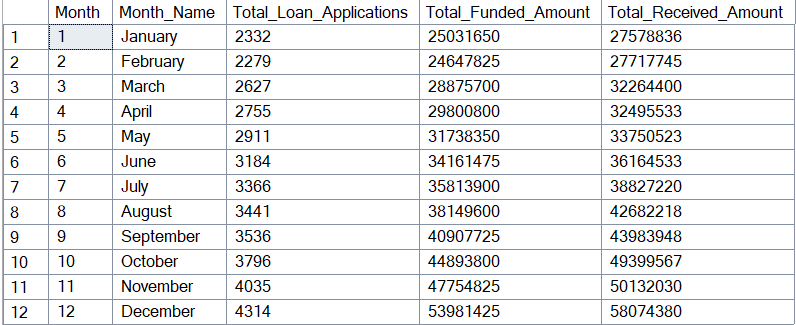
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/\* ----------Loan Status-------------- \*/  
SELECT   
 loan\_status,  
 COUNT(id)Loan\_Count,  
 SUM(total\_payment) Total\_Amount\_Received,   
 SUM(loan\_amount) Total\_Funded\_Amount,  
 AVG(int\_rate)\*100 Avg\_Interest\_Rate,  
 AVG(dti)\*100 Avg\_DTI  
FROM bank\_loan\_data  
GROUP BY loan\_status

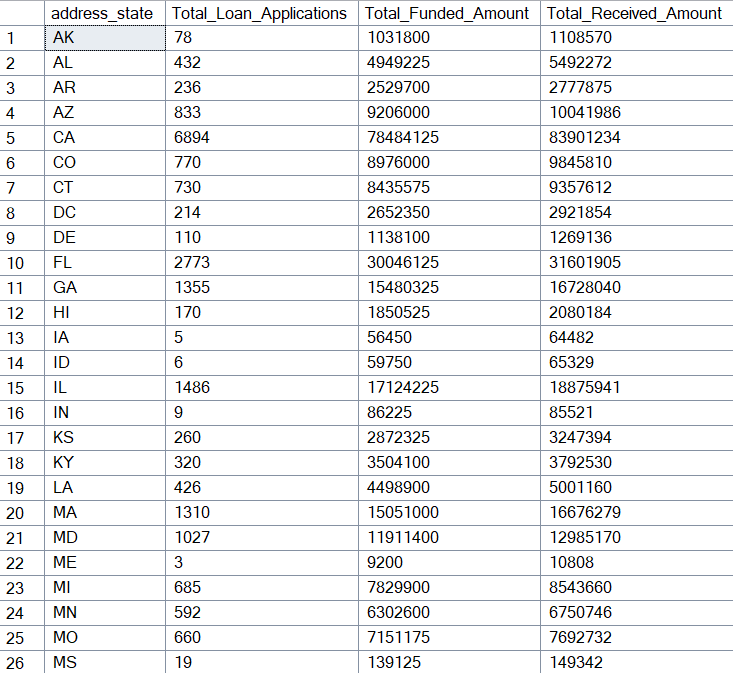
  
  
SELECT   
 loan\_status,  
 SUM(total\_payment) MTD\_Total\_Amount,  
 SUM(loan\_amount) MTD\_Total\_Funded\_Amount  
FROM bank\_loan\_data  
WHERE MONTH(issue\_date) = 12  
GROUP BY loan\_status



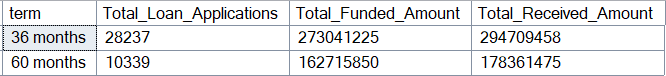
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/\* ------------ Dashboard 2: Overview ------------ \*/  
**1.Monthly Trends by Issue Date**SELECT   
 MONTH(issue\_date) Month,  
 DATENAME(MONTH, issue\_date) Month\_Name,  
 COUNT(id) Total\_Loan\_Applications,  
 SUM(loan\_amount) Total\_Funded\_Amount,  
 SUM(total\_payment) Total\_Received\_Amount  
FROM bank\_loan\_data  
GROUP BY MONTH(issue\_date), DATENAME(MONTH, issue\_date)  
ORDER BY MONTH(issue\_date)

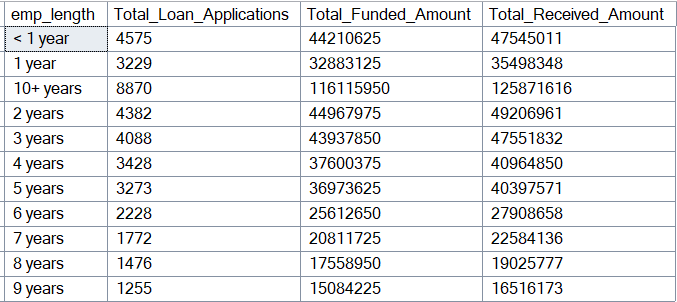


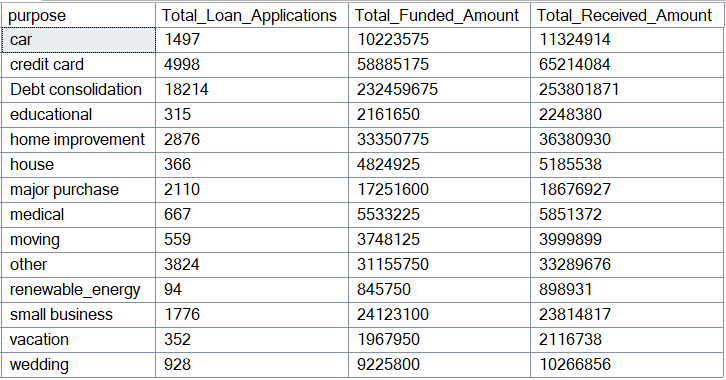
**2.Regional Analysis by State**SELECT   
 address\_state,  
 COUNT(id) Total\_Loan\_Applications,  
 SUM(loan\_amount) Total\_Funded\_Amount,  
 SUM(total\_payment) Total\_Received\_Amount  
FROM bank\_loan\_data  
GROUP BY address\_state  
ORDER BY address\_state

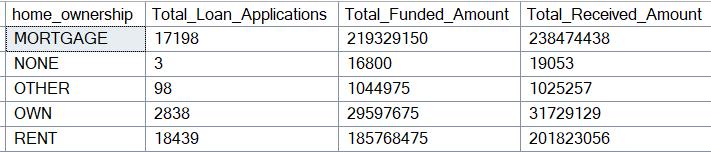


**3.Loan Term Analysis**  
SELECT   
 term,  
 COUNT(id) Total\_Loan\_Applications,  
 SUM(loan\_amount) Total\_Funded\_Amount,  
 SUM(total\_payment) Total\_Received\_Amount  
FROM bank\_loan\_data  
GROUP BY term  
ORDER BY term

  
  
**4.Employee Length Analysis**  
SELECT   
 emp\_length,  
 COUNT(id) Total\_Loan\_Applications,  
 SUM(loan\_amount) Total\_Funded\_Amount,  
 SUM(total\_payment) Total\_Received\_Amount  
FROM bank\_loan\_data  
GROUP BY emp\_length  
ORDER BY emp\_length

  
  
**5.Loan Purpose Breakdown**   
SELECT   
 purpose,  
 COUNT(id) Total\_Loan\_Applications,  
 SUM(loan\_amount) Total\_Funded\_Amount,  
 SUM(total\_payment) Total\_Received\_Amount  
FROM bank\_loan\_data  
GROUP BY purpose  
ORDER BY purpose

  
  
--6.Home Ownership Analysis   
SELECT   
 home\_ownership,  
 COUNT(id) Total\_Loan\_Applications,  
 SUM(loan\_amount) Total\_Funded\_Amount,  
 SUM(total\_payment) Total\_Received\_Amount  
FROM bank\_loan\_data  
GROUP BY home\_ownership  
ORDER BY home\_ownership



*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) Total\_Loan\_Applications,

SUM(loan\_amount) Total\_Funded\_Amount,  
 SUM(total\_payment) Total\_Received\_Amount

FROM bank\_loan\_data

WHERE grade = 'A'

GROUP BY purpose

ORDER BY purpose

