



# **Lending Club Case Study**



# Agenda

Problem Statement & Approach

Univariate Analysis Graphs & Data

Bivariate Analysis Graphs & Data

Multivariate Analysis Graphs & Data

Conclusion

Recommendation

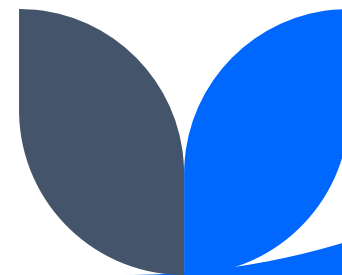
# Problem Statement & Approach

This is the case study based on the loan dataset provided assignment. With this provided dataset risky individuals for loan approval will be identified. This is the goal of the exercise. Large number of defaulters in case, will add greatest loss to the bank

Following steps were followed for this assignment

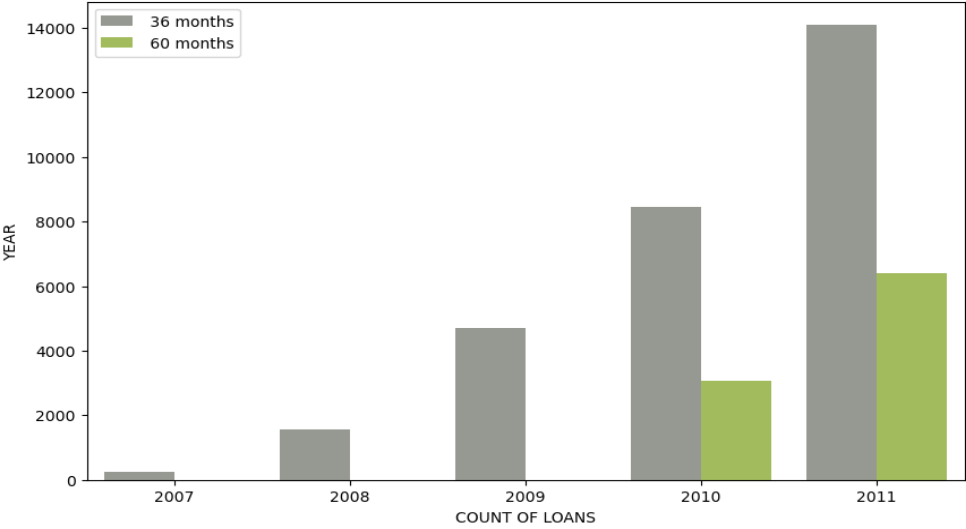
- Data Cleaning
- Data Transformation
- Univariate Analysis
- Bivariate Analysis
- Multivariate Analysis
- Conclusion

In the conclusion, recommended suggestions are provided to the loan provider. These suggestions are based on inferences observed from dataset after multiple analysis

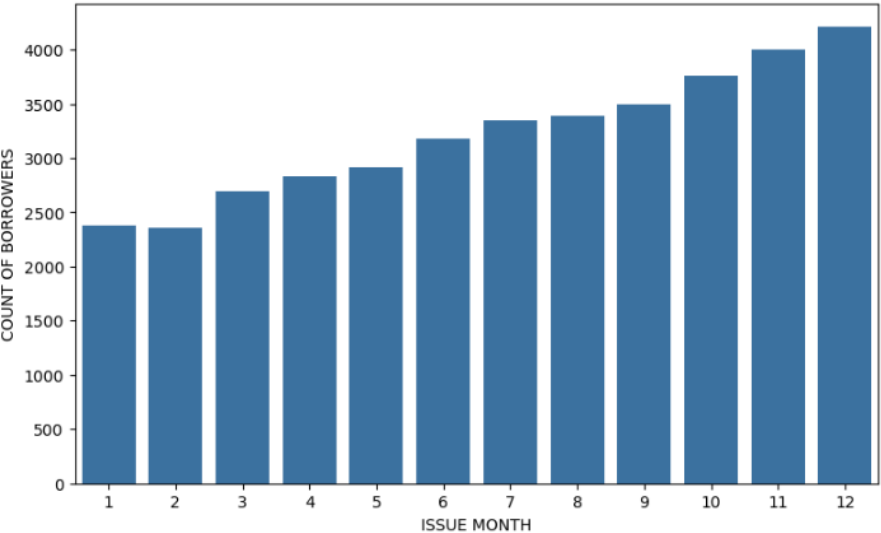


# Univariate Analysis Graphs & Data

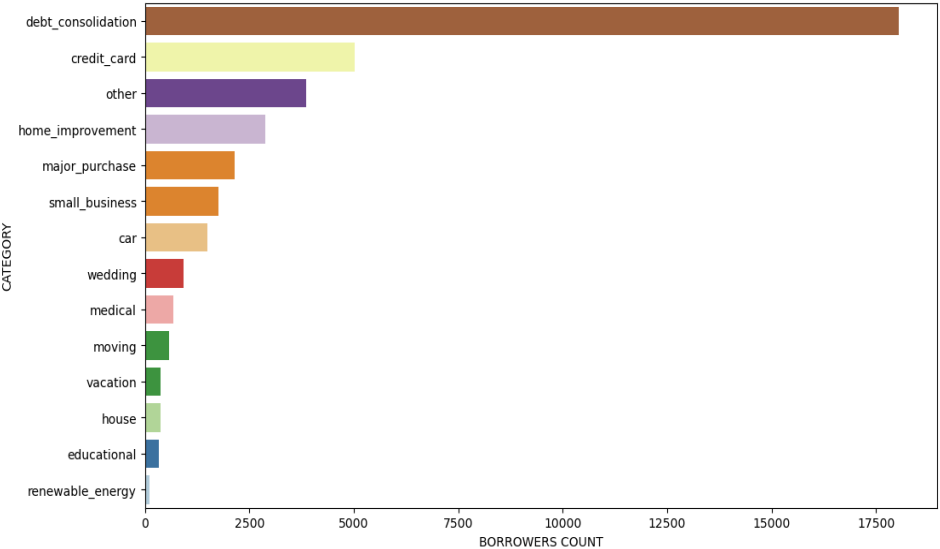
LOAN PROVIDED PER YEAR



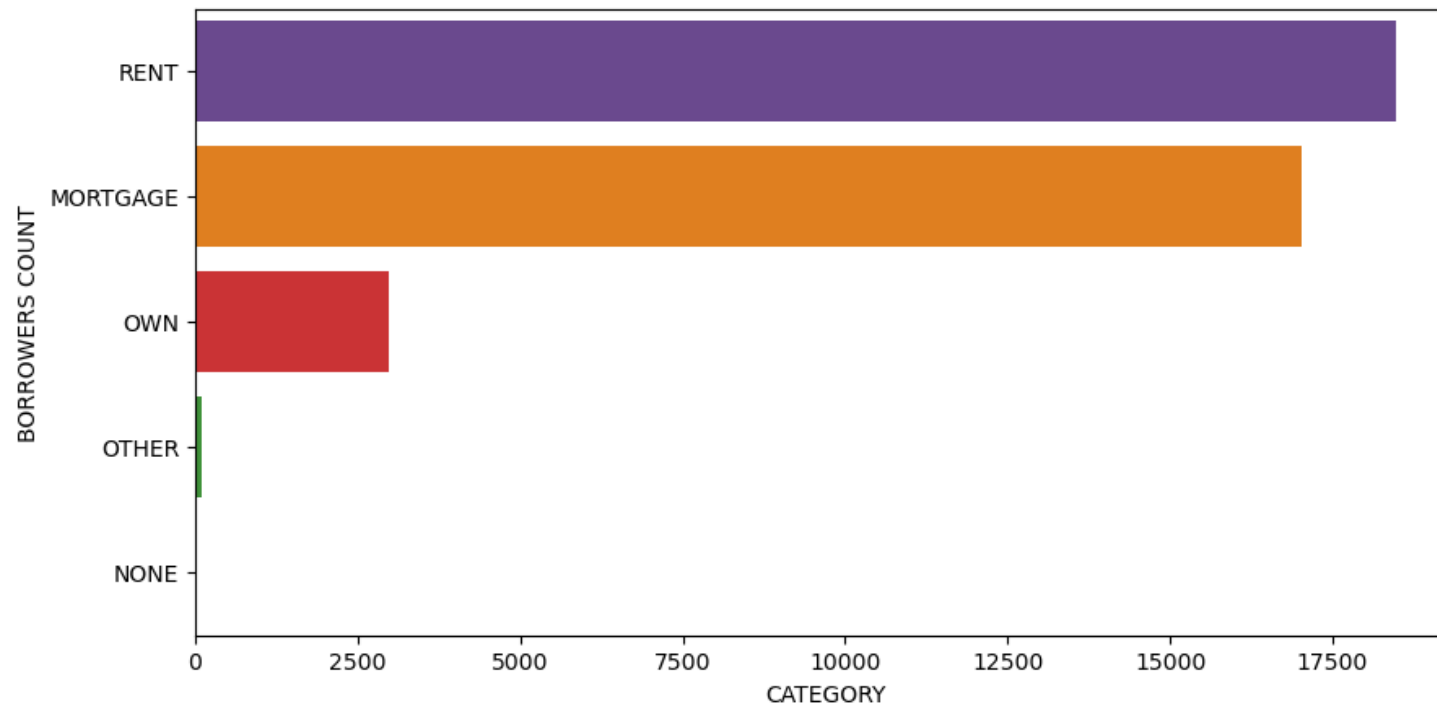
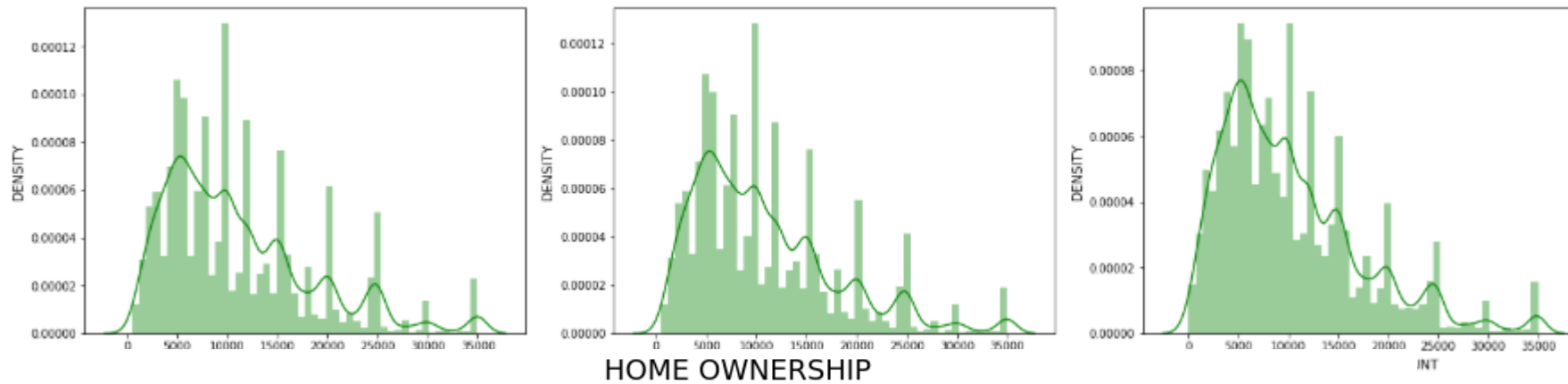
BORROWERS PER ISSUE MONTH



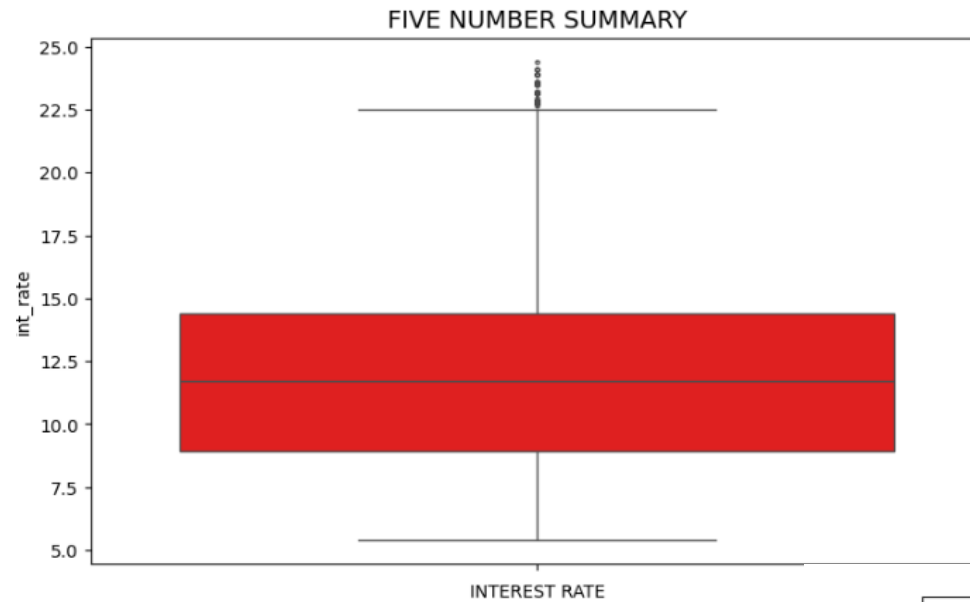
PURPOSE OF LOAN



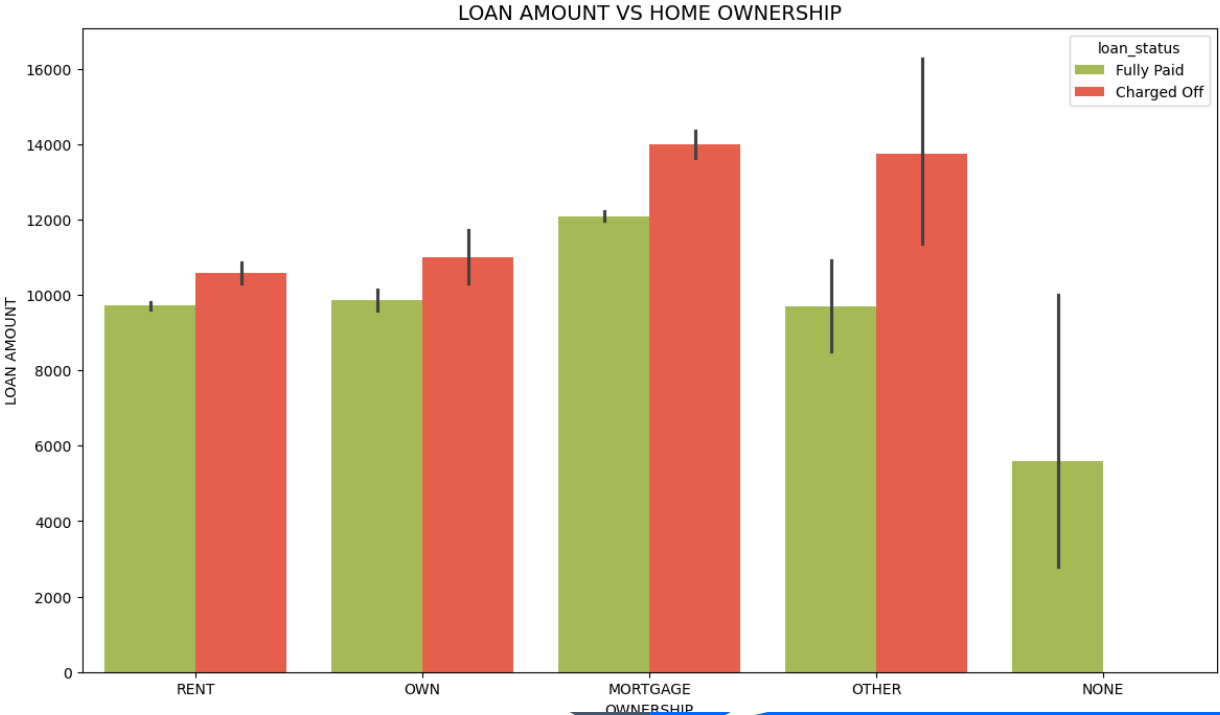
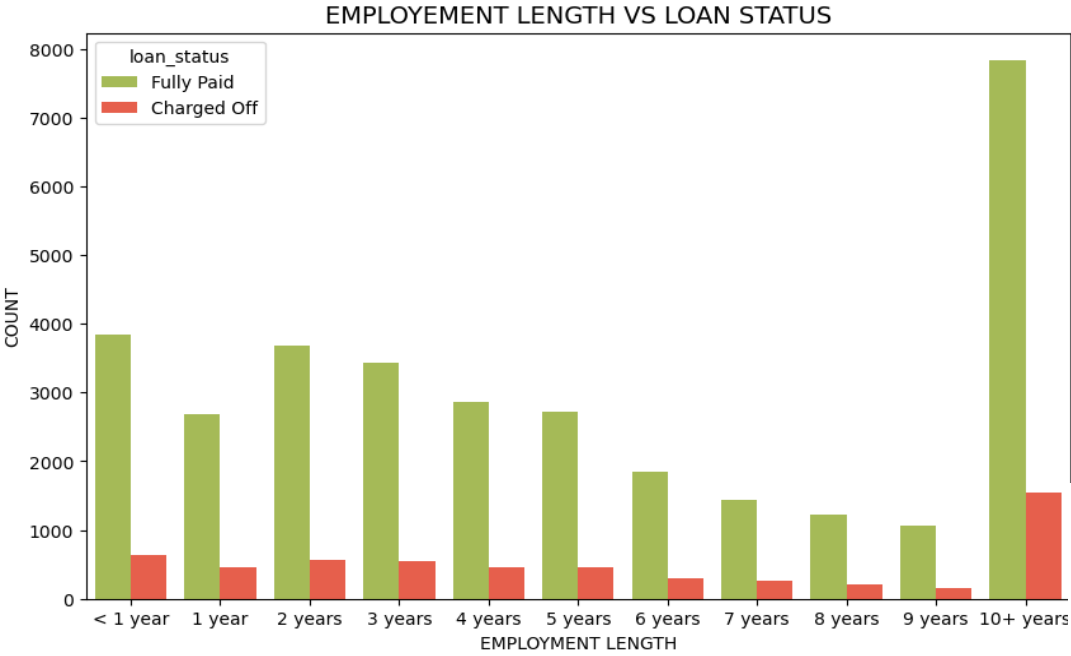
# Univariate Analysis Graphs & Data



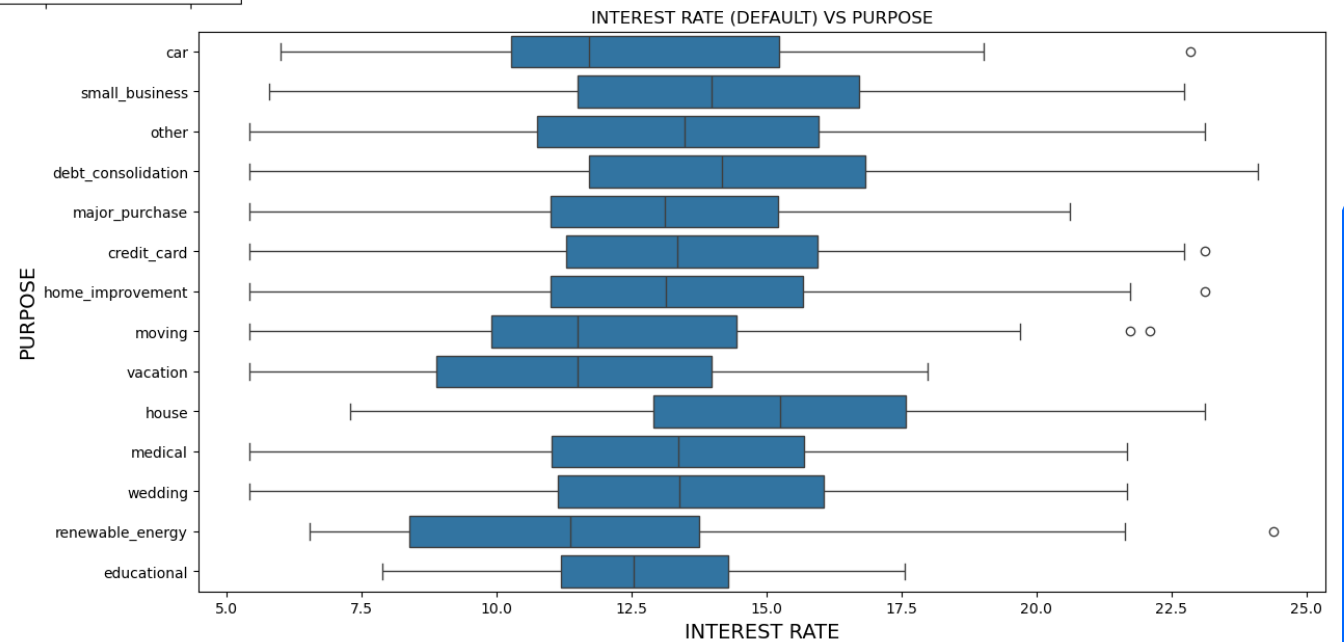
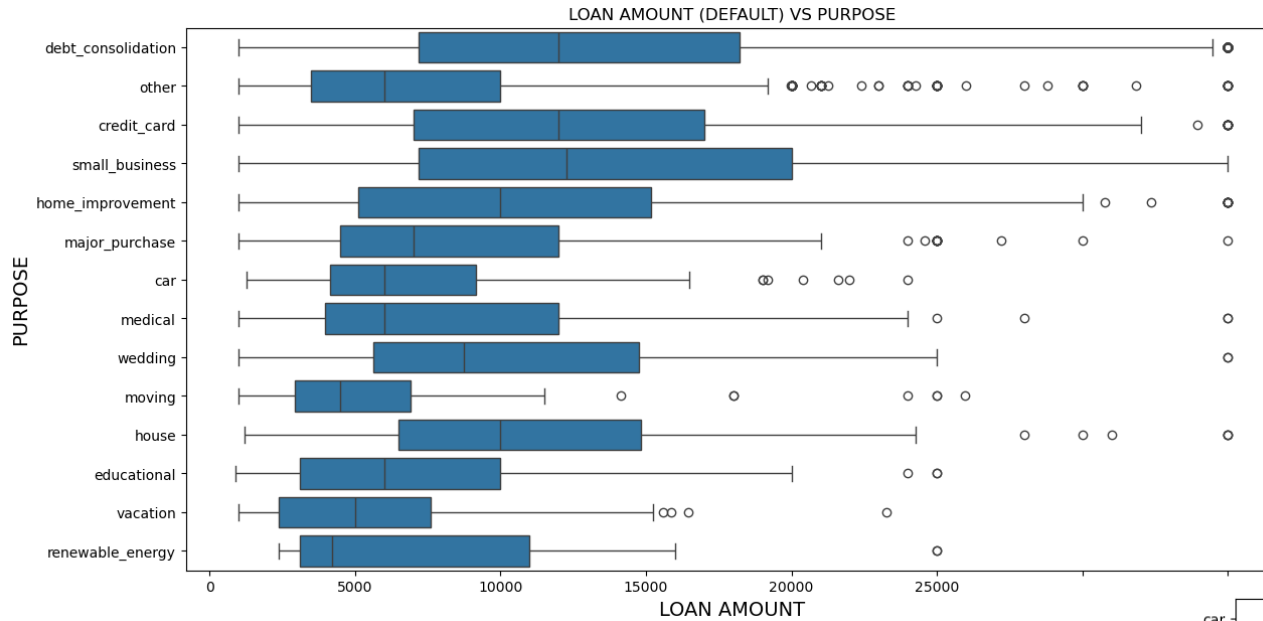
# Univariate Analysis Graphs & Data



# Bivariate Analysis Graphs & Data

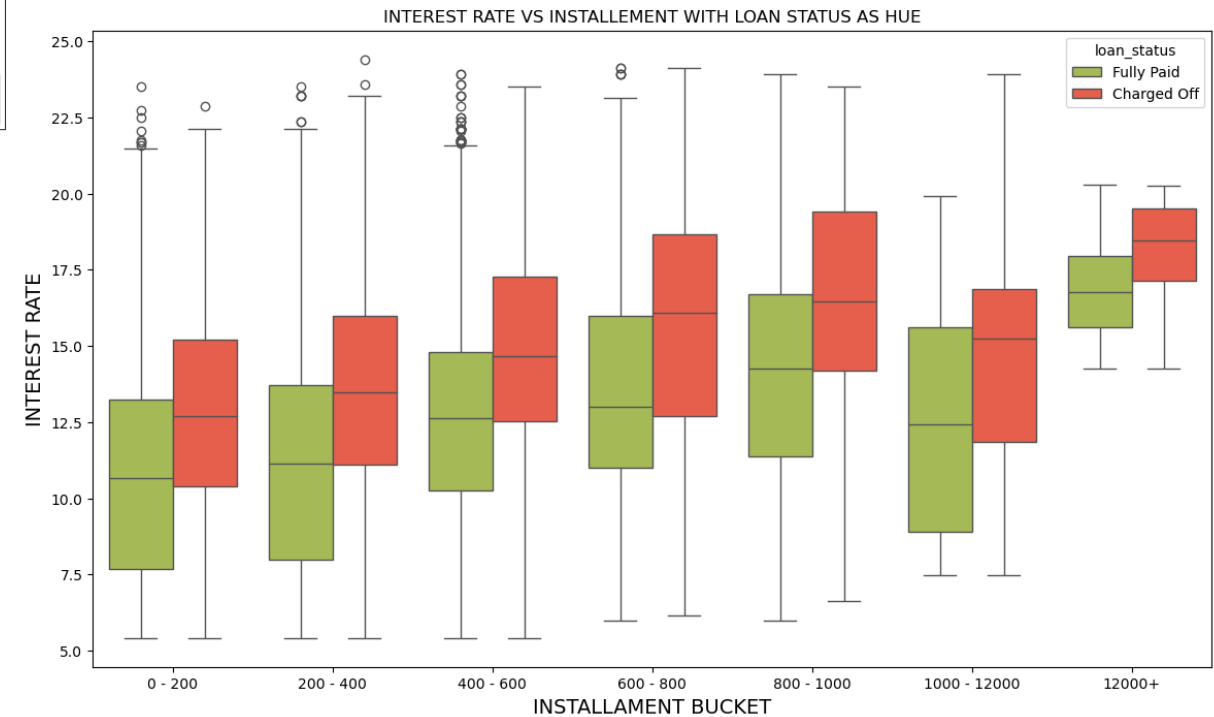
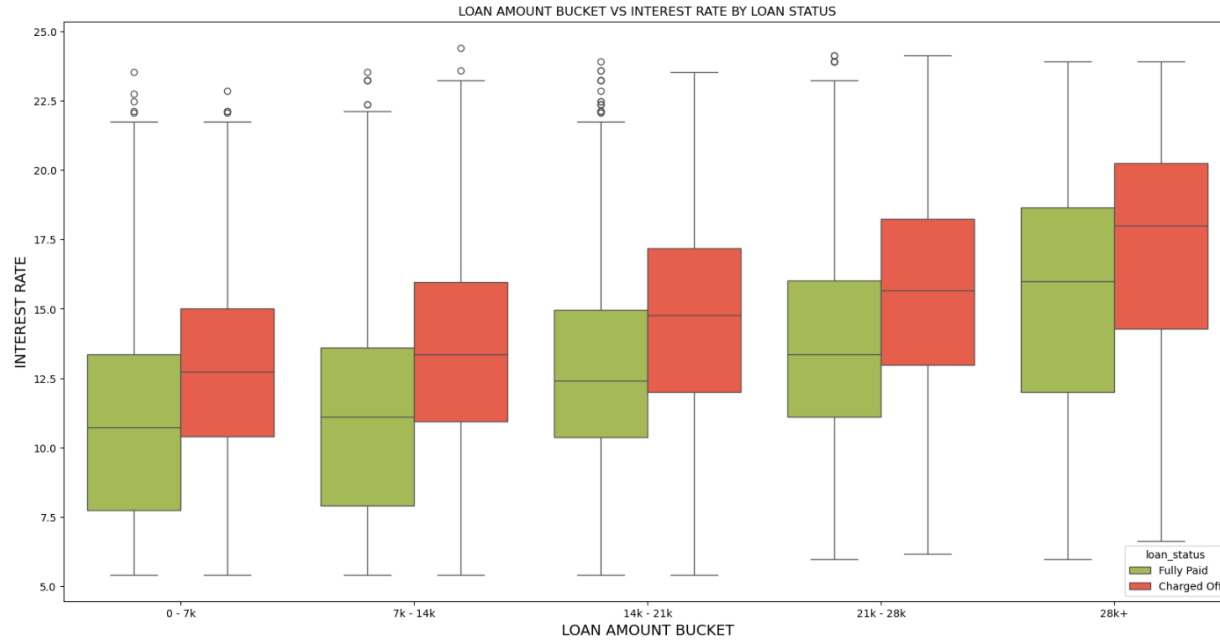


# Bivariate Analysis Graphs & Data



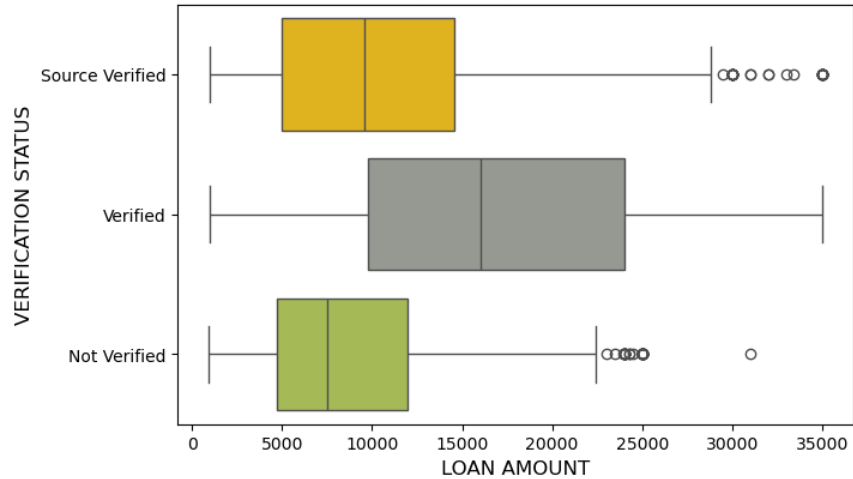


# Bivariate Analysis Graphs & Data

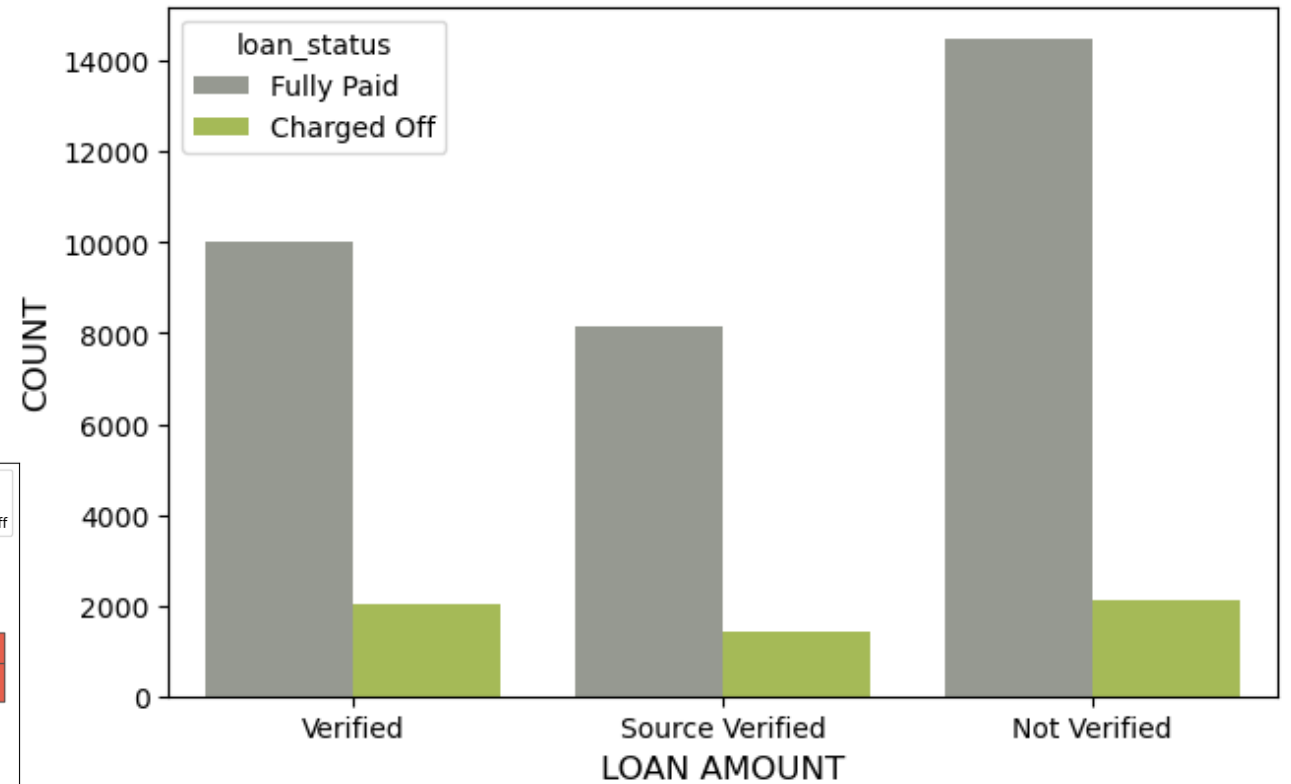


# Bivariate Analysis Graphs & Data

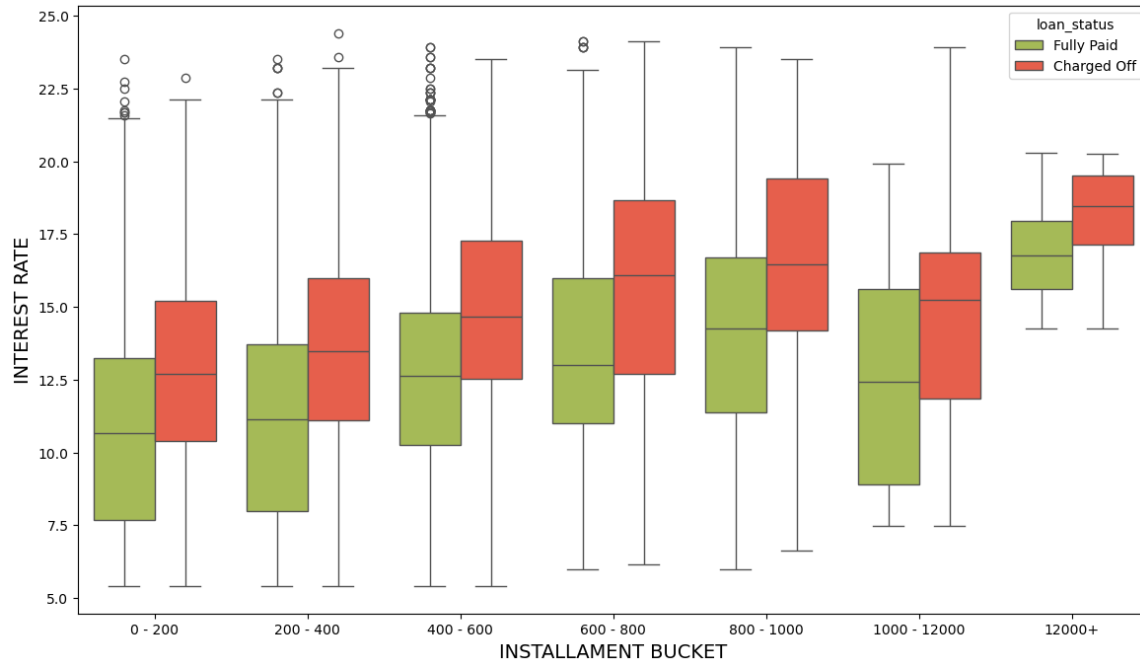
LOAN AMOUNT (DEFAULT) VS VERIFICATION STATUS



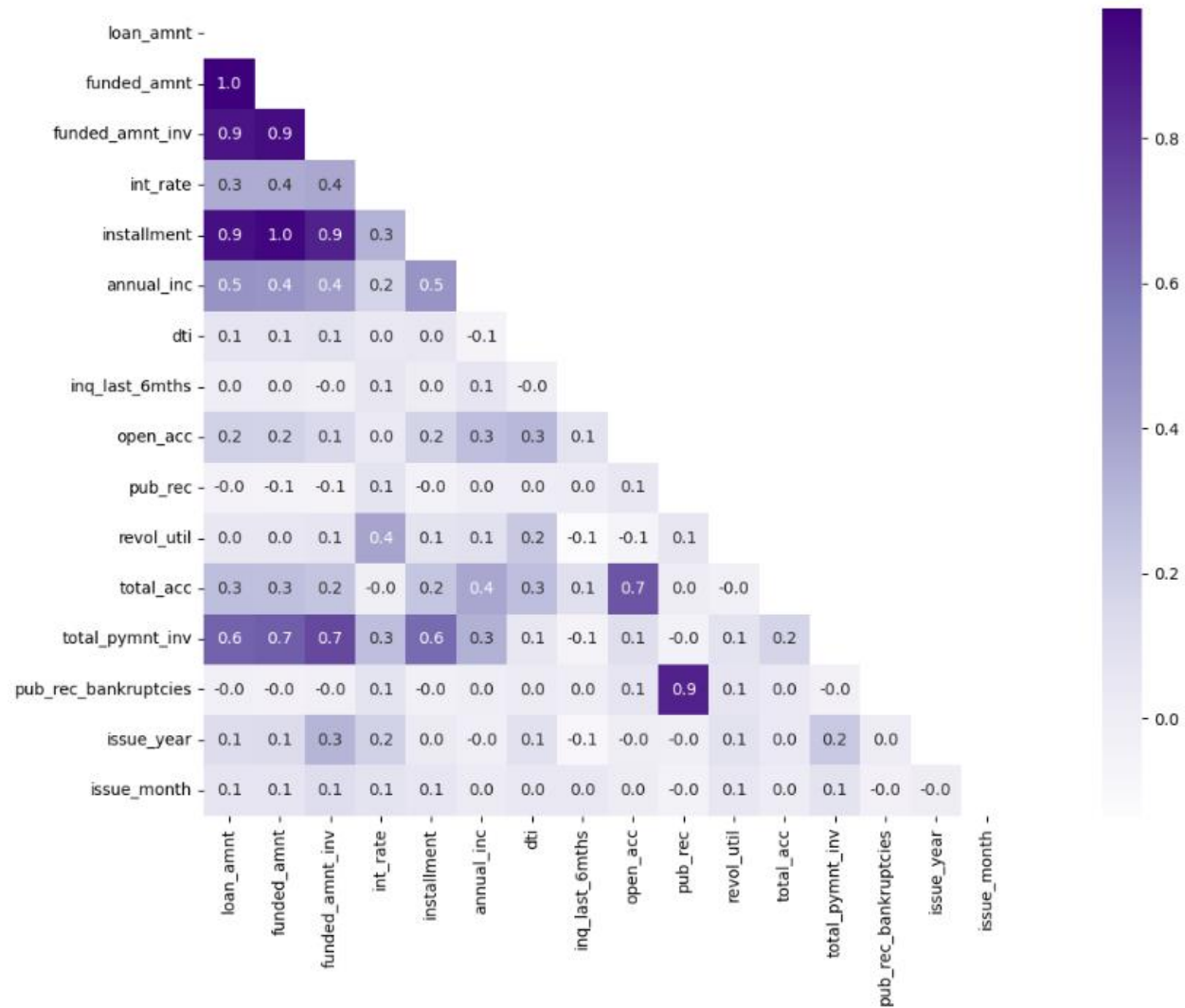
LOAN AMOUNT VS COUNT



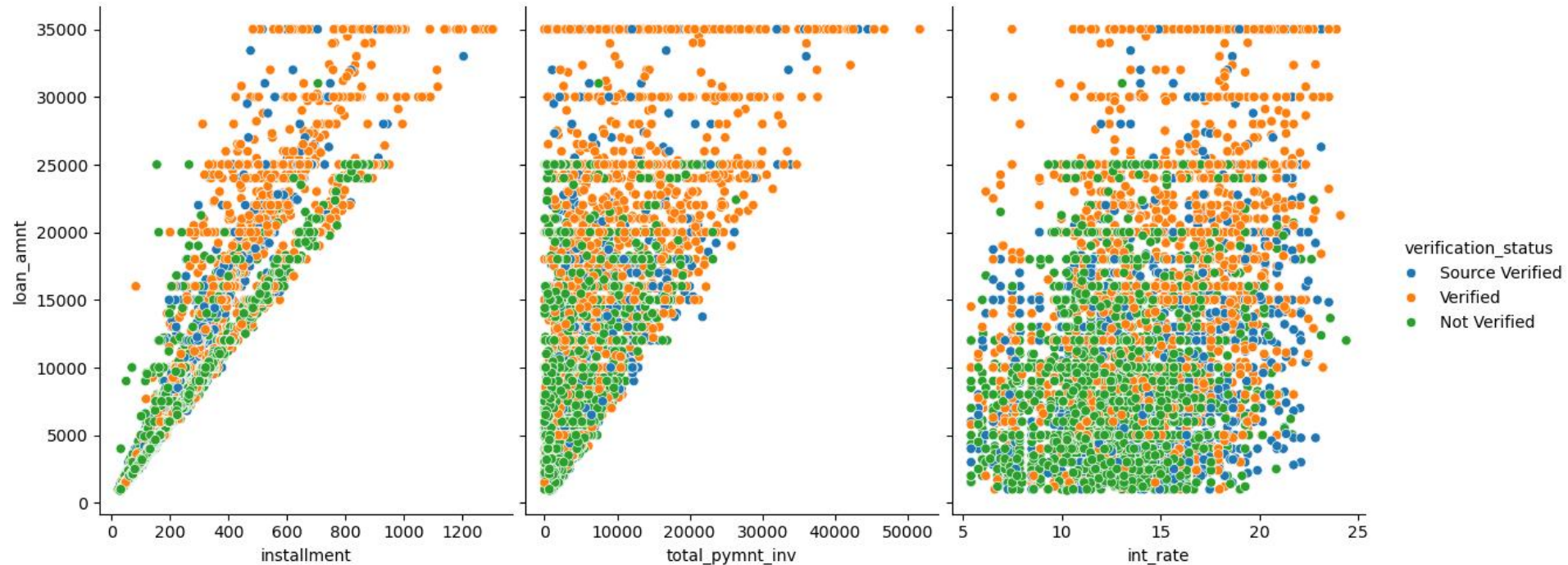
INTEREST RATE VS INSTALLMENT WITH LOAN STATUS AS HUE



# Multivariate Analysis Graphs & Data



# Multivariate Analysis Graphs & Data



# Conclusion

## Conclusion

- ✓ Borrowers with high interest and 10+ years of employment length.
- ✓ Borrowers living on mortgage with loan amount greater than 12000.
- ✓ Loan for debt consolidation, credit card, small business with loan amount greater than 12000.
- ✓ For any loan amount provided with an average interest rate higher than 13%.
- ✓ Loan provided for house purpose with average interest greater than 15%.
- ✓ Loan provided with an average of 12.5% interest rate for 36 months of tenure.
- ✓ Loan provided with an average of 16.5% interest rate for 60 months of tenure.
- ✓ Average loan amount greater than 15000 with grade E,F,G.
- ✓ Installments between 800-12000 with average interest greater than 15%.
- ✓ Average interest rate of 17% with installment greater than 12000.

# Recommendation

- Limit the loan amount to 12000 for applicants with ownership of mortgage . This also show financial status of a risky applicant.
- To encourage small business but also keep the investors less risked. The rate of interest for applicants for small business can be reduced around 2%.
- Increase the rate of interest by 0.5% to the loan amount for applicants whose purpose is moving, as the loan amount is less and are more likely to repay.





# Thank you

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