Lender's club data analysis

Analysis of user data which provides insights on probable defaulter

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Columns

Following columns have been considered during this analysis

1) **DTI** - Debt to income ratio calculated using the borrower's total monthly debt divided by the borrower's self-reported monthly income
2) **loan_amnt** - Amount requested by borrower
3) **funded_amnt_inv** - Amount lent by investors
4) **annual_inc** - annual income provided by the borrower
5) **grade** - Grade of the loan (A- Better grade, G- Low grade)
6) **loan_status** - Current status of the loan
7) **verification_status** - Indicates if income was verified by Lending club
8) **purpose** - Purpose of the loan like Education, Buying house etc.
9) **home_ownership** - Member owns a house or not.

Assumptions

- Grades of loan mentioned in data sheet has values from A to G. A has been considered as a higher level loan and G as the lowest level.

- Customer with current loans have not been considered as they have ongoing payments.

- All the columns with only NAN values have been removed.

- Noticed that columns like mths_since_last_delinq, mths_since_last_record and next_pymnt_d have null values for almost 90% of members. As we are not using these field in analysis, they have not been handled.

- Loan_amnt column has outliers but have not get rid of them as we need those customer's record to check the chances of defaulting.

Analysis-1

- Most of the loans disbursed are in between 5K - 10K.

- A, B and C grade loans are more compared to D, E, F, G loans.

- Fully paid members are more compared to Charged off which is a good sign for Lending club.

- Half of the customer's income is not verified which is not good sign.

- Charged off loans are more when the difference between the loan_amnt and lfunded_amnt_inv is more. So its better to offer customers who have 0 difference.

Analysis-2

- DTI does not have much effect on charged off loans. No correlation.

- Charged off loans are proportional to Fully paid in all grades.

- Verfication status doesn't have any effect on loan defaulting.

- House owners have defaulted less compared to members with Rented and Mortgage place

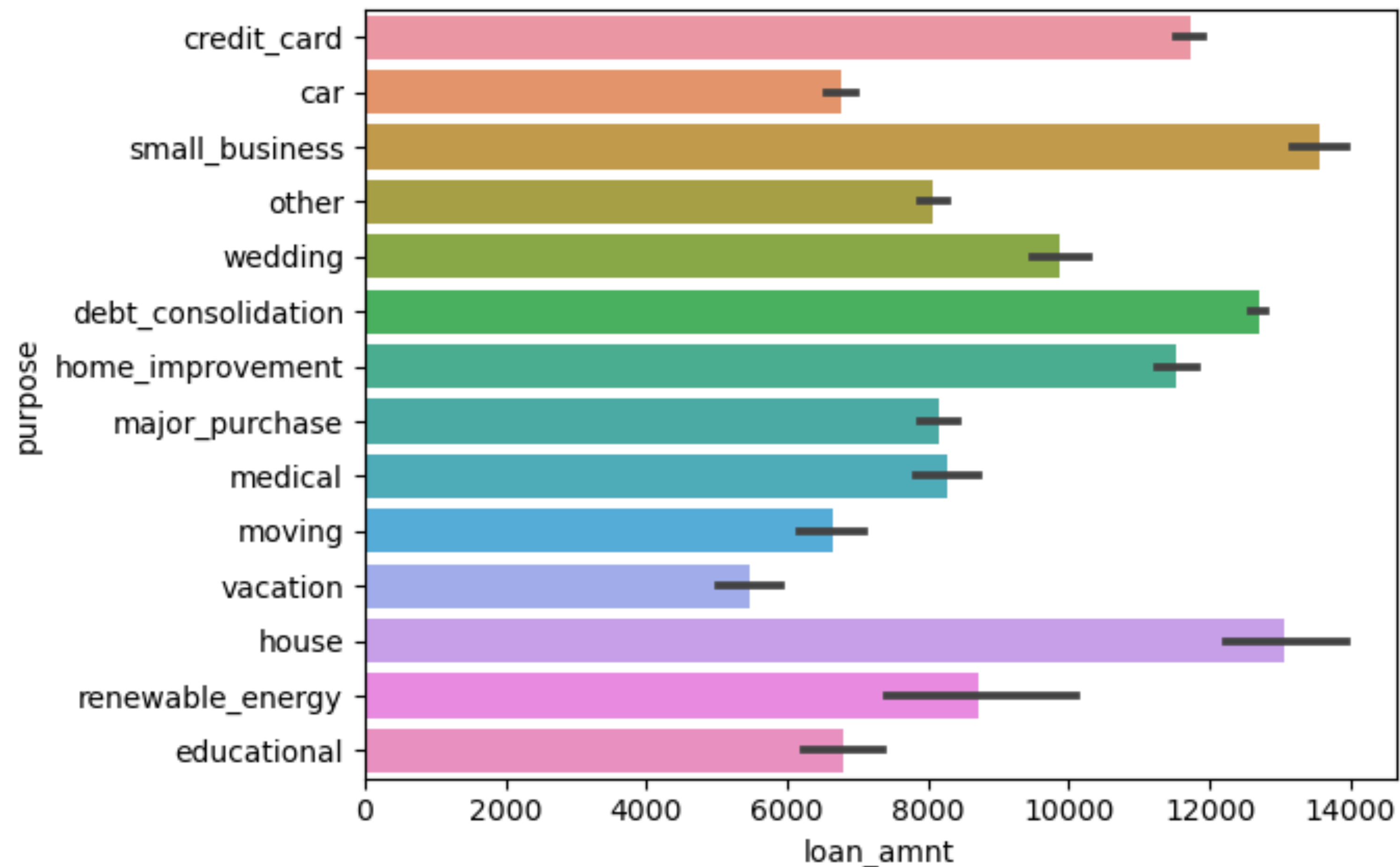- Average loan amount is high House, Debt consolidation,Small business and Credit card.

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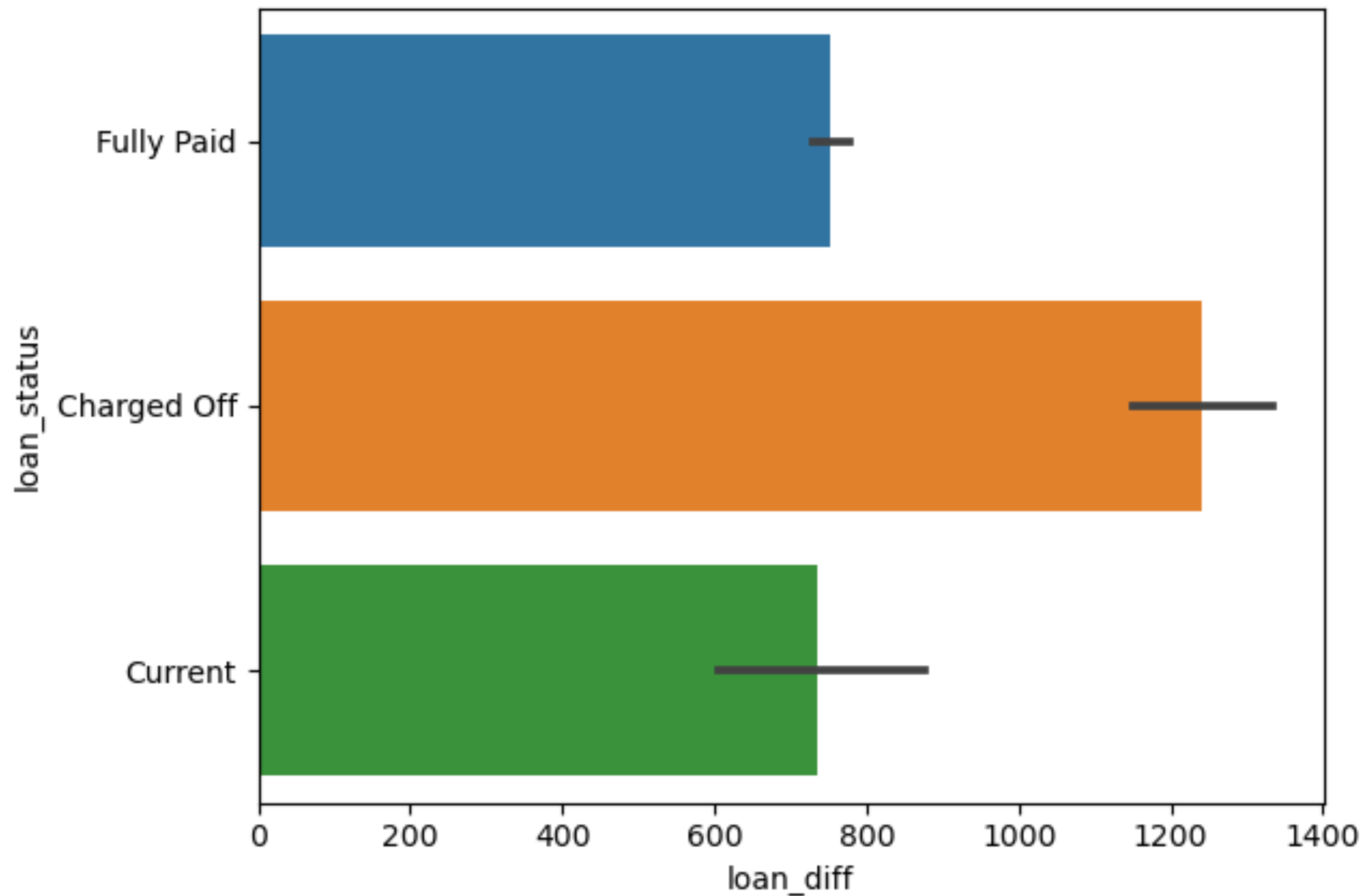
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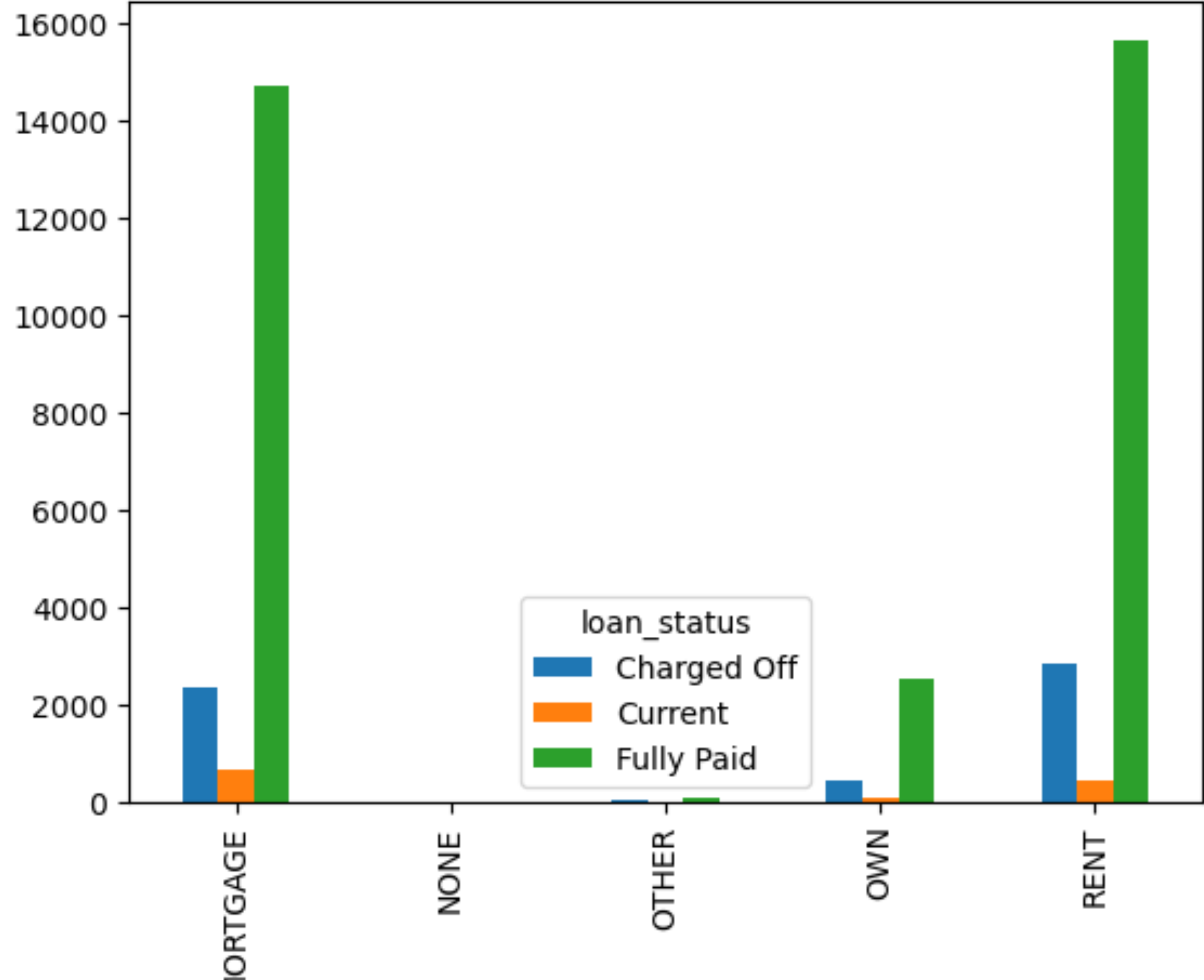
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Thank you!