

## Loan Case Study

Group Name:

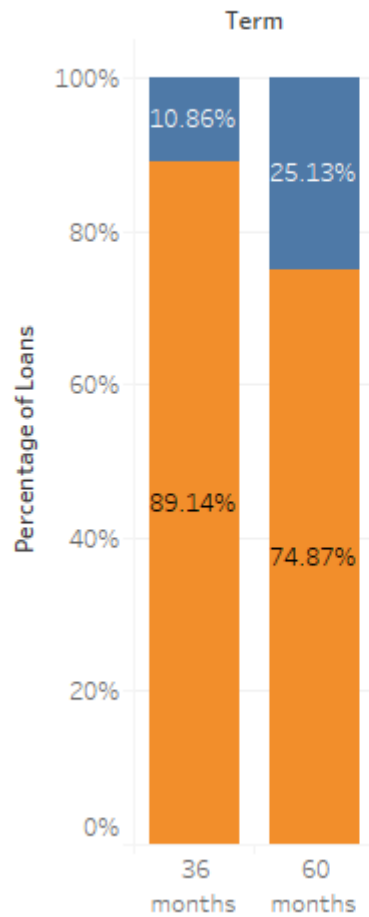
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## Business Objective

- Identification of Loan Applicant traits that tend to ‘default’ paying back
- Understand the ‘Driving Factors’ or ‘Driver Variables’ behind Loan Default phenomena
- Gramener may choose to utilize this knowledge for its portfolio and risk assessment of new loan applicants

Percentage of Loans Vs Loan Term



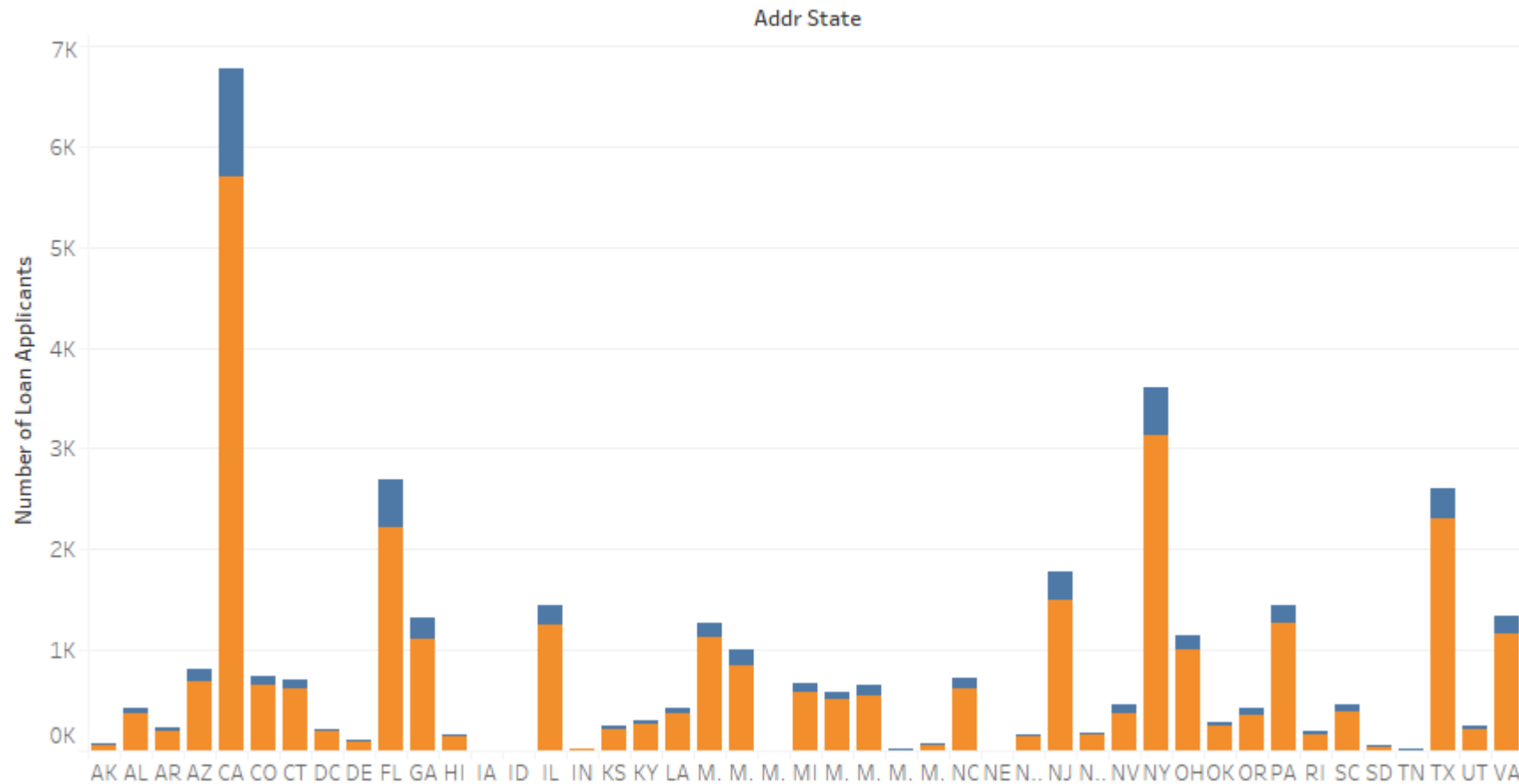
## Loan Status

- charged off
- fully paid

## Findings

- 25% of 60 months term loan are more charged off compared to 11% of 36 months term loan.
- Fully paid loans are higher for 36 months term payment.

Number of loan applicants in each state



Loan Status

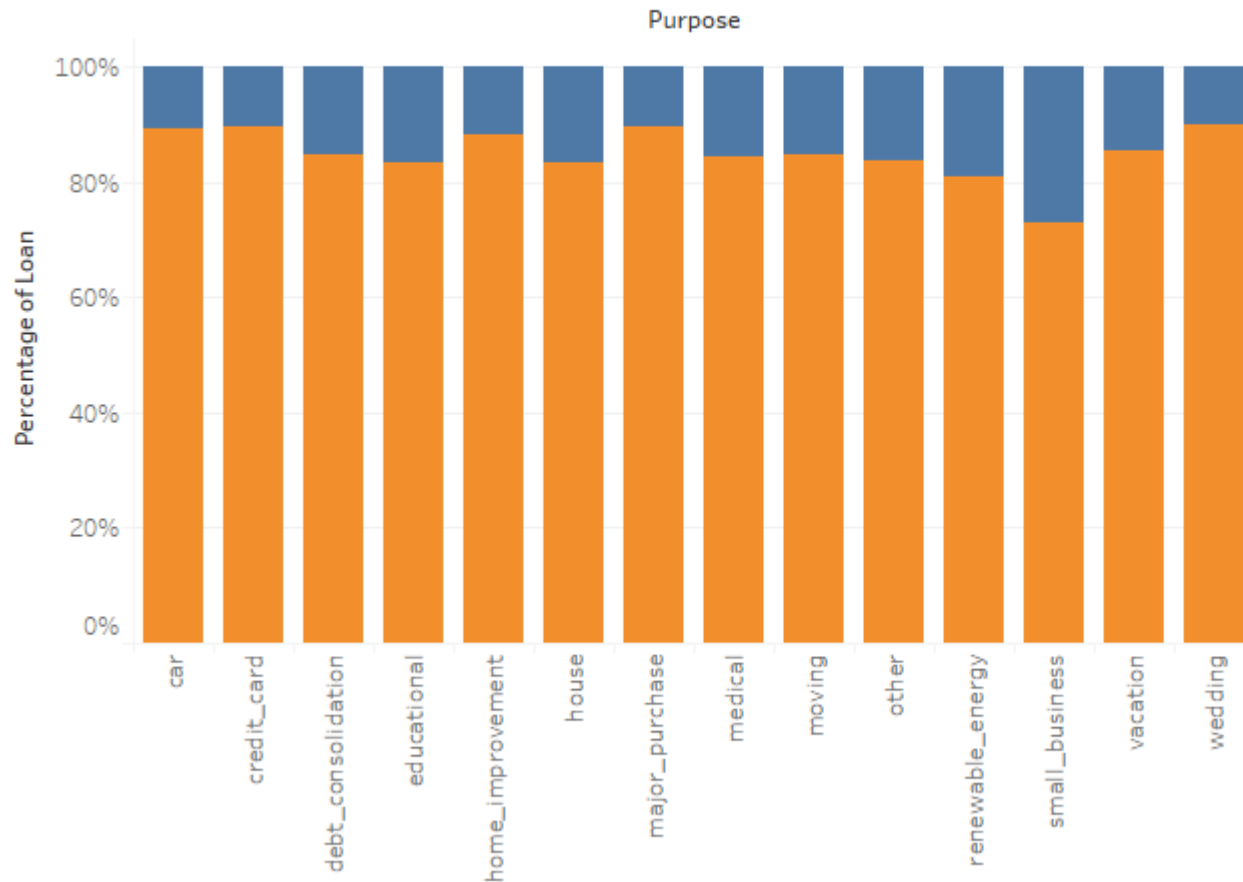
charged off

fully paid

## Findings

- Charged off loans are higher for CA state followed by FL and NY.

Percentage of Loans Vs Purpose



Loan Status

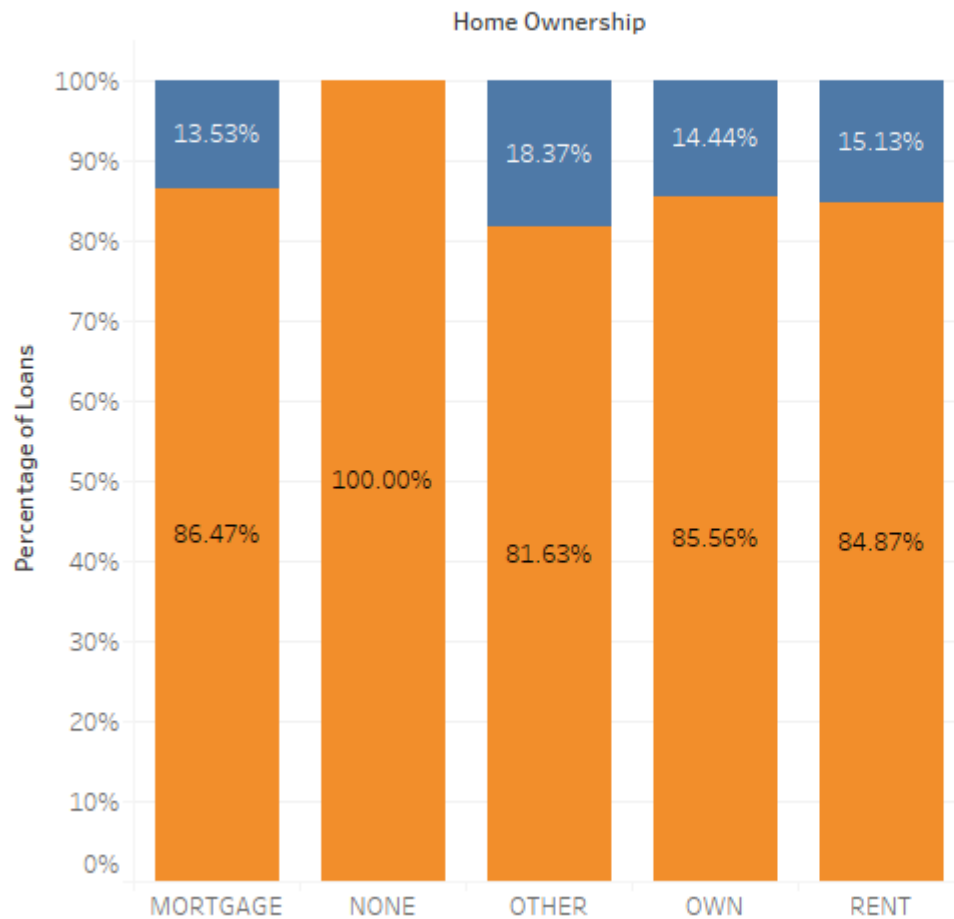
charged off

fully paid

## Findings

- Loans with purpose as “Small Business ” and “renewable energy” are more charged off loans

Percentage of Loans Vs Home Ownership



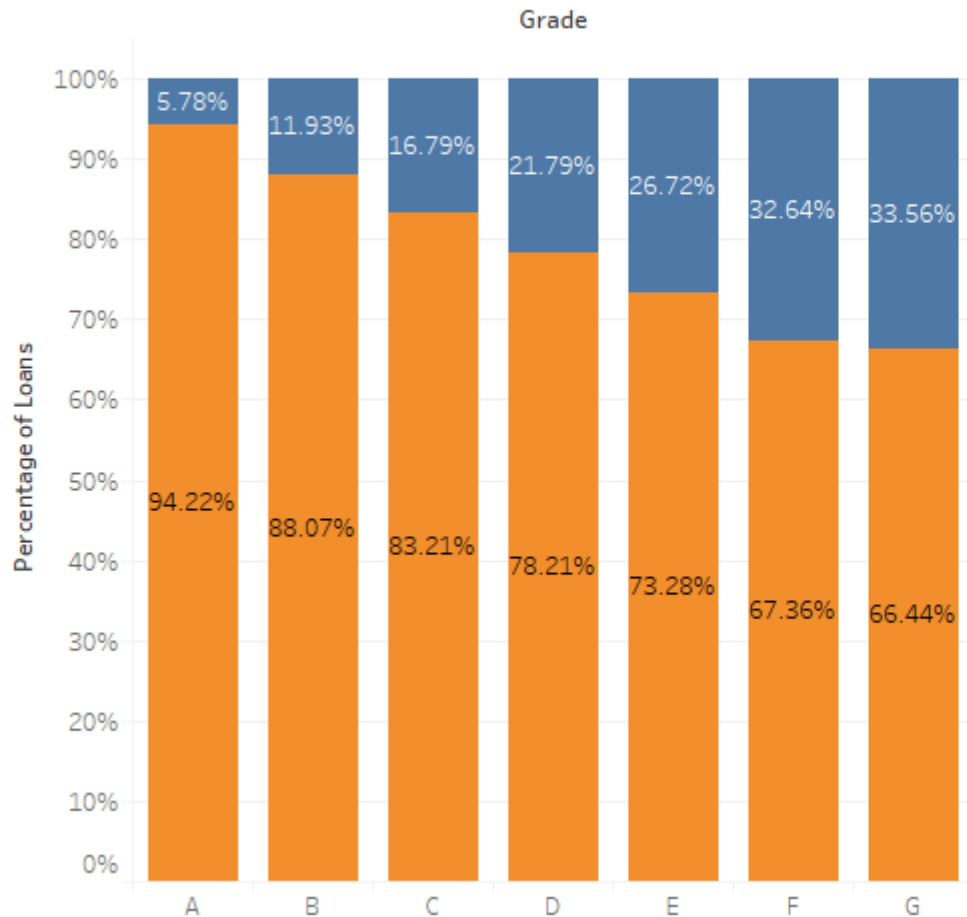
Loan Status

- charged off
- fully paid

## Findings

- For Home ownership as “Others” and “Rent” charged off loans are higher.
- When home ownership is “None” then loan is fully paid.

Percentage of Loans Vs Grade



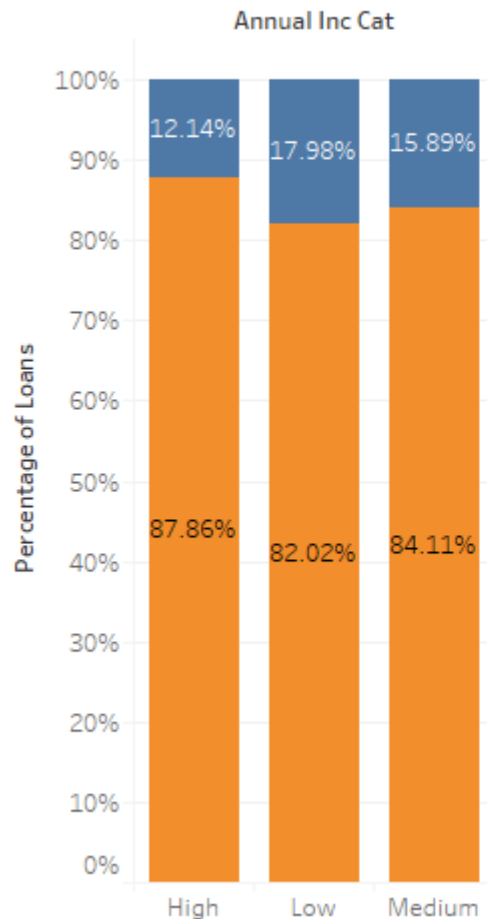
## Loan Status

- charged off
- fully paid

## Findings

- When LC assigned loan grade is G or F then there are maximum charged off loan .
- There are 34% charged off loans in grade G while 33% charged off loans in grade F.

Percentage of Loans Vs Annual Income Category



Loan Status

- charged off
- fully paid

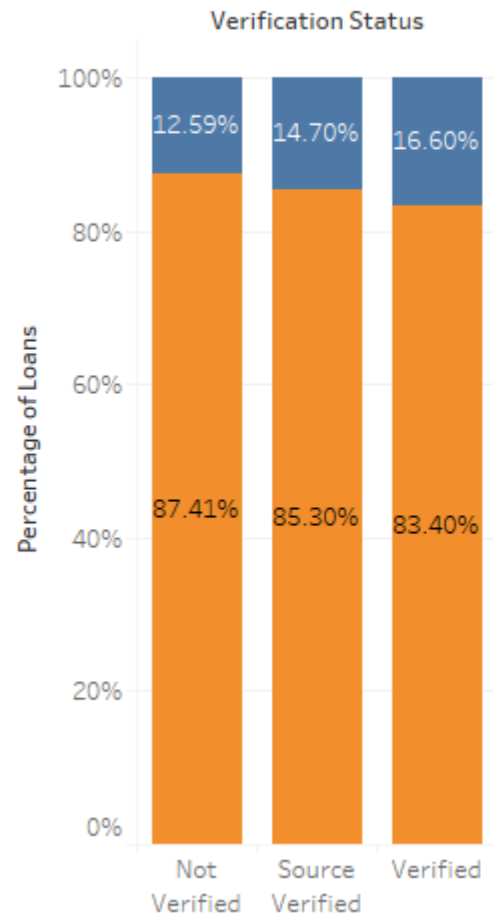
Annual Income	Category
1-30000	Low
31000 - 60000	Medium
>60000	High

## Findings

- Low Income Category has more charged off loans
- 18% loans are charged off for low salaried applicants while 82% loans are fully paid by low salaried applicants.



## Percentage of Loans Vs Verification Status

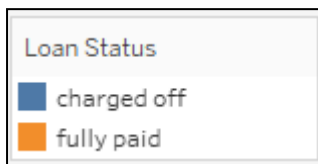
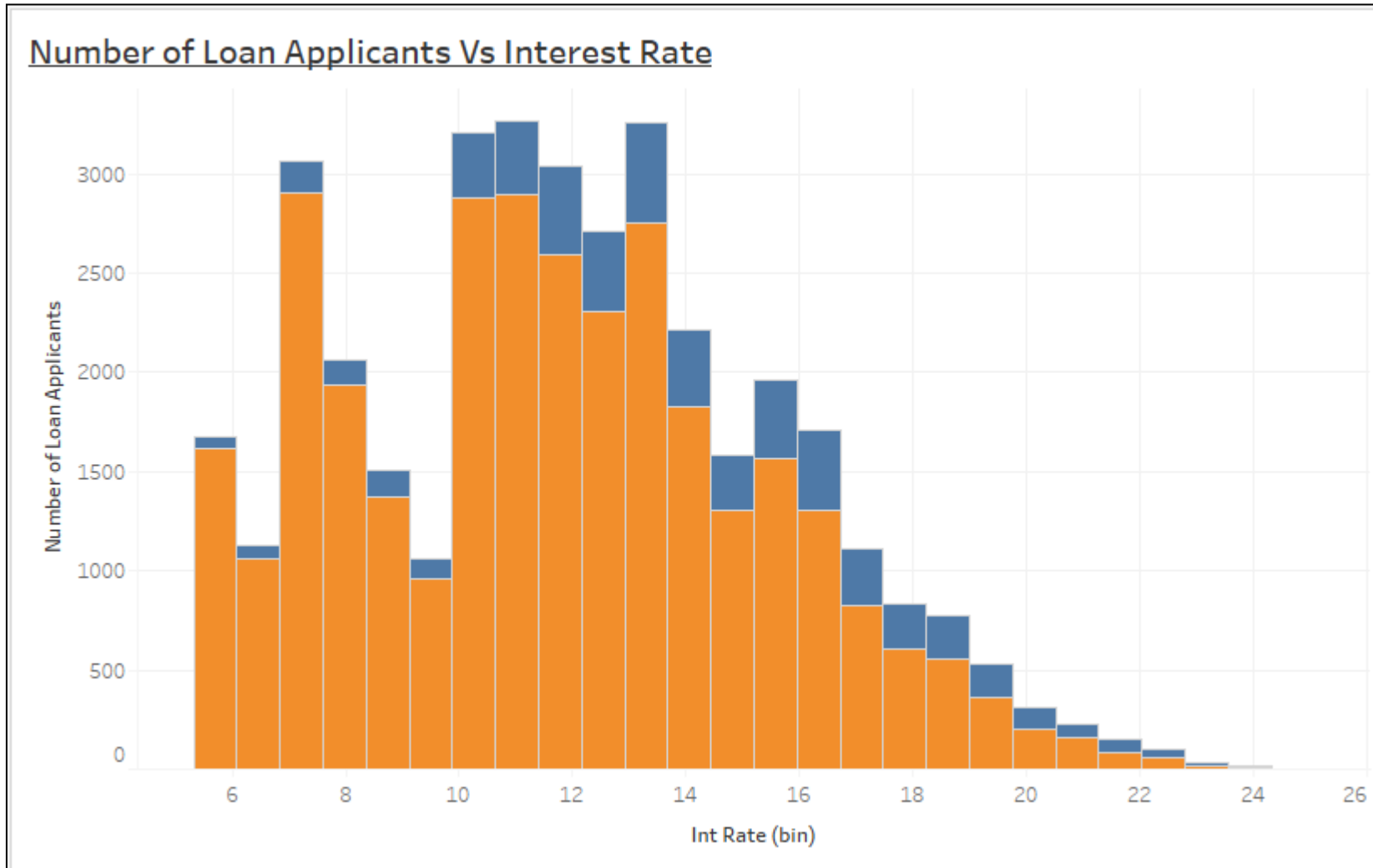


### Loan Status

- charged off
- fully paid

### Findings

- Even though, LC has verified borrowers and borrowers sources, the percentage of defaulters is higher than “Not Verified” cases.



## Findings

- Charged off loans are higher when interest rate is between 10 – 16 % .
- Charged off loans are low when interest rate is < 10 %

Understanding  
business  
problem

- Understand Business Objective
- Understand the constraints

Data  
understanding

- Explore different datasets and identify entity relationship

Data cleaning  
and  
preparation

- Perform basic EDA
- Understand data anomalies and treat them accordingly

Analysis

- Univariate analysis
- Bi Variate analysis
- Multi Variate analysis

Insights and  
recommendati  
ons

- Identify insights based on findings from Analysis
- Formulate recommendations based on findings and Insights