LENDING CLUB CASE STUDY

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PROBLEM STATEMENT

- Able to identify risky loan applicants, then such loans can be reduced thereby cu[...] down the amount of credit loss. Lending loans to 'risky' applicants is the largest s[...] financial loss (called credit loss). Credit loss is the amount of money lost by the le[...] when the borrower refuses to pay or runs away with the money owed. In this An[...] possible driving factors (or driver variables) behind loan default, i.e. the variables [...] are strong indicators of default.

PROCESS

- Data Loading
- Data Cleaning
- Data Analysis

DATA CLEANING

- All the columns having more than 90% of the null values are dropped because the[...] won't be sufficient for analysis.

- All the columns having only one unique value will be dropped because they will h[...] same values for all the three categories of loan status.

- All the rows having loan status as Current are dropped as we can't make any con[...] on those records.

- Converting numerical types from object to float.

BIVARIATE ANALYSIS
(INTEREST RATE)

- The Higher the interest rate, the greater the likelihood that the customer will default

- Box plot showing loans were given at a very high median interest rate to the customers.

Box Plot: interest rate vs loan status
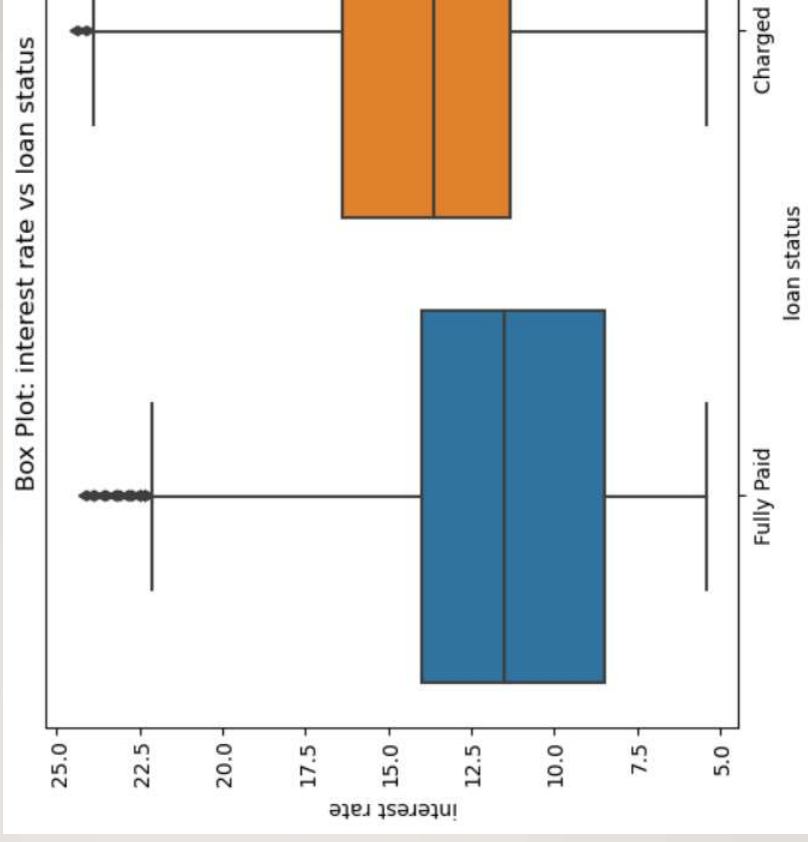
BIVARIATE ANALYSIS
(CREDIT UTILIZATION)

- The Higher the Credit Utilization rate(Revolving line utilization rate), the greater the likelihood that the customer will default

- Box plot showing very high credit utilization for the customers who charged off.

Box Plot: Credit utilization vs loan status
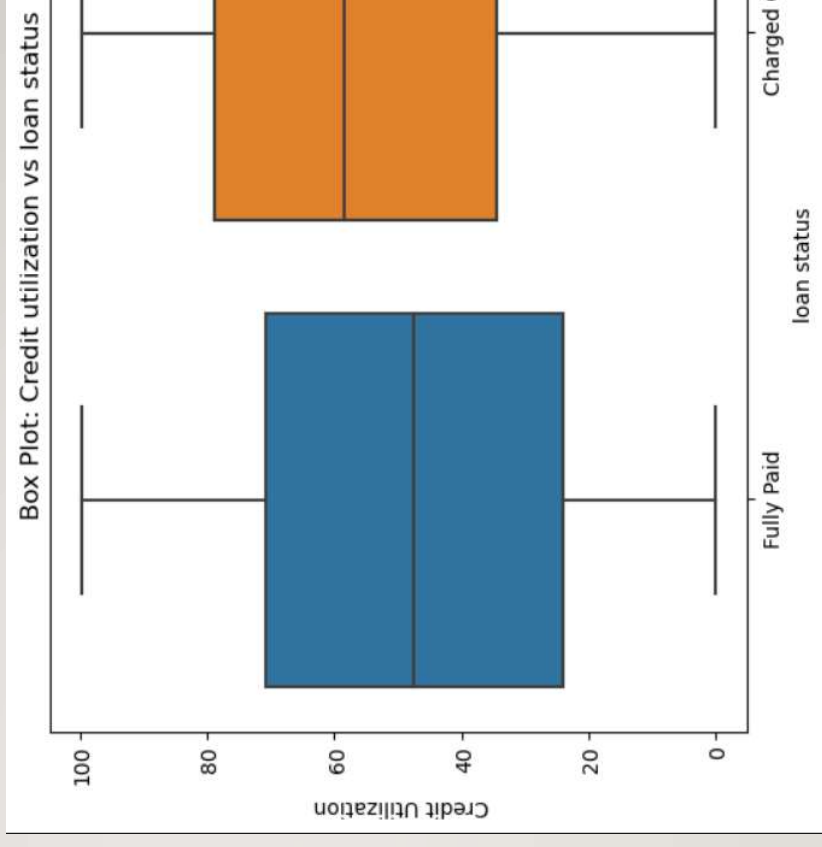
BIVARIATE ANALYSIS
(ANNUAL INCOME)

- Customers having lower annual income are more likely to default.

- Violin plot showing lower incomes of the customers who charged off.

Violin plot: Annual income vs loan sta
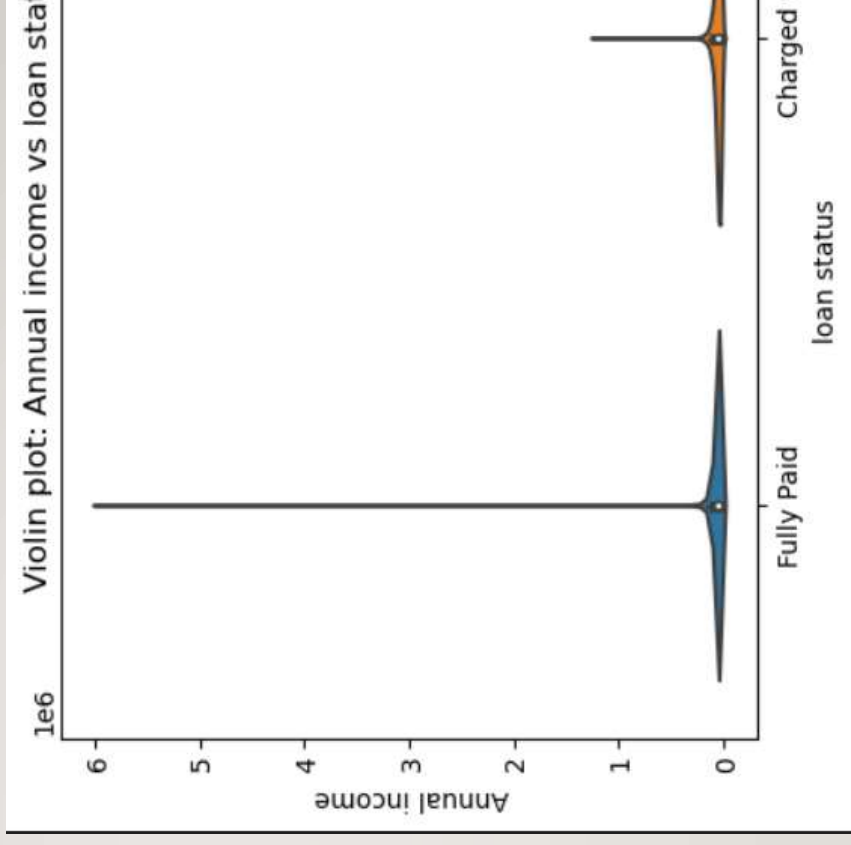
BIVARIATE ANALYSIS
(PUBLIC BANKRUPTCIES)

- Clearly for the higher bankruptcies the Charged Off percentage is very higher.

- Approximately 40% of the customers defaulted when loan was given to those who had 2 bankruptcies in record.
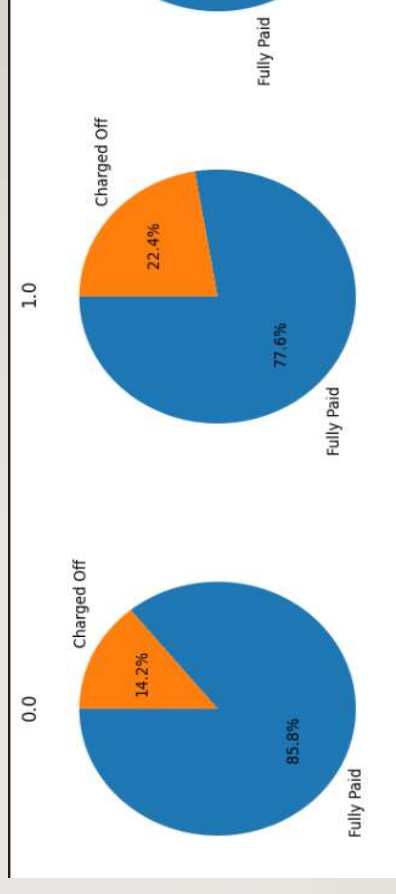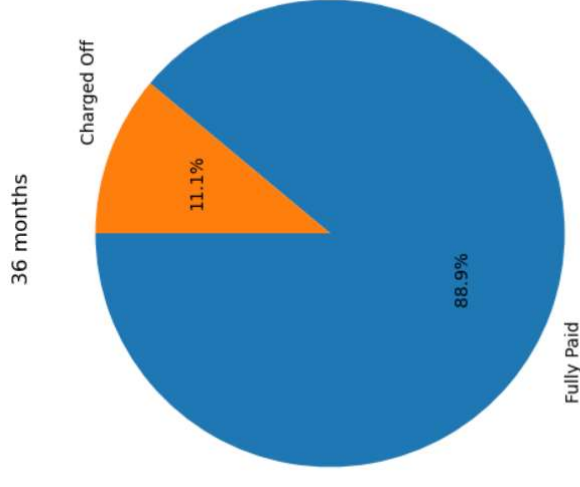
BIVARIATE ANALYSIS
(LOAN GRADE)

- Clearly for the lower the Grade of the loan the Charged Off percentage is very higher.

- Approximately 34% of the customers defaulted when loan grade was G
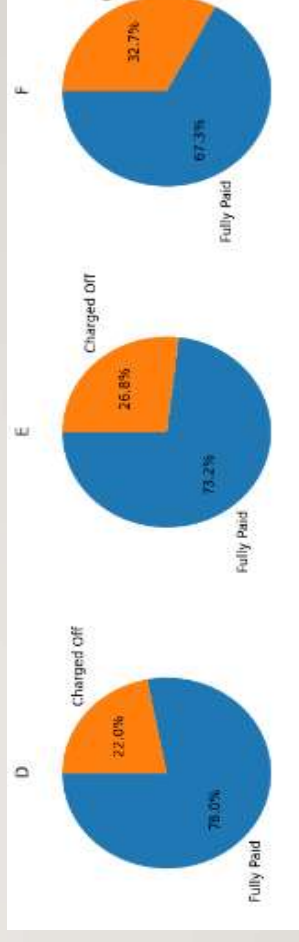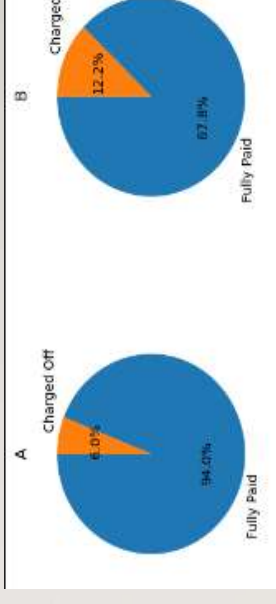
BIVARIATE ANALYSIS
(LOAN TERM)

- Clearly for the higher the Term length of the loan the Charged Off percentage is very higher.

- Approximately 25% of the customers defaulted when loan term was 60 months

BIVARIATE ANALYSIS
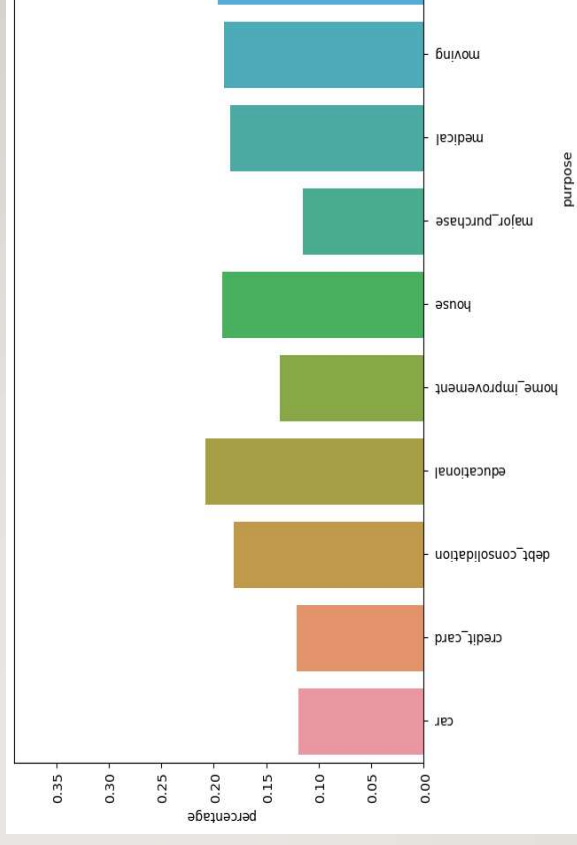## (PURPOSE OF LOAN)

- Default rate is very high for small businesses.

- Approximately 35% of the customers defaulted when loan was given to small businesses.

CONCLUSION

- The Lending Club should carefully analyze all driving factors mentioned above wh[...] result in financial loss to the business.

- Business should avoid giving loan to the customers whose loan grade is very low [...] three are very high bankruptcies recorded.

- Giving loan to small business also has a very high probability for the customer to [...]