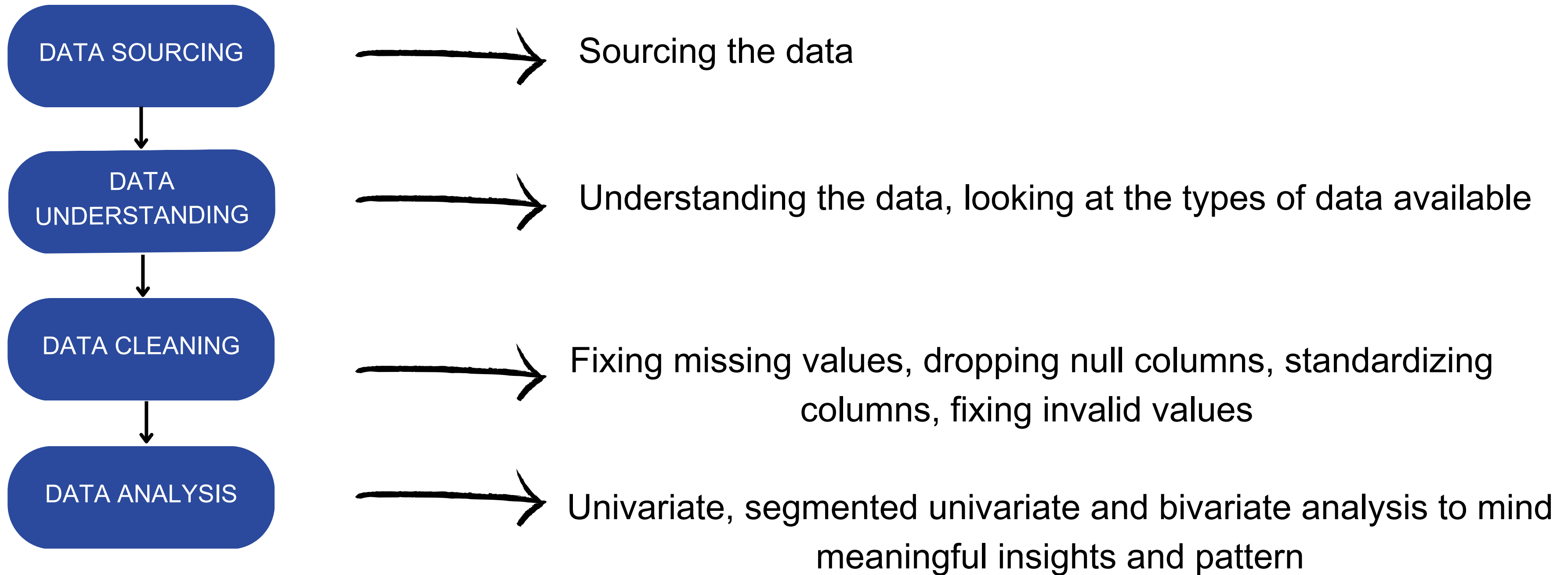# LENDING CLUB
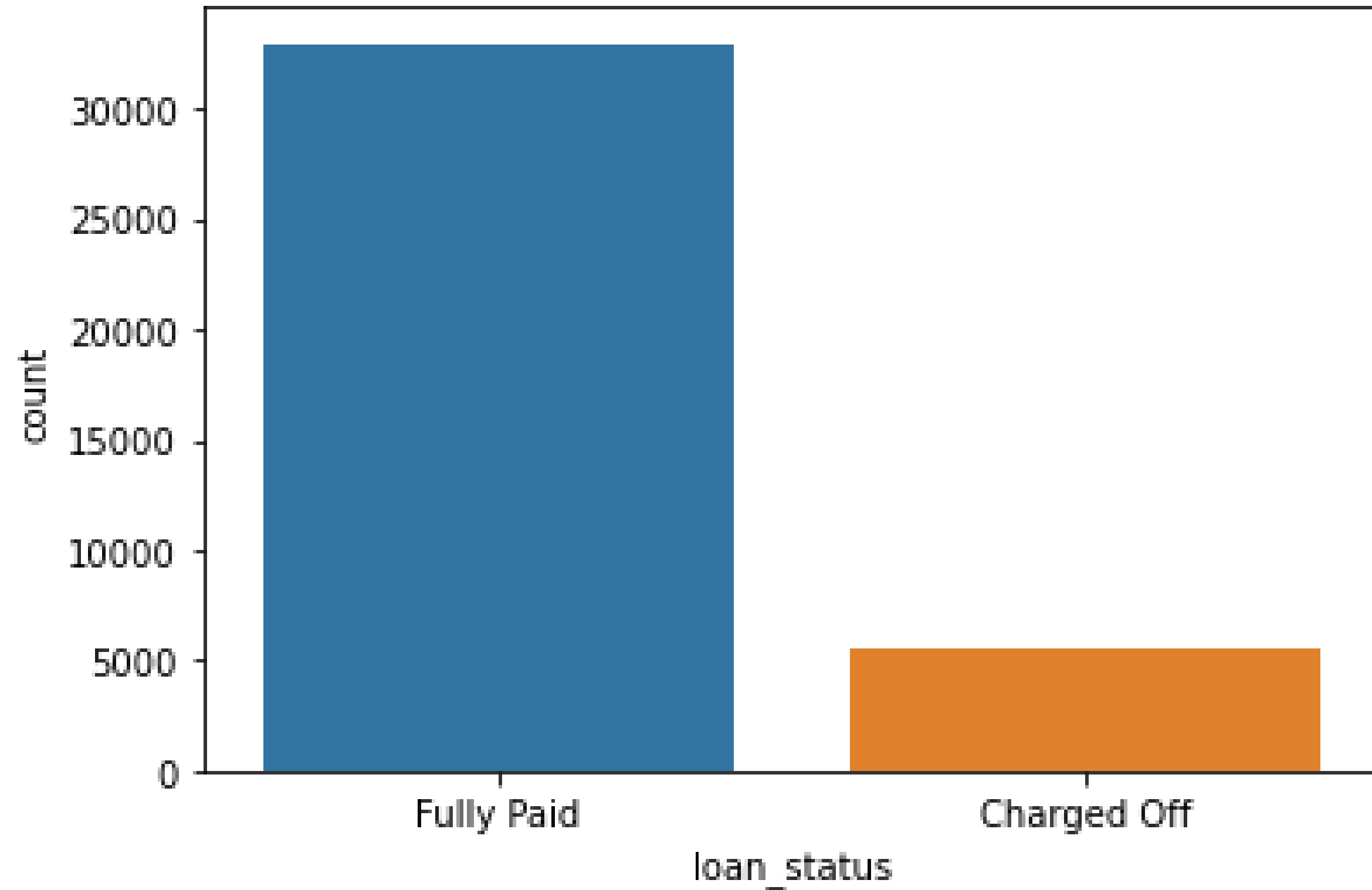## CASE STUDY

LOKESH JOSHI

Problem Statement

In most of the lending companies, lending loans to 'risky' applicants is the largest source of financial loss (called credit loss). Credit loss is the amount of money lost by the lender when the borrower refuses to pay or runs away with the money owed. In other words, borrowers who default cause the largest amount of loss to the lenders. In this case, the customers labelled as 'charged-off' are the 'defaulters'

Identify these risky loan applicants so that such loans can be reduced thereby cutting down the amount of credit loss.

Analysis Approach

DATA SOURCING → Sourcing the data

DATA UNDERSTANDING → Understanding the data, looking at the types of data available

DATA CLEANING → Fixing missing values, dropping null columns, standardizing columns, fixing invalid values

DATA ANALYSIS → Univariate, segmented univariate and bivariate analysis to mind meaningful insights and pattern
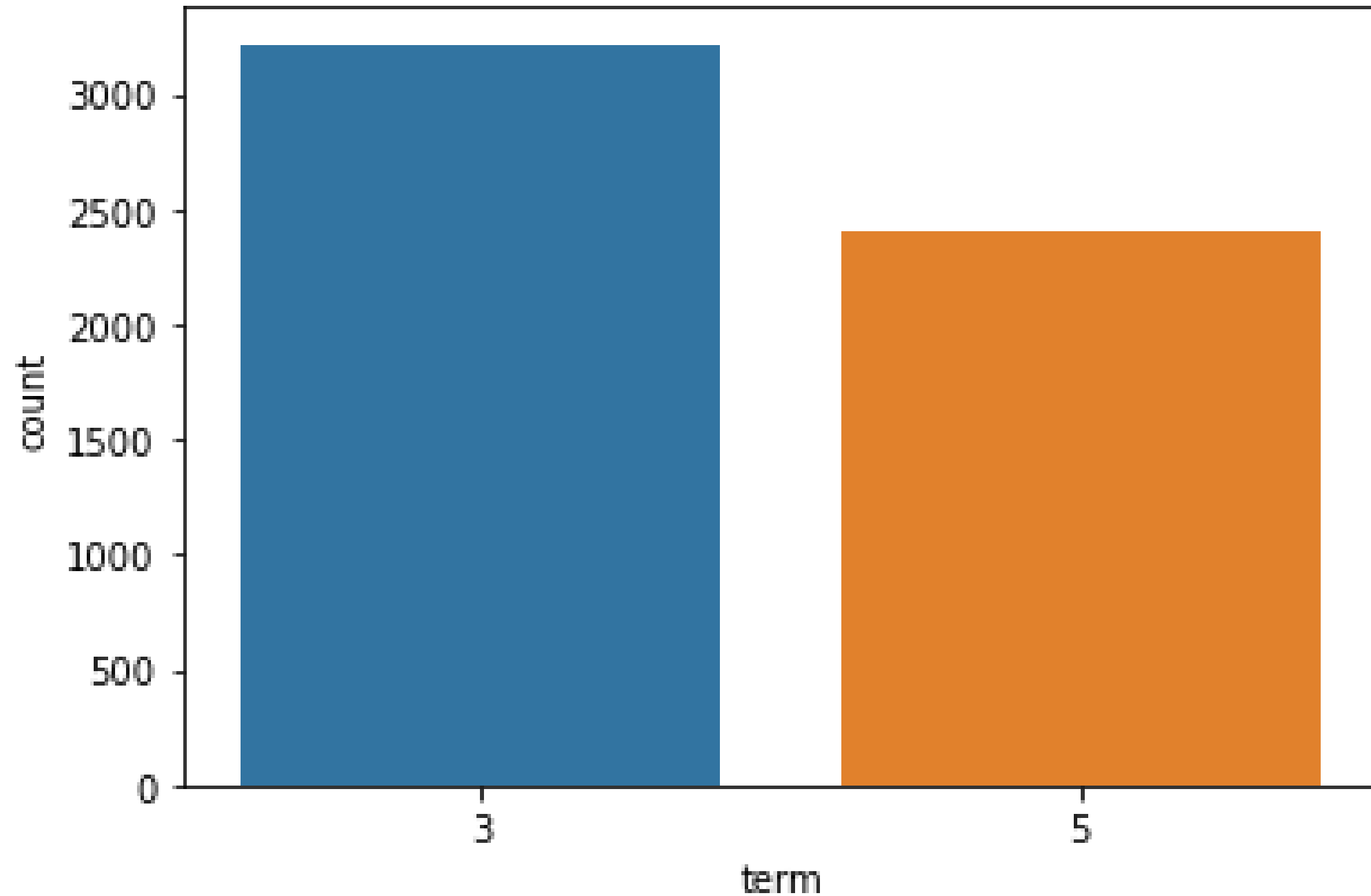
# Charged off loan status gives us the overall default rate that is 14.5%

Loan applications has increased drastically from 2007 being the lowest and 2011 being the highest
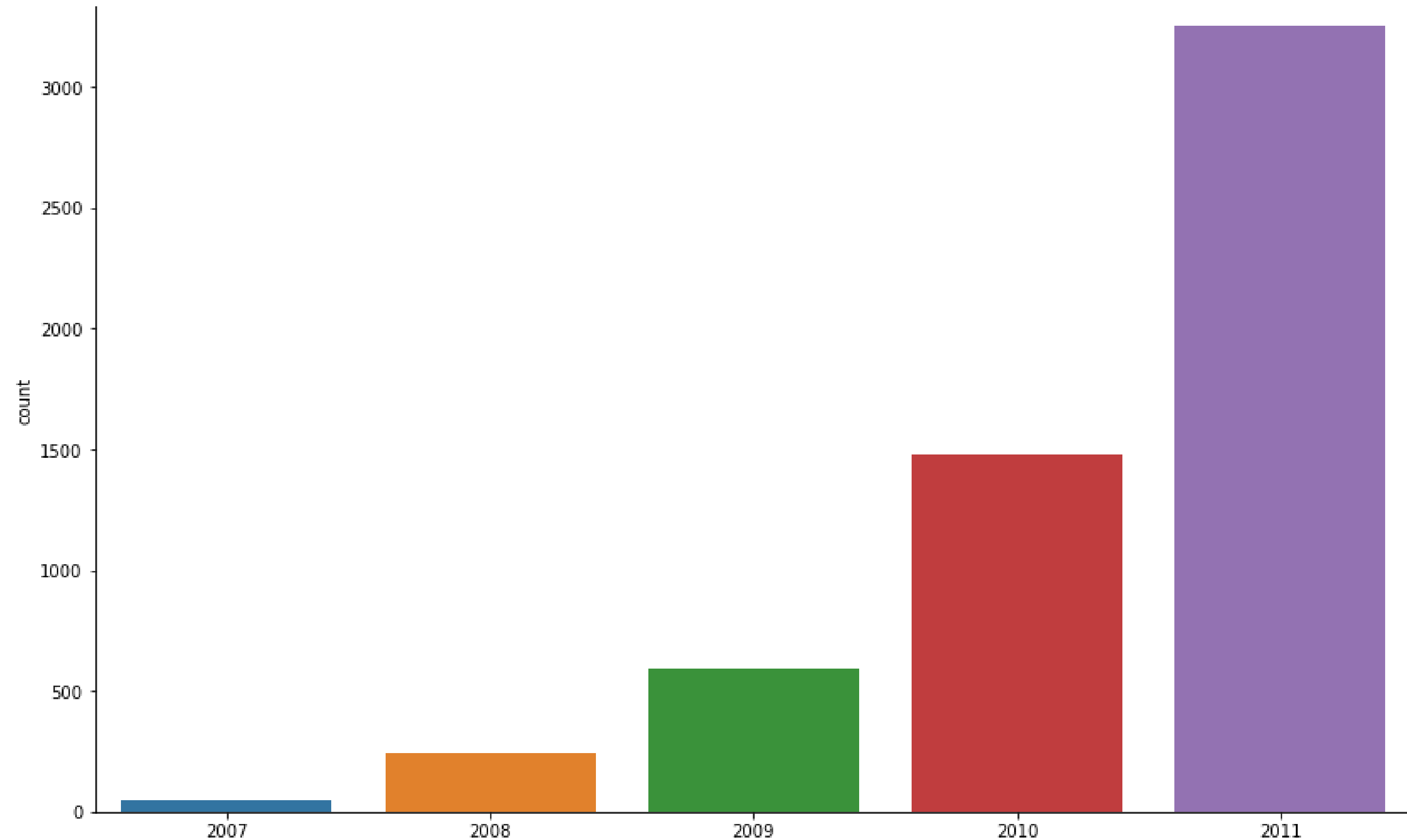
Defaulters rate increases when term period is 3 years as compared to 5 years. With the less time to pay the debt, number of defaulters increase as well.

Grade B loans has higher number of defaulters followed by grade C, Grade F has minimum number of defaulters
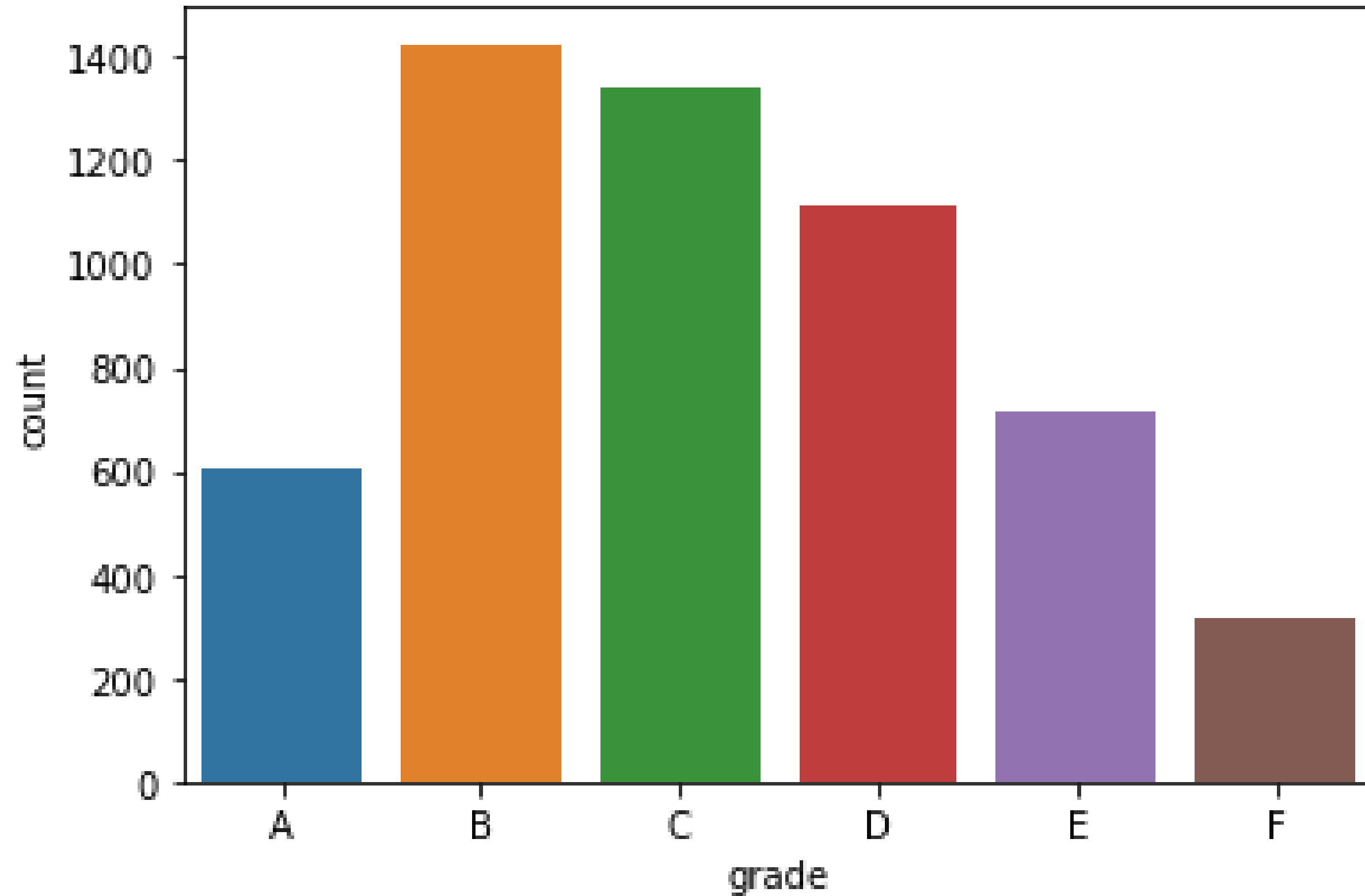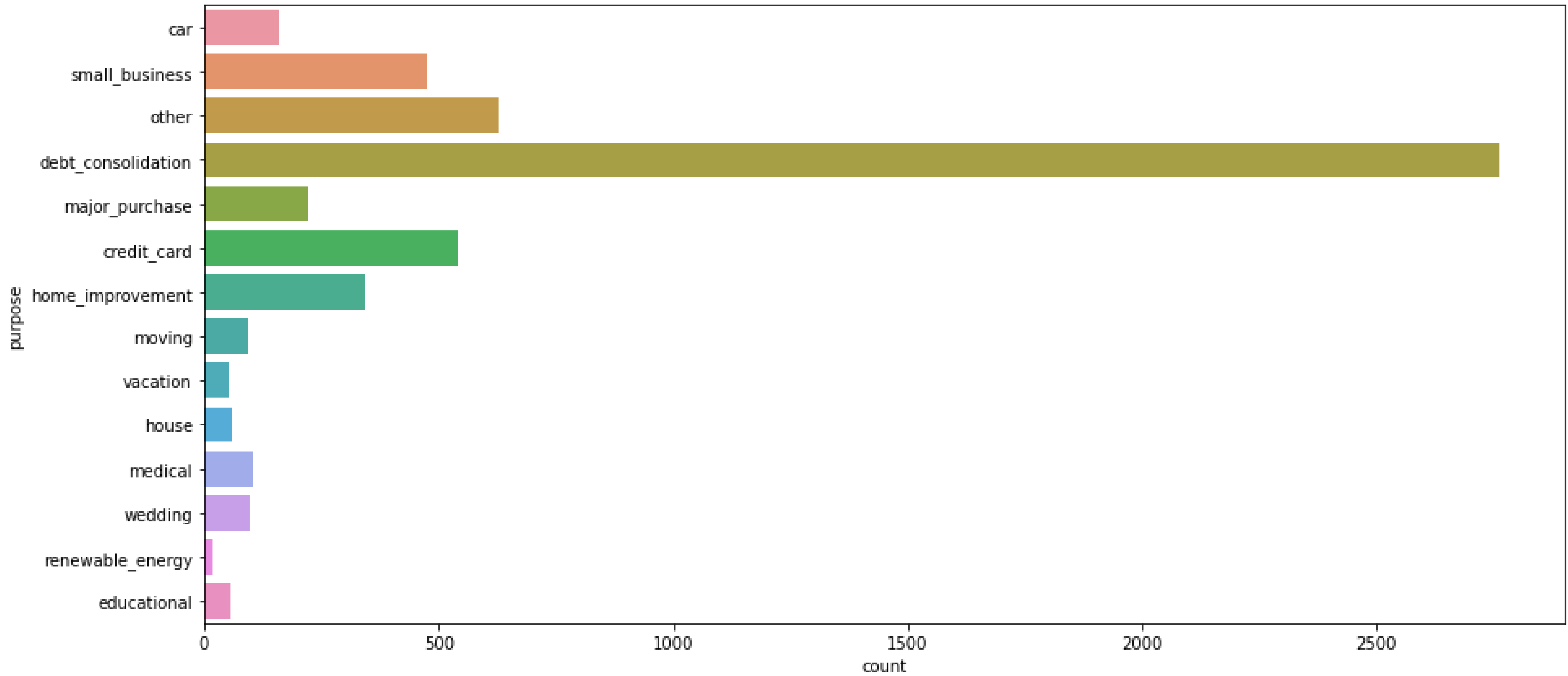
Applicants living in rented house are more likely to be defaulters and the applicants having own home are less likely to become defaulters.
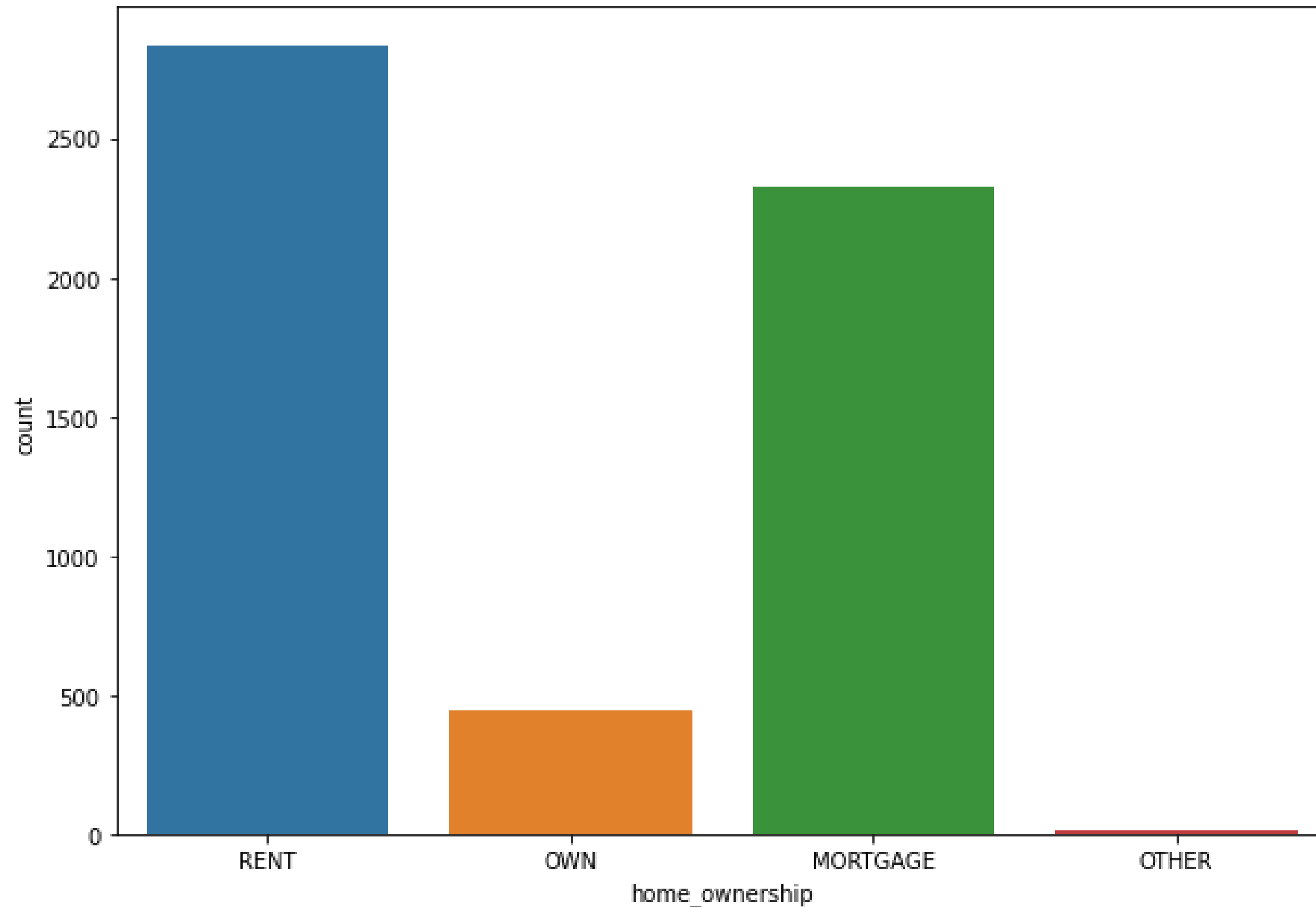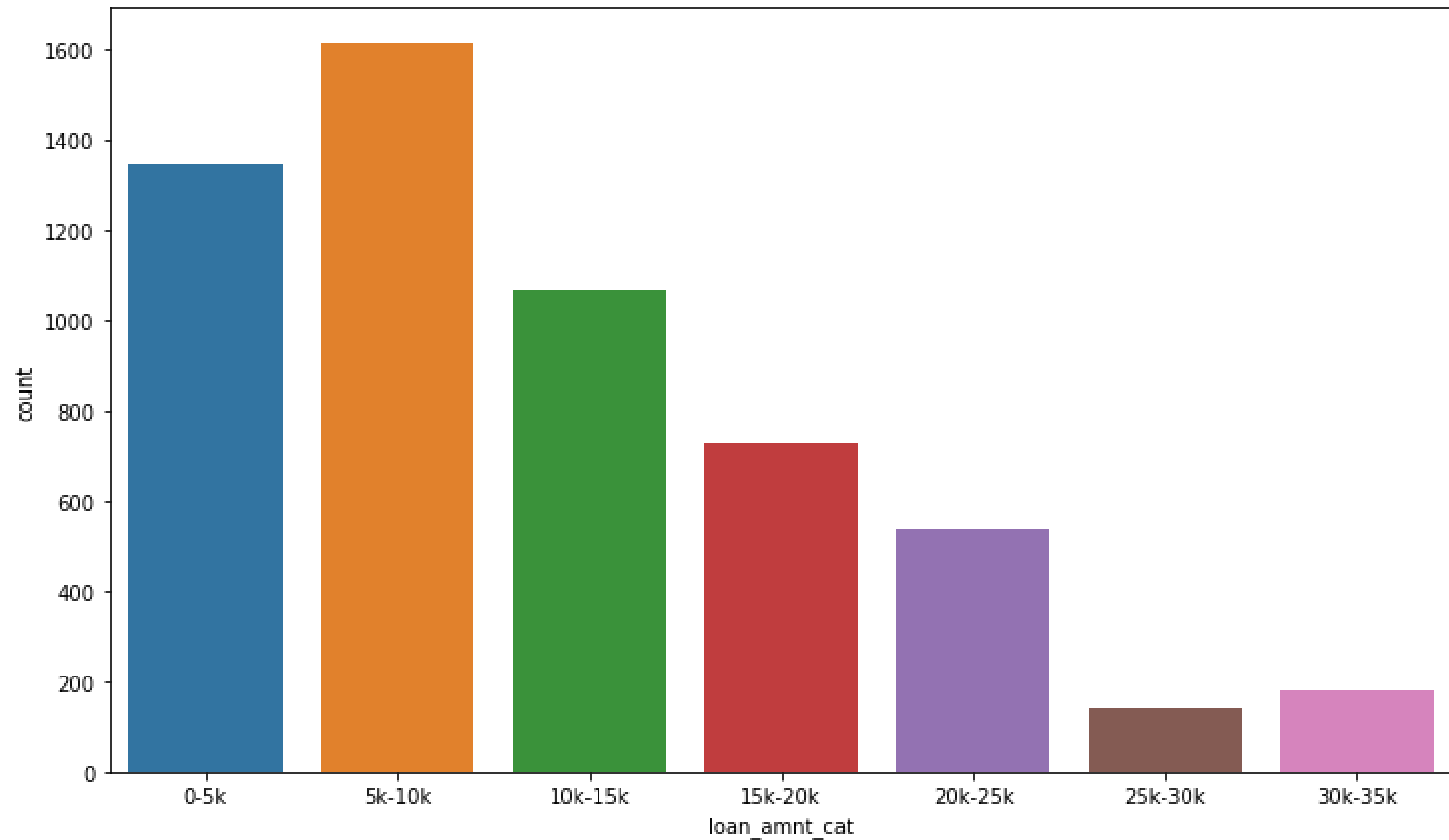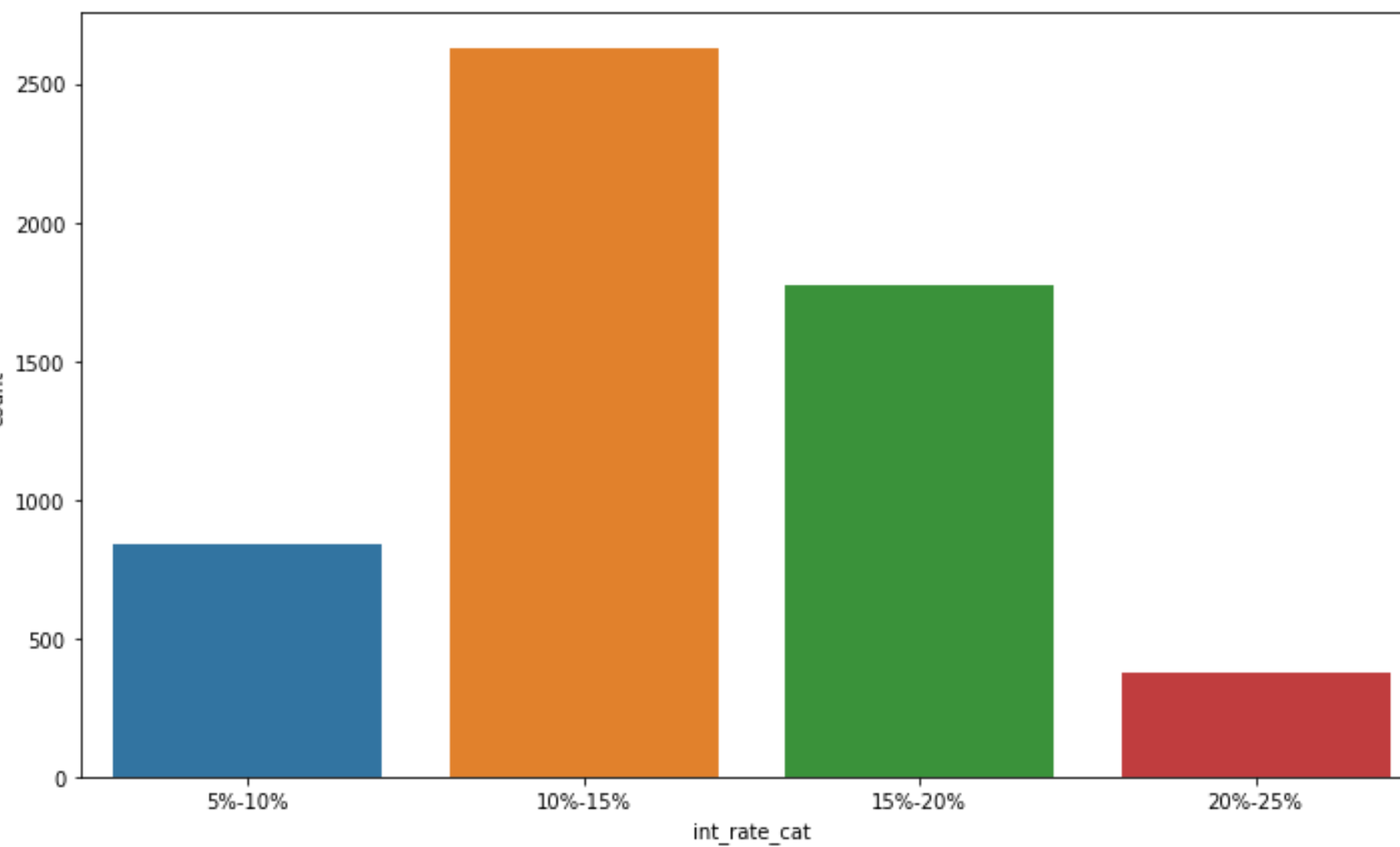
Debt Consolidation loan(46%) is the most popular loan followed by credit card(13%), then small business(7.5%) and then home improvement(5%)
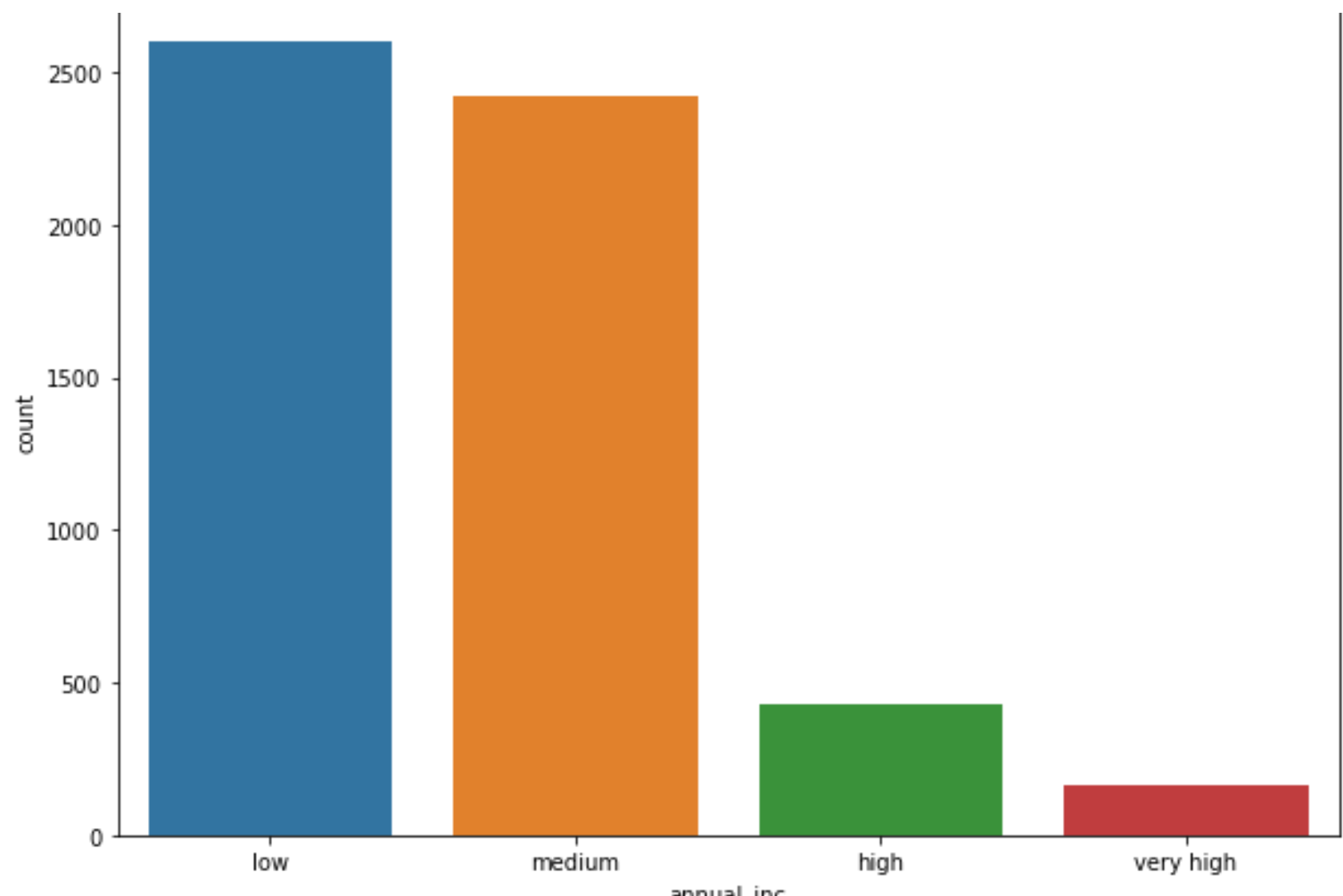
Loan amount category of 5k-10k is quite popular in the case of defaulters. Defaulters in high loan amount categories are very low
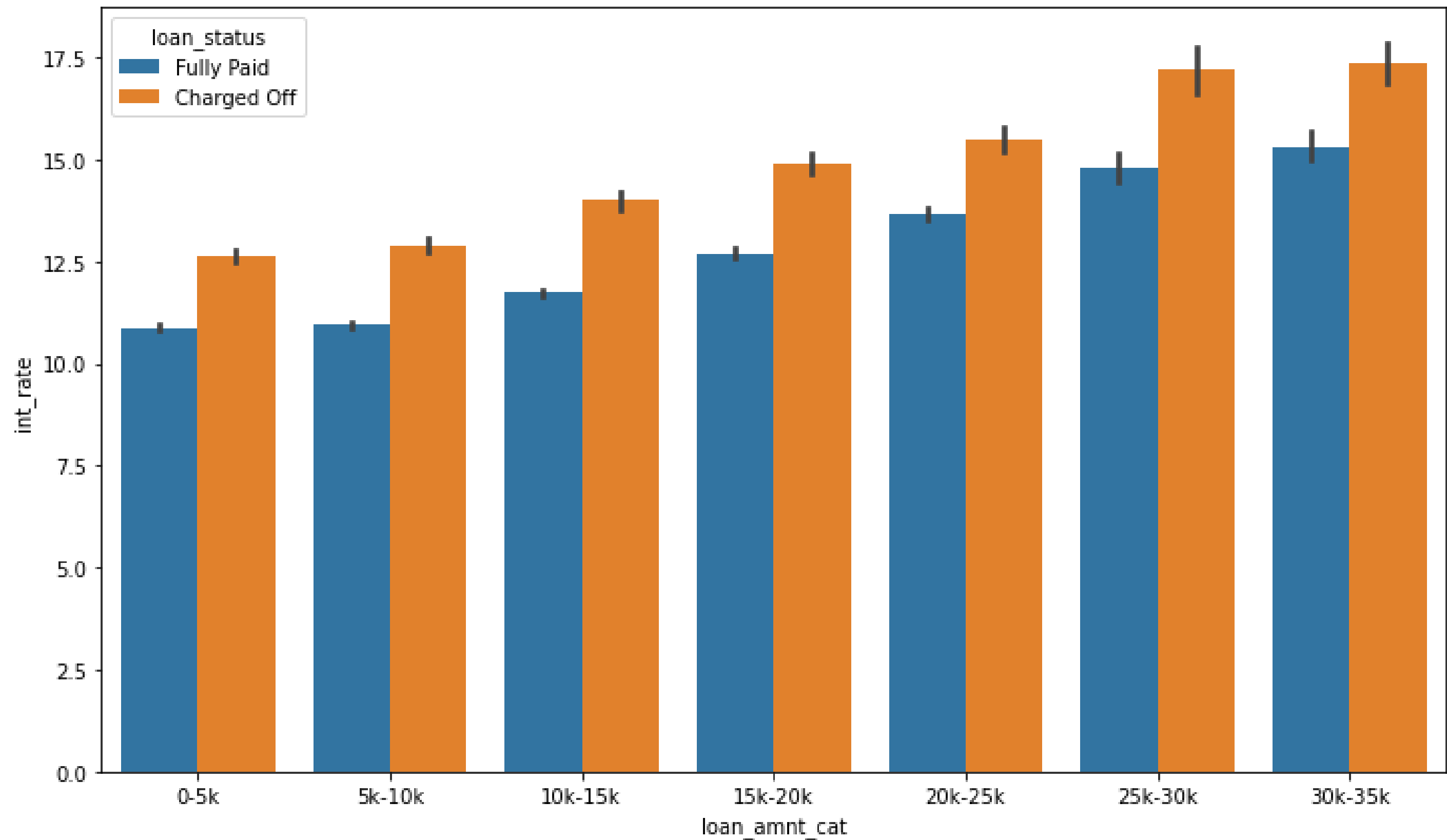
Most Defaulters are found in the interest range of 10%-15%
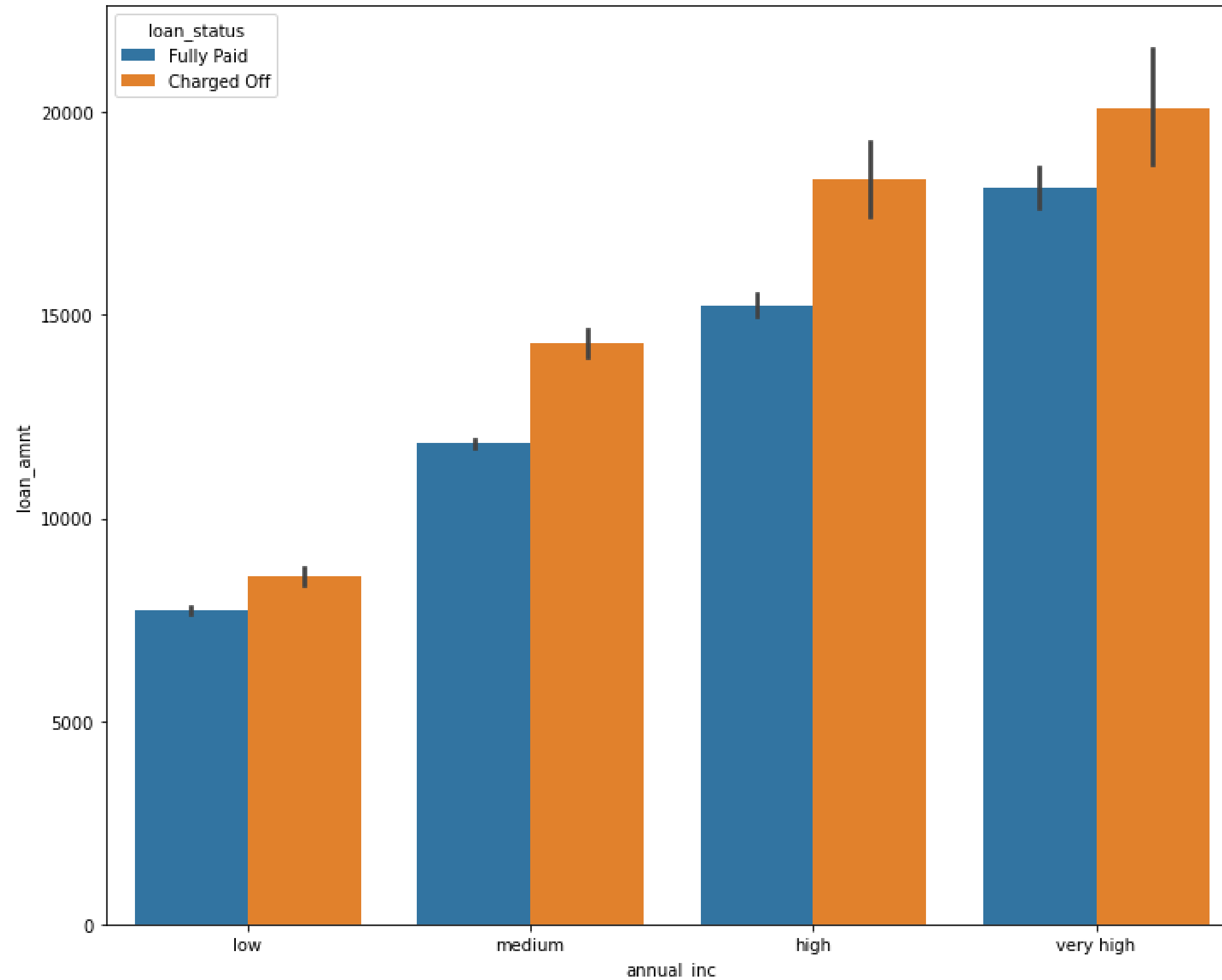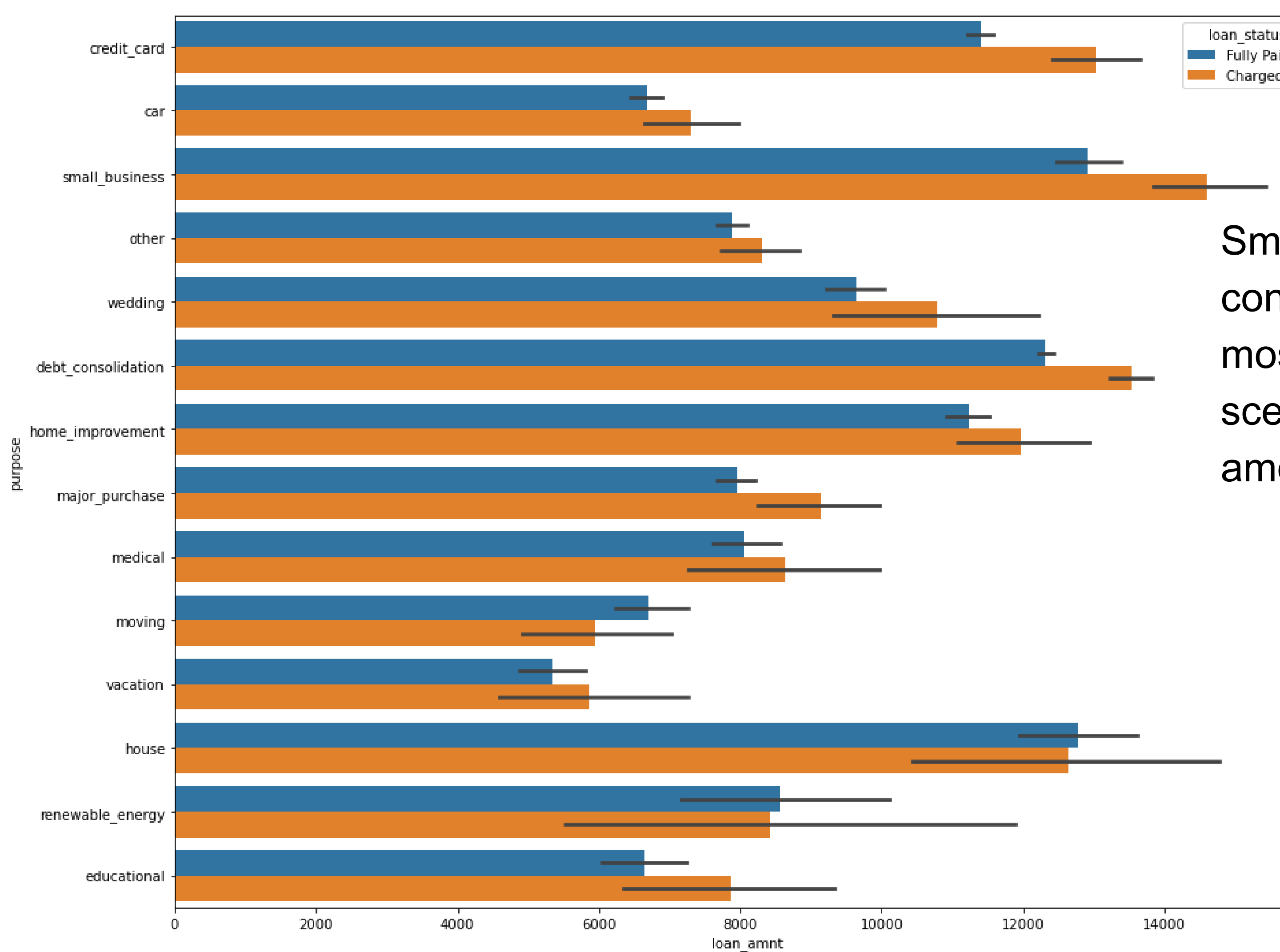
Applicants with low and medium salary are more likely to be defaulters as compared to people with higher salary.

Loan interest rate increases as the loan amount increases
Interest rate is higher for charged off loan status

Very High income group people with salary above 150k having loan amount in range 15k-20k has highest chances of defaulting

Small Business and debt consolidation are two most highest default scenarios where loan amount is 12k to 15k

Conclusion

Here are some key observations that has been observed during the analysis and can be taken into consideration before granting loan amount to the applicants

- Most of the defaulters are of grade B

- People living in rented house are most in defaulters

- Debt Consolidation loan seekers defaults the most

- People from CA are most in defaulters

- People with no public record are most in defaulters

- People who took loan with interest rate of 10%-15% are mostly in defaulters

- Loan amount range 25k-35k having 15%-17% interest rate has high default rate

- Loans taken for Small businesses greater than 14k ends up being defaulters mostly