Risk Analytics in Lending Club Case Study

Presented by

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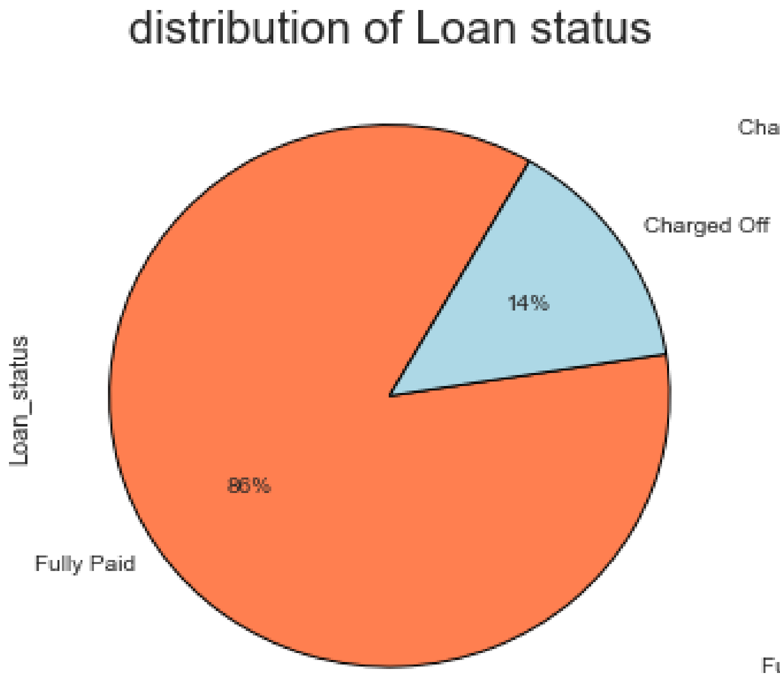
INTRODUCTION

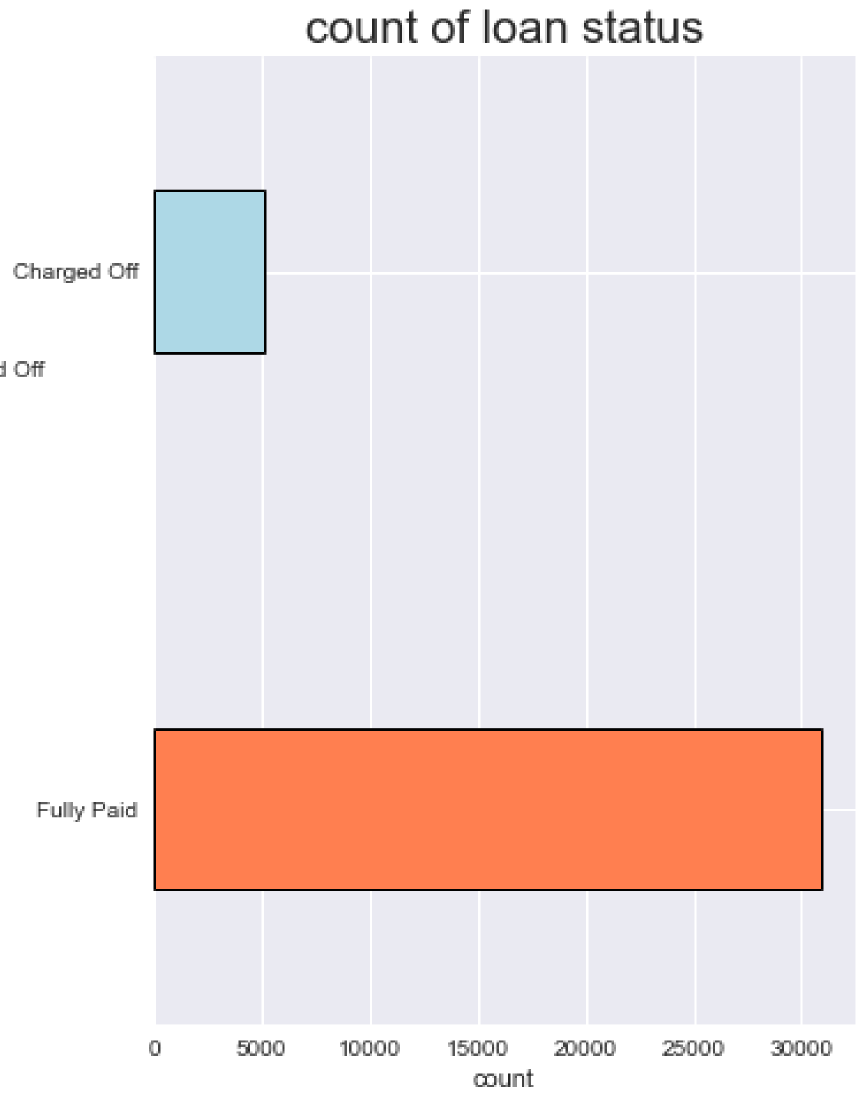
One of the important job in risk analytics of financial services is identifying risky applicants.In this case study, apart from applying the techniques we have learnt in EDA, we will also develop a basic understanding of risk analytics in banking and financial services and understand how data is used to minimise the risk of losing money while lending to the customers..

BUSINESS OBJECTIVES

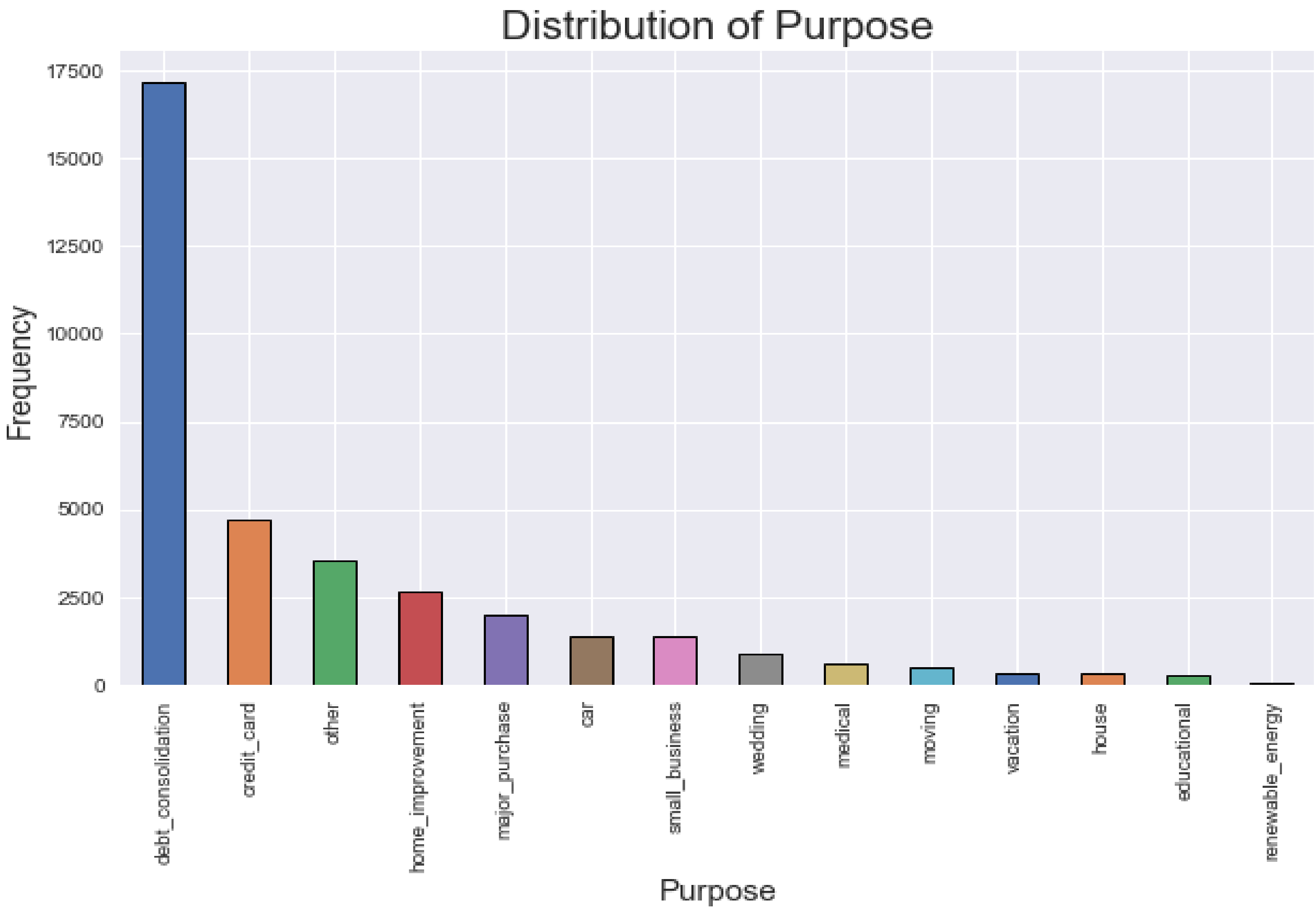
- If one is able to identify these risky loan applicants, then such loans can be reduced thereby cutting down the amount of credit loss. Identification of such applicants using EDA is the aim of this case study.
- In other words, the company wants to understand the driving factors (or driver variables) behind loan default, i.e. the variables which are strong indicators of default. The company can utilise this knowledge for its portfolio and risk assessment.

- Approximately 14% of people facing difficulties in repaying the loan

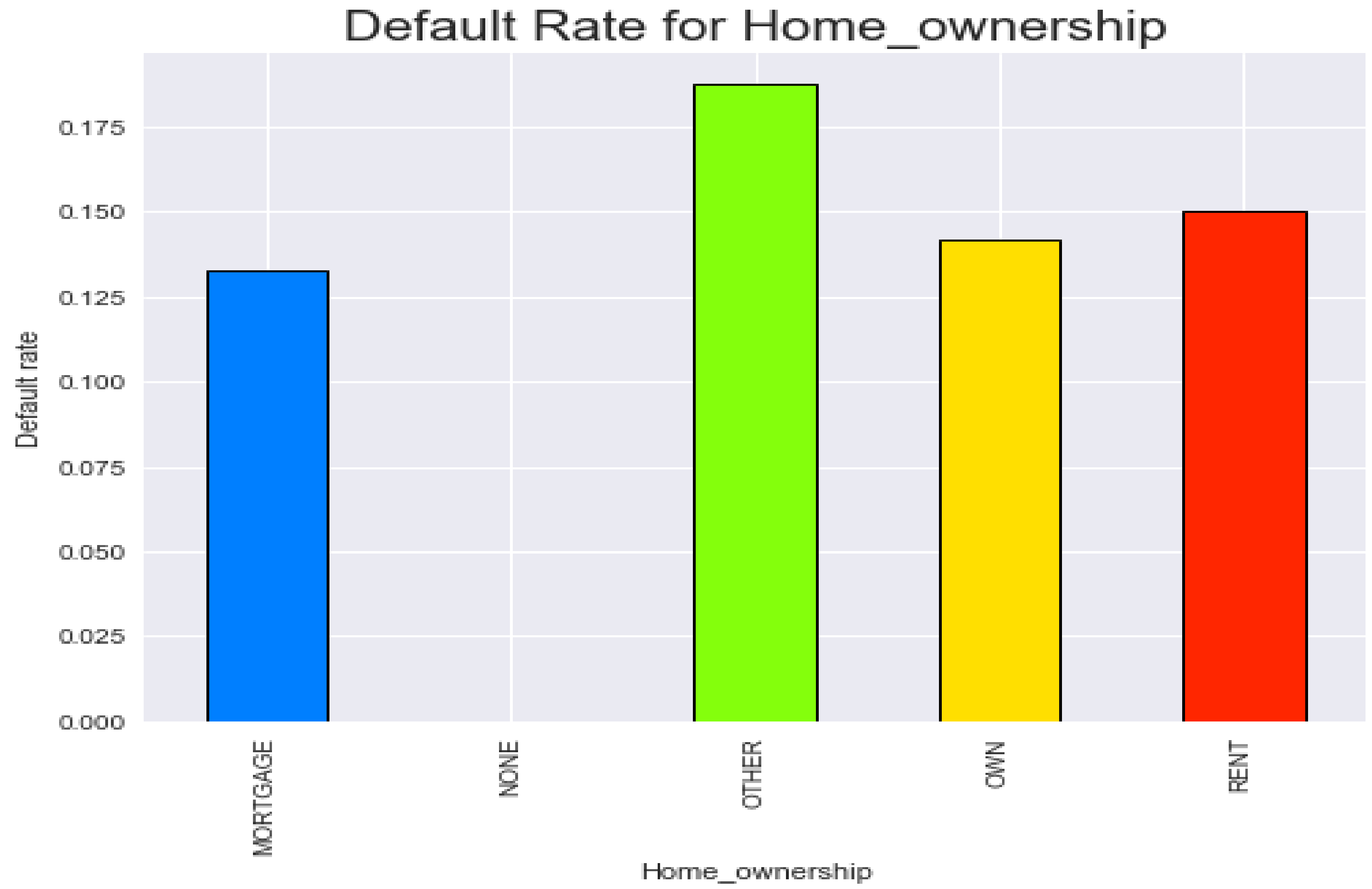




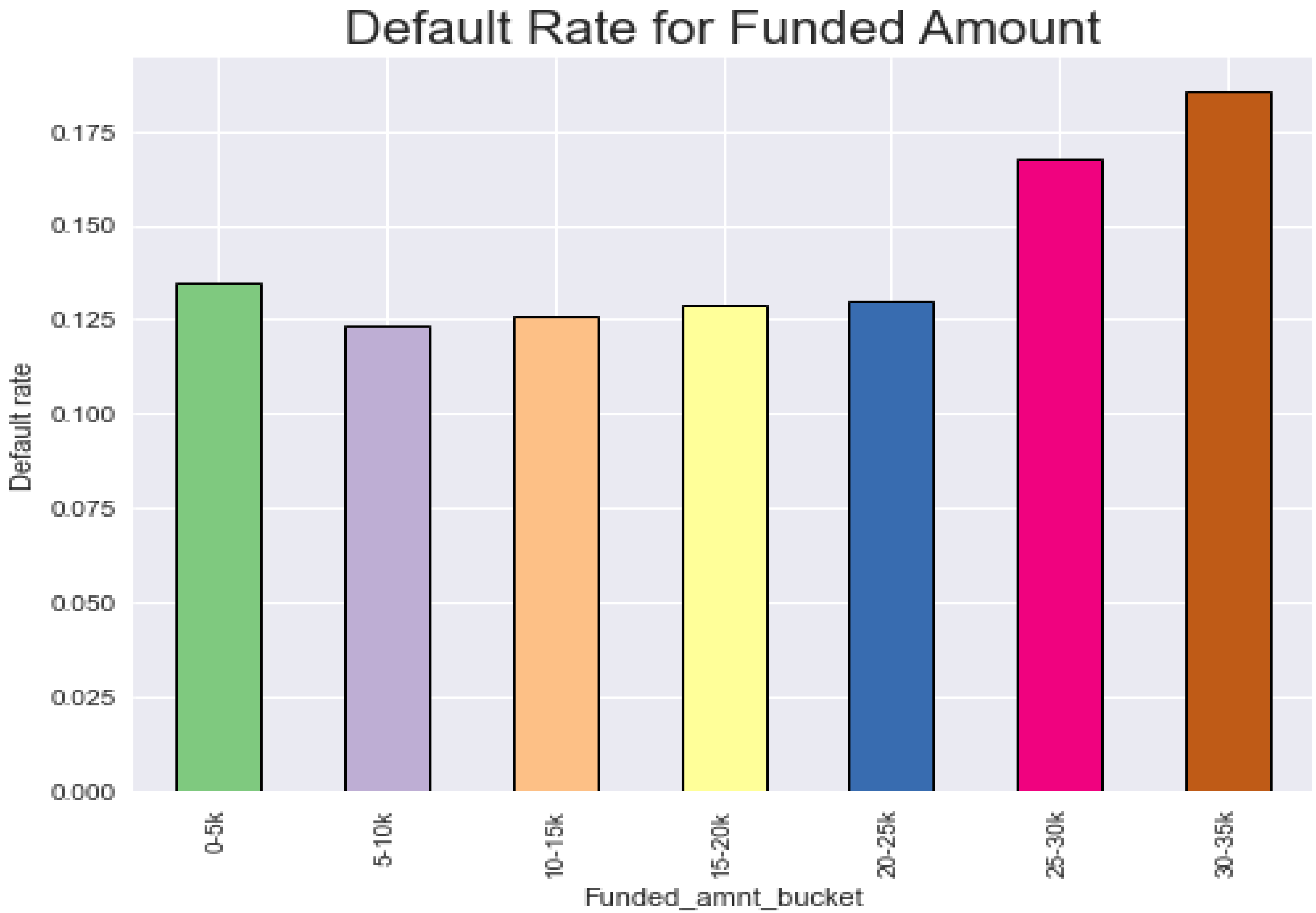
- Most of the customers are applying for loan for dept consolidation followed by credit card payments.



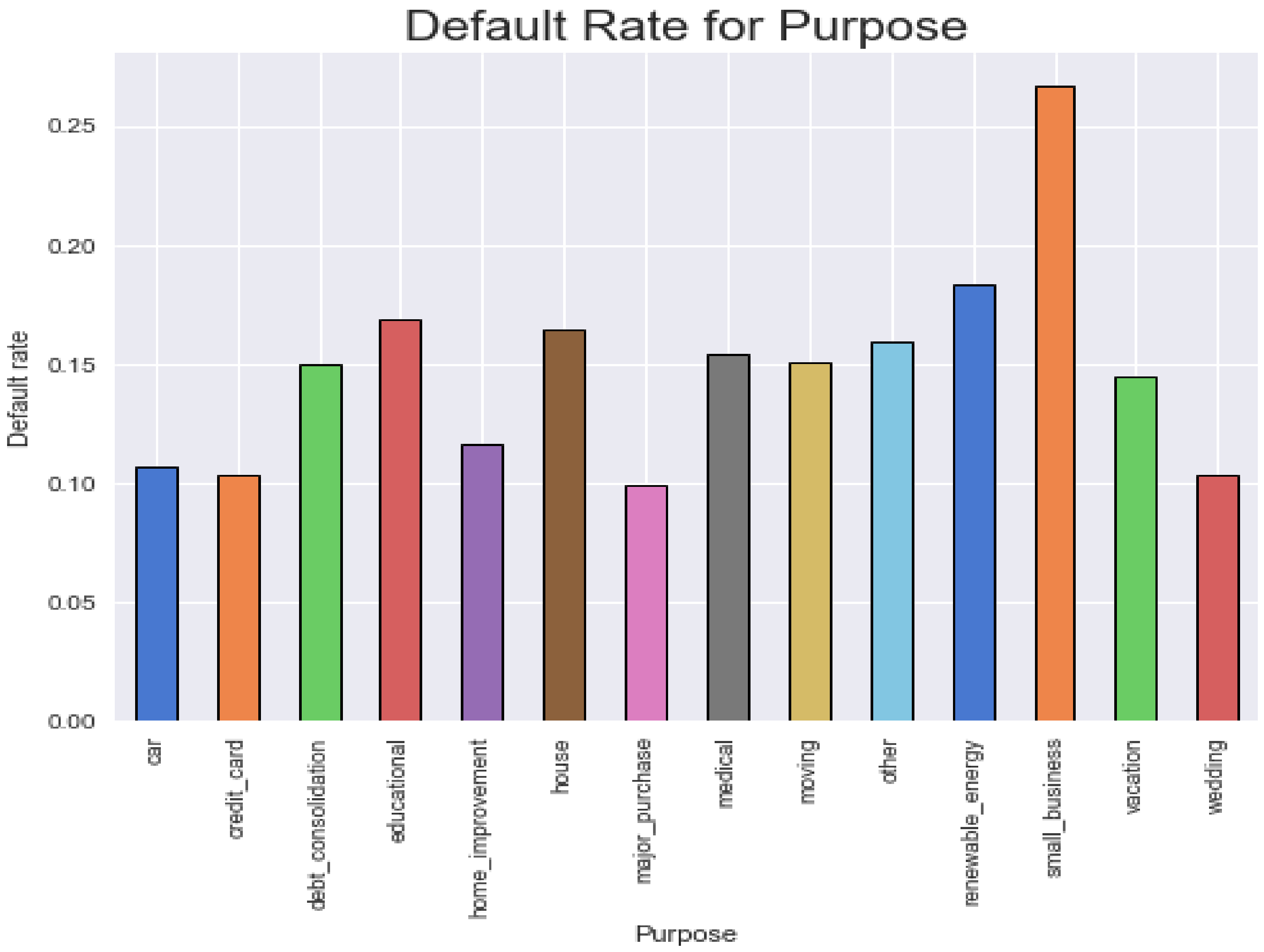
- The customers who are living in rent are more likely to default with default rate of around 15%.



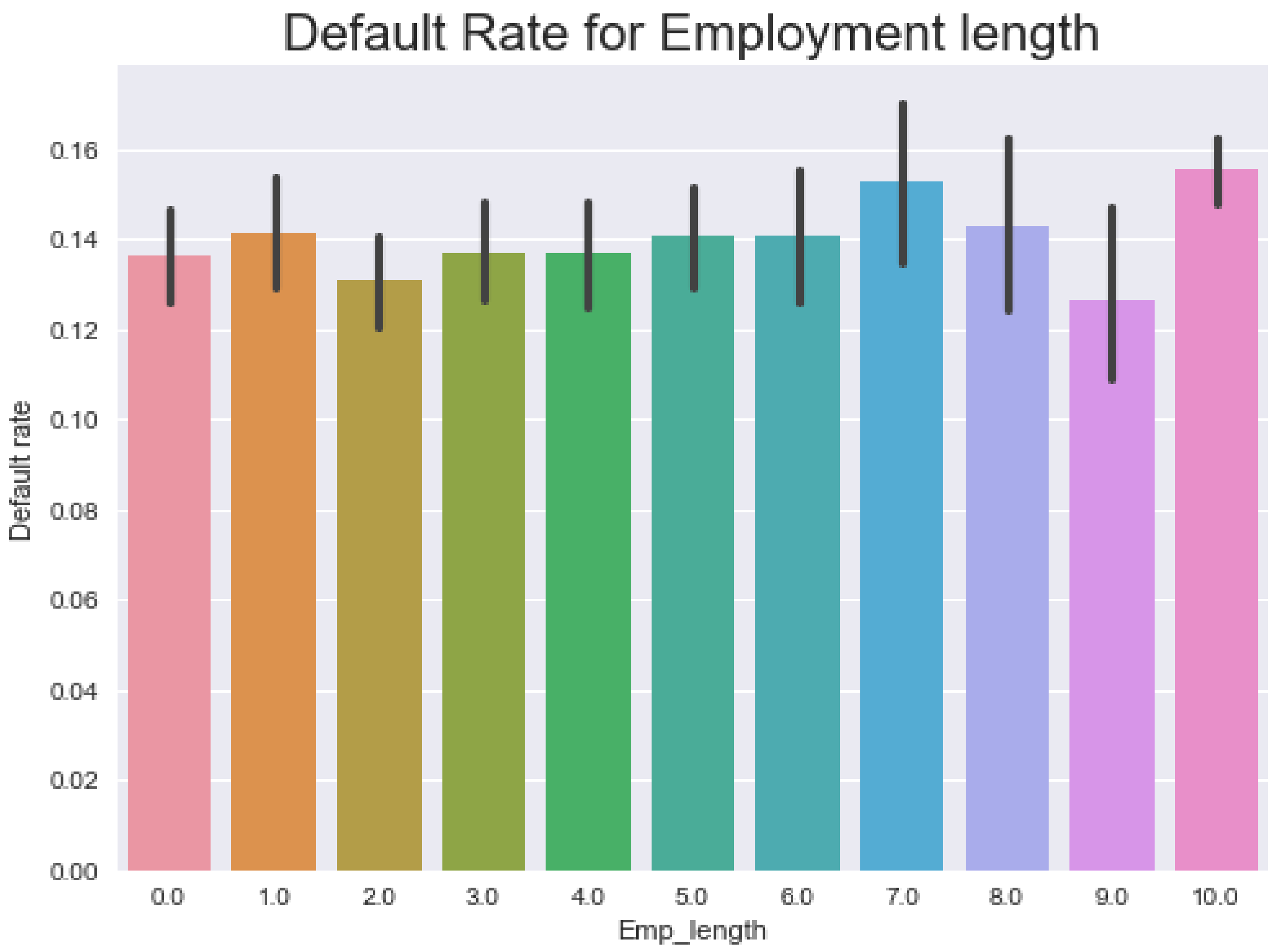
- The default rate is more for the category 30 to 35k of around 19% (approx. 0.19 in graph), followed by the next below category 25 to 30k of around 17%.
- Higher the funded amount greater the change to get default.



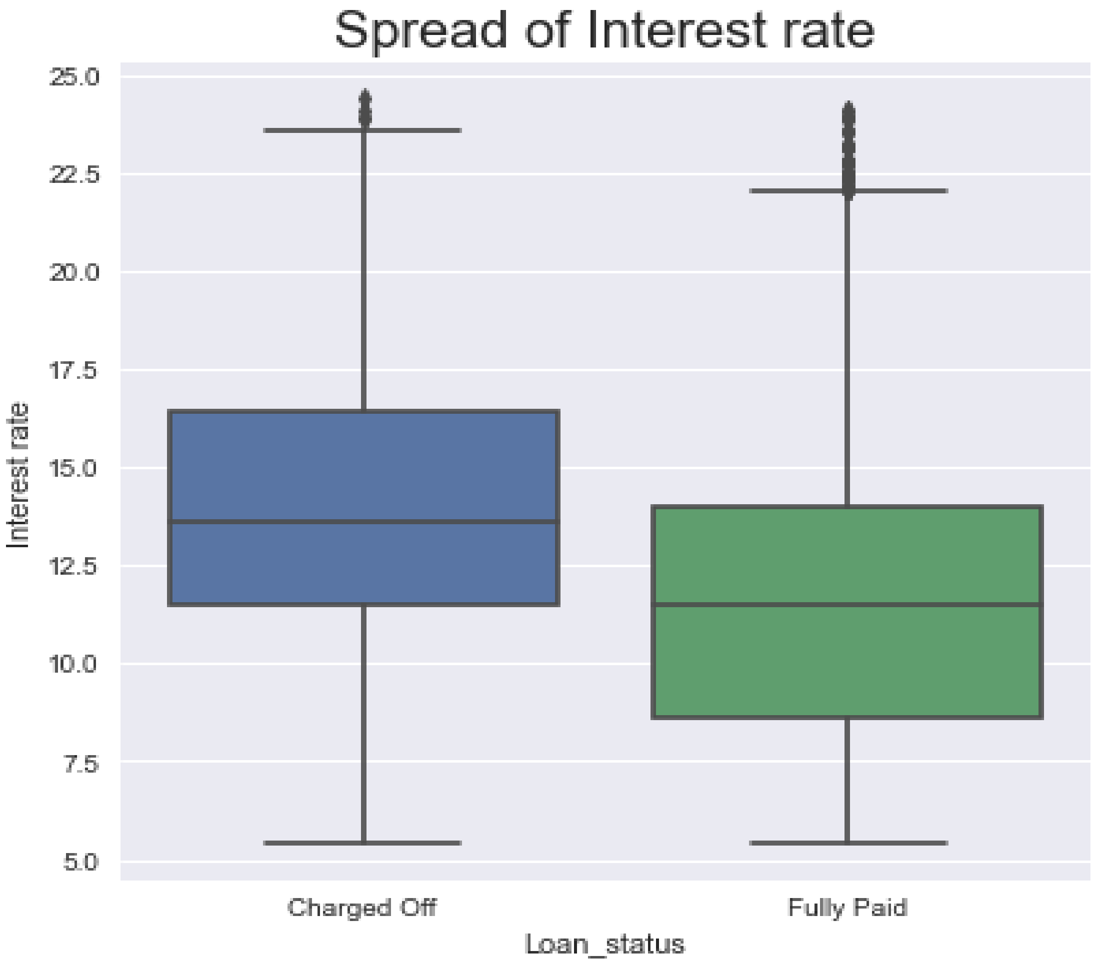
- The customer who are applying loan for small business are more likely to default wit default rate of around 26%.



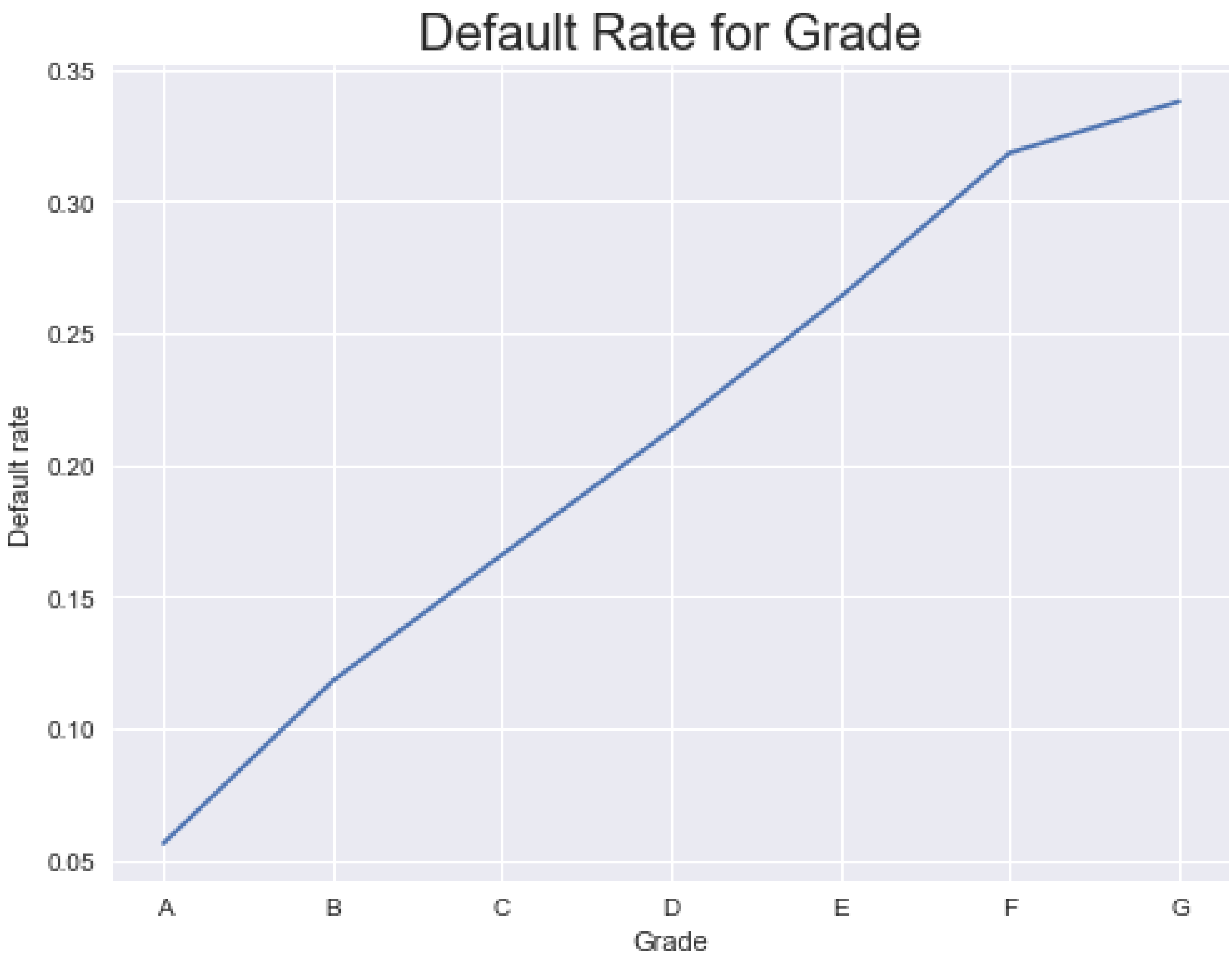
- Customers who have experience of more than 10 years are more likely to default with default rate of 15%.



- we can see that 75% of fully paid peoples are with interest rate less than approximately 14%. and 50% of charged off peoples are above 13% interest rate.



- The default rate increases from grade A to G, thus lower grade customers are more likely to default



Conclusion:

From the EDA of the given loan data, we got to know that multiple factors depend on driving factors.
And I came to conclusion that following factors have higher risks:

- Loan grade and sub-grade from E to G have higher default rate.
- Loan purpose increases the risk. Some of those purposes are small business, renewable energy , educational.
- Percentage of defaulters in the term of 36 months is higher than in 60 months.
- People who are in the rented house are more likely to default.
- Higher interest rate can also cause to default.

THANK YOU