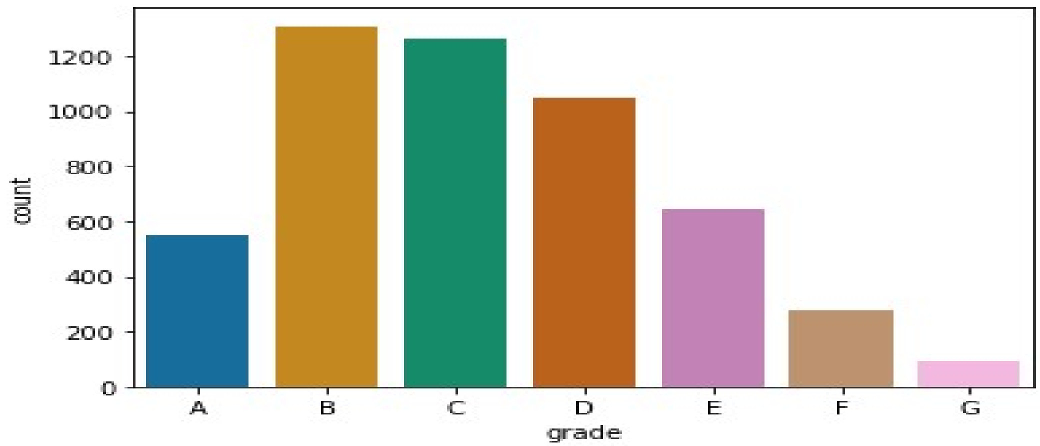
Lending Club Case Study

Problem Statement

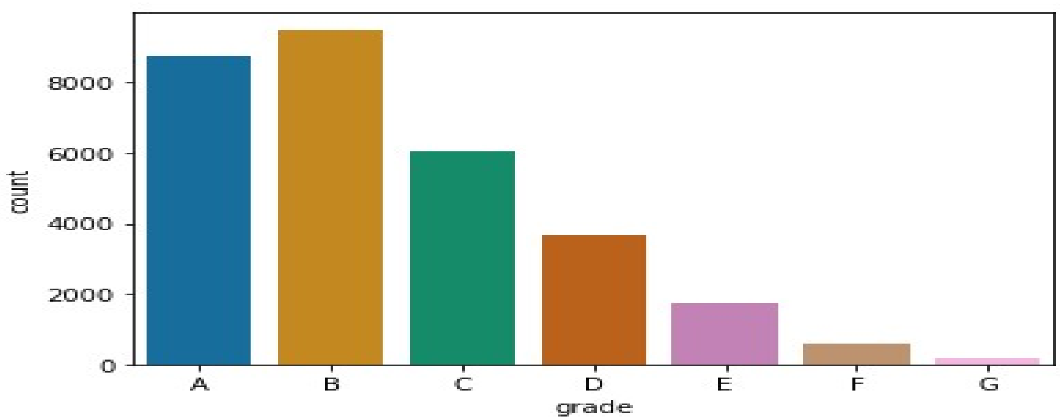
Like most other lending companies, lending loans to 'risky' applicants is the largest source of financial loss (called credit loss).

Credit loss is the amount of money lost by the lender when the borrower refuses to pay or runs away with the money owed

- Driving factors (or driver variables) behind loan default
- Analyse the Features and their relation with target variable
- Understand the underlying reasons for loan defaults
- Identify high-risk individuals or groups that are more likely to default on their loans



Defaulters

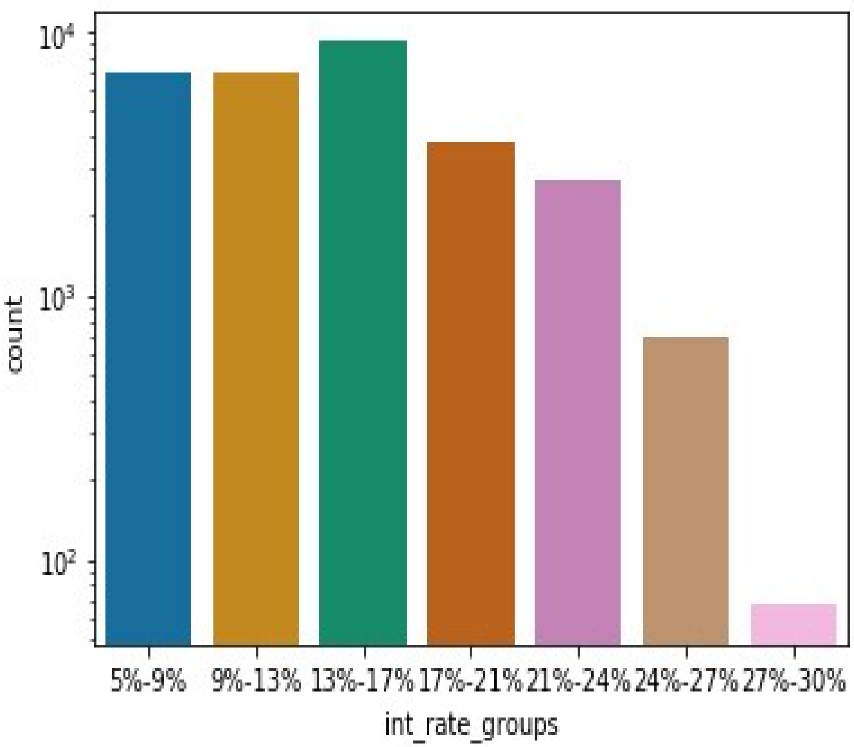


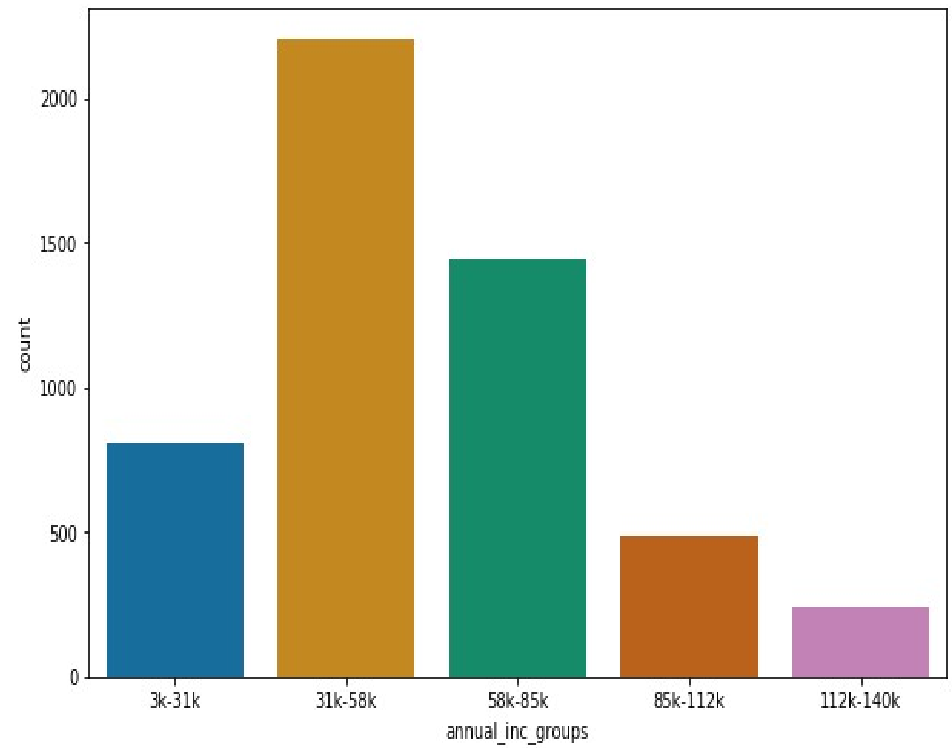
Paid Off

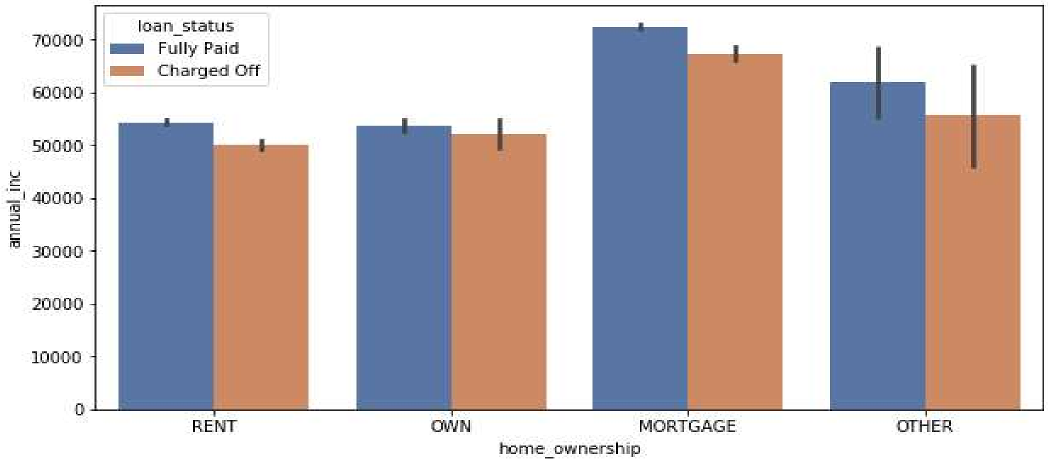
For applicants who defaulted we have majority loans categorized as grade B, C, D

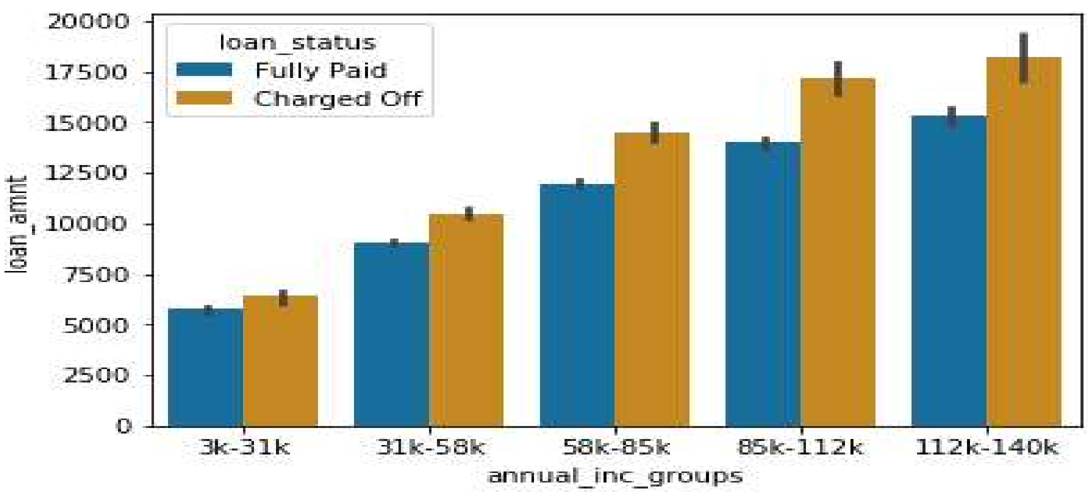
For applicants who Paid off we have majority loans Categorized grade A, B, C

Applicants who receive interest at the rate of 13-17% and have an income of range 31k - 58k are more likely to default



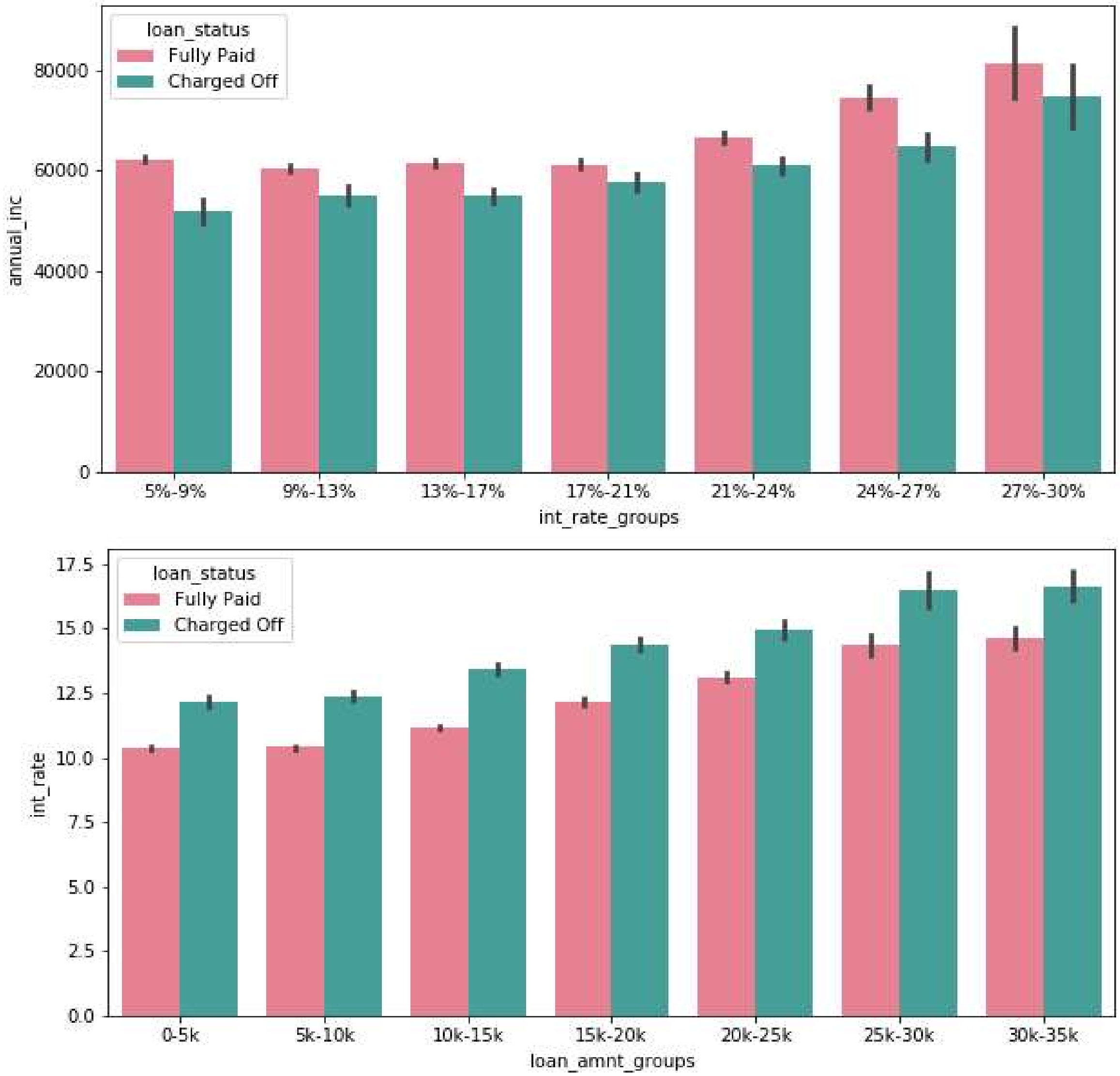




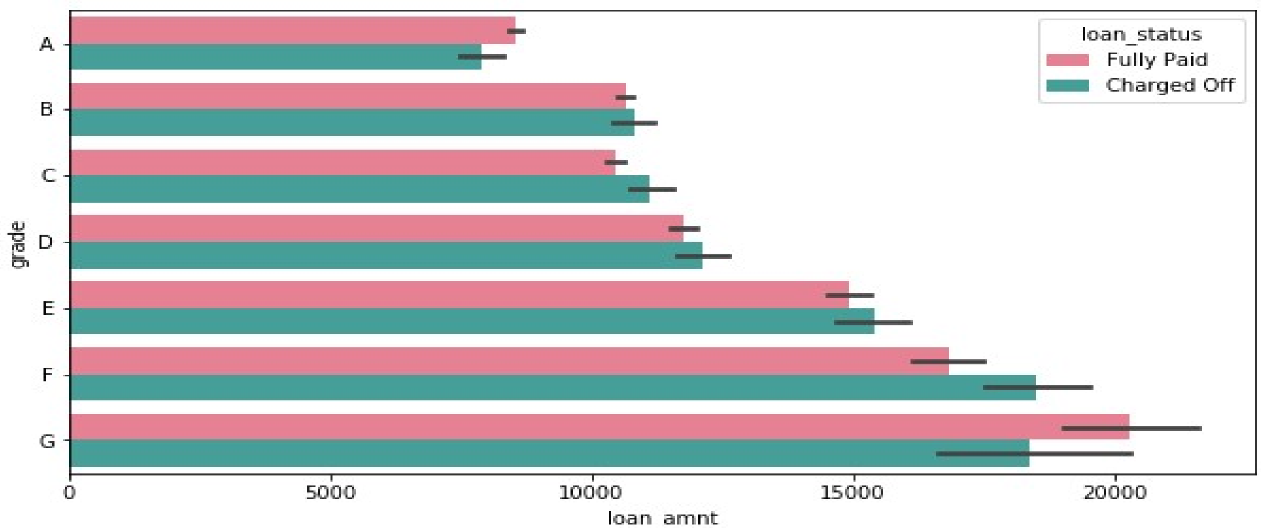


Applicants with higher salary mostly applied loans for "home_improvment", "house", "renewable_energy" and "small_businesses“

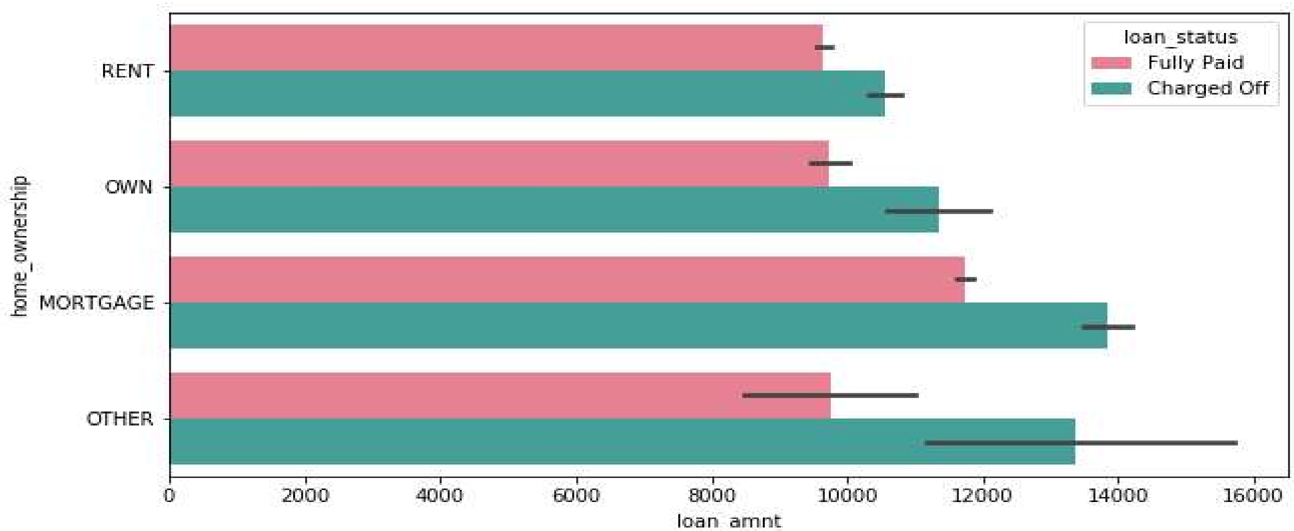
Across all the income groups, the loan_amount is higher for people who defaulted



Applicants who have taken a loan in the range 30k - 35k and are charged interest rate of 15-17.5 % are likely to default

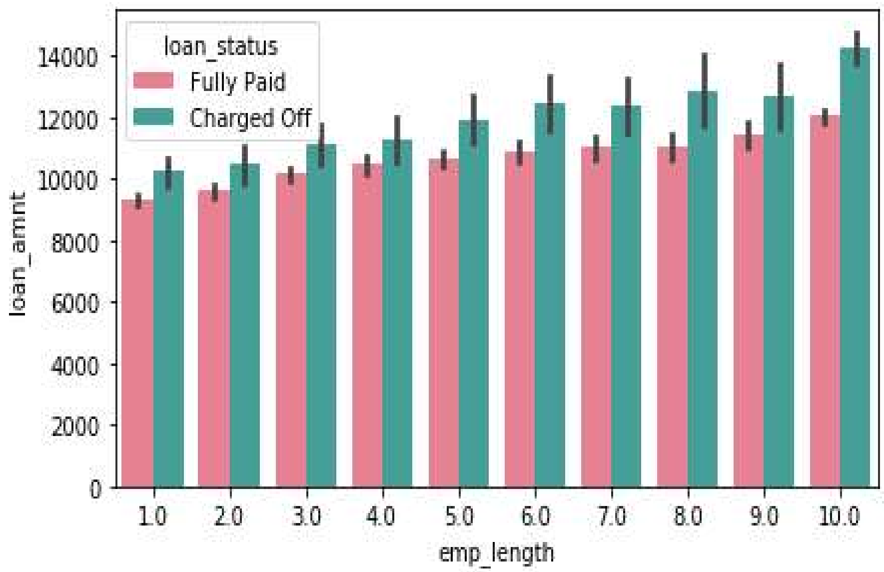


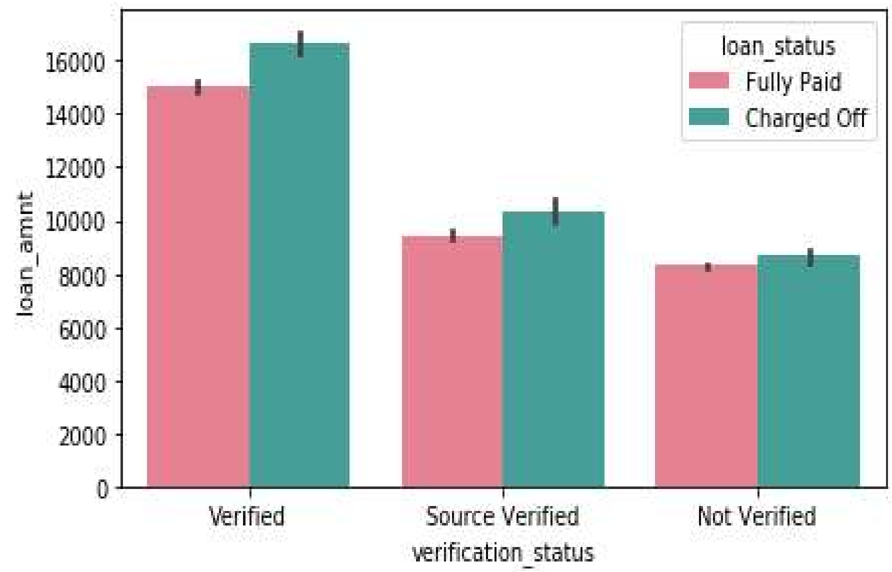
When grade is F and loan amount is between 15k-20k



Applicants whose home ownership is 'MORTGAGE and have loan of 14-16k

Employees with longer working history got the loan approved for a higher amount. Looking at the verification status data, verified loan applications tend to have higher loan amount. Which might indicate that the firms are first verifying the loans with higher values.





When the loan is verified and loan amount is above 16k