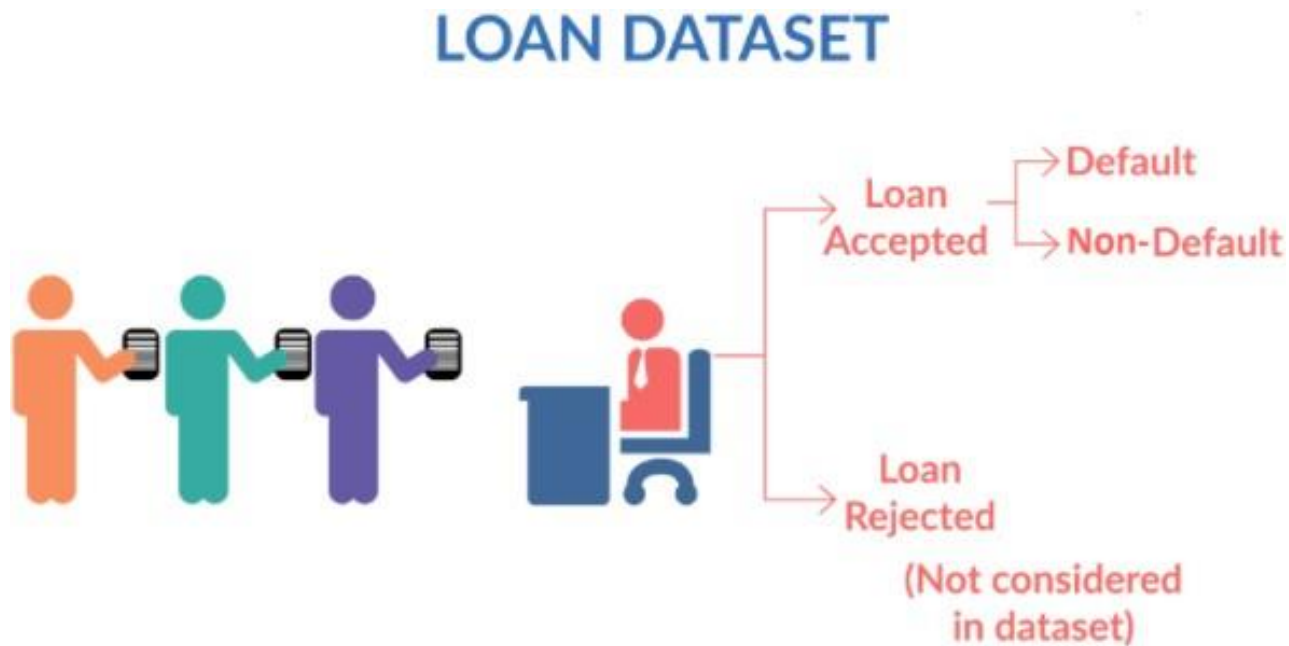


# **LENDING CLUB CASE STUDY**

**Created By -: 1. Harshit Bohra  
2. Balvinder Das**

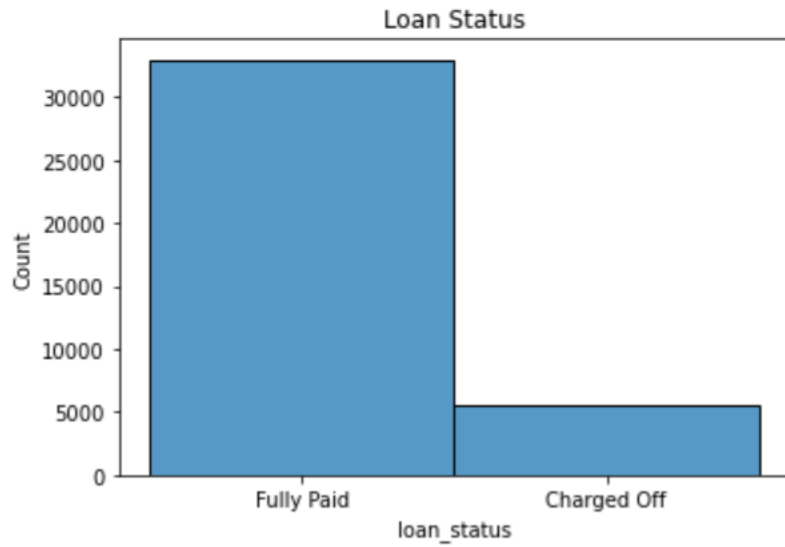
# PROBLEM STATEMENT

To Identify the patterns which indicates if a person is likely to default the loan, which will help the company to understand the driving factors behind loan default

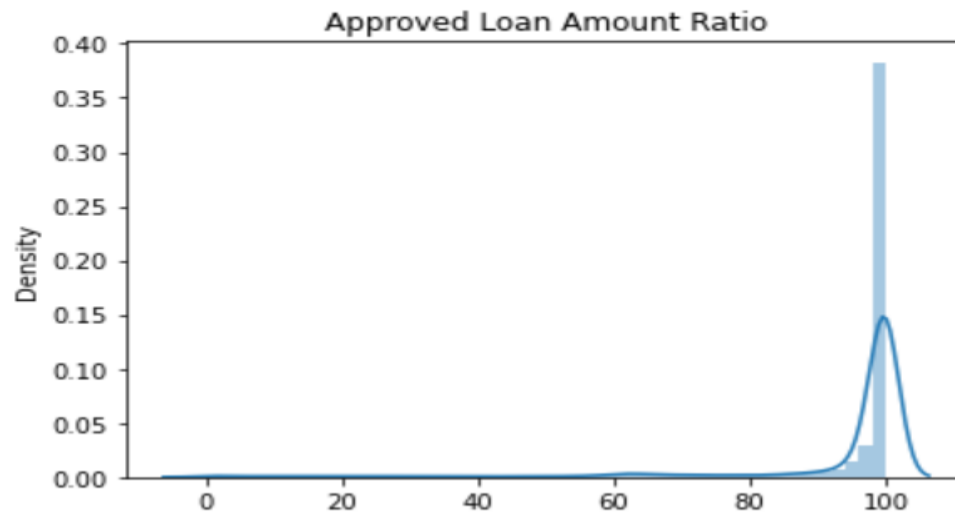


# ANALYSIS



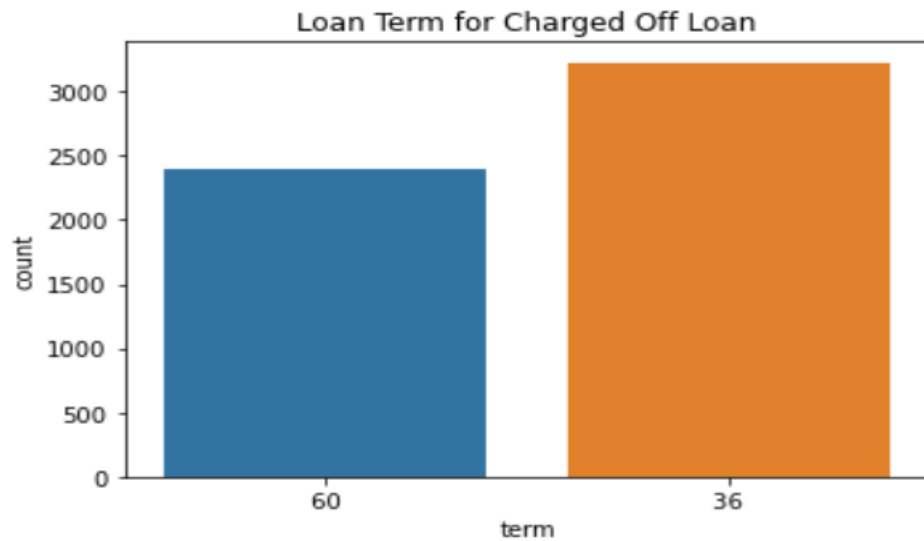


Count of Fully Paid loans are more than the Charges Off Loans and we have observed that there are around 5000 people who have defaulted the loan

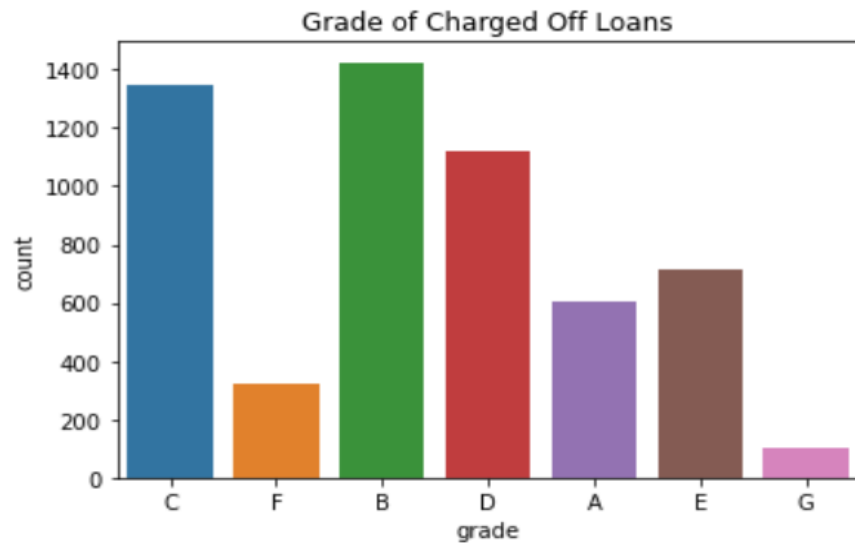


approximately 95% loan is approved



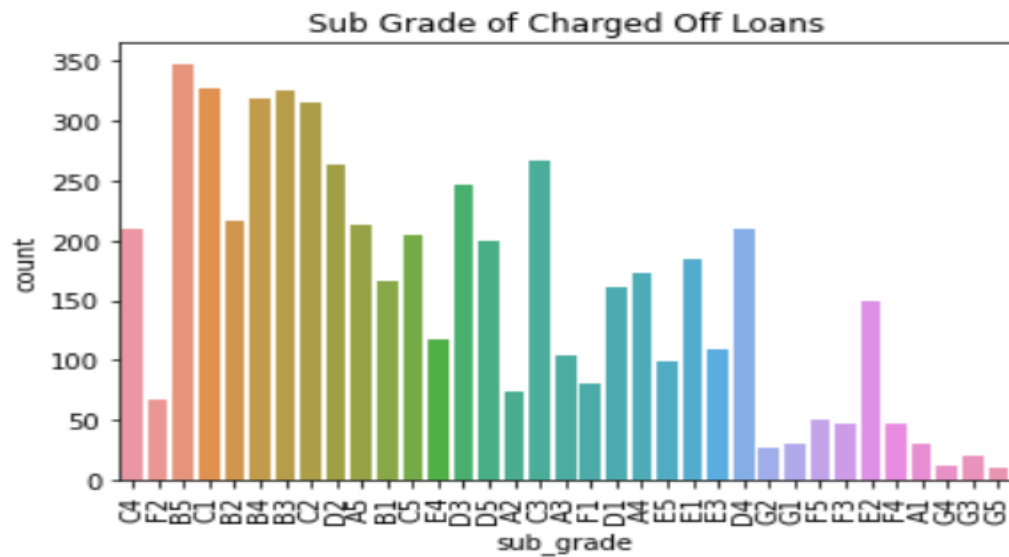


Loan is given for the term of 36 and 60 months and also loan provided for the term of 36 months is more charged off

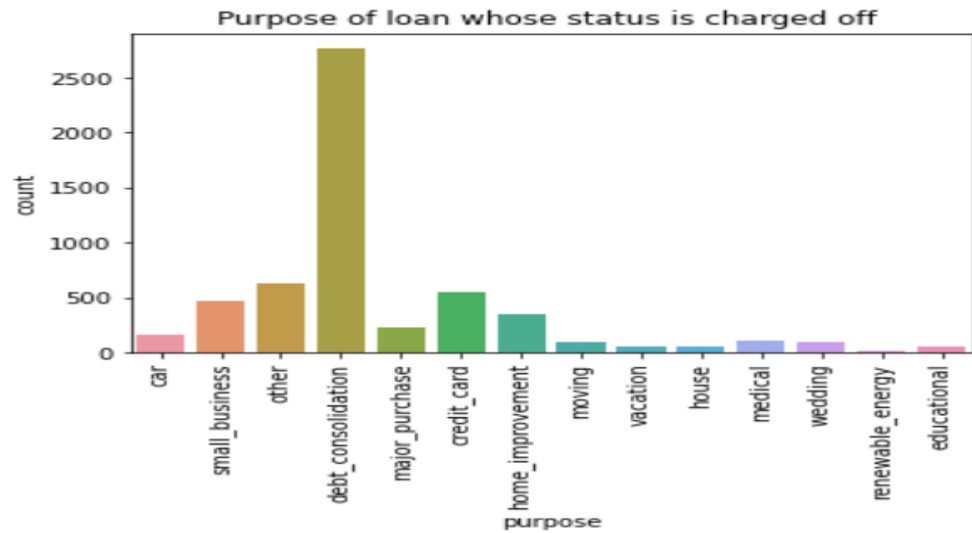


From the above count plot it is clear that charged off happens for the people belonging to grade B and C



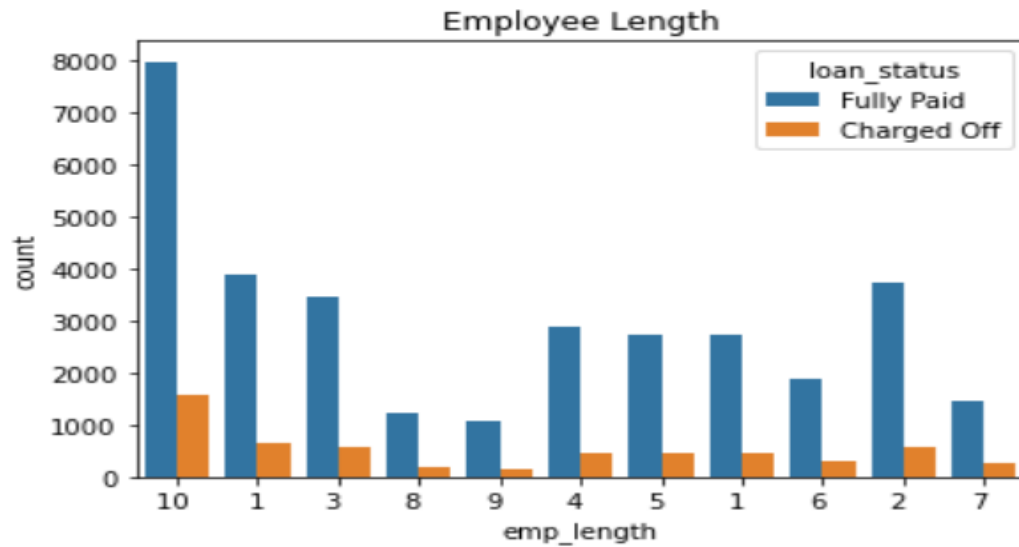


From the above count plot it is clear that charged off happens for the people belongs to sub grade B5

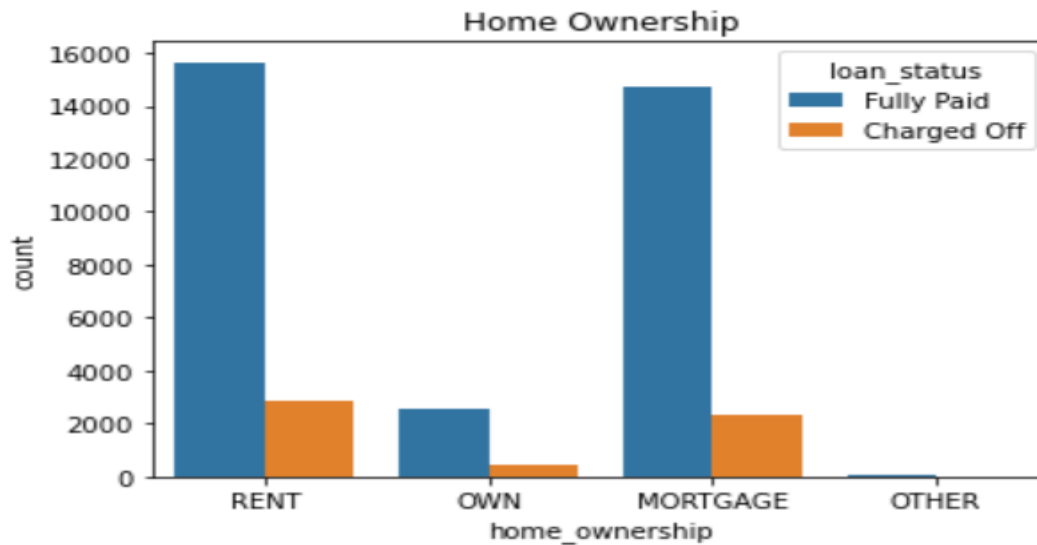


People who have taken loan for Debt Consolidation has more number of charged off loan



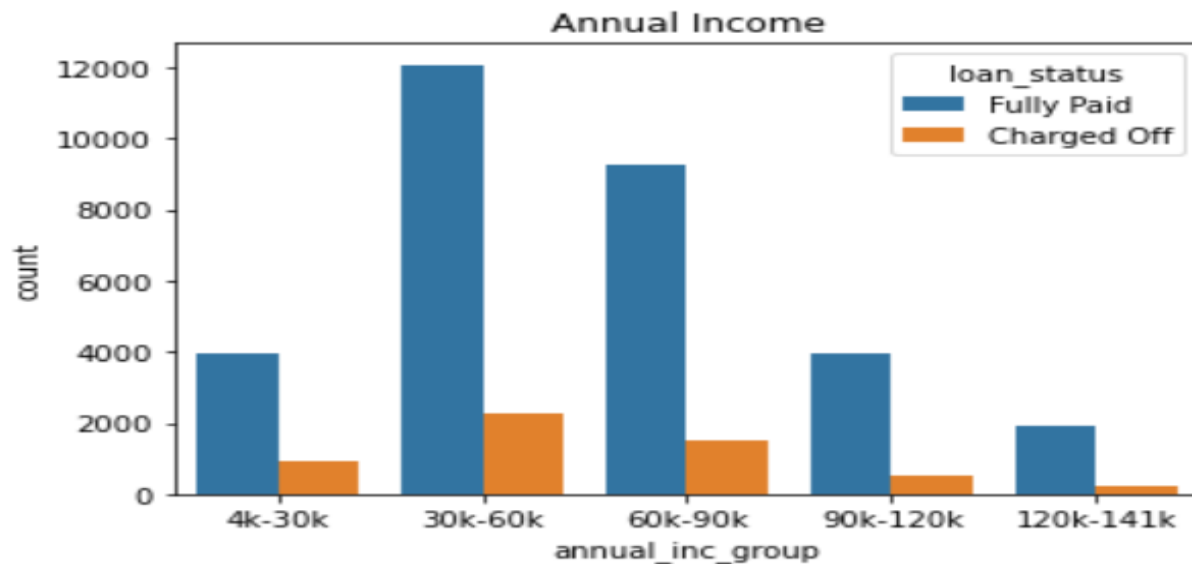


people with employee length equal to or more than 10 years charged off the loan more

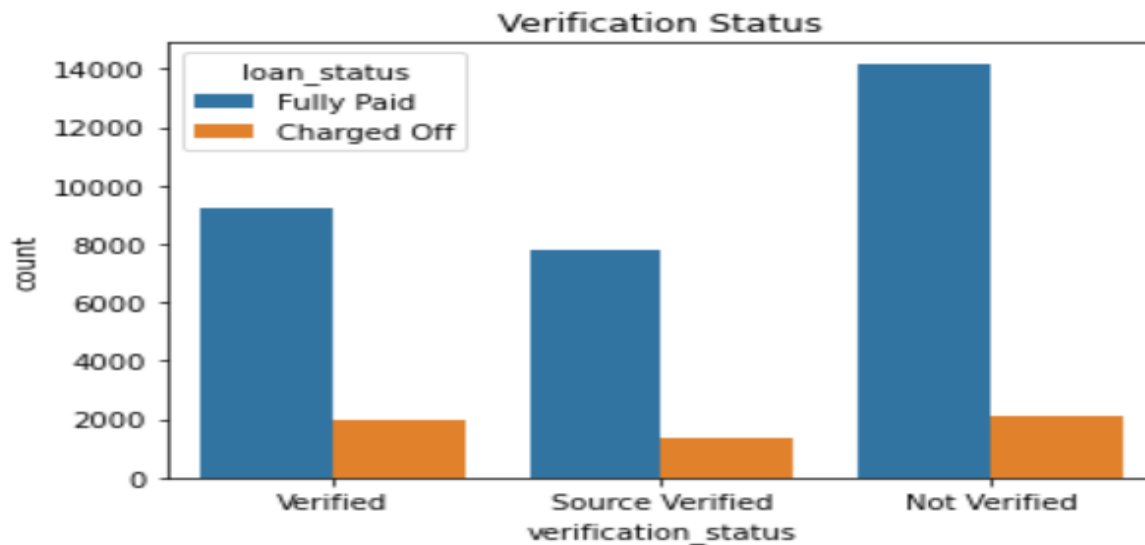


People living on Rent Charged off more



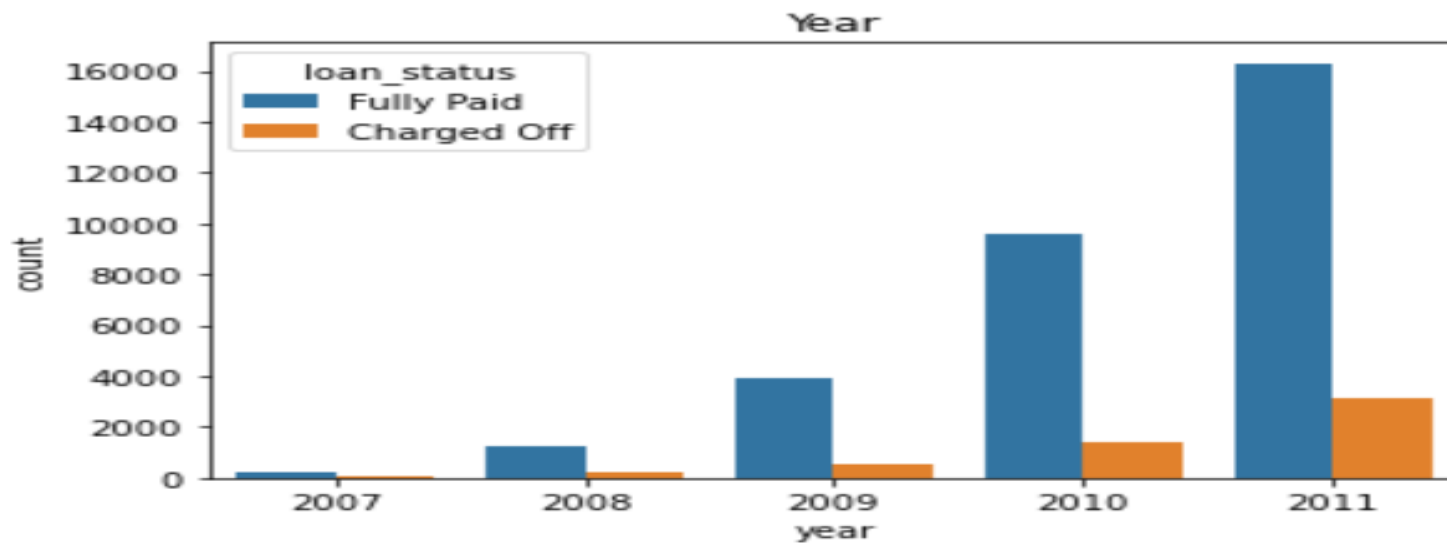


People who have Annual Income in between 30k-60k are more likely to charged off loan

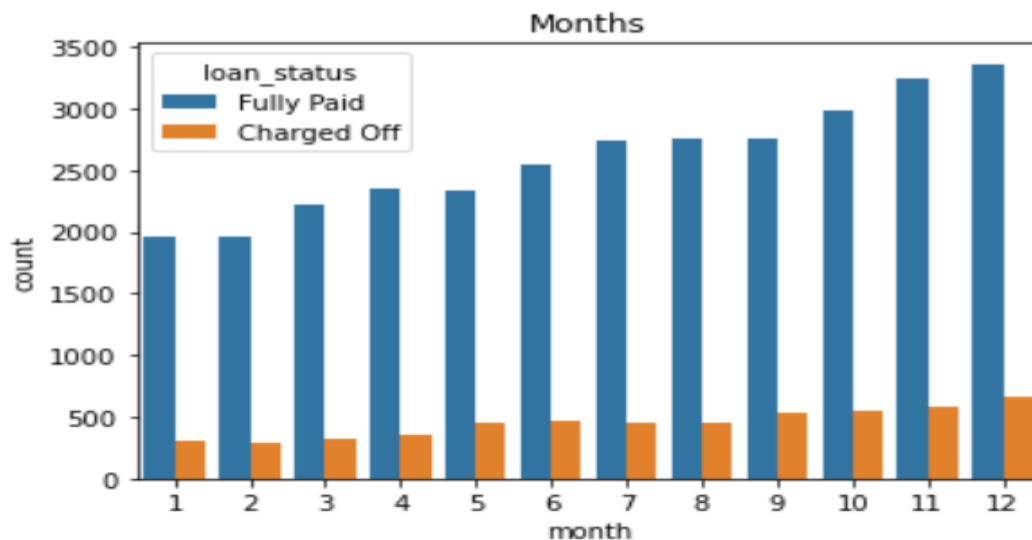


People who are not verified have higher chances of loan charged off

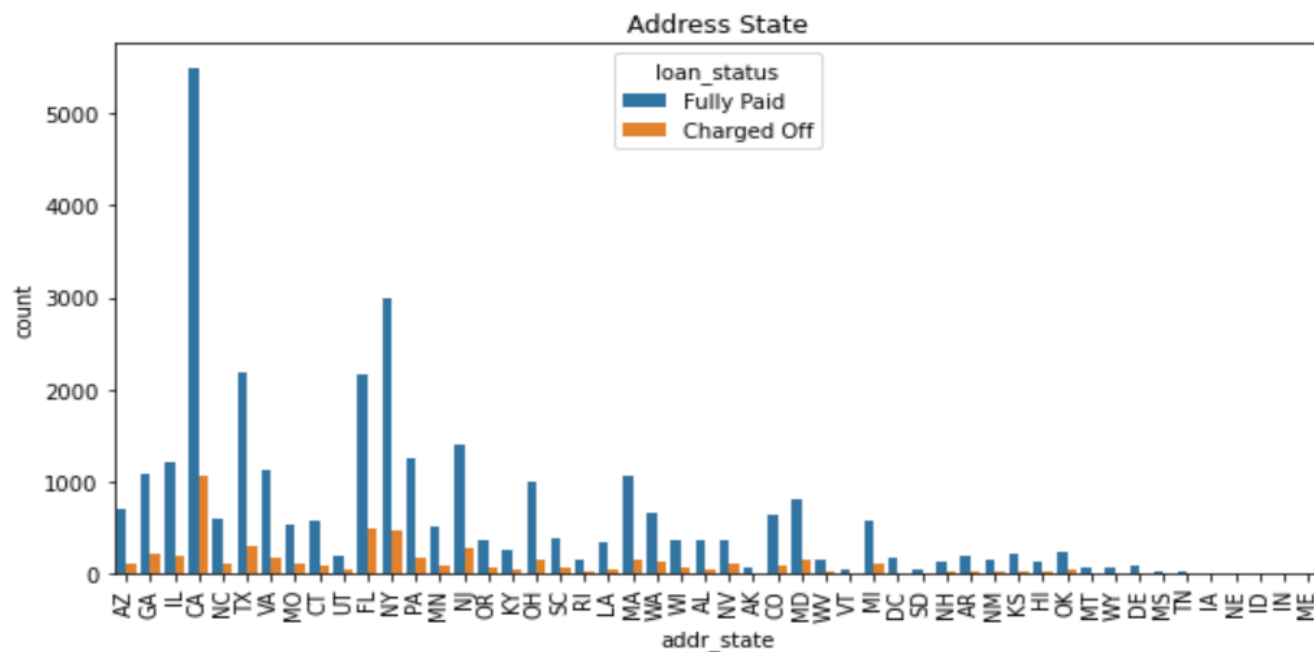




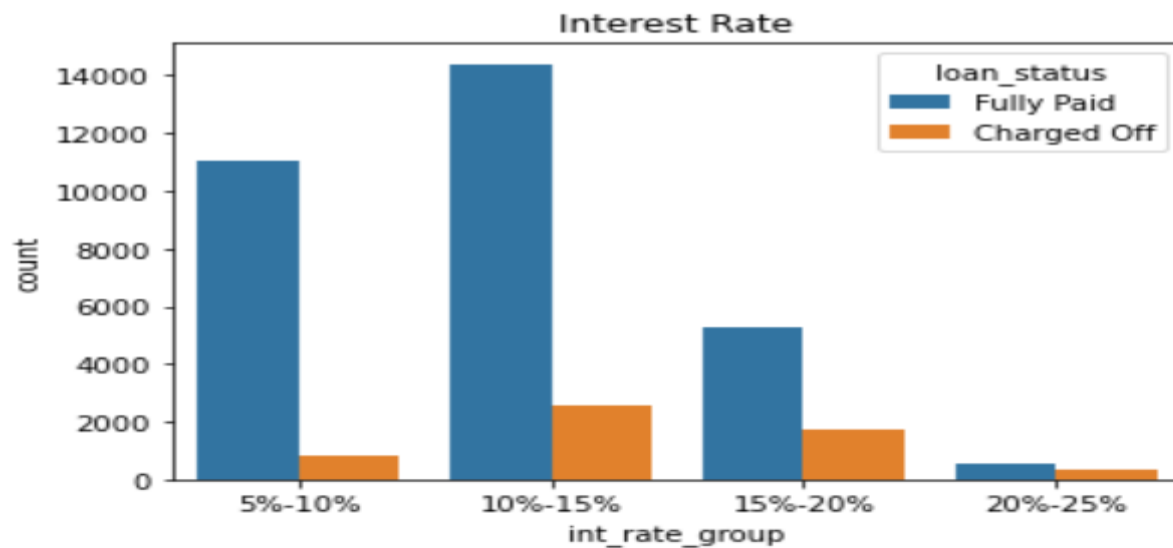
Loans given in 2011 charged off more while comparing with other years



Loan given in December month charged off more while comparing with other months

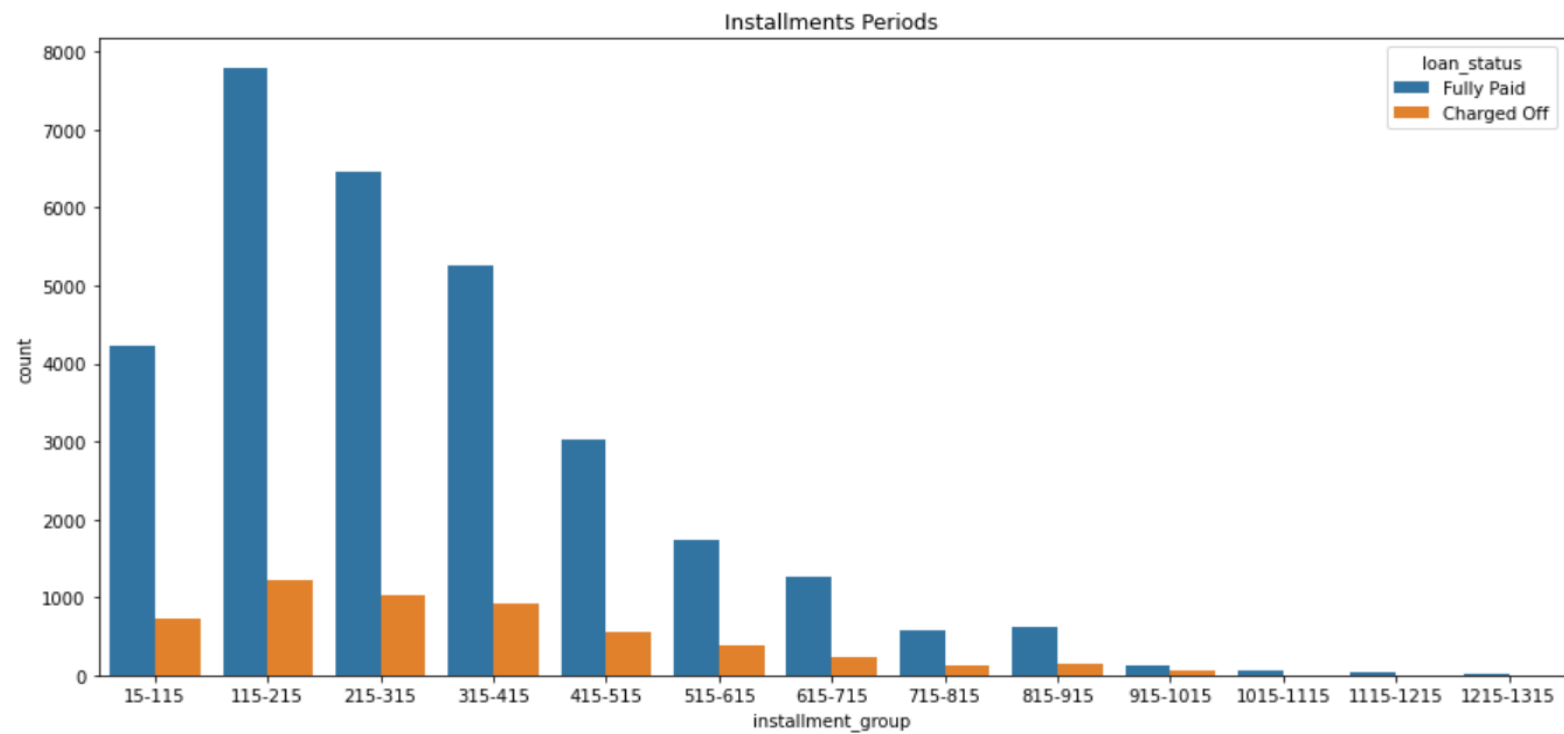


CA state has charged off more loans while comparing it with other states

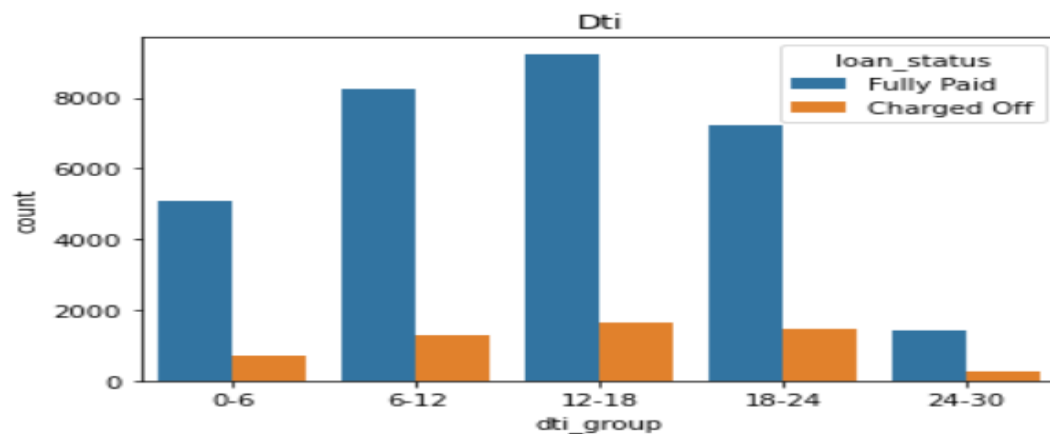


Loan provided on Interest rate between 10-15% charged off more



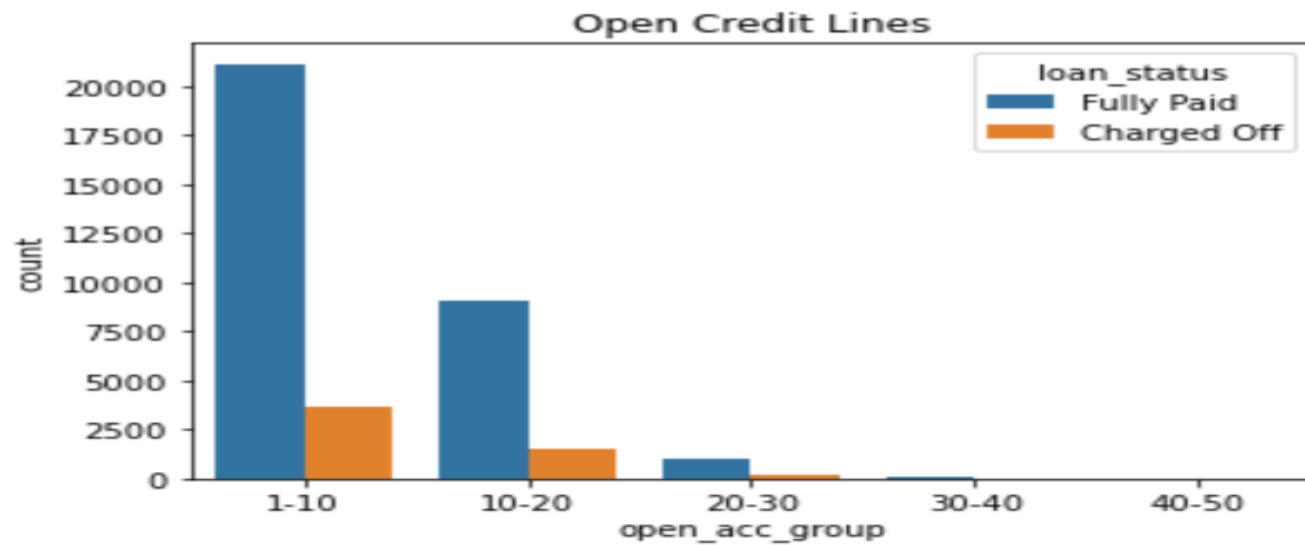


Charged off loans are more when installment is in between 115 and 215

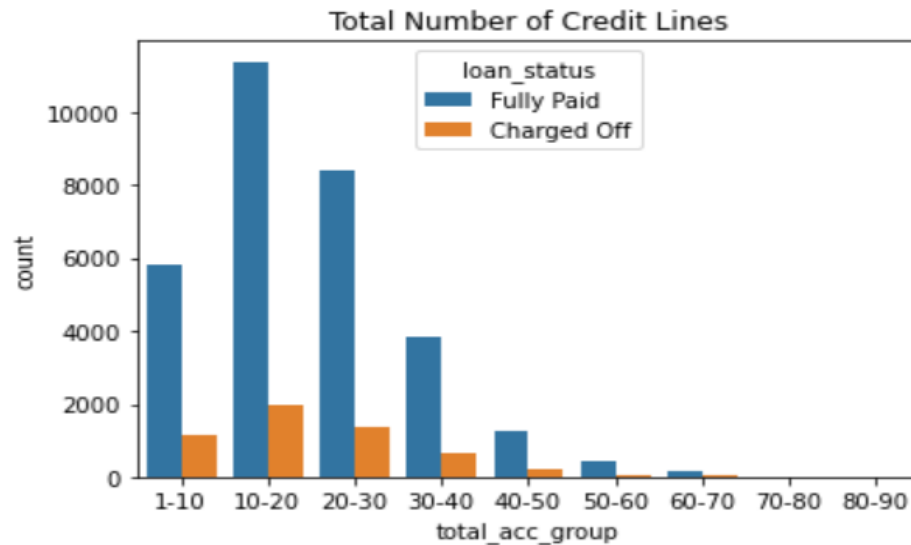


Charged off loan are more when dti is in between 12 and 18



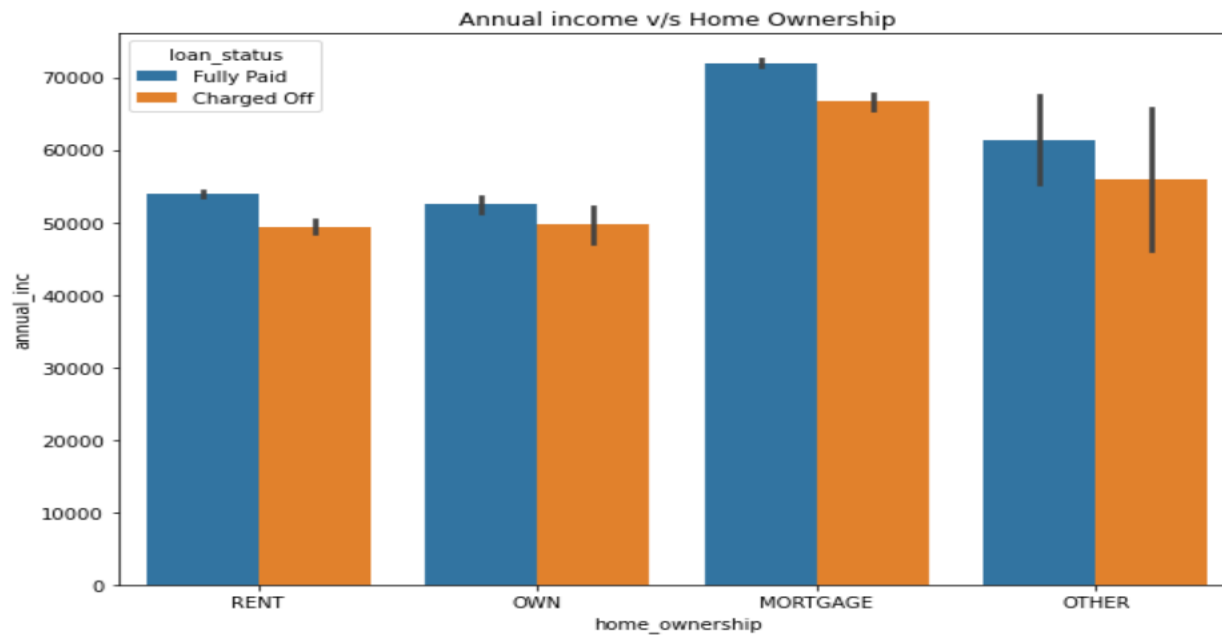


Charged off loans are more where open credit lines is in between 1 and 10

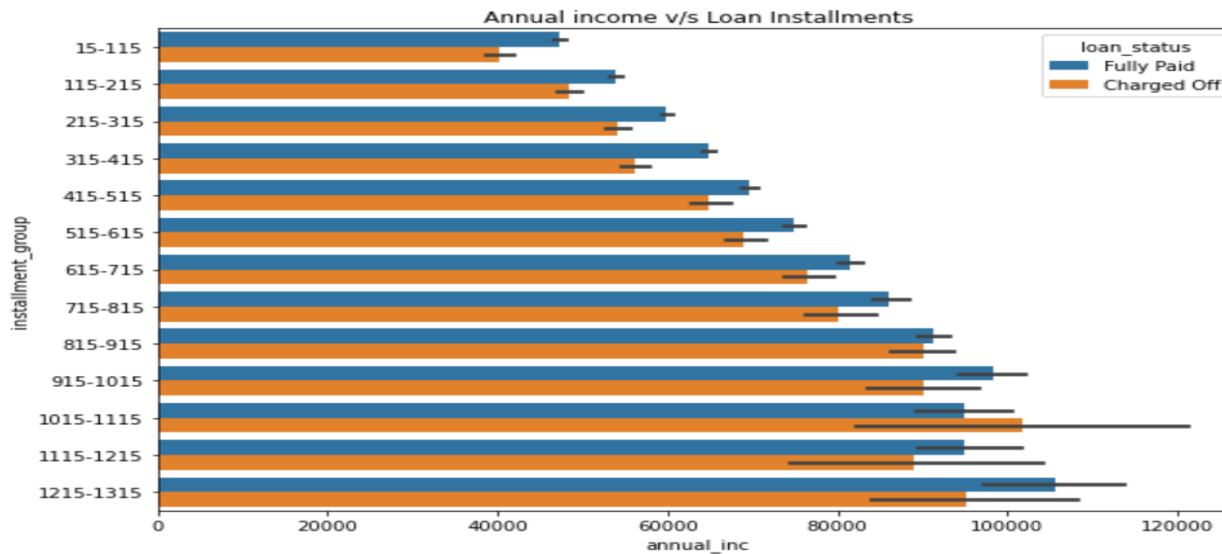


Charged off loans are more when Total number of Credit Lines is in between 10 and 20



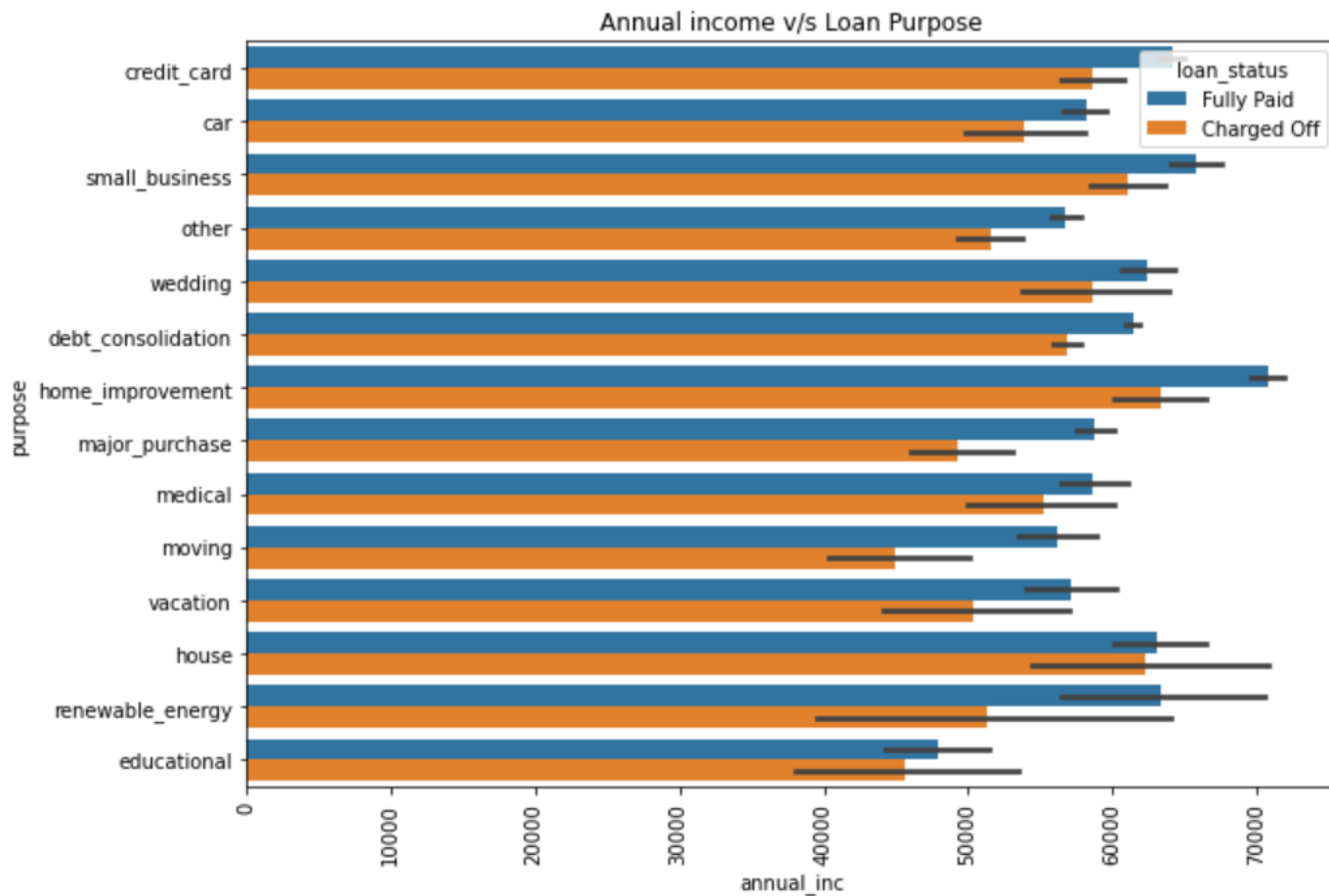


Charged off is more when home ownership is Moratage and annual income is in between 60k to 70k



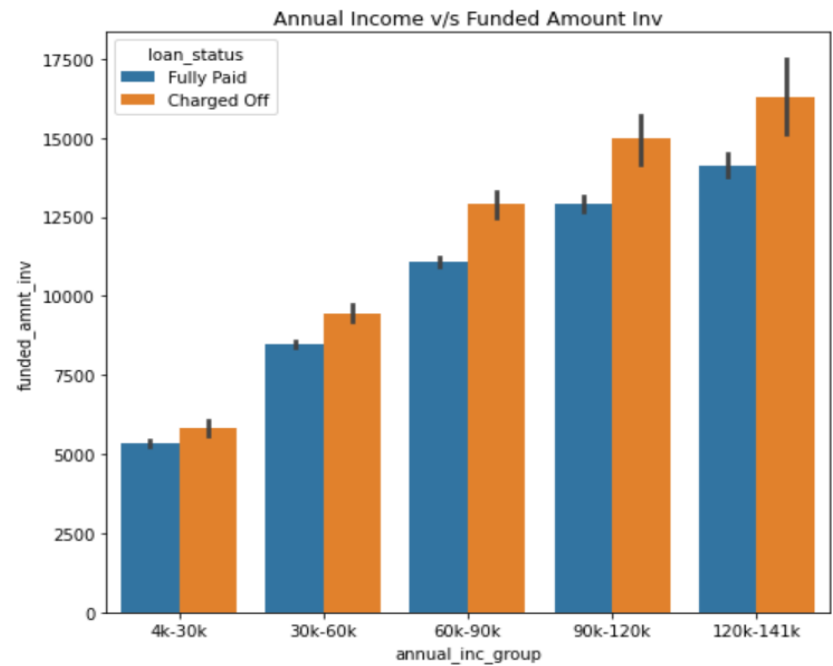
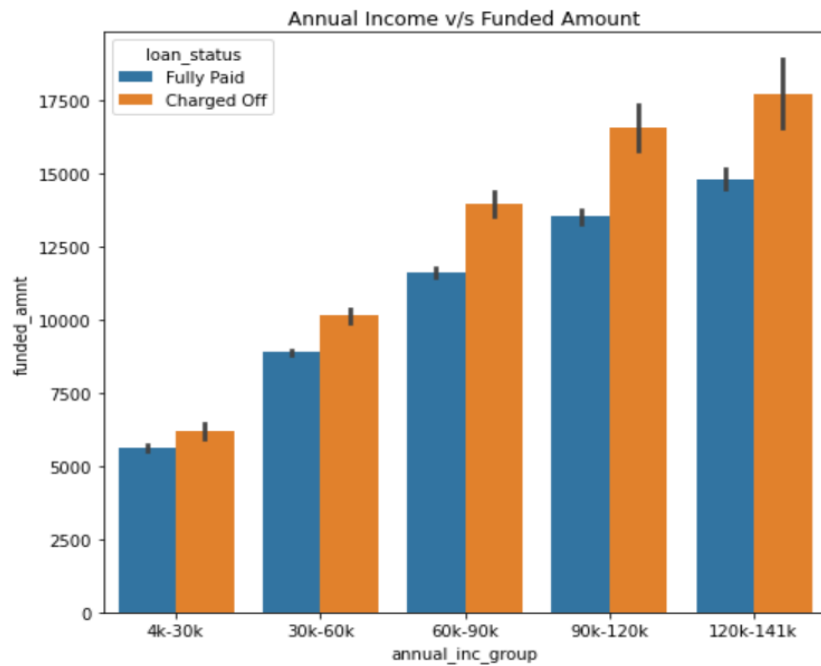
Charged off is more when installment is in between 1015-1115 and annual income is above 100000



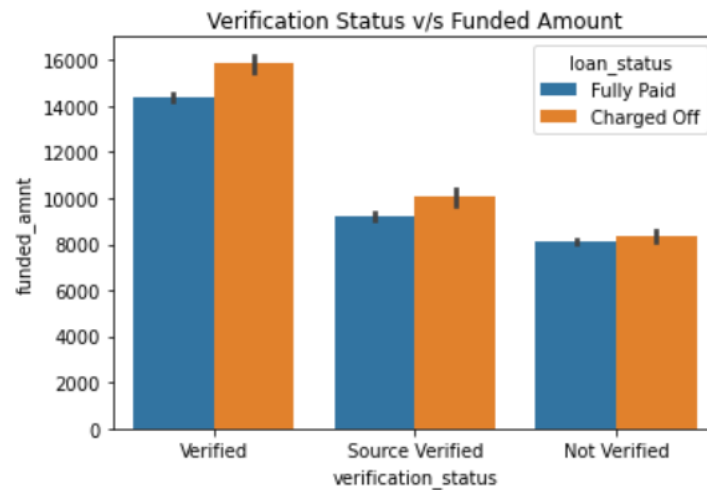


Charged off is more when purpose is home improvement and annual income is in between 60k to 70k



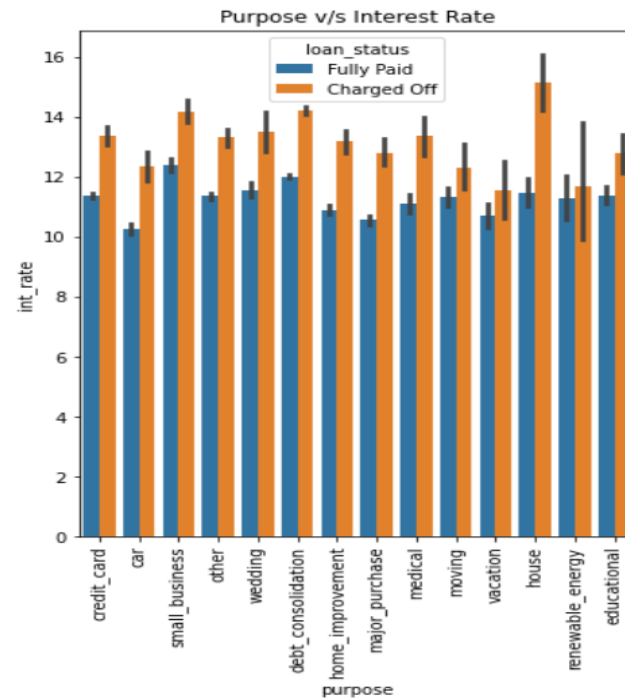
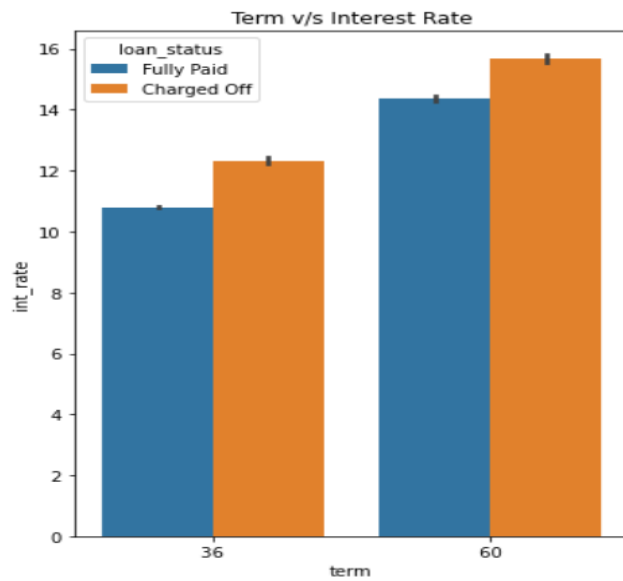


Charged off loan are more when Funded Amount and Funded Amount Inv is in between 15000-17500 and Annual Income is in between 120k-141k

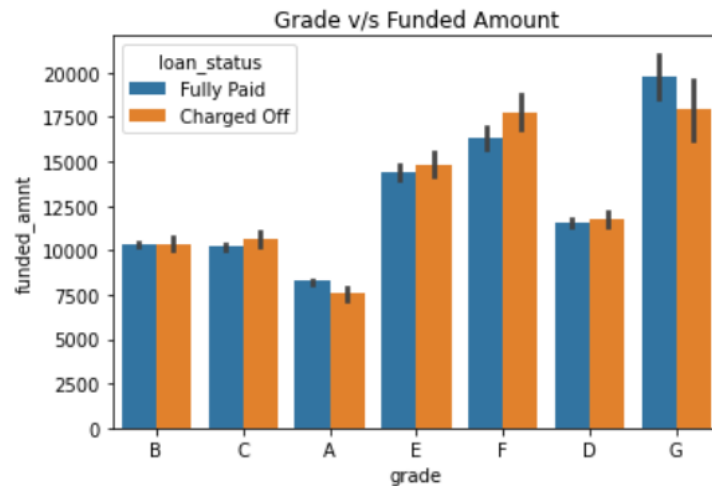


Charged Off loans are more when Funded Amount is between 14000-16000 and verification status is Verified





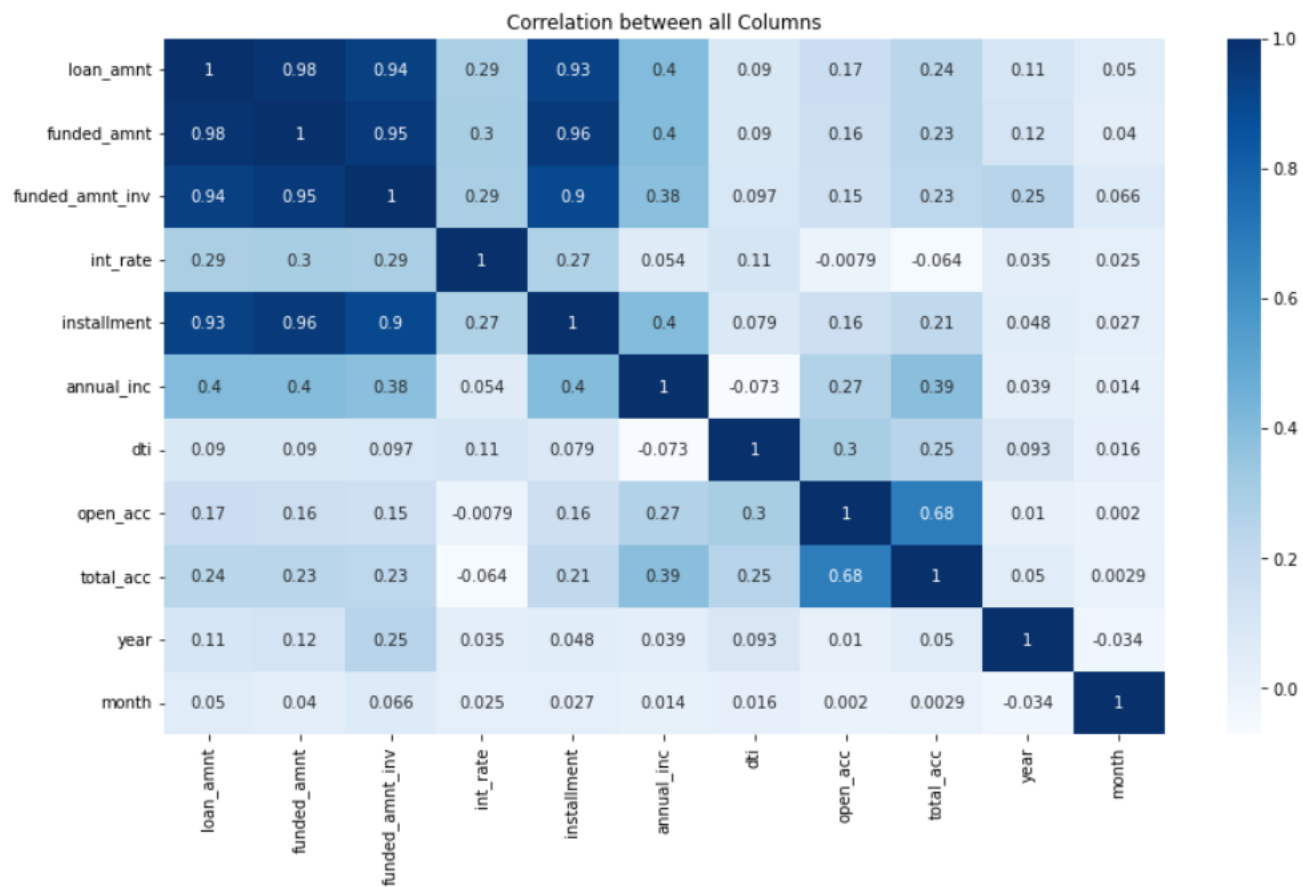
Charged off loan are more when interest is higher for both the tenure and purpose is house



Grade F and G charged off more for Fund Amount greater than 17500







Above Graph helps us to find the correlation between all the columns



# RECOMMENDATION FOR REDUCING Charged Off Loans

- Lending Club could reduce the loan interest
- Loan given for debt consolidation purpose could be reduced
- Loan given to the people having 10+ years of employment should be done carefully
- Loan provided to the people in state of CA should be reduced.
- Loan provided to people having home ownership as mortgaged should be reduced
- Loan Approval Ratio should be reduced
- Investigation need to be done before providing the loan to Grade B especially B5 sub grade
- Verification should be done before providing the loan
- Loan given to people having annual income between 60k-70k should be reduced



Thank You

