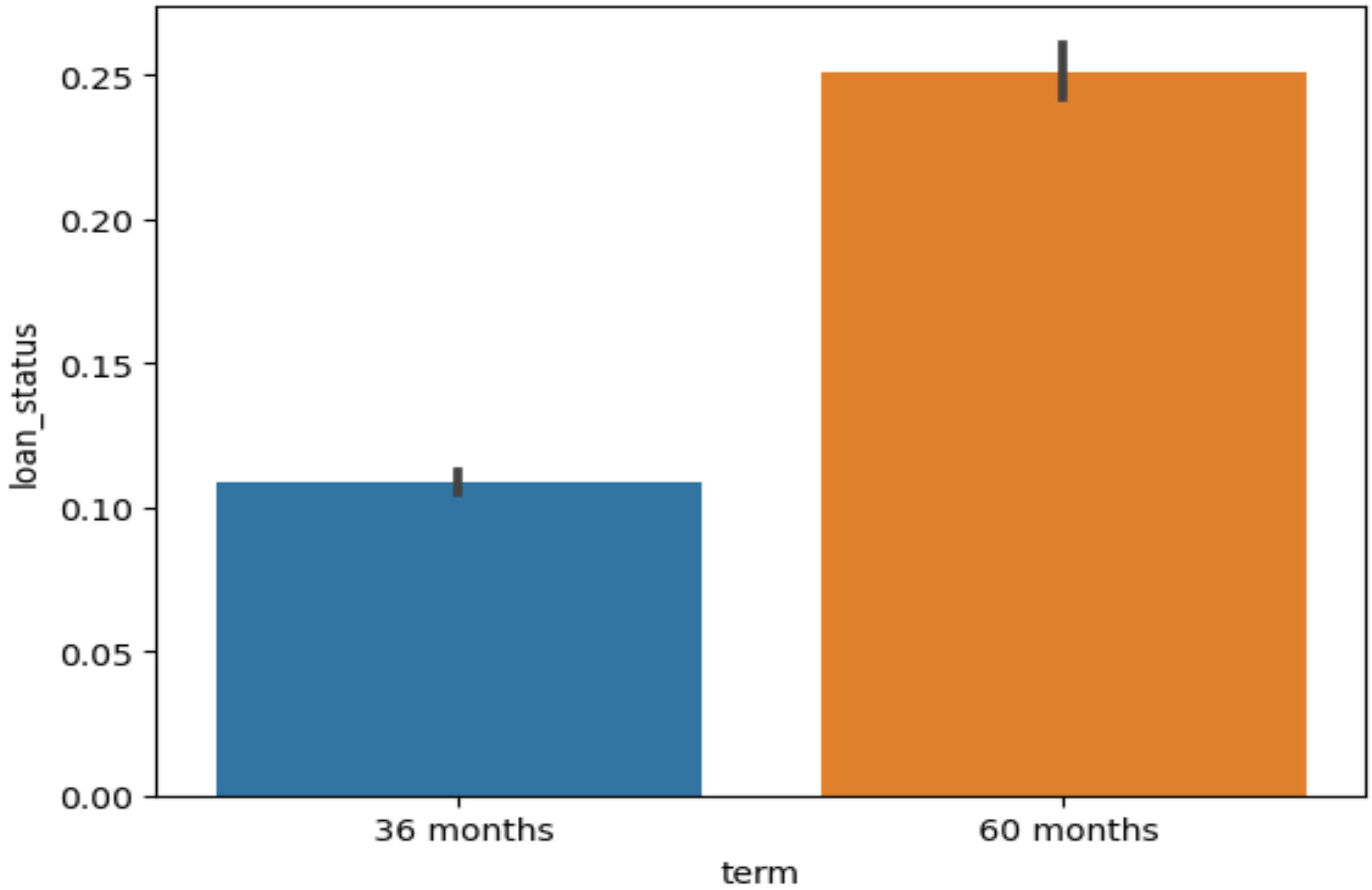
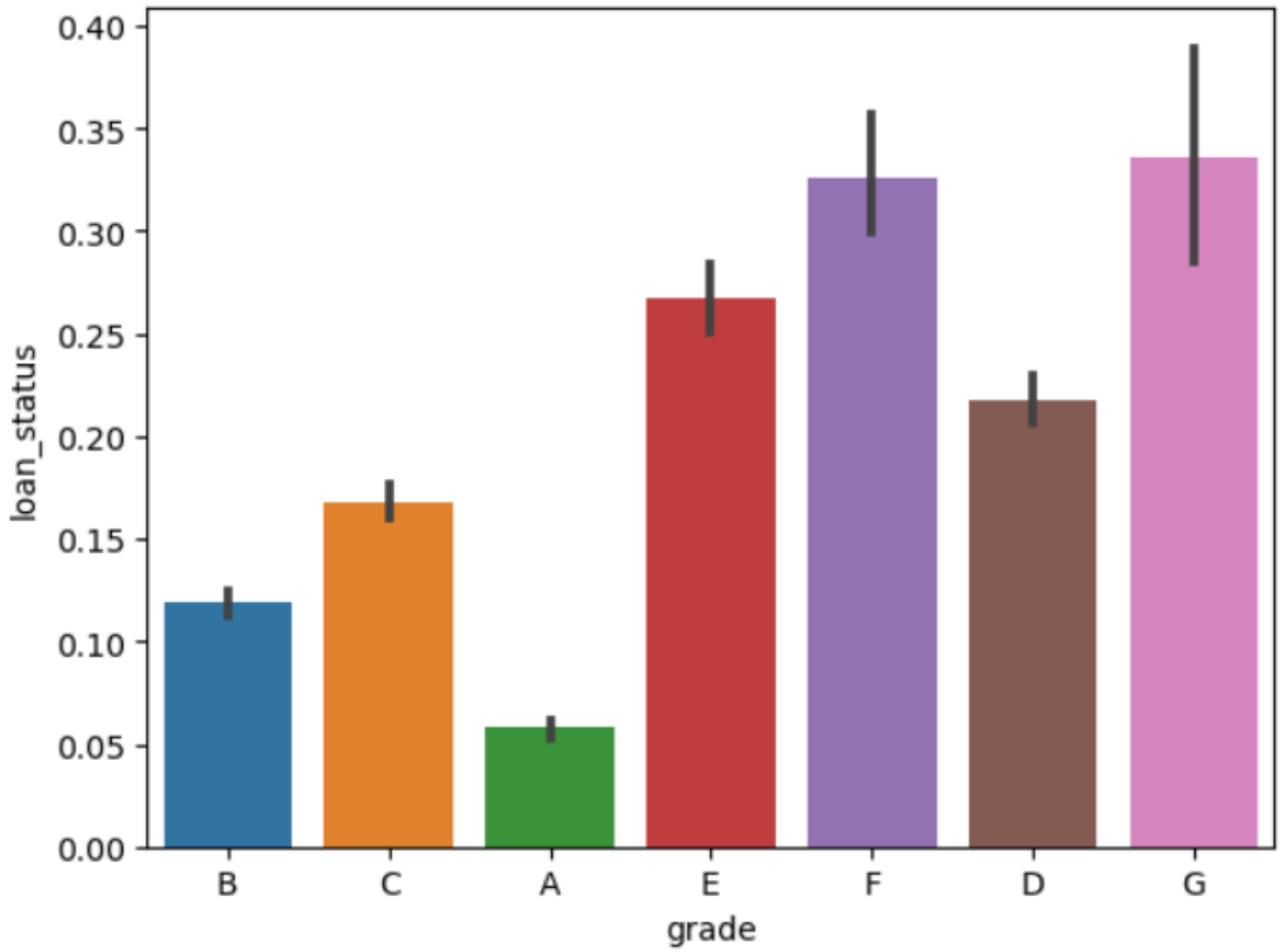
Lending club case study

This is a brief case study done on data of loan applicants of a consumer finance company. Based on the analysis there are some insights drawn from the data which will benefit any finance company in deciding whether or not to give loan to a loan applicant or whether to give loan at a higher interest rate

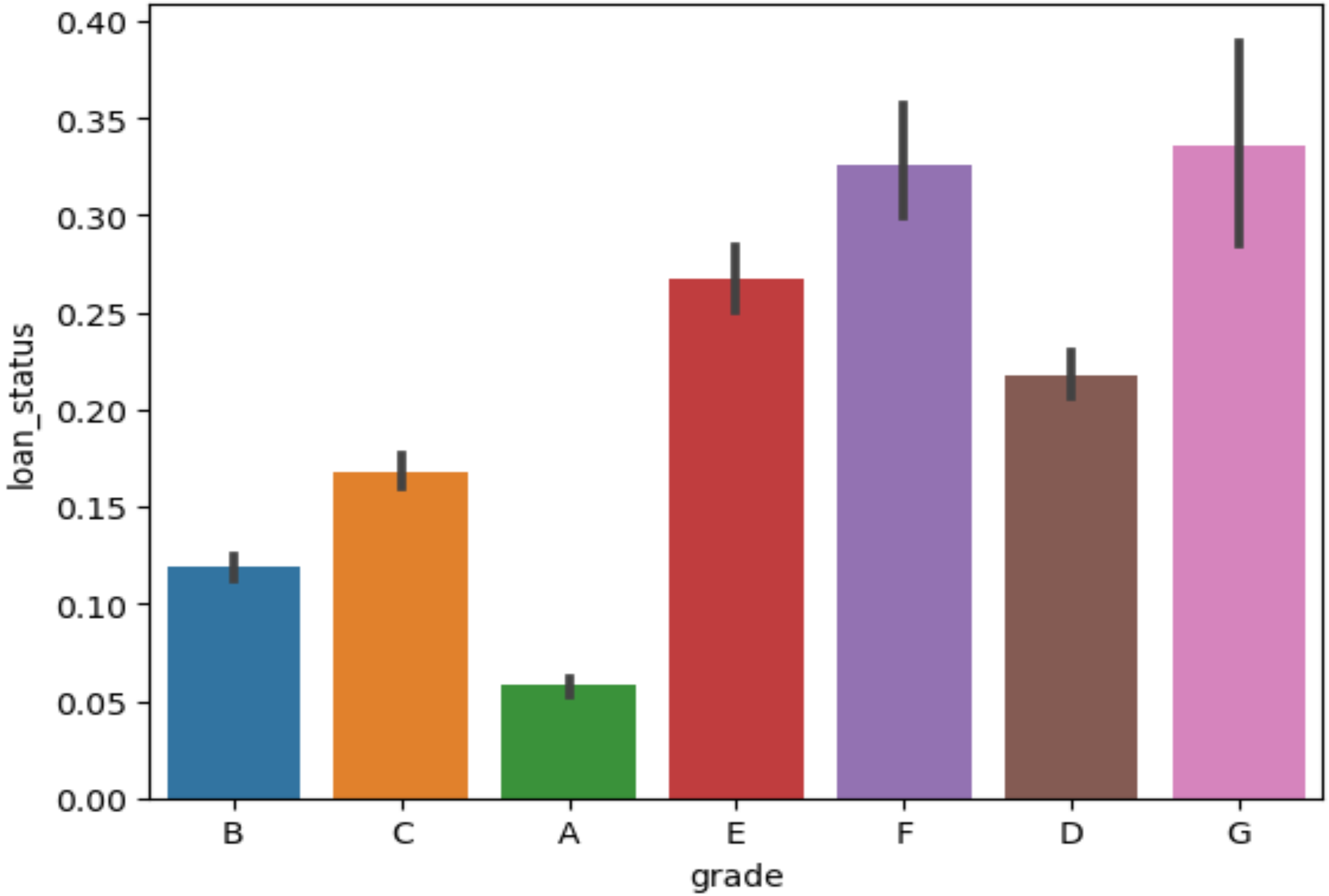
- The goal is to analyse the historical data of loan applicants, some of whom have paid off the entire loan whereas some of them have defaulted
- The outcome of the case study is to help the finance company in deciding whether a new loan applicant is likely to pay the loan or whether they are less likely to repay the loan.
- For the applicants who are less likely to repay the loan the company can make decision to either reject their loan or to give loan at higher interest rate



It's evident that 60 months term loan there are more defaults compared to 36 months term



We see there is rising pattern from A to G in the above graph and "grade G" has biggest number of defaulters



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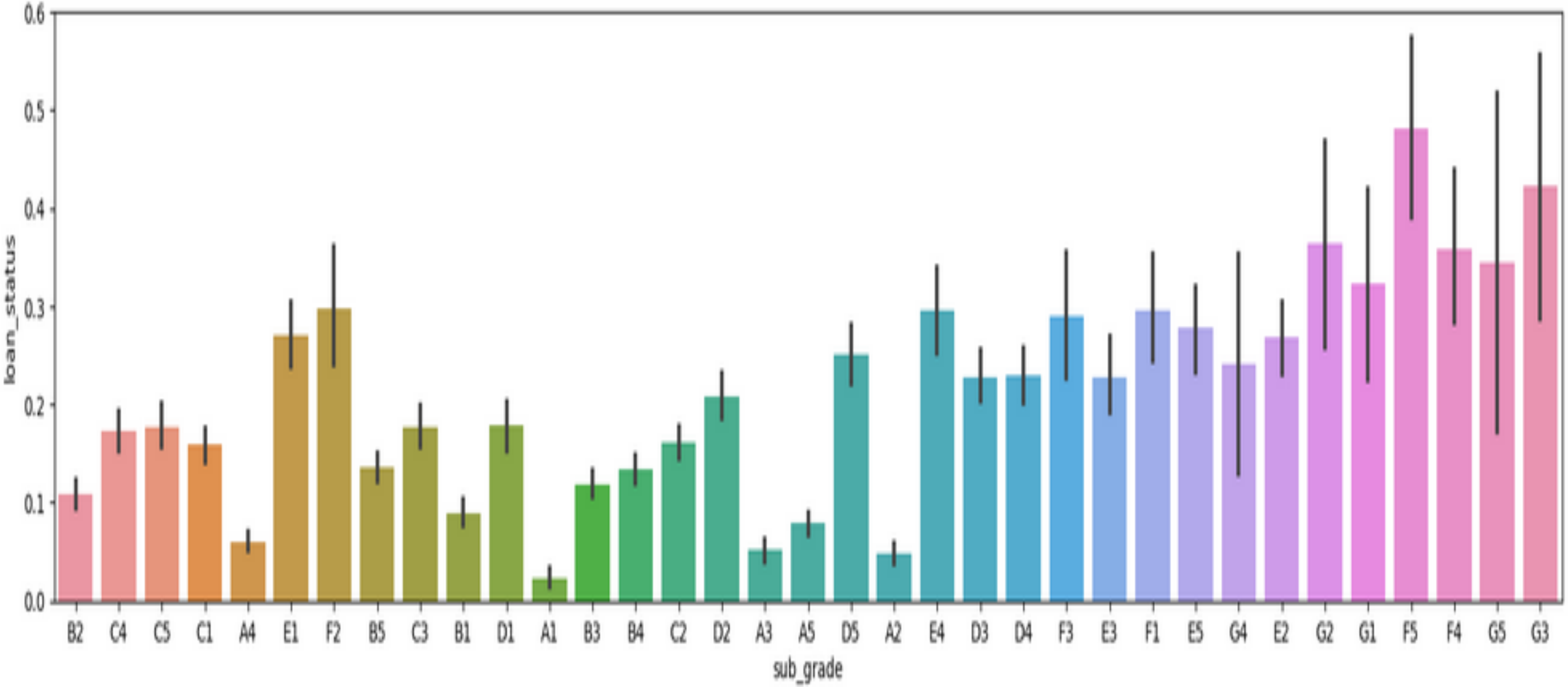
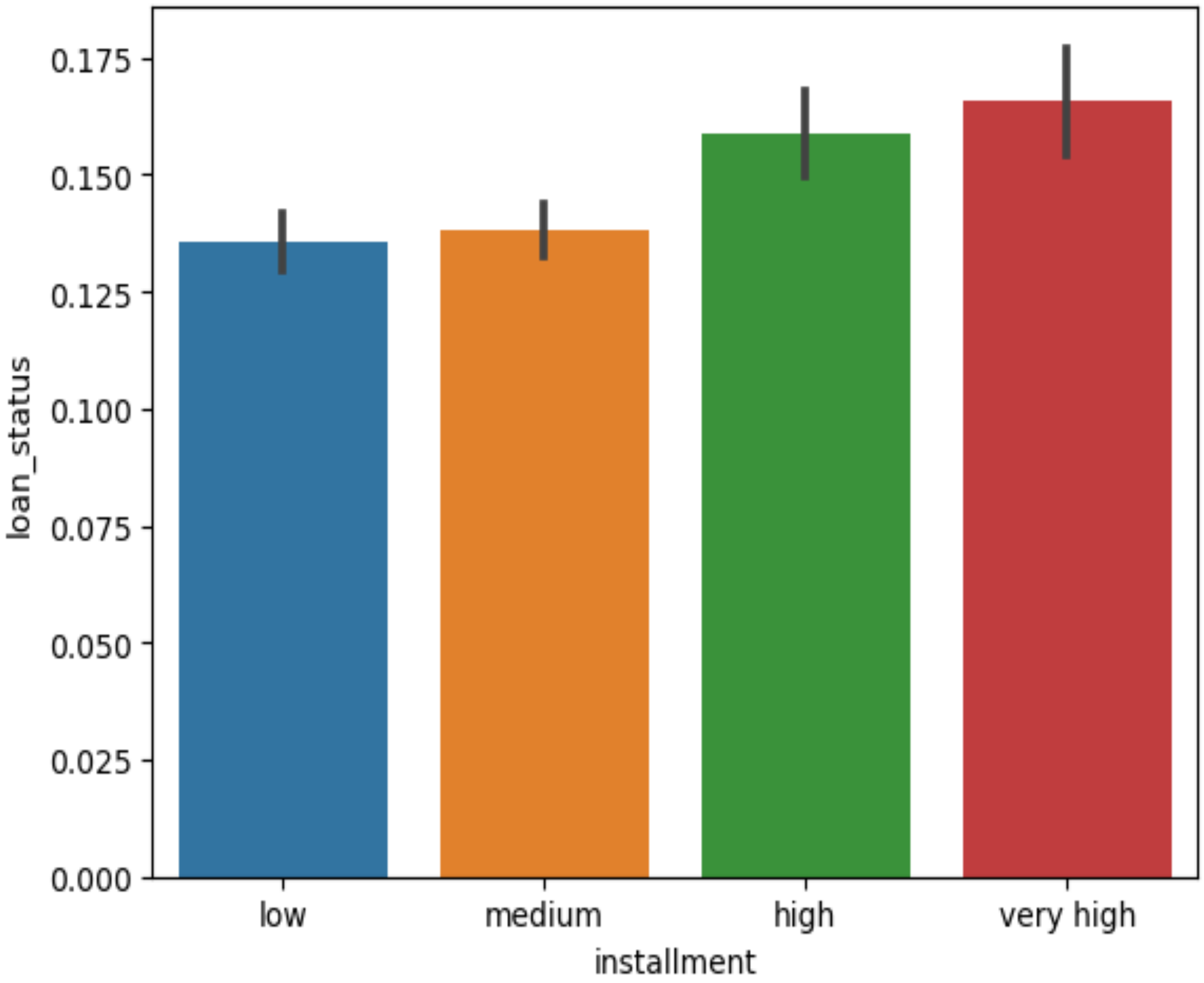
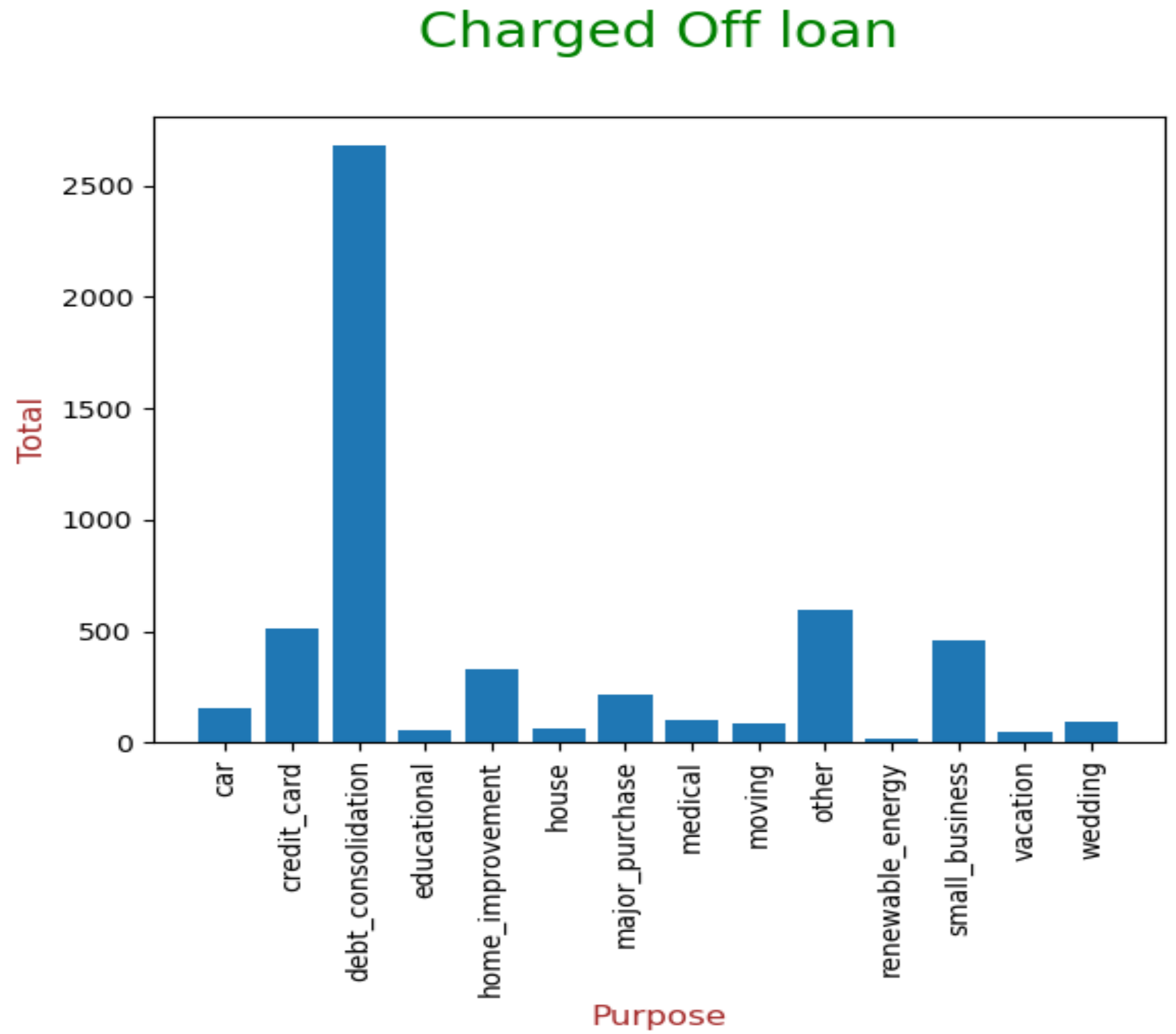


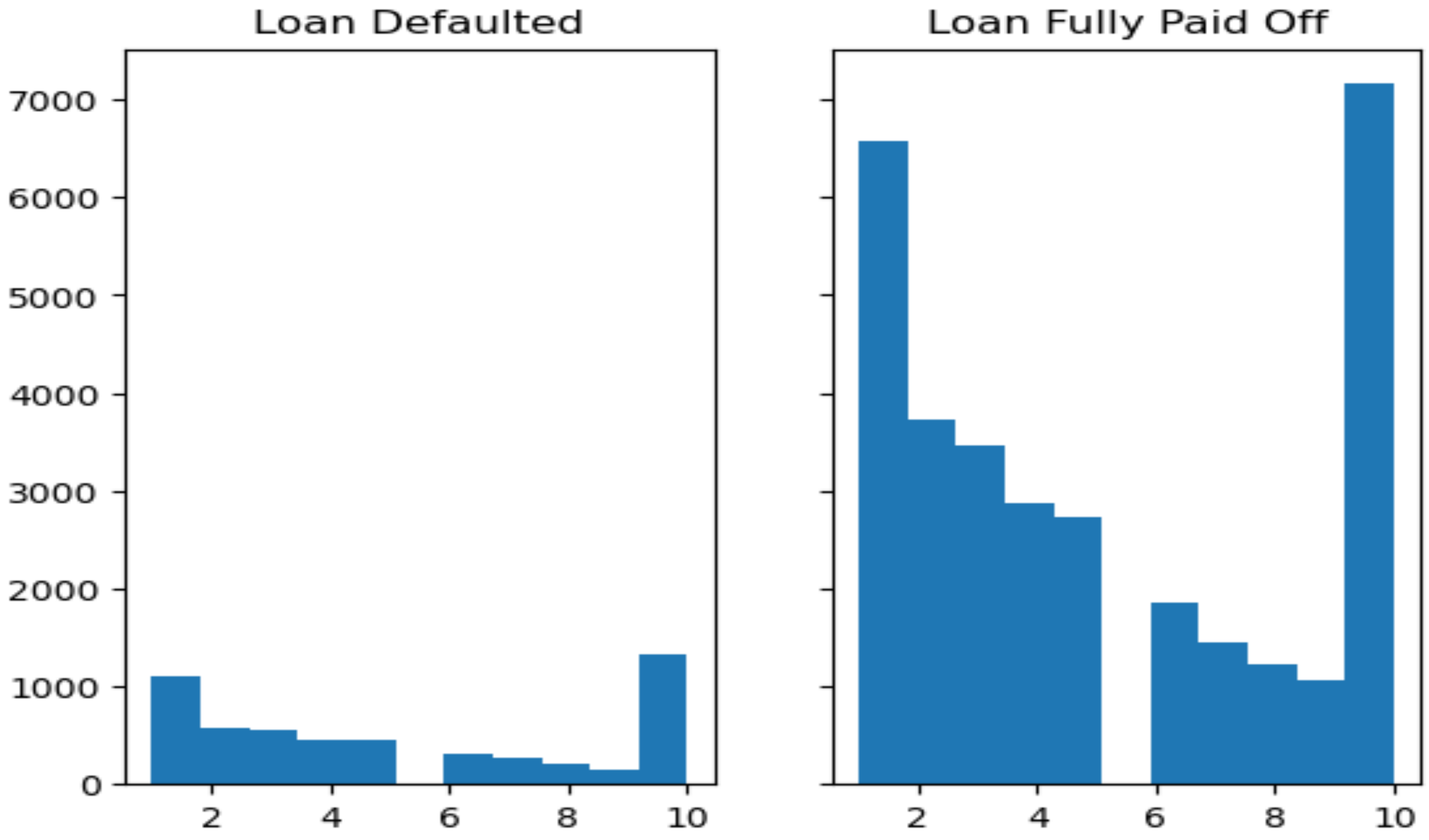
Analysis : We see that as grade moves from A to G the defaulter list also raised,except for some outliners(in F5).Clearly "G3" are most defaulters



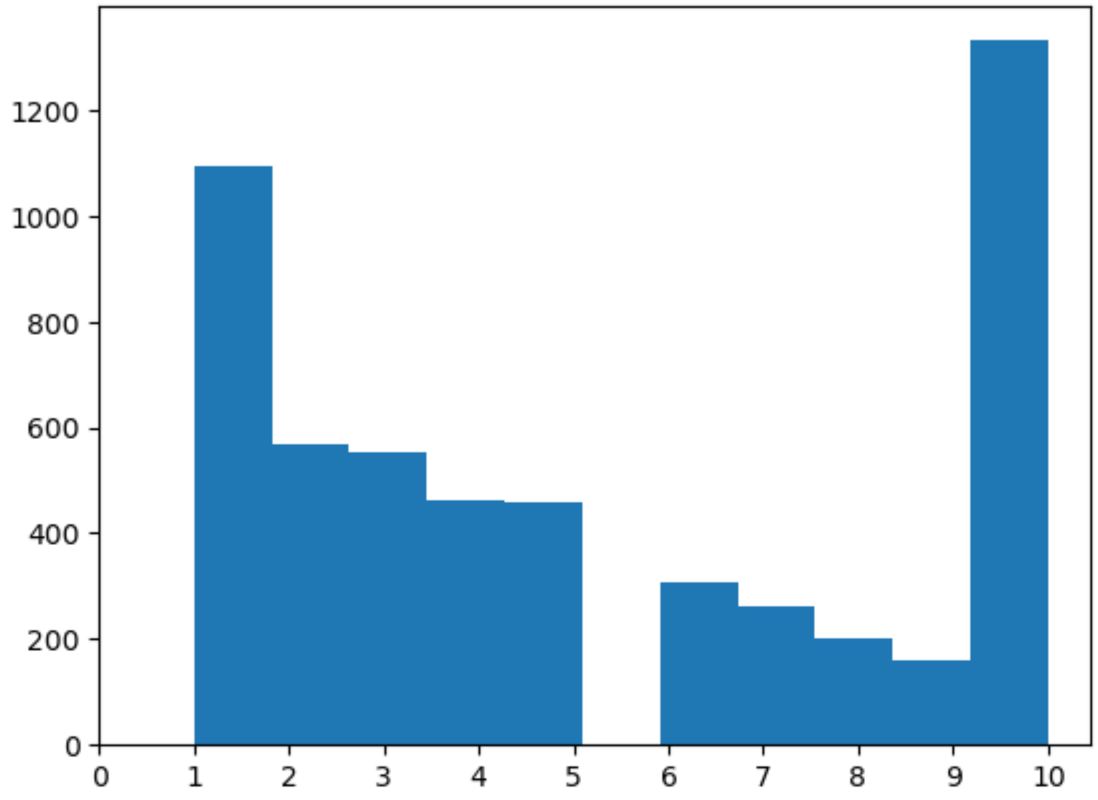
It is evident from above graph that when intrest rate is "very high" then there are more chances of defaulting



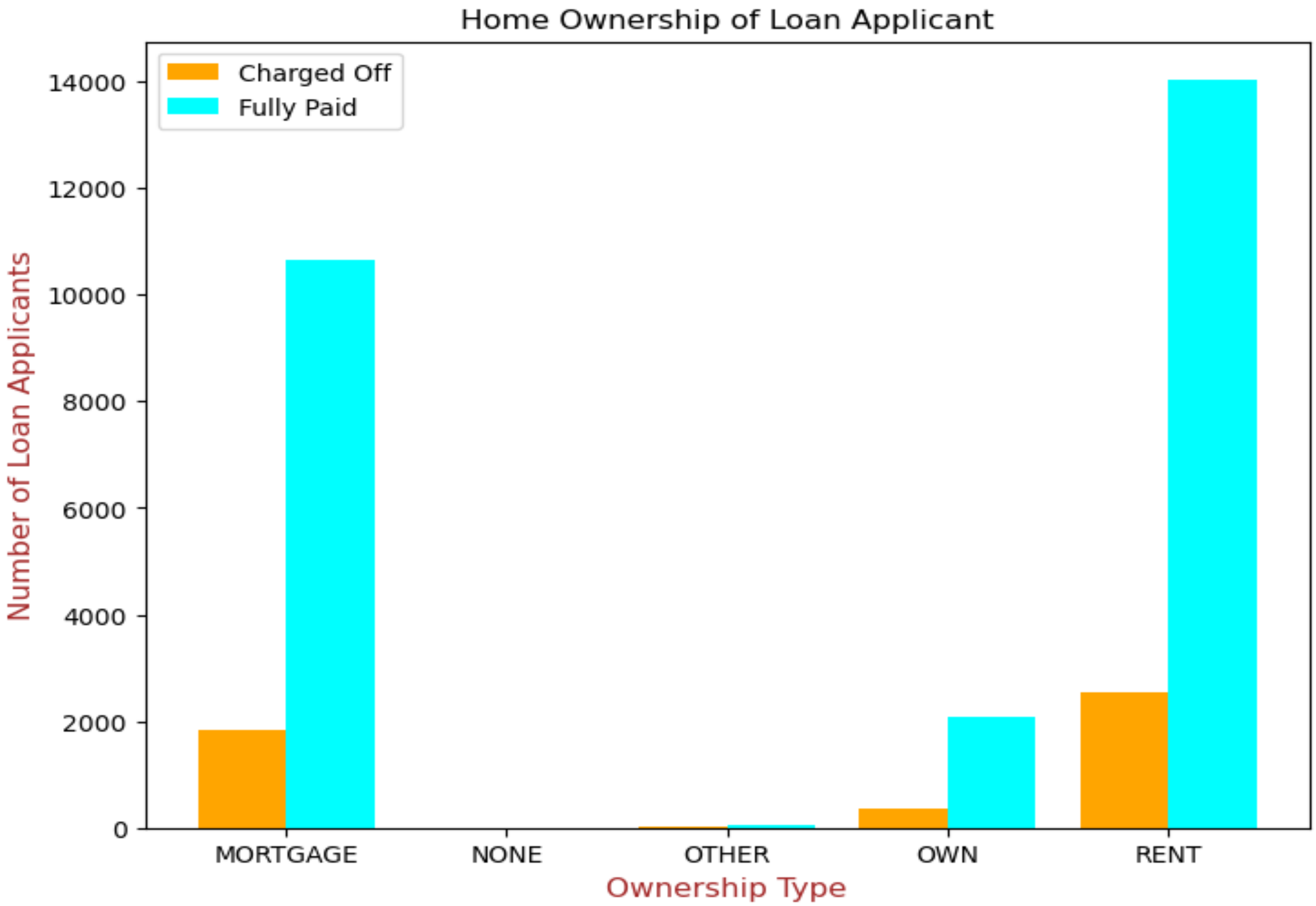
It is evident from above graph is that members who are requesting for loan for the purpose of "debt consolidation" are more likely to DEFAULT the loan



We see high peek at the members who have been employeed for more than 10 years



We see that members with "employment equal to or higher than 10 years" have defaulted more in the past.So its not good to lend money to employees who has more than 10 years of experience



What we see from above is that there is signifant difference in number of loan applicants who have DEFAULTED their loan and are living on RENT or MORTGAGE than loan applicants who OWN a home. So the loan applicant who is living on rent or paying mortgage is more likely to DEFAULT the loan than loan applicant living in their own home.

Conclusion

In conclusion there are high chances of default/charge off loan if:

* A loan with high interest rate
* A loan which are given employees with low grade or low salary
* If employee years of experience are more than 10 years
* If person who is on rent or mortgage
* If a person is taking loan for debt consolidation
* If the tenure is more (60 months in this case study)