

# **Lending Club Case Study**

## **Business Objective:**

- Identify the risky loan applicants which leads to financial loss.
- Reject defaulters loan application

## **Observations:**

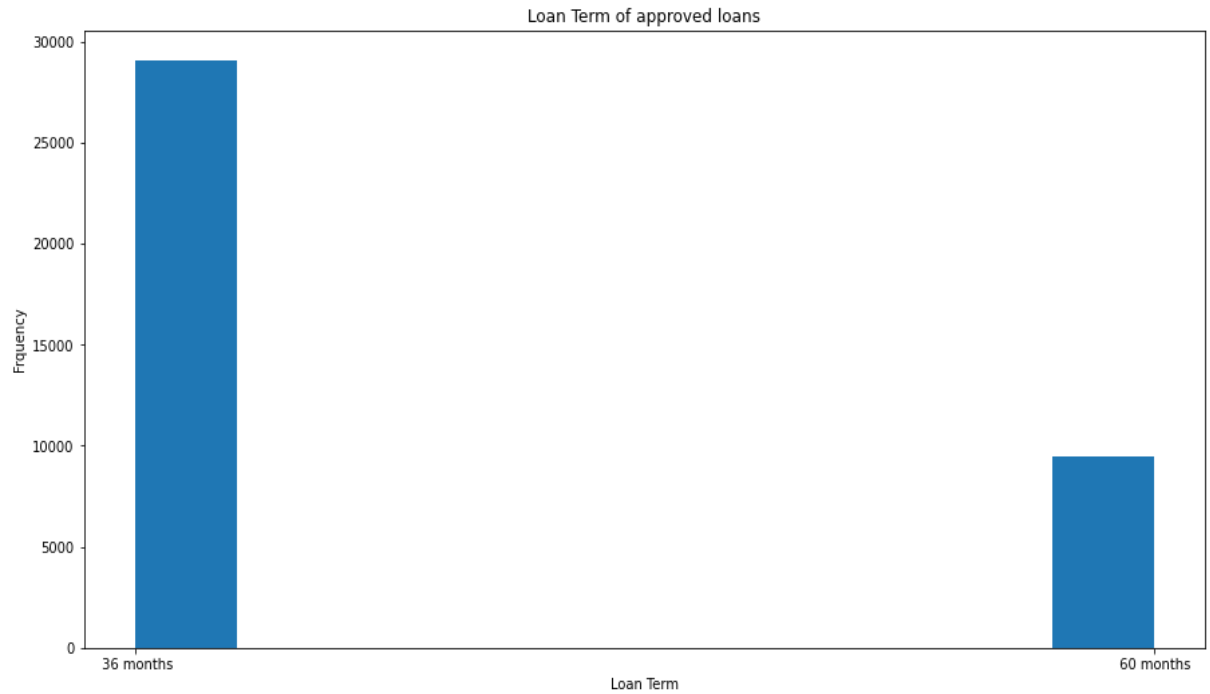
- High risk for approving loans for those who didn't own a home.
- Major customers are applied loan for debt\_consolidation also defaulters are also more in debt\_consolidation
- And the least is for renewable\_energy

## **Analysis**

### **Univariate Analysis**

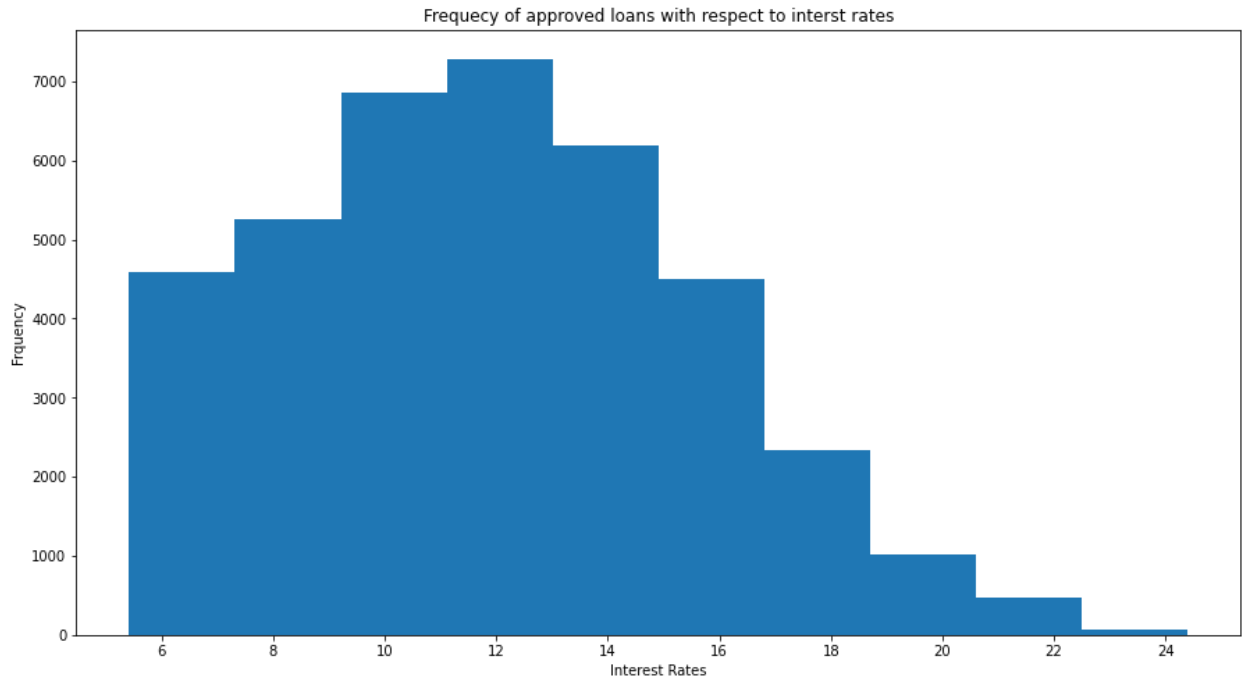
#### **1. Univariate analysis on loan term**

- Most of the customers are applied for lesser loan term.
- Below 10k customers are applied for 60months loan term
- But for 36 months loans nearly 29k customers are applied.
- Which is more than 3times of 60 months loan term



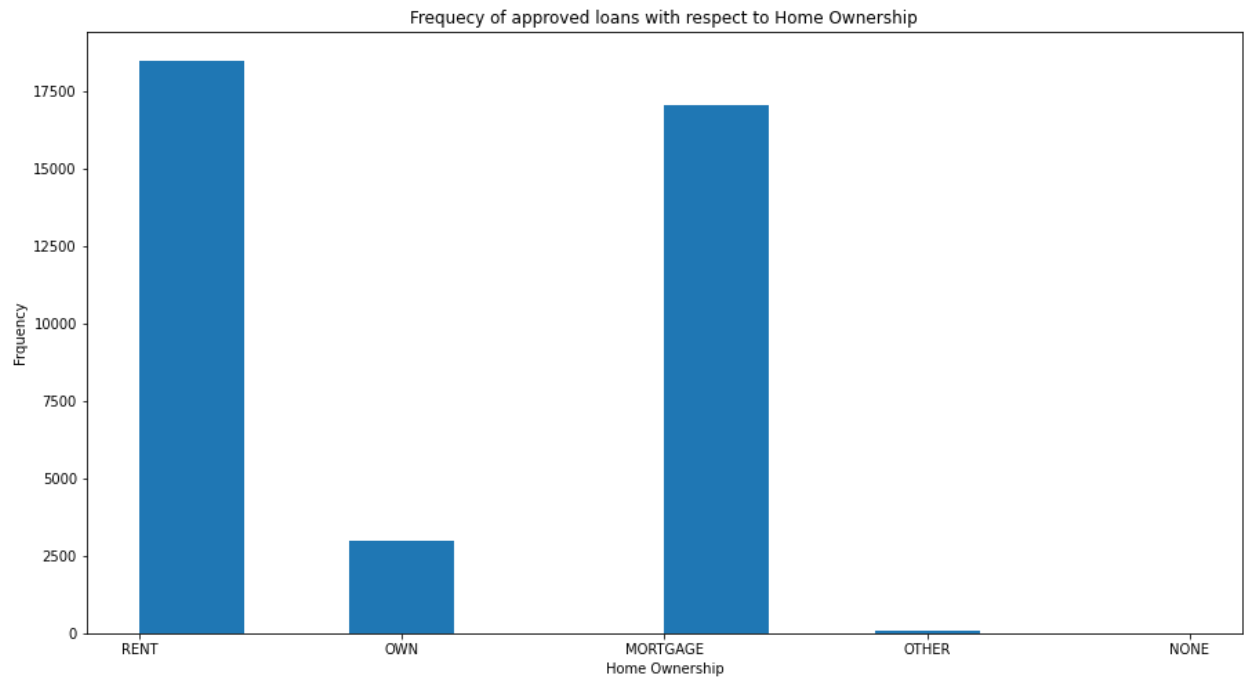
## 2. Analysis on approved loans based on interest rates.

- Above 70k loans are approved with an interest rate of 12%.
- Above 12% interest rate there is a decrease in loan applications.
- So people not likely to borrow loan at very high interest rates.



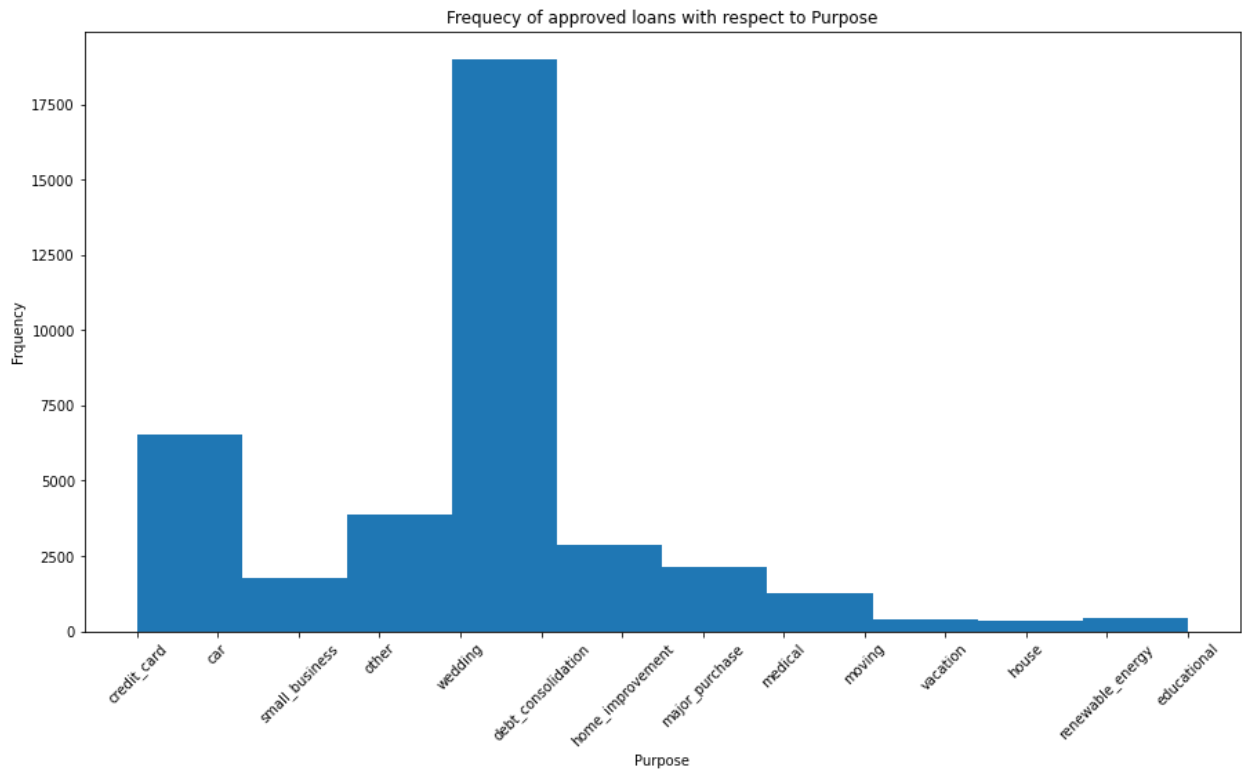
### 3. Analysis on home ownership

- People who are living in there on home are less interested in applying for loans
- People who are living in mortgage or rented homes are more likely to apply for loans.



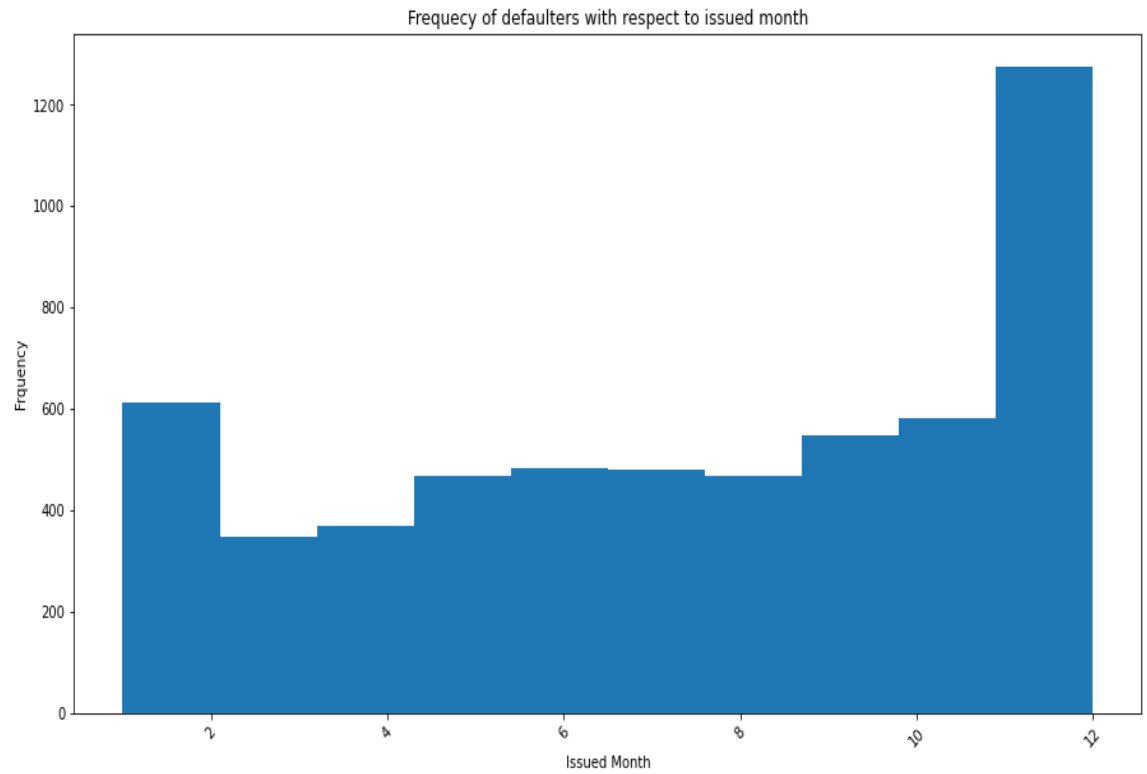
#### 4. Analysis of approved loans with respect to purpose

- Most of the people are applied loans for debt\_consolidation
- And the least is in housing loans.



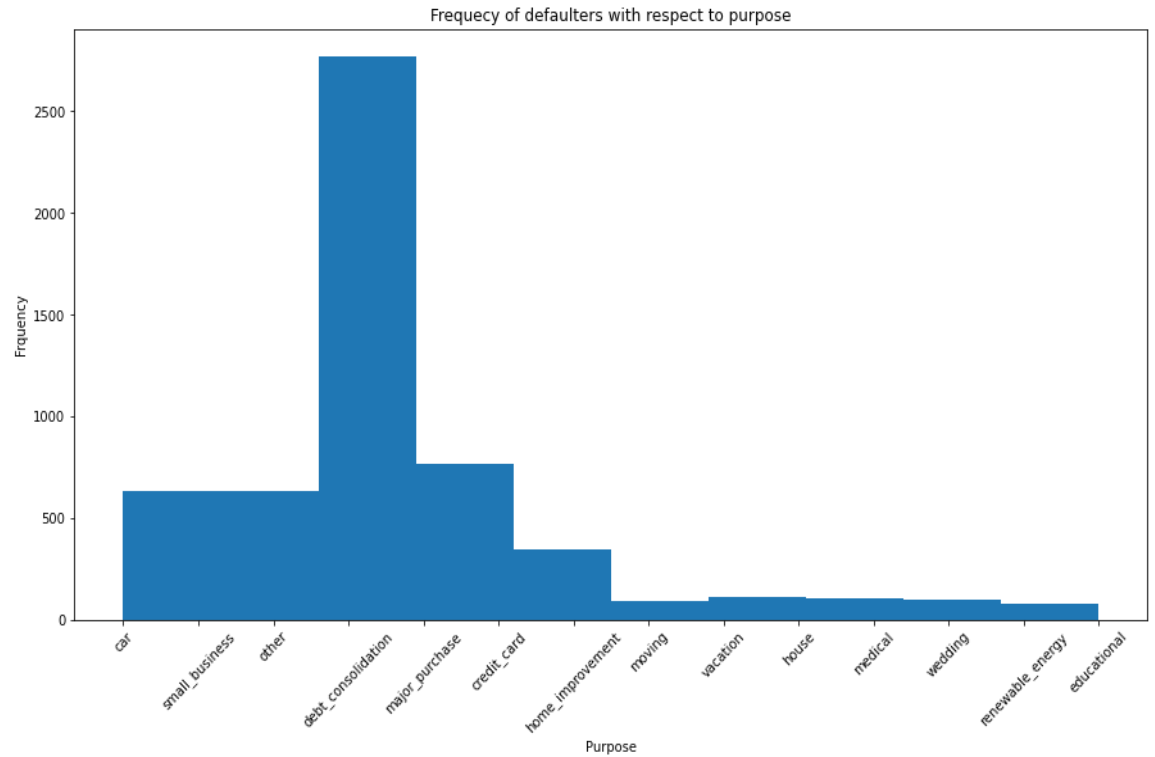
## Segmented Univariate Analysis

1. Analysis of defaulters on the basis of issued month
  - Most of the defaulters loan issued month is December followed by January.



## 2. Defaulters loan purpose analysis

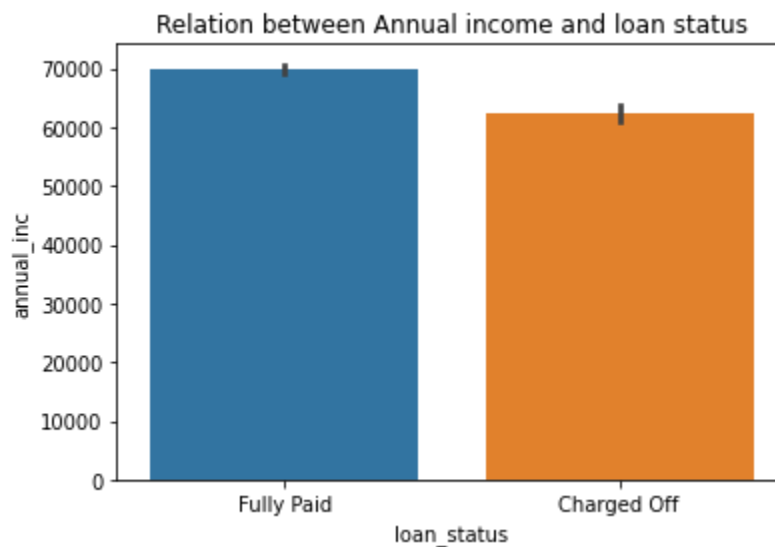
- There is very high range of loan are defaulted when the loan applied for the purpose of debt consolidation
- And the least is for renewable energy



## Bivariate Analysis

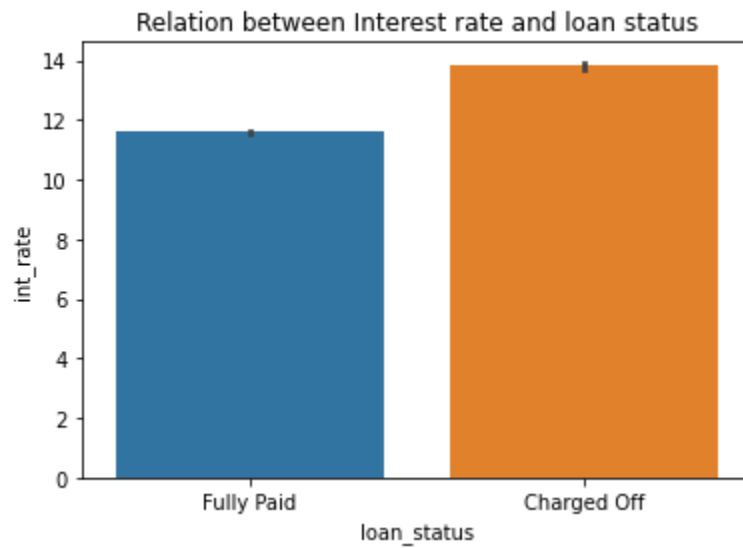
### 1. Loan repay status based on annual income

- When the annual income is high, there is little bit high chance to repay the loan
- But there is no high difference.



2. Loan repay status based on interest rate.

- For high interest rates defaulters frequency is also high

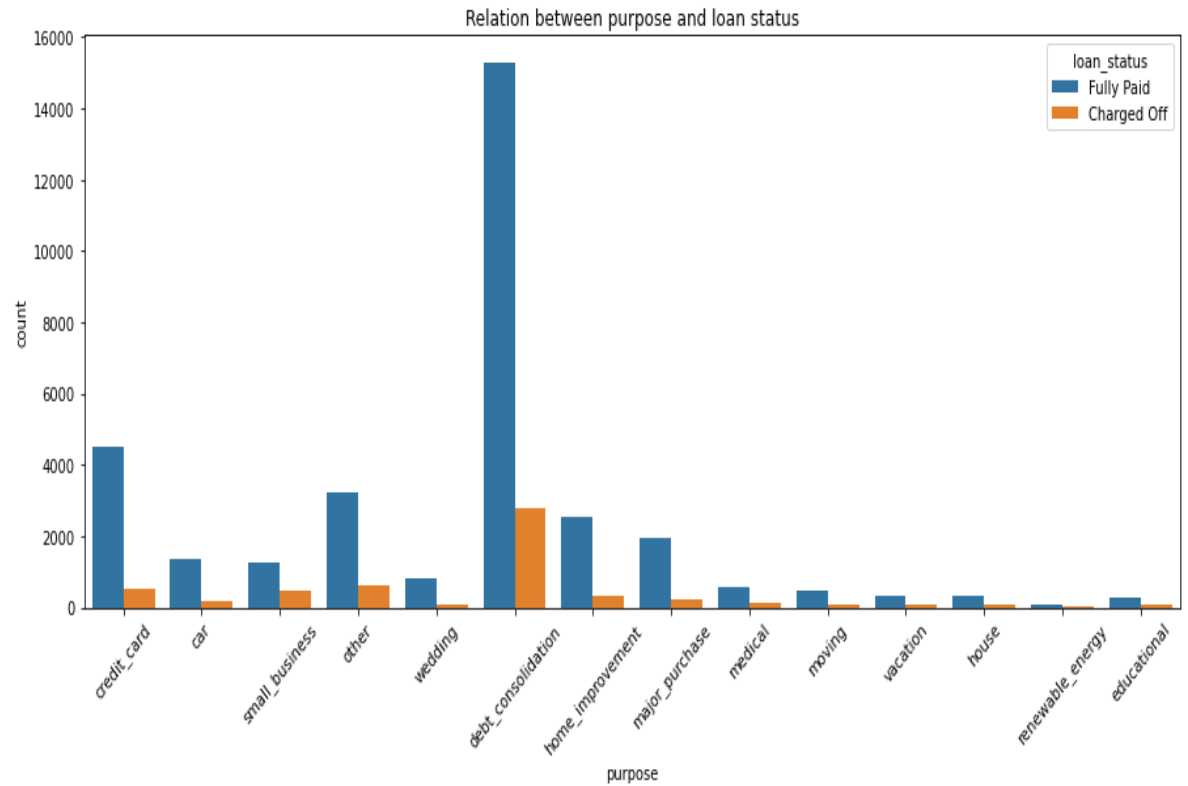


### Multivariate Analysis

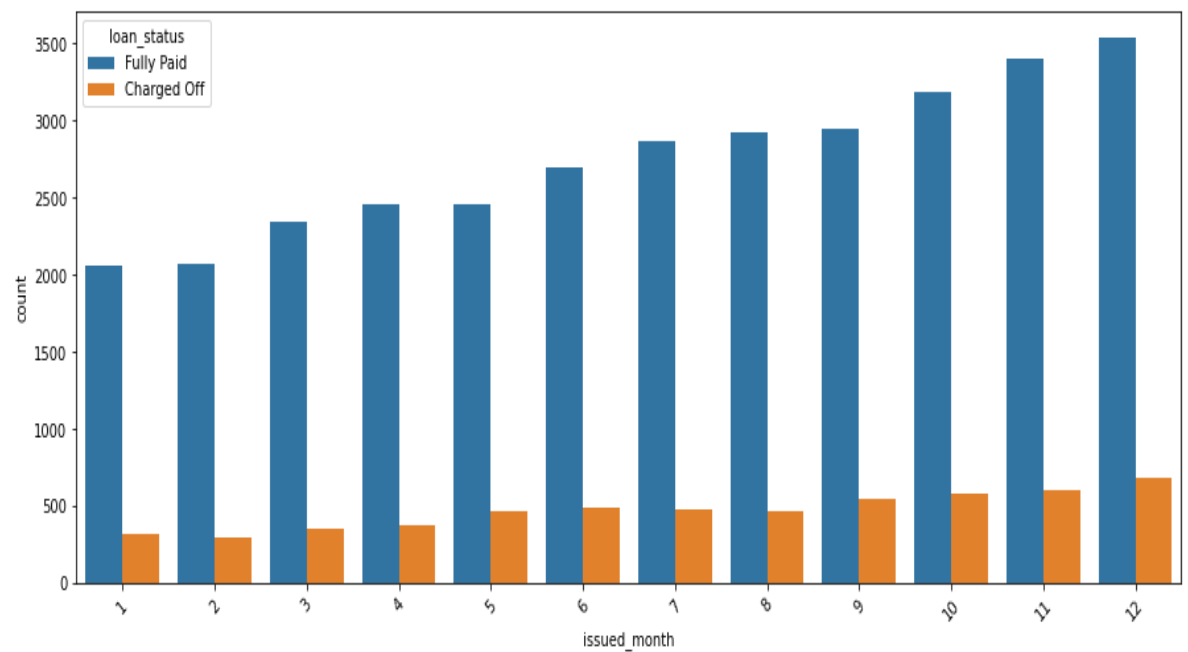
1. Analysing the frequency of loans with purpose and loan status

- High number of loans are applied for debt\_consolidation
- Also defaulters rate is also high for the purpose of debt\_consolidation





2. Analysing relation between loan approval month and loan status with there frequencies
- Couldn't able to find a stong relation in loan approval month and defaulters.



3. Analysing relation between home ownership and loan status with frequencies.
- If the borrower didn't have own home, then there is a higher chance for defaulting.

