Lending Club Case Study

Lending Club Case Study Background

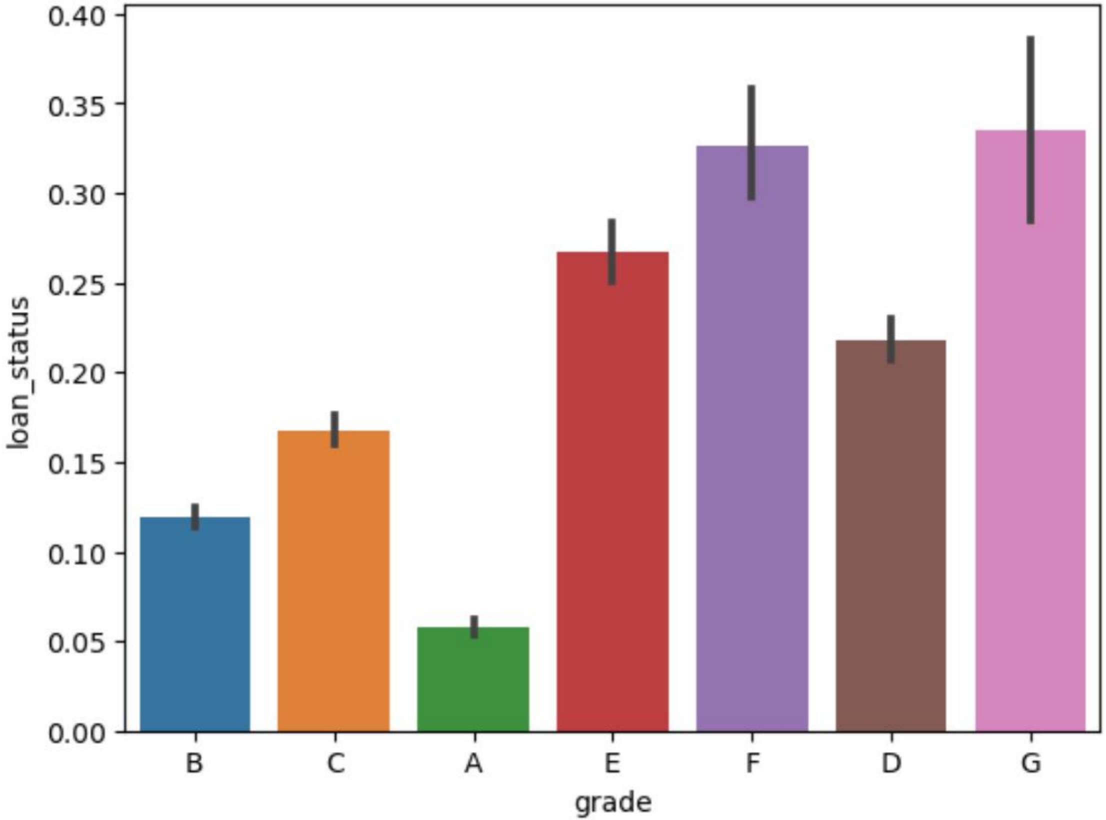
Lending club is the largest peer-to-peer marketplace connecting borrowers with lenders. Borrowers apply through an online platform where they are assigned an internal score. Lenders decide 1) whether to lend and 2) the terms of loan such as interest rate, purpose, tenure etc.

Business Objective

I need to identify the patterns of the people who default the loan repayment. This is to reduce the risk of giving out loans to people who are most likely to default. Therefore, to understand the pattern in which a person is most likely to default, we can help the bank or finance companies to make smart decisions in giving out loans without losing out on the successful repayment.

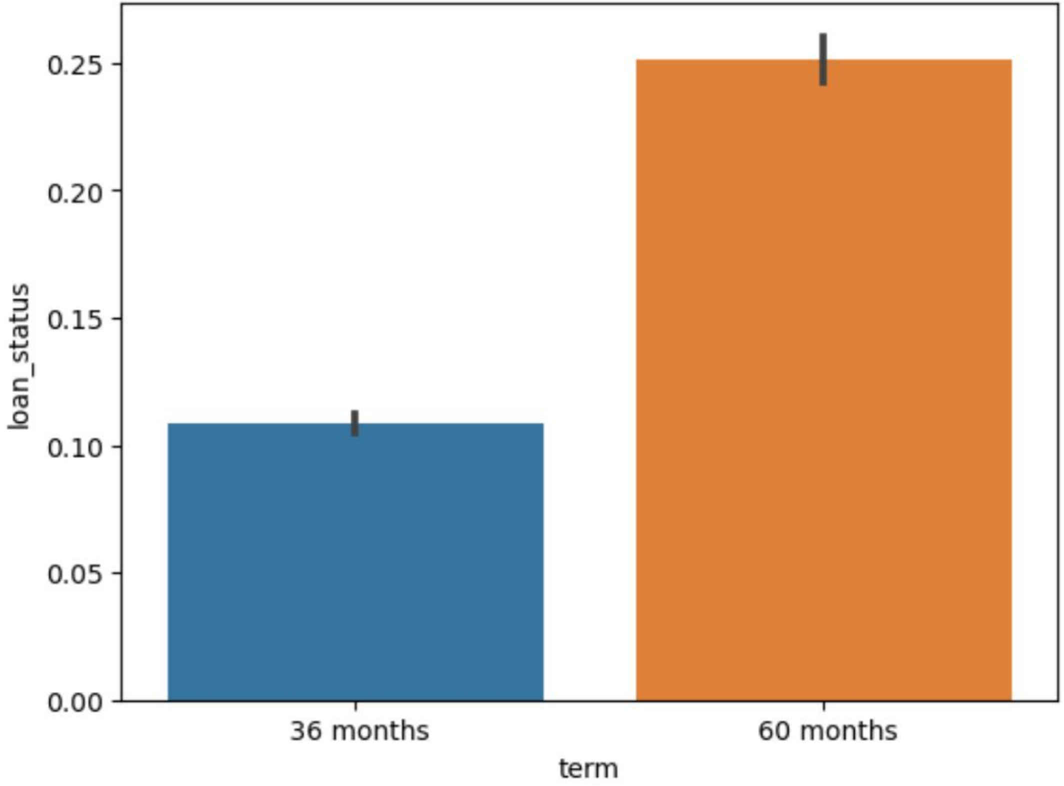
Default Rate based on Loan grade

This data shows that highest number of loans defaulted were of grade **G** coming down to **F** and **E**



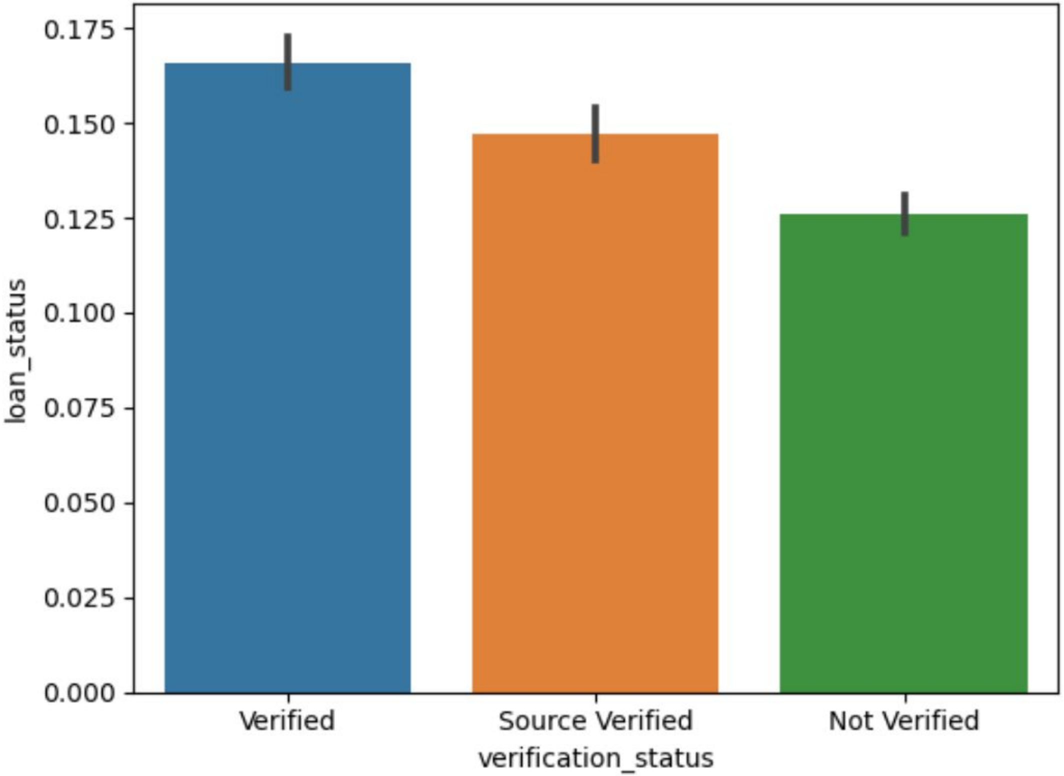
Loan Default rate based on borrowing term.

Loans lent for a tenure of 60 months are more likely to be defaulted by the borrowers.

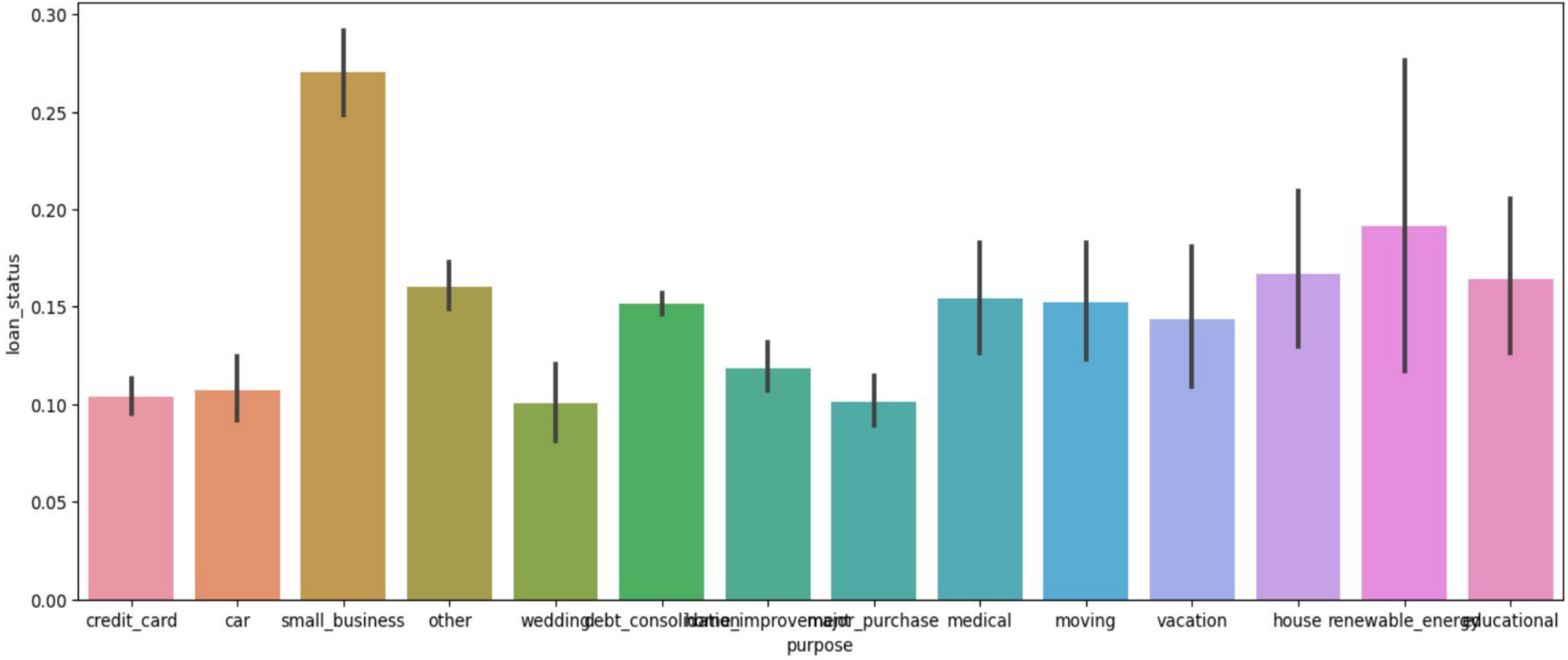


Loan default status based on loan verification status.

This shows that the verified loans are defaulted more than not verified loans.

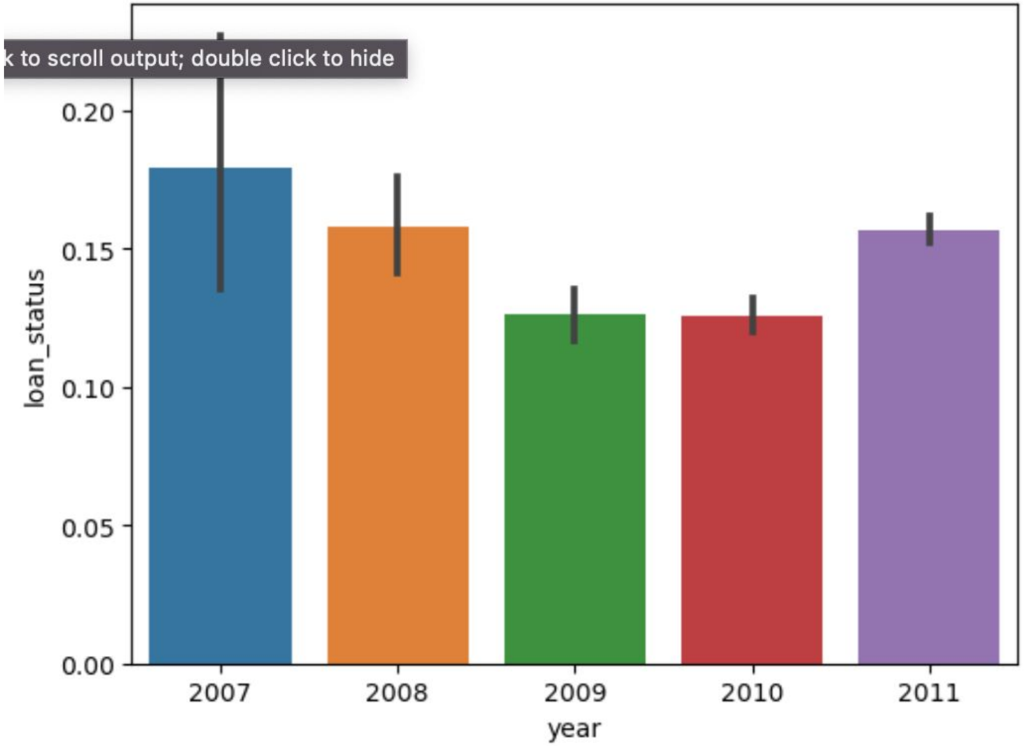


We can clearly see here that small loan are found to be defaulting more, then the renewable energy sector loans and then house and education loans share the same spot.



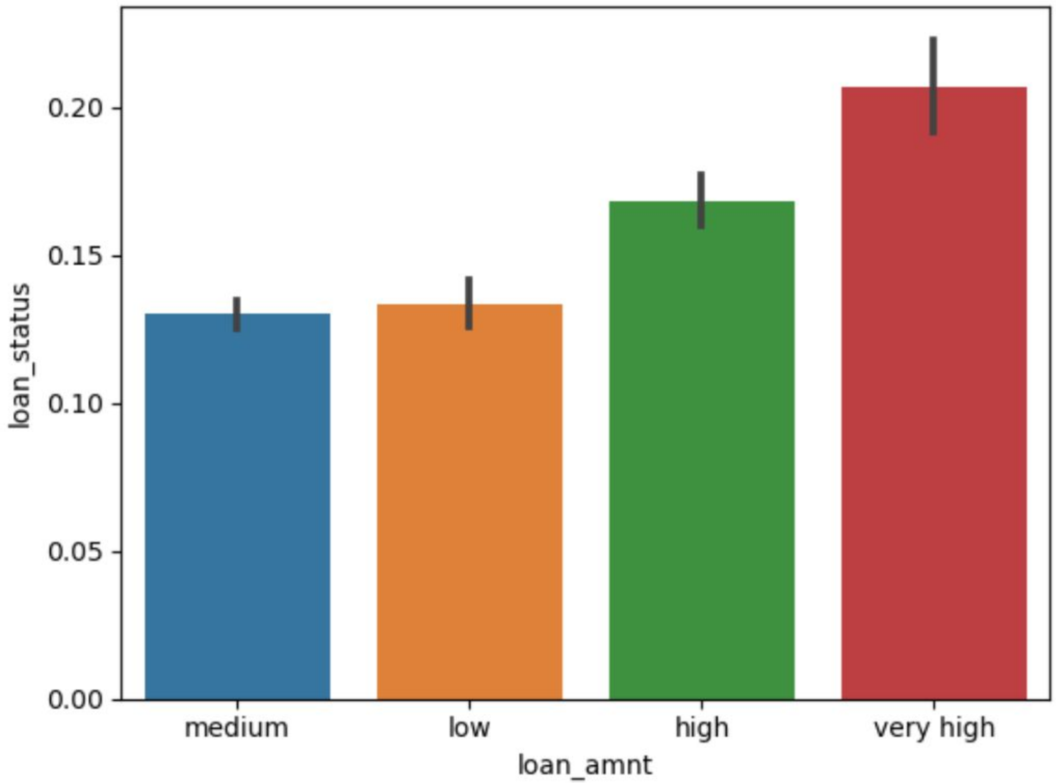
Loans defaulting based on years since 2007 to 2011

We can see that the default status was highest in 2007 with a gradual decline till 2010 after which there was rise in defaulting cases.



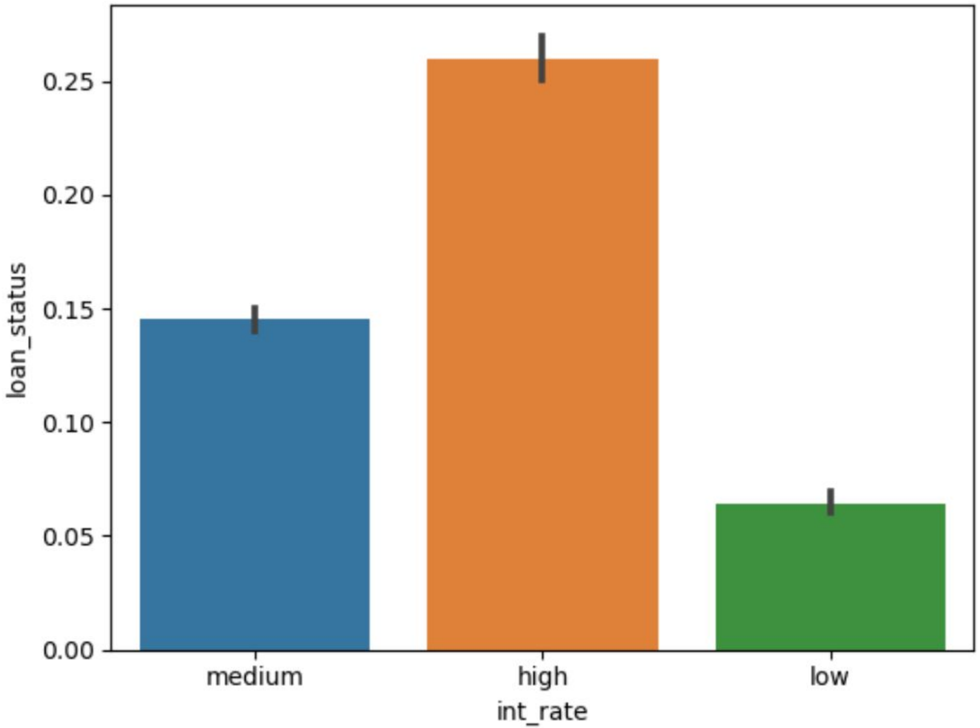
Loan default status based on lending amount

Here we can clearly see that higher the legend amount has resulted in higher default cases.



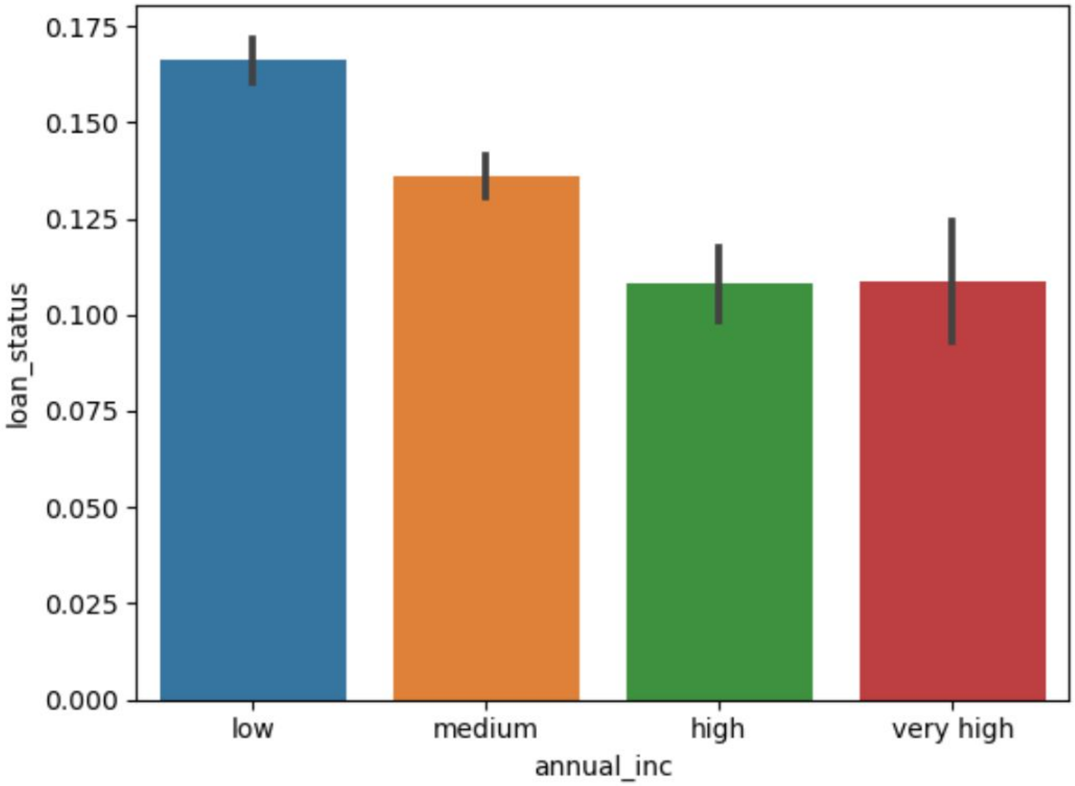
Loan default status based on lending rate of interest

The data shows higher default rate when the loan rate of interest is higher.



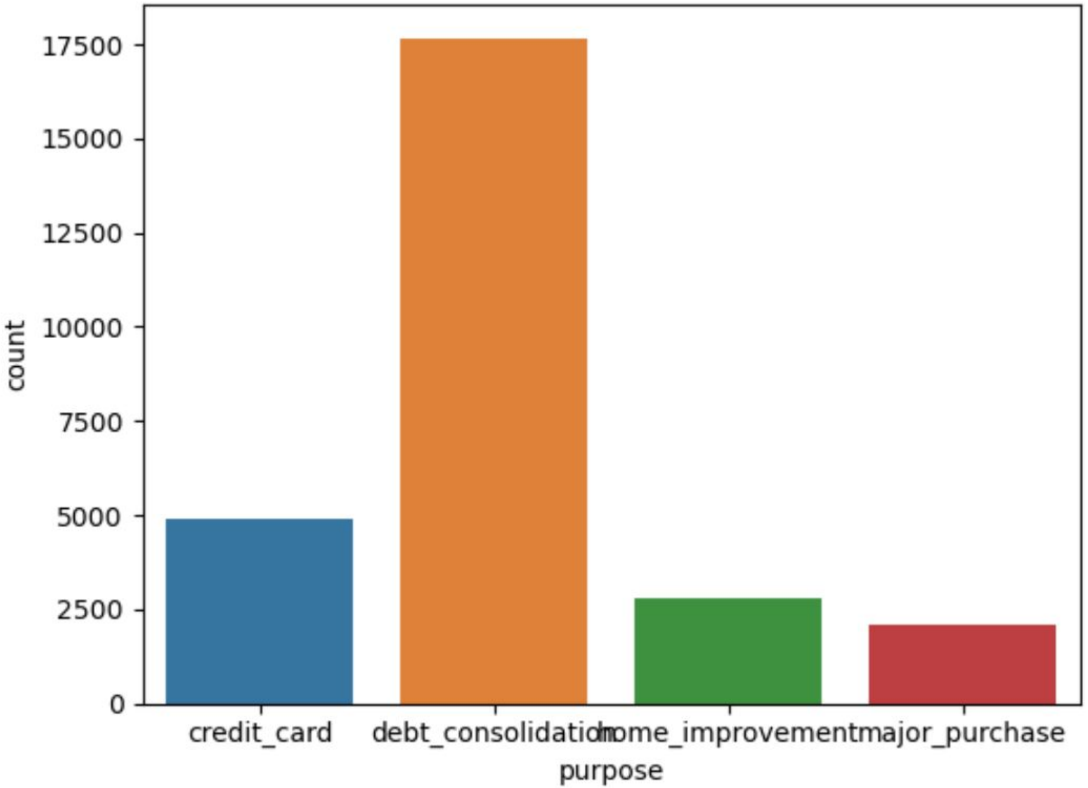
Loan default status based on salary of the borrower

Data shows lower the annual income, higher the default rate.



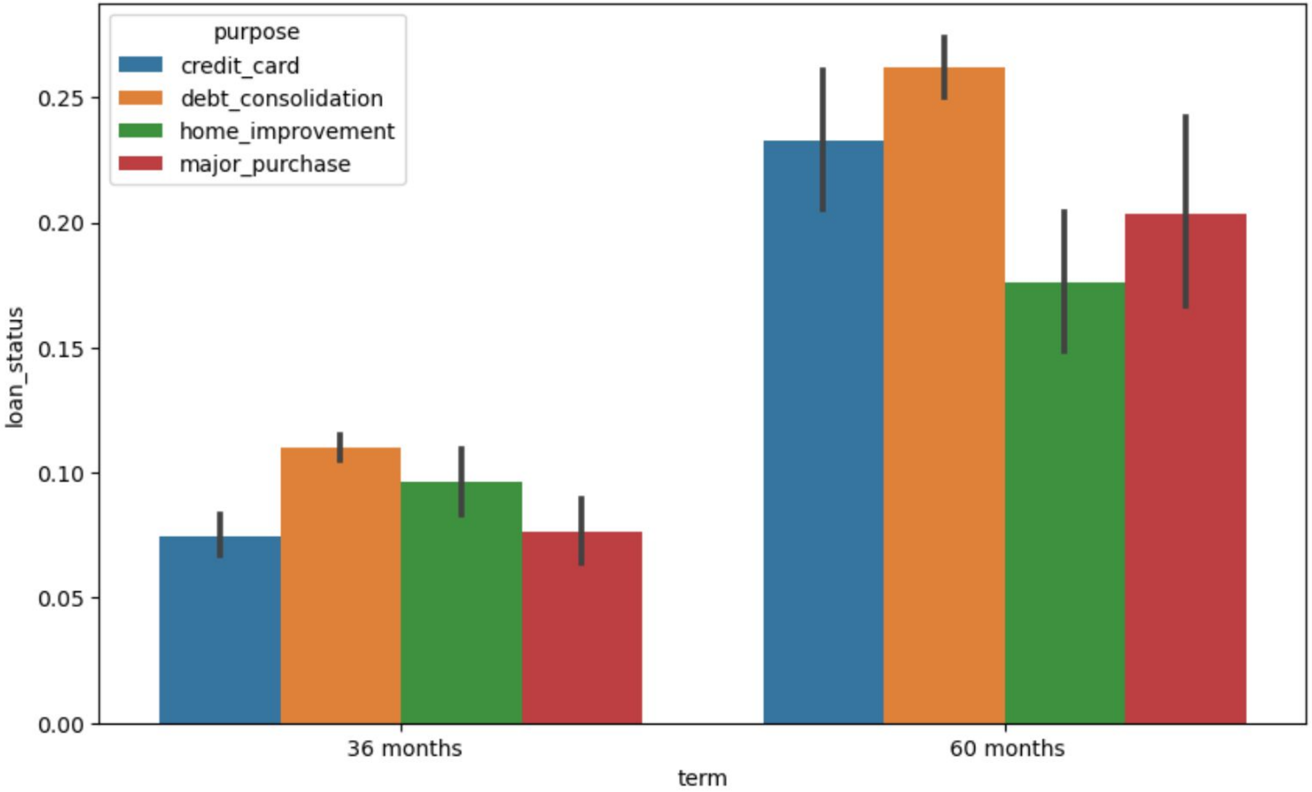
Loan borrowing factors of the borrower.

We can see that higher rate of loan borrowed is to repay other loans, which could be a checkpoint to consider before lending out a loan

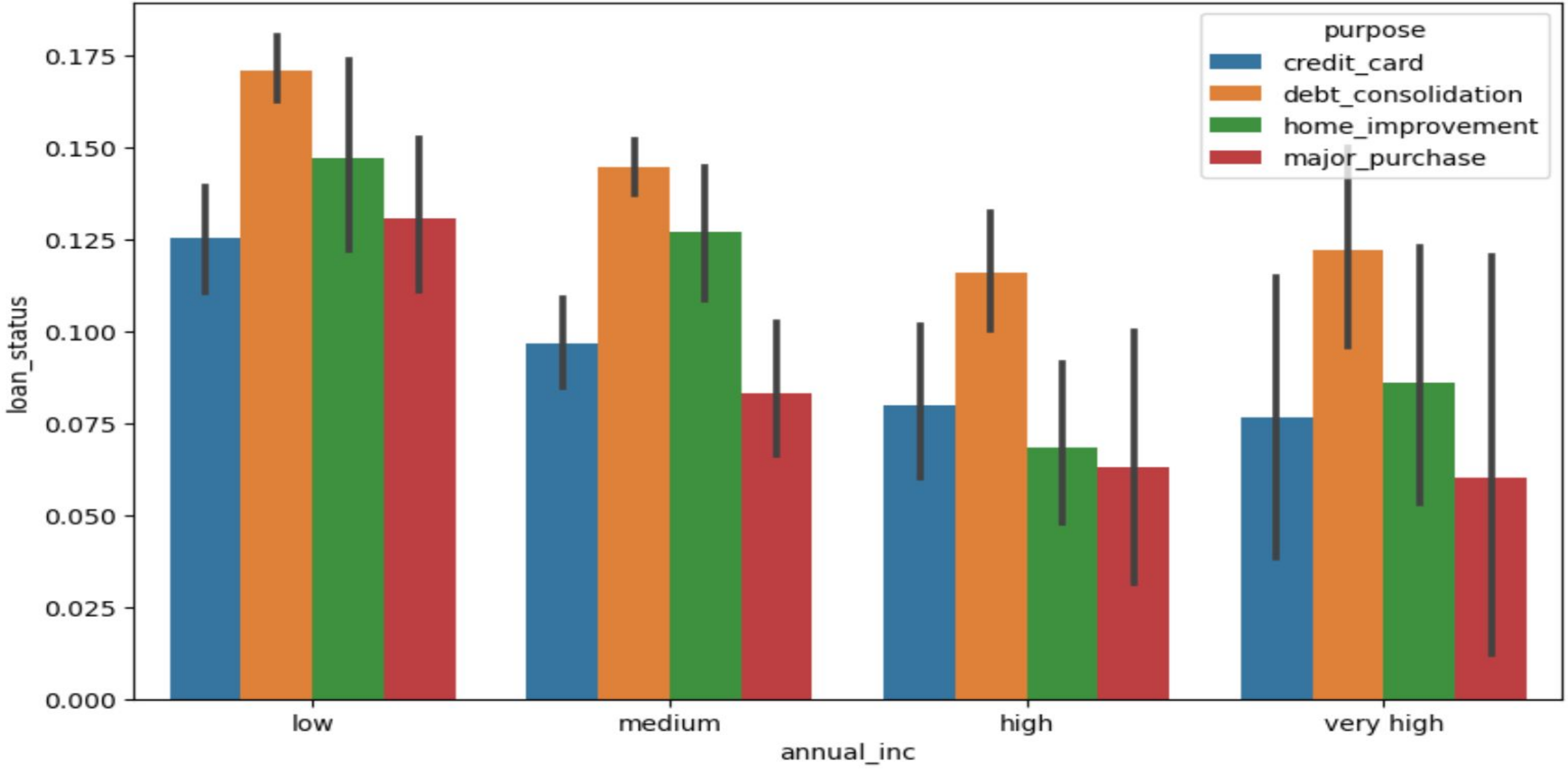


Loan borrowing factors of the borrower for different tenures.

We can see the effect of tenure on the loan default rate.



Consolidated data shows loans taken by different groups of people with annual income from low to very high based on different purpose for borrowing loan.



Conclusion

From the above information we can assert the below points:

- Loan tenure is big factor in loan default rate. Higher tenure resulted in higher default rate.
- Annual income of the borrower, if lower then higher chances of loan defaulting.
- Purpose of borrowing, if taken to pay off other loans then that can be negative sign in granting loan to that borrower.
- Small Business loans are defaulting most therefore the purpose of the loan must be thoroughly evaluated.
- Higher rate of interests is also one of factors found to result in higher loan default rates