

LENDING CLUB CASE STUDY

CONTRIBUTORS:

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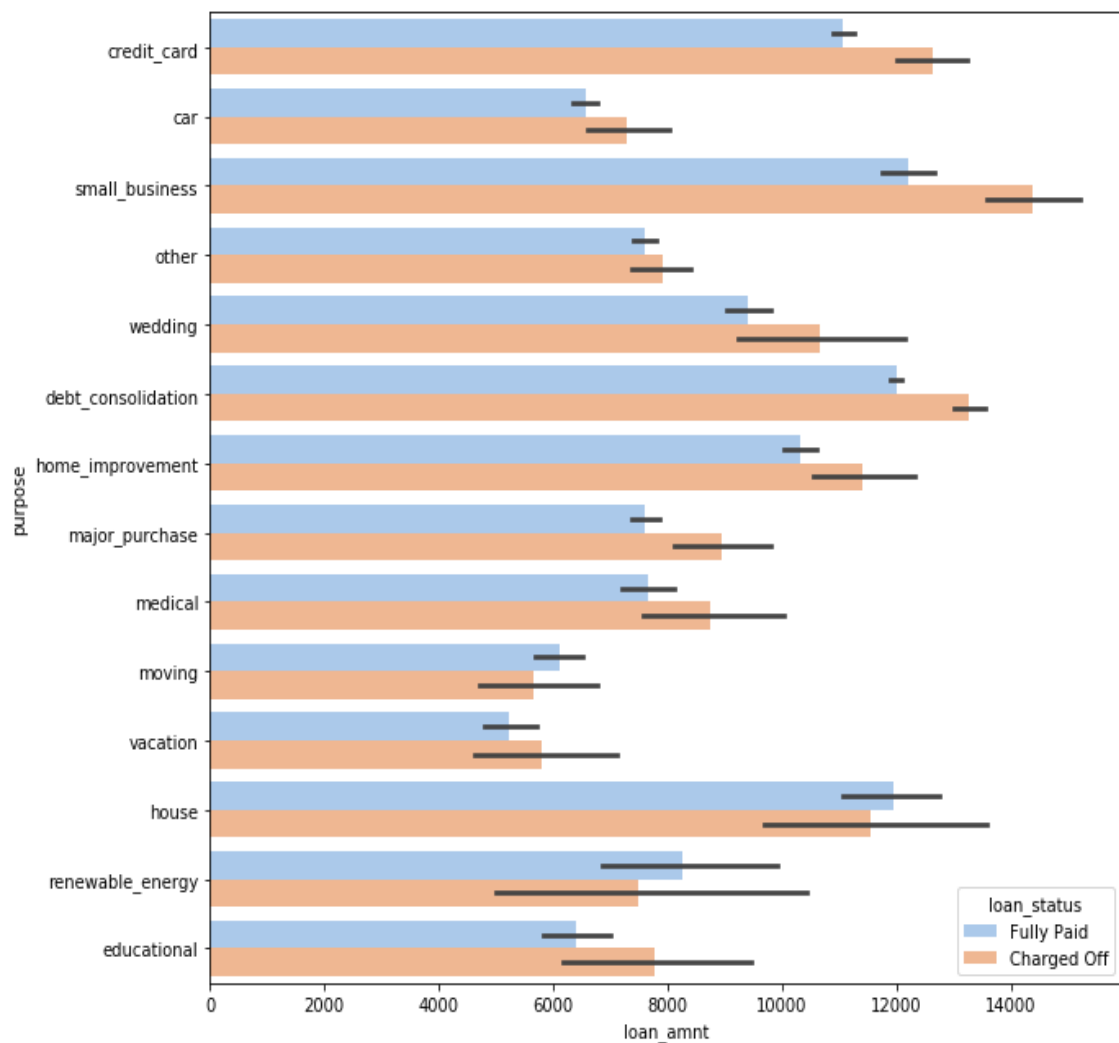
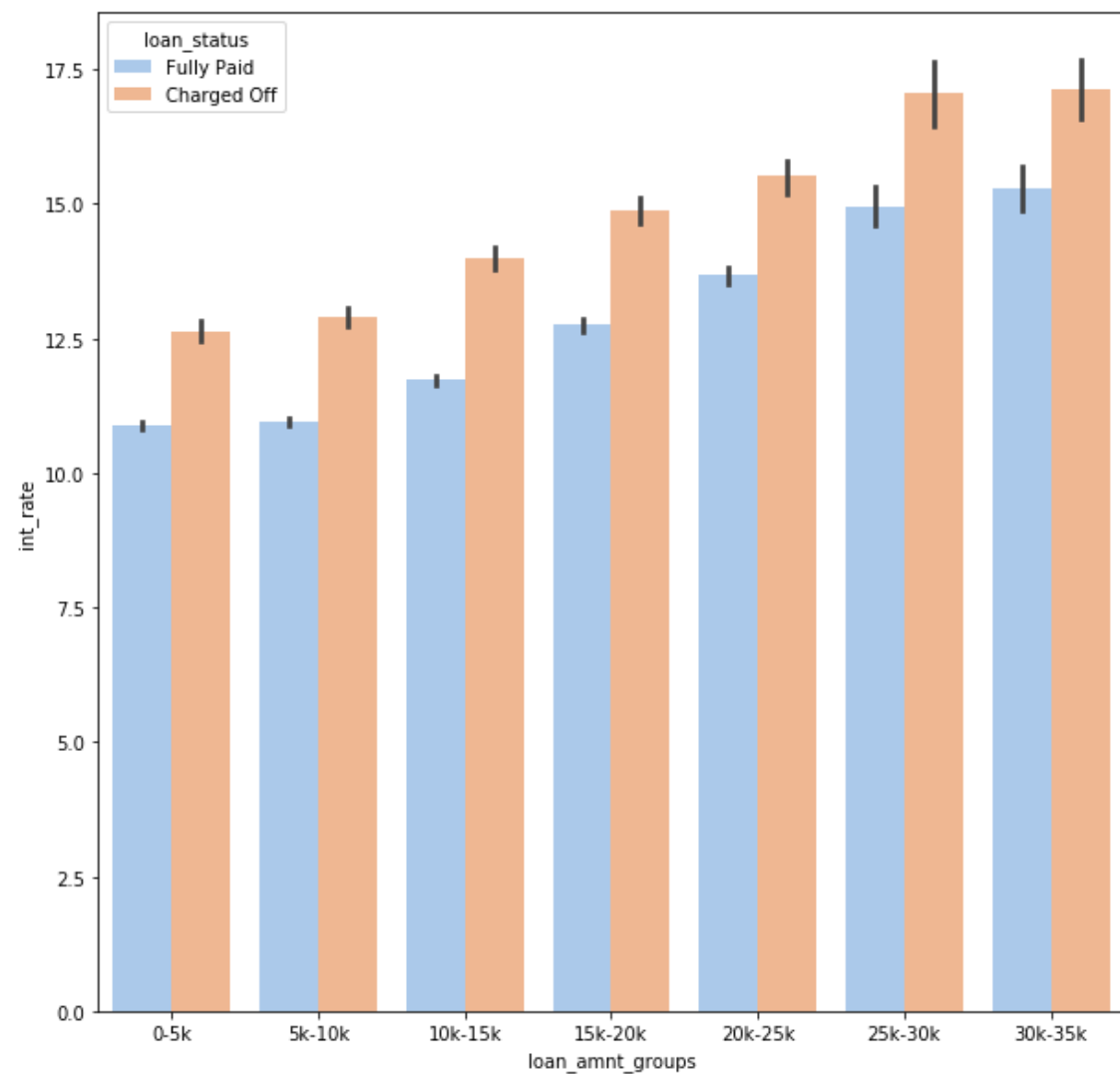
PROBLEM STATEMENT

- You work for a consumer finance company which specialises in lending various types of loans to urban customers.
- Your aim is to assess the loan applicants for the risk of default.
- The objective of the case study is to use EDA to understand how consumer attributes and loan attributes influence the tendency of default
- The ultimate goal is to understand the driving factors behind loan default, which the company can utilise for its portfolio and risk assessment.

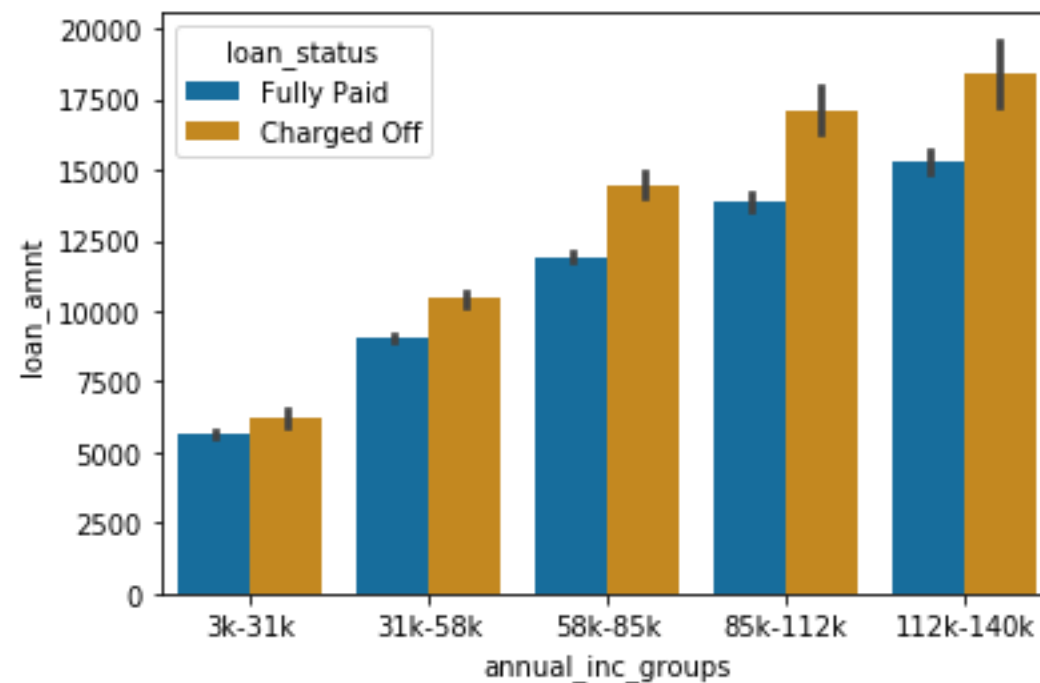
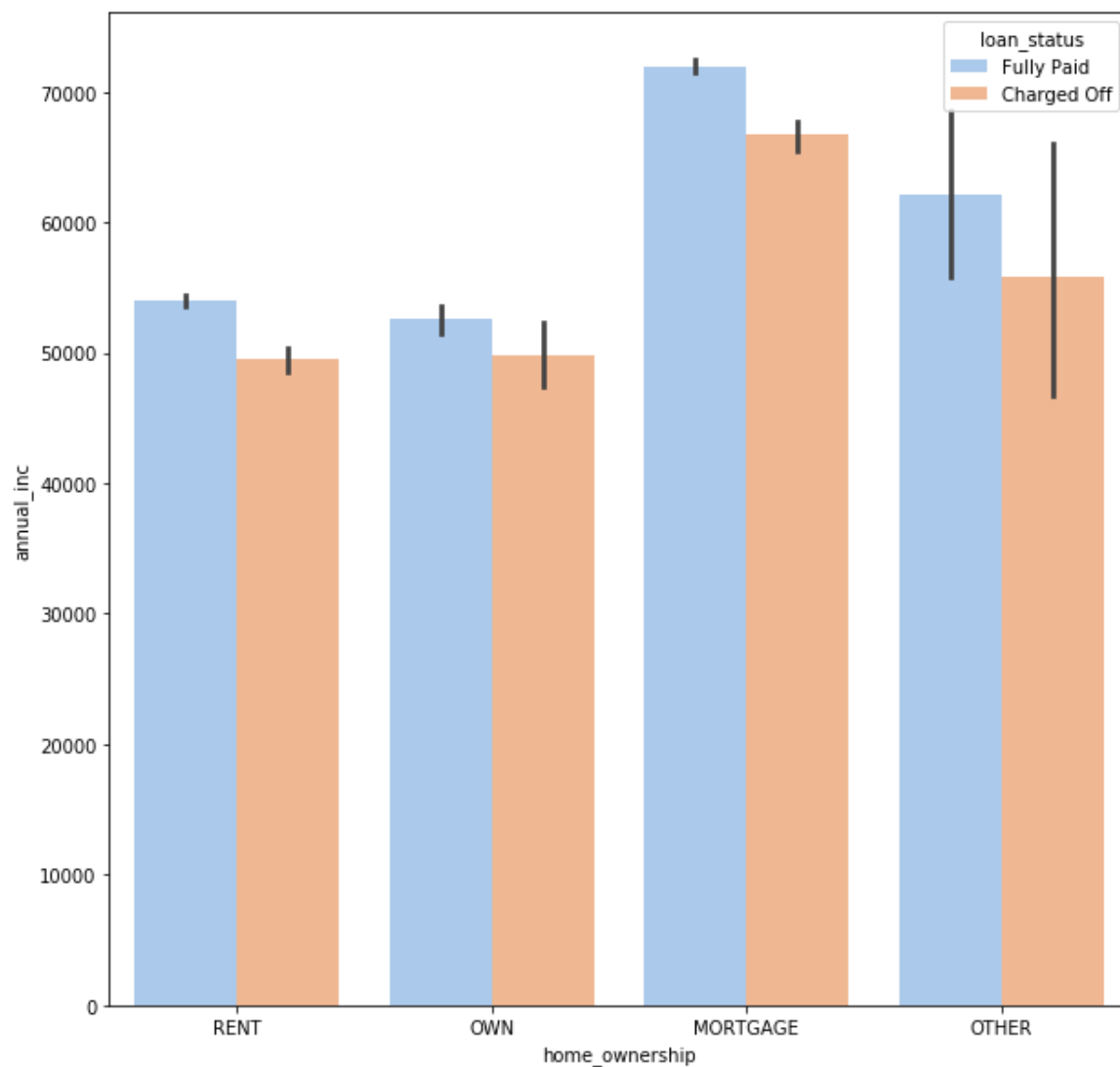
ANALYSIS APPROACH

- Cleaning the data
 - Looking for columns with no data
 - Removing all columns with null values.
 - Removing data that are not useful: There are features or columns in the data which doesn't contribute to the loan defaulting in any way due to irrelevant information. So, removing them.
 - Checking and handling missing values
 - Standardizing the data
- Outlier Treatment
- Visualizing Categorical Data

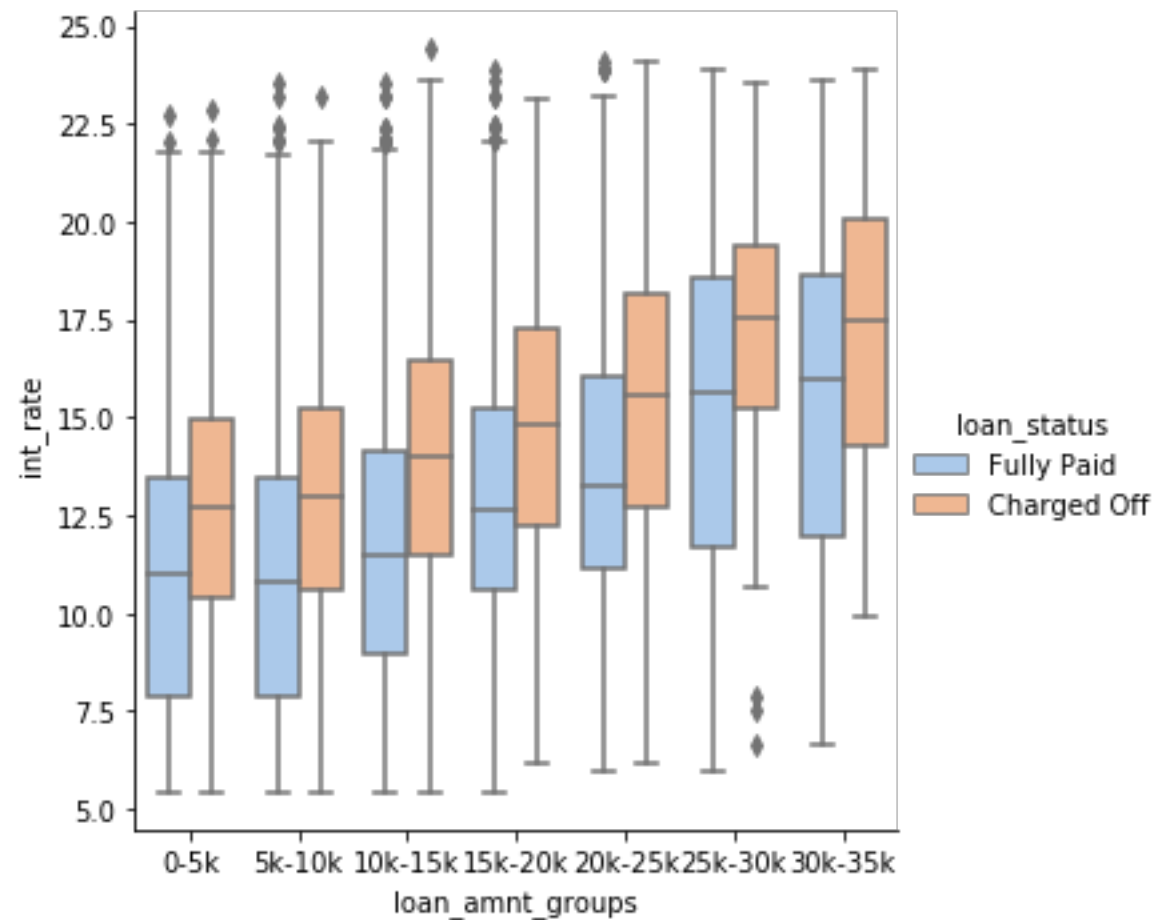
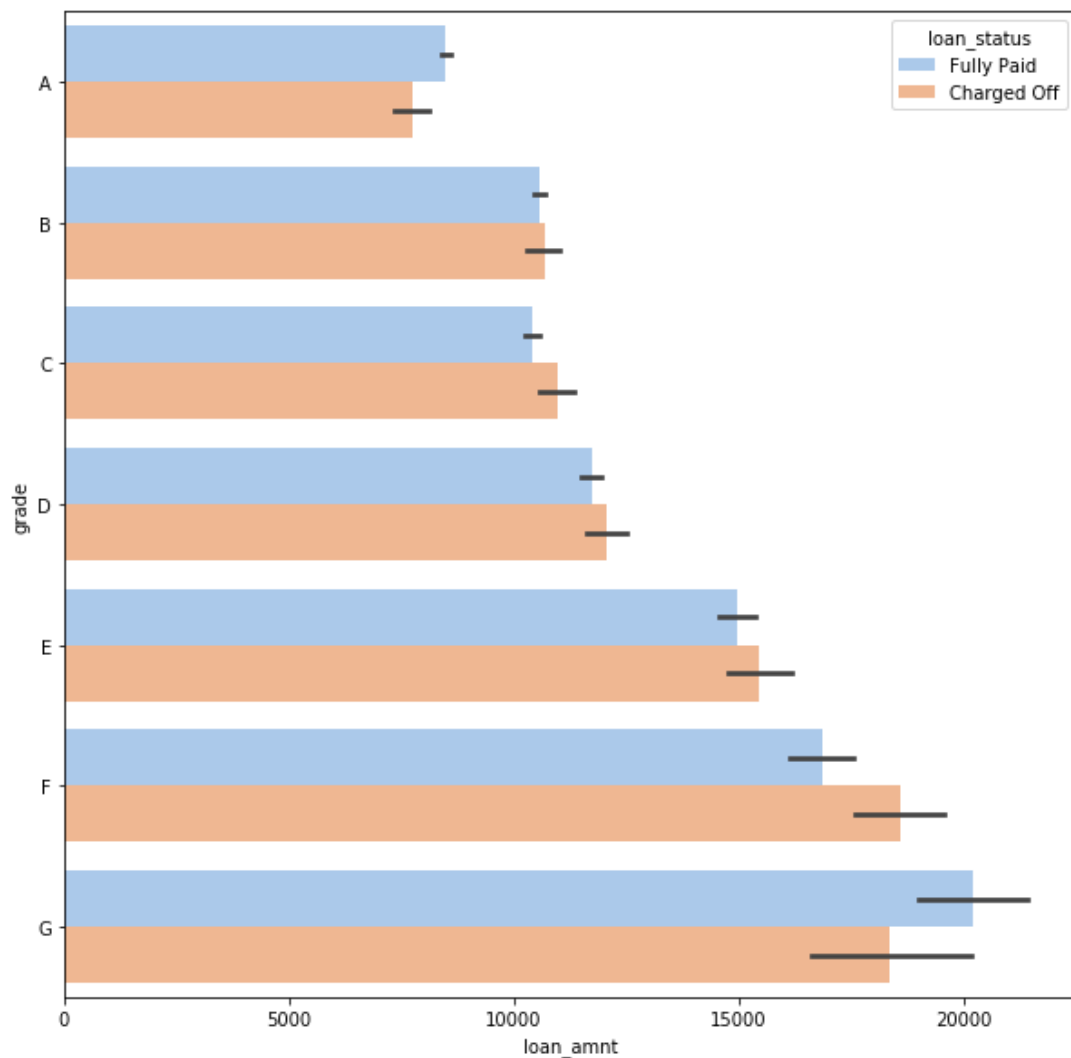
OBSERVATIONS



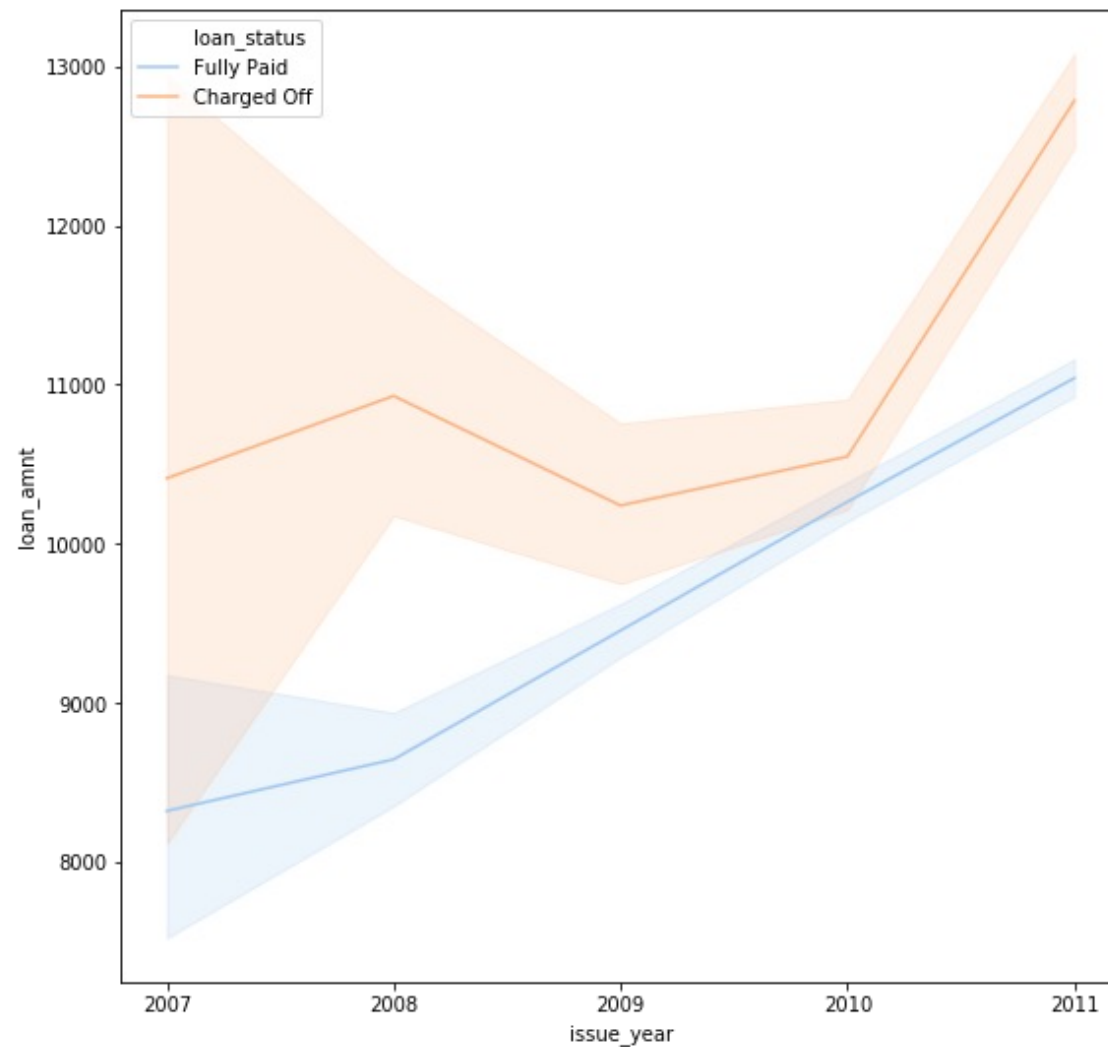
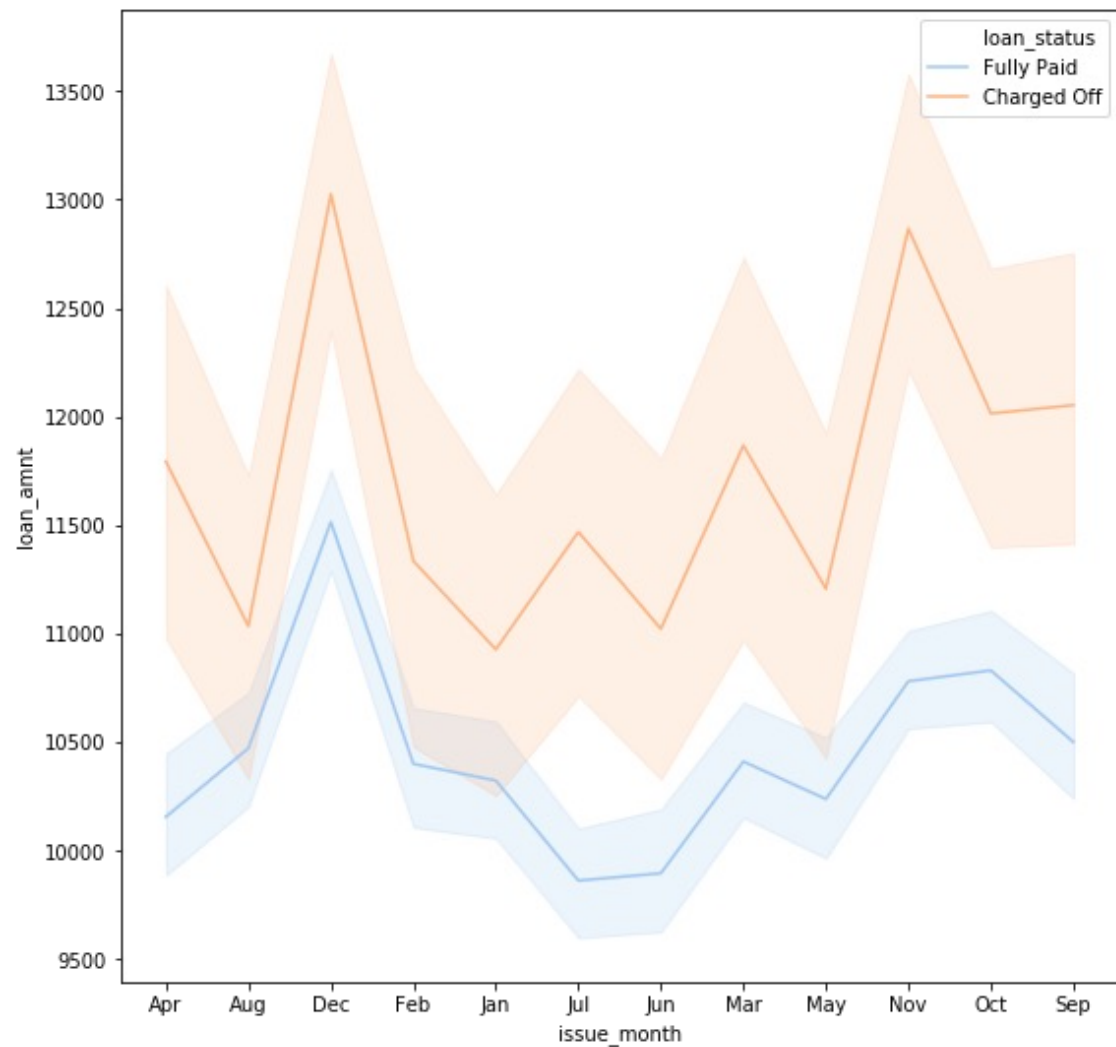
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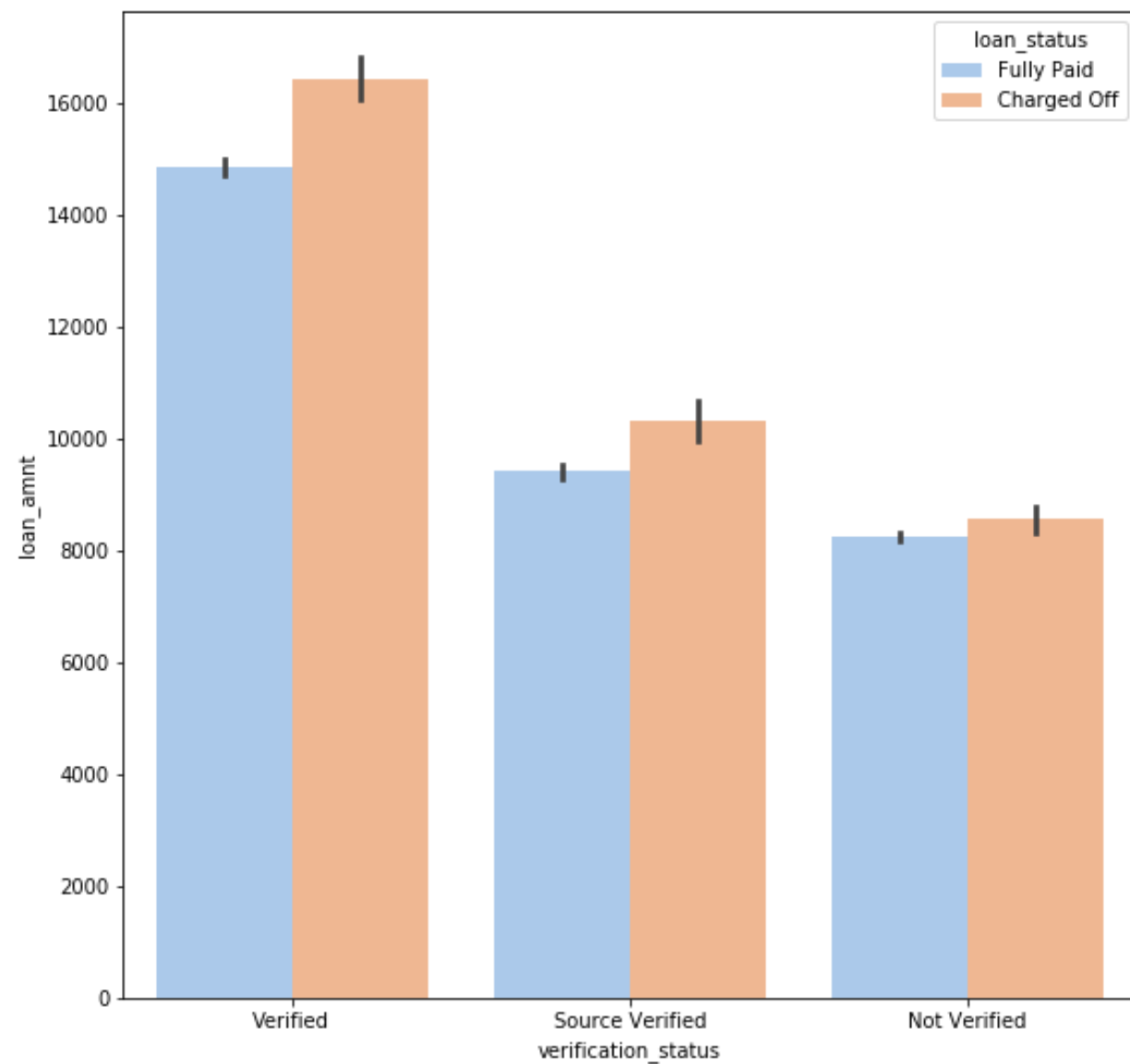
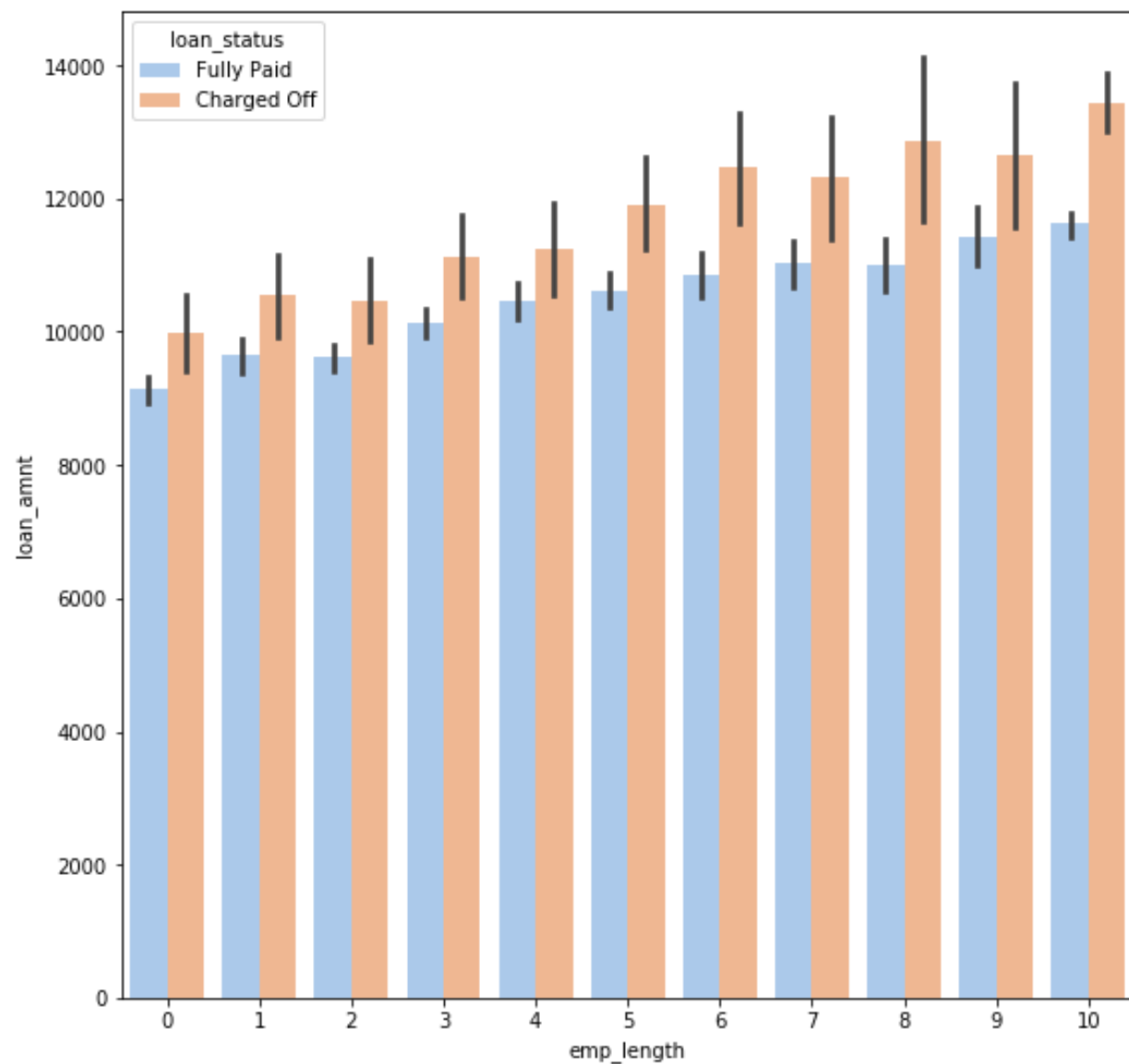
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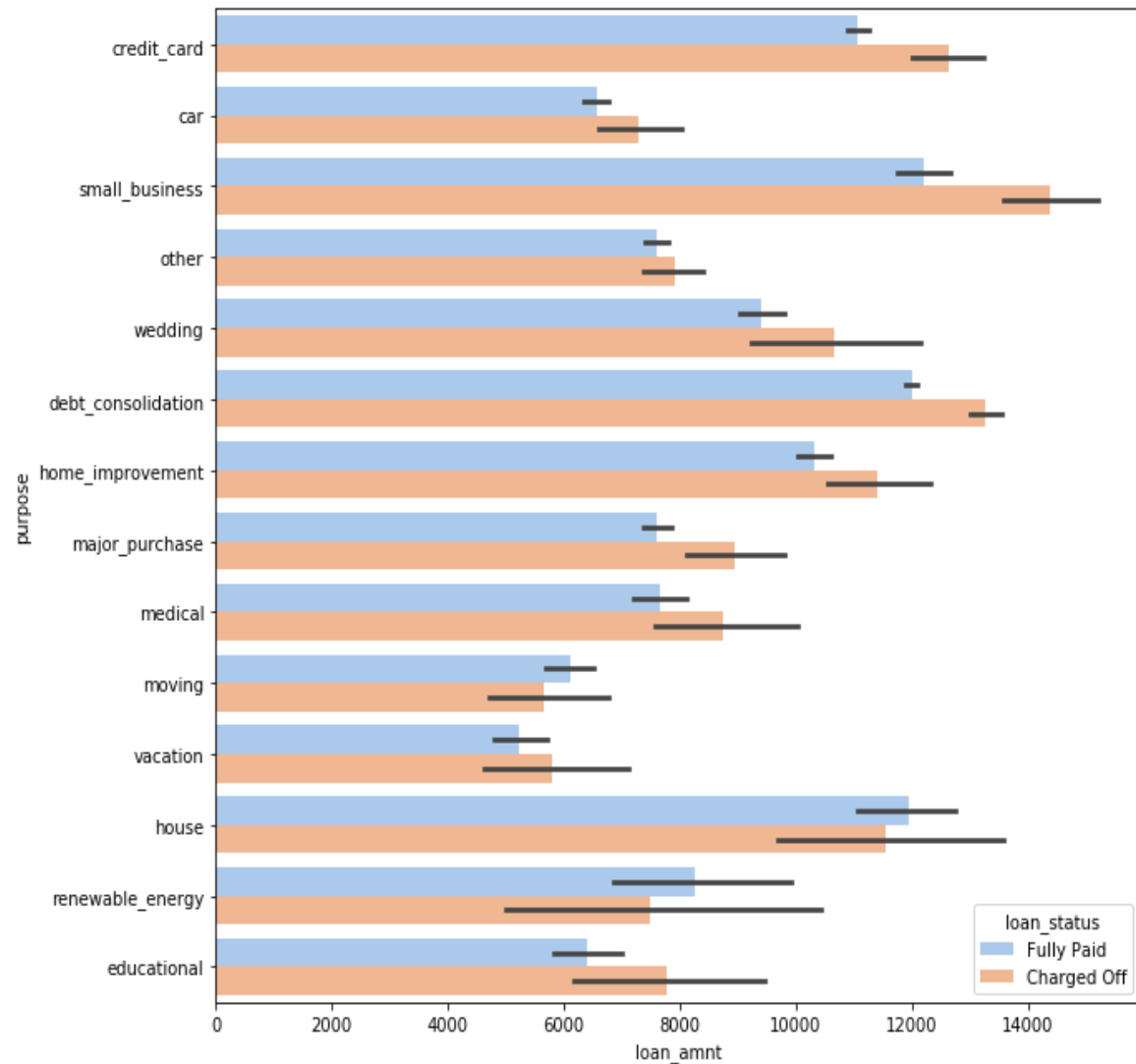
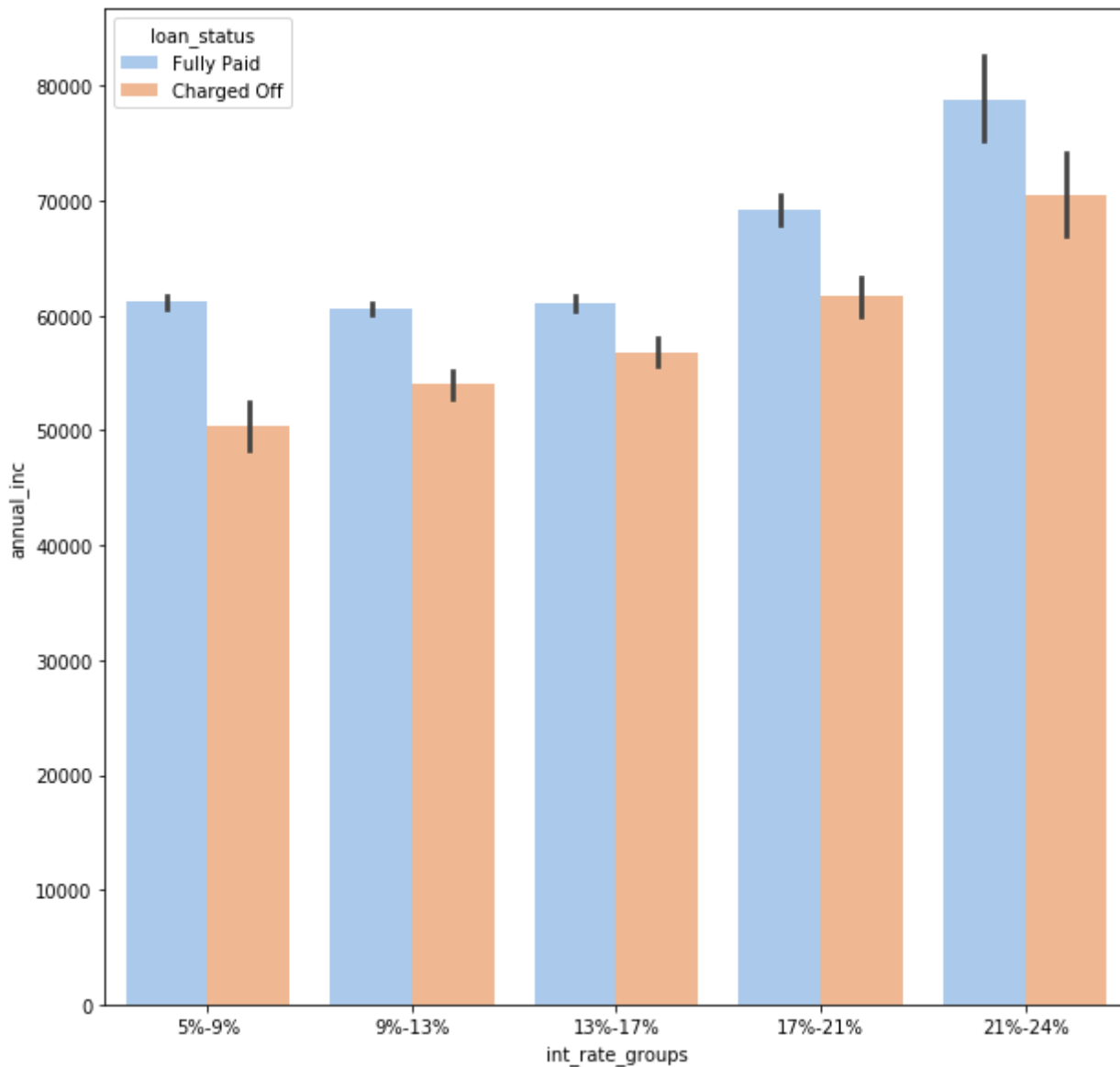
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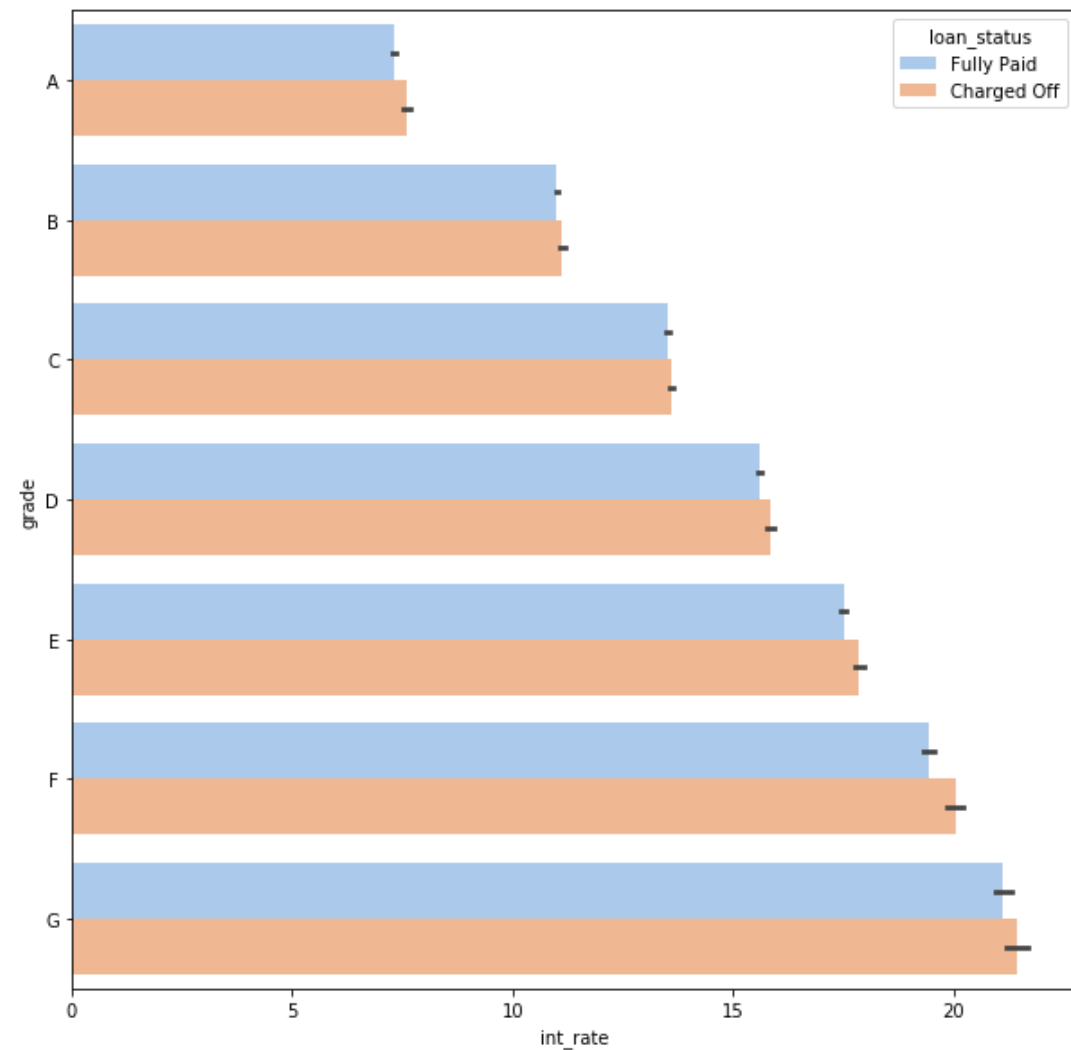
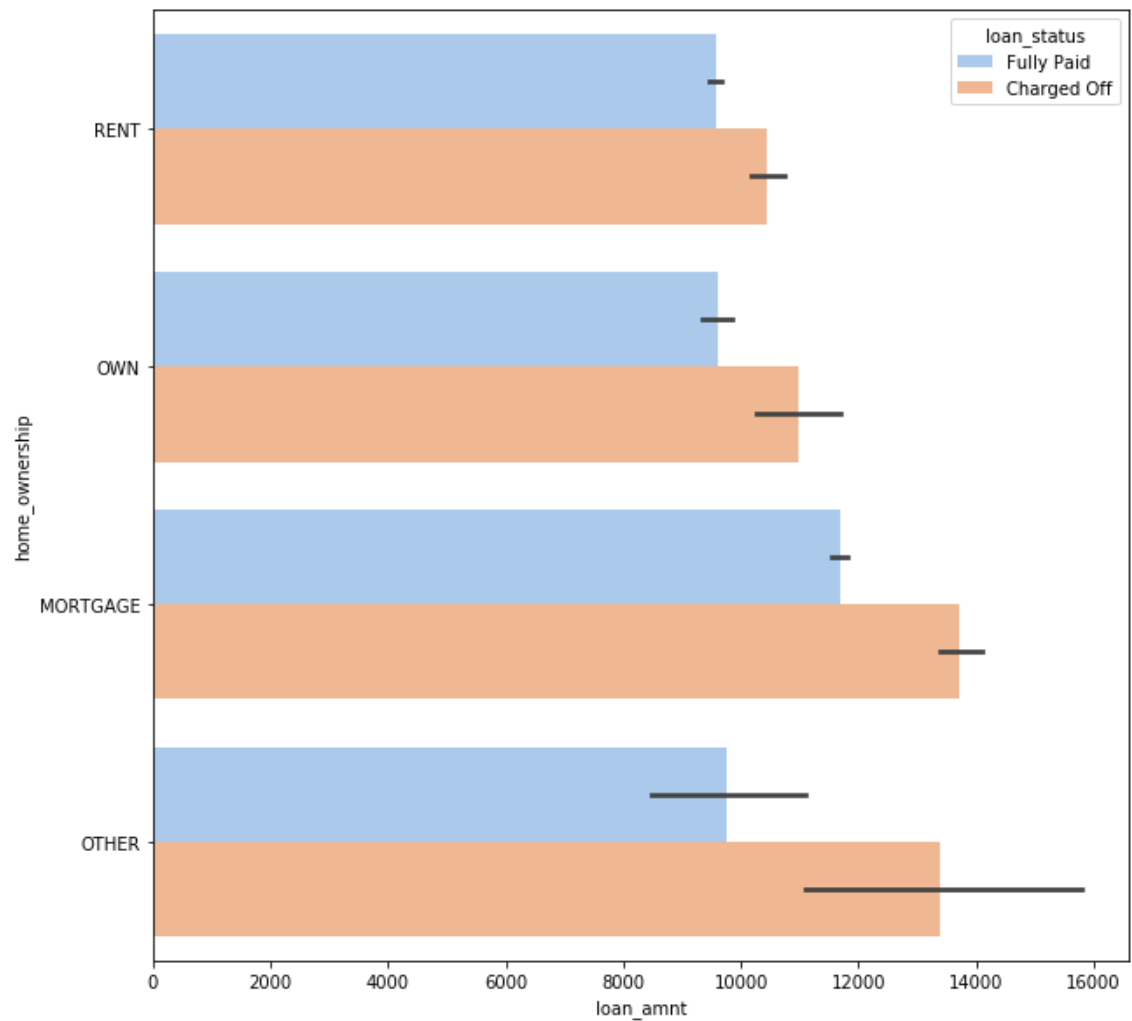
OBSERVATIONS



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CONCLUSIONS

The analysis shows that there is a more probability of defaulting when

- Applicants taking loan for 'home improvement' and have income of 60k -70k
- Applicants whose home ownership is 'MORTGAGE and have income of 60-70k
- Applicants who receive interest at the rate of 21-24% and have an income of 70k-80k
- Applicants who have taken a loan in the range 30k - 35k and are charged interest rate of 15-17.5 %
- Applicants who have taken a loan for small business and the loan amount is greater than 14k
- Applicants whose home ownership is 'MORTGAGE and have loan of 14-16k
- When grade is F and loan amount is between 15k-20k
- When employment length is 10yrs and loan amount is 12k-14k
- When the loan is verified and loan amount is above 16k
- For grade G and interest rate above 20%