




Lending Club Case Study

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Goal

- ▶ The data given contains the information about past loan applicants and whether they 'defaulted' or not. The aim is to identify patterns which indicate if a person is likely to default, which may be used for taking actions such as denying the loan, reducing the amount of loan, lending (to risky applicants) at a higher interest rate, etc.
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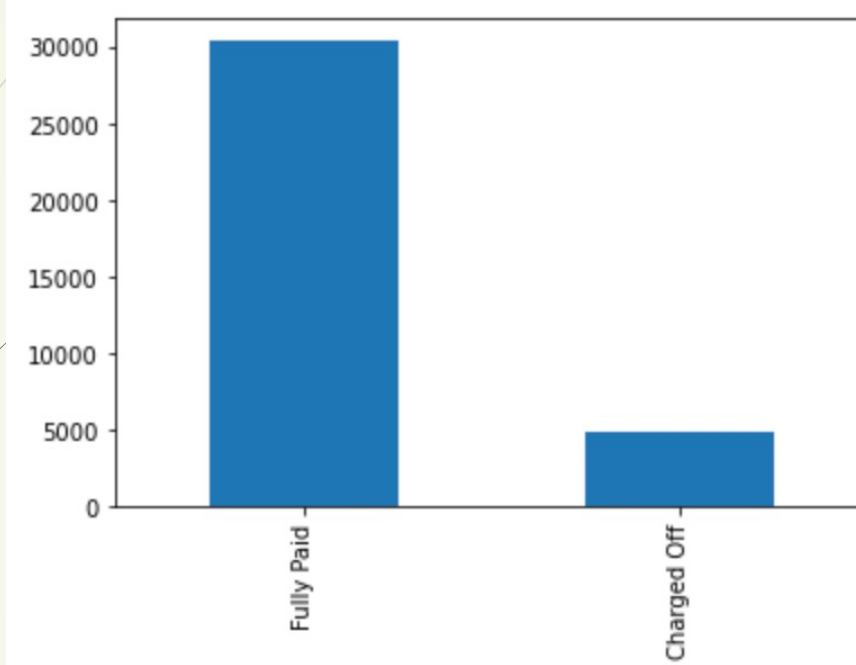


Customer Types



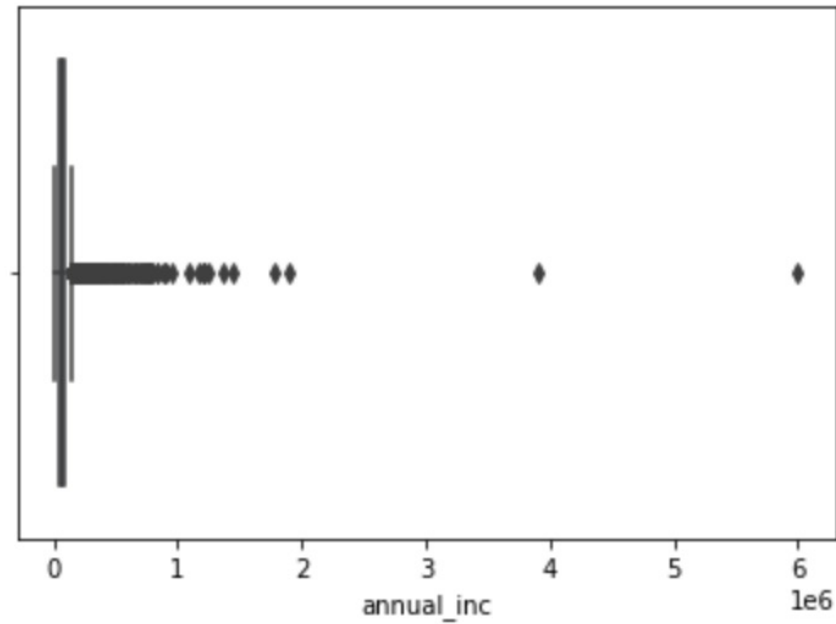
- Fully paid – customers paid complete amount principal and interests.
- Current - customers whose installment is going on.
- Charged off – customers not paid the instalments in due time for a long period of time, i.e., he/she has **defaulted** on the loan.

Univariate Analysis



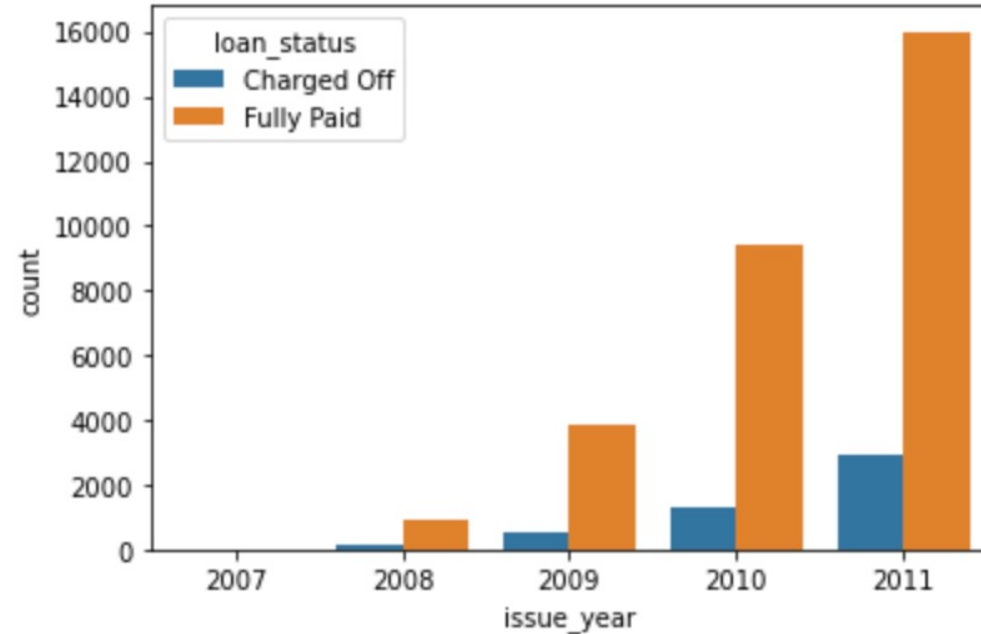
- From the above plot it can be seen that majority of the borrowers fully pay the loan

Identifying Outliers

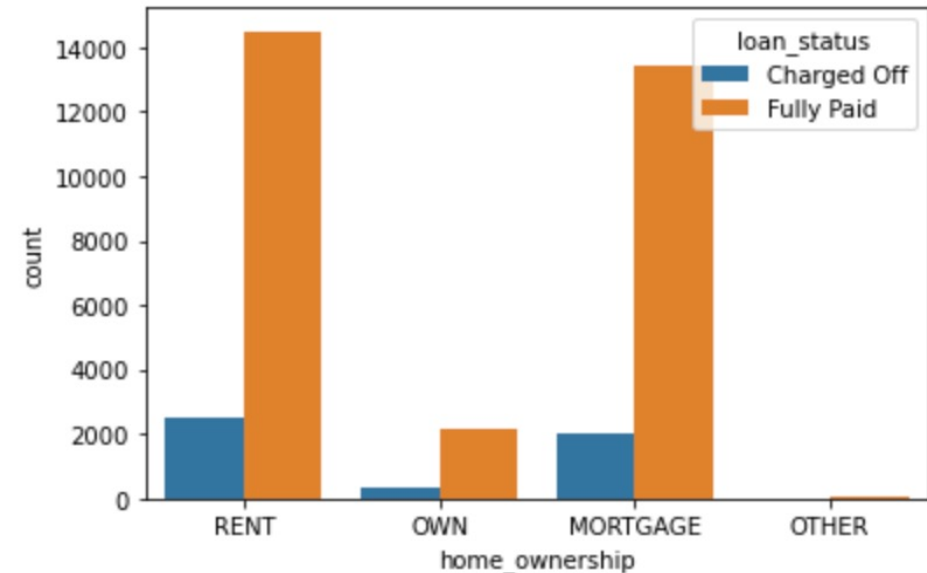


- Clearly there are outliers in annual income.

Bivariate Analysis

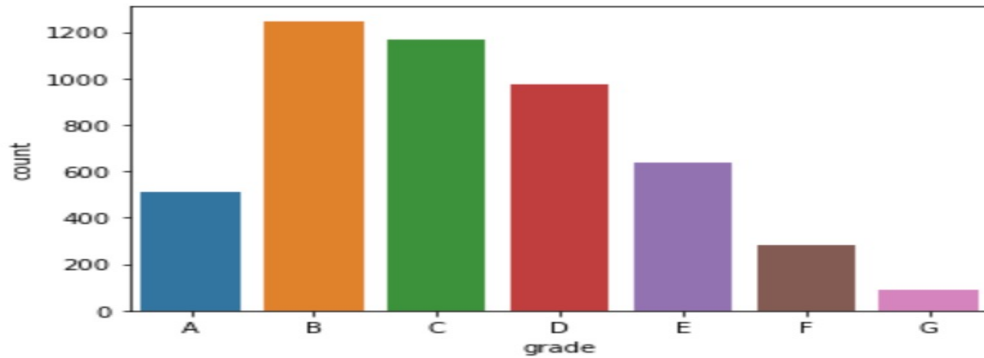


- Most of the charged off are in the year 2011

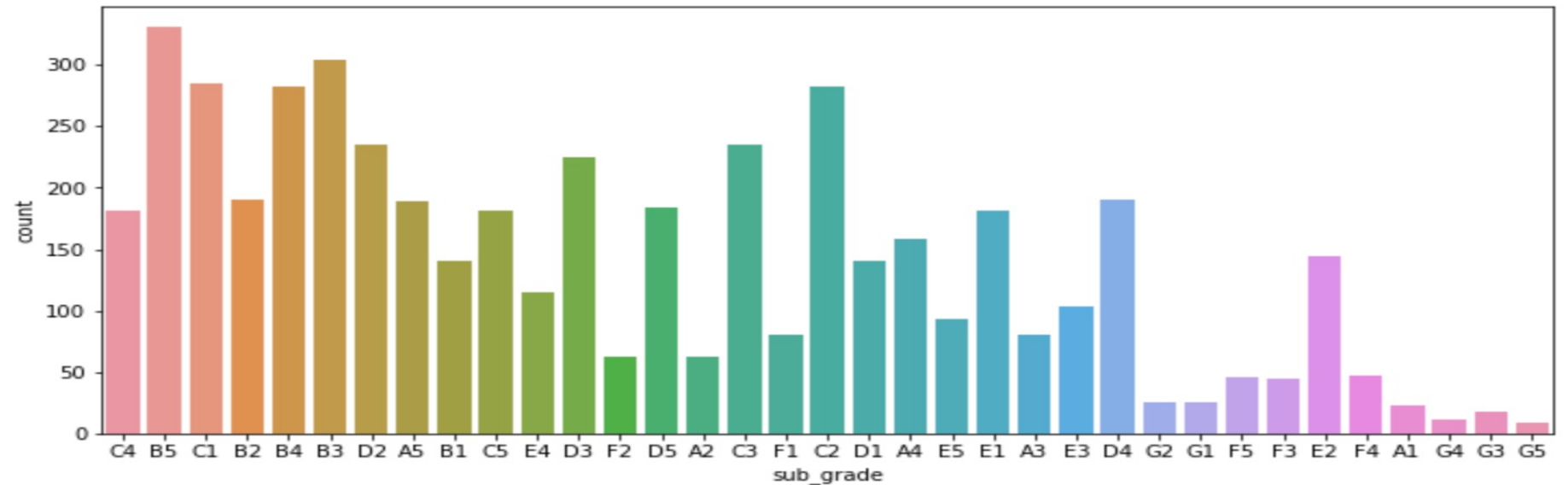


- Most the the borrowers who gets the loan are under 'RENT' category

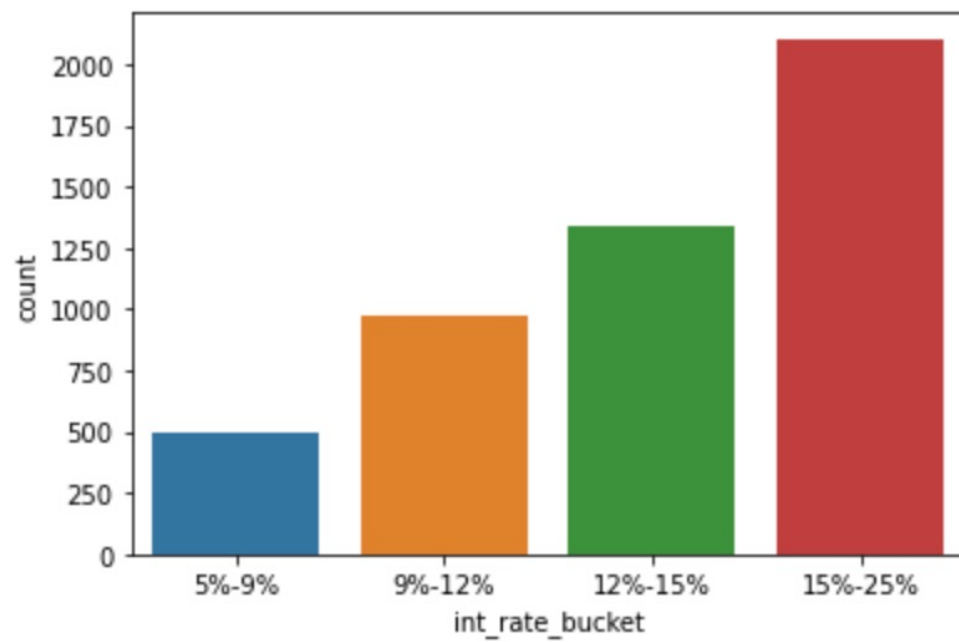
Factors for Defaulters



- Grade B are the most defaulters



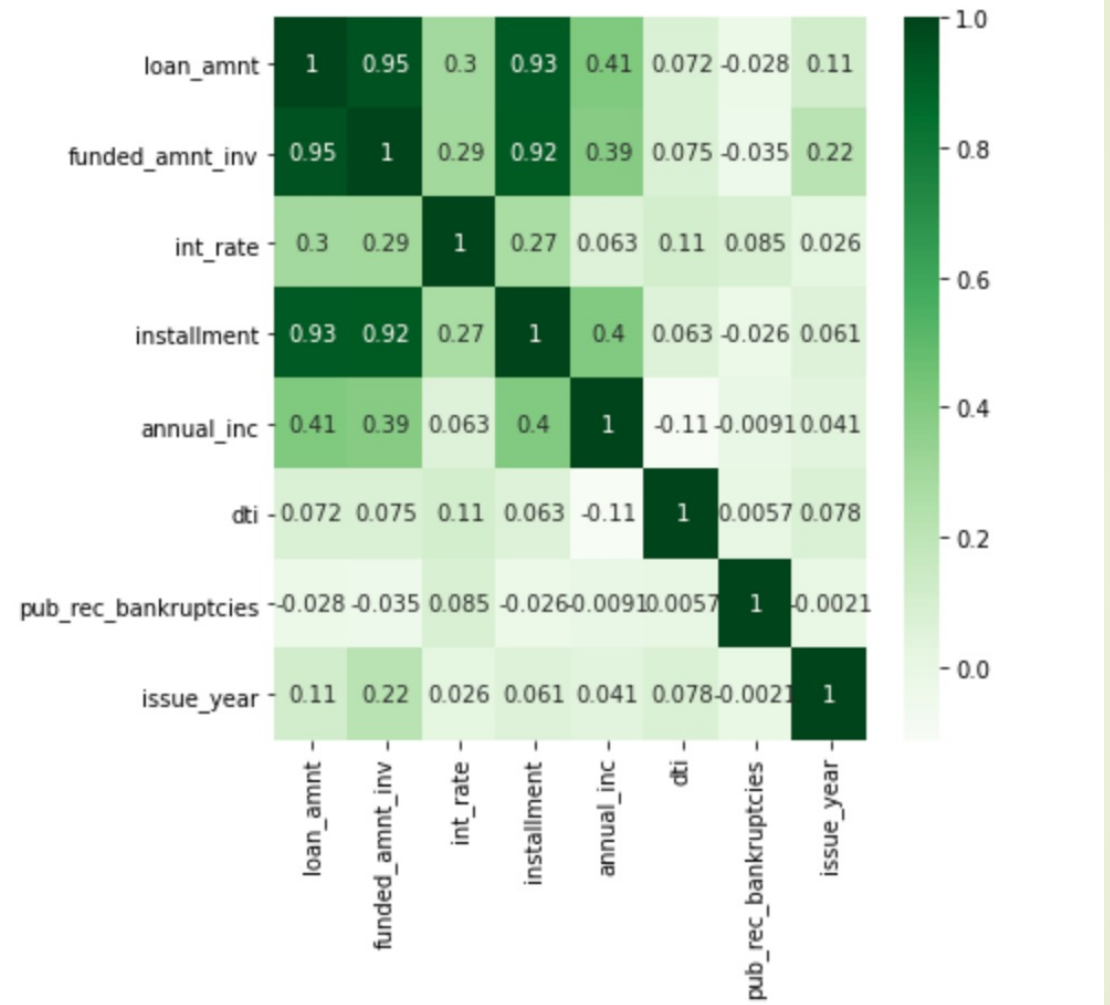
- From the above two plots. majority of the defaulters are from Grade B



- High-interest rate is one of the major drivers for defaulters

Correlation

- funded_amnt_inv and loan_amnt has high correlation
- instalment has high correlation with both funded_amnt_inv and loan_amnt
- there is slight correlation between annual_inc and loan_amnt





Insights



- Majority of the borrowers fully pay the loan
- There are outliers in 'annual_inc'
- Most the the borrowers who gets the loan are under 'RENT' category
- Most of the approved loans are not verified.
- Majority of the loans are given on 36 months basis.
- The purpose of most of the people to take loan is 'debt_consolidation'



Driving Factors

- Most of the charged off are in the year 2011
- Most of the charged off are in the Month December
- Most the the borrowers who gets the loan are under 'RENT' category and there is a very less impact of 'home_owner' on dafaulters
- Grade B are the most defaulters and among B grade, B5 is the most
- Those who take loan for debt_consolidation tends to default the loan most among all other reasons
- Borrowers employed for < 1 year have high high tendency to default
- High-interest rate is one of the major drivers for defaulters
- For Funded amount, amount in the 14125-35000 bucket has the most defaulters



Thank You