



LENDING CLUB CASE STUDY



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Goal

Objective


Analysis

4. Final Outcome

5. Conclusion



GOAL



Reduce the
possibility of
suffering financial
loss when you
lend money to
clients.



OBJECTIVE

The main cause of financial loss is lending money to borrowers who are deemed to be "risky."- (referred to as credit loss). The amount of money lost by the lender when a borrower defaults on a loan or flees with the money owed is known as the credit loss. The primary aim is to detect these high-risk loan candidates so that the number of these loans may be lowered, and the amount of credit loss can be minimized. The objective of this case study is to identify such applications using EDA. Conduct a study to determine the variables that are strong indicators of default that is, the driving factors, or driver variables behind loan default. This information can be used by the business for risk assessment and portfolio management.

STEPS OF THE ANALYSIS

Understanding
the Data

Cleaning the
data

Filling the
missing value

Check for
outliners

Analysis

Summary



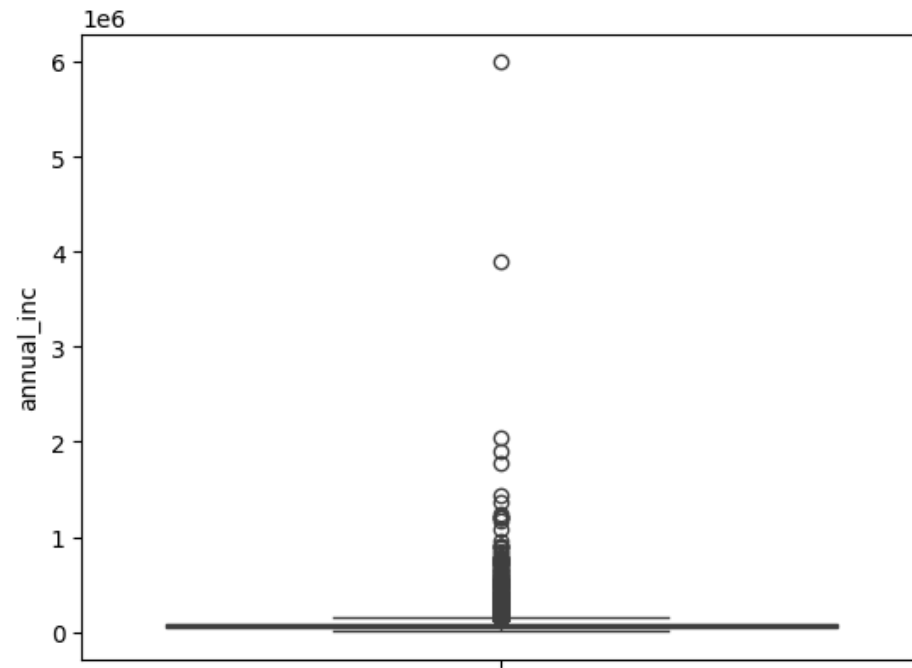
DATA CLEANING

- Check for the null values
- Checking for missing values
- Removing the null values
- Dropping the irrelevant columns
- Filling the missing values
- Removing the outliers

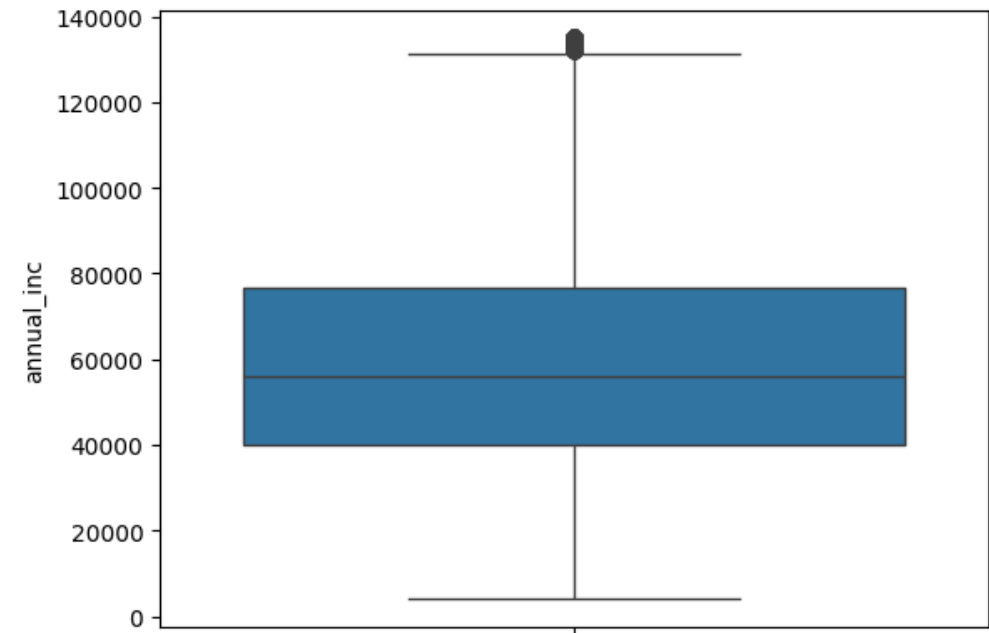


OUTLINERS

Before the removal of outlier

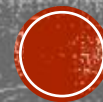
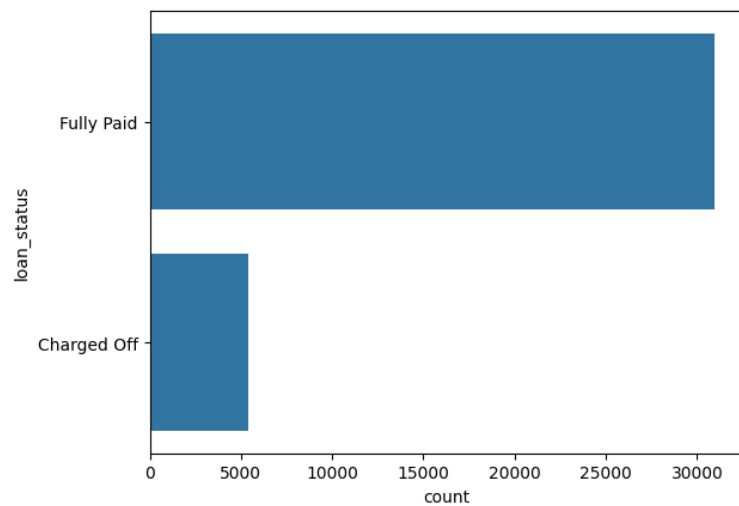


After removal of outliers



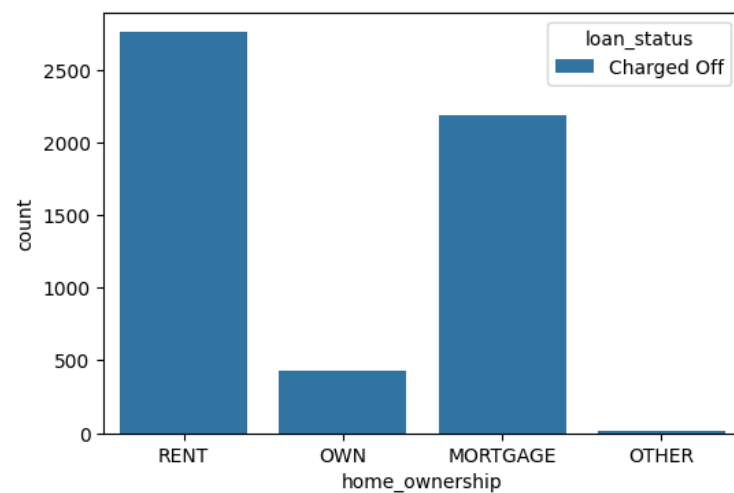
UNIVARIATE ANALYSIS

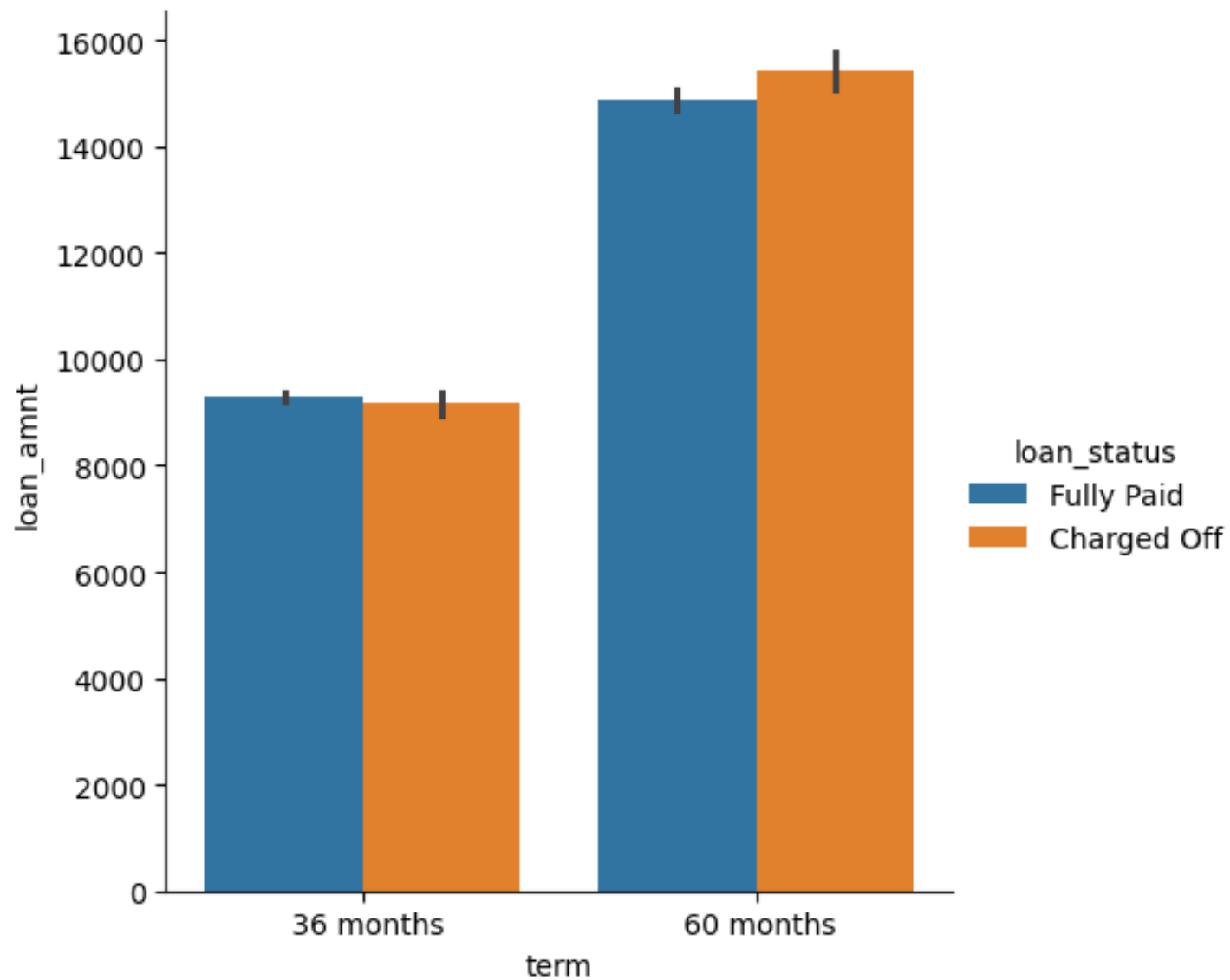
- fully paid is more compared to charged off or defaulted



UNIVARIATE ANALYSIS

- Most borrowers are either renters or mortgage holders than who own's the property





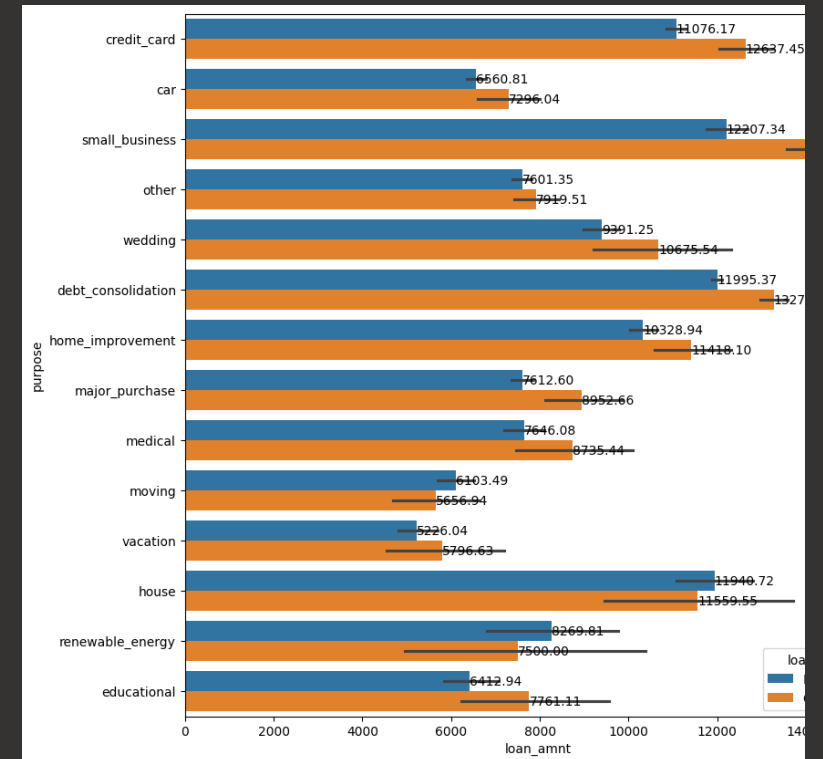
BIVARIATE ANALYSIS

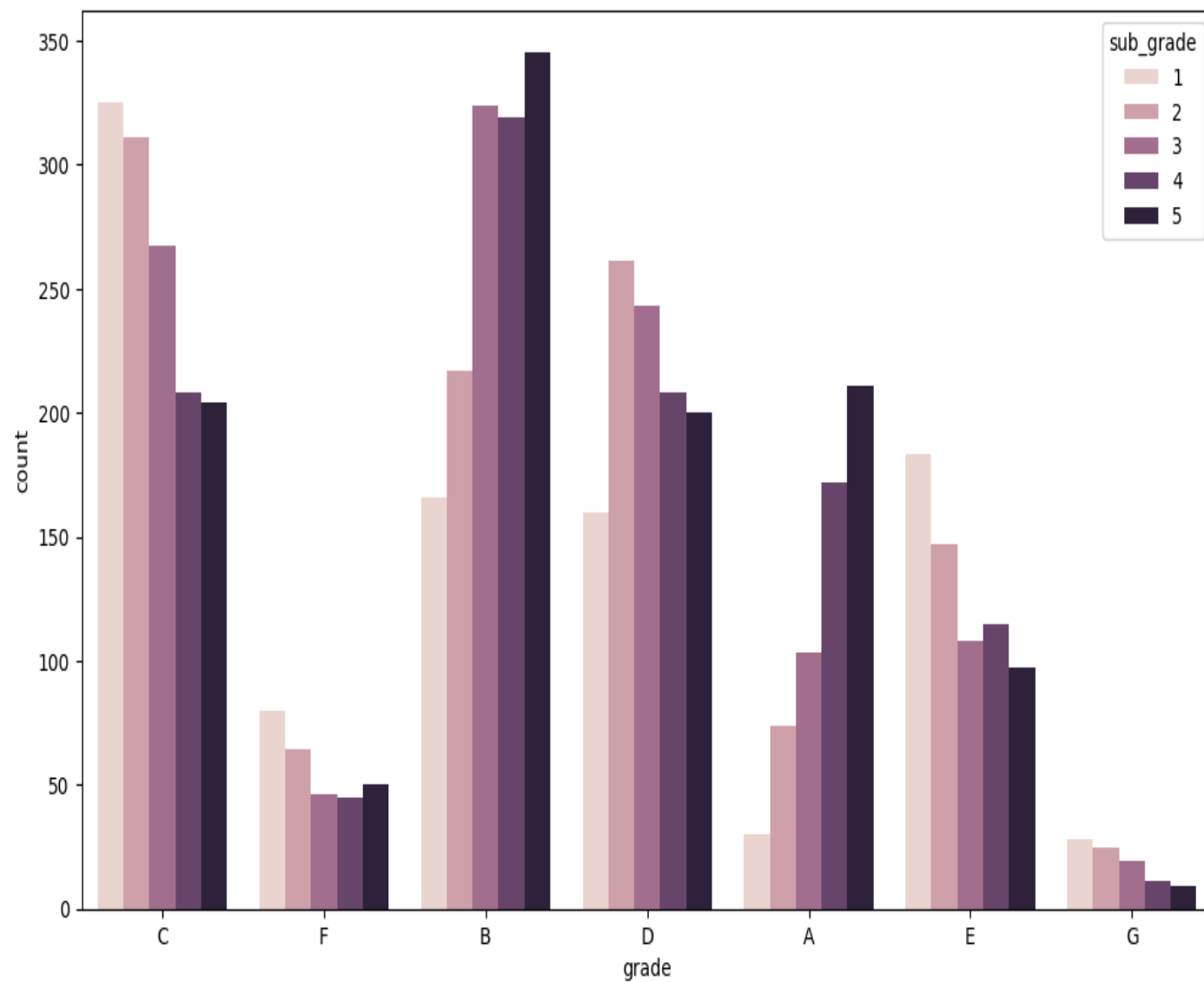
- Loan with the term 60 has high chance of defaulting but 36 month has highest full repaying



BIVARIATE ANALYSIS

- Credit card and small business followed by other debt is the main reason for obtaining loans, with a significant portion going toward debt consolidation



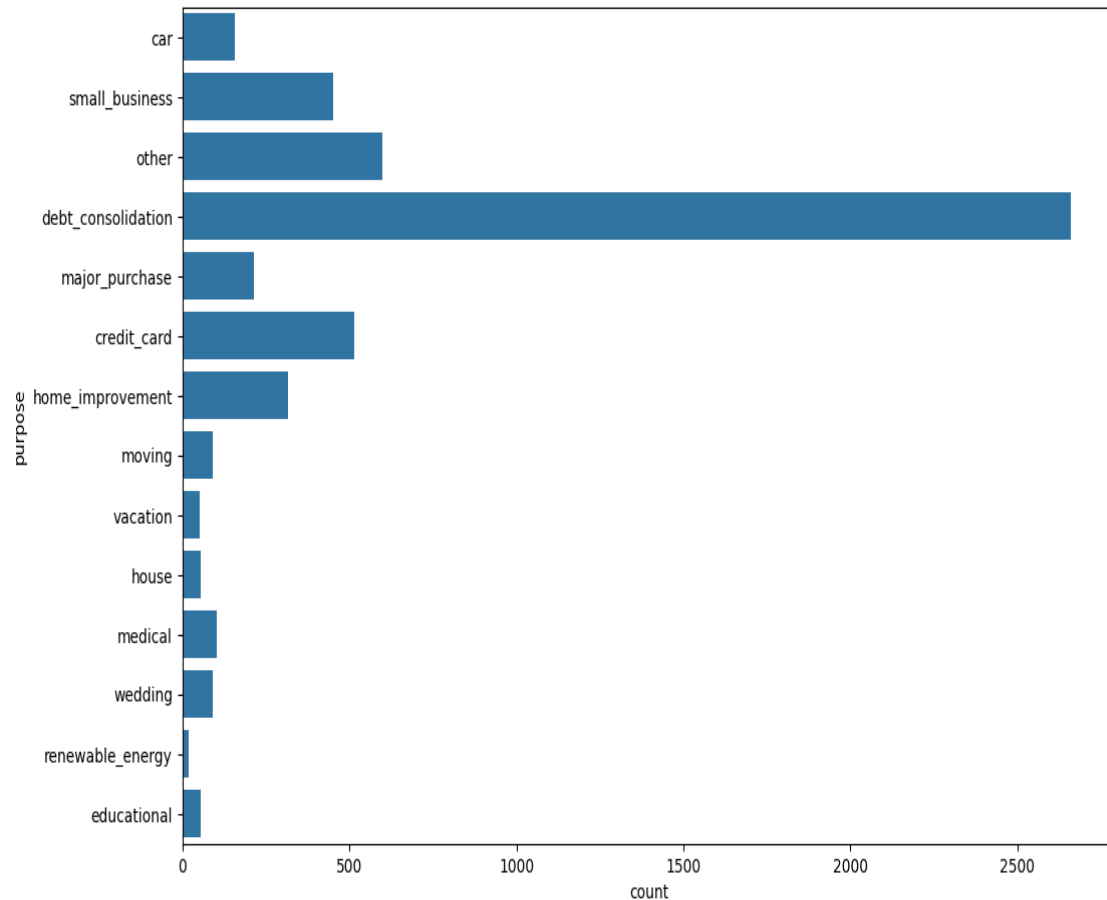


GRADES ANALYSIS

- The majority of loans are high grade loans, as evidenced by the high percentage of loans with grades of "A" and "B" relative to the rest



LOAN VS PURPOSE



- Credit card and small business followed by other debt is the main reason for obtaining loans, with a significant portion going toward debt consolidation.



FINAL OUTCOME

- as per dti with loan status the interest rate between 10 -17 have higher chance of load default
- employee with the 10+ year experience have higher chance of full repayment but also likely to default
- large amount of loan had high chance of defaulting
- barrowers with the less annual income between 40K to 80K likely to default whereas higher annual income are less likely
- dept consolidation, small business, house is having highest number of default and also fully repayment
- people who own the property are less likely default
- defaulting loan is decreased after interest rate 17.5 and also increased with increasing interest
- Loan with the term 60 has high chance of defaulting but 36 month has highest full repaying



SUMMURY OR CONCLUSION

- Major Driving factor predict the chance of defaulting.
 - Interest rate
 - Loan term
 - Employment length
 - Large loan amount.
 - Small business and credit card
 - Annual income within 80K
 - People who didn't own the property

