

Advanced Bank Loan Data Analysis: Empowering Decision-Making through Dynamic Insights

Problem Statement: Advanced Dashboard Development for Loan Data Analysis. The current approach to loan data analysis lacks depth and interactivity, hindering the ability to derive meaningful insights for informed decision-making. Traditional reporting methods fall short in providing a comprehensive view of lending operations, borrower behavior, and loan performance metrics. There is a pressing need for advanced dashboard design to address these limitations and unlock the full potential of our loan data.

Objective: Our objective is to craft a suite of interconnected dashboards that deliver dynamic and comprehensive insights into our loan data, empowering decision-makers with actionable intelligence derived from robust data analysis. These dashboards are meticulously designed to offer a holistic perspective on our lending operations, borrower demographics, loan performance, and financial metrics, facilitating strategic decision-making based on data-driven insights.

Dashboard 1: Executive Summary

Purpose: This dashboard provides an overview of critical Key Performance Indicators (KPIs) essential for evaluating the overall efficiency and performance of our lending endeavors.

Key Features:

- **Total Loan Applications:** Monitor total and Month-to-Date (MTD) applications, scrutinizing Month-over-Month (MoM) trends for actionable insights.
- **Total Funded Amount:** Evaluate the cumulative disbursed funds and track MTD disbursements, analyzing MoM variations to discern funding patterns.
- **Total Amount Received:** Assess cash inflows via total and MTD received amounts from borrowers, scrutinizing MoM fluctuations for financial health assessment.
- **Average Interest Rate:** Determine the cost of lending by computing and tracking the average interest rate across all loans, including MTD and MoM changes.
- **Average Debt-to-Income Ratio (DTI):** Evaluate borrowers' financial resilience by calculating the average DTI for all loans and monitoring MTD and MoM changes.

Loan Performance Analysis:

- Classify loans into "Good" and "Bad" categories based on specific KPIs such as application percentages, funded amounts, and received amounts.
- Implement a "Loan Status Grid View" for detailed categorization by loan status, providing insights into various metrics to support data-driven decision-making.

Dashboard 2: Trends & Overview

Purpose: This dashboard offers interactive visualizations to illuminate lending trends, borrower demographics, and loan purposes, facilitating pattern recognition and opportunity identification.

Key Visualizations:

- Monthly Trends by Issue Date (Line Chart): Explore seasonality and long-term trends in lending activities.
- Regional Analysis by State (Filled Map): Highlight significant lending regions and analyze geographical disparities.
- Loan Term Analysis (Donut Chart): Understand the distribution of loans across different terms.
- Employment Length Analysis (Bar Chart): Assess the impact of employment history on lending metrics.
- Loan Purpose Breakdown (Bar Chart): Visualize the reasons behind borrowers' financing needs.
- Home Ownership Analysis (Tree Map): Examine the influence of home ownership on loan applications and disbursements.

Dashboard 3: Detailed Insights

Purpose: This dashboard offers a deep dive into loan data, equipping users with comprehensive access to key metrics and loan details, empowering informed decision-making.

Objective: The "Details Dashboard" serves as a user-friendly platform providing a comprehensive solution for in-depth analysis of the loan portfolio, augmenting our capacity to make informed lending decisions.

Implementation Strategy:

- Craft each dashboard with an intuitive layout to ensure seamless navigation and interaction.
- Integrate real-time data for up-to-the-minute analysis and decision-making.
- Incorporate user feedback mechanisms to continually refine and enhance dashboard functionalities.

By fulfilling these objectives, we aim to optimize our lending strategies, bolster financial health, and elevate borrower satisfaction through insightful data analysis and strategic dashboard design.

BANK LOAN REPORT | SUMMARY



Introduction

Summary

Overview

Details

State :

All

Grade :

All

Good vs Bad Loan :

All

Total Loan Applications

38.6K

4.3K

6.9%

Total Funded Amount

\$435.8M

\$54.0M

13.0%

Total Amount Received

\$473.1M

\$58.1M

15.8%

Average Interest Rate

12.0%

12.4%

3.5%

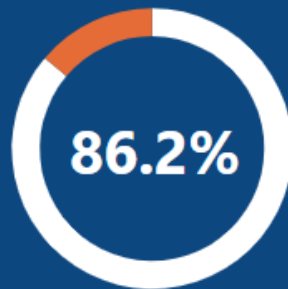
Average DTI

13.3%

13.7%

2.7%

Good Loan Issued



Good Loan Applications

33.2K

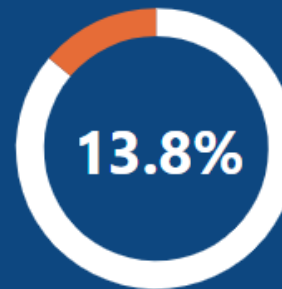
Good Loan Funded Amount

\$370.2M

Good Loan Received Amount

\$435.8M

Bad Loan Issued



Bad Loan Applications

5.3K

Bad Loan Funded Amount

\$65.5M

Bad Loan Received Amount

\$37.3M

LOAN STATUS

Loan Status	Total Loan Applications	Total Funded Amount	Total Amount Received	MTD Funded Amount	MTD Received Amount	Avg. Interest Rate	Avg. DTI
Current	1098	\$1,88,66,500	\$2,41,99,914	\$39,46,625	\$49,34,318	15.10%	14.72%
Charged Off	5333	\$6,55,32,225	\$3,72,84,763	\$87,32,775	\$53,24,211	13.88%	14.00%
Fully Paid	32145	\$35,13,58,350	\$41,15,86,256	\$4,13,02,025	\$4,78,15,851	11.64%	13.17%
Total	38576	\$43,57,57,075	\$47,30,70,933	\$5,39,81,425	\$5,80,74,380	12.05%	13.33%

BANK LOAN REPORT | OVERVIEW



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Select Measure :

Total Loan Applicati... ▼

State :

All ▼

Grade :

All ▼

Good vs Bad Loan :

All ▼

Total Loan Applications

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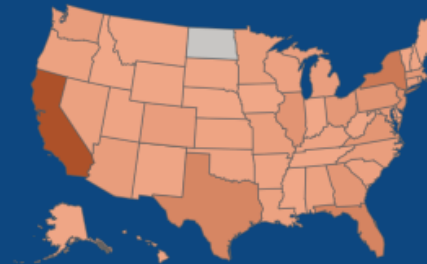
13.7%

2.7%

Total Loan Applications by Month

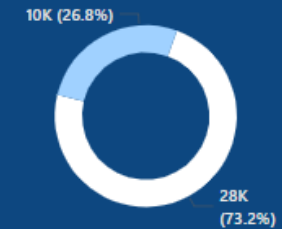


Total Loan Applications by State

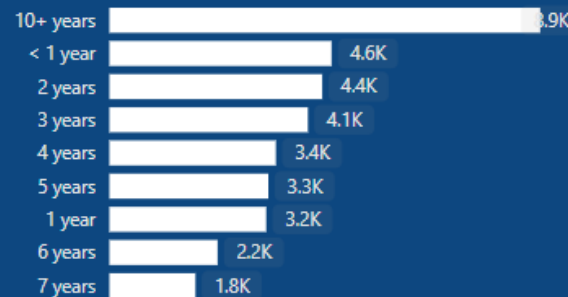


Total Loan Applications by Term

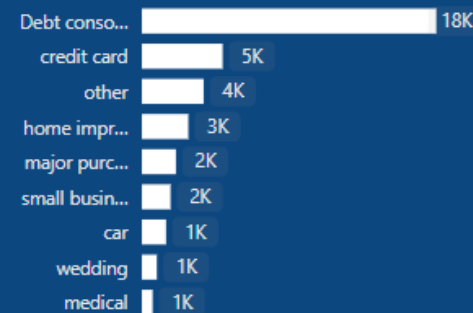
● 36 months ● 60 months



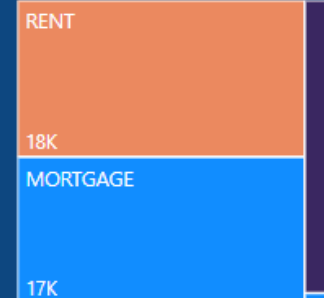
Total Loan Applications by Employee Length



Total Loan Applications by Purpose



Total Loan Applications by Home Ownership



BANK LOAN REPORT | DETAILS



Total Loan Applications

38.6K

4.3K 6.9%

Total Funded Amount

\$435.8M

\$54.0M 13.0%

Total Amount Received

\$473.1M

\$58.1M 15.8%

Average Interest Rate

12.0%

MTD 12.4% MoM 3.5%

Average DTI

13.3%

13.7% 2.7%

Introduction

Summary

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Details

State :

All

Grade :

All

Good vs Bad Loan :

All

ID	Purpose	Home Ownership	Grade	Sub Grade	Issued Date	Funded Amount	Interest Rate	Installment	Received Amount
432820	other	RENT	C	C3	09 August 2021	\$1,000	0.14	33.97	\$34
763325	moving	RENT	D	D5	11 May 2021	\$1,000	0.17	35.90	\$36
457883	other	RENT	B	B5	09 November 2021	\$2,000	0.13	66.94	\$67
529214	other	RENT	B	B3	10 June 2021	\$1,600	0.11	34.89	\$70
690459	small business	OWN	C	C5	11 March 2021	\$3,000	0.14	70.07	\$70
543732	moving	RENT	D	D3	10 July 2021	\$1,000	0.16	34.96	\$79
366248	Debt consolidation	RENT	D	D2	08 December 2021	\$2,450	0.14	84.24	\$84
660835	wedding	RENT	C	C4	11 February 2021	\$4,000	0.14	92.66	\$92
847552	other	RENT	E	E4	11 August 2021	\$1,200	0.19	44.17	\$97
489032	Debt consolidation	MORTGAGE	B	B2	10 March 2021	\$20,000	0.10	647.70	\$99
448326	educational	RENT	C	C1	09 October 2021	\$1,325	0.13	44.57	\$103
867876	other	RENT	C	C1	11 September 2021	\$2,500	0.13	56.87	\$113
606429	home improvement	MORTGAGE	C	C3	10 October 2021	\$1,200	0.13	40.43	\$121
504214	moving	RENT	B	B1	10 April 2021	\$1,600	0.10	51.54	\$122