LOAN CASE STUDY

JAGDISH

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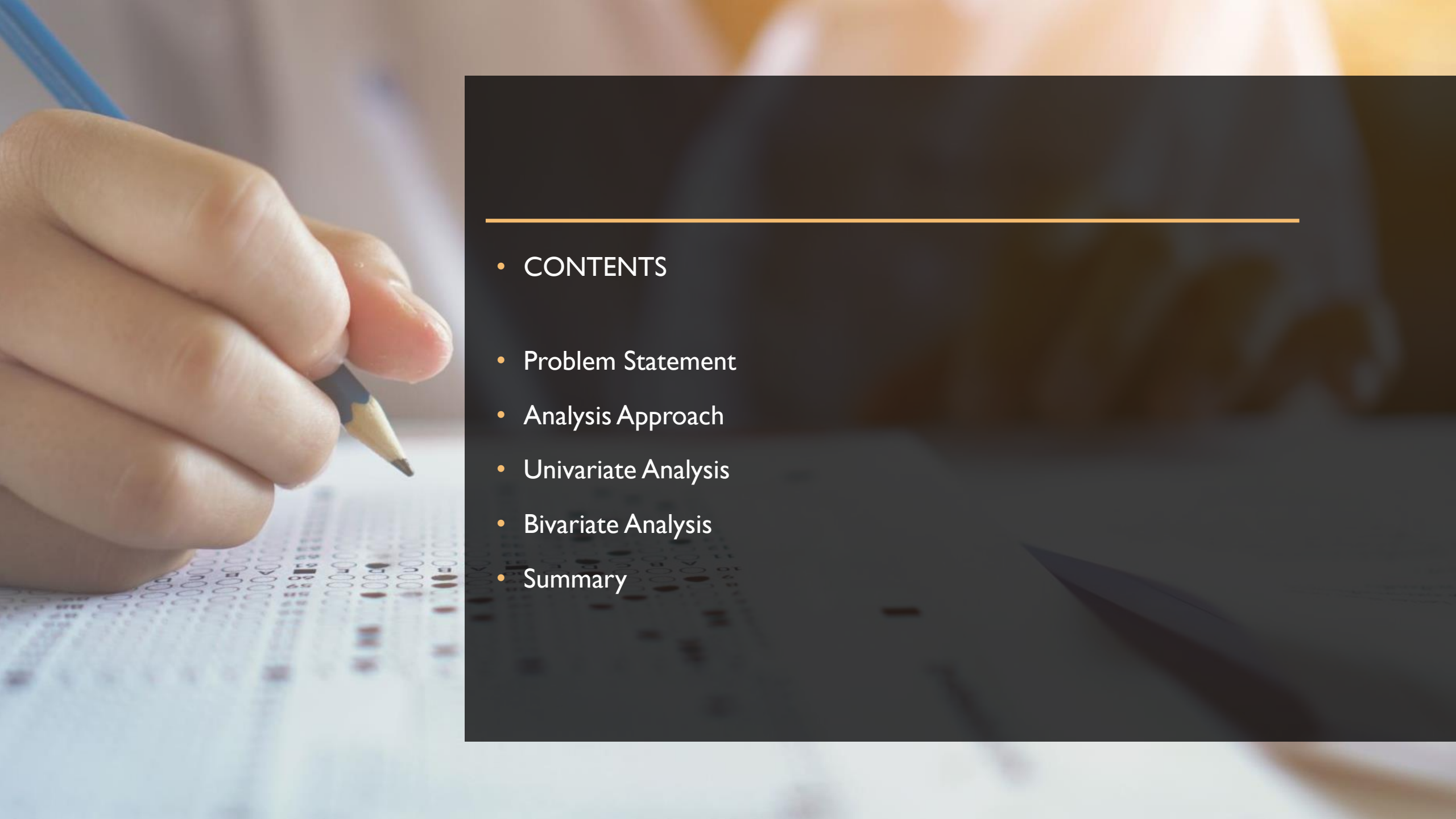

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PROBLEM STATEMENT

- The largest online loan marketplace wants to perform better portfolio and risk assessment
- Understand the driving factors behind loan default, i.e., the reasons which are strong indicators of default
- Reduce such loans thereby cutting down the amount of credit loss.

ANALYSIS APPROACH

- Understand the different attributes of the applicants
- Understand the different attributes explaining the loan default
- Perform univariate analysis to perform data cleansing
- Perform bivariate analysis to by combining attributes of applicants and attributes of loan default to draw conclusions

UNIVARIATE ANALYSIS

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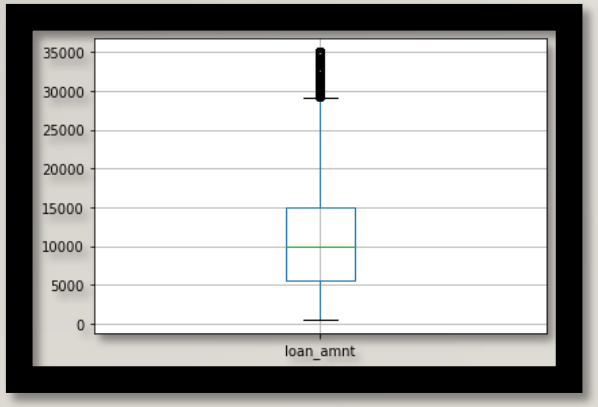
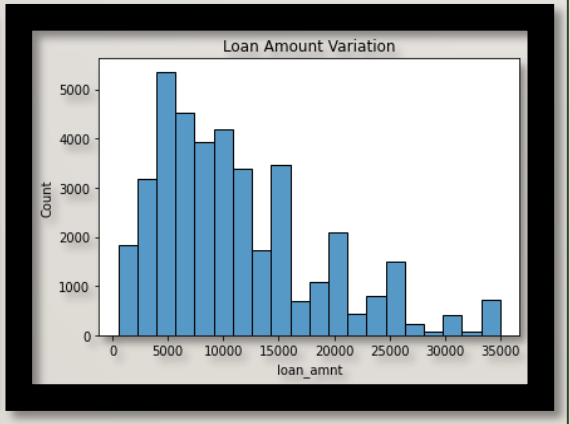
Loan amount

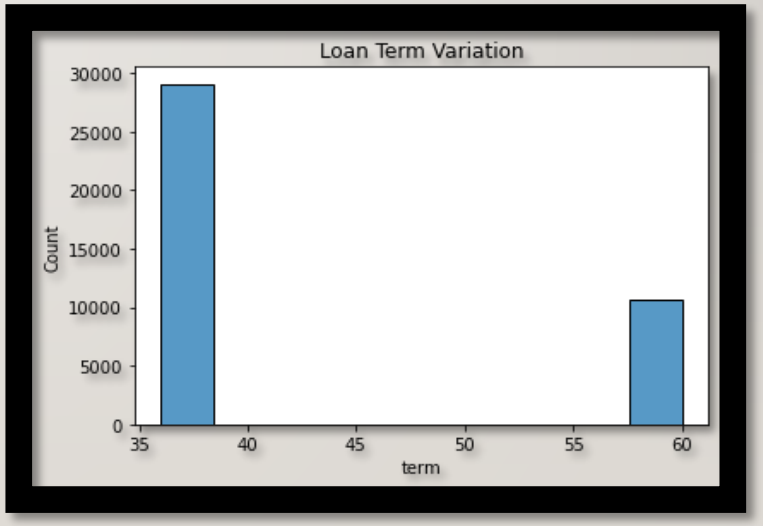
- Most of the loan amounts taken vary between 5000 – 15000
- The loan amount of 10000 is most frequently requested





Loan Term

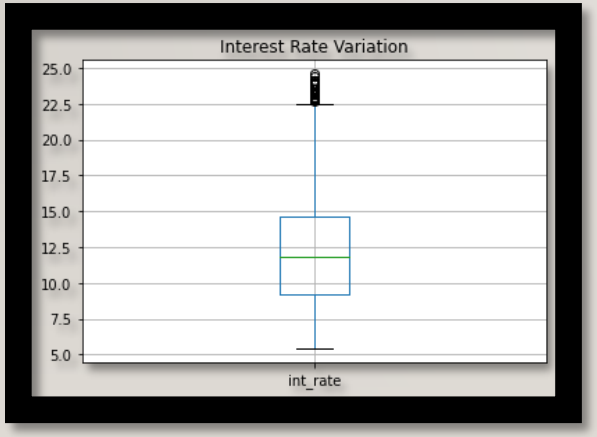
- There are 2 loan terms
  - 36 months
  - 60 months

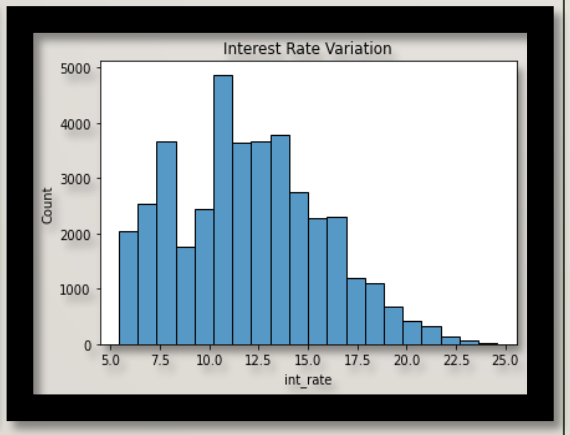


UNIVARIATE ANALYSIS

Interest Rate

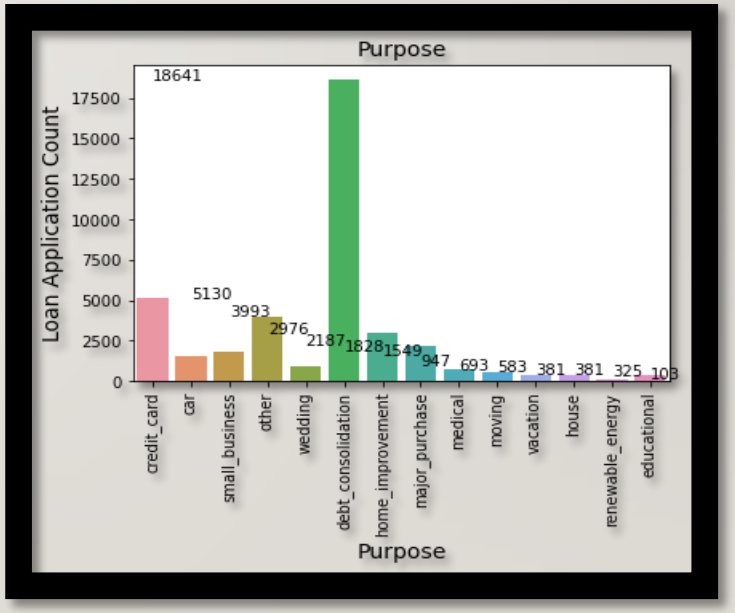
- Most of the interest rate vary between 9% - 15%
- Most of the loans have interest rate between 11% – 12%





Loan Purpose

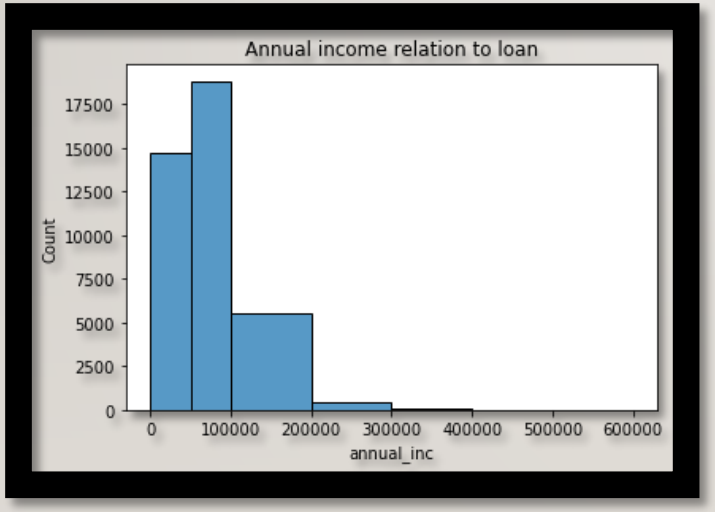
- Debt consolidation is the purpose for most of the loans



UNIVARIATE ANALYSIS

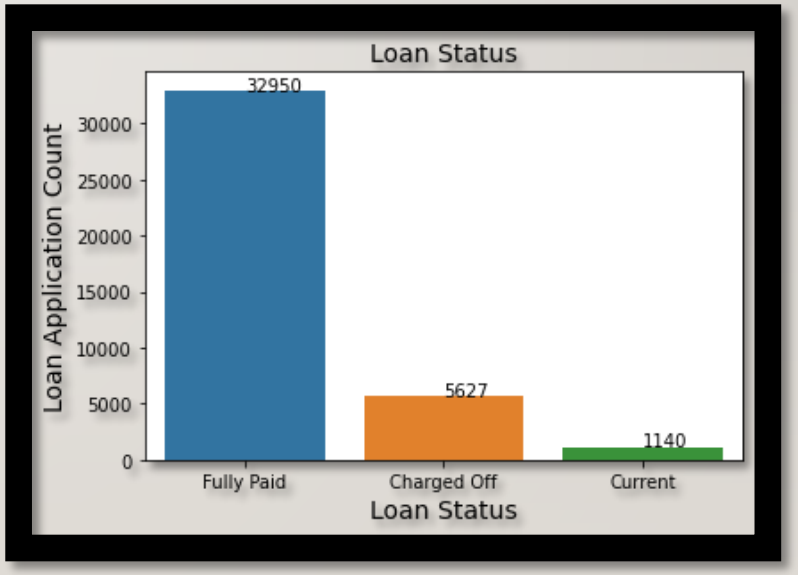
Annual Income

- Most of the loans were taken by the applicants whose annual income was < 1 lakh



Loan Status

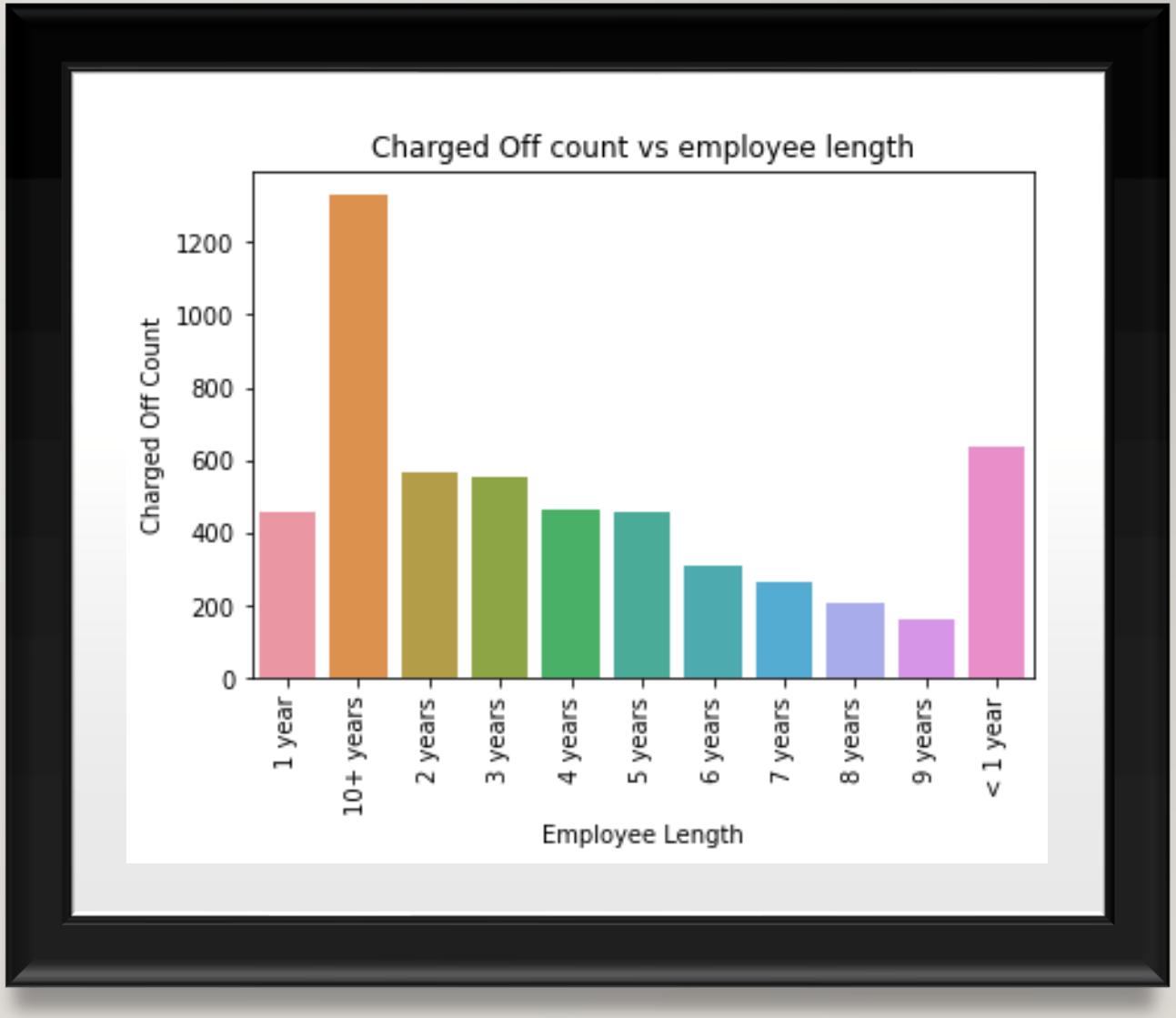
- Most of the loans given have been fully paid. About 14% of the total loans were defaulted.



BIVARIATE ANALYSIS

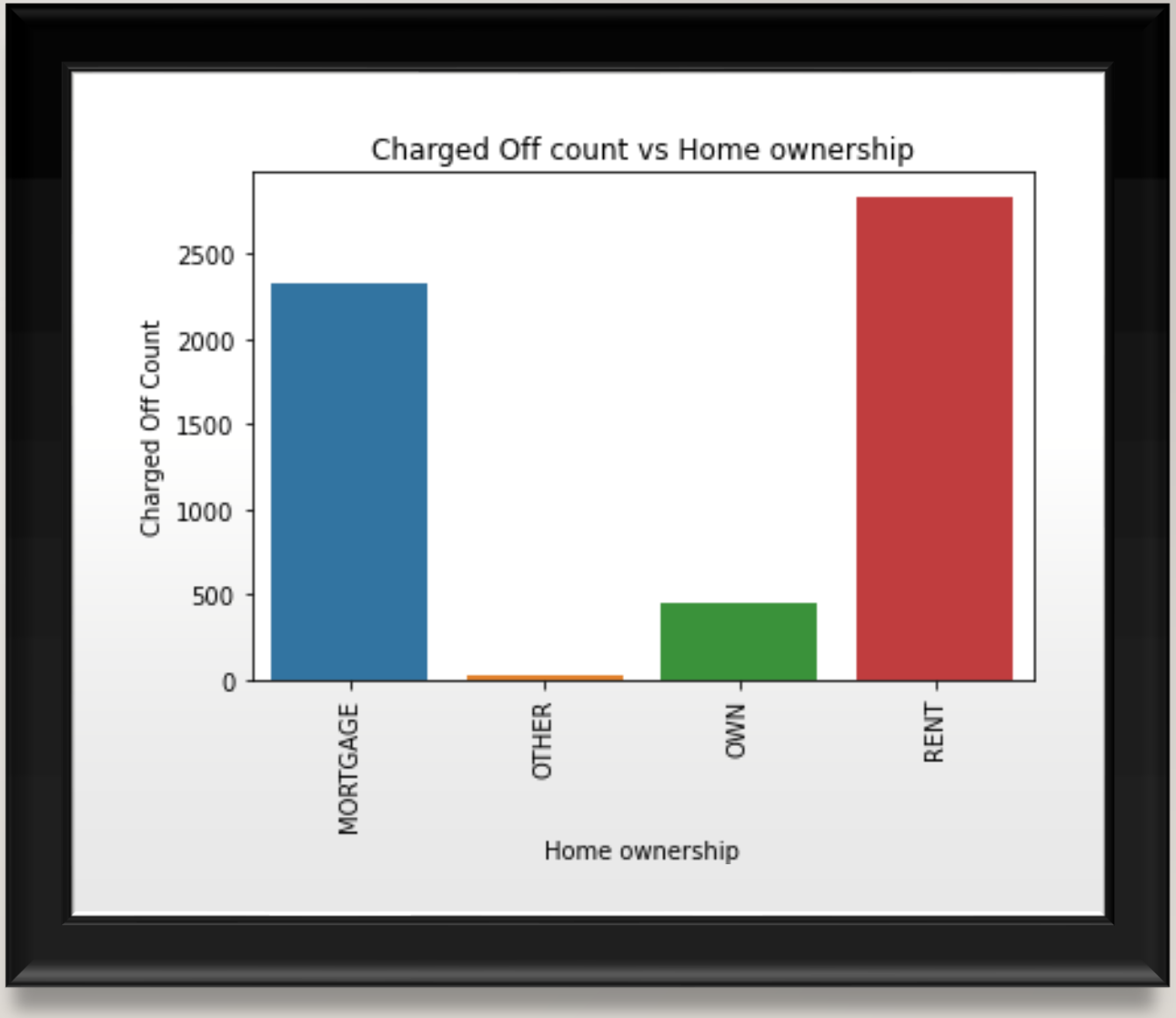
CHARGED OFF VS EMPLOYEE LENGTH

- The applicants who are employees and have 10+ years of experience are most likely to default
- Followed by employees having experience between 0-3 years.



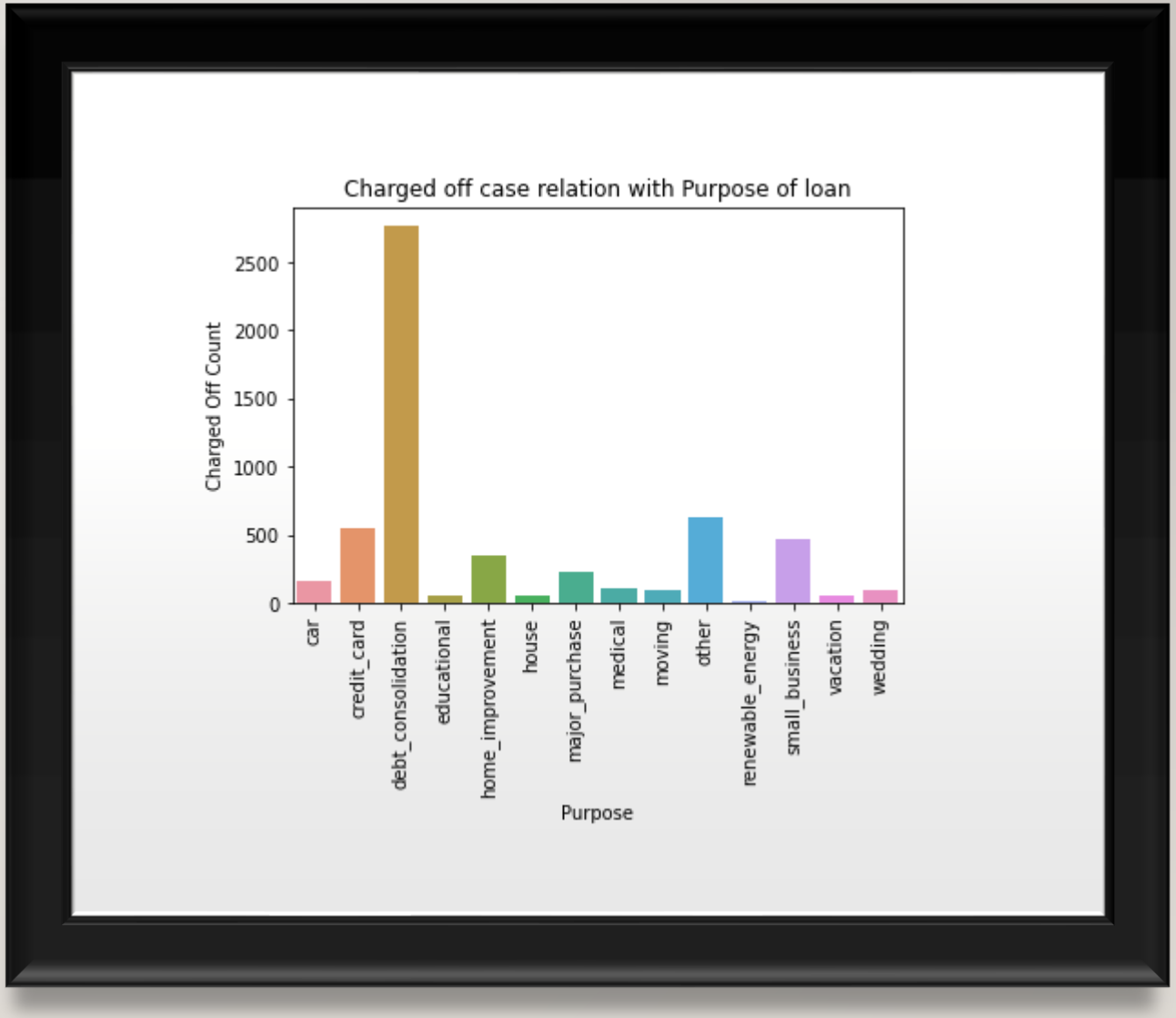
CHARGED OFF VS HOME OWNERSHIP

- The applicants who are in a rented house are most likely to default
- Followed by applicants who have a mortgage.



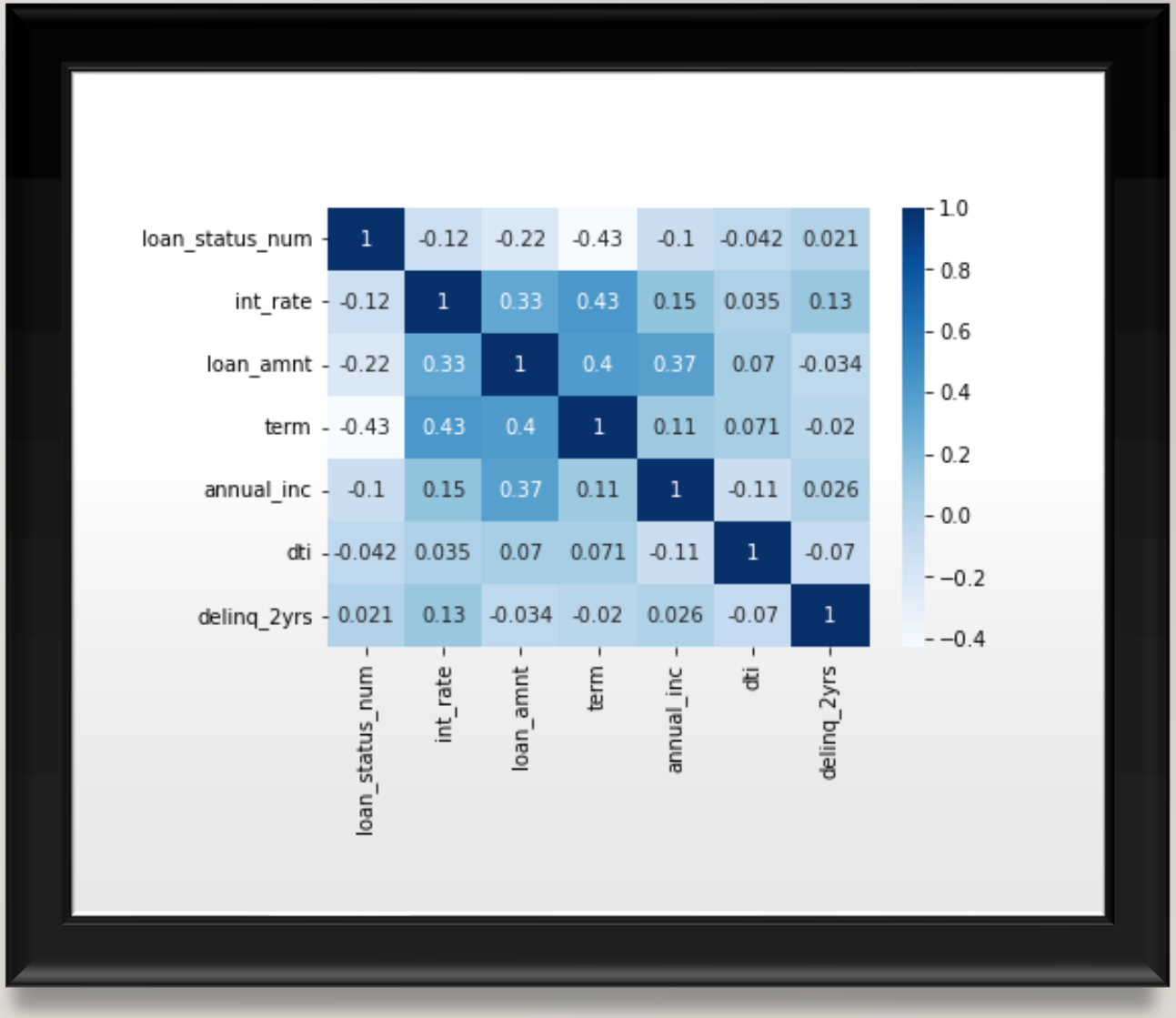
CHARGED OFF VS PURPOSE

- The applicants who have applied for the loan for debt consolidation are most likely to default
- Followed by applicants who have taken the loan for credit card and small business.



LOAN STATUS VS OTHER VARIABLES

- The loan status (charged off and current) is negatively correlated with other variables
- Higher the loan amount and interest rate, higher the chance of default



SUMMARY

CONCLUSIONS

- Applicants who fall under the following categories are more likely to default on the loan
  - Loan taken for debt consolidation
  - Do not own a house
  - Employment term is more than 10 years and annual income between 50k – 100k
  - High interest rate and high loan amount
- The loan team should ensure a thorough check on the above factors before approving the loan
- This would decrease the possibility of loan defaults