Lending Club Case Study - Findings

JANUARY 2022 – ADITYA DESHPANDE

Problem Statement

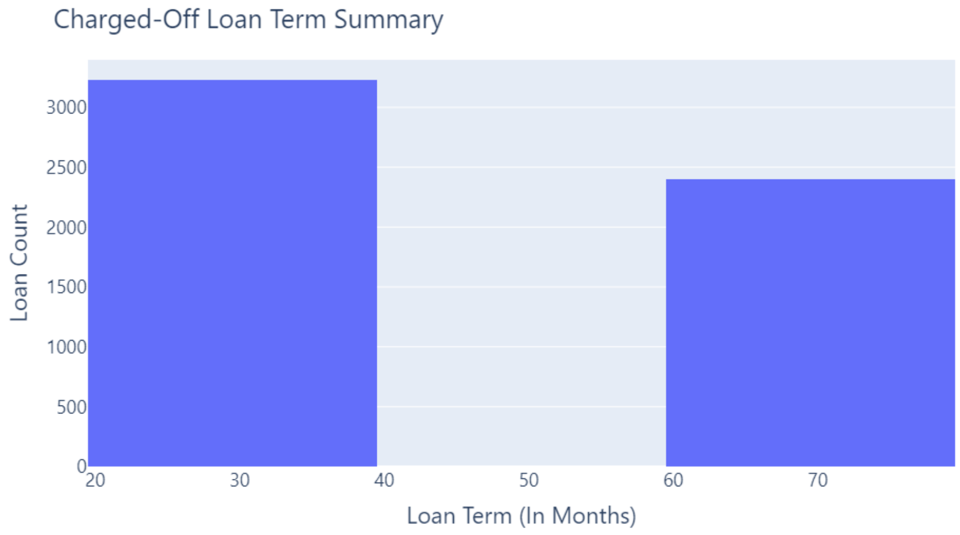
The company wants to understand the driving factors (or driver variables) behind loan default, i.e., the variables which are strong indicators of default. The company can utilize this knowledge for its portfolio and risk assessment.

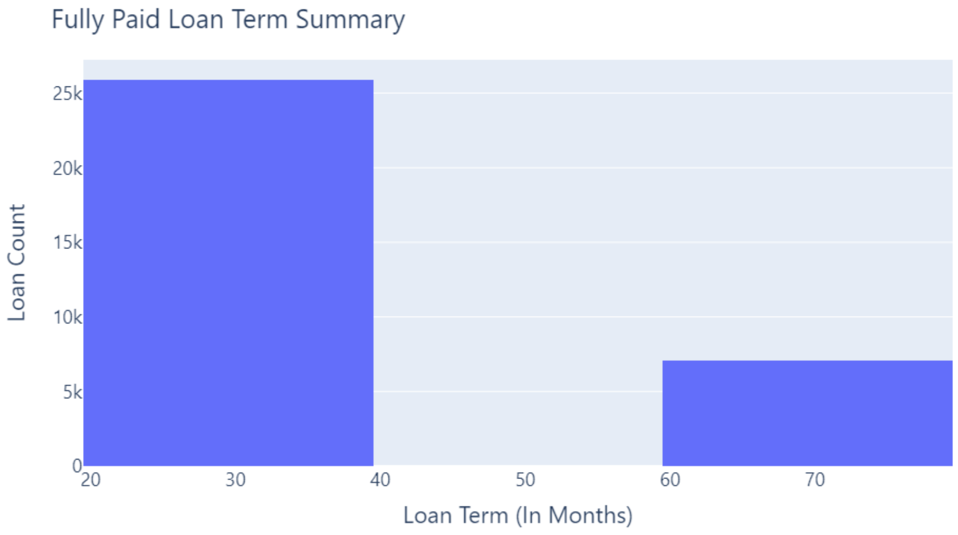
Analysis Approach

To understand the driving factors behind credit default, we have compared the key variable with respect to loan status, Fully Paid vs. Charged Off.

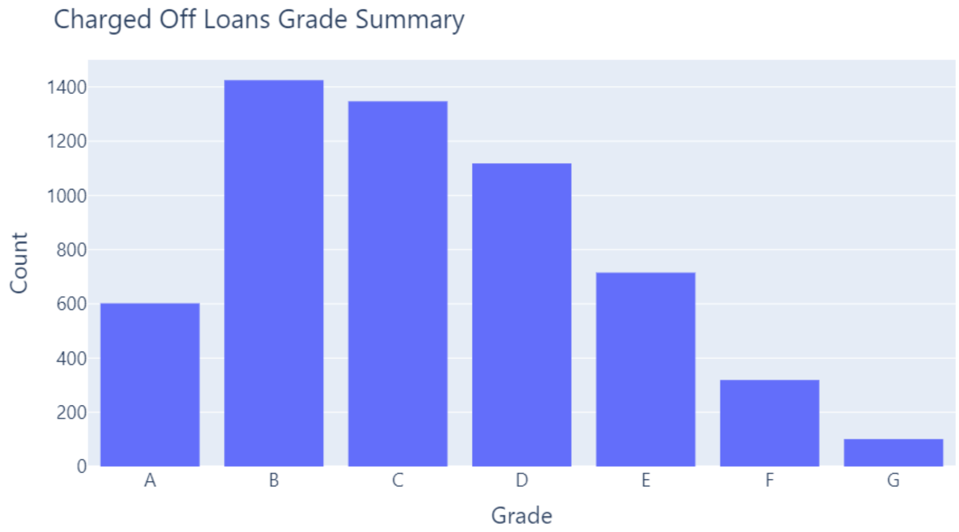
After cleaning and standardizing data, we went through comparison of key variables to understand of the dataset for charged-off shows any different trend than those who fully paid the loan.

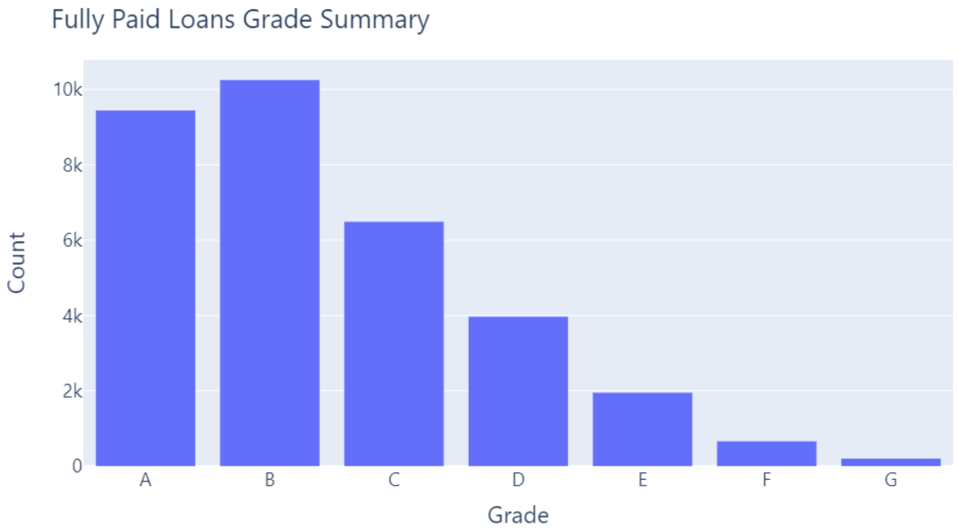
Analysis Result - 1



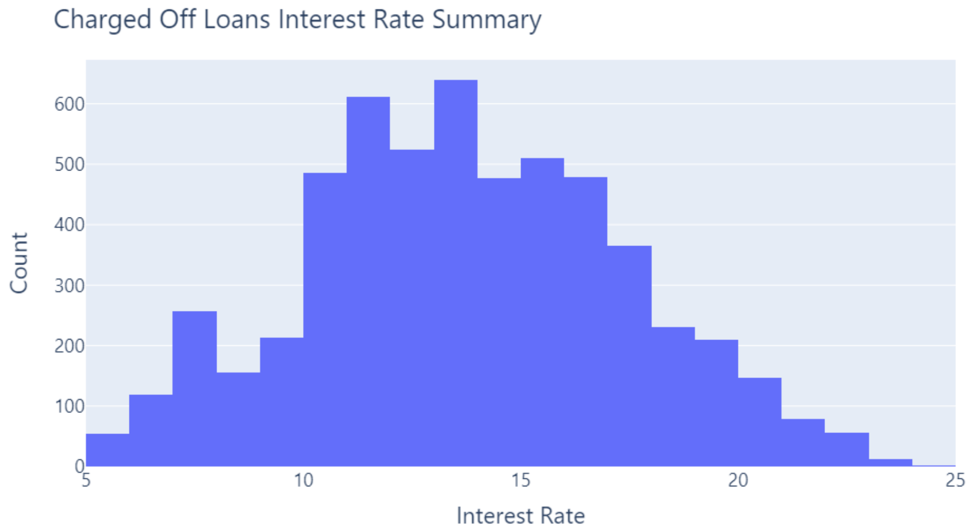


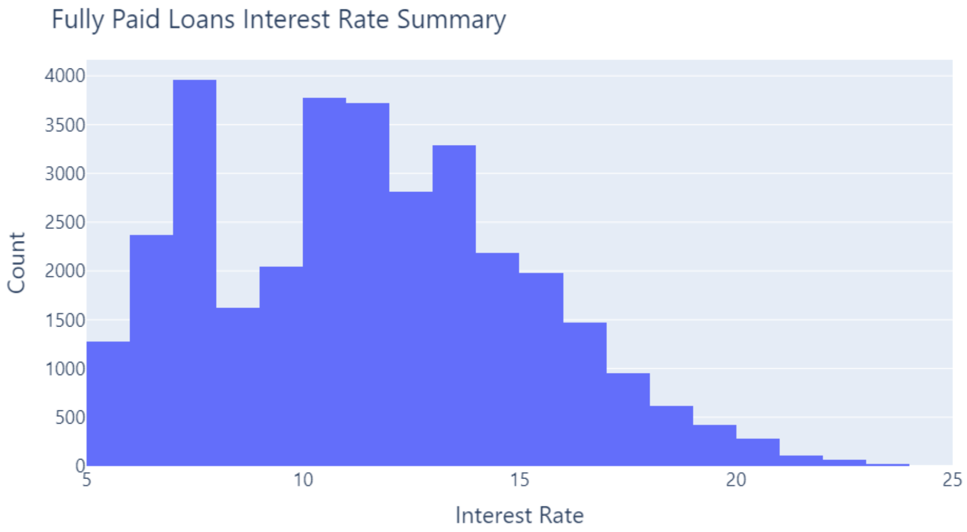
Analysis Result - 2



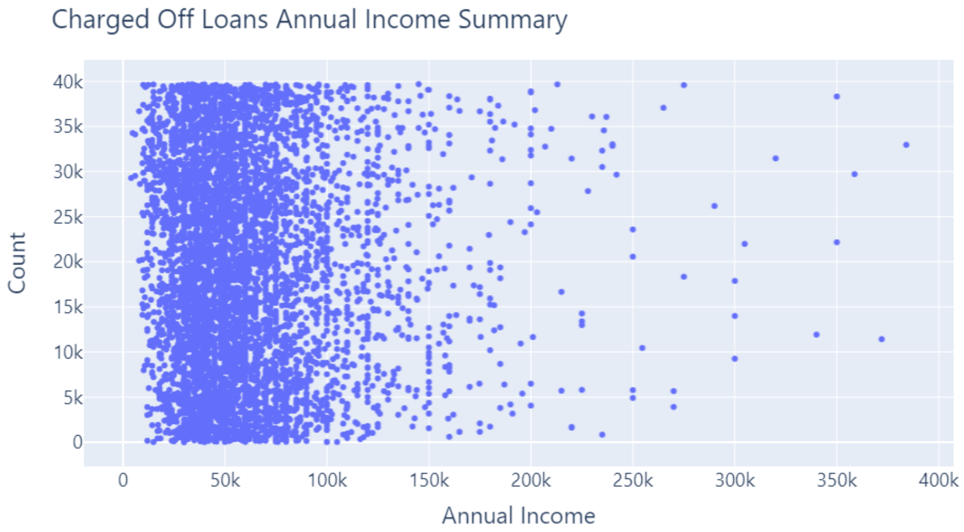


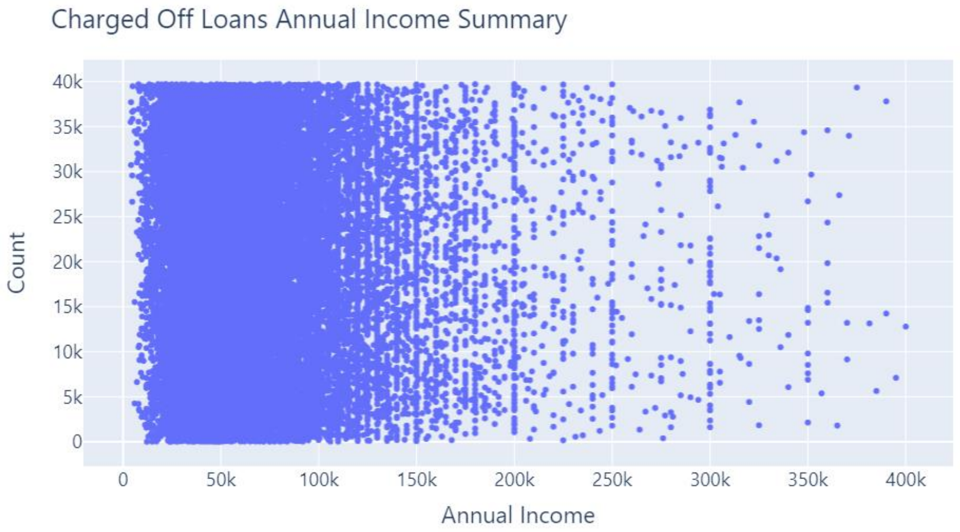
Analysis Result - 3





Analysis Result - 4





Summary and Recommendation

Following variables are responsible to drive the credit default

1. Term
2. Interest rate
3. Grade
4. Sub-grade
5. Annual income

Following are some specific recommendations

- Loan given to customers for tenure of 60 months and interest rate lies between 15-20 are likely to default as the percentage for the same group is higher in charged off data (48%) vs. fully paid (39%)
- Loan given to customers for tenure of 60 months and in category D, E and F have 4%, 5%, 4% more percentage in the charged off data than fully paid, hence these can be risky loans

Thank you!