

Gramener Case Study

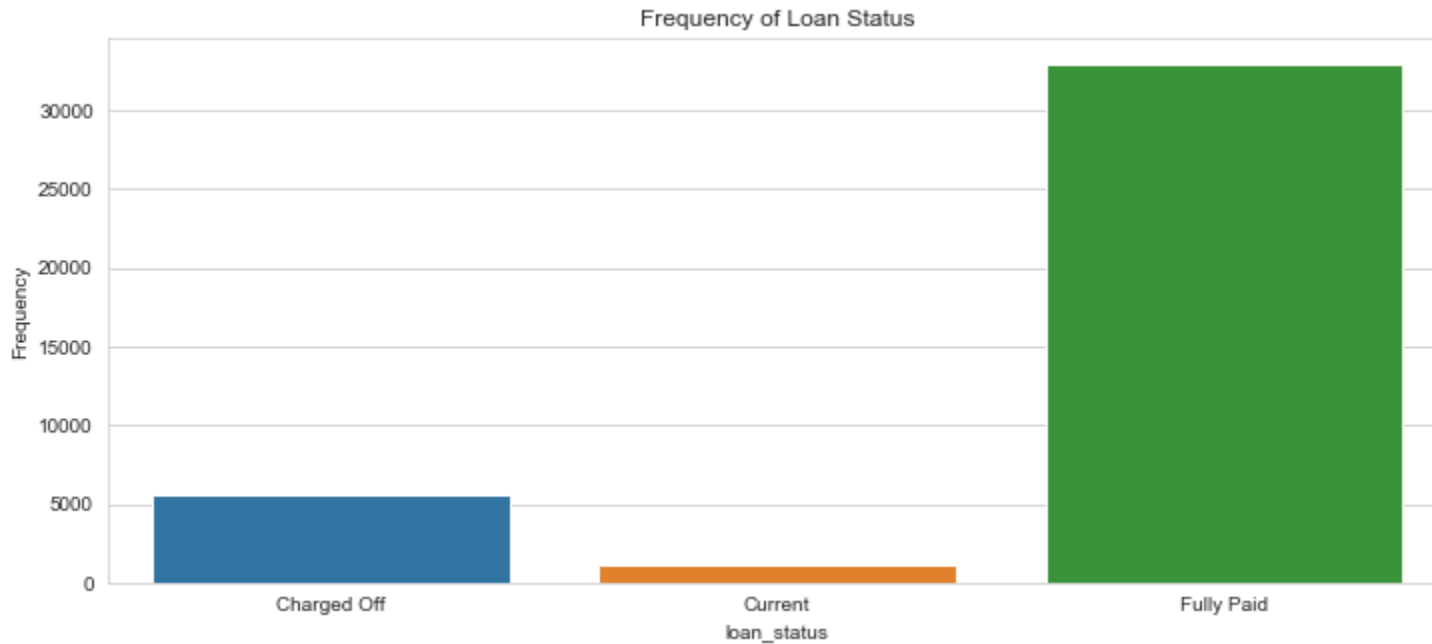
Pooja Manjrekar
Utkarsha Dhawan
Anuj Panchal
Ashwini Ingale

Problem Statement

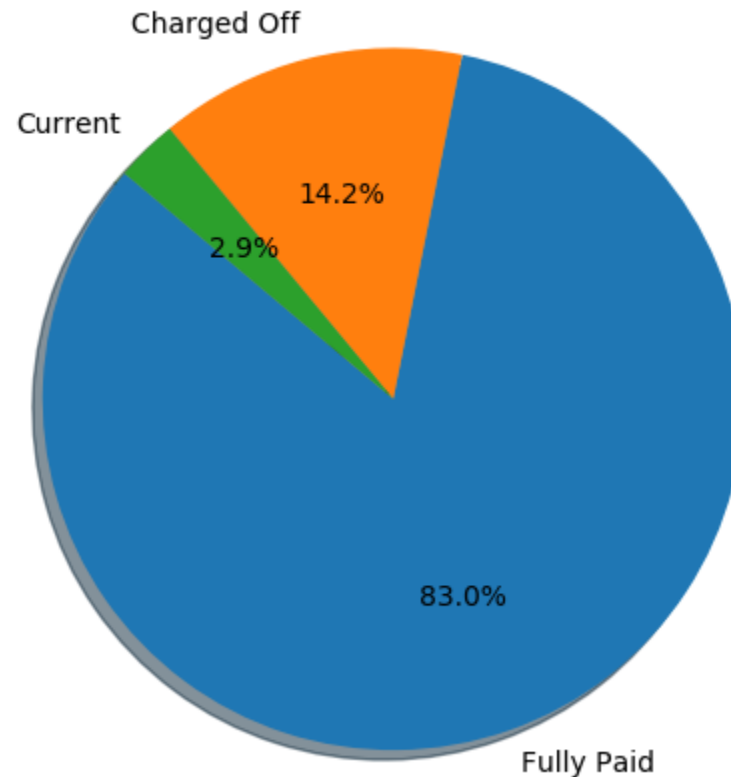
- To create system in place which will help us to weed out the future defaulter to minimize the risk of losing money.
- We will specially focus on customer which have status of charged -off because this are the defaulters.
- Our system will take into consideration the variables specific to the defaulter so that in near future system will predict there are default or not.

Univariate analysis

Analysis of loan status



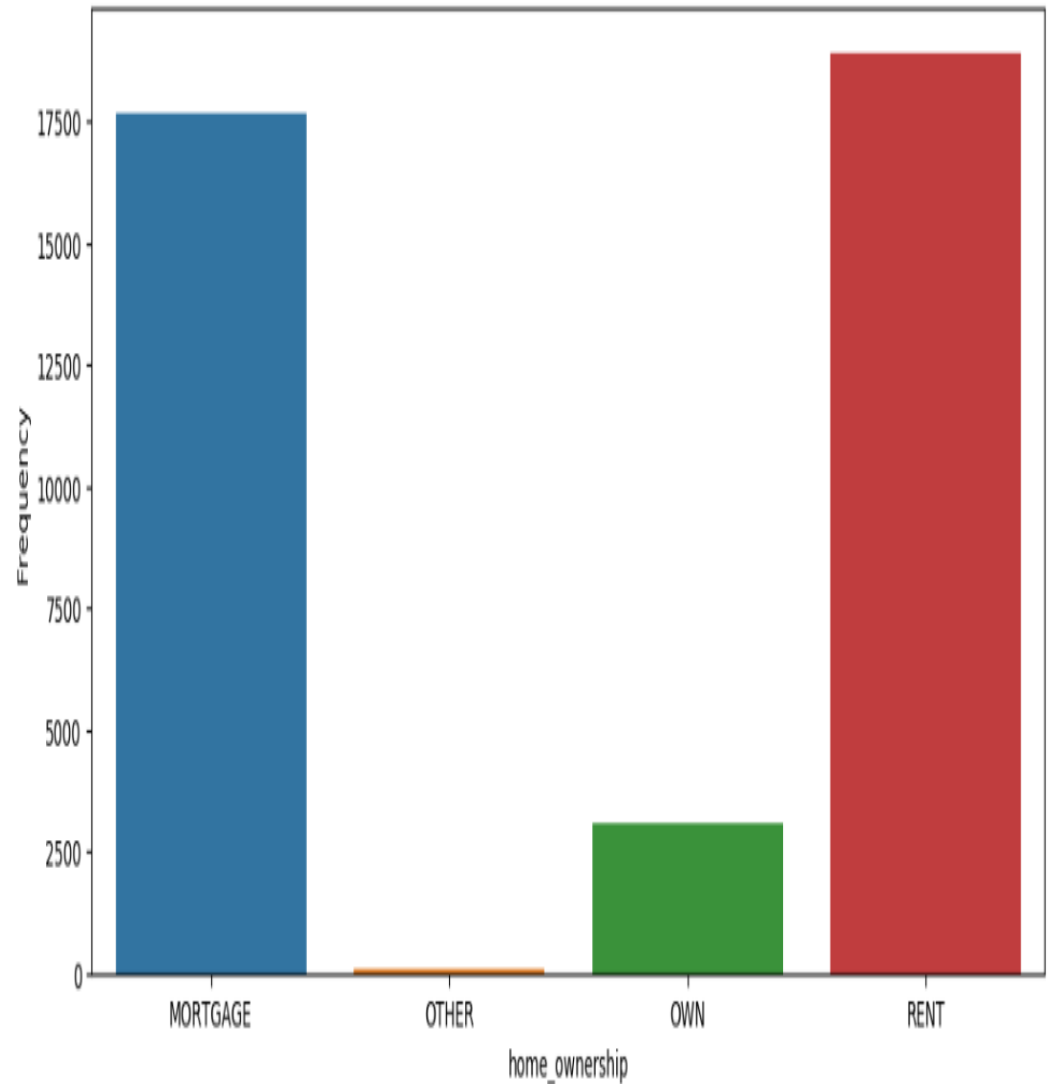
Loan Status shows that Most of the loans in the data set are fully paid and only a small percentage of loans are current loans



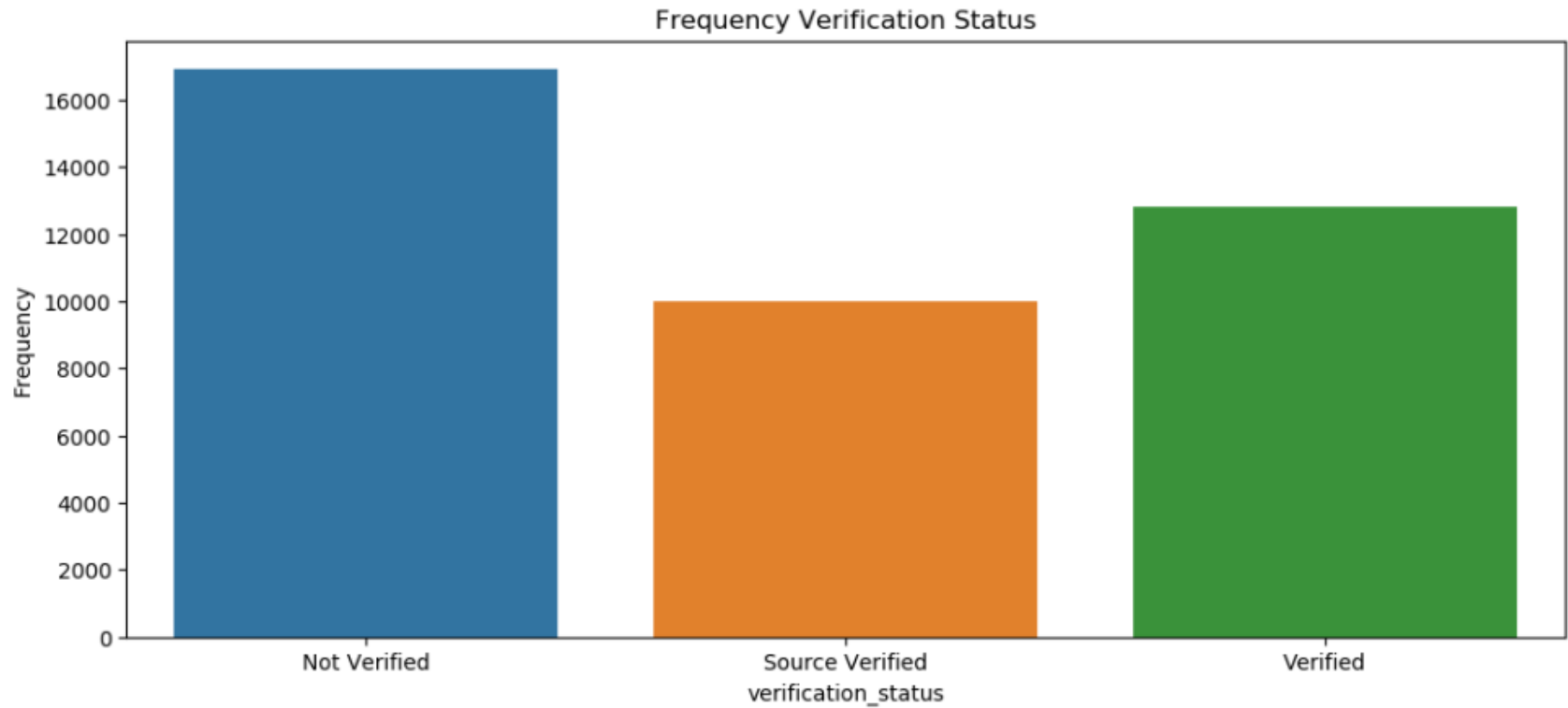
Charged off – Home ownership

Frequency of Home Ownership

From the graph it is clear that in charged off case most of the members have rented and mortgage homes.



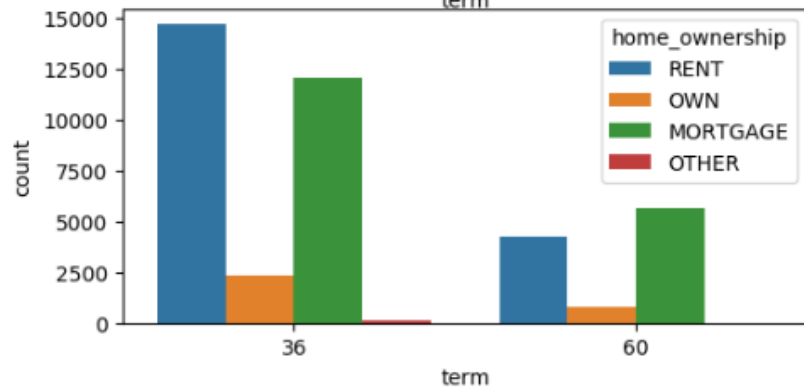
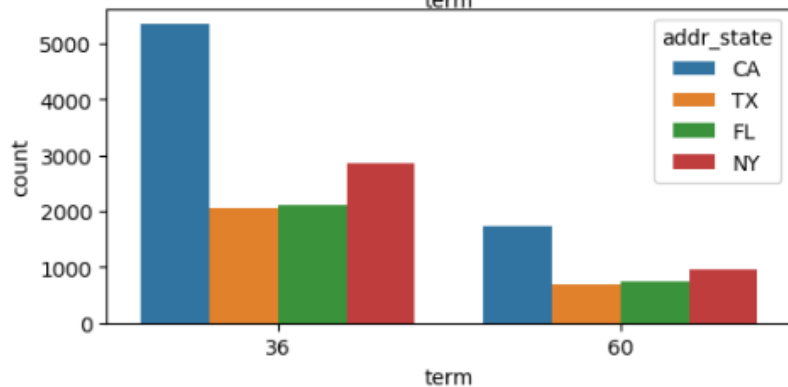
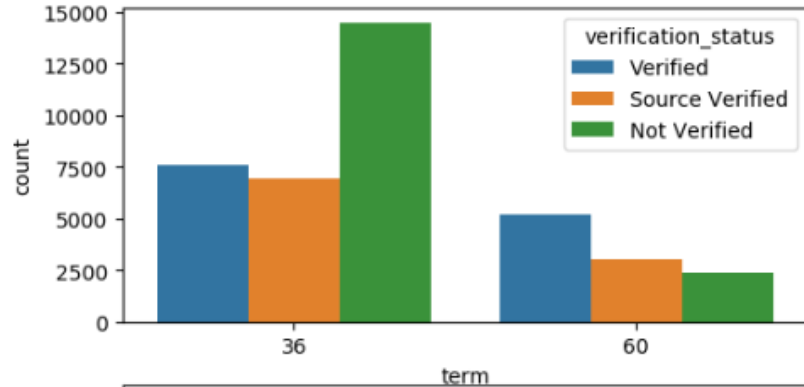
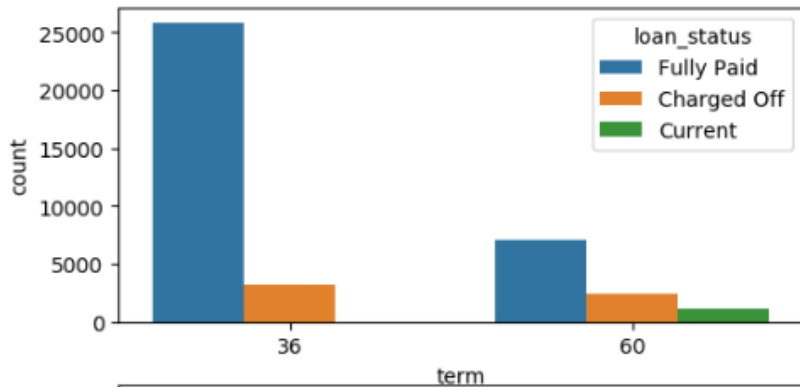
Verification Status



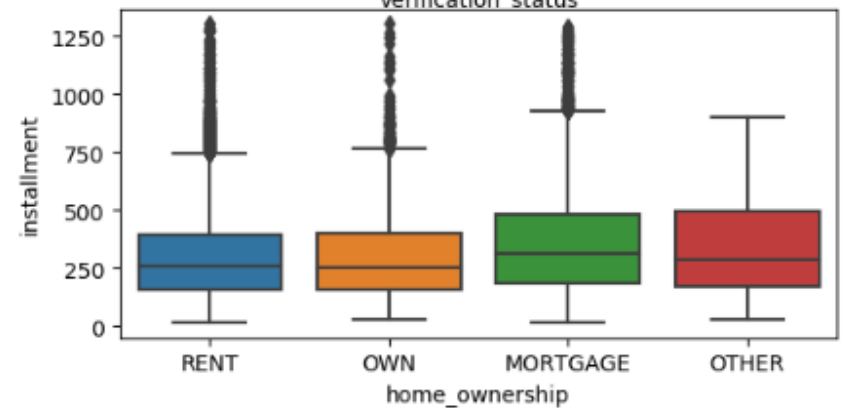
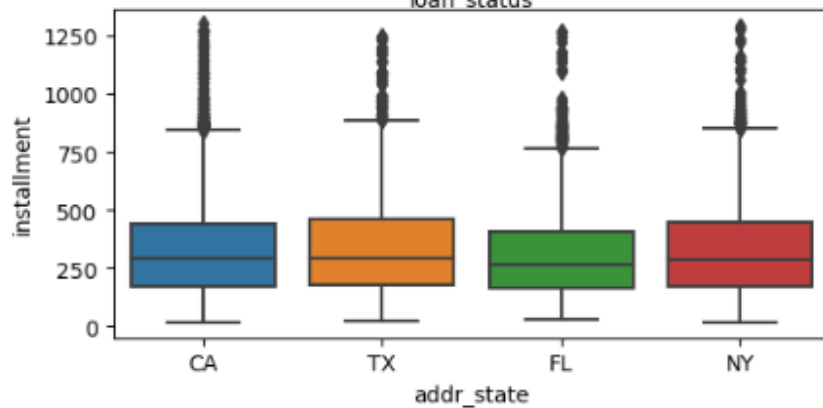
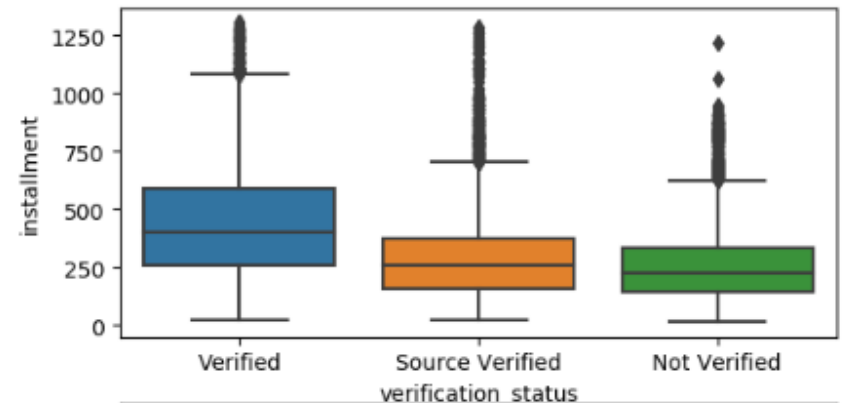
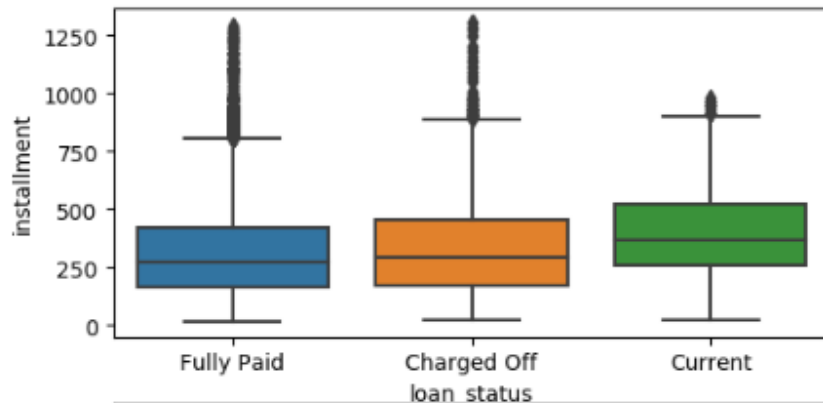
Graph shows that most of the loans data are not verified

Segmented Univariate Analysis

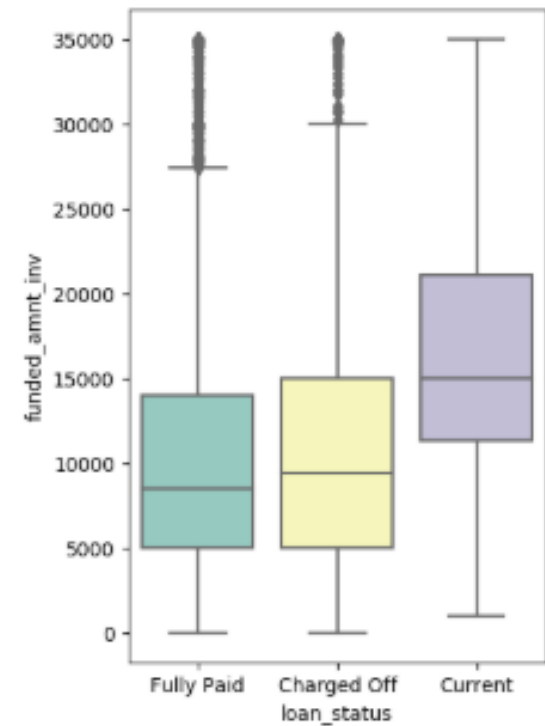
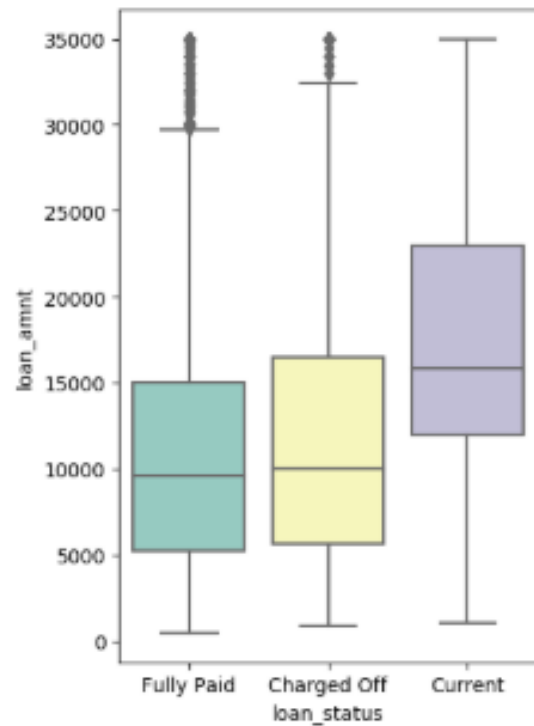
Analysis on term segmented with loan status, grade, verification status, add state, home ownership



Term Segmentation Analysis: With Loan Status: 60 Months term loans are higher chance of defaulters. With Verification Status: 36 Months terms loan has not properly verified With Addrstate: 36 Months loans highly distributed in CA and then to NY state With Home Ownership: Rented persons are mostly applied for loans



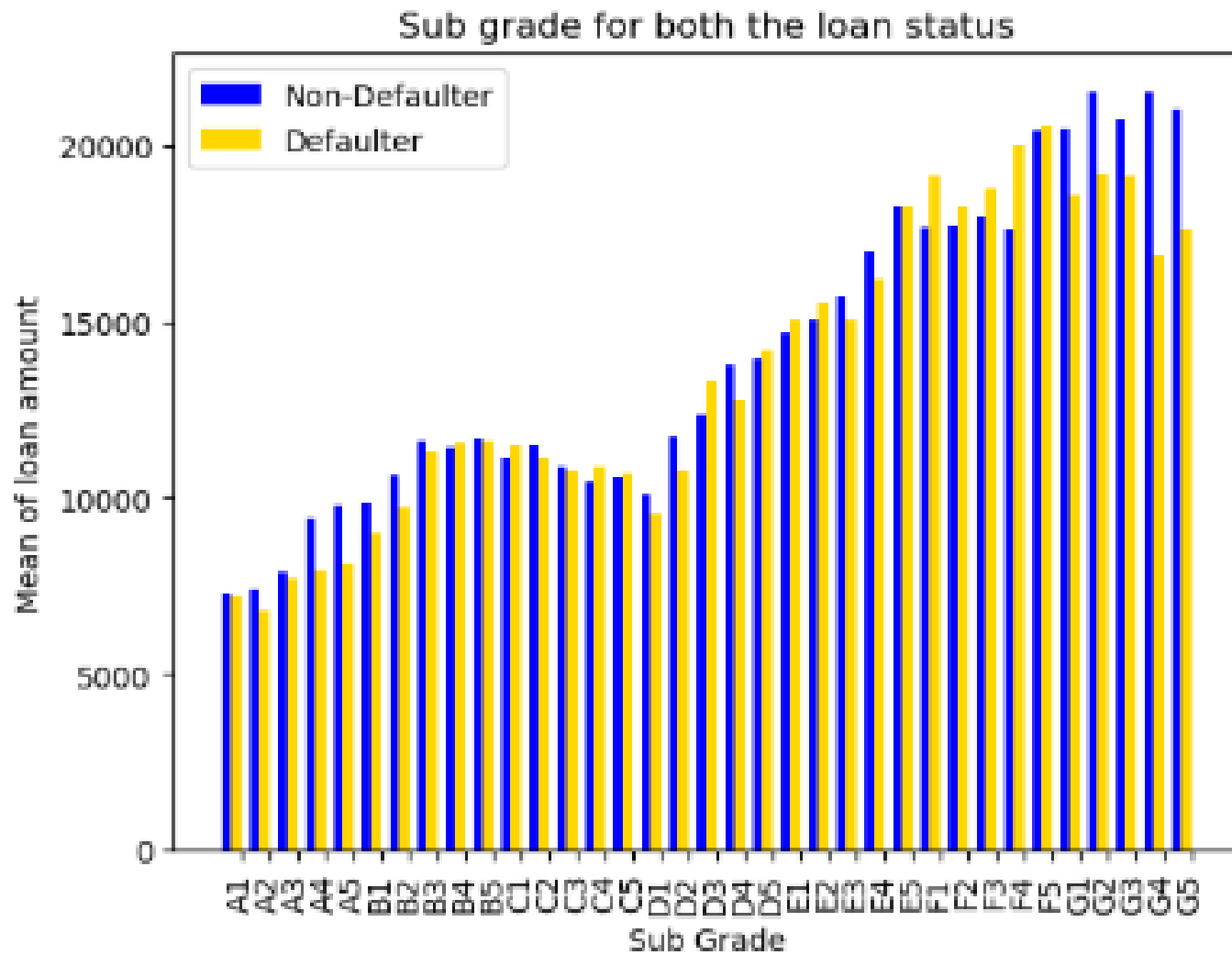
Installments Segmentation Analysis: With Loan Status: Installments are same for Fully paid and charged-off loans. With Verification Status: Installments are higher for verified loans. With Addrstate: No significant difference. With Home Ownership: 36 Months terms loan has not properly verified



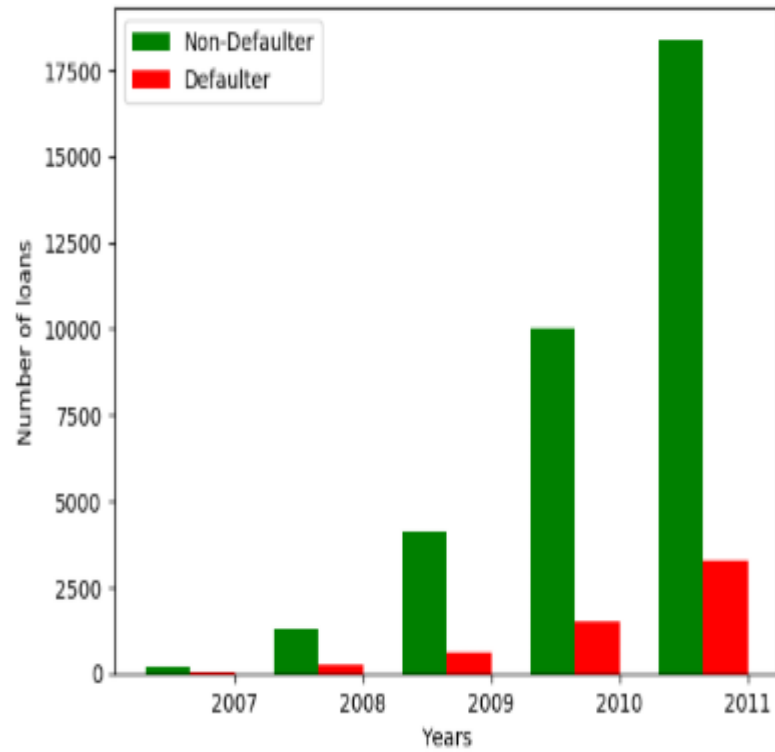
Loan Status Segmentation Analysis: With Loan Amount: Charge-off loans are higher loan amount but not more than current loans. With Funded Amount: Charged-off loan are slightly higher funded amount inv but not more than current loan.

Bivariate Analysis

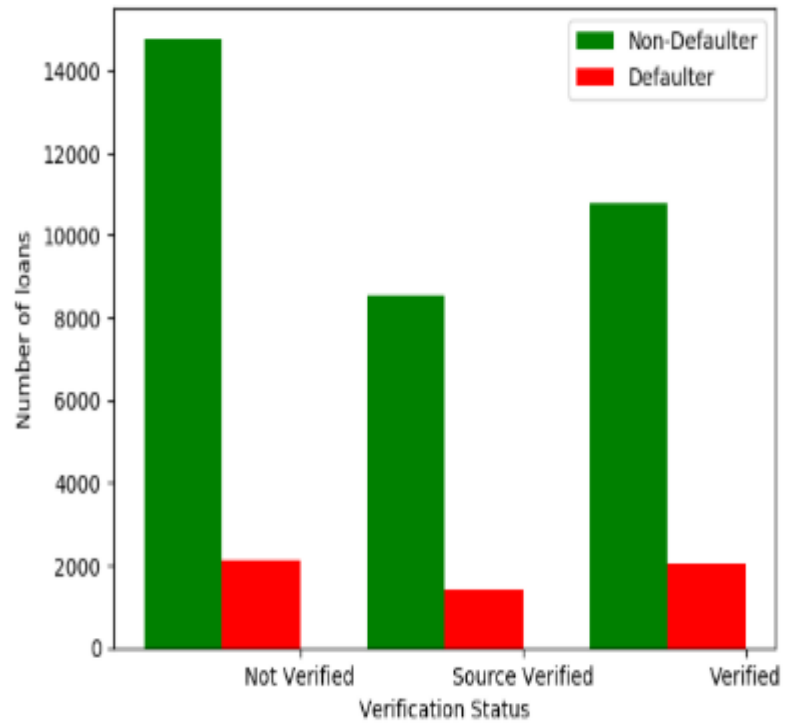
AVERAGE INTEREST RATES AT VARIOUS GRADES



Year wise loan status

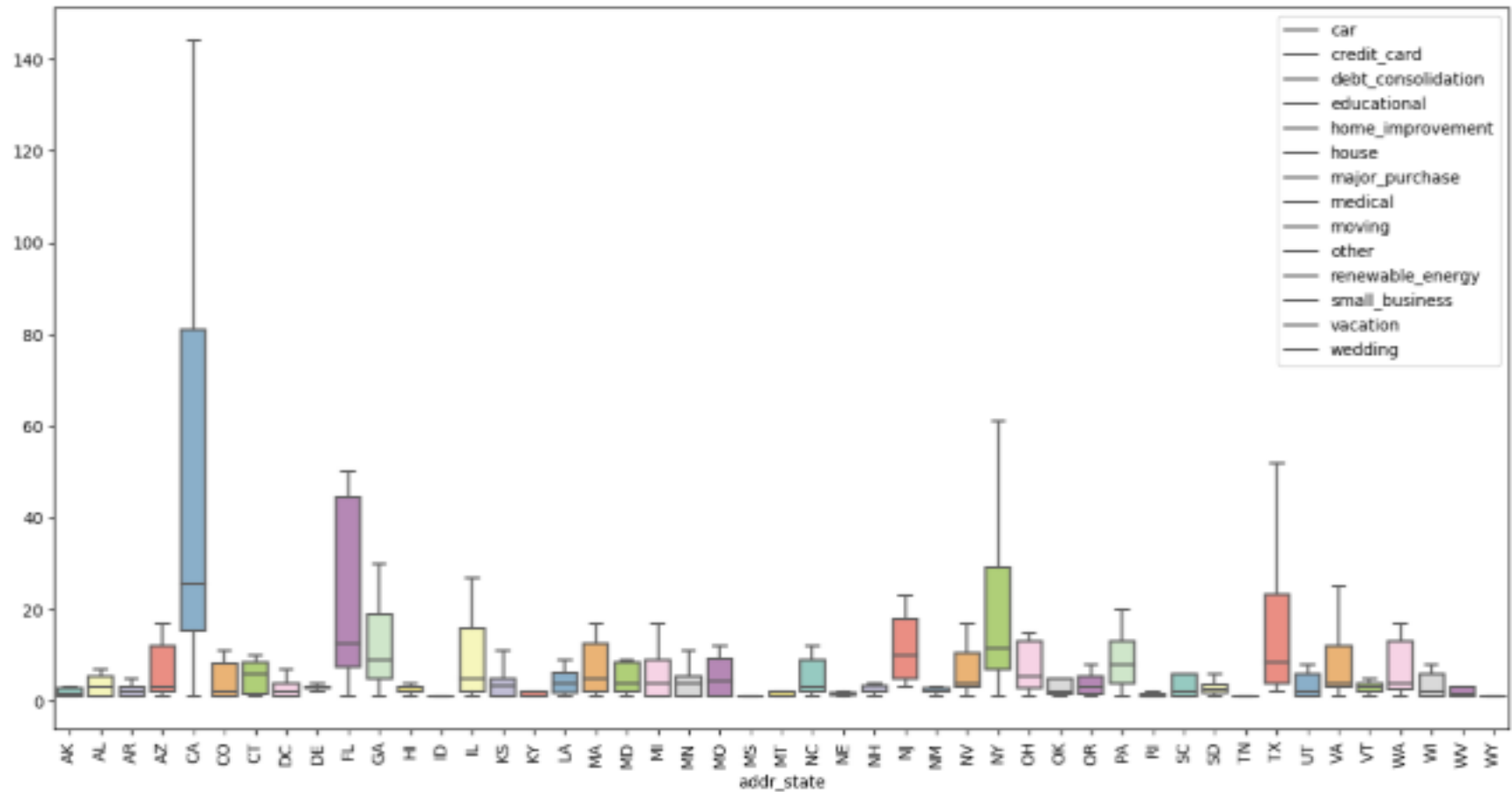


Verification status for both the loans

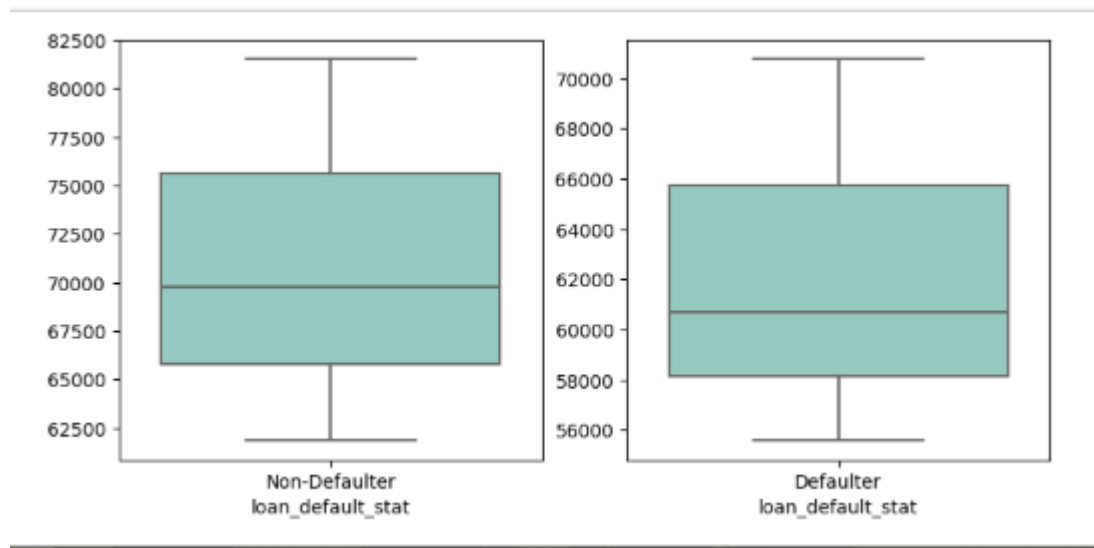


In year 2011 has the record of taking the most loans

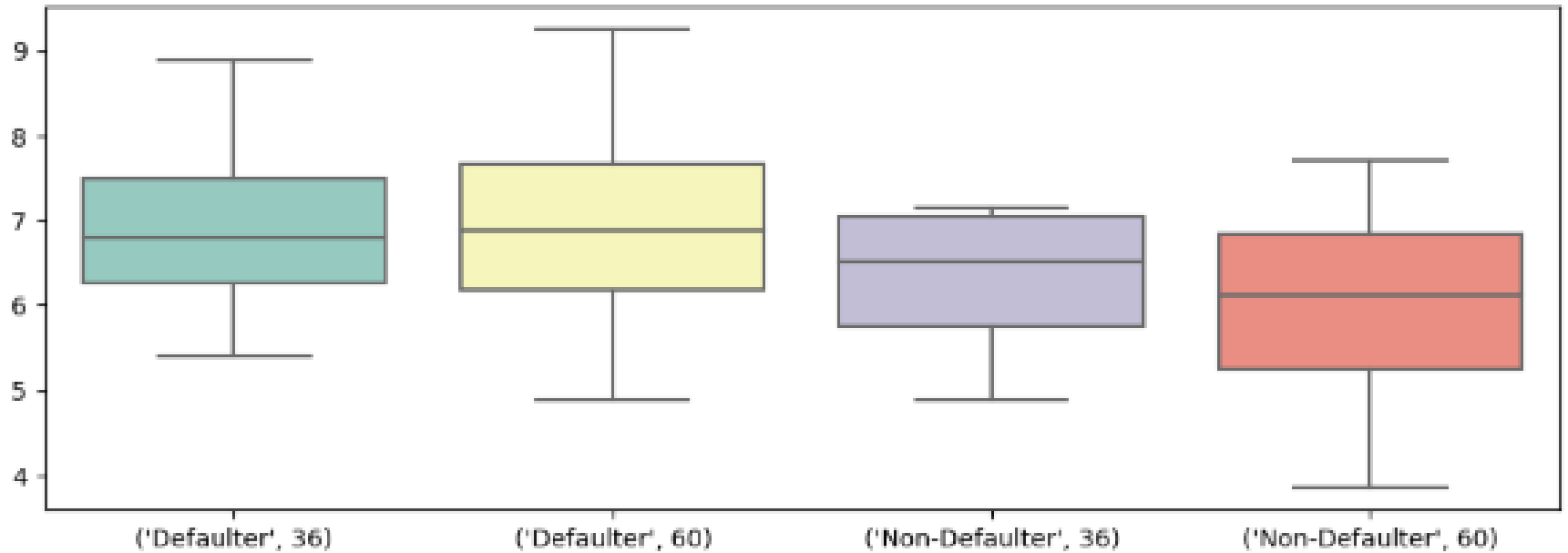
People who took loan(s) for debt consolidation have the highest chances of defaulting their loans CA state has highest such defaulters



In both the cases for all the verification status (not verified, verified and source verified), always the non-defaulters have a higher annual income than those of defaulters



Following graph tell us that whether or not a loan is likely to default or not



Conclusion

- The main driving factors/variables for us in helping to prove that who can be the probable defaulters are : employee length, home ownership, grade.
- Some of the other loan related attributes are: verification status of the loan, loan status, funded amount of investors.