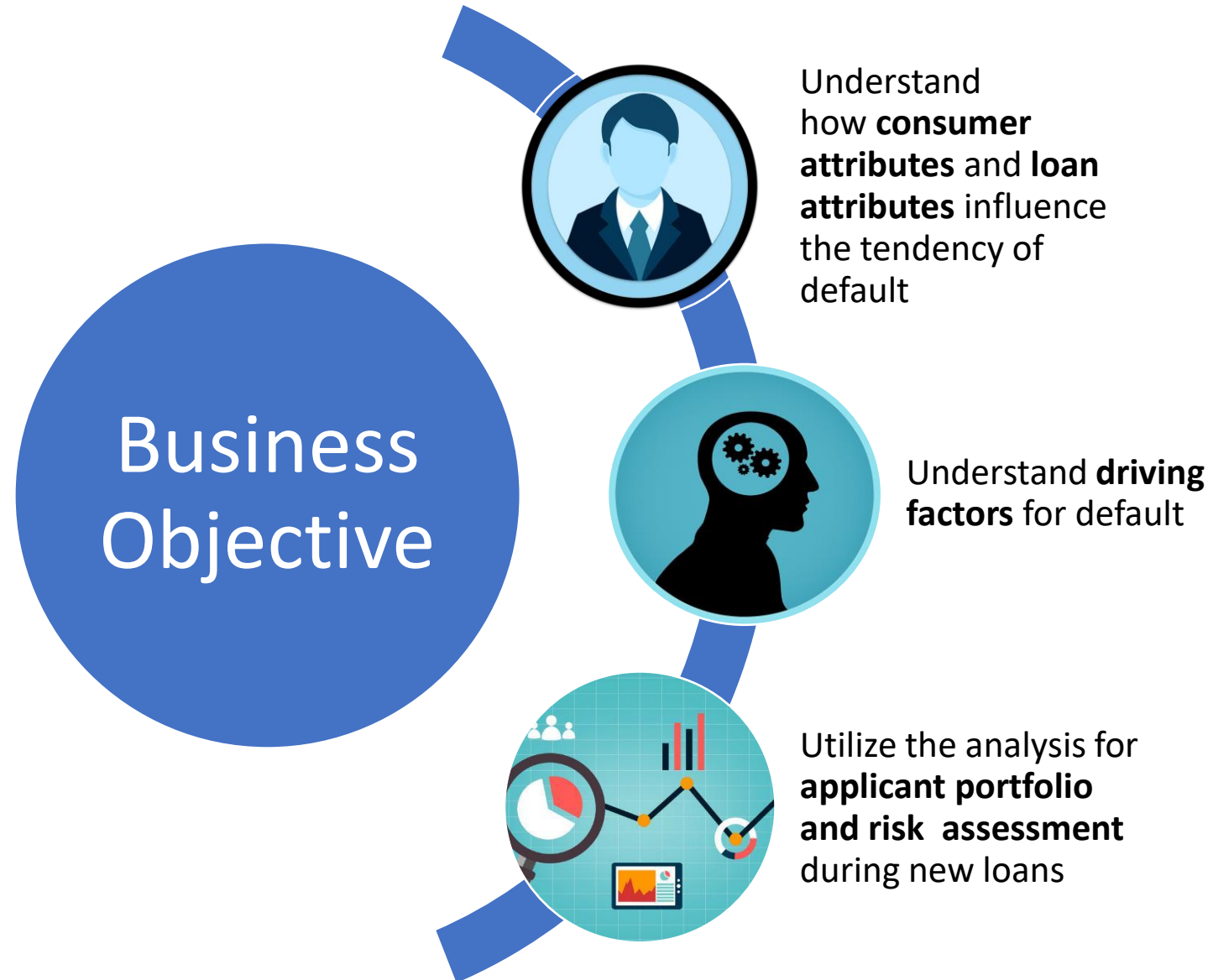
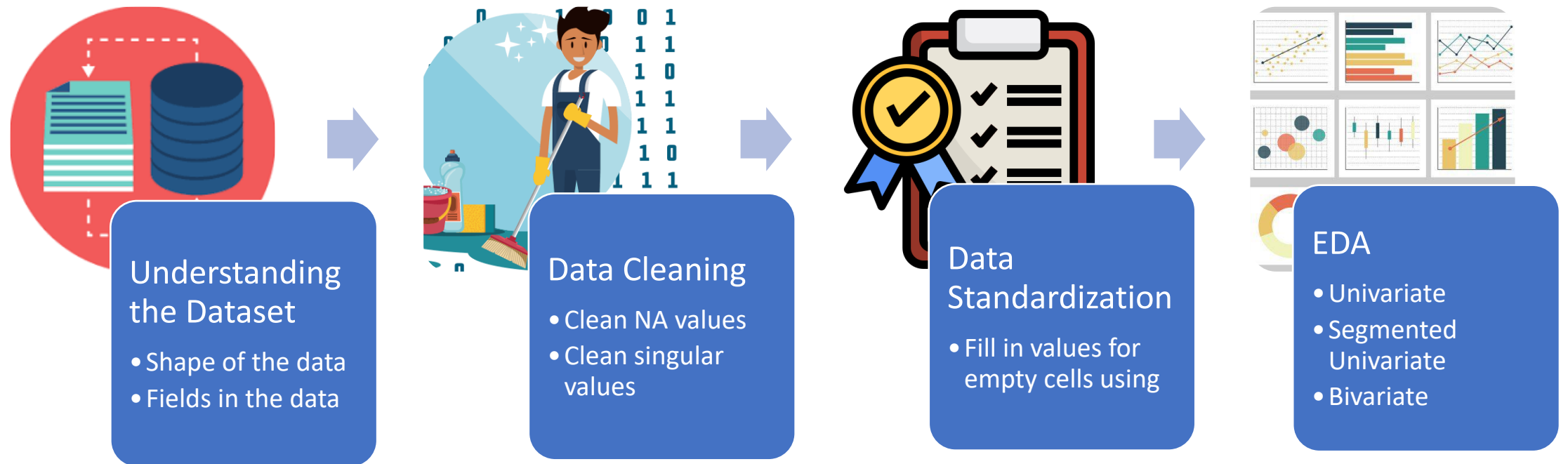


# LENDING CLUB CASE STUDY

By – Suraj Kumar Panigrahi



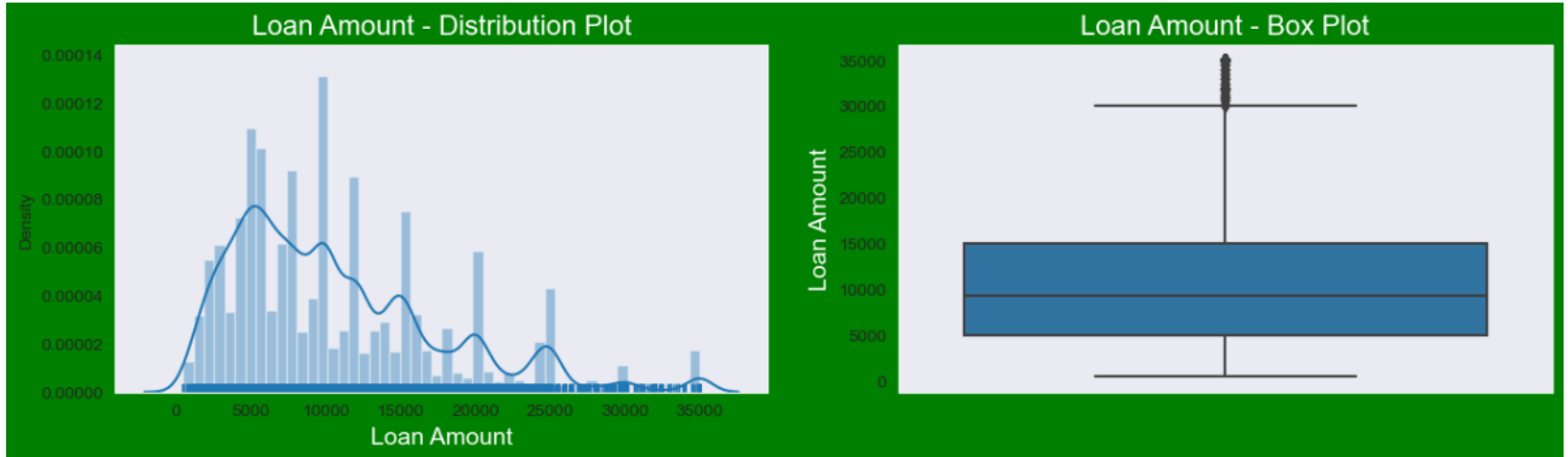
# Problem Solving Process



# Data Preparation Process

- Removed unnecessary and empty columns
- Removing outliers
- Removing duplicate columns
- Handling missing values
- Creating derived attributes

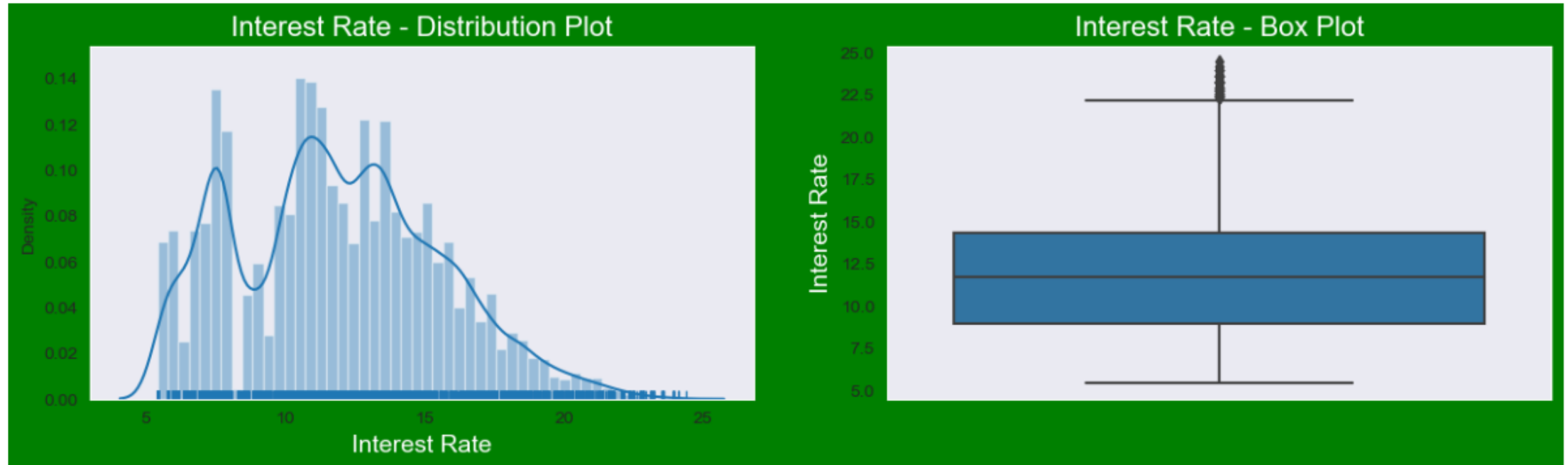
# Loan Amount Analysis



## Observations

- Most loans range from 5000 – 15000
- Average loan amount is around 10000

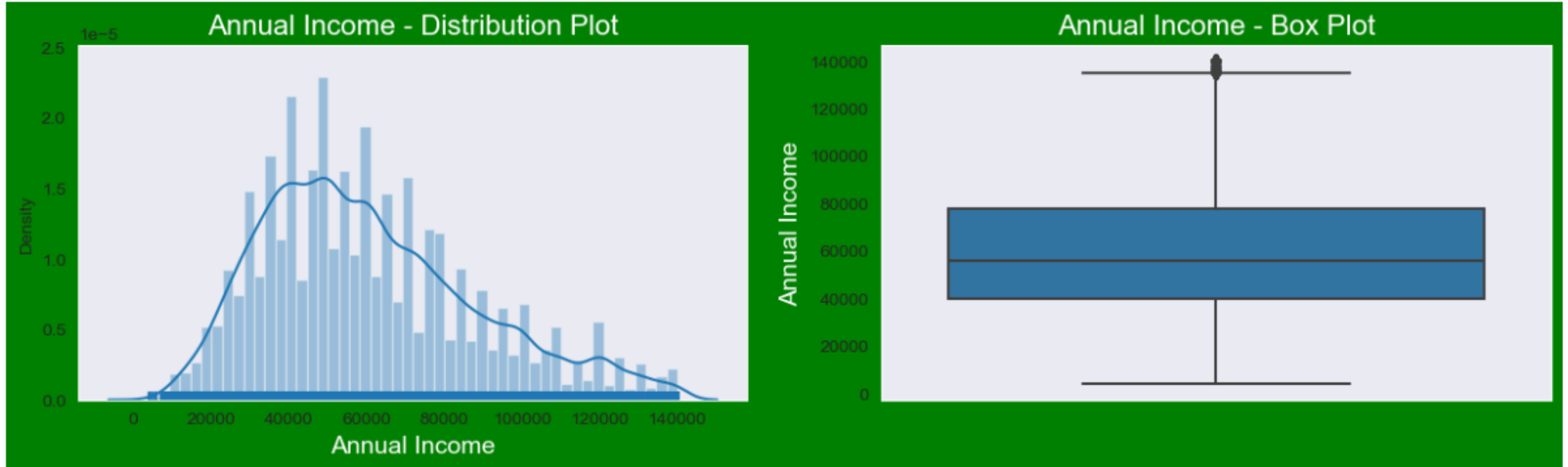
# Interest Rate Analysis



## Observations

- Most interest rates range from 9% – 14%
- Average interest rate is around 12%

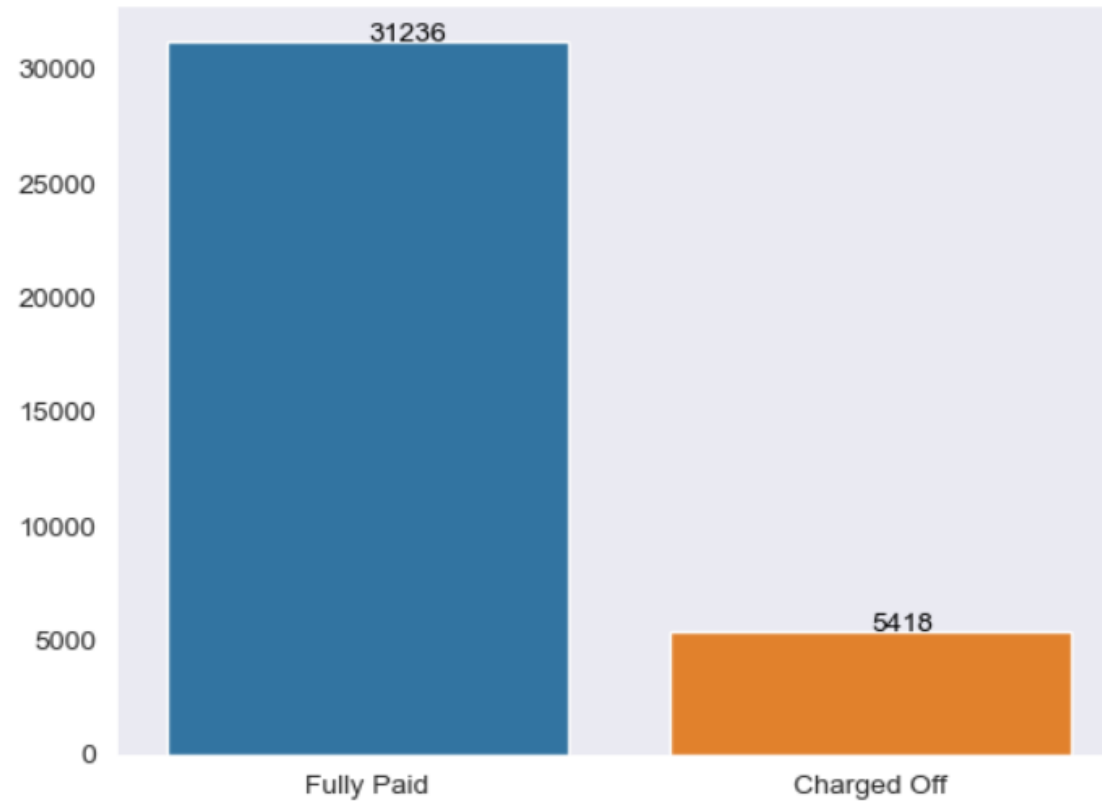
# Annual Income Analysis



## Observations

- Annual income ranges from 40K – 80K
- Average interest rate is around 57K

# Loan Status Analysis



## Observations

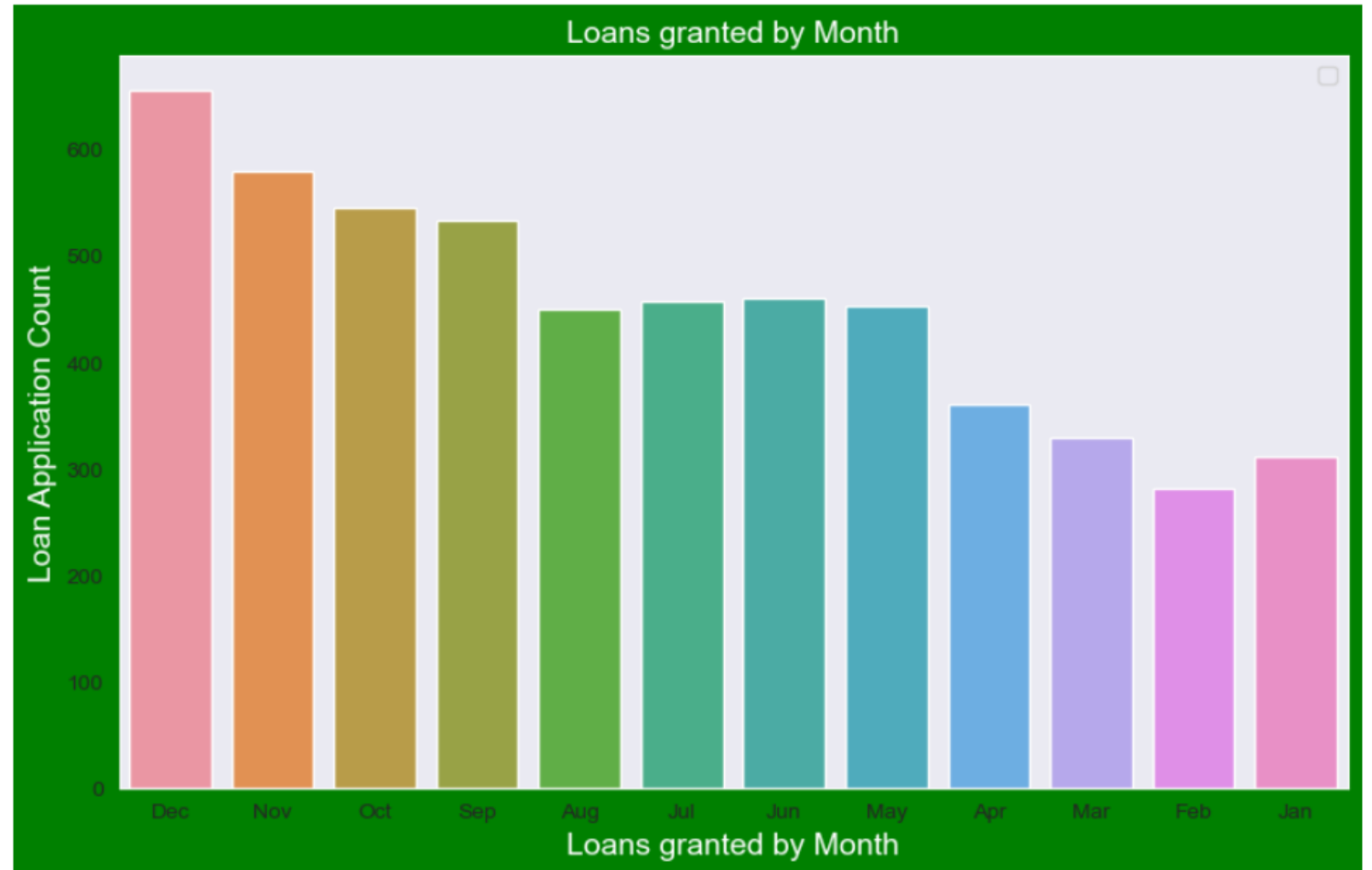
- Around 14% of the total loans were charged off



# Loan Approval Analysis By Month

## Observations

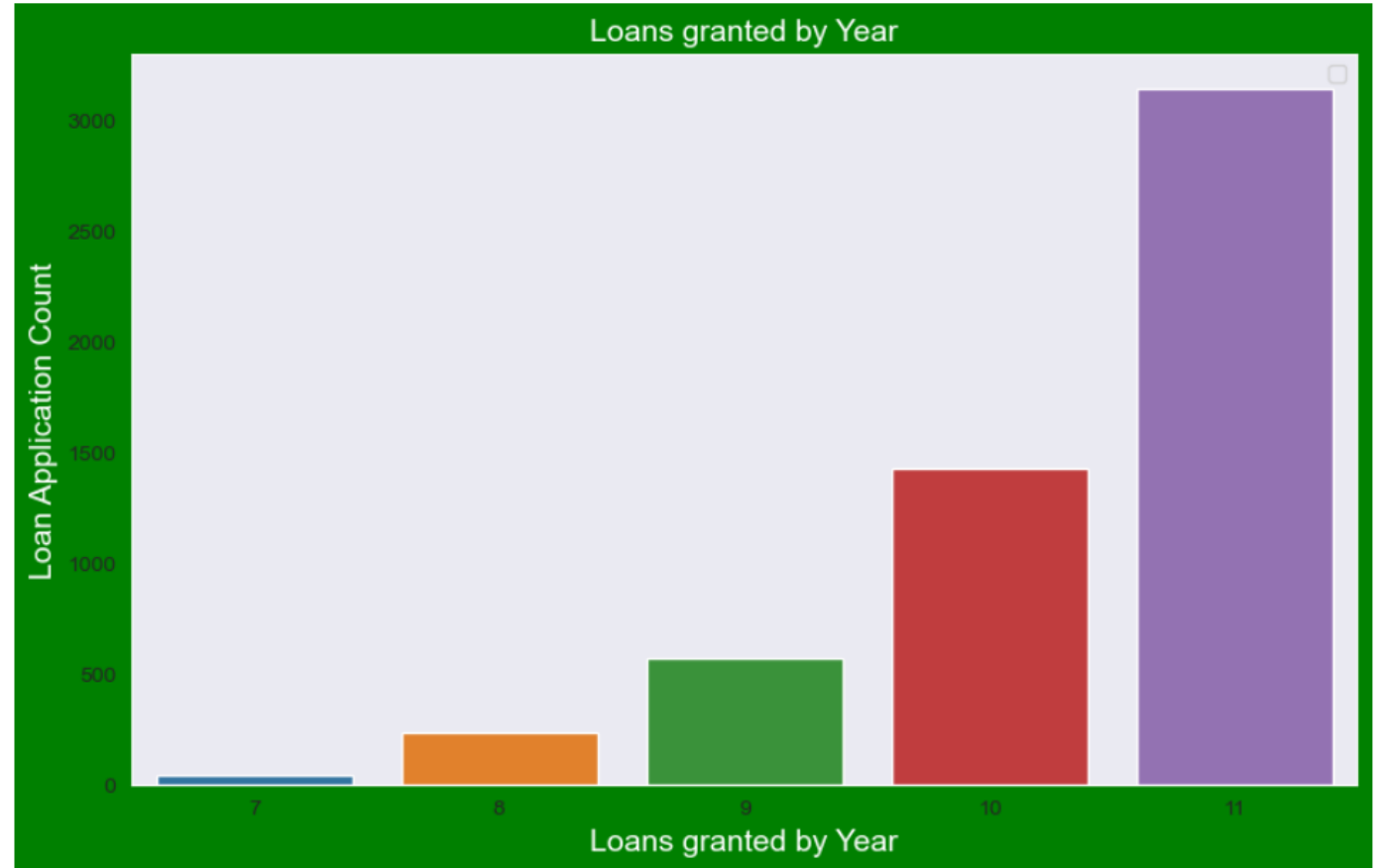
- Highest number of loan application were approved in the month of December



# Loan Approval Analysis By Year

## Observations

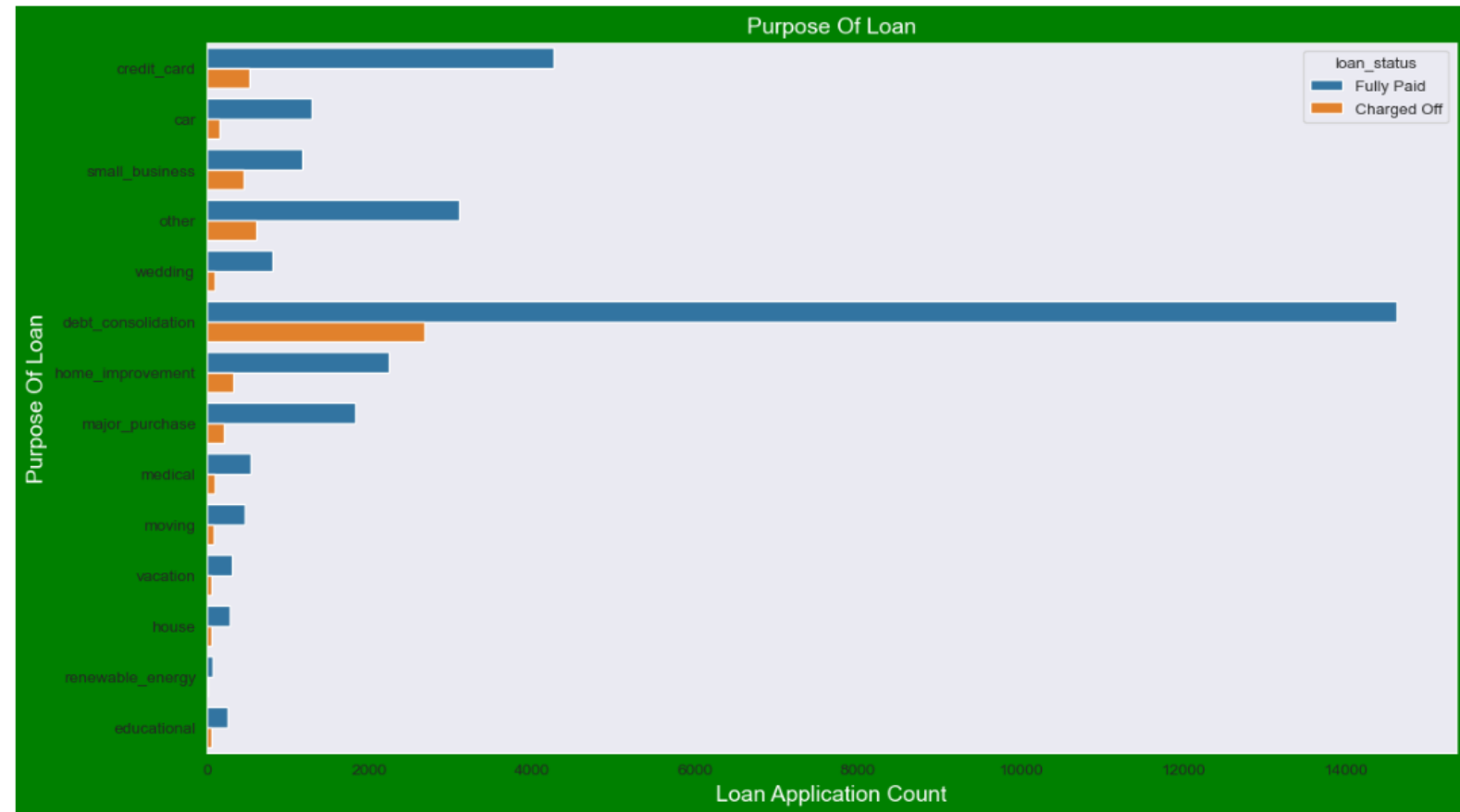
- Highest number of loan application were approved in 2011



# Loan Status Analysis by Purpose of loan

## Observations

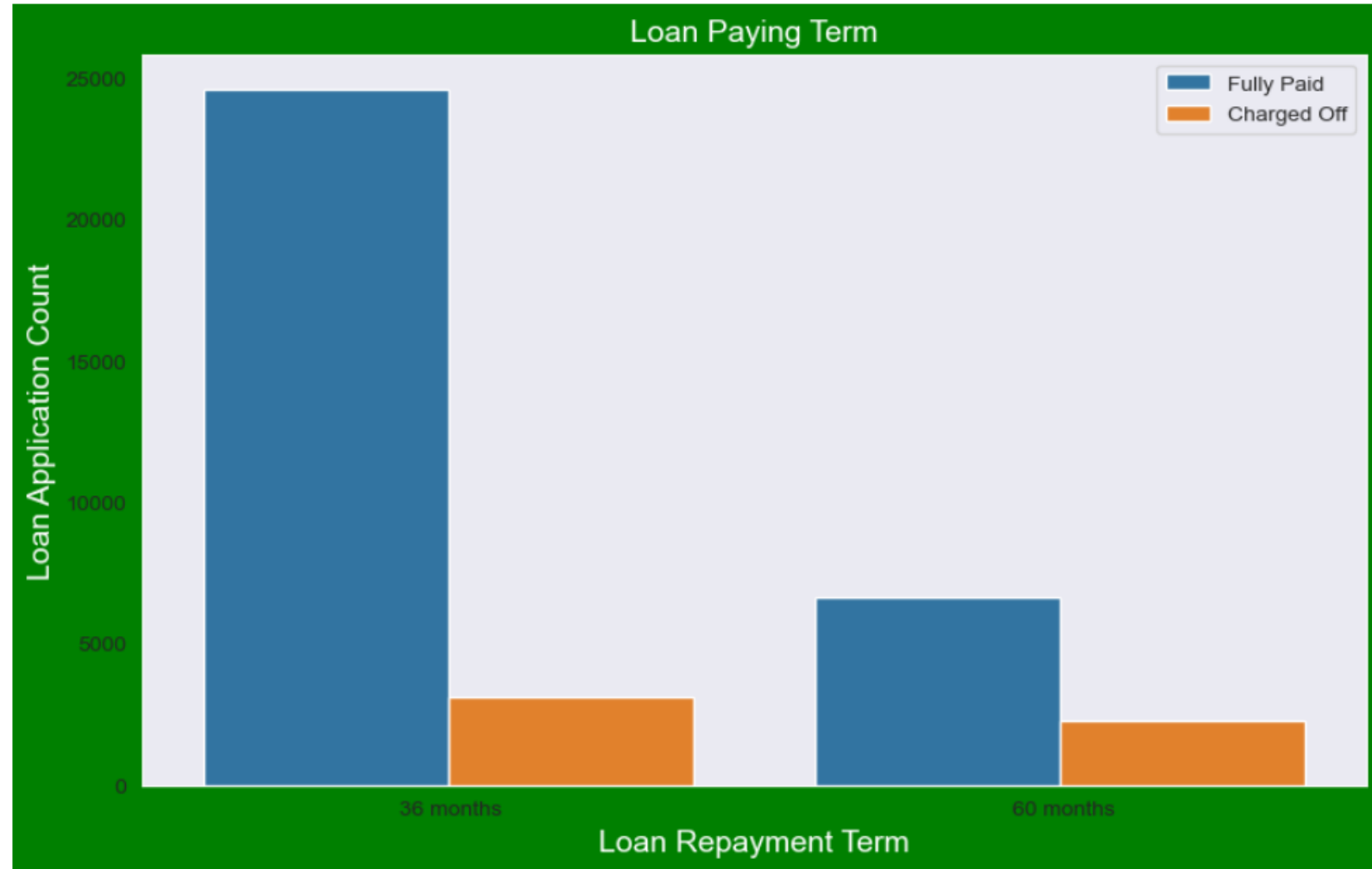
- Maximum number of applications were approved for debt consolidation purposes followed by credit card payments
- The number of charged-off loans were highest for debt consolidation



# Loan Status Analysis by Tenure of loan

## Observations

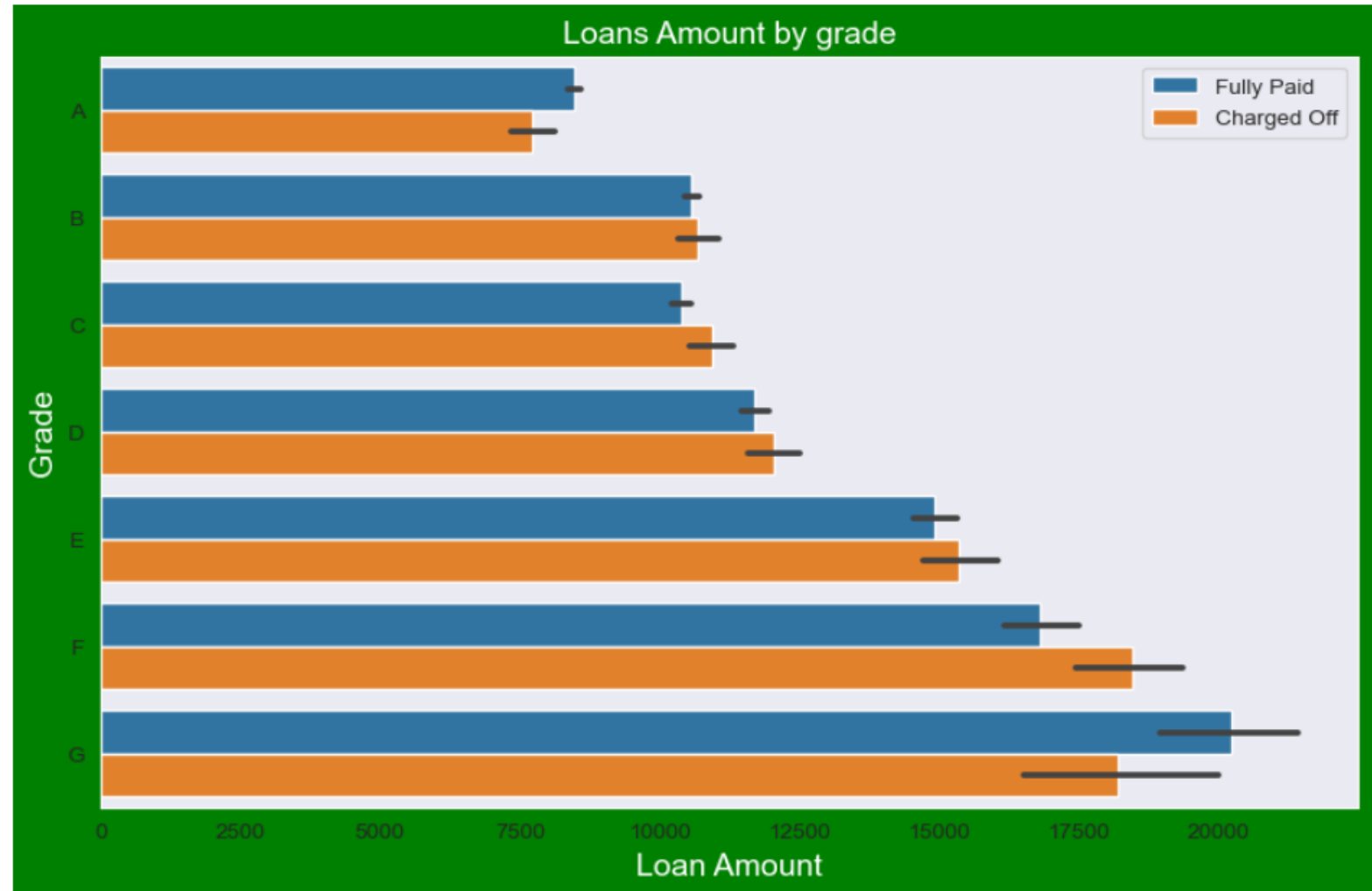
- Most loan repayment happens when tenure is 36 months
- The percentage of charged-off applications is high when loan tenure is 60 months



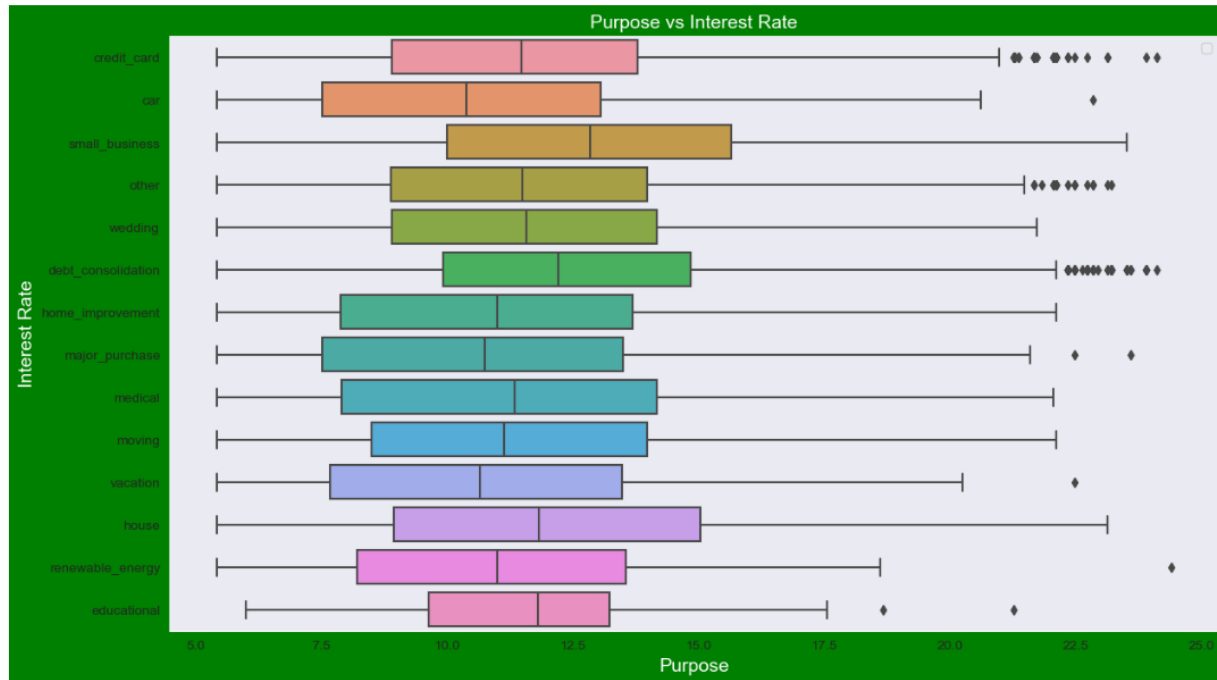
# Loan Status Analysis by Tenure of loan

## Observations

- Most loan applications charged-off is for grade 'F'
- Almost 50% of the loans granted to grade 'B' is charged-off.

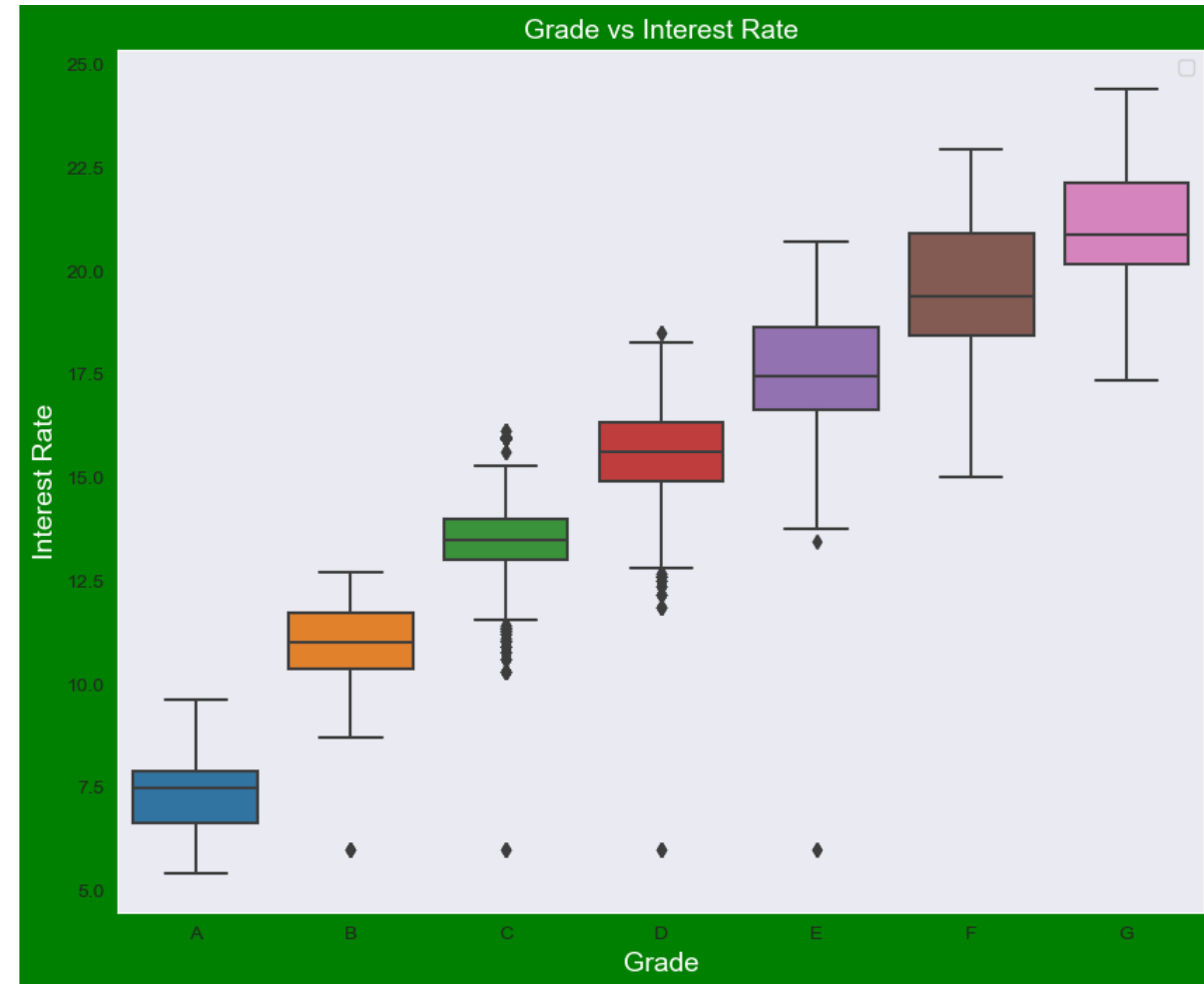


# Interest Rate Analysis based on Purpose and Grade



## Observations

- Average interest rates are high for small business.
- Average Interest rates increases with increase in grade from A to G



# Conclusion

- Loans having higher interest have a greater risk of default. Applicant purpose and home ownership are to be verified before approval.
- Loans applied for the purpose of “DEBT CONSOLIDATION” tend to be at risk of default.
- Loans applied for 60 months tenure are at greater risk to be defaulted compared to loans applied for 36 months
- Applicants in grade ‘F’ and having income in the range of 15K-20K tend to default.