

# Lending Club Case Study

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# Agenda

- Business Objective
- Approach
- Analysis
- Technical Solution
- Insights & Conclusion

# Objective

- Understand the key driving factors behind the loan defaults.
- Identify the loan applicants who are likely to be a Defaulter in the future.
- Reduce the overall credit loss.

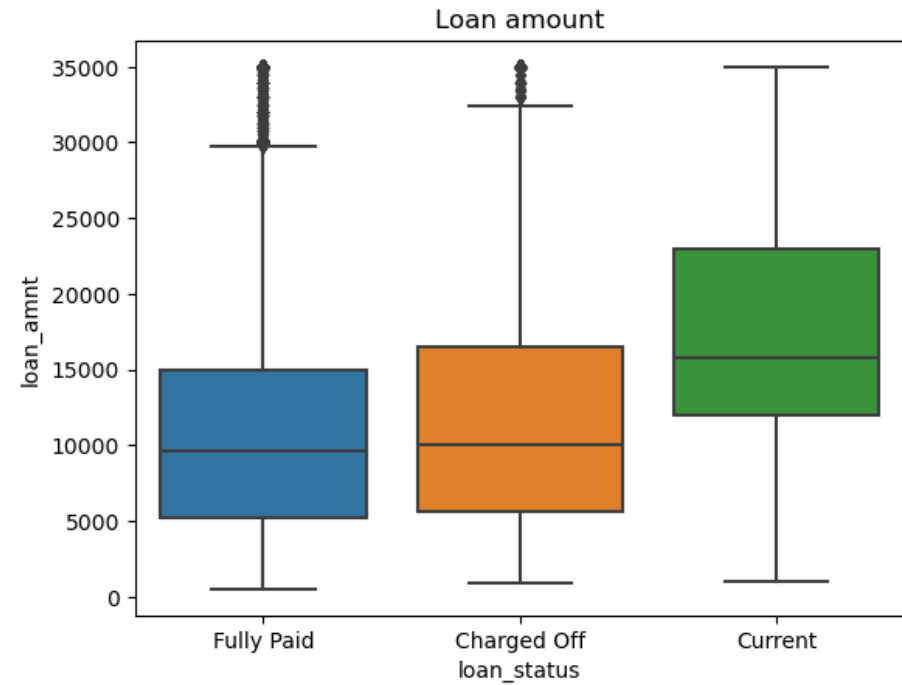
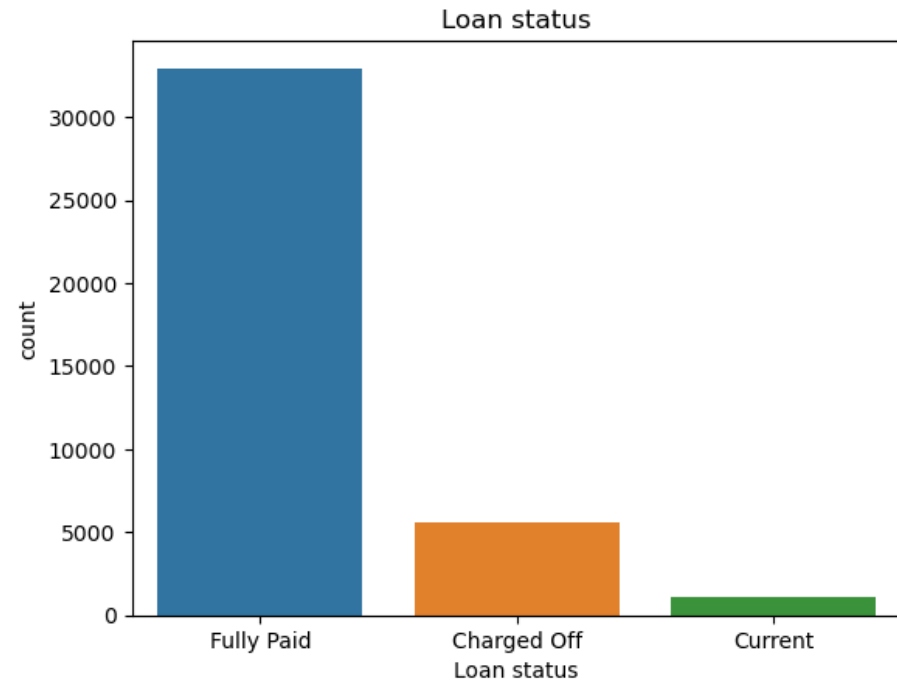
# Approach

- The overall approach is to use EDA (Exploratory Data Analysis) to find the Key Performance Indicators driving towards the defaulters of the loan.
- Major Steps Involved
  - Data cleaning and preprocessing
  - Univariate and Bivariate analysis
  - Data visualization
  - Insights and conclusion

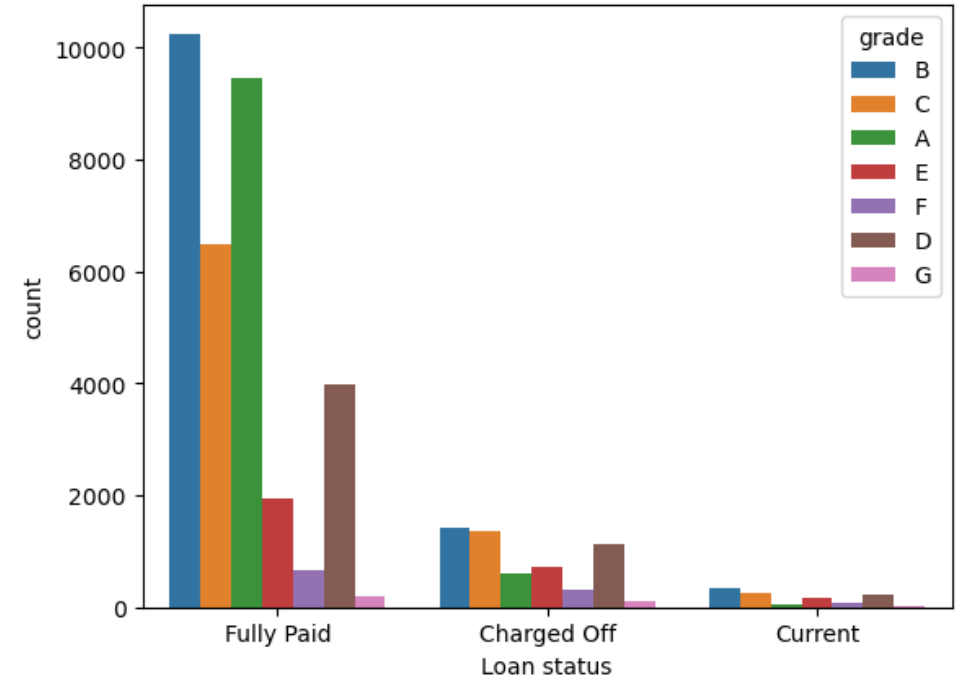
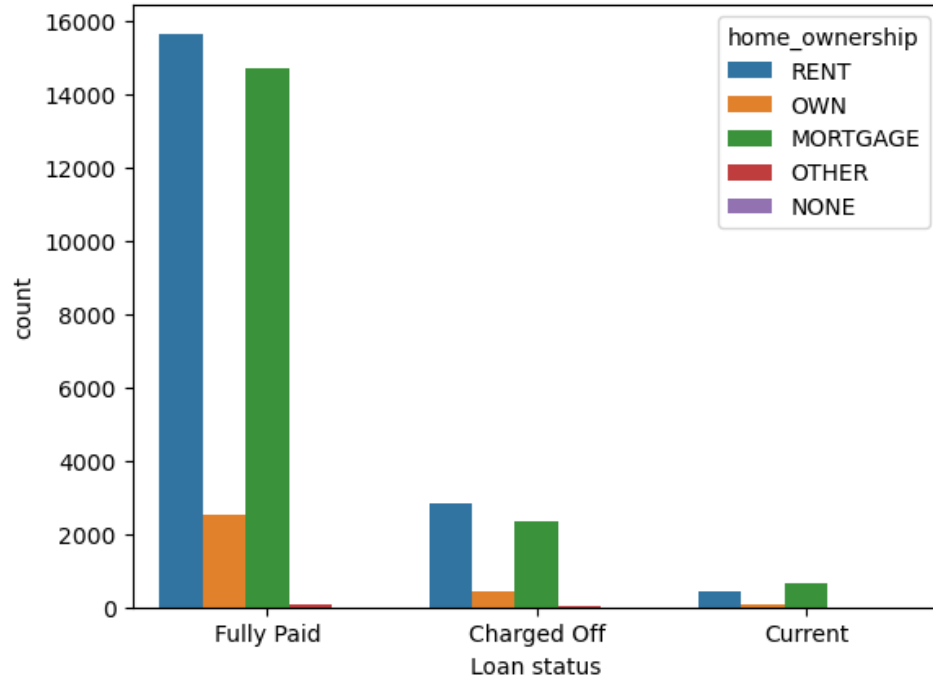
# Major features identified on analysis

- Employment length
- Annual Income
- Debt to Income
- Home Ownership
- Number of Installment

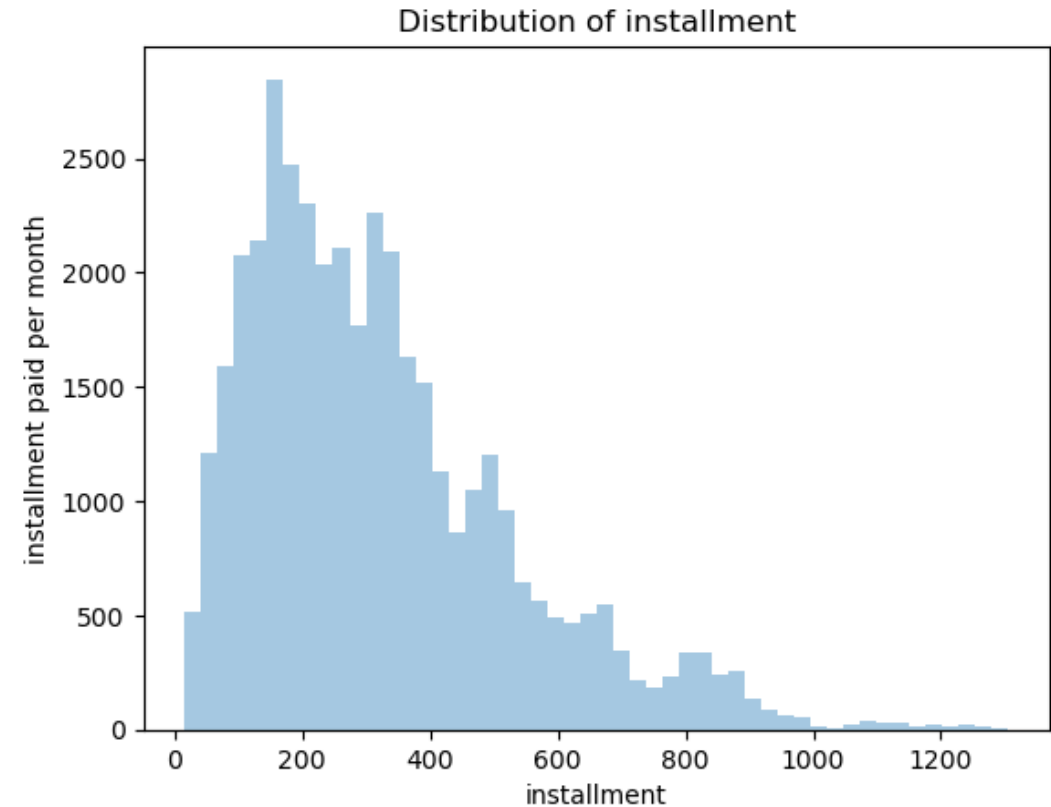
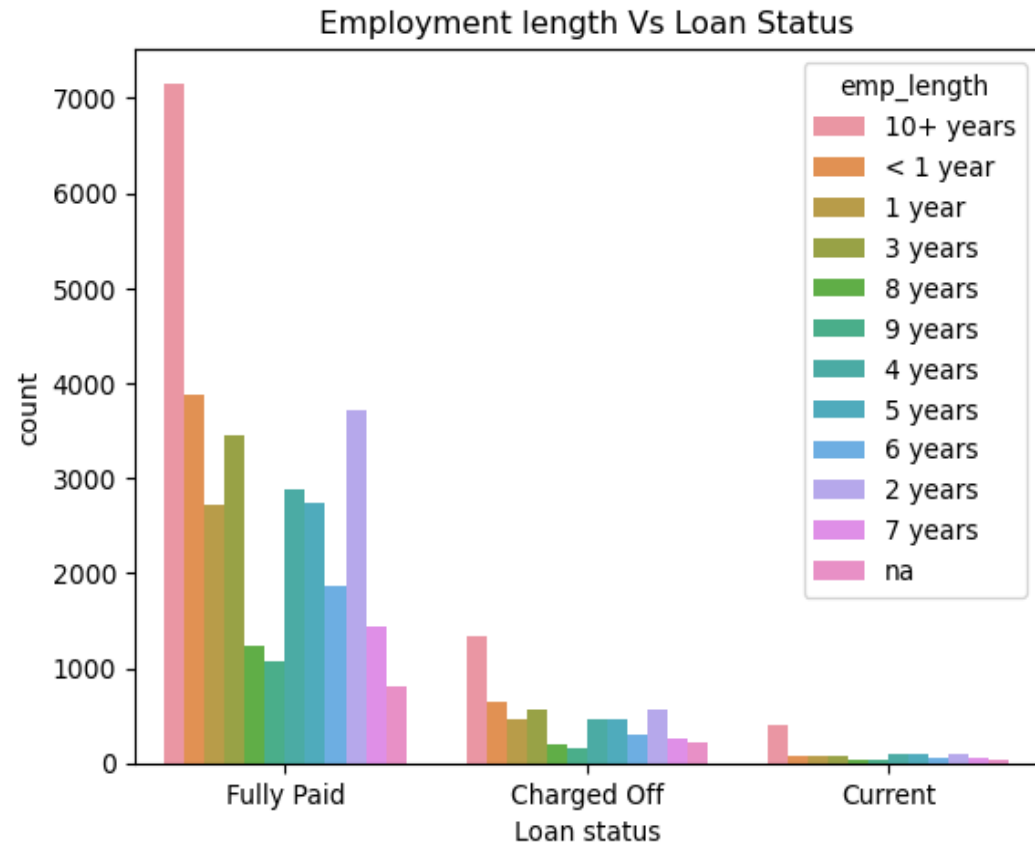
# Data Visualization



# Data Visualization



# Data Visualization





# Insights and Conclusion

- The average loan amount is relatively high in defaulters than the fully paid.
- The interest rate is relatively high for defaulters than the fully paid.
- The number of installment is relatively high for loan defaulters than the fully paid.
- Mortgage, Own, Rent are the best in repaying the loan compared to other ownership groups.
- The annual income of customers who have fully paid the loan is higher than the defaulters.
- dti is slightly higher in defaulters than the fully paid.
- employment length is also a strong indicator, 10+ years employees are defaulting about a percent more than the rest of the categories.
- Grade and sub grade also a strong indicator for identifying the risks.