LENDING CLUB CASE STUDY SUBMISSION

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PROBLEM STATEMENT

Lending Club case study gives the details about the urban customers and their behavior of loan repayment. It shows when a company receives set of applications for the loan, on what basis they are to be approved or rejected.

Risks Associated:

- If a member is likely to repay the loan, then company decides not to give the loan based on few reasons. This leads to loss for the company.

- If a member is defaulter, then still company decides to give the loan on certain reasons. That also leads to financial loss to the company.

BUSINESS OBJECTIVE

There are 3 possible scenarios when the loan is approved and disbursed to the customer.

- **Fully Paid:** Customers who pay the full loan.

- **Charged off/ Defaulter:** Customers not paying the loan amount on time or due date is passed or they have defaulted the loan completely.

- **Current:** Customer is still paying the loan amount and tenure has not completed yet.

Our Main objective is to find out the possible ways where the customer is likely to get defaulted. What are the risky factors that drive the customers to get defaulted.

APPROACH

1. Data Cleaning
   - Removed unwanted columns
   - Dropped columns with null values
   - Separated numerical and categorical variables

2. Univariate Analysis – Distribution Plots

3. Segmented Analysis – Analysis on Segmented variables

4. Bivariate Analysis – Analysis on more than one variables.

LOAN STATUS ON DIFFERENT TENURES

Here we can see that loan status is fully paid when the tenure of the loan is 36 months (about 3 years) approximately. Charged off members are comparatively similar in both 36 months (about 3 years) and 60 months (about 5 years).
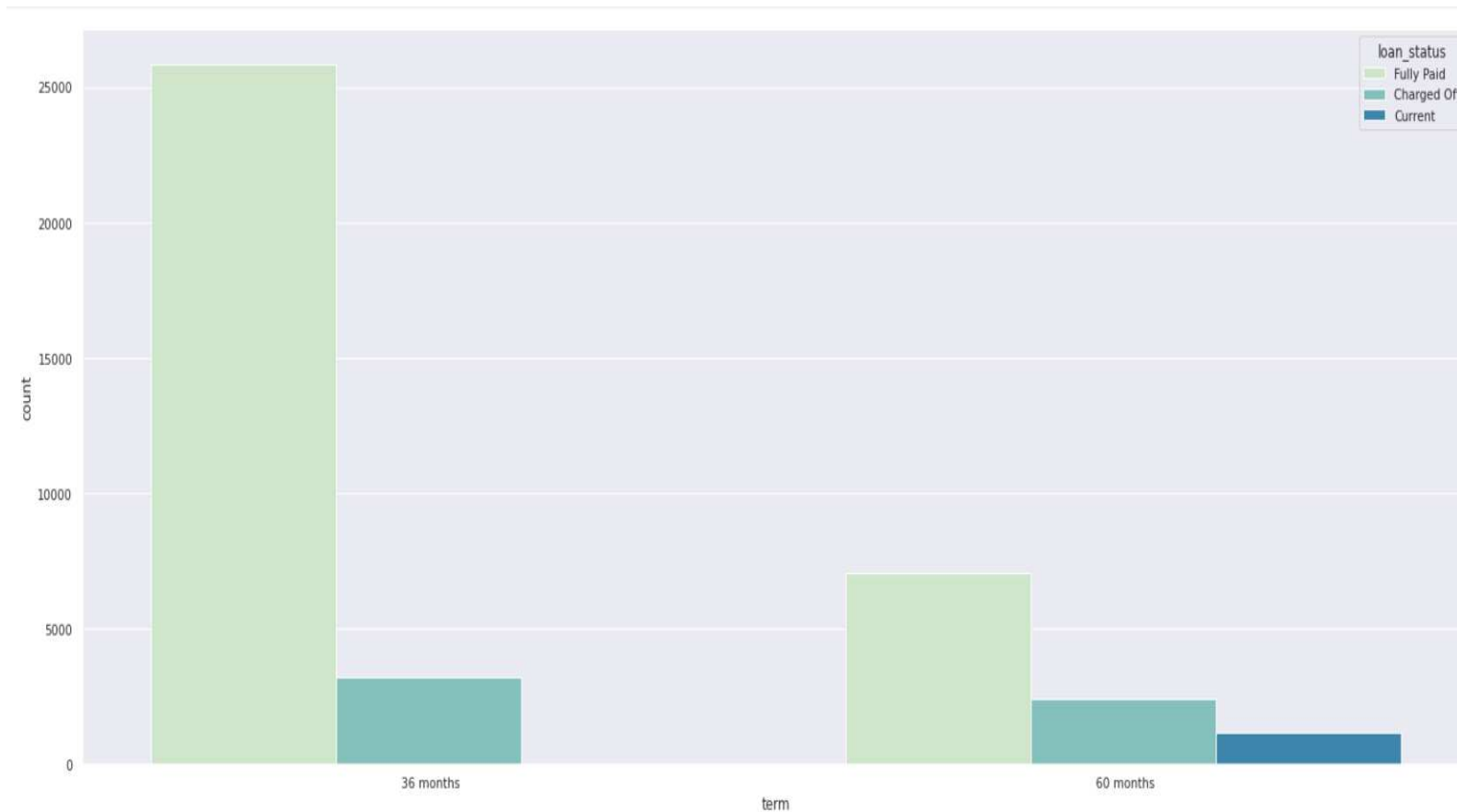
LOAN STATUS ON DIFFERENT LOAN GRADES

A,B and C grade loans tend to be paid fully compared to other grades. Grade F seems to be least likely fully paid loans here. Except F & G , Charged off loans are almost similar throughout all loan grades.
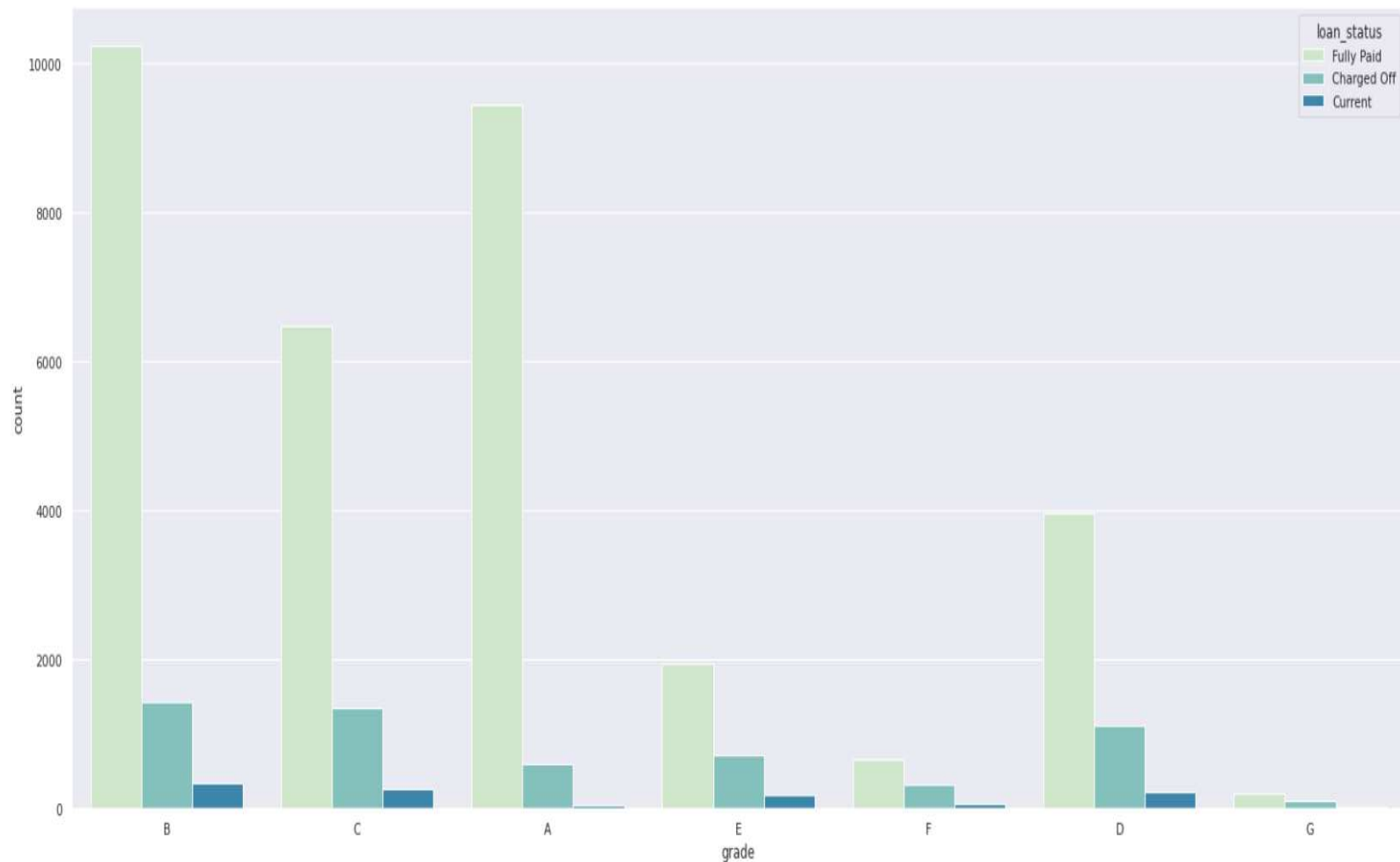
LOAN STATUS BASED ON HOME OWNERSHIP

People with own houses are less likely to be defaulted. People with rented house or mortgaged houses are most likely to pay their loans fully.
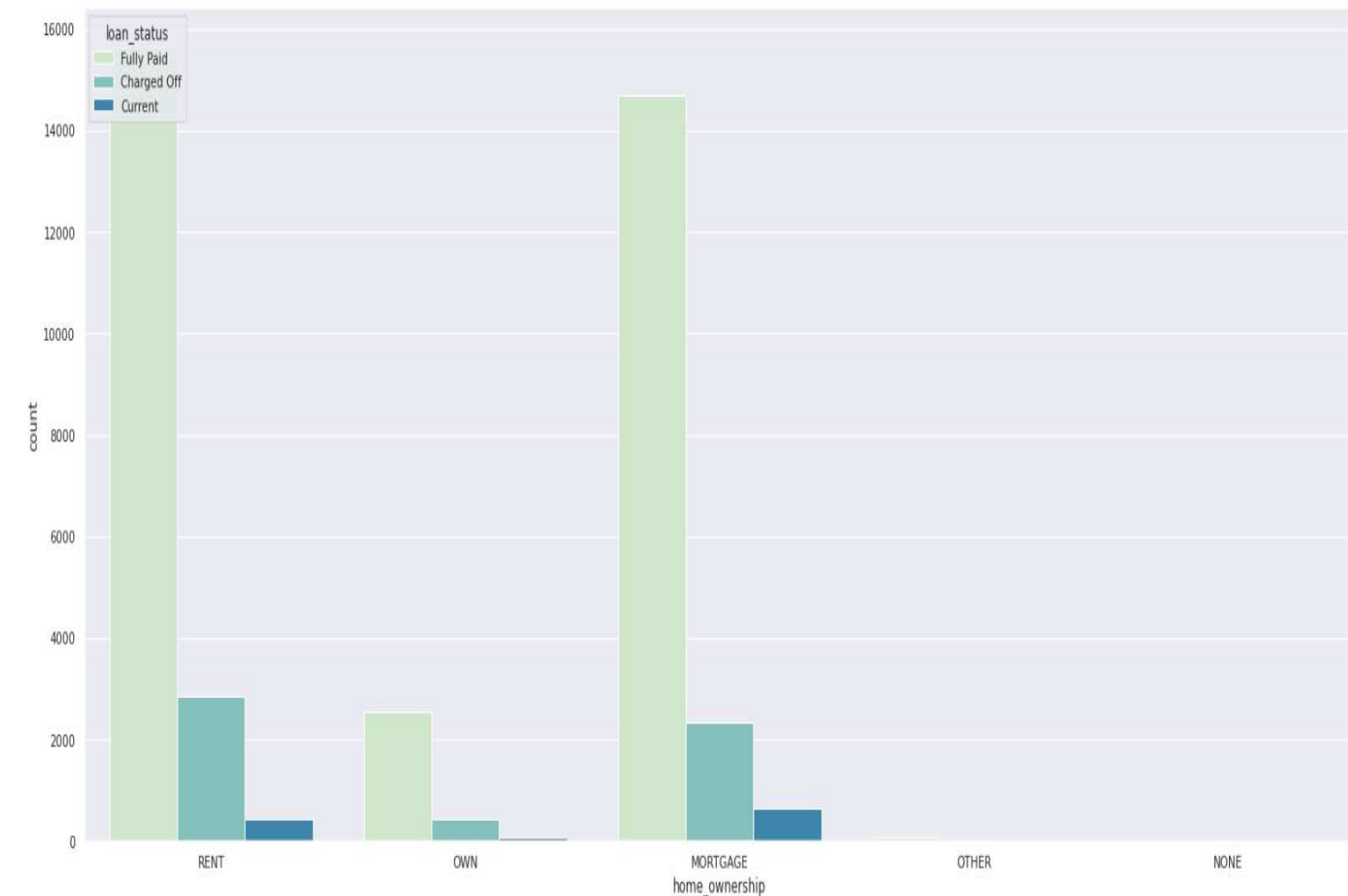
LOAN STATUS ON VERIFICATION STATUS

- The graph shows that both verified and not verified sources of members taking loans and payment behaviors are quite similar.

- Comparatively customers with verified sources are less likely to default their loans.
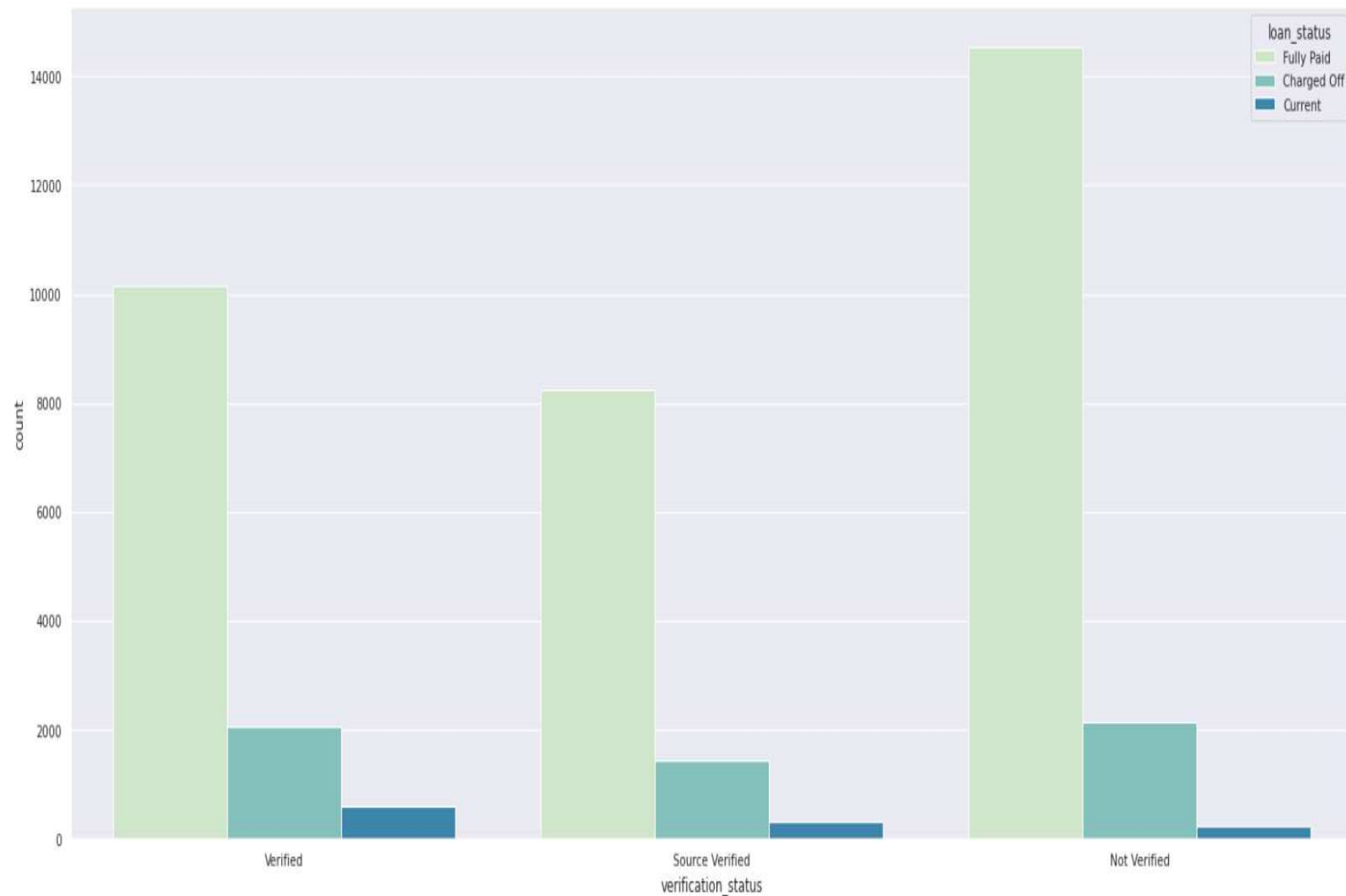
LOAN STATUS BASED ON PURPOSE OF LOAN TAKEN

Customers who are taking loan for debt consolidation are more likely to get defaulted.
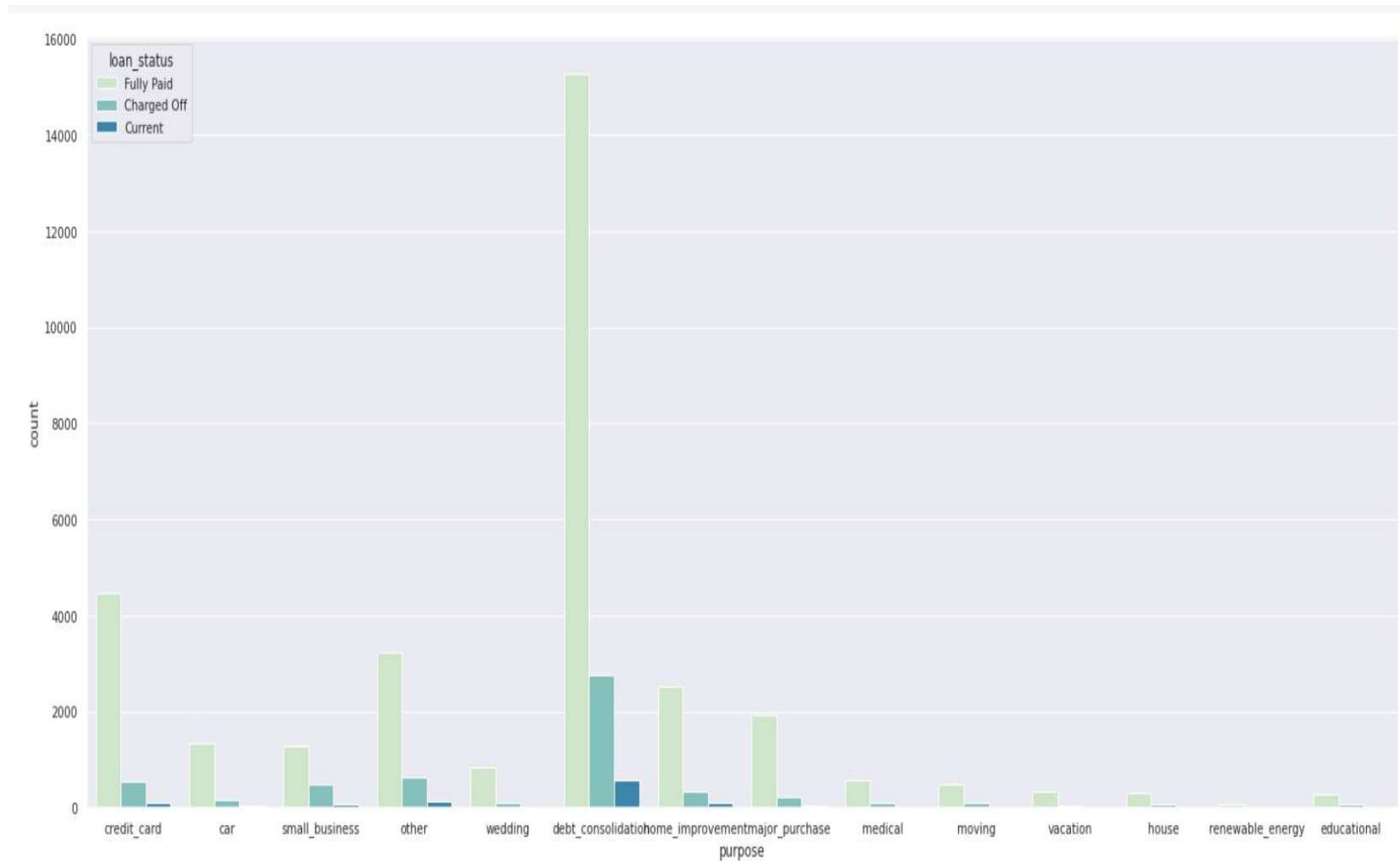
CORRELATION HEAT MAP

- Loan Amount, Funded Amount, Funded amount invested are highly correlated with each other.

- Annual income is negatively corelated with DTI.

- Months since last delinquency and delinquency in last 2 years are also negatively corelated with each other.
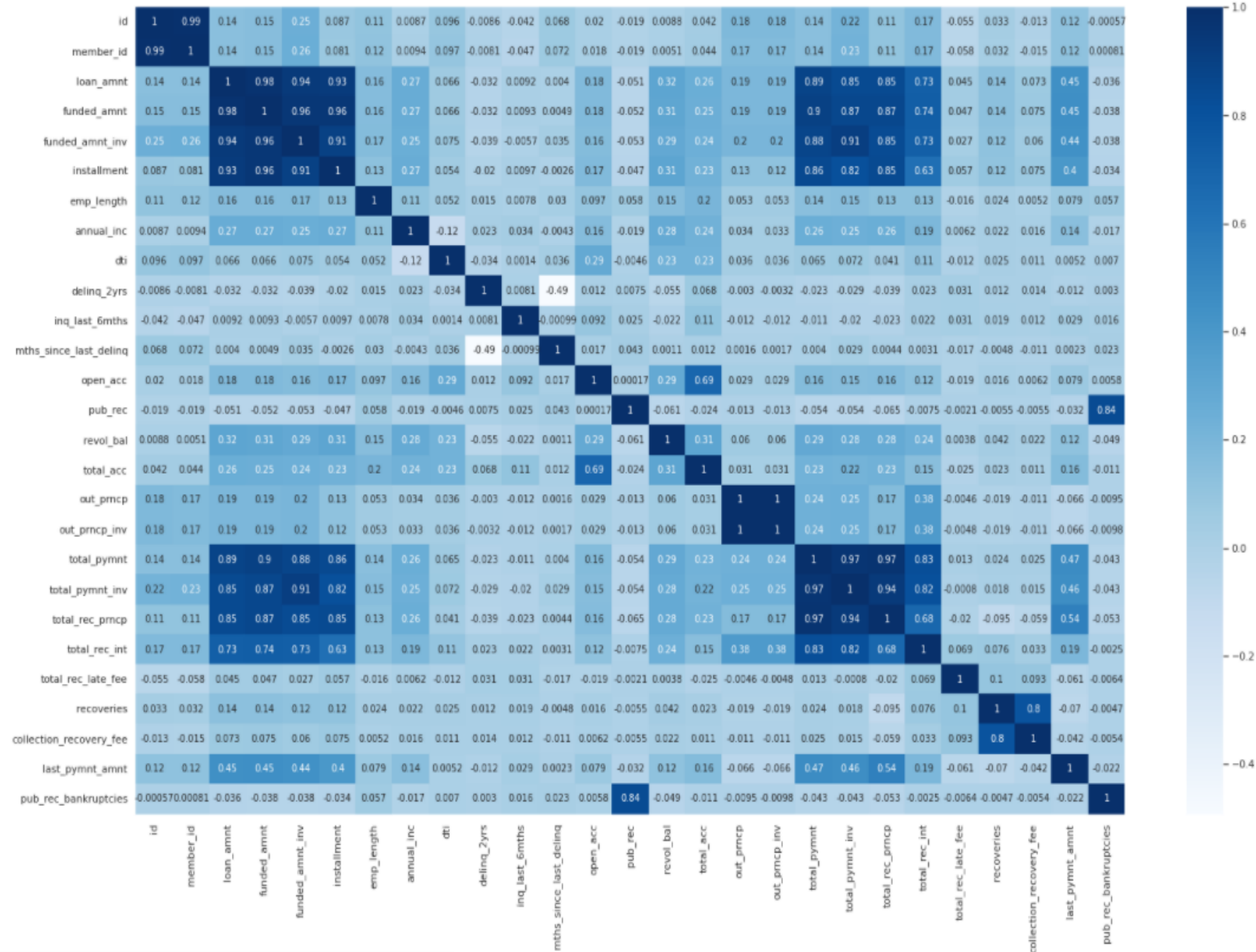
CONCLUSION

- Customers with Loans that have lesser tenures tend to pay fully which is least possible loss-making cause for the company.

- Customers who have their own house can be preferred to provide a loan, as observed they are the ones who are least defaulted customers among others.

- Customers who are taking loan for the purpose of clearing their debts are more likely to go default. So, company should verify the exact purpose of the loan to proceed with the process.

- Customers with verified sources are less likely to default their loans.

THANK YOU