**BANK LOAN REPORT**

**TERMINOLOGIES USED IN DATA**

**Fields Used in Data**

**Loan ID:**

Purpose: Loan ID is a unique identifier assigned to each loan application or loan account. It serves as a primary key for tracking and managing individual loans.

Use for Banks: Banks use Loan IDs to efficiently manage and track loans throughout their lifecycle. It aids in organizing loan records, monitoring repayments, and addressing customer inquiries.

**Address State:**

Purpose: Address State indicates the borrower's location. It helps in assessing regional risk factors, compliance with state regulations, and estimating default probabilities.

Use for Banks: Banks use this information to identify regional trends in loan demand, adjust marketing strategies, and manage risk portfolios based on geographic regions.

**Employee Length:**

Purpose: Employee Length provides insights into the borrower's employment stability. Longer employment durations may indicate greater job security.

Use for Banks: Banks consider employment length when assessing a borrower's ability to repay. Stable employment often translates to a lower default risk.

**Employee Title:**

Purpose: Employee Title specifies the borrower's occupation or job title. It helps lenders understand the source of the borrower's income.

Use for Banks: Banks use this field to verify income sources, assess the borrower's financial capacity, and tailor loan offers to different professions.

**Grade:**

Purpose: Grade represents a risk classification assigned to the loan based on creditworthiness. Higher grades signify lower risk.

Use for Banks: Banks use the grade to price loans and manage risk. Higher-grade loans typically receive lower interest rates and are more attractive to investors.

**Sub Grade:**

Purpose: Sub Grade refines the risk assessment within a grade, providing additional risk differentiation.

Use for Banks: Sub Grades offer a finer level of risk assessment, helping banks tailor interest rates and lending terms to match borrower risk profiles.

**Home Ownership:**

Purpose: Home Ownership indicates the borrower's housing status. It offers insights into financial stability.

Use for Banks: Banks use this field to assess collateral availability and borrower stability. Homeowners may have lower default rates.

**Issue Date:**

Purpose: Issue Date marks the loan's origination date. It's crucial for loan tracking and maturity calculations.

Use for Banks: Banks use Issue Dates to track loan aging, calculate interest accruals, and manage loan portfolios.

**Last Credit Pull Date:**

Purpose: Last Credit Pull Date records when the borrower's credit report was last accessed. It helps monitor creditworthiness.

Use for Banks: Banks use this date to track credit history updates, assess credit risk, and make informed lending decisions.

**Last Payment Date:**

Purpose: Last Payment Date marks the most recent loan payment received. It tracks the borrower's payment history.

Use for Banks: Banks use this date to assess payment behavior, calculate delinquency, and project future payments.

**Loan Status:**

Purpose: Loan Status indicates the current state of the loan (e.g., fully paid, current, default). It tracks loan performance.

Use for Banks: Banks use Loan Status to monitor loan health, categorize loans for risk analysis, and determine provisioning requirements.

**Next Payment Date:**

Purpose: Next Payment Date estimates the date of the next loan payment. It assists in cash flow forecasting.

Use for Banks: Banks use this date for liquidity planning and to project revenue from loan portfolios.

**Purpose:**

Purpose: Purpose specifies the reason for the loan (e.g., debt consolidation, education). It helps understand borrower intentions.

Use for Banks: Banks use this field to segment and customize loan offerings, aligning loan terms with borrower needs.

**Term:**

Purpose: Term defines the duration of the loan in months. It sets the repayment period.

Use for Banks: Banks use the term to structure loan agreements, calculate interest payments, and manage loan maturities.

**Verification Status:**

Purpose: Verification Status indicates whether the borrower's financial information has been verified. It assesses data accuracy.

Use for Banks: Banks use this field to gauge data reliability, verify income, and evaluate loan application credibility.

**Annual Income:**

Purpose: Annual Income reflects the borrower's total yearly earnings. It assesses repayment capacity.

Use for Banks: Banks use this income figure to determine loan eligibility, calculate debt-to-income ratios, and evaluate creditworthiness.

**DTI (Debt-to-Income Ratio):**

Purpose: DTI measures the borrower's debt burden relative to income. It gauges the borrower's capacity to take on additional debt.

Use for Banks: Banks use DTI to assess a borrower's ability to handle loan payments and make responsible lending decisions.

**Installment:**

Purpose: Instalment is the fixed monthly payment amount for loan repayment, including principal and interest.

Use for Banks: Banks use this field to structure loan terms, calculate amortization schedules, and assess payment affordability.

**Interest Rate:**

Purpose: Interest Rate represents the annual cost of borrowing expressed as a percentage. It determines the loan's cost.

Use for Banks: Banks use interest rates to price loans, manage profit margins, and attract investors.

**Loan Amount:**

Purpose: Loan Amount is the total borrowed sum. It defines the principal amount.

Use for Banks: Banks use Loan Amount to determine loan size

**BANK LOAN REPORT QUERY DOCUMENT**

1. **BANK LOAN REPORT | SUMMARY**

SELECT \* FROM bank\_loan\_data

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**Total Loan Applications**

SELECT COUNT(id) AS Total\_Applications FROM bank\_loan\_data

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**MTD(Mionth-to-Date) Loan Applications**

SELECT COUNT(id) AS Total\_Applications FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 12

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**PMTD(Previous- month-to-date) Loan Applications**

SELECT COUNT(id) AS Total\_Applications FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 11



**Total Funded Amount**

SELECT SUM(loan\_amount) AS Total\_Funded\_Amount FROM bank\_loan\_data



**MTD Total Funded Amount**

SELECT SUM(loan\_amount) AS Total\_Funded\_Amount FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 12

****

**PMTD Total Funded Amount**

SELECT SUM(loan\_amount) AS Total\_Funded\_Amount FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 11

****

**Total Amount Received**

SELECT SUM(total\_payment) AS Total\_Amount\_Collected FROM bank\_loan\_data



**MTD Total Amount Received**

SELECT SUM(total\_payment) AS Total\_Amount\_Collected FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 12

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**PMTD Total Amount Received**

SELECT SUM(total\_payment) AS Total\_Amount\_Collected FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 11



**Average Interest Rate**

SELECT AVG(int\_rate)\*100 AS Avg\_Int\_Rate FROM bank\_loan\_data



**MTD Average Interest**

SELECT AVG(int\_rate)\*100 AS MTD\_Int\_Rate FROM bank\_loan\_dataWHERE MONTH(issue\_date) = 12



**PMTD Average Interest**

SELECT AVG(int\_rate)\*100 AS PMTD\_Int\_Rate FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 11

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**Avg DTI**

SELECT AVG(dti)\*100 AS Avg\_DTI FROM bank\_loan\_data

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**MTD Avg DTI**

SELECT AVG(dti)\*100 AS MTD\_Avg\_DTI FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 12

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**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**

**Good Loan Percentage**

SELECT (COUNT(CASE WHEN loan\_status ='Fully Paid' OR loan\_status ='Current' THEN id END) \* 100.0)/

COUNT(id) AS Good\_Loan\_Percentage FROM bank\_loan\_data

****

**Good Loan Applications**

SELECT COUNT(id) AS Good\_Loan\_Applications FROM bank\_loan\_data

WHERE loan\_status ='Fully Paid' OR loan\_status ='Current'

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**Good Loan Funded Amount**

SELECT SUM(loan\_amount) AS Good\_Loan\_Funded\_amount FROM bank\_loan\_data

WHERE loan\_status = 'Fully Paid' OR loan\_status = 'Current'

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**Good Loan Amount Received**

SELECT SUM(total\_payment) AS Good\_Loan\_Amount\_Received FROM bank\_loan\_data

WHERE loan\_status = 'Fully Paid' OR loan\_status = 'Current'

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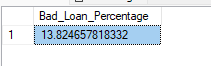
**BAD LOAN ISSUED**

**Bad Loan Percentage**

SELECT (COUNT(CASE WHEN loan\_status = 'Charged Off' THEN id END)\*100.0)

/COUNT(id) AS Bad\_Loan\_Percentage

FROM bank\_loan\_data



**Bad Loan Applications**

SELECT COUNT(id) AS Bad\_Loan\_Applications FROM bank\_loan\_data

WHERE loan\_status ='Charged Off'

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**Bad Loan Funded Amount**

SELECT SUM(loan\_amount) AS Bad\_Loan\_Funded\_Amount FROM bank\_loan\_data

WHERE loan\_status ='Charged Off'

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**Bad Loan Amount Received**

SELECT SUM(total\_payment) AS Bad\_Loan\_Amount\_Received FROM bank\_loan\_data

WHERE loan\_status ='Charged Off'

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**LOAN STATUS**

SELECT

loan\_status,

COUNT(id) AS LoanCount,

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

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SELECT

loan\_status,

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

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

FROM bank\_loan\_data

WHERE MONTH(issue\_date) = 12

GROUP BY

loan\_status

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1. **BANK LOAN REPORT| OVERVIEW**

**MONTH**

**SELECT**

**MONTH(issue\_date) AS Month\_Murder,**

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

**COUNT(id) AS Total\_Funded\_Amount,**

**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)**

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**STATE**

**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**

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**TERM**

**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**

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**EMPLOYEE LENGTH**

**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**

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**PURPOSE**

**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**

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**HOME OWNERSHIP**

**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**

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**Find the *See the results when we hit Grade A in the filters for dashboards.***

**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**

**WHERE grade ='A'**

**GROUP BY purpose**

**ORDER BY purpose**

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**Summary**

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**Overview**

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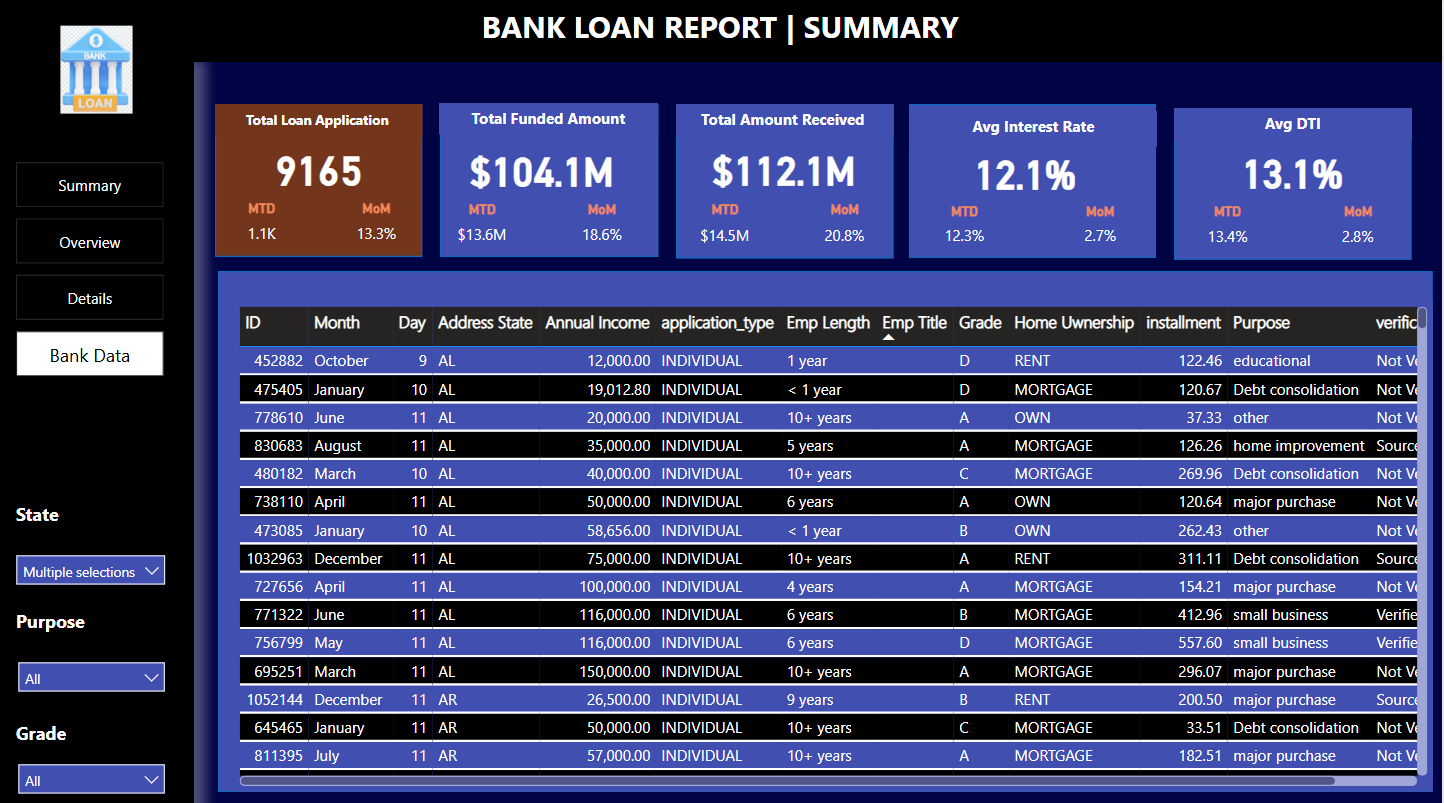
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**Details**

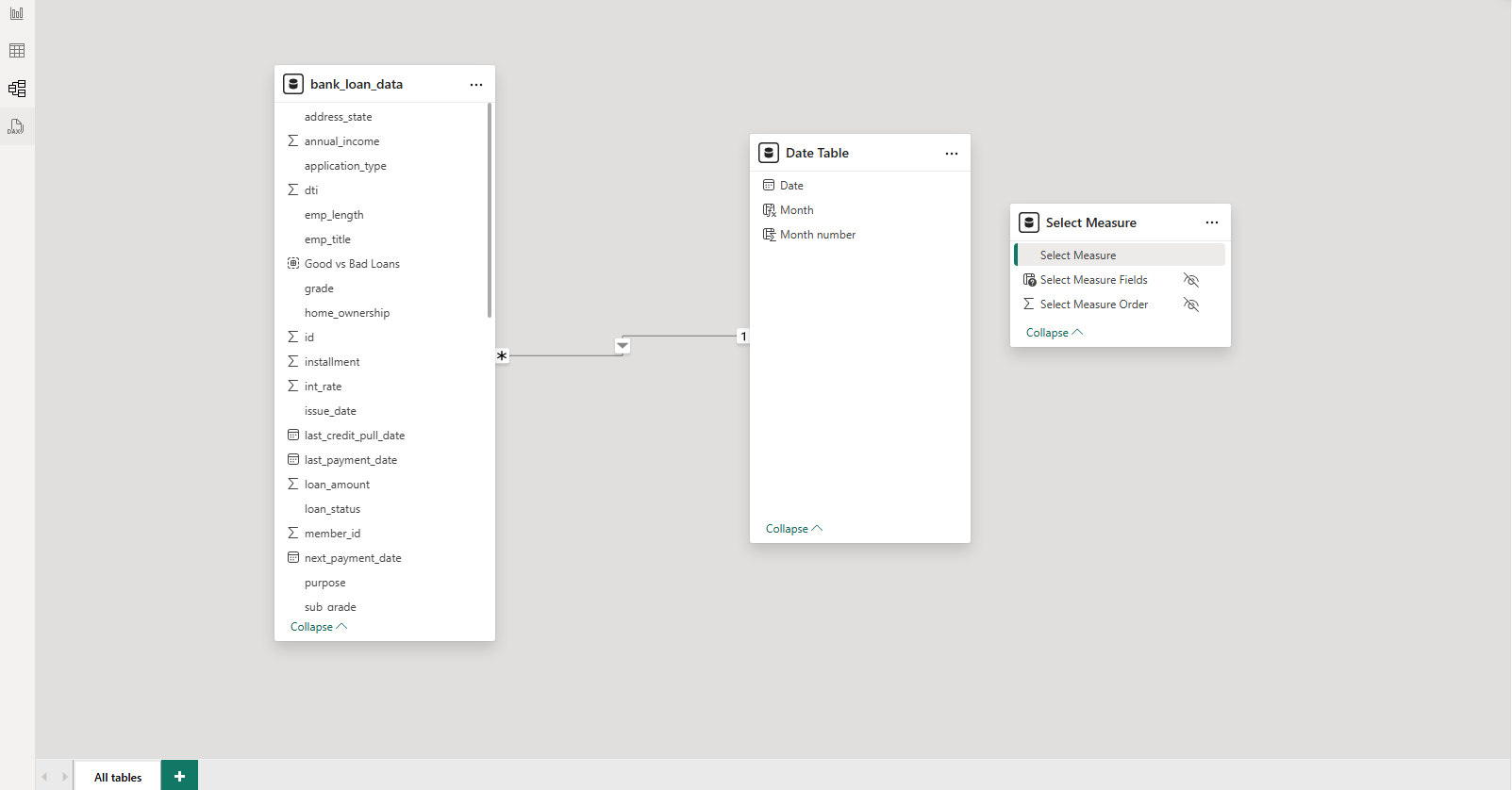
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**Bank Data**

****

**Model View**

****

**Measure**

1. **Total Amount Received**

**Total Amount Recevied** = SUM(bank\_loan\_data[total\_payment])

MTD Amount Received = CALCULATE(TOTALMTD([Total Amount Recevied],'Date Table'[Date]))

PMTD Total Amount Received = CALCULATE([Total Amount Recevied], DATESMTD(DATEADD('Date Table'[Date],-1,MONTH)))

MoM Amount Received = ([MTD Amount Received] - [PMTD Total Amount Received])/[PMTD Total Amount Received]

1. **Total Funded Amount**

**Total Funded Amount** = SUM(bank\_loan\_data[loan\_amount])

MTD Funded Amount = CALCULATE(TOTALMTD([Total Funded Amount],'Date Table'[Date]))

PMTD Total Funded Amount = CALCULATE([Total Funded Amount], DATESMTD(DATEADD('Date Table'[Date],-1,MONTH)))

MoM Funded Amount = ([MTD Funded Amount] - [PMTD Total Funded Amount])/[PMTD Total Funded Amount]

1. **Total Loan Applications**

**Total Loan Applications** = COUNT(bank\_loan\_data[id])

MTD Loan Applications = CALCULATE(TOTALMTD([Total Loan Applications],'Date Table'[Date]))

PMTD Loan Applications = CALCULATE([Total Loan Applications], DATESMTD(DATEADD('Date Table'[Date],-1,MONTH)))

MoM Loan Application = ([MTD Loan Applications] - [PMTD Loan Applications])/[PMTD Loan Applications]

1. **Average Interest Rate**

MTD AVG RATE = CALCULATE(TOTALMTD([Avg Interest Rate],'Date Table'[Date]))

PMTD Avg Interest Rate = CALCULATE([Avg Interest Rate], DATESMTD(DATEADD('Date Table'[Date],-1,MONTH)))

MoM Interest Rate = ([MTD AVG RATE] - [PMTD Avg Interest Rate])/[PMTD Avg Interest Rate]

1. **DTI**

**MTD Avg DTI** = CALCULATE(TOTALMTD([Avg DTI],'Date Table'[Date]))

PMTD Avg DTI = CALCULATE([Avg DTI], DATESMTD(DATEADD('Date Table'[Date],-1,MONTH)))

MoM Avg DTI = ([MTD Avg DTI] - [PMTD Avg DTI])/[PMTD Avg DTI]

1. **Select Measure**

Select Measure = {

("Total Amount Recevied", NAMEOF('bank\_loan\_data'[Total Amount Recevied]), 0),

("Total Funded Amount", NAMEOF('bank\_loan\_data'[Total Funded Amount]), 1),

("Total Loan Applications", NAMEOF('bank\_loan\_data'[Total Loan Applications]), 2)

}