Lending Club Case Study

Group Members:

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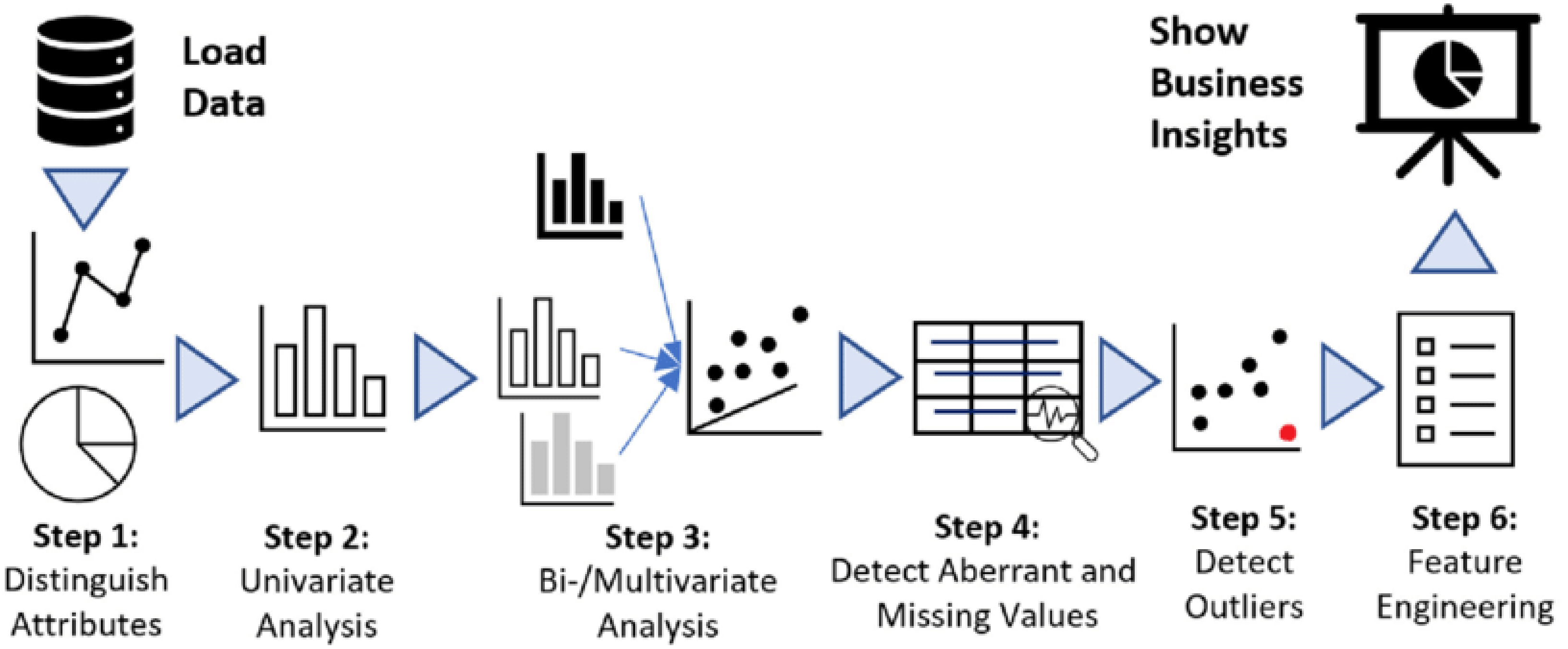
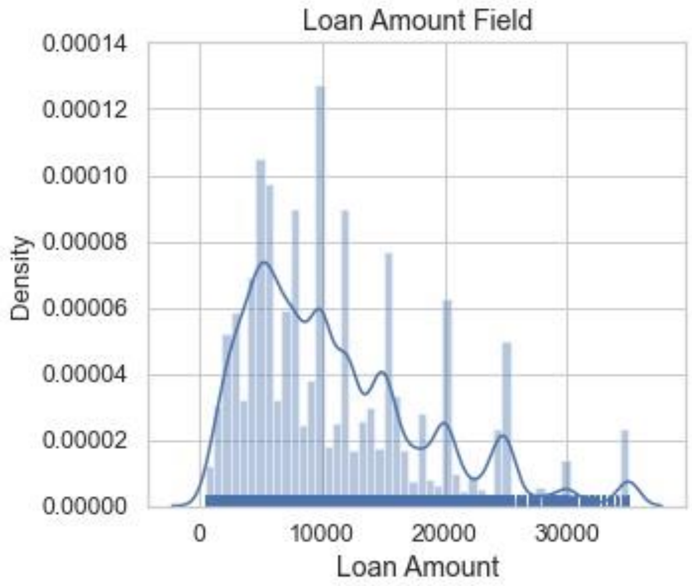
Abstract:-

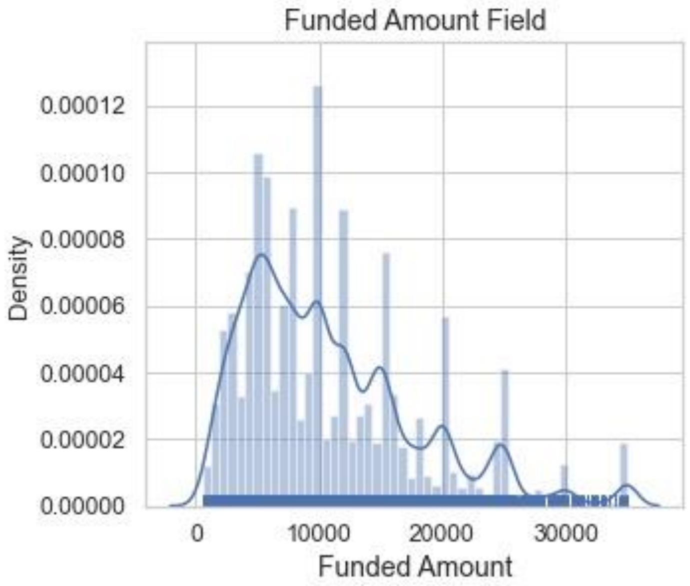
- Loan Lending club case study is the largest online loan marketplace, facilitating personal loans, business loans, and financing of medical procedures.
- The credit loss is the amount of money lost by the lender when the borrower refuses to pay or runs away with the money owed.
- Borrowers who **default** cause the largest amount of loss to the lenders. In this case, the customers labelled as 'charged-off' are the 'defaulters'.

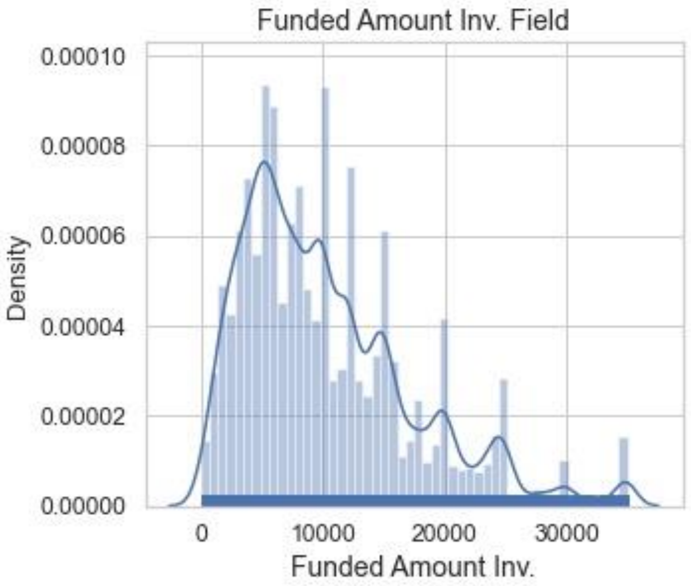
Problem Solving Methodology



Analysis:-

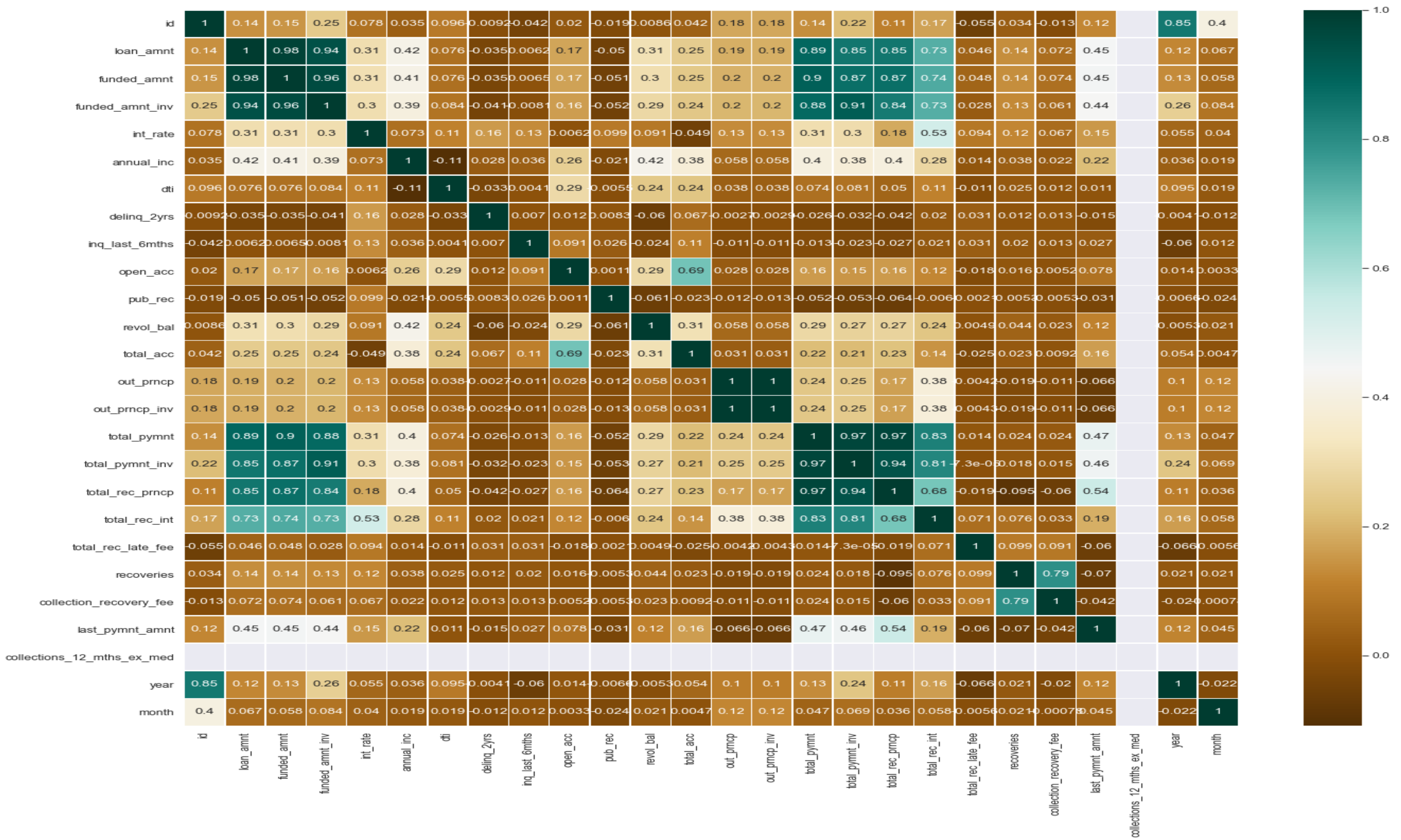






- ***Distribution of amounts for all three looks very much similar.***
- ***We will work with only loan amount column for rest of our analysis.***

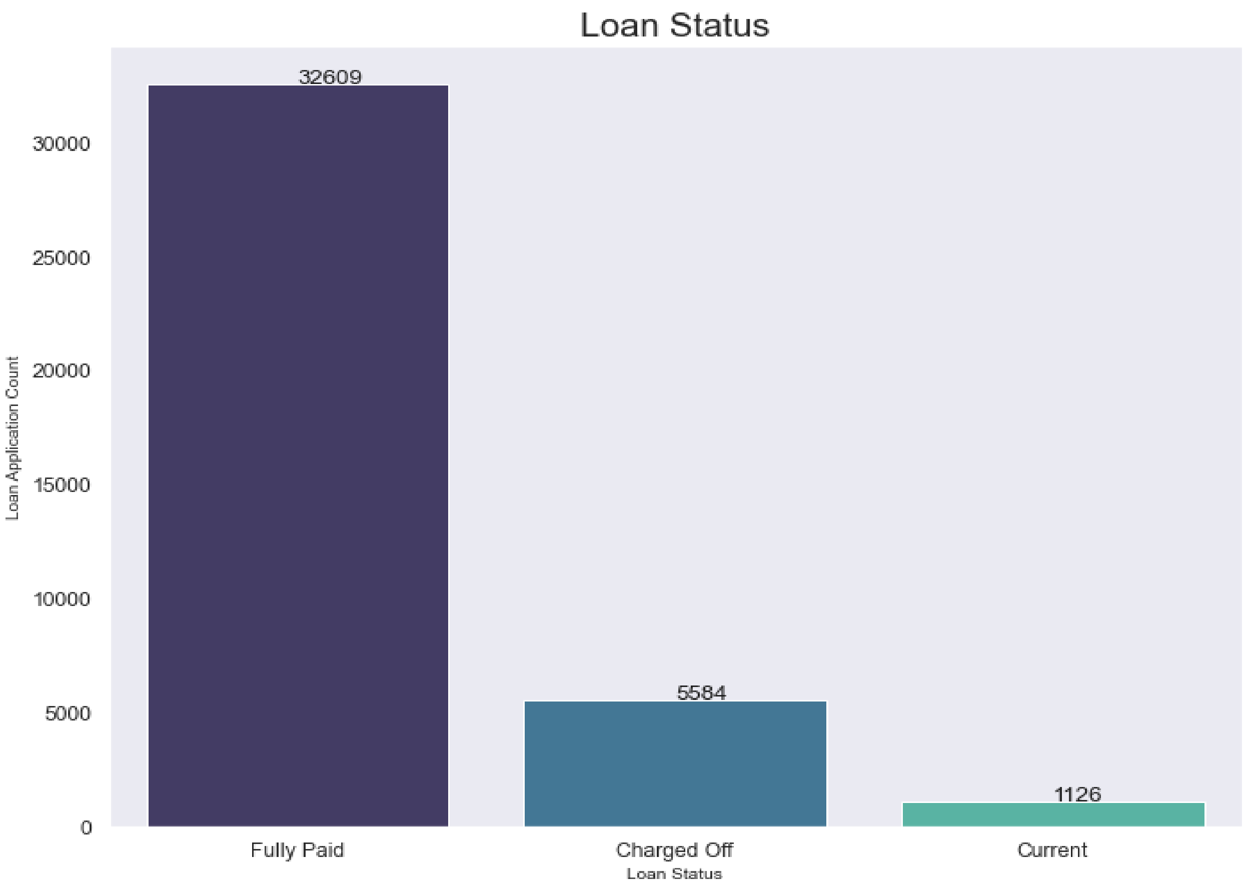
Analysis:-


id
loan_amnt
funded_amnt
funded_amnt_inv
int_rate
annual_inc
dti
delinq_2yrs
inq_last_6mths
open_acc
pub_rec
revol_bal
total_acc
out_prncp
out_prncp_inv
total_pymnt
total_pymnt_inv
total_rec_prncp
total_rec_int
total_rec_late_fee
recoveries
collection_recovery_fee
last_pymnt_amnt
collections_12_mths_ex_med
year
month
1.0
0.8
0.6
0.4
0.2
0.0

Analysis for Heatmap:-

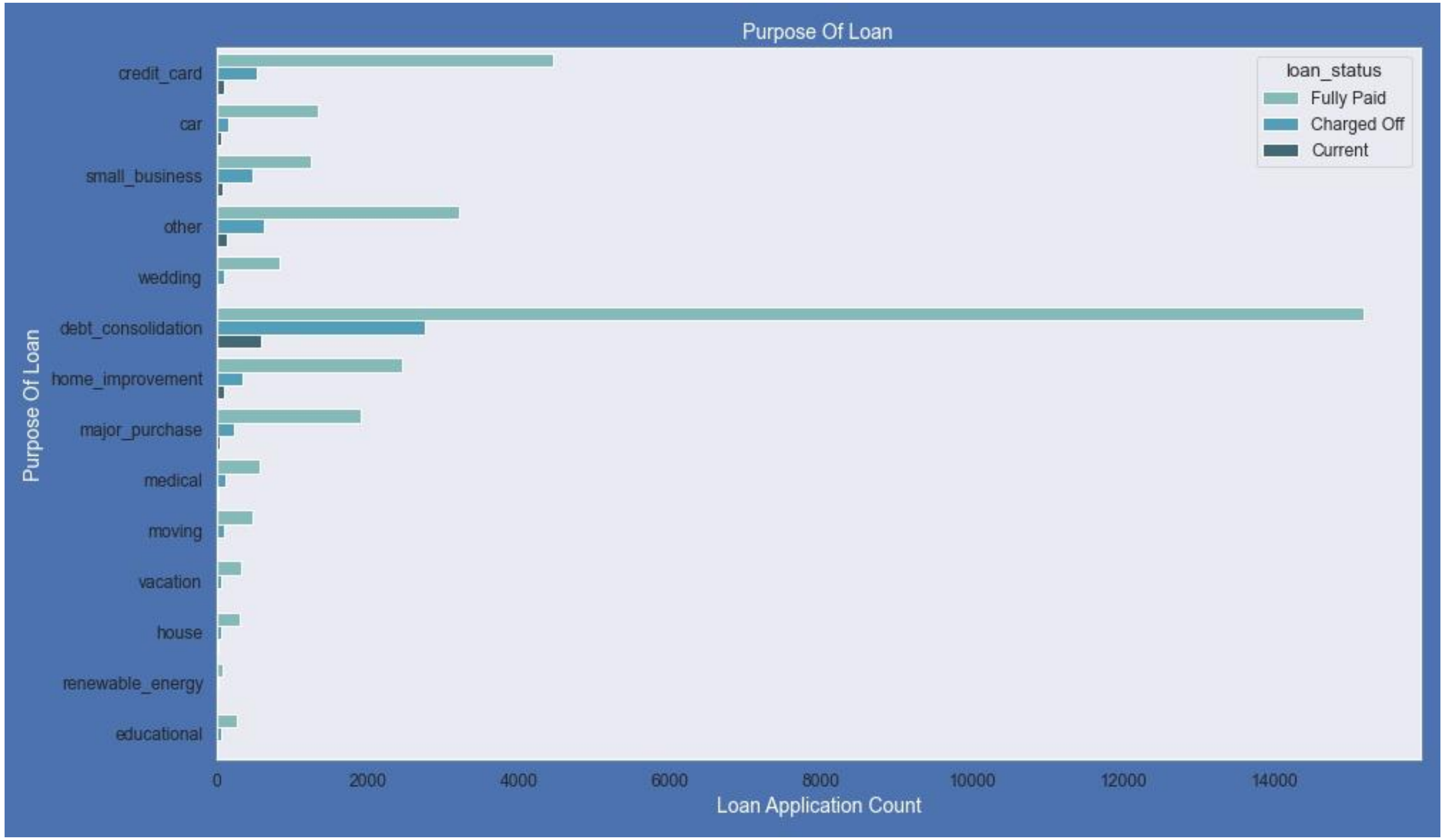
- Observation is the loan amount ,investor amount, funding amount is strongly correlated.
- Annual income with DTI (Debt-to-income ratio) is negatively correlated.
- Debt income ratio is the percentage of a monthly gross income that goes toward paying debts.
- Positive correlation between annual income and employment years.

Analysis:-



Bar graph plot shows that close to 14-15%loans were charged off out of total loan issued.

Purpose of Loan:-

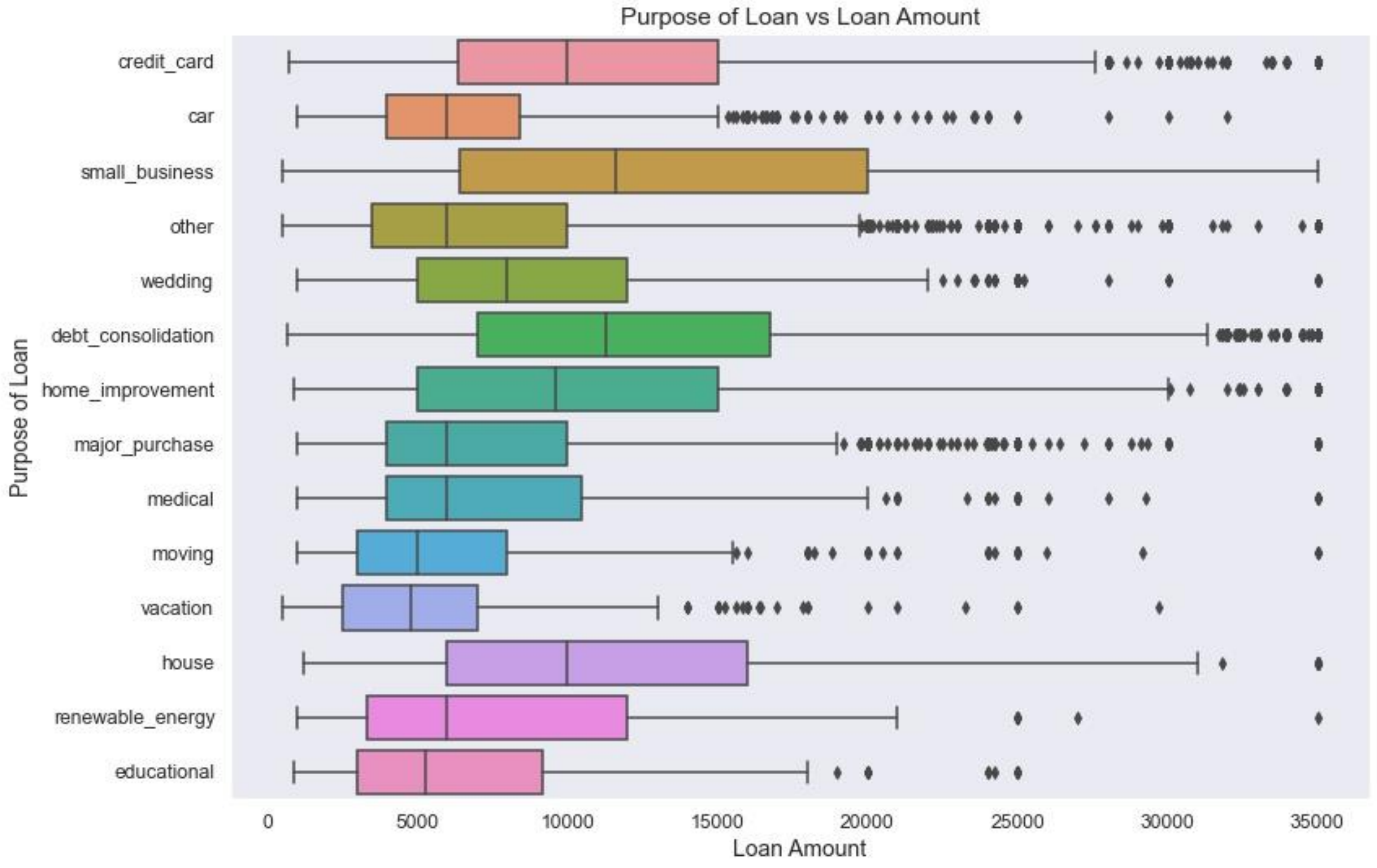


- Plot shows that most of the loans were taken for the purpose of debt consolidation & paying credit card bill.
- Number of charged off count also high too for these loans.

Loan Paying term:-

- *Below plot shows that those who had taken loan to repay in 60 months had more % of number of applicants getting .*
- Charged off more as compared to applicants who had taken loan for 36 months.

Purpose of Loan vs Loan Amount:-



- Median,95th percentile,75th percentile of loan amount is highest for loan taken for small business purpose among all purposes.
- Debt consolidation is second and Credit card comes 3rd.