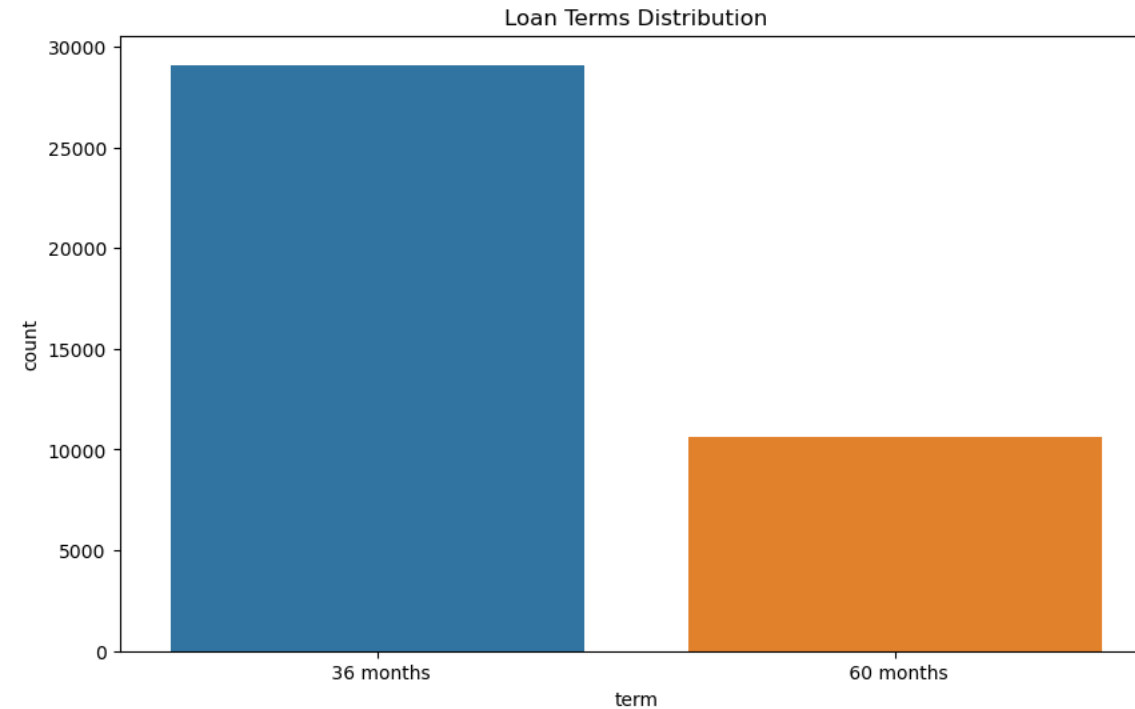


# Lending Club Case Study

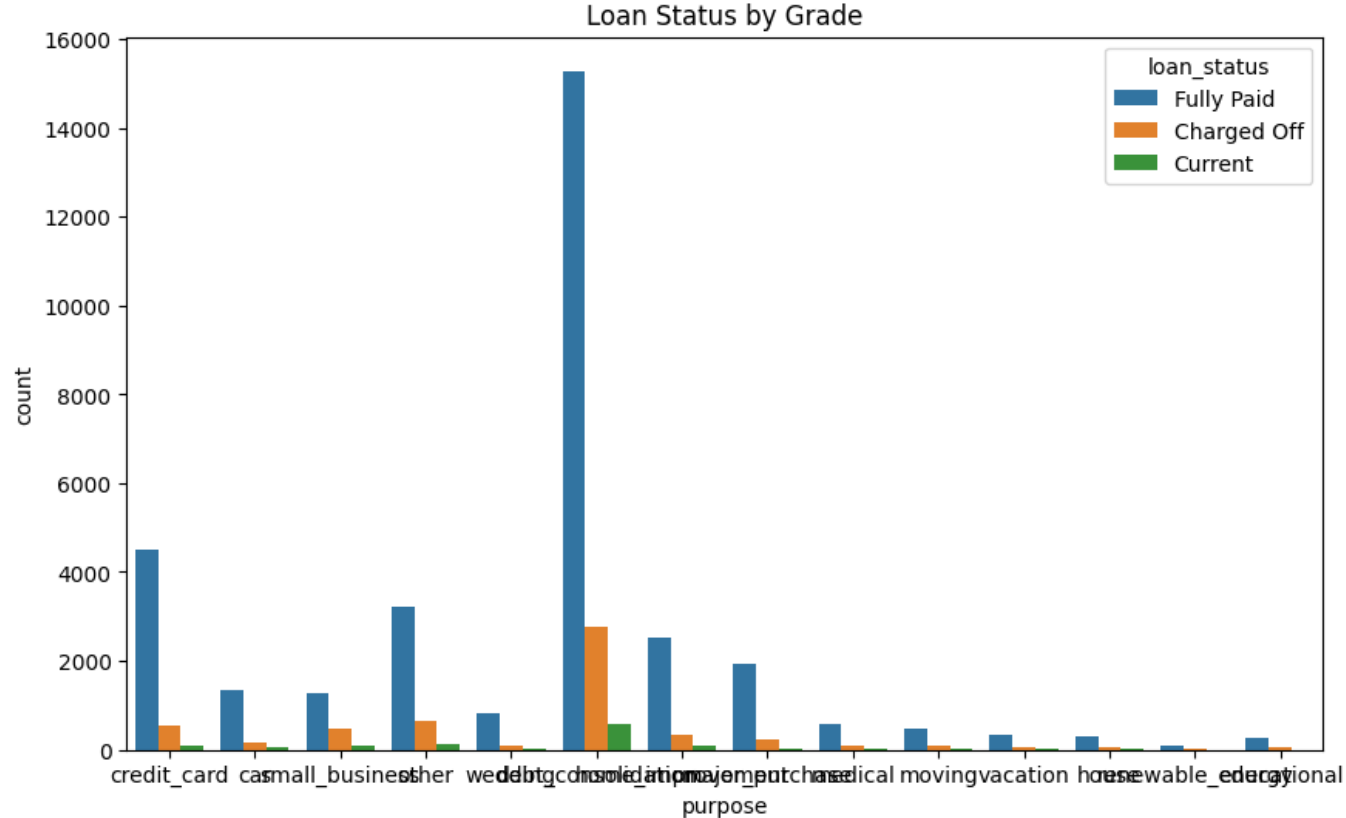
Group Members:  
Mopur Joshua Samuel

# Abstract

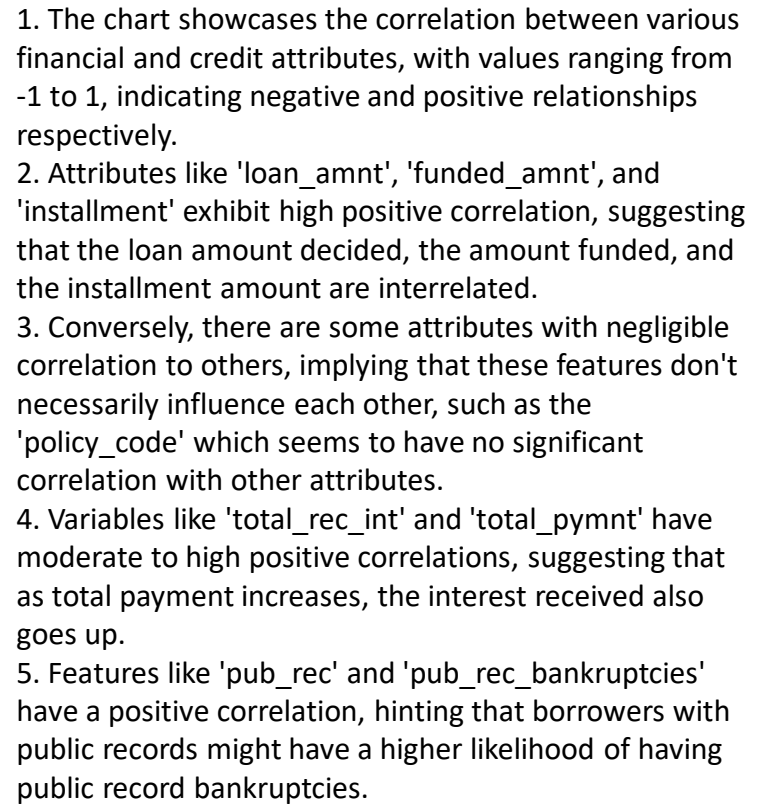
- In today's rapidly evolving financial landscape, efficient loan assessment is paramount.
- This presentation delves into the Lending Club's dataset, aiming to shed light on the intricate patterns that govern loan approval.
- Through a series of visualizations and statistical examinations, we pinpoint key factors such as average loan amount, borrower's annual income, debt-to-income ratio, and more.
- Our analysis unveils significant insights, such as the relationship between a borrower's income and loan amount, the implications of having numerous open accounts, and the potential red flags posed by public records.



The chart shows a clear preference among borrowers for loans with a term of 36 months. These 36-month loans are significantly more popular than the 60-month loans, with counts almost three times higher



1. The most common purpose for loans, by a significant margin, is 'debt consolidation', with the majority being current.
2. 'Credit card', 'home improvement', and 'major purchase' also have a noticeable number of loans, with the majority in the 'Current' status.
3. The 'small\_business' category, despite having fewer loans, shows a higher proportion of charged-off loans compared to other purposes.
4. Other loan purposes like 'wedding', 'medical', 'moving', 'vacation', 'renewable energy', and 'educational' have relatively lower counts, indicating they might not be as popular.
5. Across most loan purposes, the majority of loans are current, with only a few categories showing significant charged-off statuses.



## Significance of Loan Status with Respect to Different Parameters:

### Annual Income:

1. Borrowers with higher annual incomes seem to have a higher rate of current loans and a higher chance of fully paying back their loans.
2. Conversely, those with lower annual incomes seem to be at a higher risk of having their loans charged off.

### Loan Purpose:

1. The purpose of the loan seems to play a role in its status.
2. Loans for credit card, small business, and debt consolidation purposes, for instance, have varying frequencies of being fully paid, charged off, or currently in payment.
3. Verification Status: The loan status also varies by the verification status. Notably, non-verified loans have a higher count, but it's essential to be cautious as non-verified might also carry higher risks.

## Loan Approval Considerations:

1. Income Level: Higher annual income groups tend to have a better repayment record. Thus, approving loans to these borrowers might be less risky.
2. Purpose of the Loan: Some purposes like debt consolidation and credit cards might be seen as riskier, given their higher default rates.
3. Verification Status: Verified loans or source-verified loans tend to be more trustworthy as their details have been cross-checked, making them potentially safer bets for loan approval.

In conclusion, while these charts provide valuable insights into the relationships between various variables and loan statuses, a more in-depth statistical analysis would provide a clearer picture of the exact risks and predictors of loan default. Always blend qualitative insights with quantitative findings to make holistic lending decisions.