

Lending Risk Analysis

Somanath Bhuyan

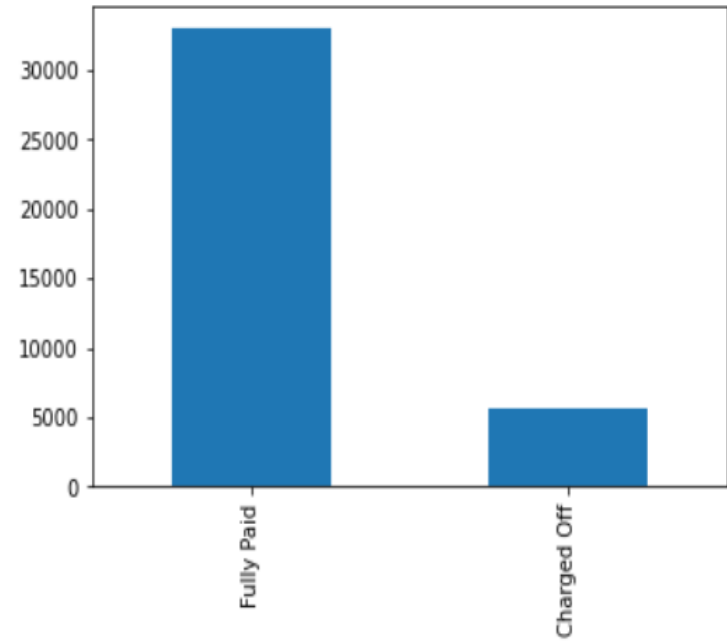
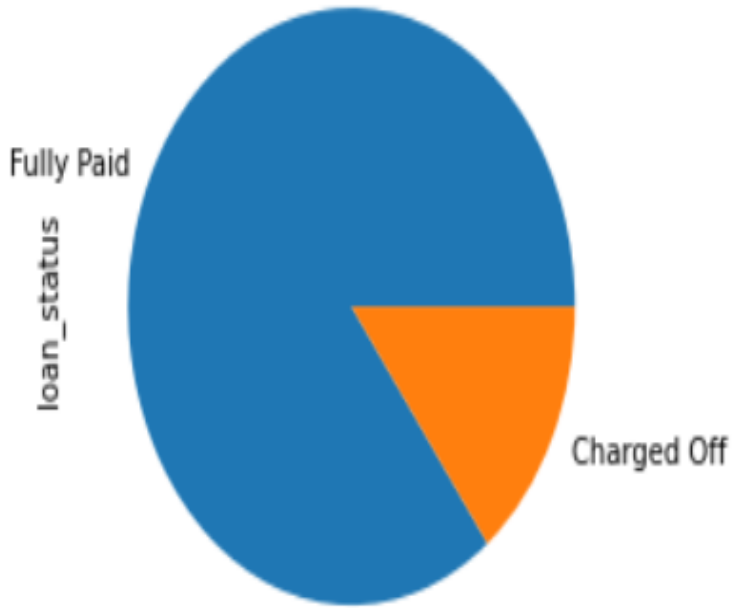
Objective of Analysis

- To understand how **consumer attributes** and **loan attributes** influence the tendency of defaulting a Loan payment.
- Identify risky loan applicants, then such loans can be reduced thereby cutting down the amount of credit loss

Approach for Analysis

- Data Understanding
- Data Cleaning
- Data Analysis
- Based on Analysis, concluding the driving factor and providing recommendation

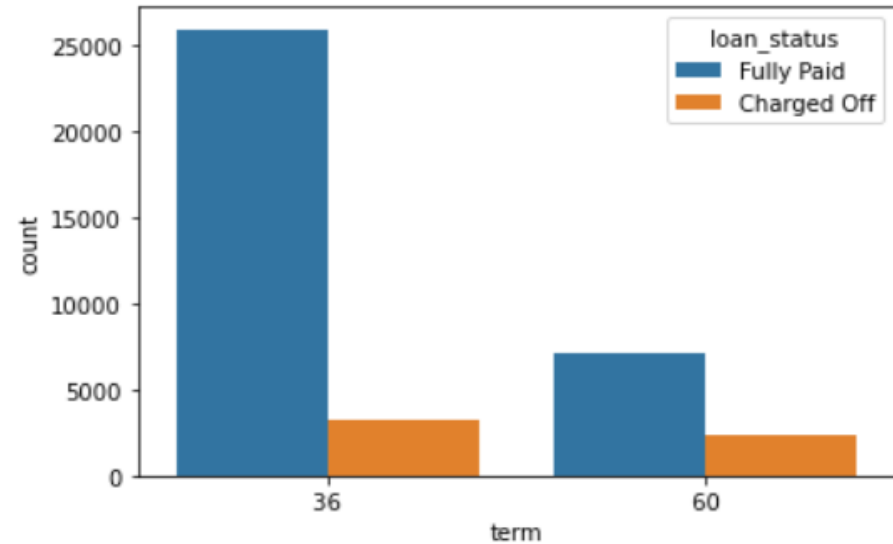
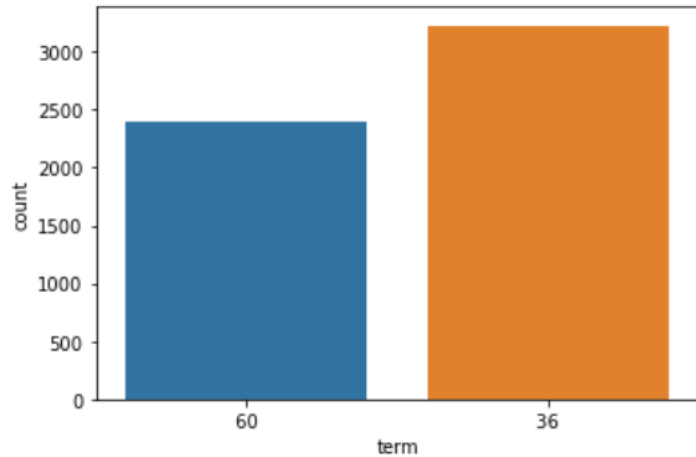
Market Current Defaulter vs Non Defaulters



Even if defaulter are there, Most Loans are Full repayment is happening.

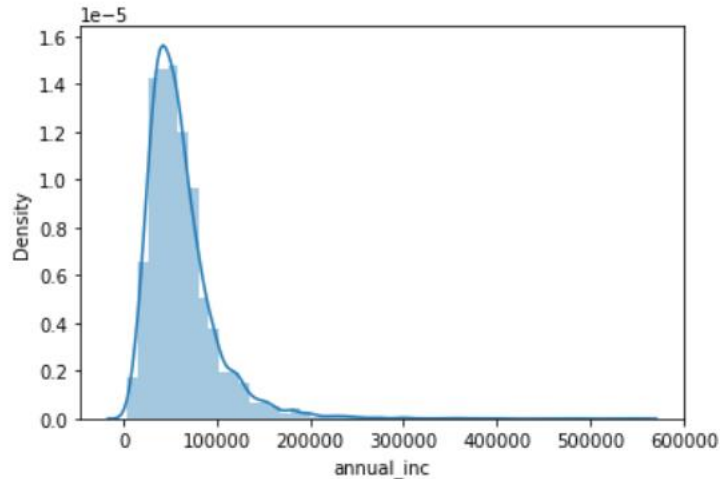
Loan Term Analysis

36 month vs 60 months

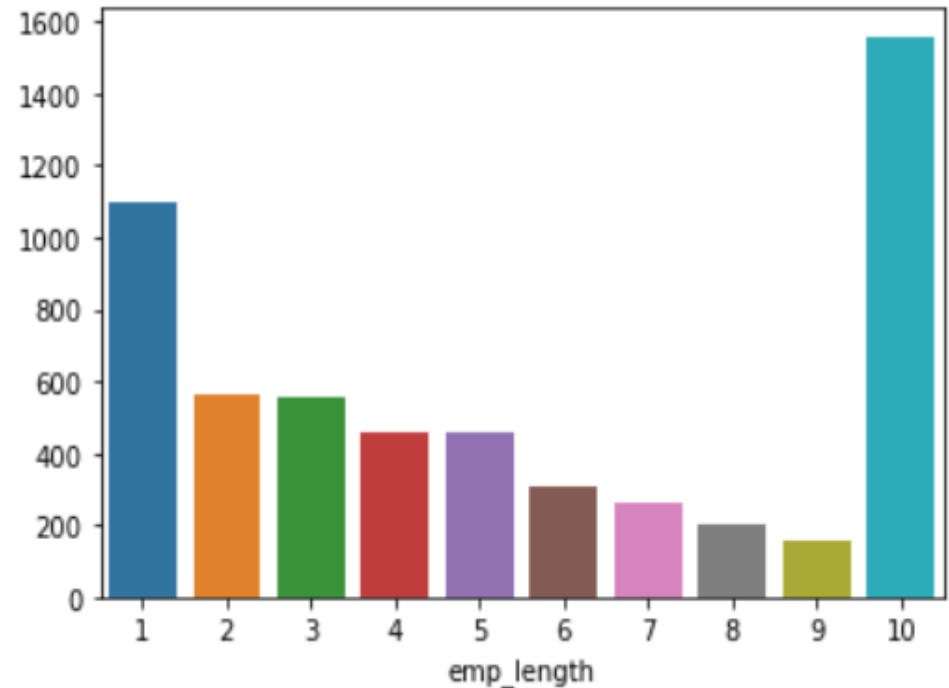


We see only % of default loans, the shorter term has more default than longer term. But when we see the whole picture, In loan distribution process the defaulted loan percentage is more in longer term if fully paid is considered.

Annual Income And Employment Term

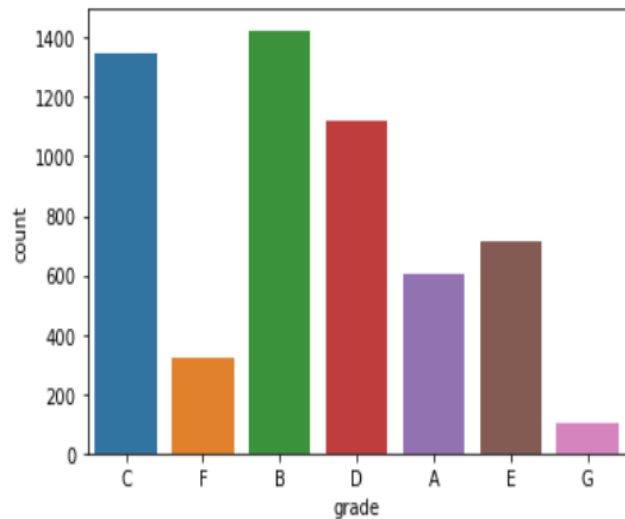


Inference: Most defaults have Annual income of 500000

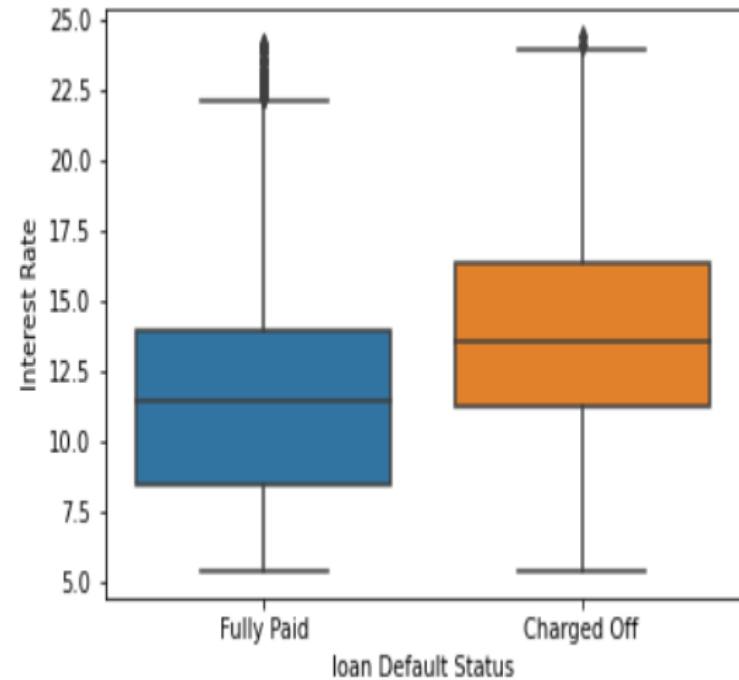


As employment years increases, no of loan defaulter decreases.
There is a Sharp rise in 10 years as 10+ years of service is grouped together into 10 segment.
So we can ignore 10.

Grade and Interest Rate

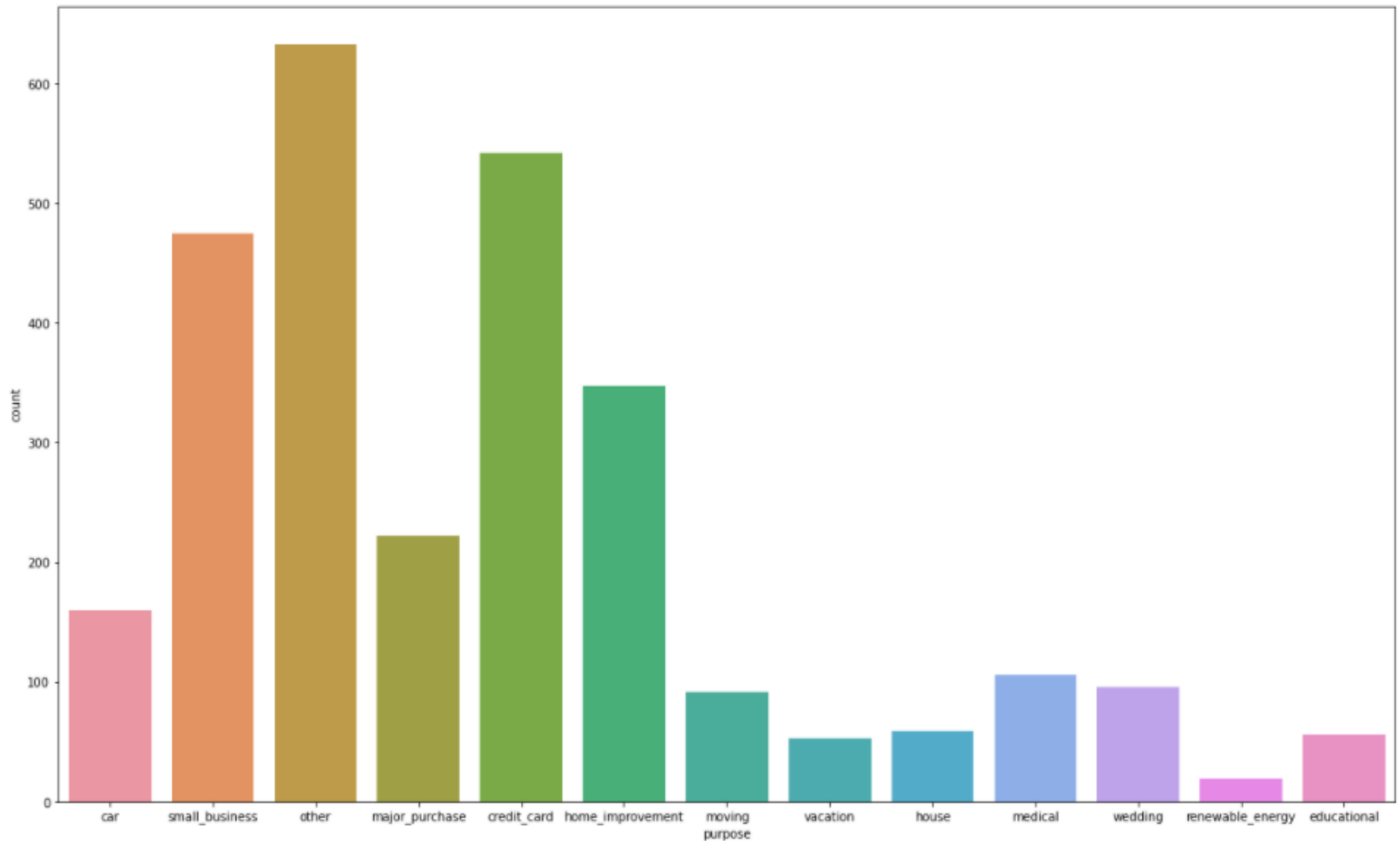


Inference: Most of the default loans have grade of B, C and D.



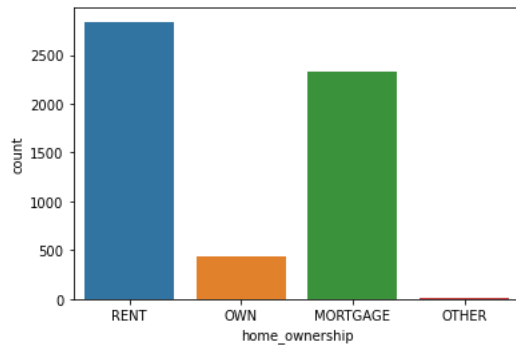
Lower interest rates loans are paid in full and higher is defaulted

Purpose of Loan for Most of the Defaulters

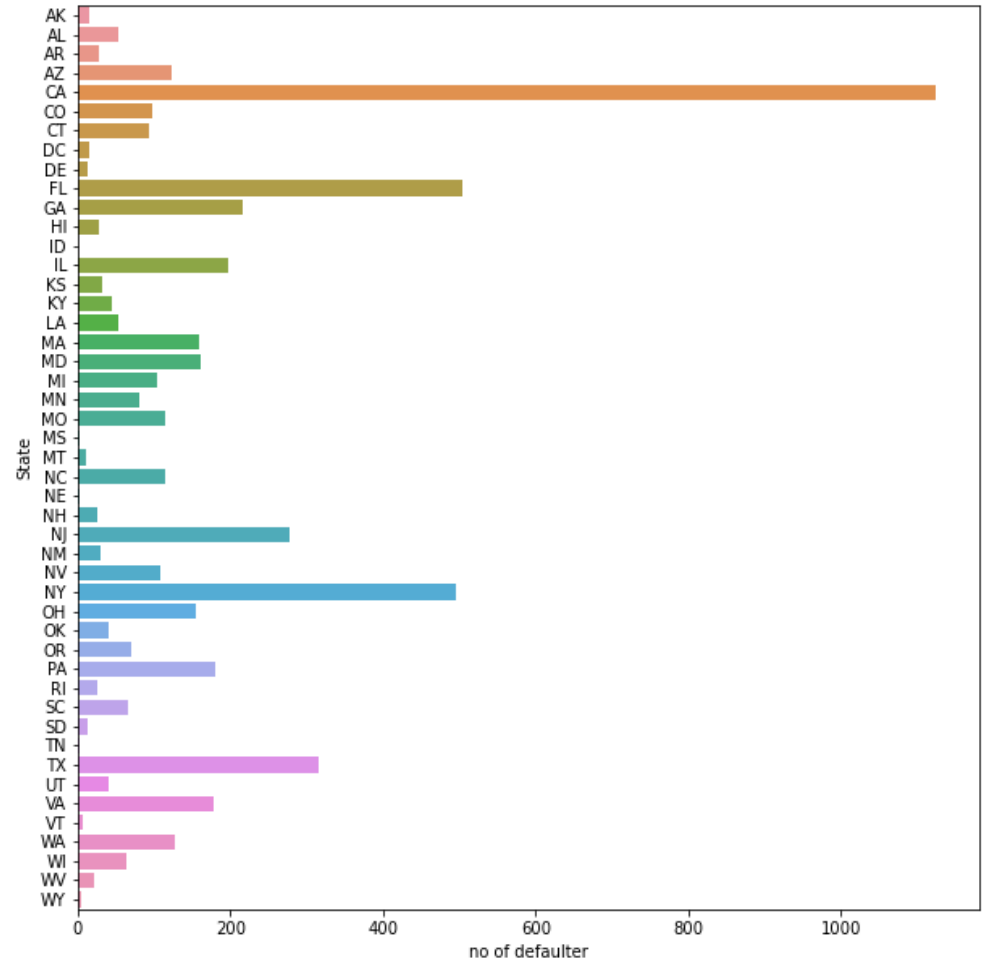


inference: Small Business, Credit card and home improvement are prominent purpose of default

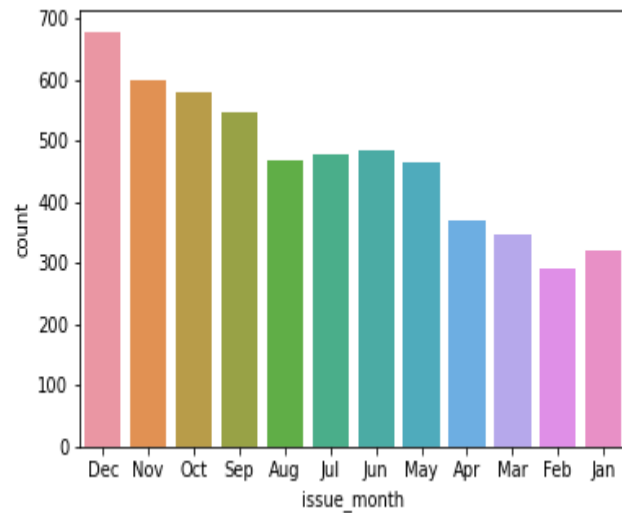
Loan Issue Time, Residence type and Residence State



Inference : Renters and people with Mortgage are more prone to default



Inference: California, Florida and New york has Most number of Defaulters



Inference : During Year end if loan is issued, Most loans are defaulted.

Recommendation

- Loan is recommended for 60 months, for employees who has long term(more than 3 years of exp), with own house not living in CA, FL and NY can be provided low interest loan during start of year are more likely to repay.
- Others can be provided with high interest rate to minimise investment risk.