Lending Club Case Study

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Abstract

● Lending club is the largest online loan marketplace, facilitating personal loans, business loans, and financing of medical procedures.

● Borrowers can easily access lower interest rate loans through a fast online interface.

● The objective of analysis is to use the information about past loan applicants and find whether they 'defaulted' or not

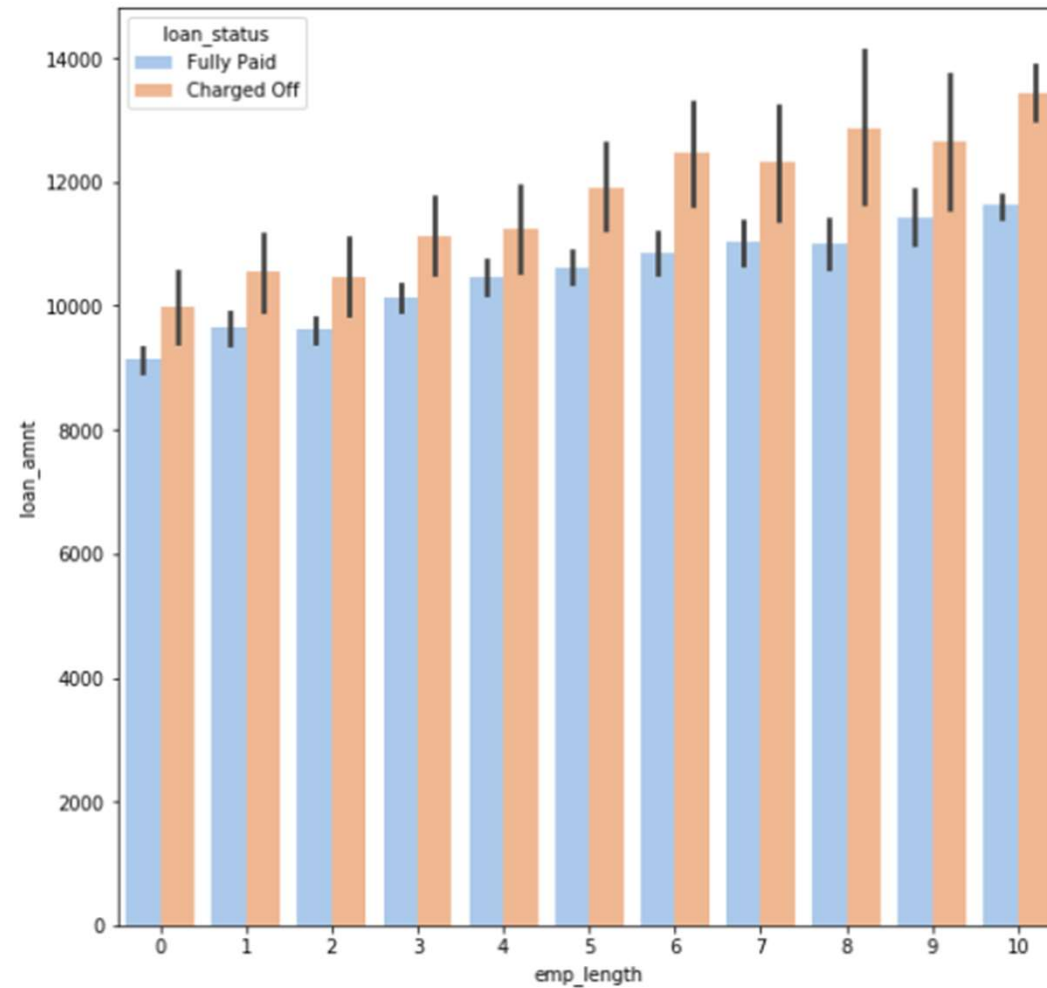# Problem Solving Methodology

Step 1: Data Cleaning 1

Step 2: Univariate Analysis
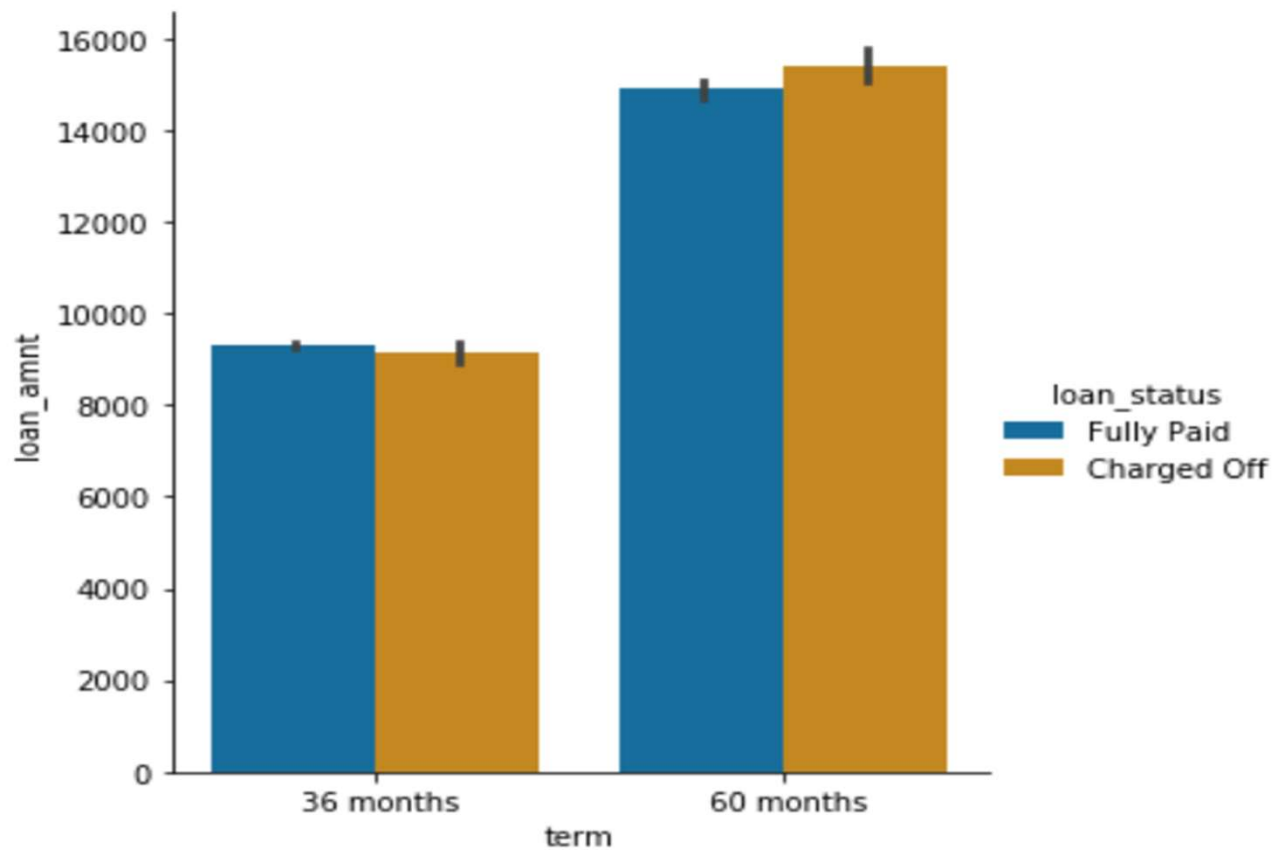
Step 3: Segemented Univariate Analysis

Step 4: Bivaraiate/Multivariate Analysis

Step 5: Results

Employees with longer working history got the loan approved for a higher amount.

Applicants who applied and defaulted have no significant difference in loan_amounts Which means that applicants applying for long term has applied for more loan.

The interest rate for charged off loans is pretty high than that of fully paid loans in all the loan_amount groups. This can be a pretty strong driving factor for loan defaulting.
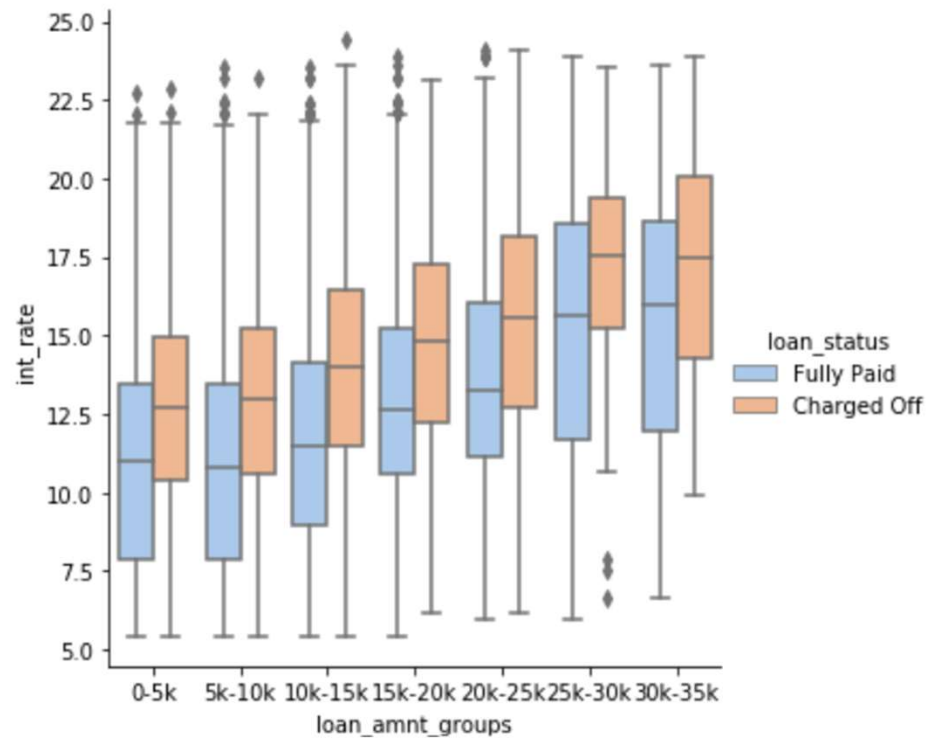
There is a more probability of defaulting when :

• Applicants taking loan for 'home improvement' and have income of 60k -70k

• Applicants whose home ownership is 'MORTGAGE and have income of 60-70k

• Applicants who receive interest at the rate of 21-24% and have an income of 70k-80k

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

• Applicants who have taken a loan for small business and the loan amount is greater than 14k

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

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

• When employment length is 10yrs and loan amount is 12k-14k

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

• For grade G and interest rate above 20%