

Lending Club Case Study

Richa Sharma

Lending Club Case Study

Problem Statement

- Lending Club is the largest online loan marketplace
- Largest source of financial loss is lending to risky applicants
- Lending Club needs to identify some driving factors behind loan default so that such loans can be reduced to avoid credit loss.

EDA on Lending Club data

Analysis

- A few loan variables and consumer variables were chosen for analysis:
 - **Loan Attributes**
 - loan_status
 - loan_amnt
 - int_rate
 - issue_month, issue_year
 - . verification_status
 - **Consumer Attributes**
 - grade
 - emp_length
 - home_ownership
 - purpose

EDA on Lending Club Data

Steps Followed

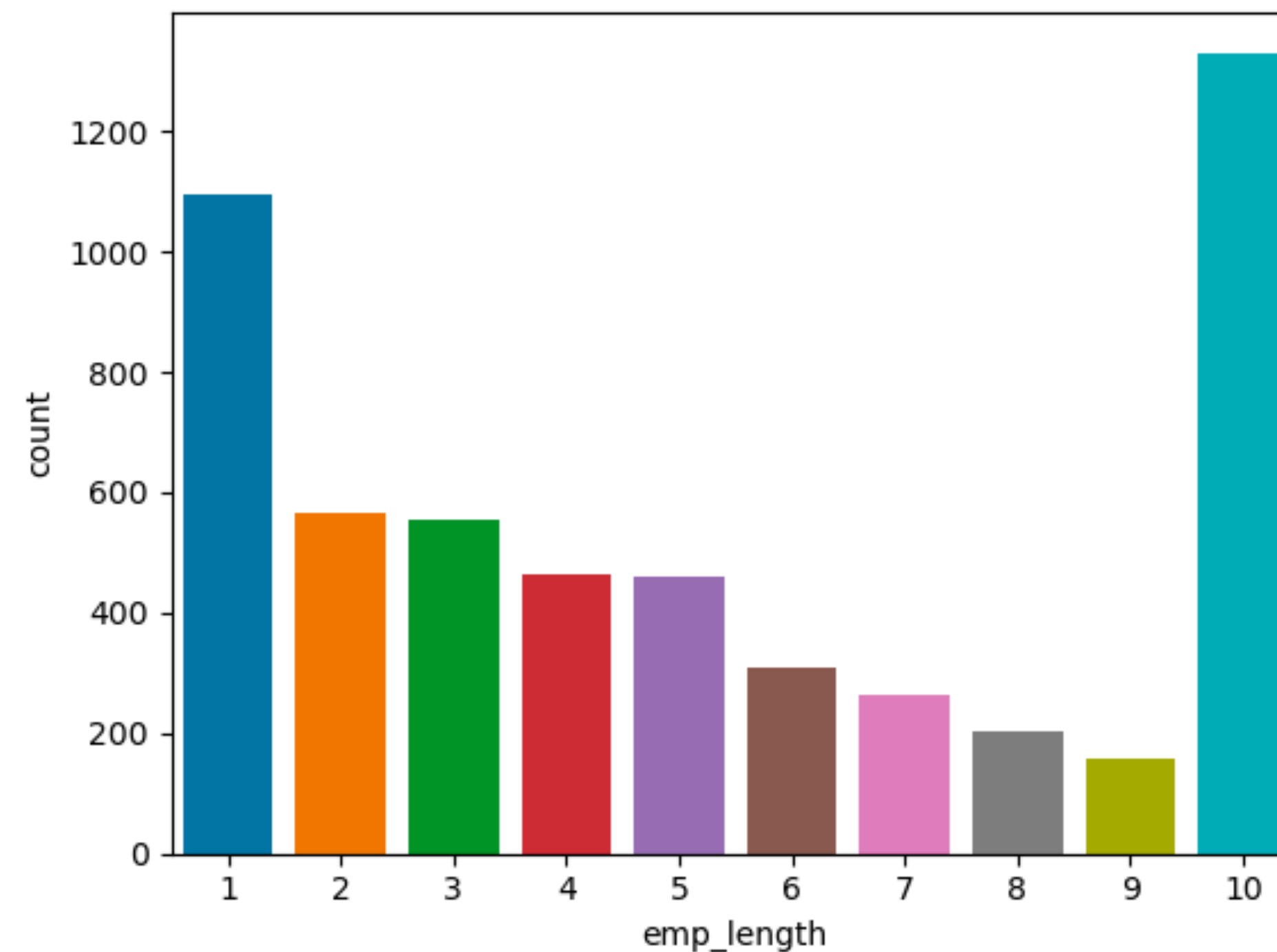
- Data cleaning -
 - null value columns dropped
 - % or extra strings removed from data to plot on graphs.
 - A few numeric variables converted to category groups for seeing trends
- Univariate and Bivariate analysis on selected variables
- Insights

EDA on Lending Club Data

Insights

- People who are new joiners or have been with the firm for long(≥ 10 years) are more likely to opt for loans and hence more likely to default. Graph dataset has only the defaulters list.

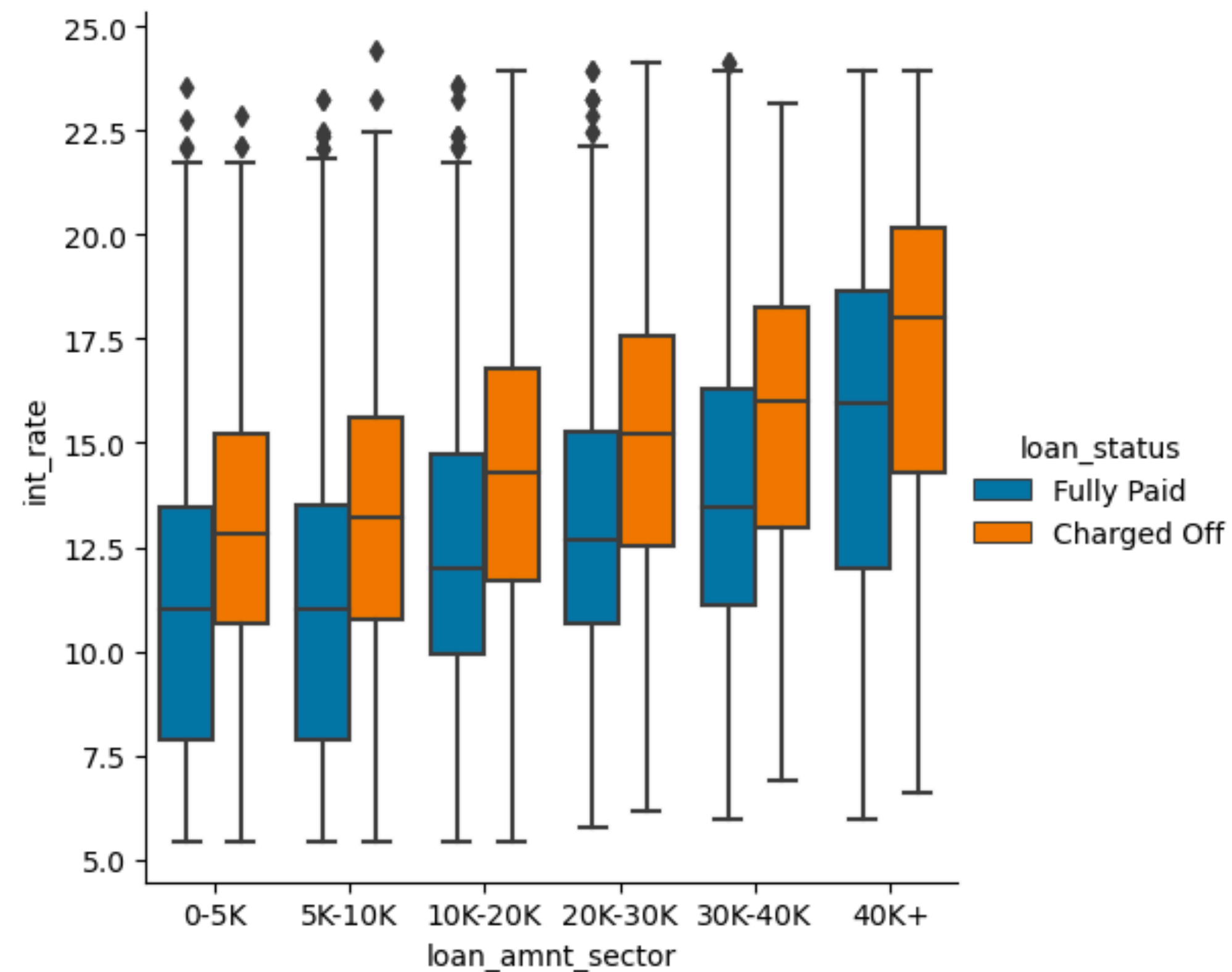
•



EDA on Lending Club Data

Insights

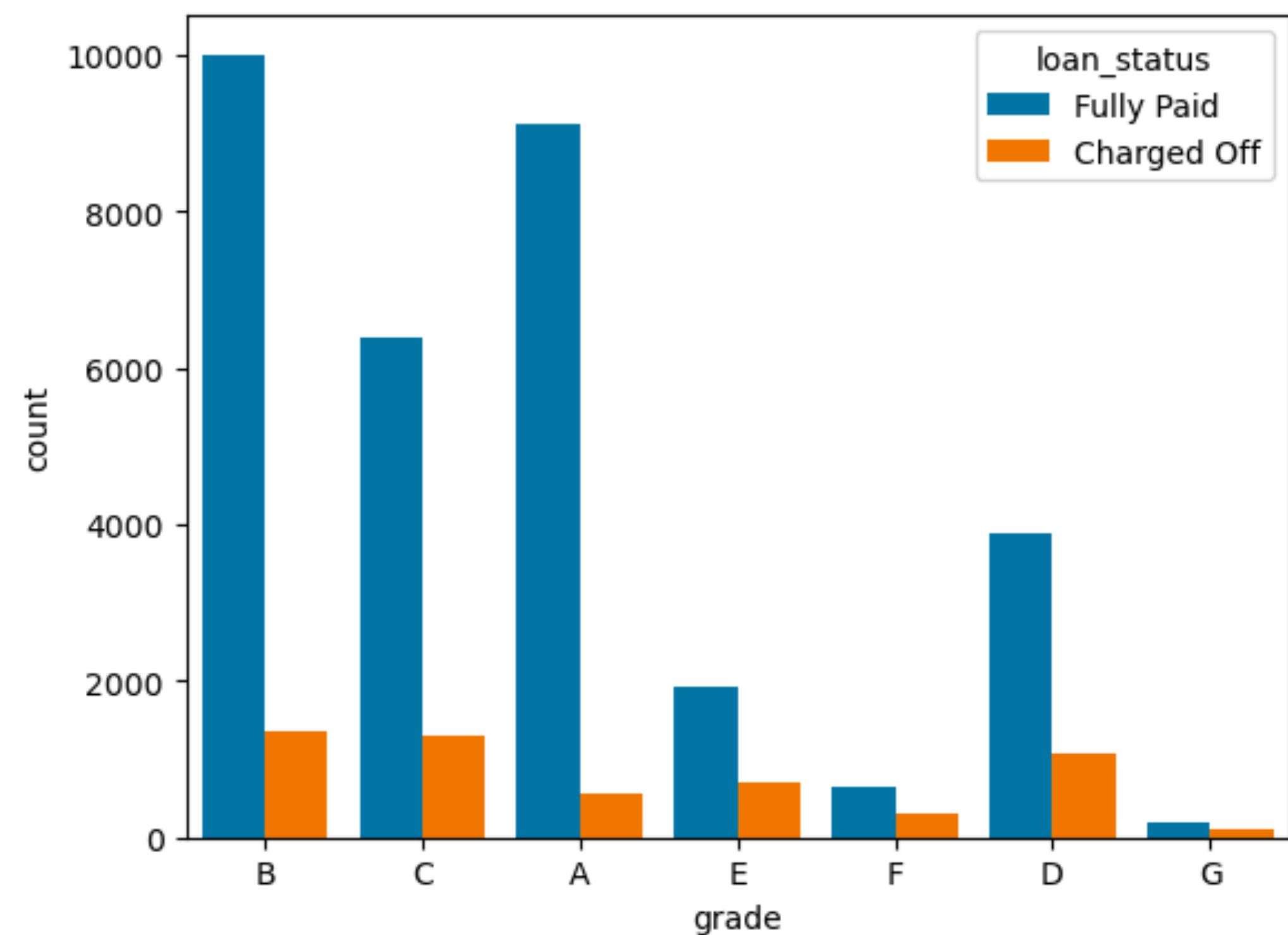
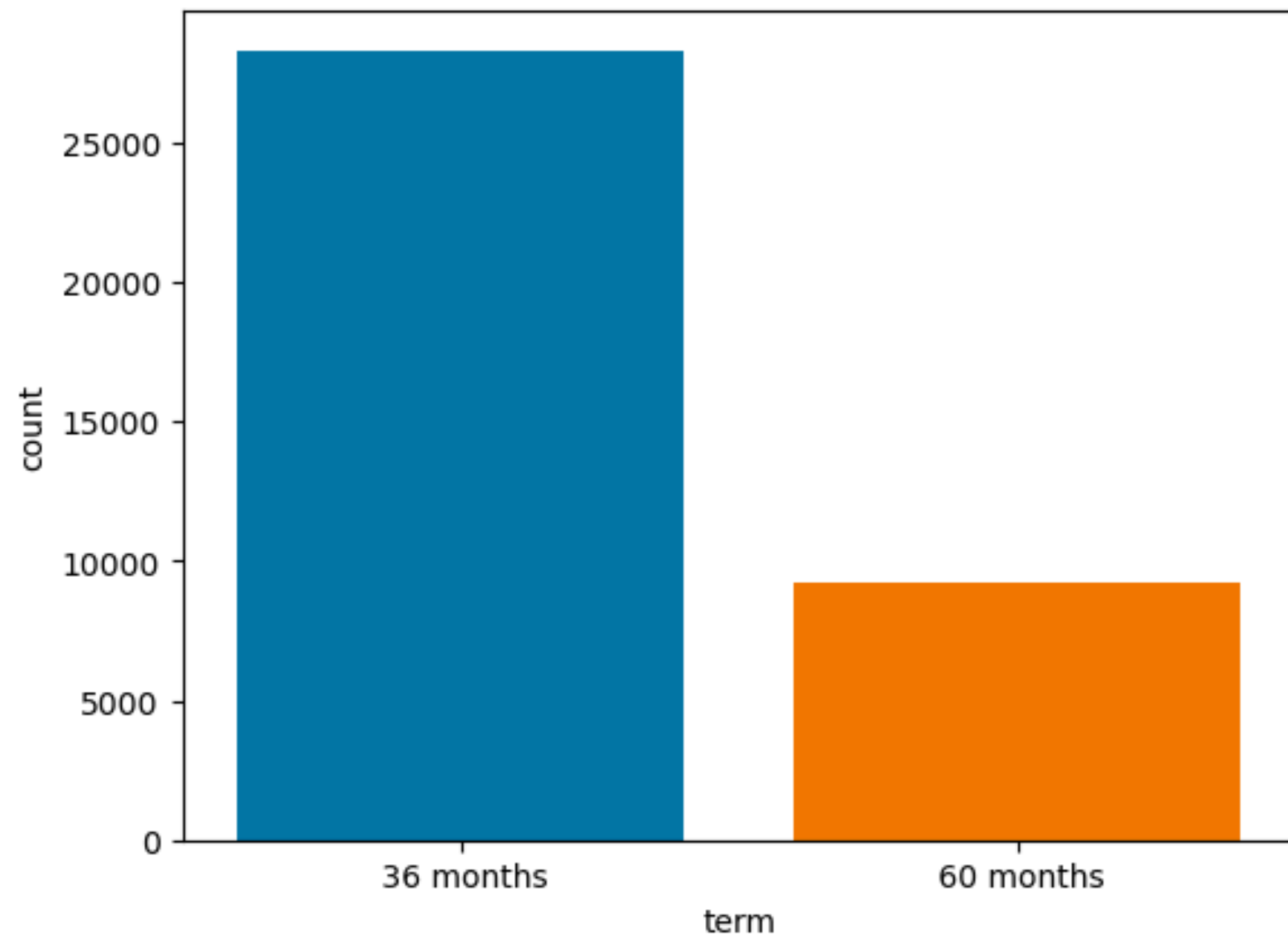
- Rate of default increases as the interest rates increase



EDA on Lending Club Data

Insights

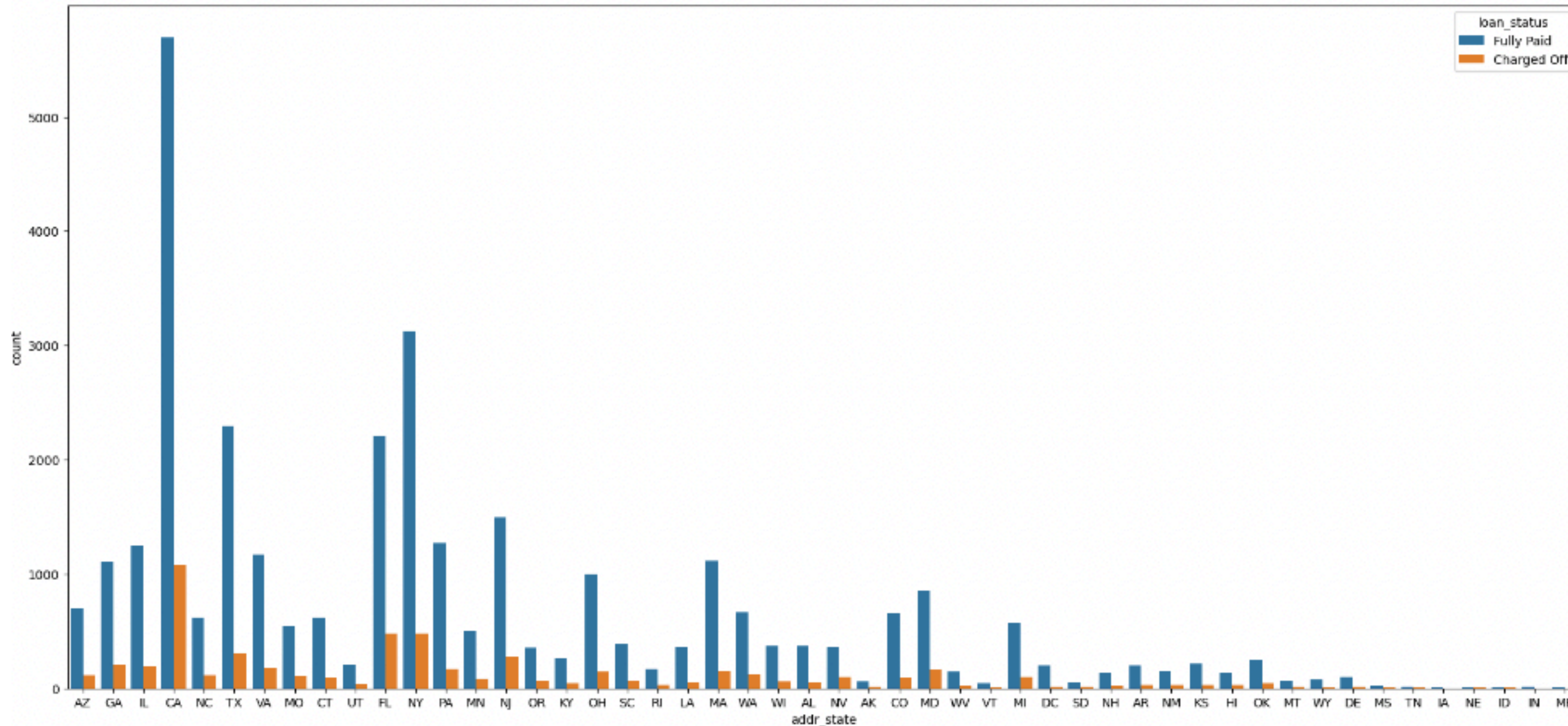
- Short term loans (36 months) and high interest loans are more likely to default, grade G pays highest interest
- The higher income grade G has the highest interest rates to be paid on their loan amounts. They are also very risky as their loan amounts are high and they are proportionally likely to default more than the other grades. Since their loan amounts are large, they pose a bigger financial risk.



EDA on Lending Club Data

Insights

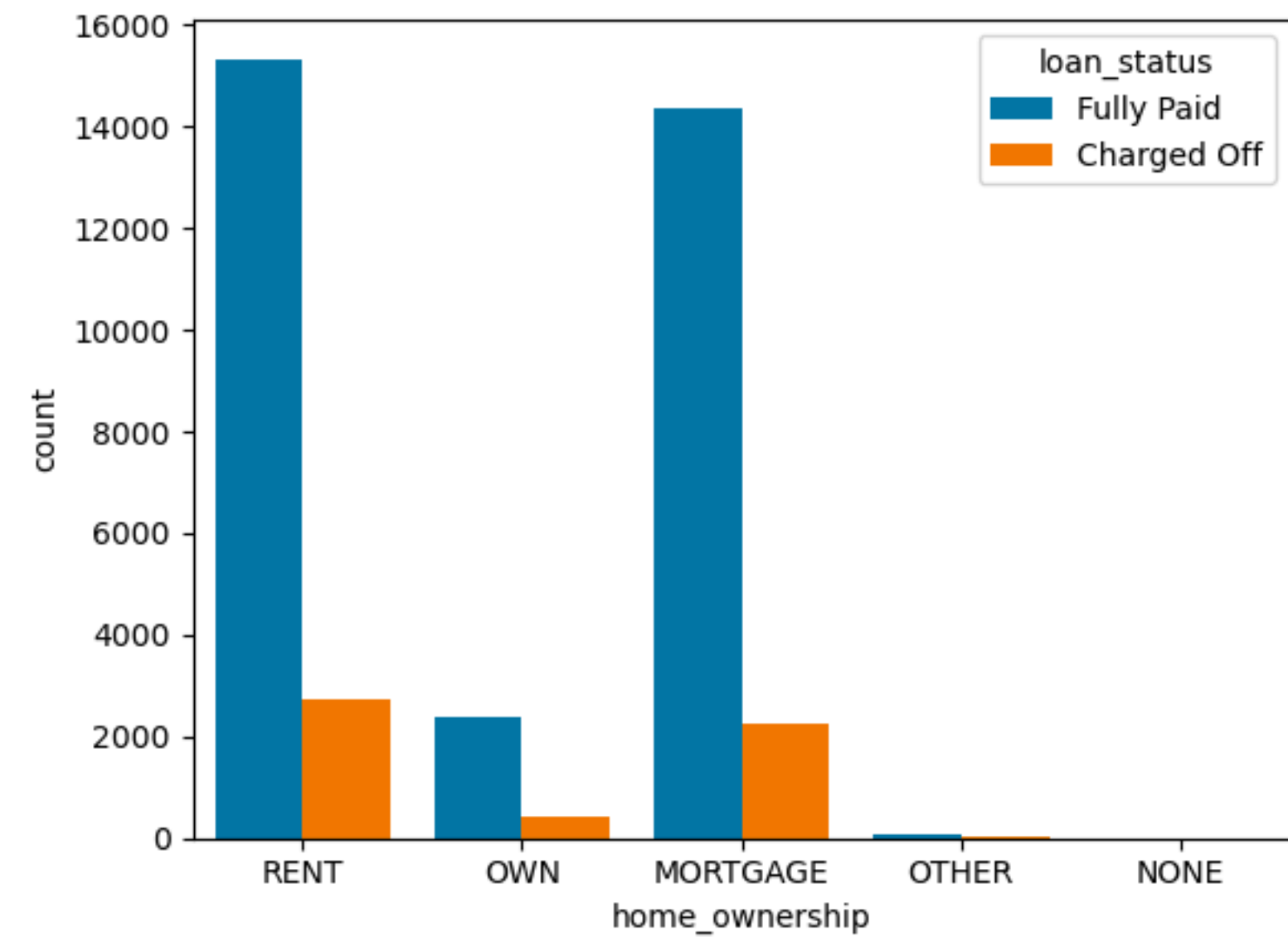
- California is the biggest market for Lending Club, and proportionally having maximum defaulters.



EDA on Lending Club Data

Insights

- Borrowers who own a home are less likely to default as compared to those with rental or mortgaged properties.



•

•

EDA on Lending Club Data

Insights

- Maximum loans are given during year ends, November, December, maximum without any verifications.

