Lending Club Case Study

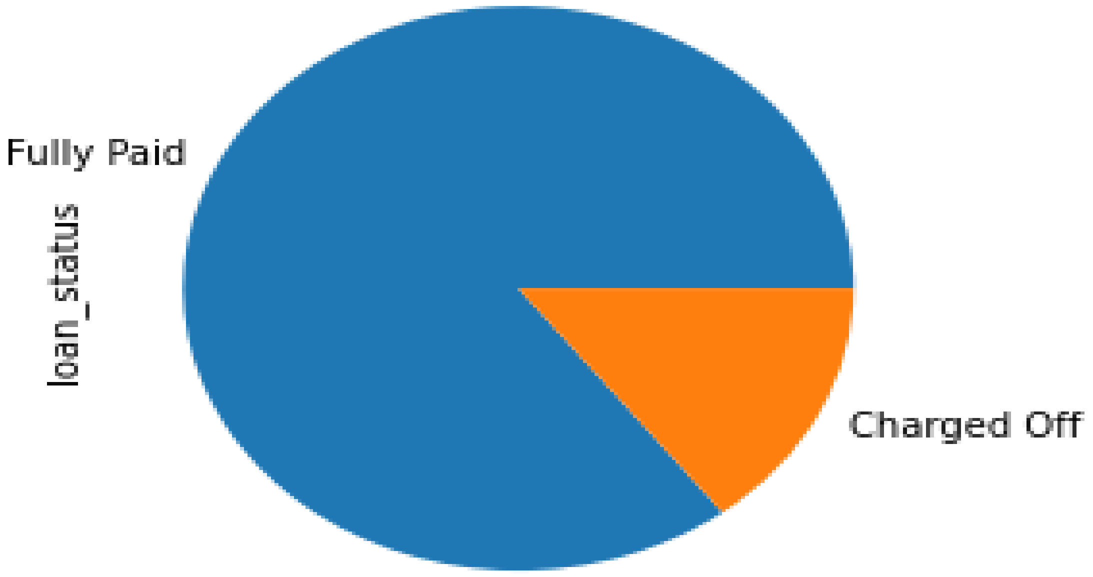
- Sreedhar Gunda
- Sai Pavan Revooru

Problem Statement

- Lending Club is a market place for personal loans that facilitate borrowers and investors. When a request is made from borrower through lending club then investors need to approve or reject the loans.

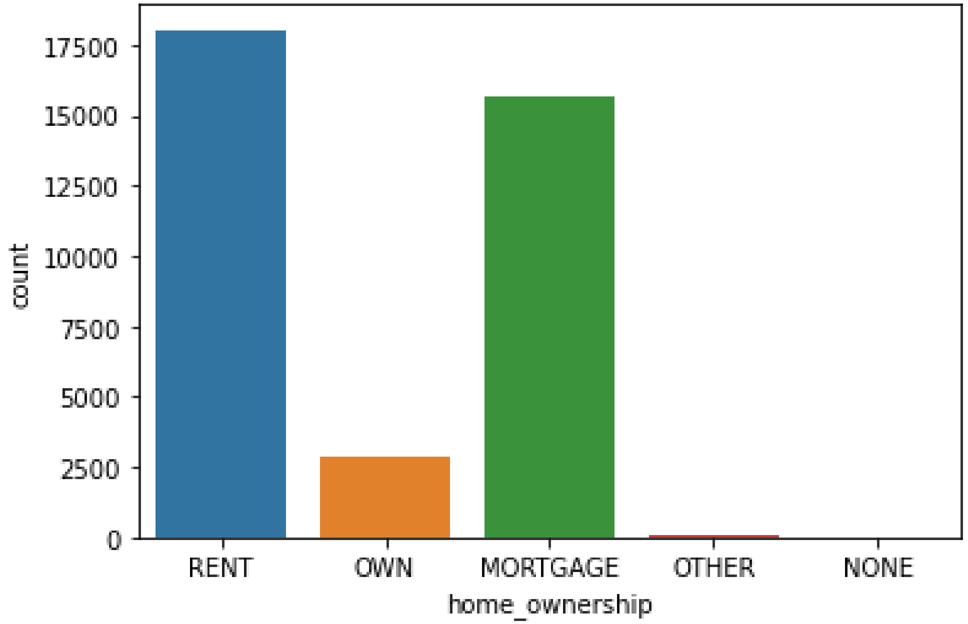
  As part of the requirement company wants to understand the driving factors behind loan default ie., the variable which are strong indicators of default. The company can utilize this knowledge for its portfolio and for risk assessment.

Important Observations from Analysis



From the given data set, following is the pie plot of charged off and fully paid members.

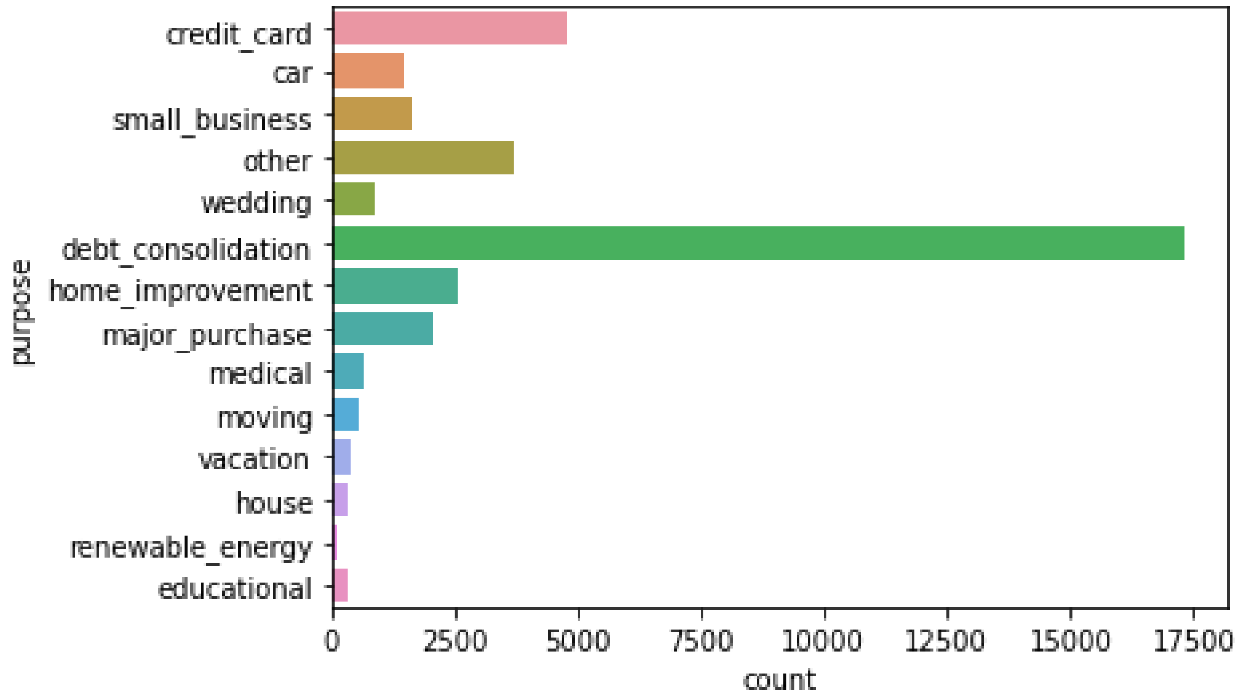
Conclusions from Univariate Analysis



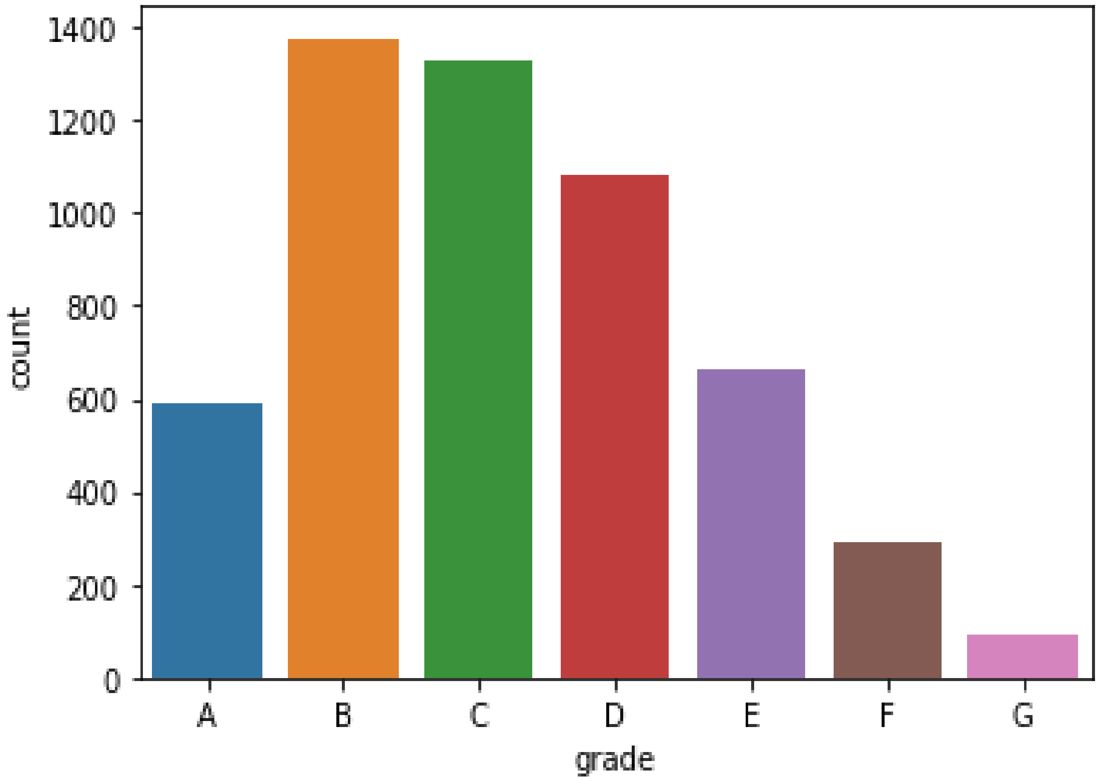
- From this count plot, it can be observed that people who are in rented home have taken more loans followed by mortgaged homes and own houses.

Conclusions from Univariate Analysis

- It is observed that the debt consolidation is the most common purpose for people to take loans

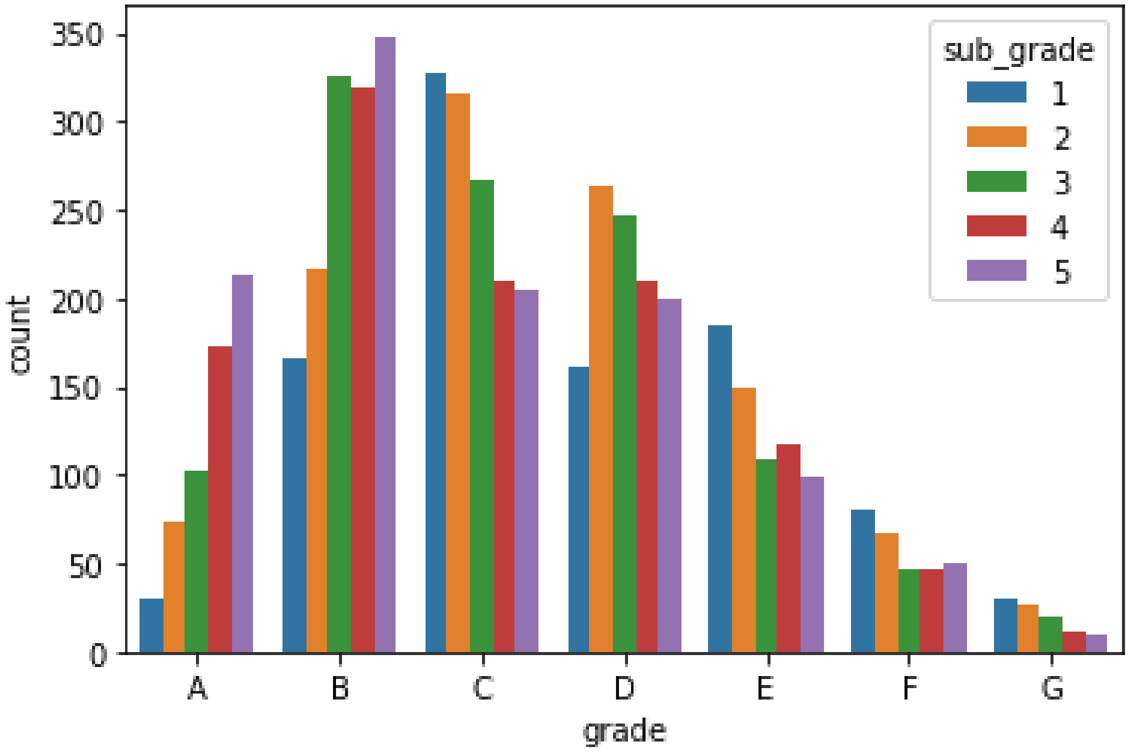


Conclusions from segmented univariate analysis



- From grades perspective we can observed that grade B has more number of defaults

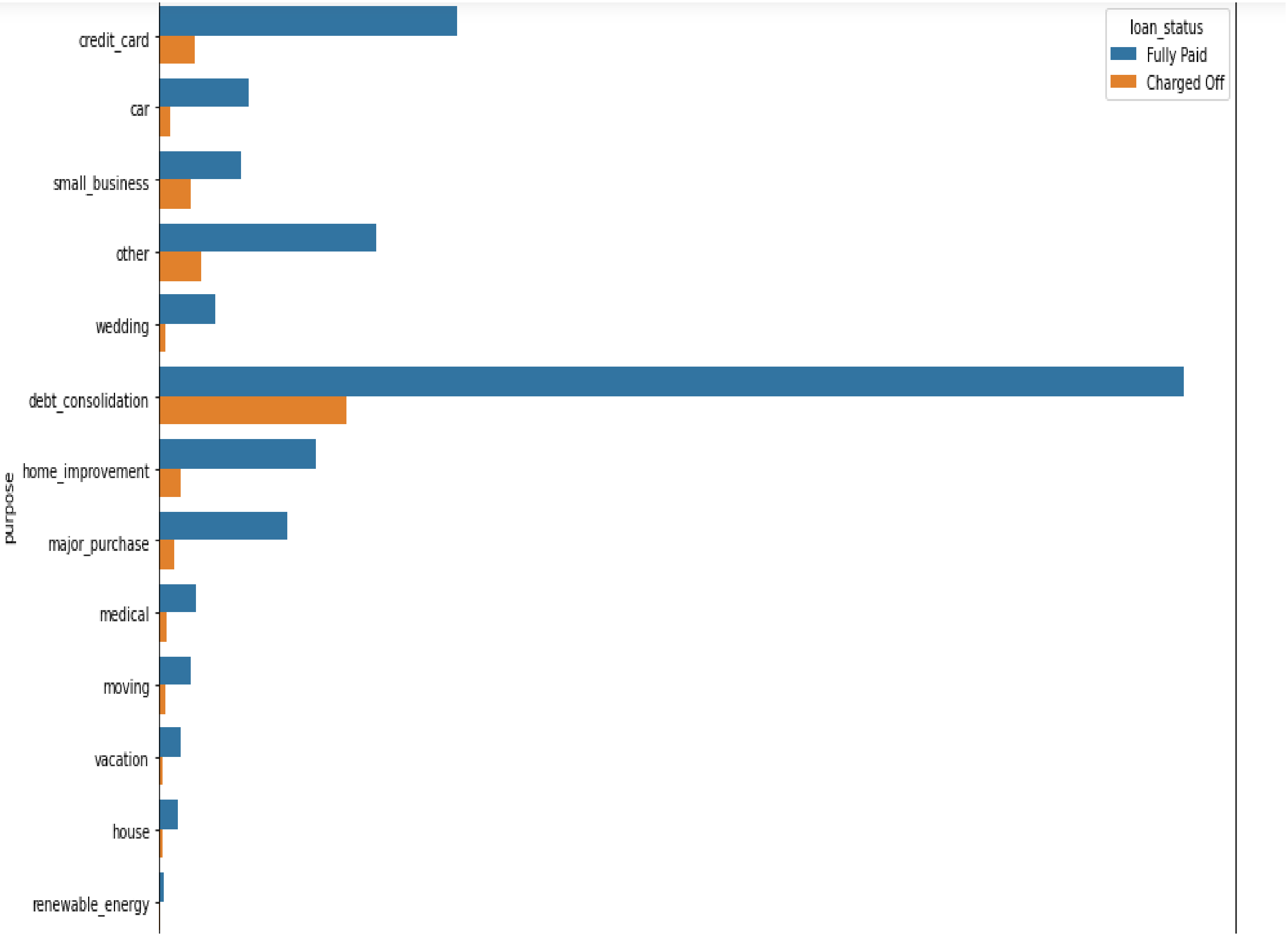
Results from Bivariate analysis



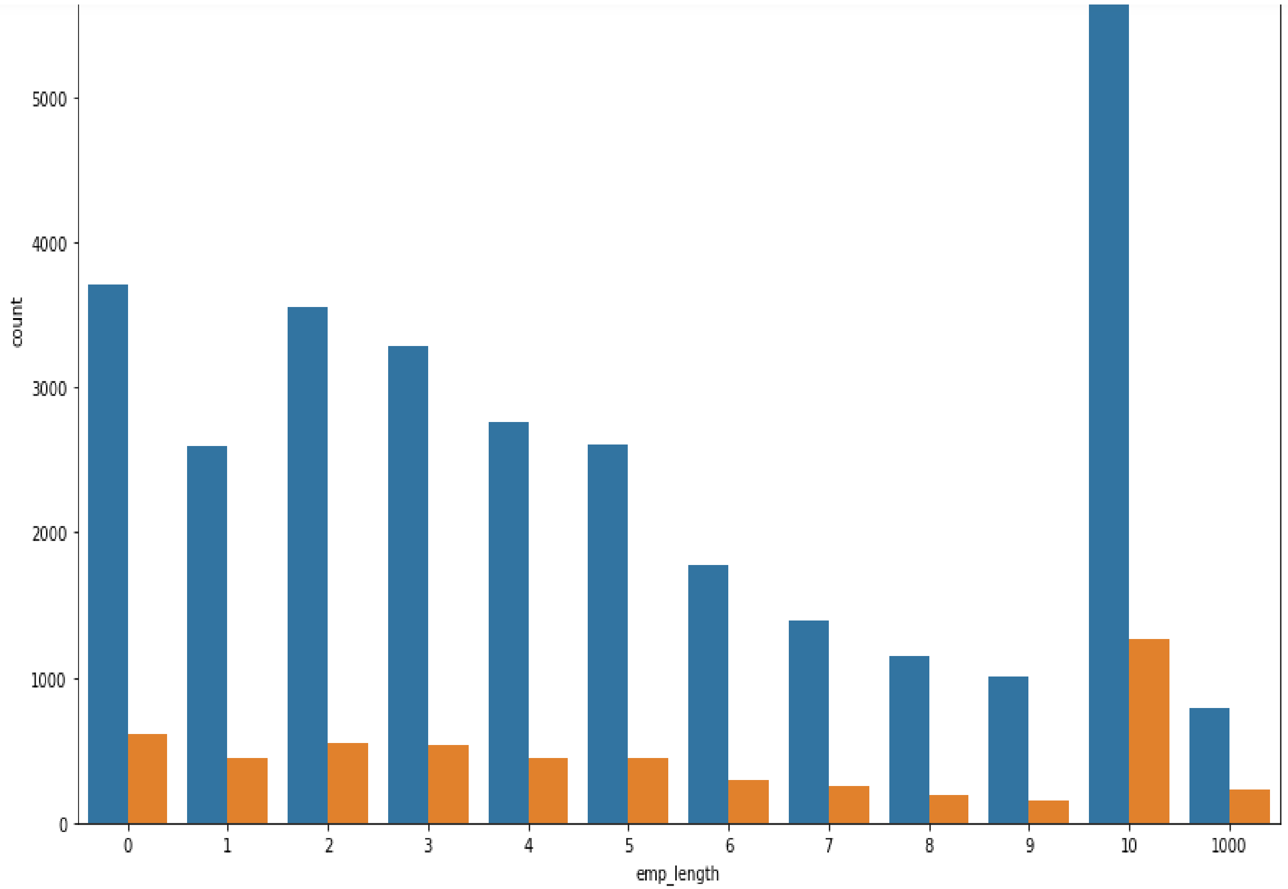
- Grade B has more percentage of defaulting the loan
- In the Grade B Subtype of B4 is having more defaulted loans

Results from Bivariate analysis

- From the above bivariate analysis we see that most charged off loans are available under debt consolidation
- Loans taken for renewable energy has no defaulted loans which indicates that customer who took loans for this purpose are most likely to pay loan amount

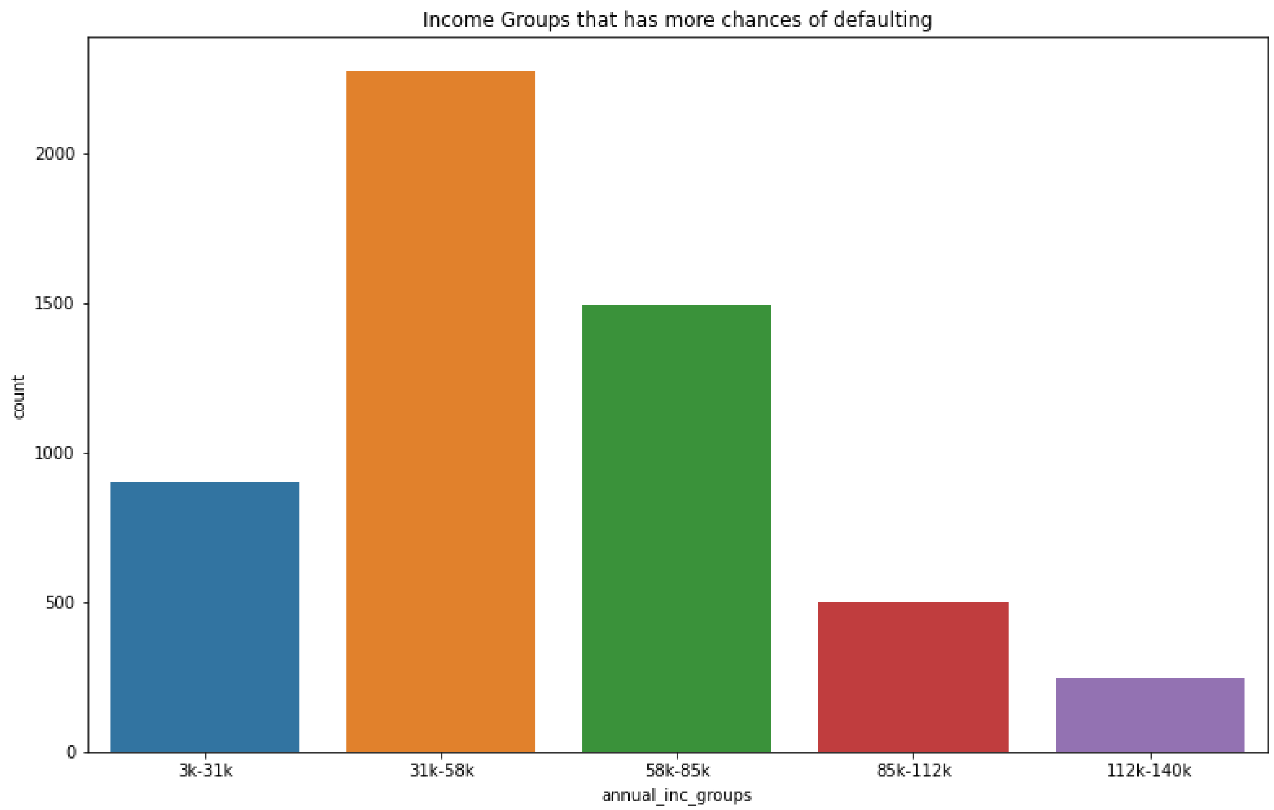


Results from Bivariate analysis

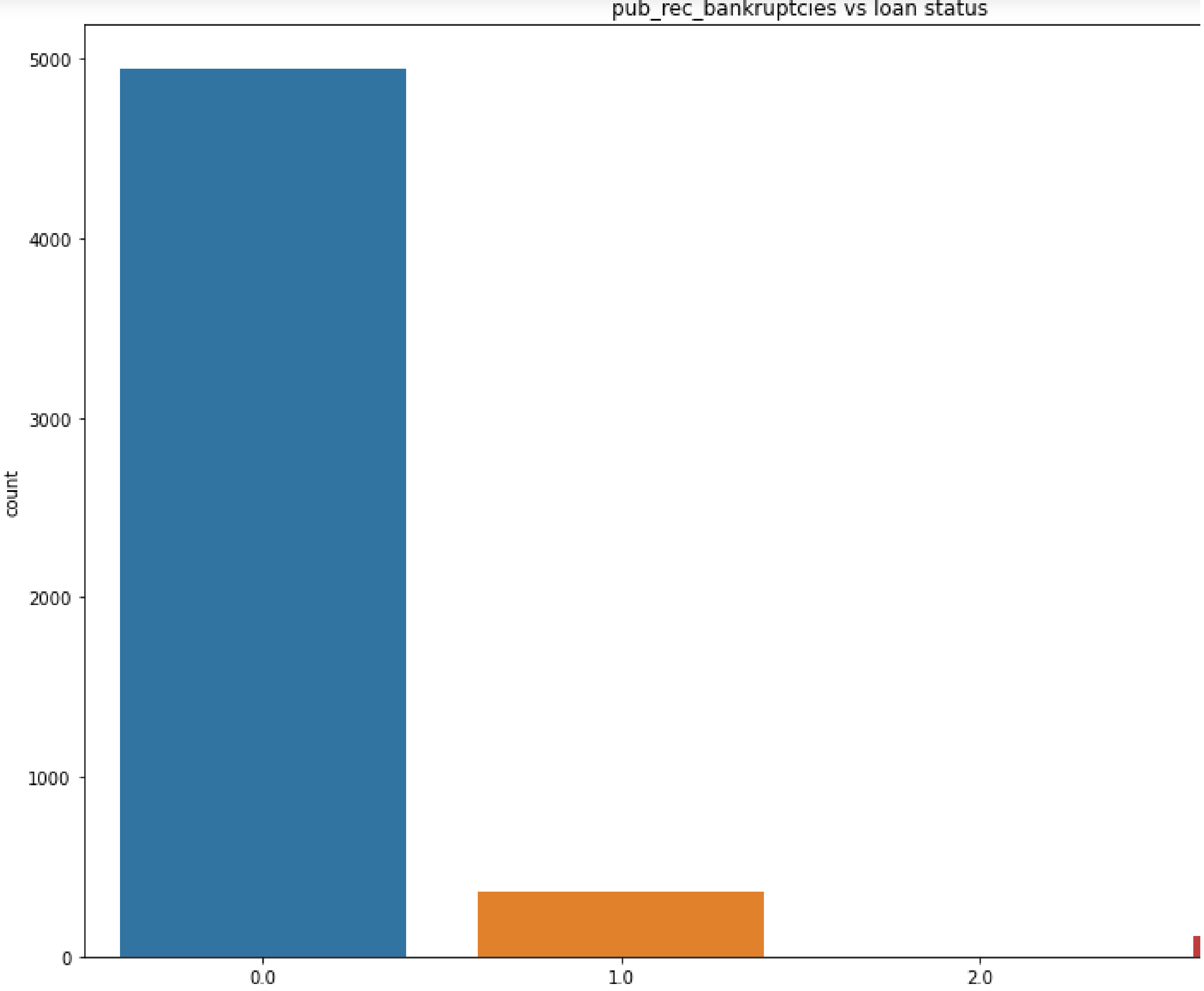


- With respect to number of years of employment, Employees more than 10 years of experience are having more chances of getting defaulted
- But since there are more loans that is paid as well. So, we cannot conclude employee service have any significance on loan defaulting.

Results from Bivariate analysis

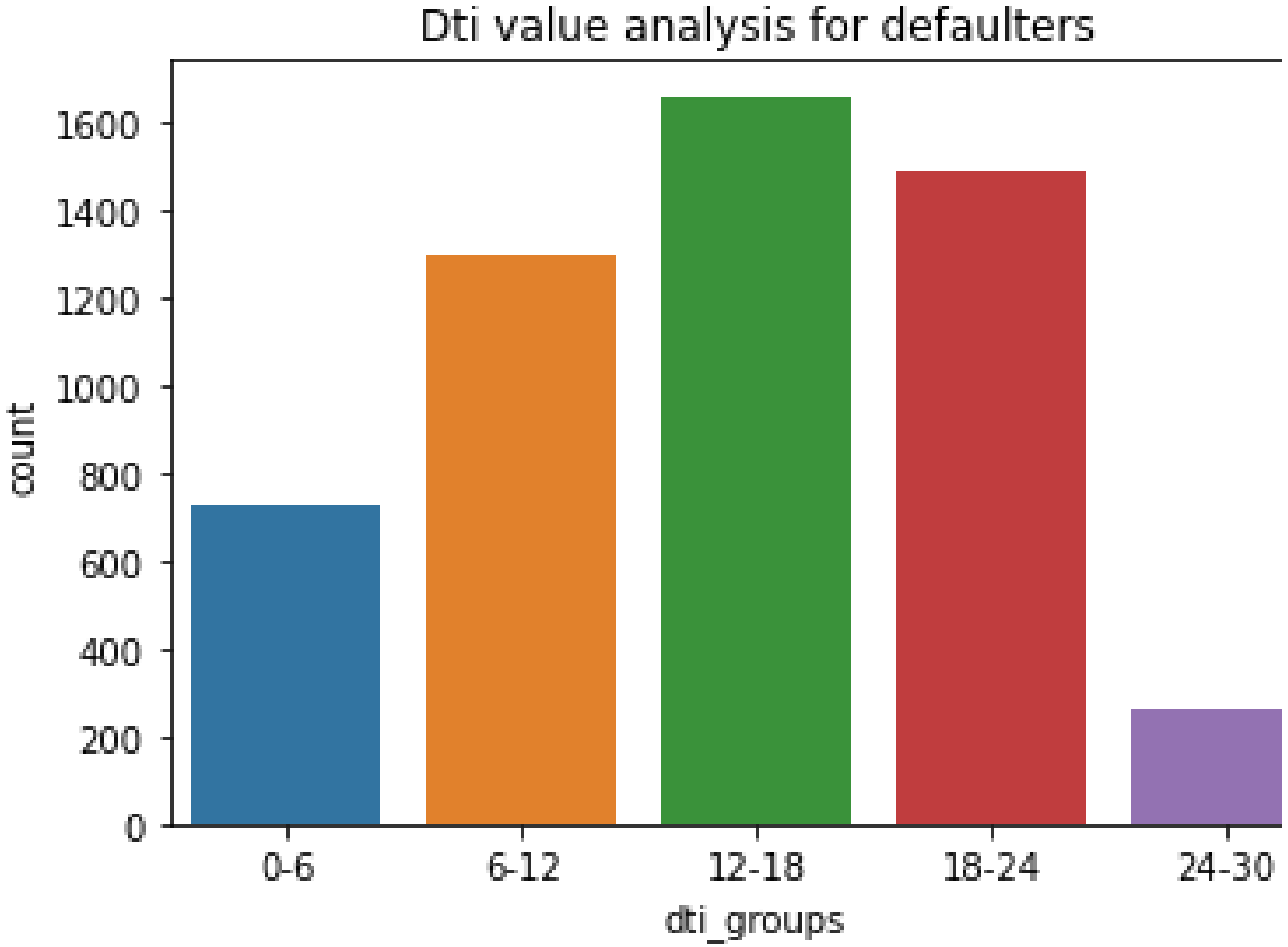


- After segmenting the people in terms of income, we see that income group 31k-58k are more prone to defaulting



Results from Bivariate analysis

- People with zero public bankruptcy records have more chances of becoming defaulters.
- This concludes that lending company cannot depend on the information of bankruptcies to know if a particular customer can be defaulted or not



Results from Bivariate analysis

- People falling under 12-18 % Dti has more chances of defaulting

Final conclusions and recommendations from case study.

Final conclusions from case study

- Loan under Grade B has more chances of defaulting and under Grade B sub grade B4 has more chances of defaulting
- Most charged off loans are available under debt consolidation and loans taken for renewable energy has no defaulted loans means customer who took loans for this purpose most likely to pay loan amount and can be sanctioned with loan.
- Income group 31k-58k are more prone to defaulting
- People falling under 12-18 % Dti has more chances of defaulting

Final conclusions from case study

- People with 0 public record Bankruptcy records have more chances of becoming defaulters which means lending company cannot depend on the information of bankruptcies to know if a particular customer can be defaulters.
- Employees more than 10 years of experience are having chances of getting defaulted but since there are more loans that is paid as well So we cannot conclude employee service have any significance impact on loan defaulting.

Thank you