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.

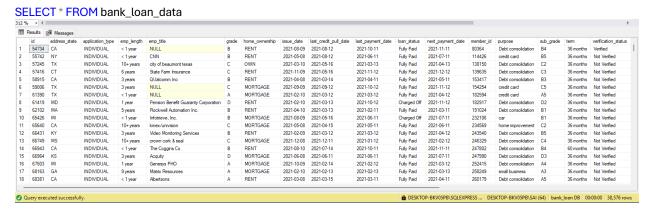
Loan Amount:

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

A. BANK LOAN REPORT | SUMMARY



Total Loan Applications

SELECT COUNT(id) AS Total_Applications FROM bank_loan_data



MTD(Mionth-to-Date) Loan Applications

SELECT COUNT(id) AS Total Applications FROM bank loan data

WHERE MONTH(issue date) = 12



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

Total_Funded_Amount 435757075

MTD Total Funded Amount

SELECT SUM(loan_amount) AS Total_Funded_Amount FROM bank_loan_data

WHERE MONTH(issue_date) = 12

Total_Funded_Amount 53981425

PMTD Total Funded Amount

SELECT SUM(loan_amount) AS Total_Funded_Amount FROM bank_loan_data
WHERE MONTH(issue_date) = 11

Total_Funded_Amount 47754825

Total Amount Received

SELECT SUM(total_payment) AS Total_Amount_Collected FROM bank_loan_data

Total_Amount_Collected 473070933

MTD Total Amount Received

SELECT SUM(total_payment) AS Total_Amount_Collected FROM bank_loan_data

WHERE MONTH(issue_date) = 12

Total_Amount_Collected 58074380

PMTD Total Amount Received

SELECT SUM(total_payment) AS Total_Amount_Collected FROM bank_loan_data

WHERE MONTH(issue_date) = 11

Total_Amount_Collected 50132030

Average Interest Rate

SELECT AVG(int_rate)*100 AS Avg_Int_Rate FROM bank_loan_data

```
Avg_Int_Rate
12.0488314172048
```

MTD Average Interest

SELECT AVG(int_rate)*100 AS MTD_Int_Rate FROM bank_loan_dataWHERE MONTH(issue_date) = 12

```
MTD_Int_Rate
12.3560408676042
```

PMTD Average Interest

SELECT AVG(int_rate)*100 AS PMTD_Int_Rate FROM bank_loan_data

WHERE MONTH(issue_date) = 11

PMTD_Int_Rate 11.9417175498261

Avg DTI

SELECT AVG(dti)*100 AS Avg_DTI FROM bank_loan_data

Avg_DTI 13.3274331211432

MTD Avg DTI

SELECT AVG(dti)*100 AS MTD_Avg_DTI FROM bank_loan_data

WHERE MONTH(issue_date) = 12

MTD_Avg_DTI 13.6655377880425

PMTD Avg DTI

SELECT AVG(dti)*100 AS PMTD_Avg_DTI FROM bank_loan_data

WHERE MONTH(issue_date) = 11

PMTD_Avg_DTI 13.3027335836364

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_Percentage 86.175342181667

Good Loan Applications

SELECT COUNT(id) AS Good_Loan_Applications FROM bank_loan_data

WHERE loan_status ='Fully Paid' OR loan_status ='Current'

Good_Loan_Applications 33243

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'

Good_Loan_Funded_amount 370224850

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'

Good_Loan_Amount_Received 435786170

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_Percentage 13.824657818332

Bad Loan Applications

SELECT COUNT(id) AS Bad_Loan_Applications FROM bank_loan_data

WHERE loan_status ='Charged Off'

Bad_Loan_Applications 5333

Bad Loan Funded Amount

SELECT SUM(loan_amount) AS Bad_Loan_Funded_Amount FROM bank_loan_data

WHERE loan_status ='Charged Off'

Bad_Loan_Funded_Amount 65532225

Bad Loan Amount Received

SELECT SUM(total_payment) AS Bad_Loan_Amount_Received FROM bank_loan_data

WHERE loan_status ='Charged Off'

Bad_Loan_Amount_Received 37284763

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

	loan_status	LoanCount	Total_Amount_Received	Total_Funded_Amount	Interest_Rate	DTI
1	Fully Paid	32145	411586256	351358350	11.6410707918092	13.1673507557434
2	Current	1098	24199914	18866500	15.0993260800947	14.7243442736843
3	Charged Off	5333	37284763	65532225	13.8785749318289	14.0047328005517

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

	loan_status	MTD_Total_Amount_Received	MTD_Total_Funded_Amount
1	Fully Paid	47815851	41302025
2	Current	4934318	3946625
3	Charged Off	5324211	8732775

B. 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)

	Month_Murder	Month_Name	Total_Funded_Amount	Total_Funded_Amount	Total_Amount_Received
1	1	January	2332	25031650	27578836
2	2	February	2279	24647825	27717745
3	3	March	2627	28875700	32264400
4	4	April	2755	29800800	32495533
5	5	May	2911	31738350	33750523
6	6	June	3184	34161475	36164533
7	7	July	3366	35813900	38827220
8	8	August	3441	38149600	42682218
9	9	September	3536	40907725	43983948
10	10	October	3796	44893800	49399567
11	11	November	4035	47754825	50132030
12	12	December	4314	53981425	58074380

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

	State	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
	AK	78	1031800	1108570
2	AL	432	4949225	5492272
3	AR	236	2529700	2777875
4	AZ	833	9206000	10041986
5	CA	6894	78484125	83901234
6	CO	770	8976000	9845810
7	CT	730	8435575	9357612
8	DC	214	2652350	2921854
9	DE	110	1138100	1269136
10	FL	2773	30046125	31601905
11	GA	1355	15480325	16728040
12	HI	170	1850525	2080184
13	IA	5	56450	64482
14	ID	6	59750	65329
15	IL	1486	17124225	18875941
16	IN	9	86225	85521
17	KS	260	2872325	3247394
18	KY	320	3504100	3792530
19	LA	426	4498900	5001160
20	MA	1310	15051000	16676279
21	MD	1027	11911400	12985170
22	ME	3	9200	10808
23	MI	685	7829900	8543660
24	MN	592	6302600	6750746
25	MO	660	7151175	7692732
26	MS	19	139125	149342
27	MT	79	829525	892047
28	NC	759	8787575	9534813
29	NE	5	31700	24542
30	NH	161	1917900	2101386
31	NJ	1822	21657475	23425159
32	NM	183	1916775	2084485
33	NV	482	5307375	5451443
34	NY	3701	42077050	46108181
35	ОН	1188	12991375	14330148
36	OK	293	3365725	3712649
37	OR	436	4720150	4966903
38	PA	1482	15826525	17462908
39	RI	196	1883025	2001774
40	SC	464	5080475	5462458

41	SD	63	606150	656514
42	TN	17	162175	141522
43	TX	2664	31236650	34392715
44	UT	252	2849225	2952412
45	VA	1375	15982650	17711443
46	VT	54	504100	534973
47	WA	805	8855525	9531739
48	WI	446	5070450	5485161
49	WV	167	1830525	1991936
50	WY	79	890750	1046050

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

	Tem	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	36 months	28237	273041225	294709458
2	60 months	10339	162715850	178361475

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

	Employee_Length	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	< 1 year	4575	44210625	47545011
2	1 year	3229	32883125	35498348
3	10+ years	8870	116115950	125871616
4	2 years	4382	44967975	49206961
5	3 years	4088	43937850	47551832
6	4 years	3428	37600375	40964850
7	5 years	3273	36973625	40397571
8	6 years	2228	25612650	27908658
9	7 years	1772	20811725	22584136
10	8 years	1476	17558950	19025777
11	9 years	1255	15084225	16516173

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

	PURPOSE	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	car	1497	10223575	11324914
2	credit card	4998	58885175	65214084
3	Debt consolidation	18214	232459675	253801871
4	educational	315	2161650	2248380
5	home improvement	2876	33350775	36380930
6	house	366	4824925	5185538
7	major purchase	2110	17251600	18676927
8	medical	667	5533225	5851372
9	moving	559	3748125	3999899
10	other	3824	31155750	33289676
11	renewable_energy	94	845750	898931
12	small business	1776	24123100	23814817
13	vacation	352	1967950	2116738
14	wedding	928	9225800	10266856

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

	Home_Ownership	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	MORTGAGE	17198	219329150	238474438
2	NONE	3	16800	19053
3	OTHER	98	1044975	1025257
4	OWN	2838	29597675	31729129
5	RENT	18439	185768475	201823056

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

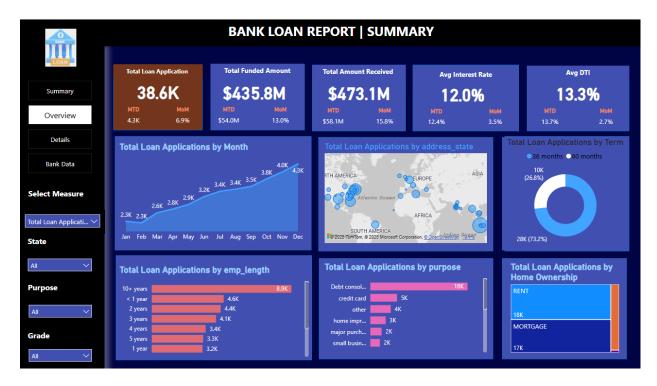
FROM bank_loan_data
WHERE grade ='A'
GROUP BY purpose
ORDER BY purpose

	PURPOSE	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	car	577	3629475	3805538
2	credit card	1353	12636075	13339495
3	Debt consolidation	3753	37216300	38822971
4	educational	79	484000	515639
5	home improvement	933	8359175	8744006
6	house	91	916575	957878
7	major purchase	796	5344575	5604259
8	medical	197	1471850	1526882
9	moving	164	1069450	1099875
10	other	1024	7043175	7397982
11	renewable_energy	29	224150	225827
12	small business	334	3172075	3190467
13	vacation	122	683625	694542
14	wedding	237	2001725	2126202

Summary



Overview



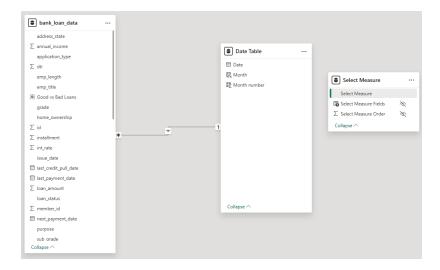
Details



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 Received], 'Date Table'[Date]))

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

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

2. 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]

3. 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]

4. 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]

5. 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]

6. 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)
}
```