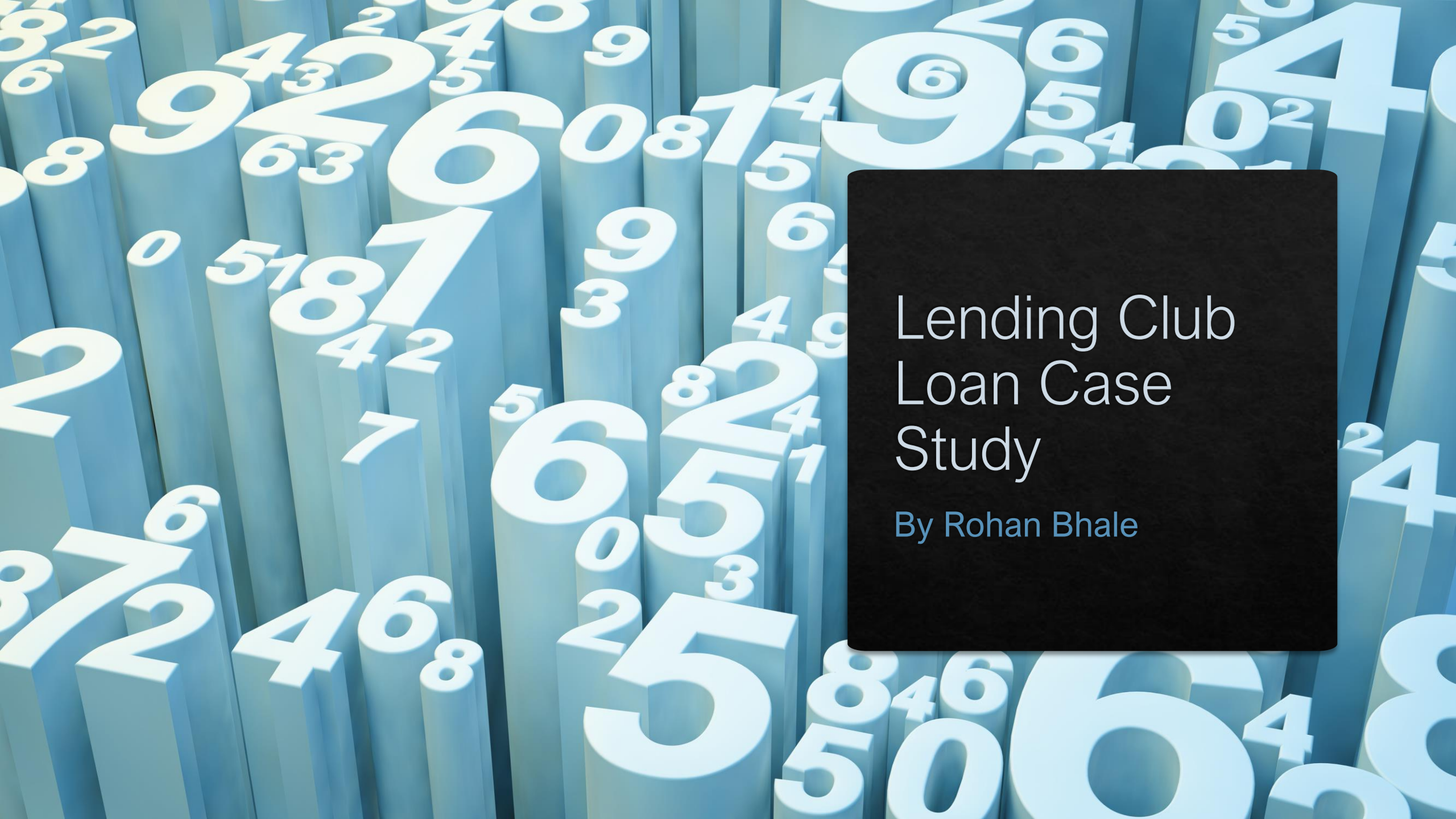

Lending Club Loan Case Study

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Lending Club Case Study Milestones

Goal

Detect variables for Loan Default

Analysis

Analysis of the data with below EDA steps:

1. Cleaning and Loading
2. Univariate Analysis
3. Bivariate Analysi

Conclusions

Variables Detected after the analysis

Goals

- Lending Club Company 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
- Goal is to Identify these risky loan applicants
- The company wants to understand the driving factors (or driver variables) behind loan default, i.e., the variables which are strong indicators of default

Analysis (EDA)

- In this I have gone through various methods for cleaning (Removed nulls, replaced missing values, removed unnecessary columns, etc.) using pandas and numpy library
- I have also built the plots using matplotlib and seaborn library
- In the plots we have used both univariate and bivariate analysis to get conclusion and to find relation between the data

Conclusions

- 1. We can see that almost 17% loans are charged off
- 2. The charged off is more in RENT and MORTGAGE category compared to owned as these applicants are more
- 3. Most of the borrowers taken loan for debt_consoldation and for credit card and thus charged off is also high for these purpose
- 4. Charged off is more for 36 months compared to 60 months, the time taken to pay back the loan
- 5. For Charged off- we can see that number of applicants are increasing from October to December every year, so the defaults occurred in those months
- 6. We can see that the annual income less than 60k will be more chances of likely to default. Maximum likely to default are in 31-60 K range
- 7. B grade is the highest grade who likely to default
- 8. The interesting fact is those who have taken the loan between 6k-10k will likely default
- 9. Most of the applicants who likely to default are fall under 13-18 DTI ratio
- 10. Plot shows interest rate is increasing slowly with increase in year
- 11. Charged Off's are getting increased with the grades and fully paid have higher income compared to Charged Off
- 12. The interest rates are increasing with higher Debt to income Ratio with exceptions from the highest DTI group category