

Lending Club Case Study

EXPLORATORY DATA ANALYSIS

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Problem Statement

Company Profile:

The Lending Club is one of the largest online marketplace for the loans. Consumer can easily apply for the loans in various categories. The loans are funded by Investors based on the Credit ratings of the Customers.

Problem:

Lots of loans are Defaulted and Charged Off. The company wants to understand the driving factors behind loan default. The company can utilize this knowledge for its portfolio and risk assessment to make better decisions.

Objective:

As a Data Analyst, perform EDA to understand driving factors (or driver variables) behind loan default, i.e. the variables which are strong indicators of default.

Data Availability

The historical data available contains the information about past loan applicants and whether they 'defaulted' or not. The dataset does not contain any information for the loans which were 'NOT Approved'.

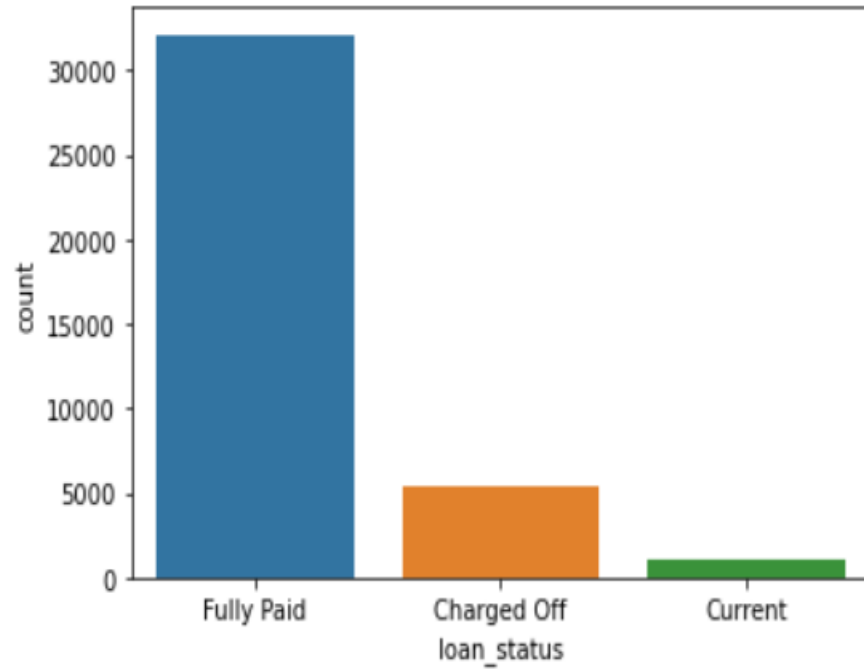
The provided dataset can be analyzed using Exploratory Data Analysis (EDA) technique.

Datasets provided:

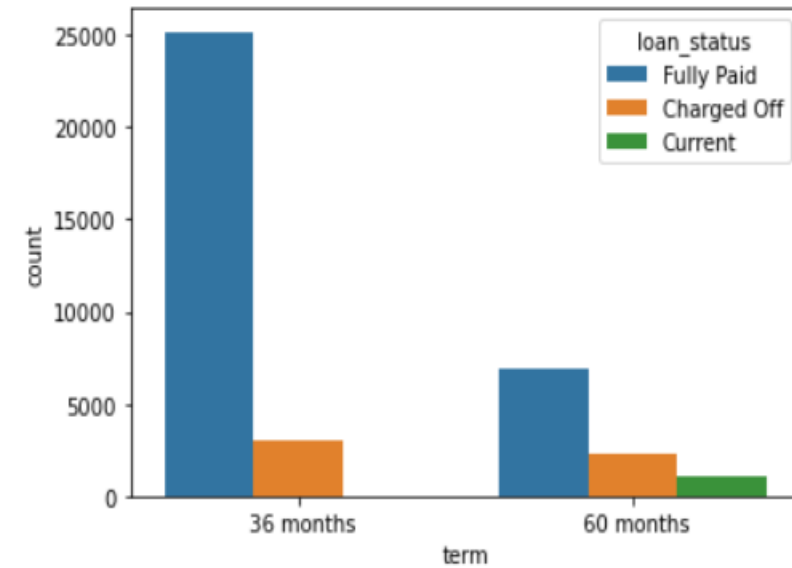
- loan.csv The historical data for the approved loans which have either been fully-paid or Charged Off. It is in comma separated value (csv) file format
- Data_Dictionary.xlsx Contains information about the various columns. It is required for Data Understanding. It is in excel format.

Analysis

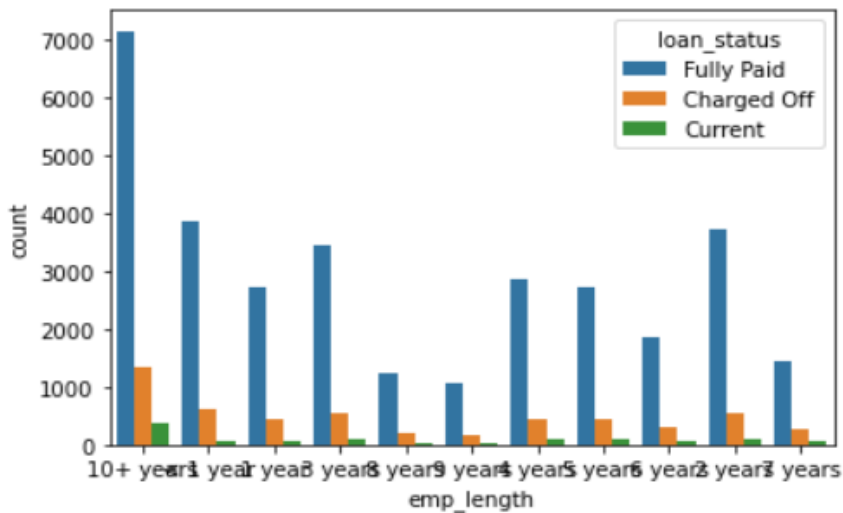
Approx 15 % of the loan are charged off.
Removing current from the analysis
because loan is already been given.



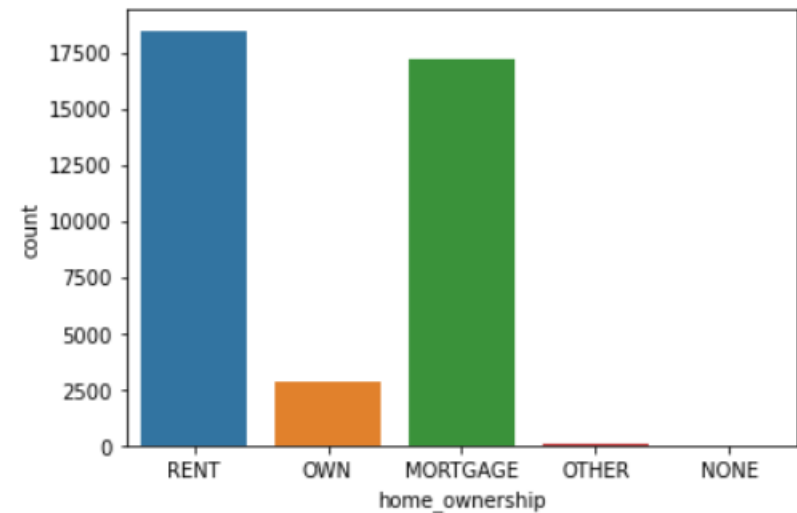
Most of the loan applied for 36 months



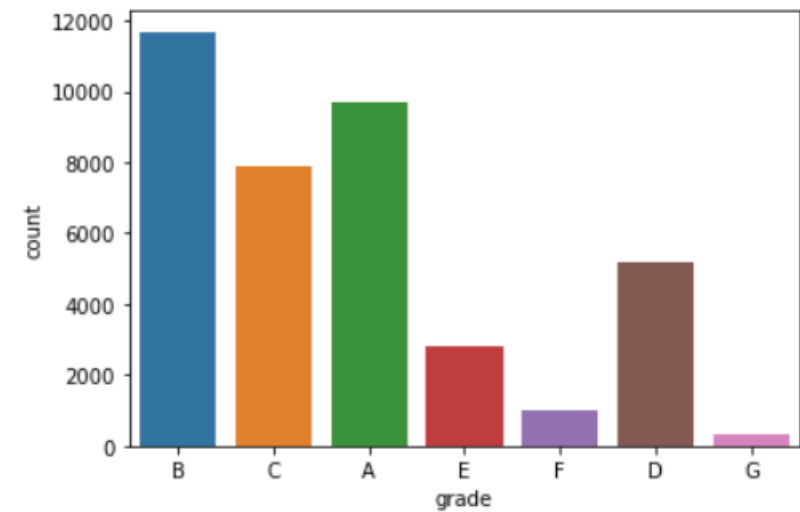
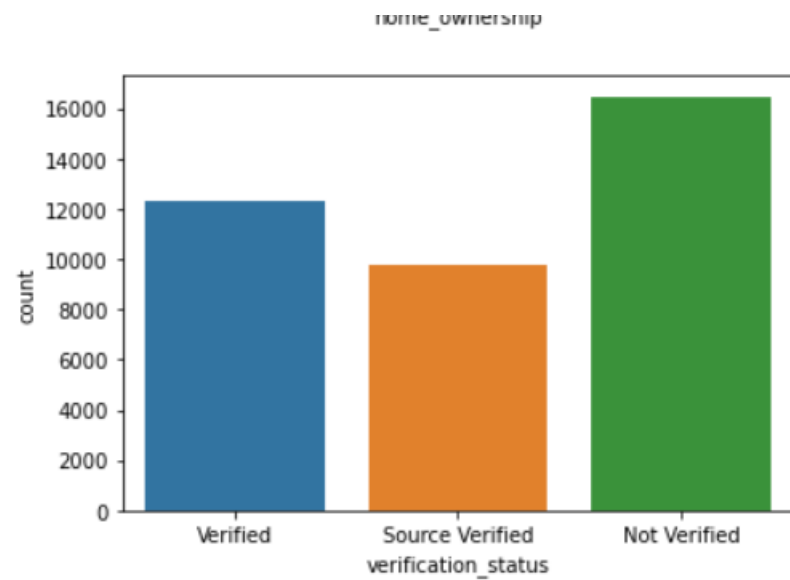
most of the loans have been applied for individuals having employment over 10 or more years.



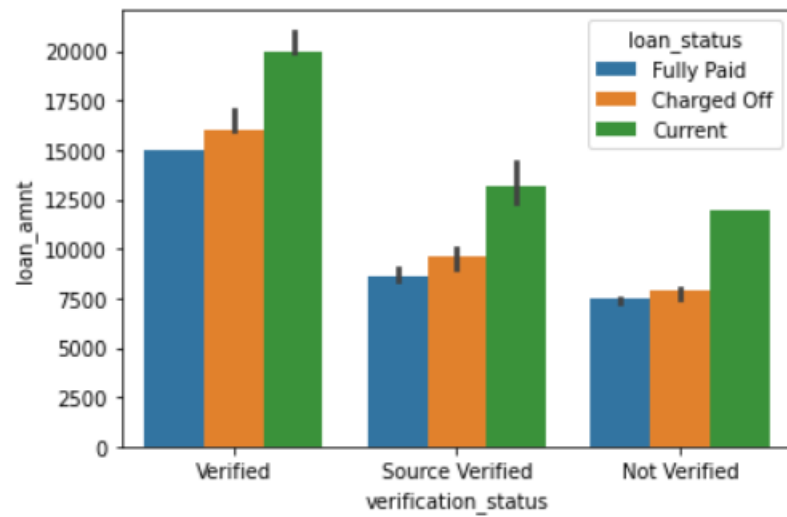
There is more chance of defaulting loan when Applicants having house ownership as 'RENT'



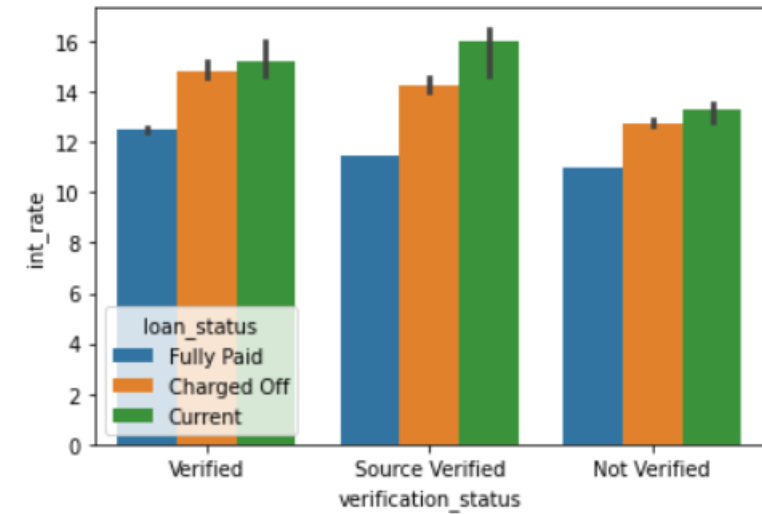
There is more chance of defaulting loan when Applicants is not verified and Grade is B



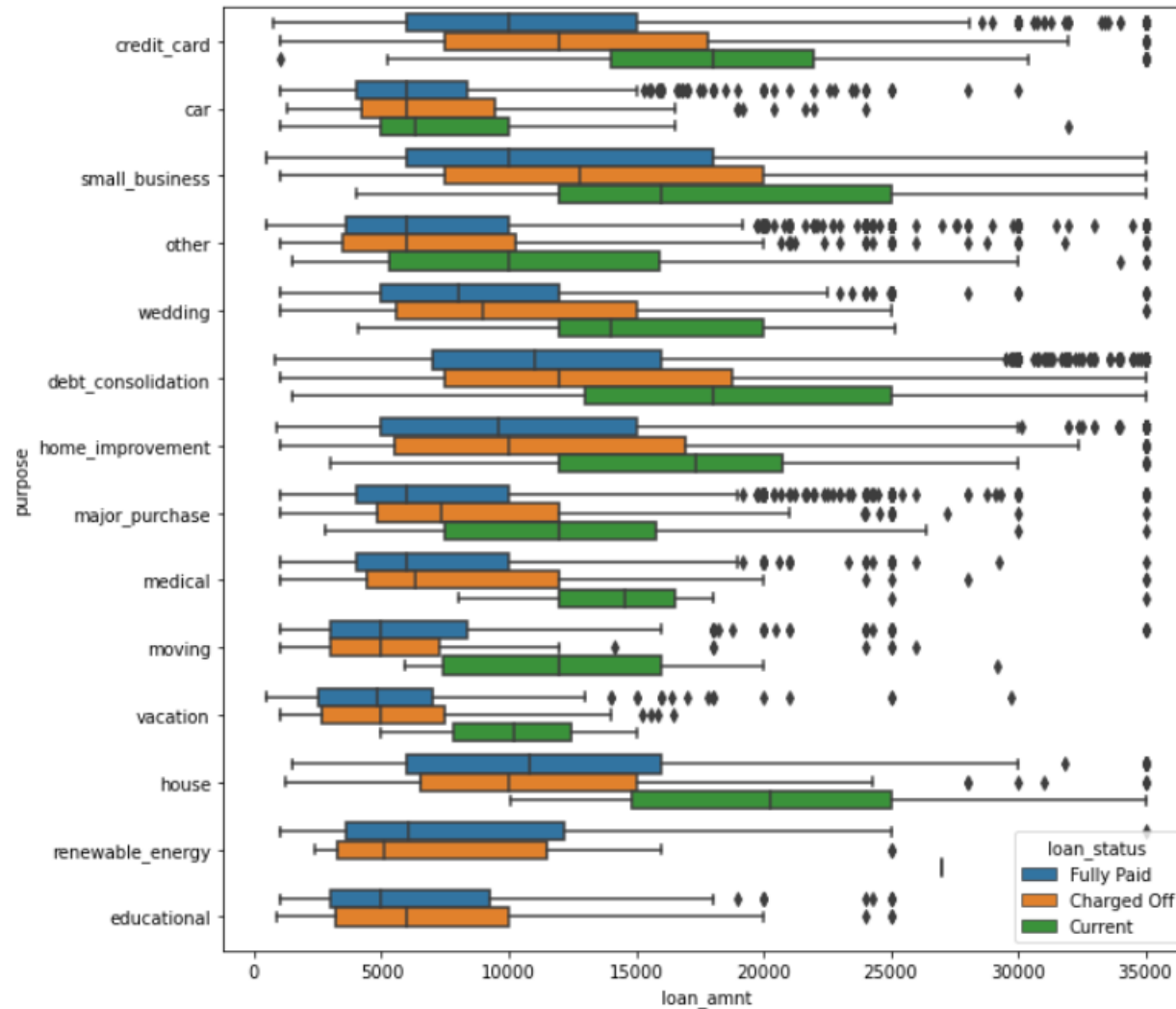
The individuals who have been verified have chances of getting higher loan amount



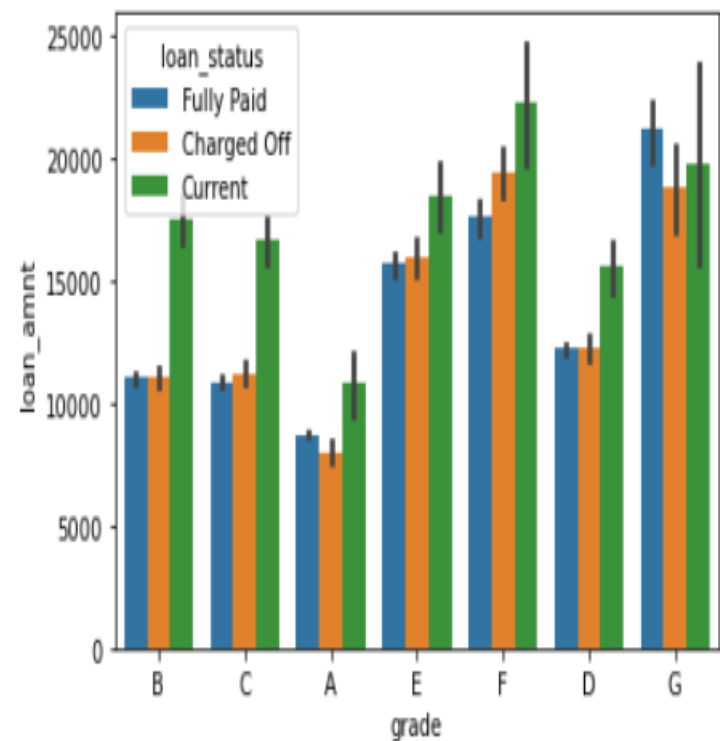
Charged off loans have higher interest rate than fully paid



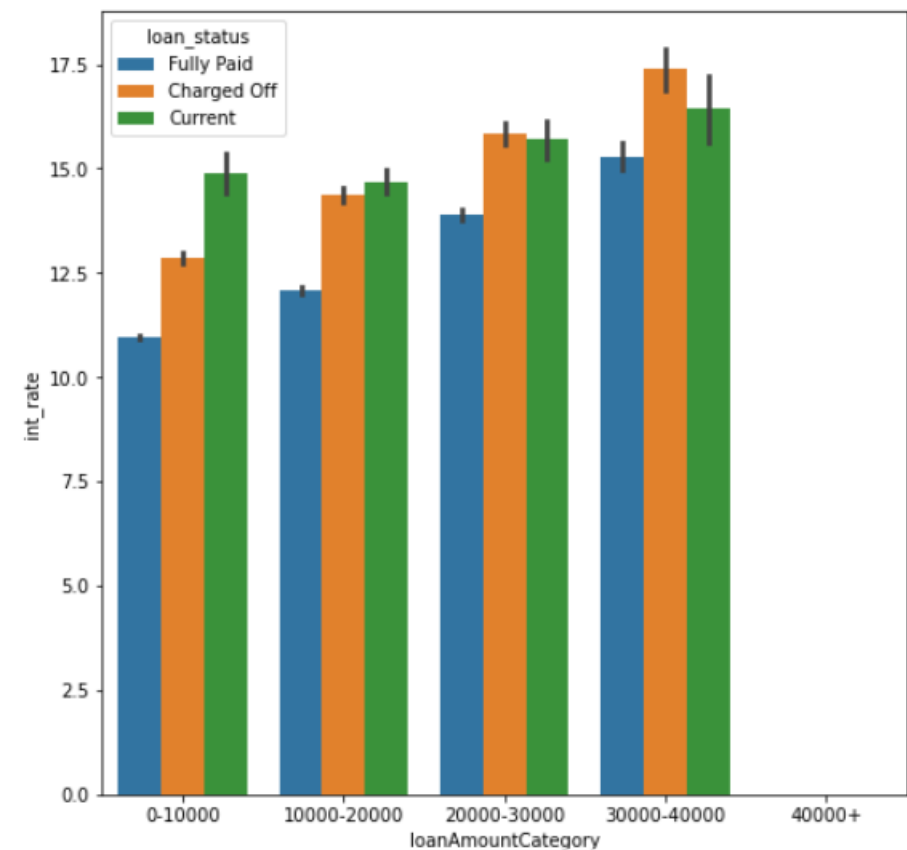
Most of the chargedOff loans are from credit card, debt consolidation ,Small Business. In other words, we can say that ,lending to above carries more risk than other business purpose



It seems that the grade are assigned based on the loan amount. Which indicates that the loan amount is charged off with the higher loan amount



The charged off loans also increases with increase in Loan amount and interest rates. So there is more chance of default with higher loan amount & higher interest rate



Thank you