# Lending Club Case Study

THE DATA GIVEN CONTAINS INFORMATION ABOUT PAST LOAN APPLICANTS AND WHETHER THEY 'DEFAULTED' OR NOT. THE AIM IS TO IDENTIFY PATTERNS WHICH INDICATE IF A PERSON IS LIKELY TO DEFAULT, WHICH MAY BE USED FOR TAKING ACTIONS SUCH AS DENYING THE LOAN, REDUCING THE AMOUNT OF LOAN, LENDING (TO RISKY APPLICANTS) AT A HIGHER INTEREST RATE, ETC. IN THIS CASE STUDY, WE WILL USE EDA TO UNDERSTAND HOW CONSUMER ATTRIBUTES AND LOAN ATTRIBUTES INFLUENCE THE TENDENCY OF DEFAULT.
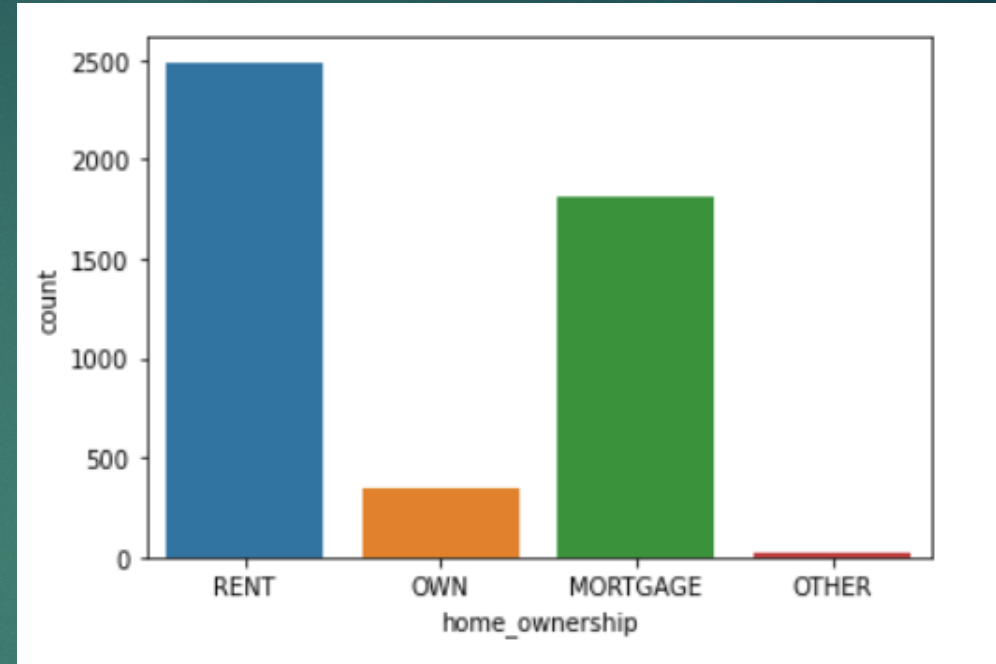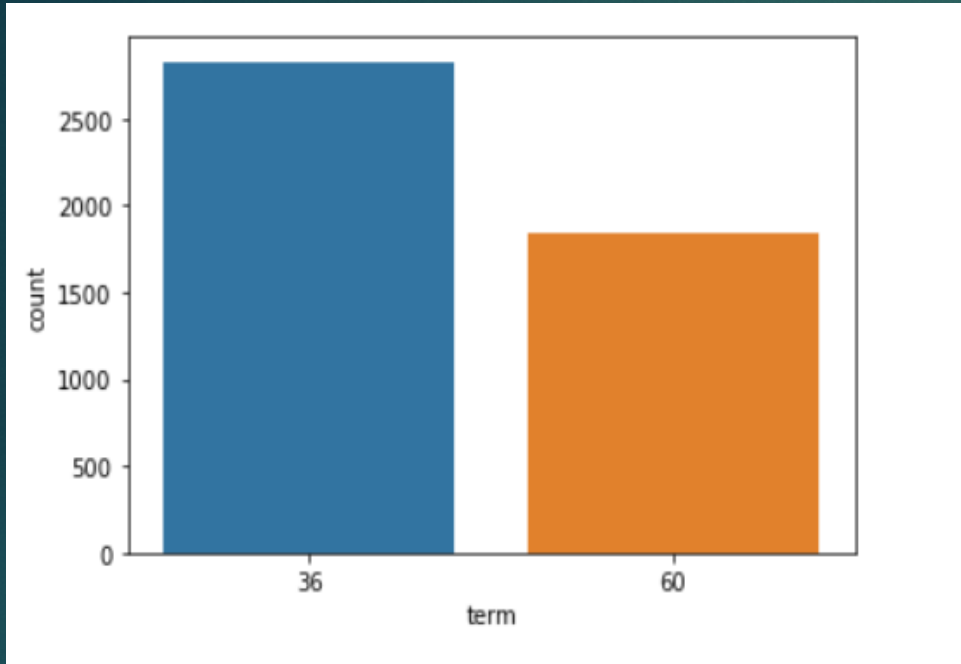
► From the above plots we can see that the number of customers that charged off are more for loan term 36 months than 60 months and also applicants who rent a home are more likely to default.
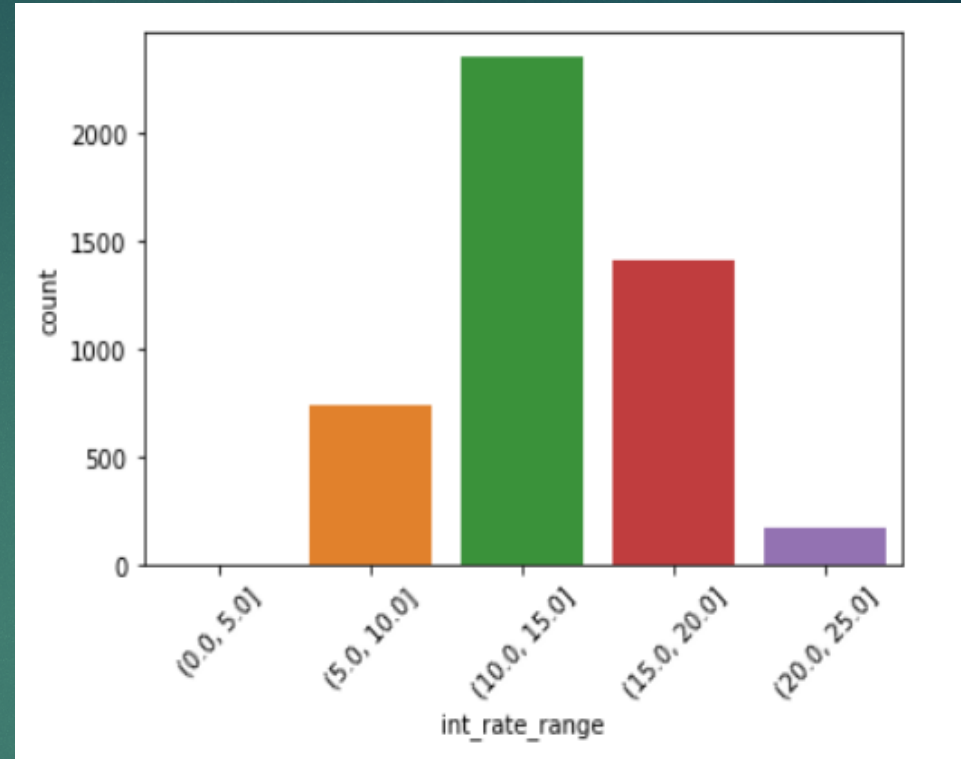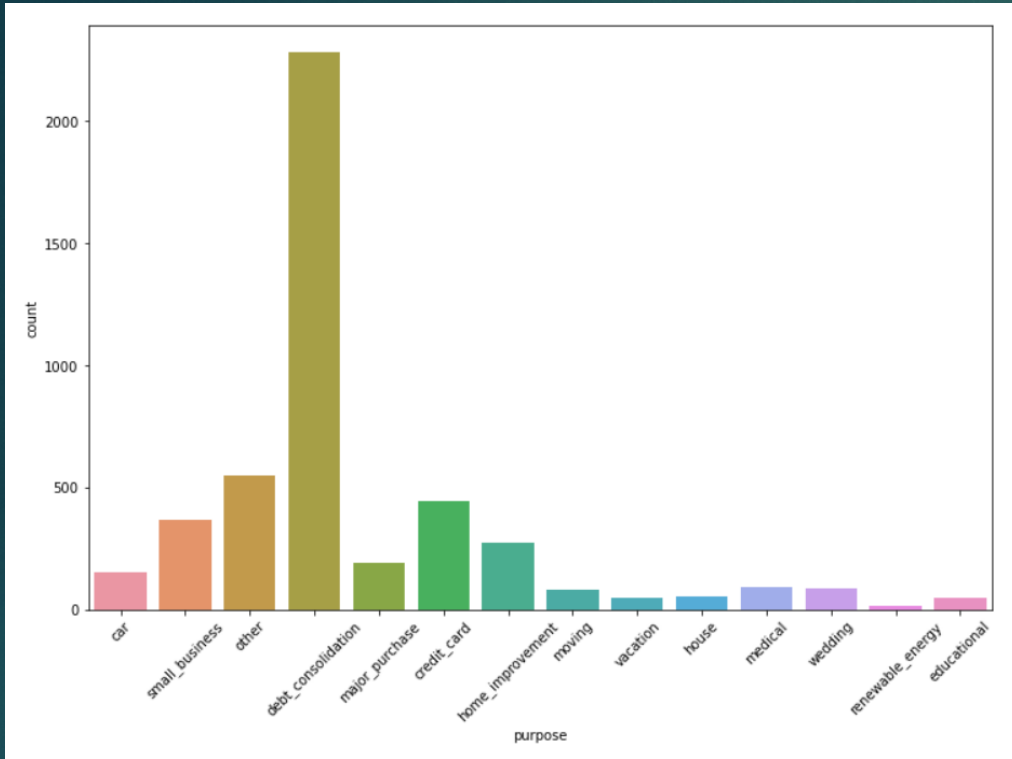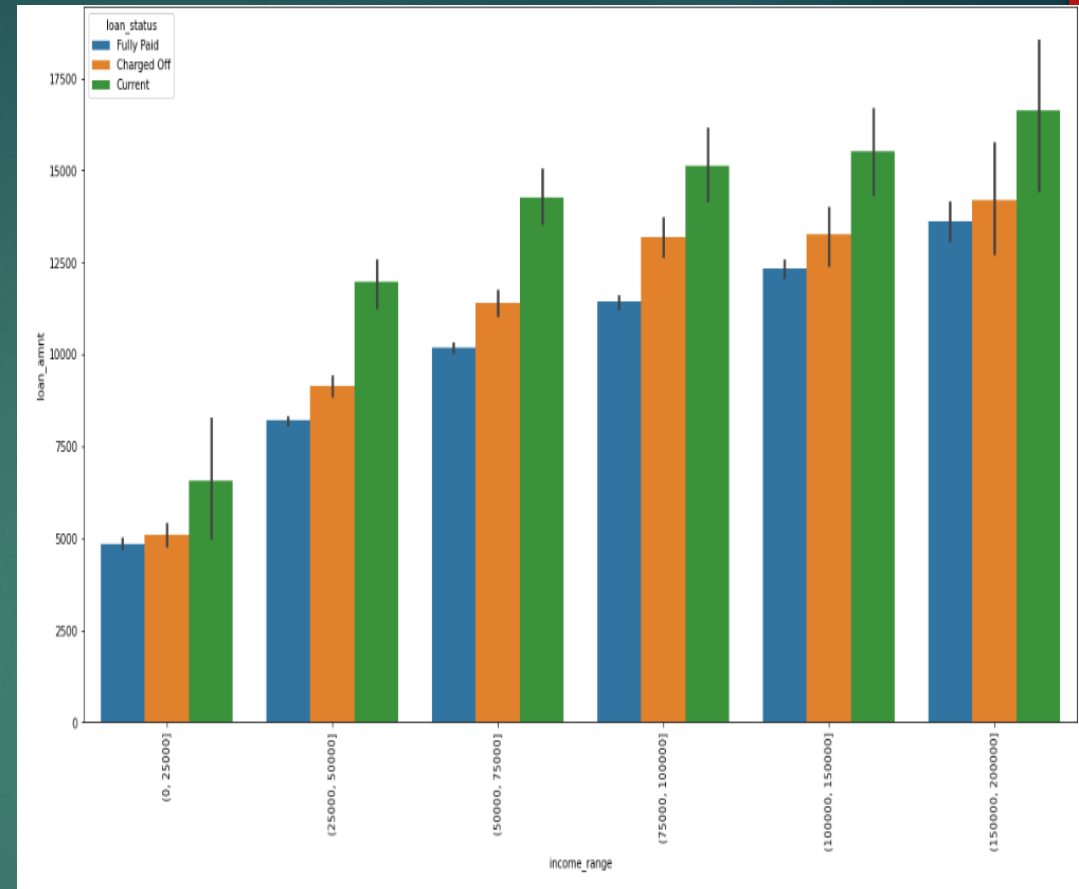
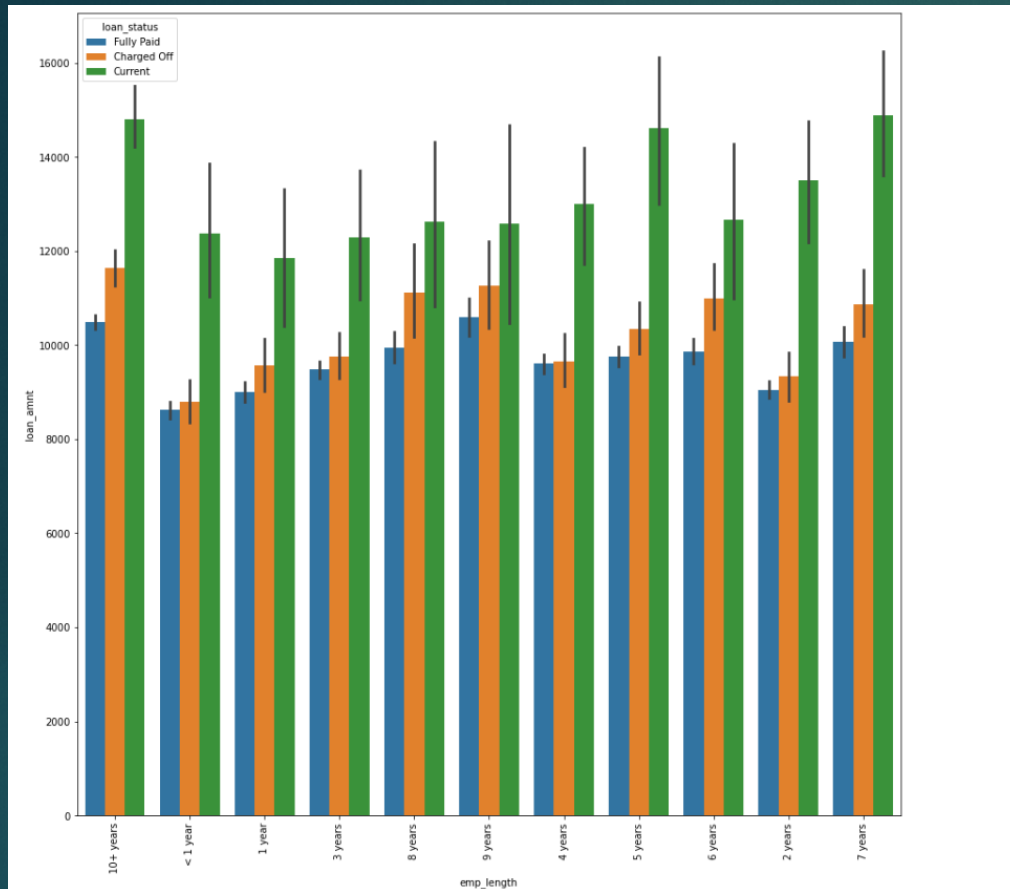► From the above plots we infer that the applicants that are charged off have mostly taken loans for paying off other loans. The interest rates of the applicants who have been charged off mostly ranges between 10%-15%.
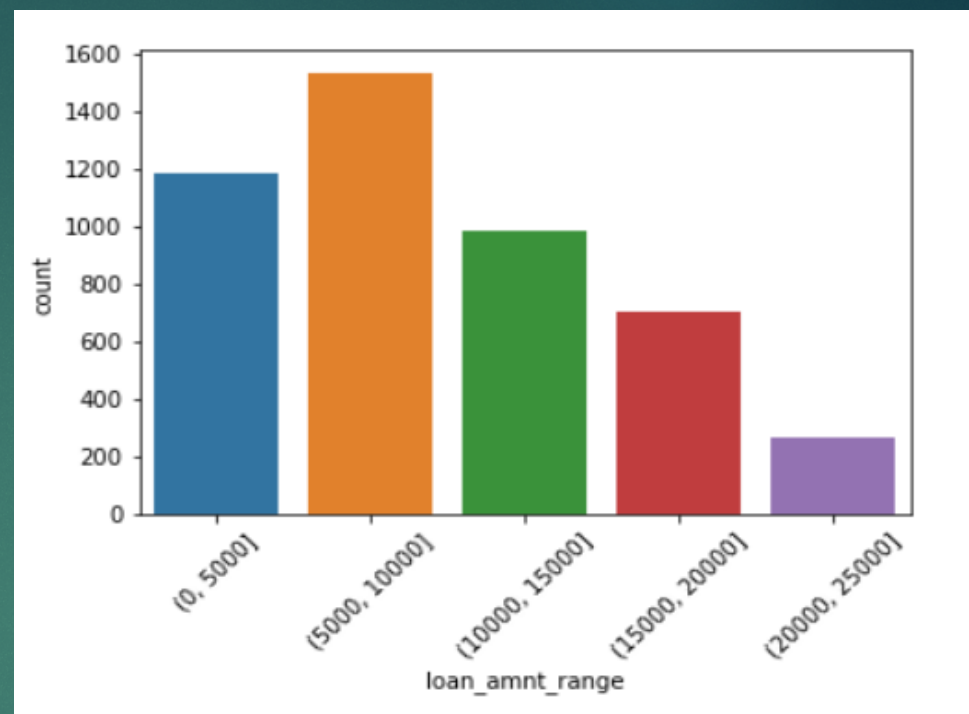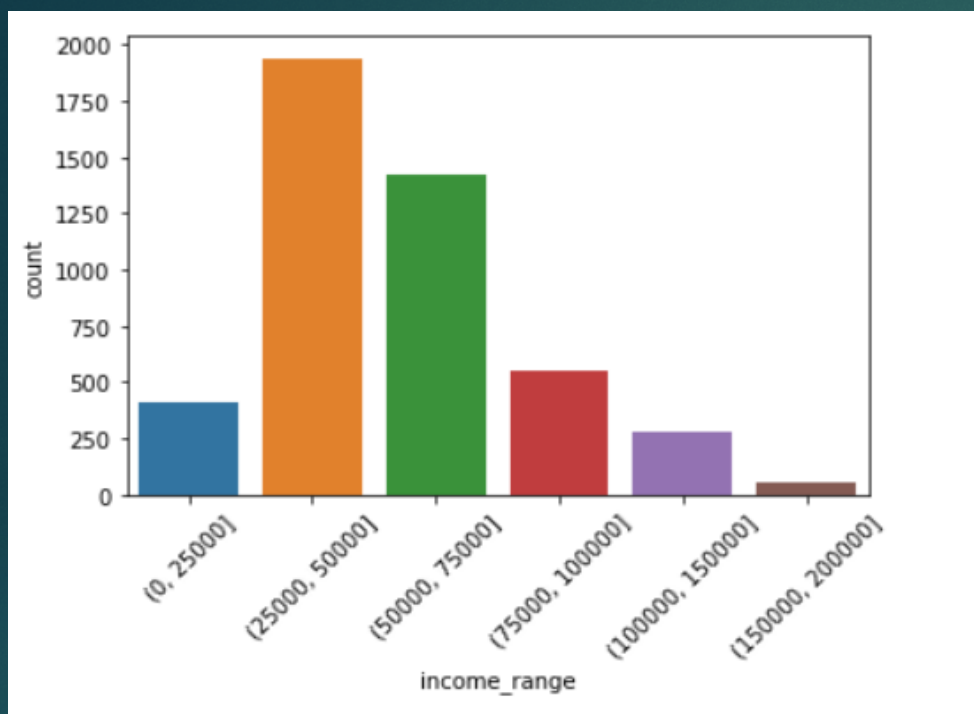
▶ **From the above plots we infer that the applicants that are charged off mostly have income range between 25K-50K. The loan amounts of the applicants who have been charged off mostly ranges between 5K-10K.**

- ▶ From the above plots we infer that the applicants that who have higher experience have taken higher loan amount and also are more likely to default.
- ▶ It can be observed that applicants with higher annual income have taken higher loan and are more likely to default.

Conclusion and Recommendation

From the analysis of charged off loans, defaulters are the ones who are most likely:

1. Applicants whose employment length is10+years and loan amount is 10K-12K.

2. Applicants who have taken a loan amount of14K-16K with interest rate 20-25%.

3. Applicants who RENT the house and income group is 25K-50K.

4. Applicants who take higher loan termed as 36 months.

5. Applicants who mentioned the loan purpose as debt consolidation, credit card with loan amount 10K-12K.

6. Applicants who have income above 75K and loan amount between 11K-12.5K

7. Applicants who have DTI Ranging between 10-20 and interest rate also 10-15%.

8. Applicants whose interest rate is 15-25% and salary range is 50-60K.