## BANK LOAN ANALYSIS

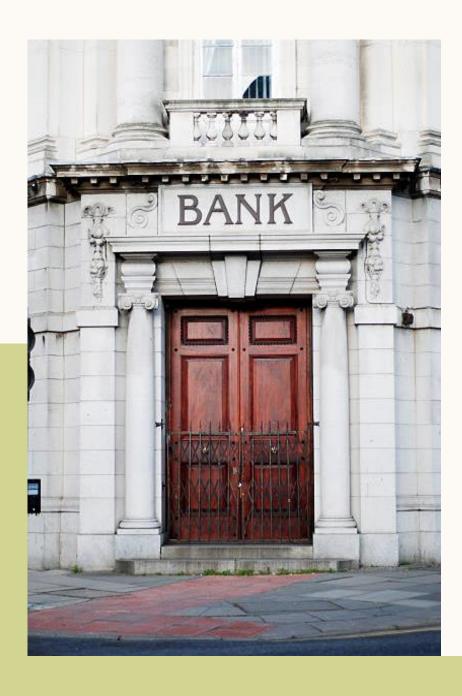
## **TOOLS USED**

ADVANCE EXCEL

**SQL** 

**POWER BI** 

**TABLEAU** 



## **OVERVIEW**

This project is an in-depth analysis of bank loan data, aimed at uncovering key insights into loan issuance trends, customer credit behavior, and financial performance metrics. The analysis combines SQL, Tableau, Excel and Power BI for data extraction and transformation into data visualization, providing a comprehensive overview of loan trends over time, the financial health of different customer segments, and risk assessment across various loan grades. This project serves as a crucial tool for understanding the dynamics of loan portfolios and guiding strategic decision-making in the financial sector.

## PROJECT WORKFLOW

Extract
 Data/Import
 Files

2. Transform
Data
(Remove
Blank And
Duplicates)

3. Manage Relationships 4. KPI And Visualization

5. Dashboard

## **KPI's**

**01** Year Wise Loan Amount Stats

02 Grade And Sub Grade Wise Revol Bal

Total Payment For Verified Status Vs Total Payment For Non Verified Status

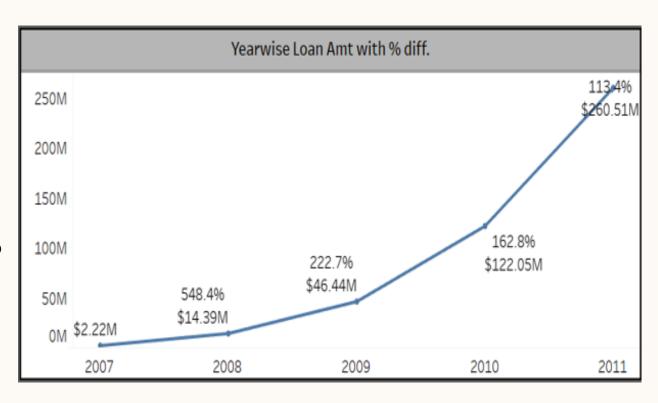
O4 State Wise And last\_credit\_pull\_d Wise Loan Status

05 Home Ownership Vs Last Payment Date Stats



## KPI 01 YEAR WISE LOAN AMOUNT STATS

- In 2007, the loan amount was \$2.2M, marking the baseline for our growth.
- By 2008, the loan amount skyrocketed to \$14.39M, representing a 548% increase, which reflects a significant rise in demand and market penetration.
- Moving into 2009, the upward trend continued with a 223% growth, bringing the loan amount to \$46.44M, indicating sustained momentum.
- In 2010, the loan amount grew to \$122.05M, reflecting a 163% increase as the company expanded its loan offerings further.

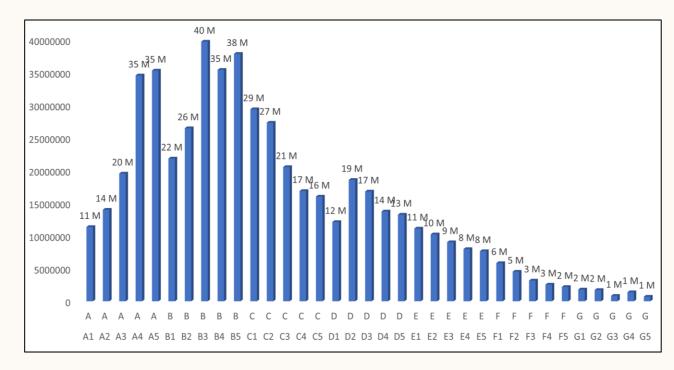


• **By 2011**, the loan amount reached **\$260.51M**, growing by **113**%. Though the growth rate slowed slightly, the overall expansion remained strong, showcasing consistent scaling.

This progression highlights rapid early growth, followed by consistent and stable expansion. It underscores the company's successful efforts in scaling its lending operations over the years.

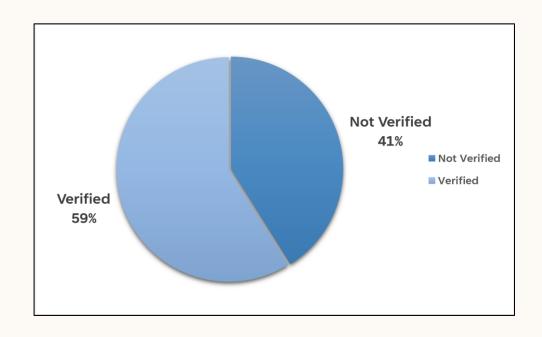
## KPI 02 GRADE AND SUB GRADE WISE REVOL BAL

- The chart indicates that Grade A and Grade B have the highest total revolving balances, with subgrades A4 and A5 with approximately 35M being the highest in grade A. Similarly, B3 with 40M, B4 with 35M and B5 with 38M in Grade B.
- On the contrary, Grade F and G are having the lowest revolving balances with F5 with 2M and G5 with 1M being the lowest in their respective grades.



# KPI 03 TOTAL PAYMENT FOR VERIFIED STATUS VS TOTAL PAYMENT FOR NON VERIFIED STATUS

- The banking and financial services, discerning the disparities in total payments between verified and non-verified statuses among bank loan customers holds significant implications for customer verification processes.
- Total payment for verified status is approximately 59% more than the payment for non-verified status which is approximately 41%. But if you look at the bigger picture approximately 2/3rd of the payment is done to the non-verified accounts, which shows that the loan disbursement institutions are approving loans at a very high rate.



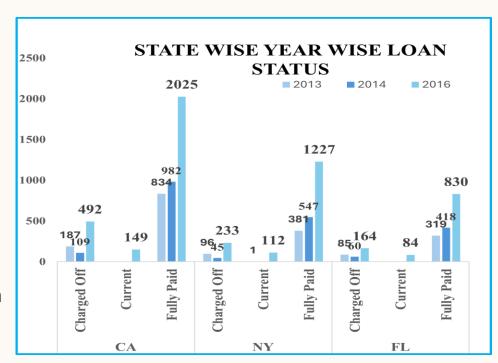
## KPI 04 STATE WISE AND LAST\_CREDIT\_PULL\_D WISE LOAN STATUS

#### California:

- Significant increase in Fully Paid loans, peaking in 2015 (2025).
- Growth in loans from 2013 (834) to 2014 (982).
- 492 Current loans in 2014, indicating a healthy market.
- Charged Off loans reduced from 187 in 2014 to 96 in 2016, showing improved borrower behavior.

#### **❖** New York:

- Steady increase in Fully Paid loans (450 in 2014 to 547 in 2016).
- Current loans dropped from 233 in 2014 to 96 in 2015, reflecting loan repayments.
- Charged Off loans reduced from 112 in 2014 to 45 in 2015, indicating better credit risk management.



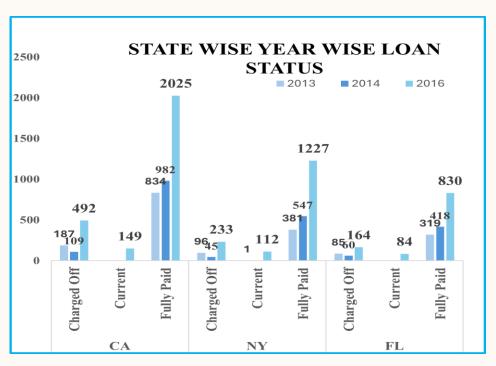
## KPI 04 STATE WISE AND LAST\_CREDIT\_PULL\_D WISE LOAN STATUS

#### Florida:

- Lower performance with 319 Fully Paid loans in 2014 and 418 in 2015.
- Current loans were 164 in 2015, indicating active loan servicing.
- Charged Off loans remained flat (85 in 2014 to 84 in 2015), suggesting persistent challenges with defaults.

#### **A Recommendations:**

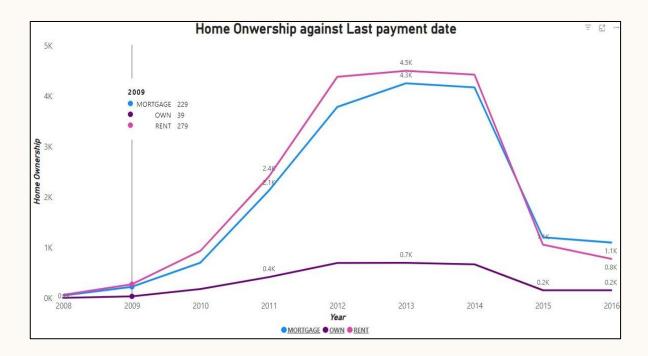
- California: Continue leveraging successful strategies and explore aggressive markets.
- New York: Sustain loan repayment progress and reduce default rates with better borrower engagement.
- Florida: Implement financial literacy programs, loan restructuring, and improved credit assessments to reduce defaults and improve loan repayments.



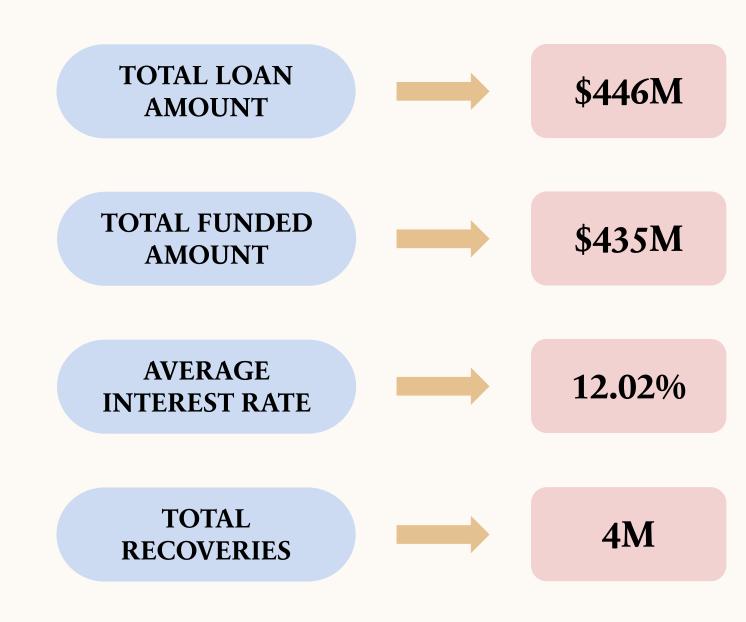
## KPI 05 HOME OWNERSHIP VS LAST PAYMENT DATE STATS

Based on the Year wise split-up of the Home ownership against the last Payment date's Year

- The Rented people account for 47.5% of the total loans
- The Rented and Mortgage people account for close to 92% loans
- Which indicates, that the people who own the house have limited interest in taking the loan which is in contrast to the people with Mortgage / Rented houses.



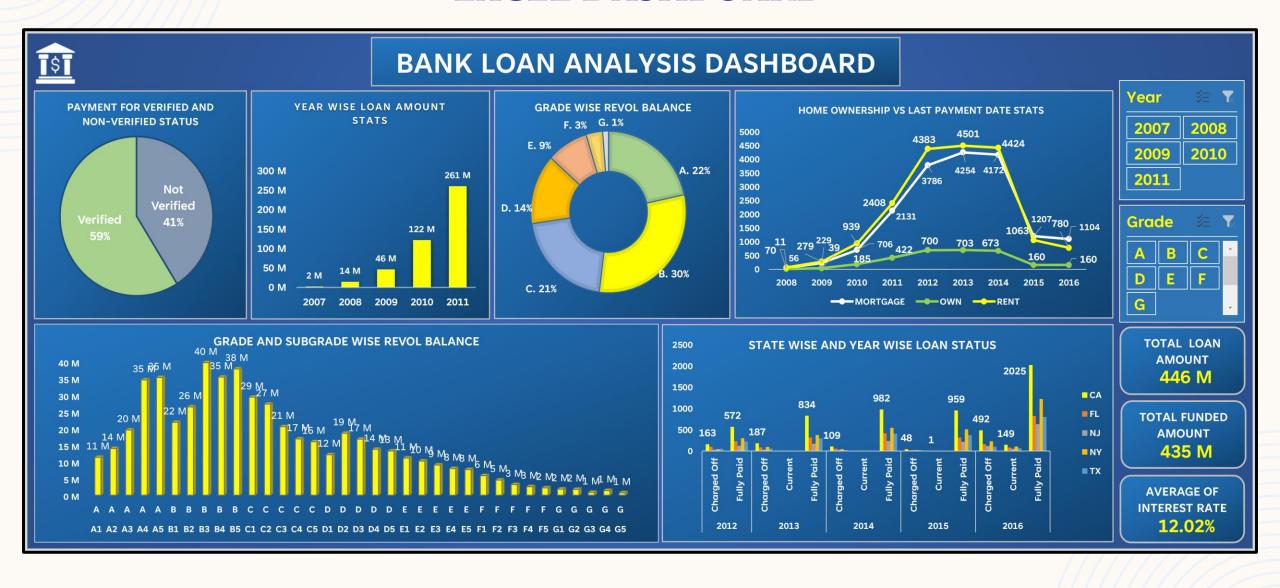
## **MORE FINDINGS**



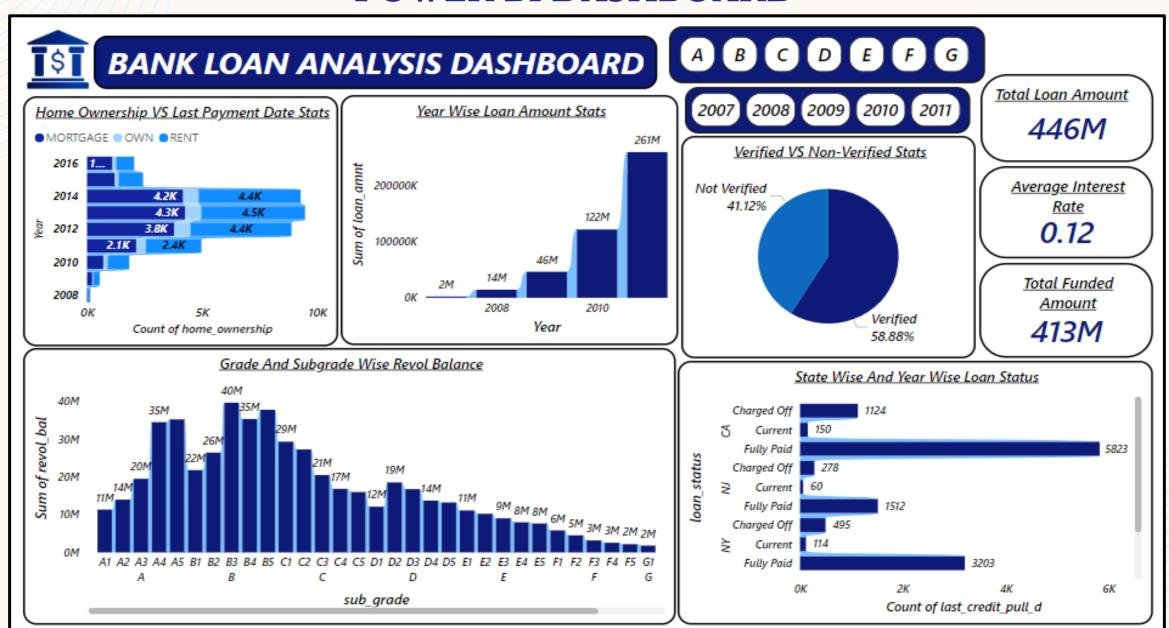
## SOLUTIONS AND RECOMMENDATIONS

- Strengthen Loan Verification: Improve credit checks and verification methods to reduce risk from nonverified applicants.
- Target Homeowners & Renters: Focus marketing on homeowners while exploring opportunities with renters and non-mortgage applicants.
- State-Specific Strategies: Develop targeted approaches for underrepresented states to capture new markets and diversify geographically.
- Manage High Revolving Balances: Focus on risk management for customers in grades B and C with tailored repayment plans to reduce default risk.
- Monitor Growth: Track loan growth carefully to avoid overexposure and ensure balanced expansion across segments and regions.

### **EXCEL DASHBOARD**



### **POWER BI DASHBOARD**



### TABLEAU DASHBOARD



### **BANK LOAN ANALYSIS DASHBOARD**

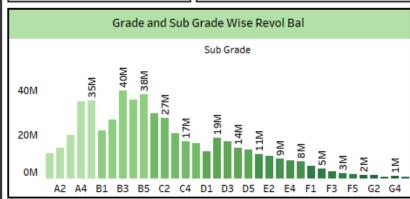
TOTAL LOAN
AMOUNT
\$446M

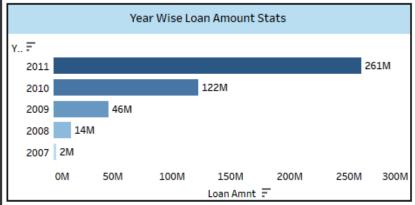
AVERAGE INTEREST RATE
12.02%

TOTAL RECOVERIES

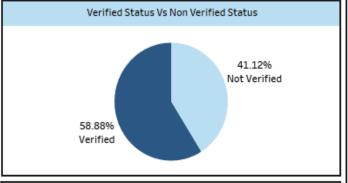
40K

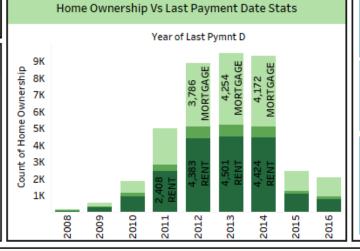
TOTAL FUNED AMOUNT \$435M

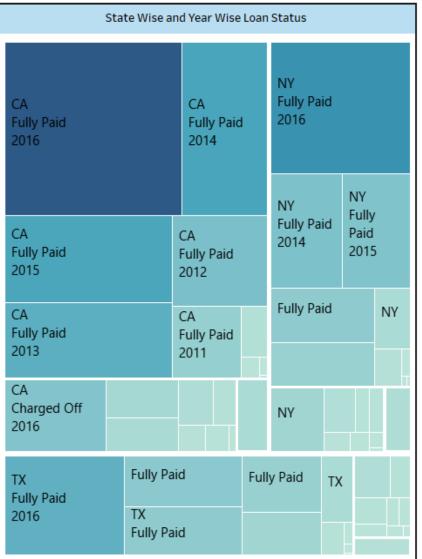












## THANK YOU