

Lending Club Case Study

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- Lending club is the largest online loan marketplace, where personal loans, business loans, and financing for medical reasons.
- Borrowers can easily try for a lower interest rate on loans through an online portal.
- This analysis is done by using the information about past loan applicants and finding whether they ‘defaulted’.

We need to understand which factors would best assess those who would be risky.

i.e. default or not

Method

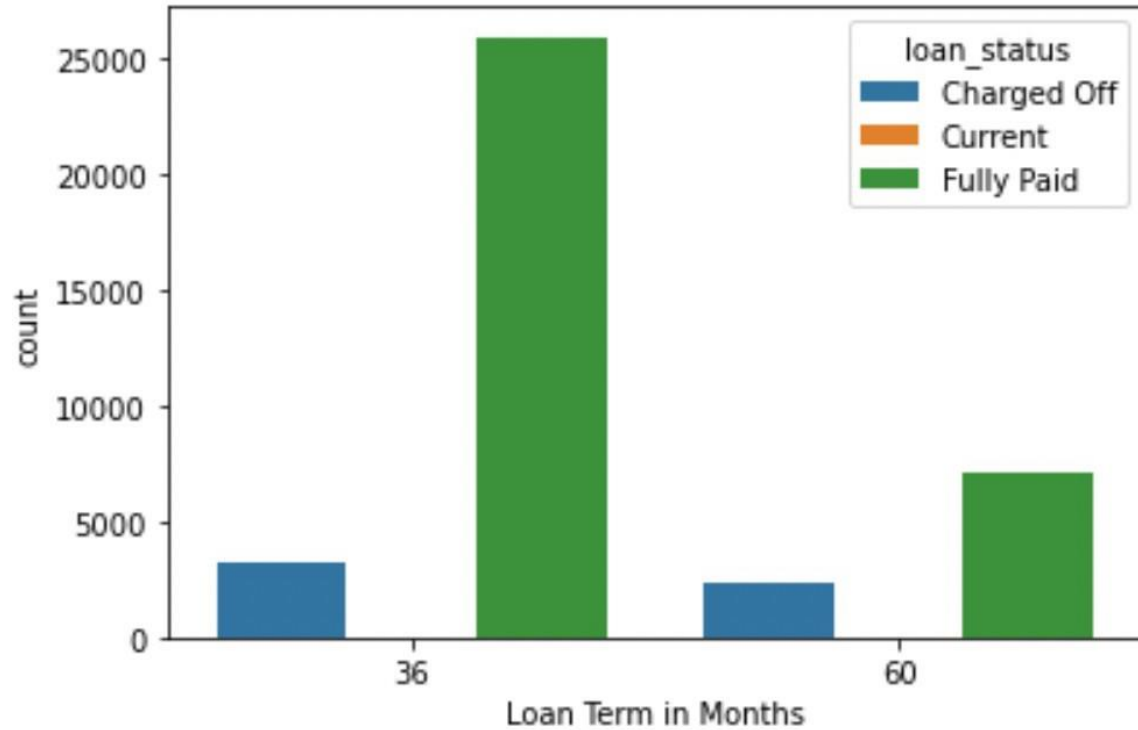
Data cleaning

Analysis – comparing one variable to the dependent variable

- Comparing multiple variables

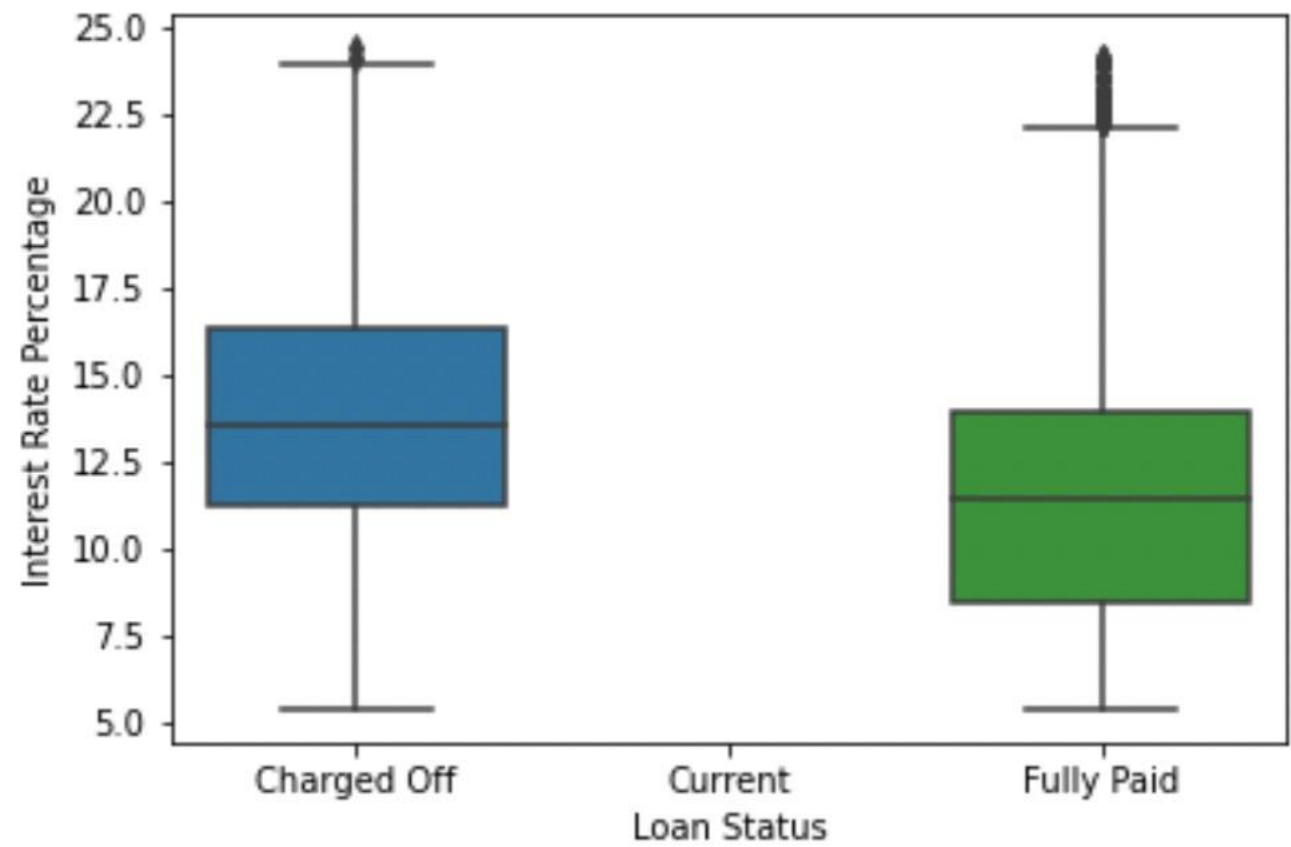
- Suggestions and recommendation for the company with the help of several plots and tables

Analysis



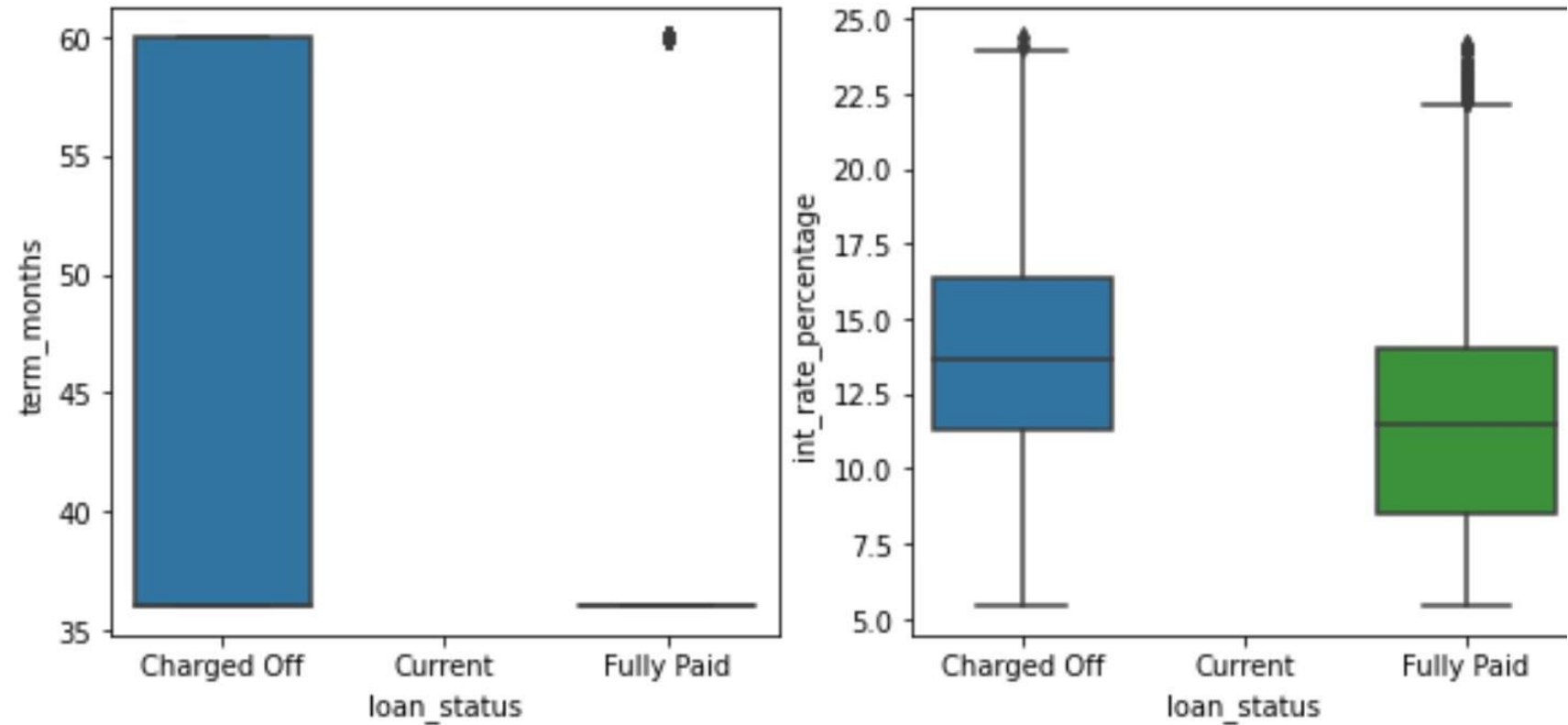
- There are two loan terms. 36 and 60 months. Around 75% borrowers took loans with 36 months term. The charged-off borrowers around 10% and fully paid around 90% in the data .

The data proved the hypothesis to be correct.



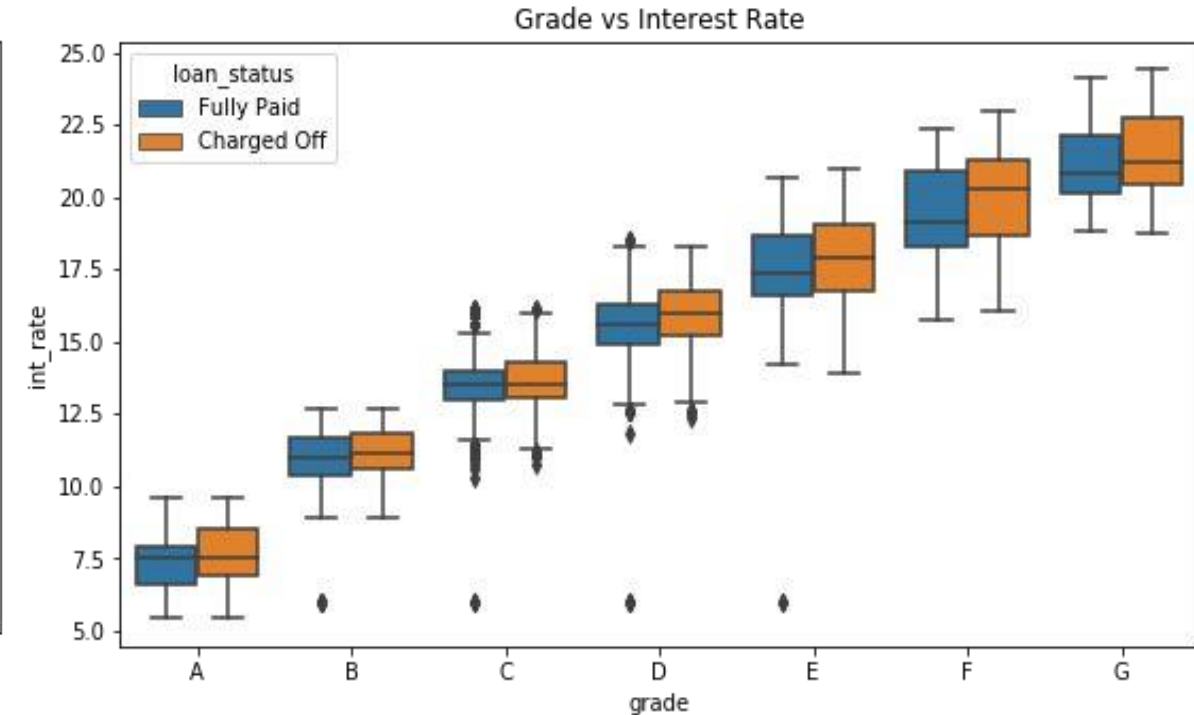
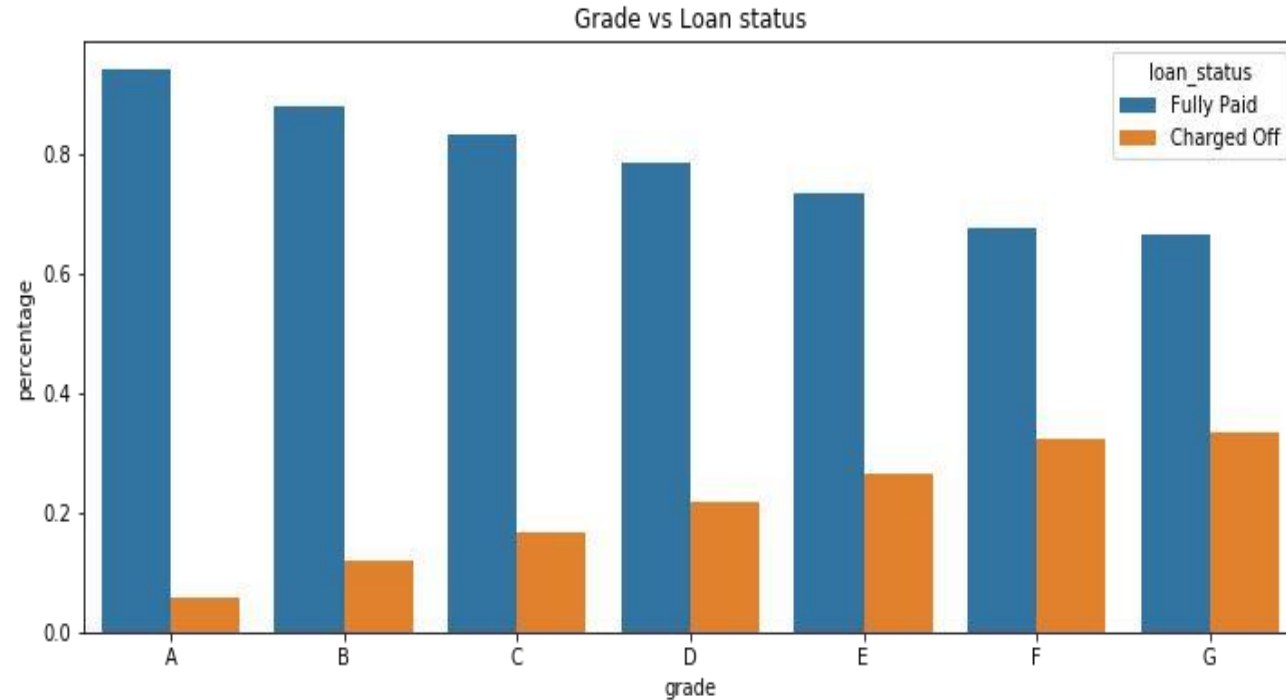
When the loan interest rate is high there is higher chance of loan getting defaulted.

Analysis



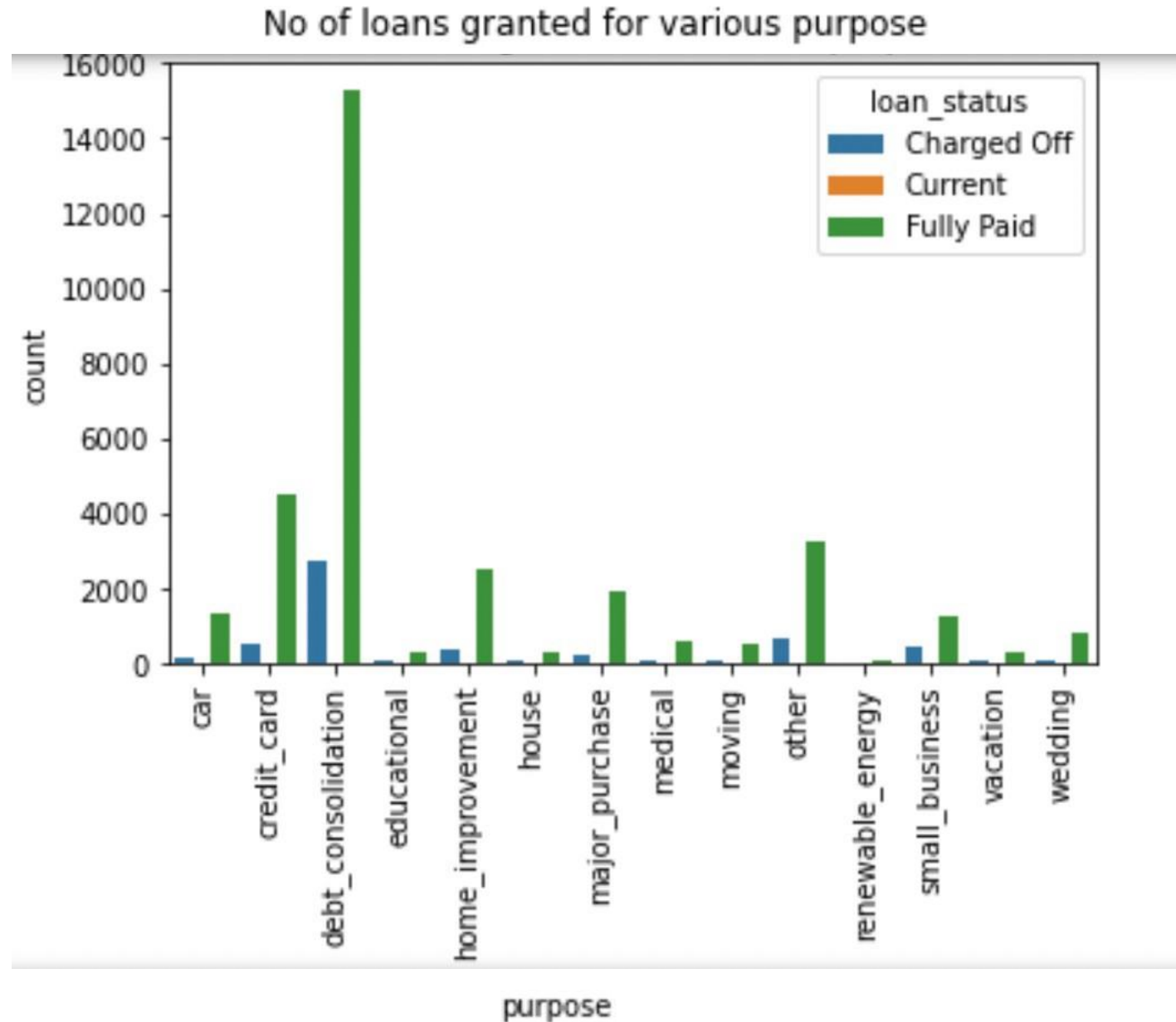
The default rate is high for 60 months because most people took high loan amount with high interest rate and they faced difficulties in returning the amount back to lending club.

Analysis



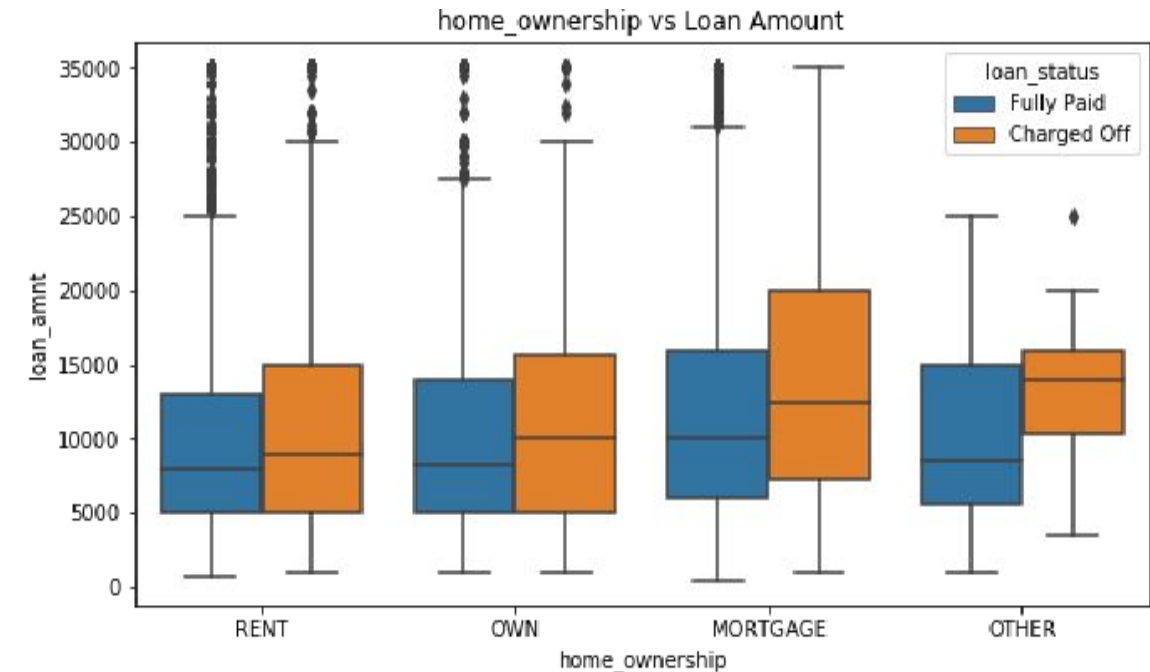
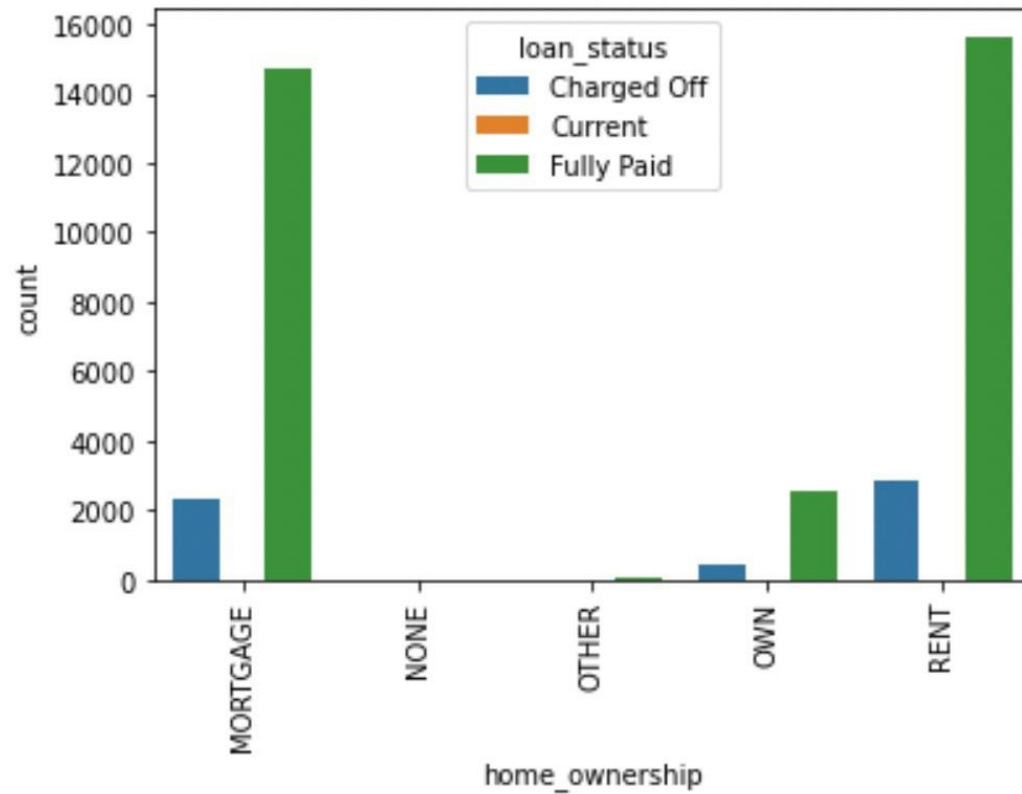
- Grades are very good to tell the borrower probability of defaulting the loan.
- The Lower grades(E,F,G) have higher chances of defaulting than Higher ones(A,B)
- Also the Lower grades are getting loans for higher interest rates which could be the cause for loan default.

Analysis

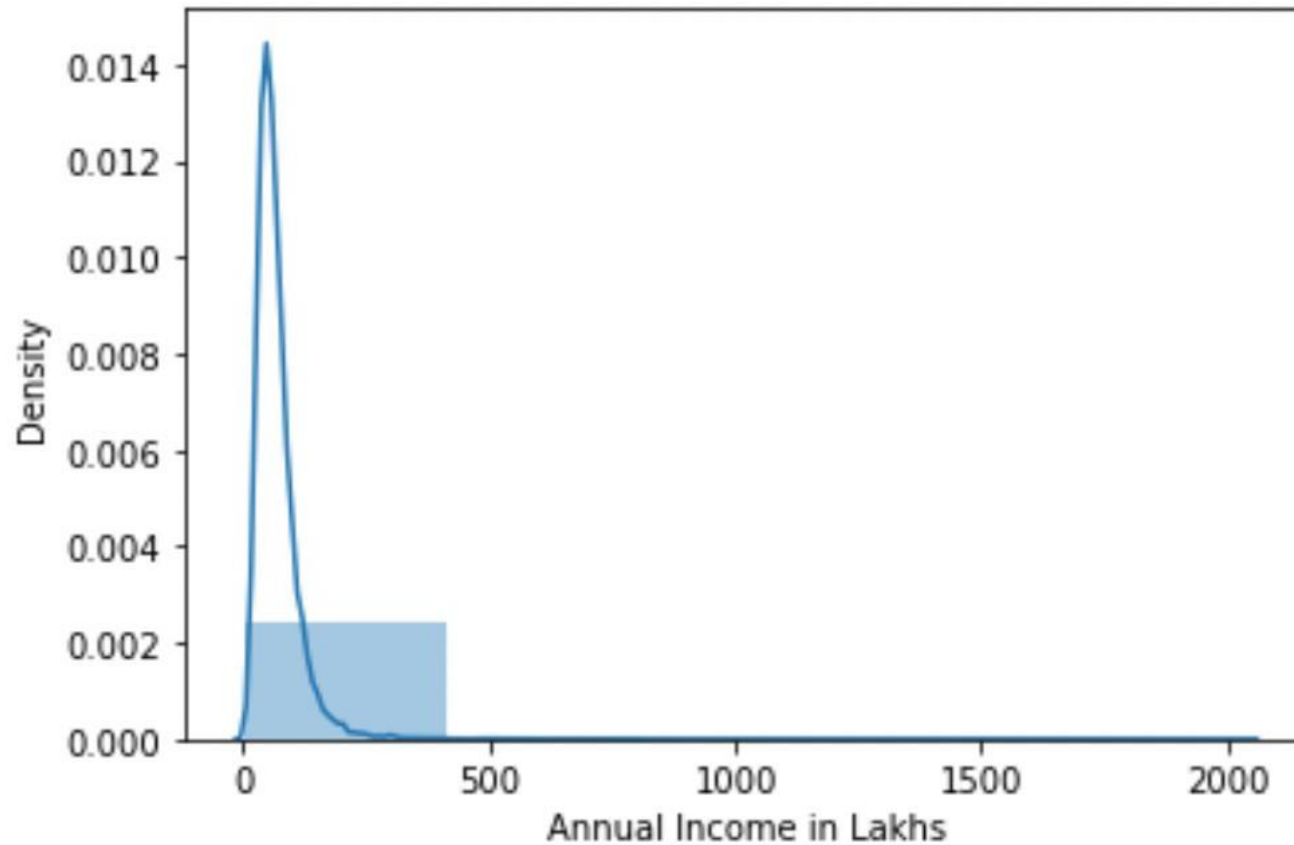


Borrower's who took loans for Credit Card purpose have defaulted most.

Analysis

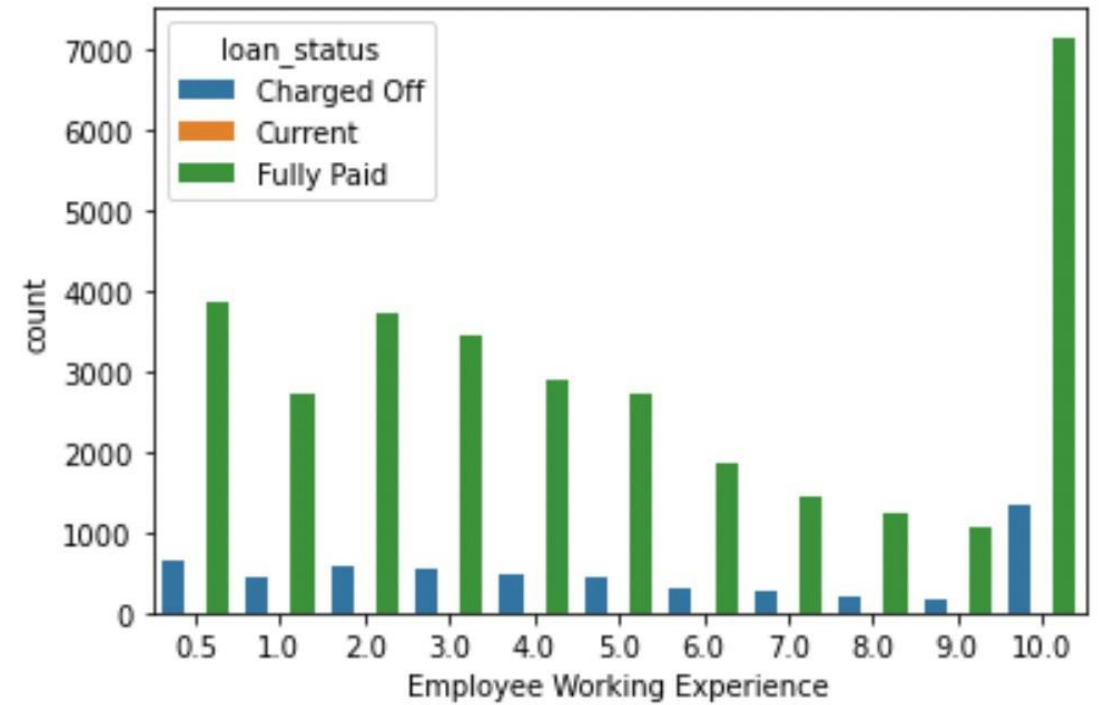
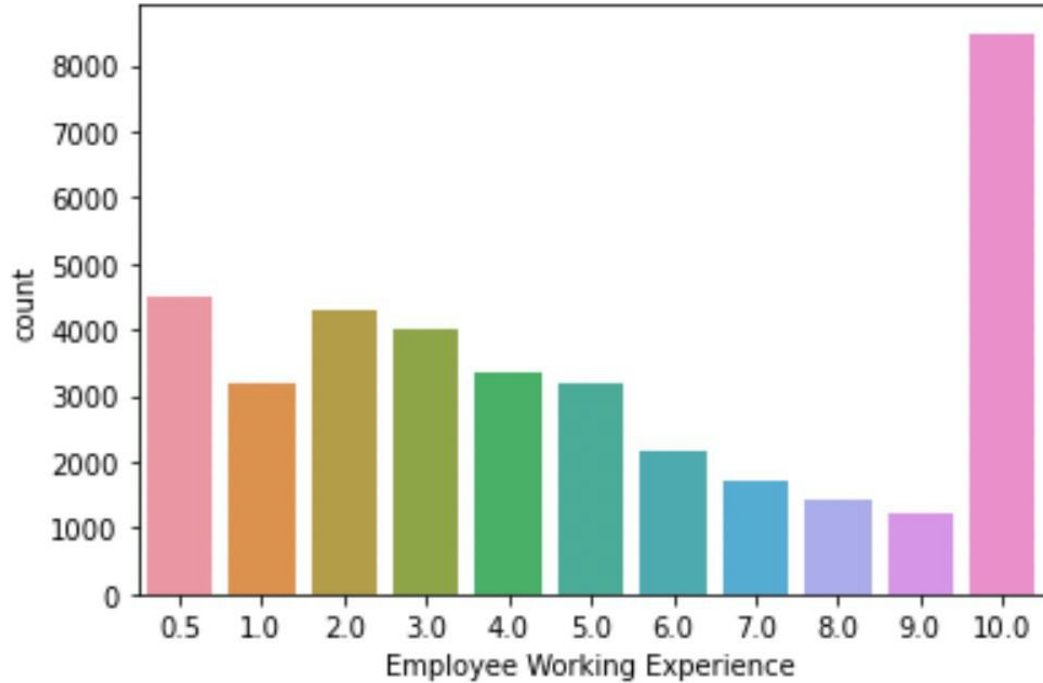


- Rent category has highest rate of default.
- From the 2nd plot we can see the people with higher loan amounts in **mortgage** home ownership has highest default rate than others.



Highest density of loan takers is in the category of income less than 5Lakhs.

Analysis



Highest rate of default & pay backlies for employees with 10 years of experience.

Potential Recommendations

- The club should reduce the high interest loans for 60 months tenure, they are prone to loan default.
- Grades are a good way for detecting defaulters. Lending club should examine more information from borrowers before issuing loans to Low grade (G to A).
Borrowers with rented home ownership are taking higher loans and defaulting more frequently.
Lending club should reduce giving loans to this category when loan amount requested is more than 3000.