BANK LOAN ANALYSIS

POWER BI DASHBOARD

PROBLEM STATEMENT

DASHBOARD 1: SUMMARY

DATA TUTORIAL

Key Performance Indicators (KPIs) Requirements:

1. **Total Loan Applications:** We need to calculate the total number of loan applications received during a specified period. Additionally, it is essential to monitor the Month-to-Date (MTD) Loan Applications and track changes Month-over-Month (MoM).

2. **Total Funded Amount:** Understanding the total amount of funds disbursed as loans is crucial. We also want to keep an eye on the MTD Total Funded Amount and analyse the Month-over-Month (MoM) changes in this metric.

3. **Total Amount Received:** Tracking the total amount received from borrowers is essential for assessing the bank's cash flow and loan repayment. We should analyse the Month-to-Date (MTD) Total Amount Received and observe the Month-over-Month (MoM) changes.

4. **Average Interest Rate:** Calculating the average interest rate across all loans, MTD, and monitoring the Month-over-Month (MoM) variations in interest rates will provide insights into our lending portfolio's overall cost.

5. **Average Debt-to-Income Ratio (DTI):** Evaluating the average DTI for our borrowers helps us gauge their financial health. We need to compute the average DTI for all loans, MTD, and track Month-over-Month (MoM) fluctuations.

PROBLEM STATEMENT

DASHBOARD 1: SUMMARY

DATA TUTORIAL

Good Loan v Bad Loan KPI's

Good Loan:
1. Good Loan Application Percentage
2. Good Loan Applications
3. Good Loan Funded Amount
4. Good Loan Total Received Amount

Bad Loan
1. Bad Loan Application Percentage
2. Bad Loan Applications
3. Bad Loan Funded Amount
4. Bad Loan Total Received Amount

Loan Status Grid View

In order to gain a comprehensive overview of our lending operations and monitor the performance of loans, we aim to create a grid view report categorized by 'Loan Status.' By providing insights into metrics such as 'Total Loan Applications,' 'Total Funded Amount,' 'Total Amount Received,' 'Month-to-Date (MTD) Funded Amount,' 'MTD Amount Received,' 'Average Interest Rate,' and 'Average Debt-to-Income Ratio (DTI),' this grid view will empower us to make data-driven decisions and assess the health of our loan portfolio.

BANK LOAN REPORT || SUMMARY

Bad Loan	Good Loan

Total Loan Applications
39K
MTD 4.31K | MoM 6.9%

Total Funded Amount
$435.76M
MTD $54M | MoM $0.1

Total Received Amount
473M
MTD $58M | MoM $0.2

Good Loan%
86.18%
MTD 12.4% | MoM 3.5%

Bad Loan%
13.82%
MTD 13.7% | MoM 2.7%

Emp_Title
All

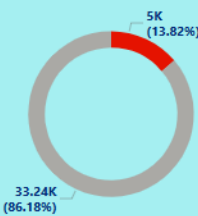**GRADE**
All

GOOD LOAN ISSUED

Good Loan Applications
33.243K

Good Loan Funded Amount
$370.2M

Good Loan Received Amount
$435.8M

5K (13.82%)

33.24K (86.18%)

BAD LOAN ISSUED

Bad Loan Applications
5K

Bad Loan Funded Amount
$65.5M

Bad Loan Received Amount
$37.3M

STATE
All

Purpose
All

| loan_status	Total loan applications	Total Funded Amount	Total Amount Received	MTD Funded Amount	MTD Received Amount	AVG Intrest Rate	AVG DTI
Current	1098	$18,866,500	24199914	$3,946,625	$4,934,318	15.10%	14.72%
Charged Off	5333	$65,532,225	37284763	$8,732,775	$5,324,211	13.88%	14.00%
Fully Paid	32145	$351,358,350	411586256	$41,302,025	$47,815,851	11.64%	13.17%
Total	**38576**	**$435,757,075**	**473070933**	**$53,981,425**	**$58,074,380**	**12.05%**	**13.33%**

PROBLEM STATEMENT

DASHBOARD 2: OVERVIEW

CHARTS

1. **Monthly Trends by Issue Date (Line Chart):** To identify seasonality and long-term trends in lending activities

2. **Regional Analysis by State (Filled Map):** To identify regions with significant lending activity and assess regional disparities

3. **Loan Term Analysis (Donut Chart):** To allow the client to understand the distribution of loans across various term lengths.

4. **Employee Length Analysis (Bar Chart):** How lending metrics are distributed among borrowers with different employment lengths, helping us assess the impact of employment history on loan applications.

5. **Loan Purpose Breakdown (Bar Chart):** Will provide a visual breakdown of loan metrics based on the stated purposes of loans, aiding in the understanding of the primary reasons borrowers seek financing.

6. **Home Ownership Analysis (Tree Map):** For a hierarchical view of how home ownership impacts loan applications and disbursements.

Metrics to be shown: 'Total Loan Applications,' 'Total Funded Amount,' and 'Total Amount Received'
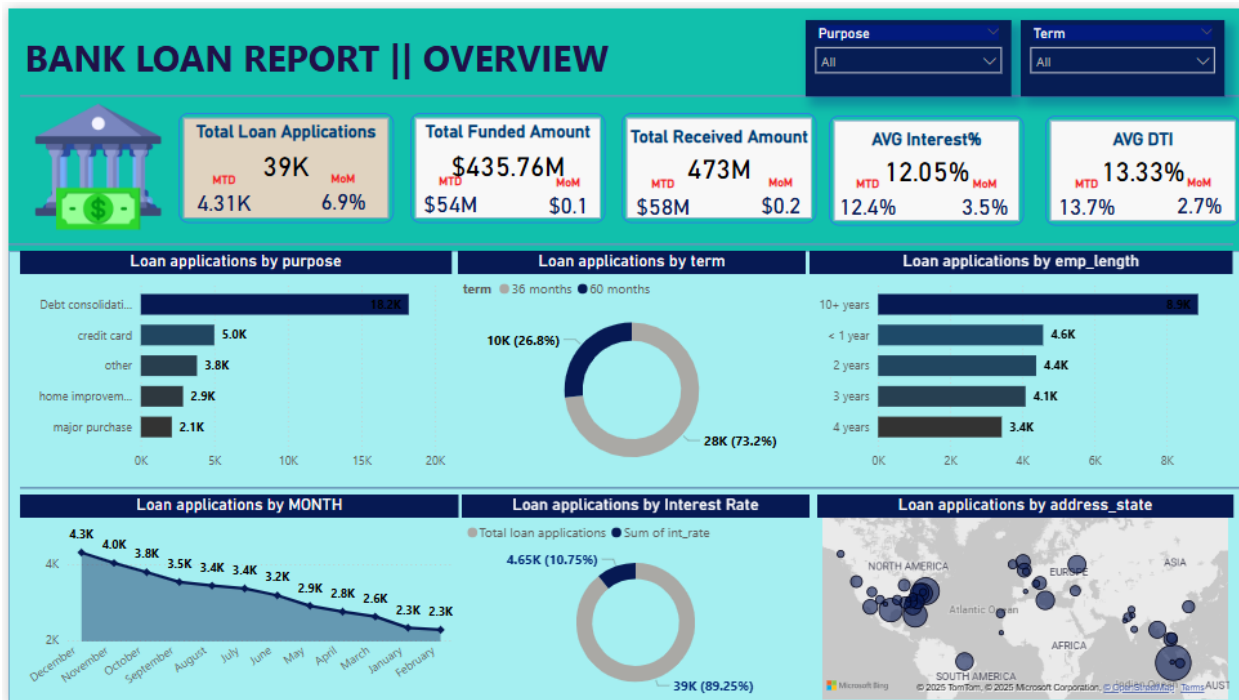
PROBLEM STATEMENT

DASHBOARD 3: DETAILS

GRID

Need for a comprehensive 'Details Dashboard' that provides a consolidated view of all the essential information within our loan data. This Details Dashboard aims to offer a holistic snapshot of key loan-related metrics and data points, enabling users to access critical information efficiently.

Objective:

The primary objective of the Details Dashboard is to provide a comprehensive and user-friendly interface for accessing vital loan data. It will serve as a one-stop solution for users seeking detailed insights into our loan portfolio, borrower profiles, and loan performance.

BANK LOAN REPORT || DETAILS

Purpose All

Term All

	Total Loan Applications	Total Funded Amount	Total Received Amount	AVG Interest%	AVG DTI
	39K	**$435.76M**	**473M**	**12.05%**	**13.33%**
	MTD 4.31K — MoM 6.9%	MTD $54M — MoM $0.1	MTD $58M — MoM $0.2	MTD 12.4% — MoM 3.5%	MTD 13.7% — MoM 2.7%

ID	Purpose	Address_state	Home_Ownership	Grade	Sub_grade	Total Funded Amount	AVG Intrest Rate	AVG DTI	Total Amount Received
738407	car	AL	MORTGAGE	A	A2	$2,475	5.79%	7.13%	2689
696618	car	AL	MORTGAGE	A	A5	$8,000	7.66%	3.43%	9615
384951	car	AL	MORTGAGE	B	B1	$9,100	10.95%	0.15%	10717
1412567	car	AL	MORTGAGE	B	B2	$27,000	10.00%	11.65%	32722
1332347	car	AL	MORTGAGE	B	B3	$16,650	9.99%	14.16%	21114
744550	car	AL	MORTGAGE	B	B4	$6,000	11.49%	3.17%	6414
590494	car	AL	MORTGAGE	B	B5	$2,900	11.86%	12.78%	3013
549159	car	AL	MORTGAGE	C	C1	$9,000	13.23%	4.71%	9669
709112	car	AL	MORTGAGE	C	C2	$18,500	13.06%	25.46%	24771
558147	car	AL	MORTGAGE	C	C3	$3,000	13.98%	13.61%	4186
888206	car	AR	MORTGAGE	A	A2	$5,200	6.62%	9.08%	5229
2095081	car	AR	MORTGAGE	A	A3	$19,000	7.14%	16.31%	20940
691491	car	AR	MORTGAGE	A	A5	$14,400	7.66%	12.23%	15533
1741408	car	AR	MORTGAGE	B	B1	$18,500	9.95%	15.29%	21279
968798	car	AR	MORTGAGE	B	B2	$2,400	10.65%	20.59%	1278
691545	car	AR	MORTGAGE	B	B4	$3,000	10.74%	18.39%	3889
788282	car	AR	MORTGAGE	C	C1	$14,750	12.99%	19.97%	14910
708174	car	AR	MORTGAGE	C	C4	$1,675	13.80%	12.66%	1669