

EDA Assignment

Lending Club Case study

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Business Understanding

A Finance Company which specialises in lending various types of loans to urban customers. When the company receives a loan application, the company has to make a decision for loan approval based on the applicant's profile.

Company will sanction loan based on various factors and decide Principal amount, Interest Rate, Tenure, EMI, etc. Similar approach will be used on debt consolidation, Home loans, Education loans, Vehicle loans, Credit Card, etc

Business Objective

Find out the strong factor to justify a loan application. Based on this insight, Loan request would be either accepted or rejected.



Learnings from this Assignment

- ★ Understanding of loan.csv data. Cleaning the data for better Analysis. Identifying the key factors required for business justifications.
- ★ Clean and sort out historical information of loan data
- ★ Identify Frequently-Moving-Loan-Products.
- ★ Identify trend in Defaults, waive-off and loss incurred to lending club
 - Year wise defaults
 - Loan type wise defaults
- ★ Trend of loan sanctions - how the pool of money(fund + investment) dispersed for various loans.
- ★ Trend in Interest rate, Tenure, EMI, etc
- ★ Average of loans disbursement, tenure, interest rate, etc.
- ★ **Deciding Parameters** for popular loans types.
- ★ Based on the factors, loan application will be Accepted or Rejected

Understanding Loan Data



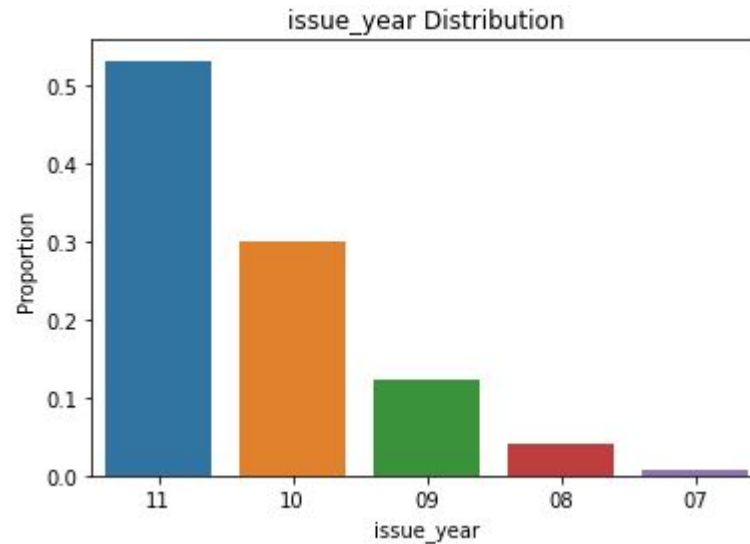
Factors

- ★ **Demographic information** about Customers like Emp Length, Job Title, Annual Income, Zip code, State, Income, etc
- ★ **Information related to disbursing loans** like Principal Amount, Interest Rate, Loan Type, lending money sourced from fund or investment, status of loan, etc
- ★ **Judging Customers** based on Credit history, Delinq, recovery of old loans, Loan purpose, number of ongoing loans, etc. Based on these Loan will be sanctioned to the customer.

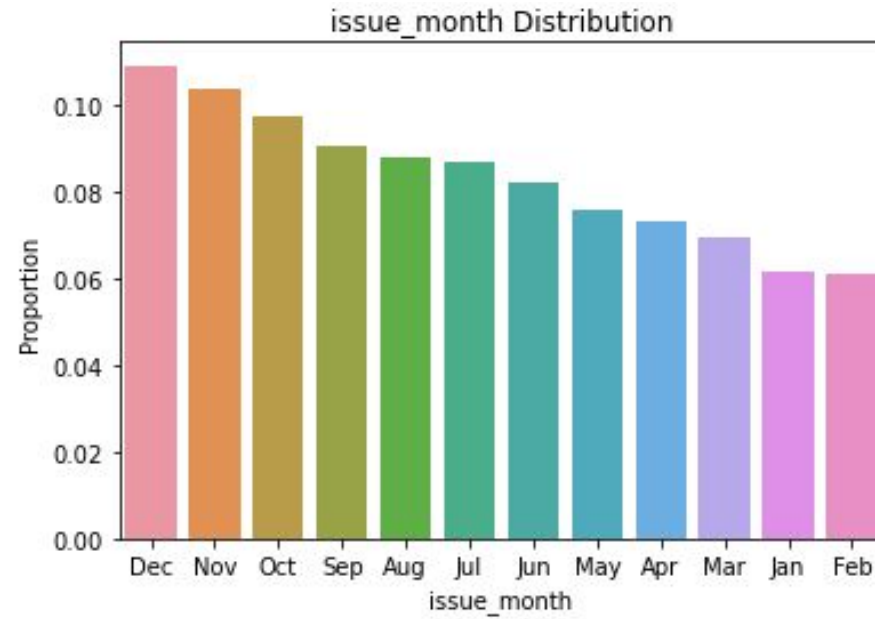
Historical information from Loan.csv

Loan trends from the year 2007 to 2011.

Year-wise loan sanctions

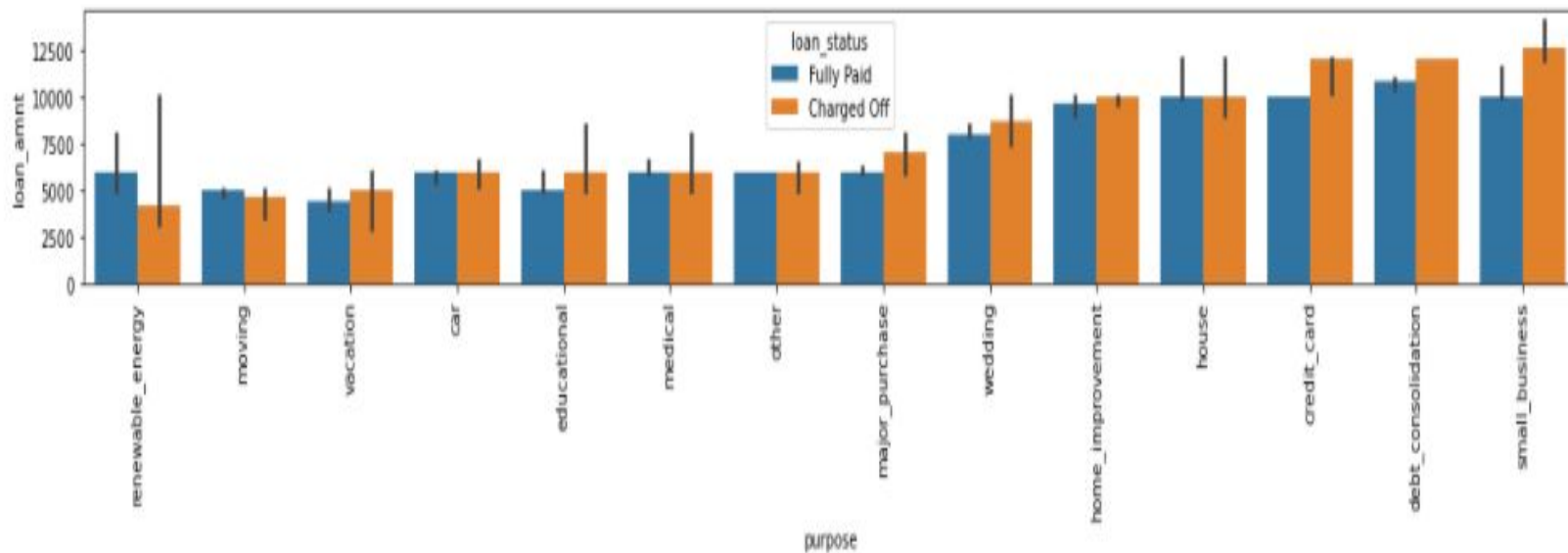


Month wise distribution of loans



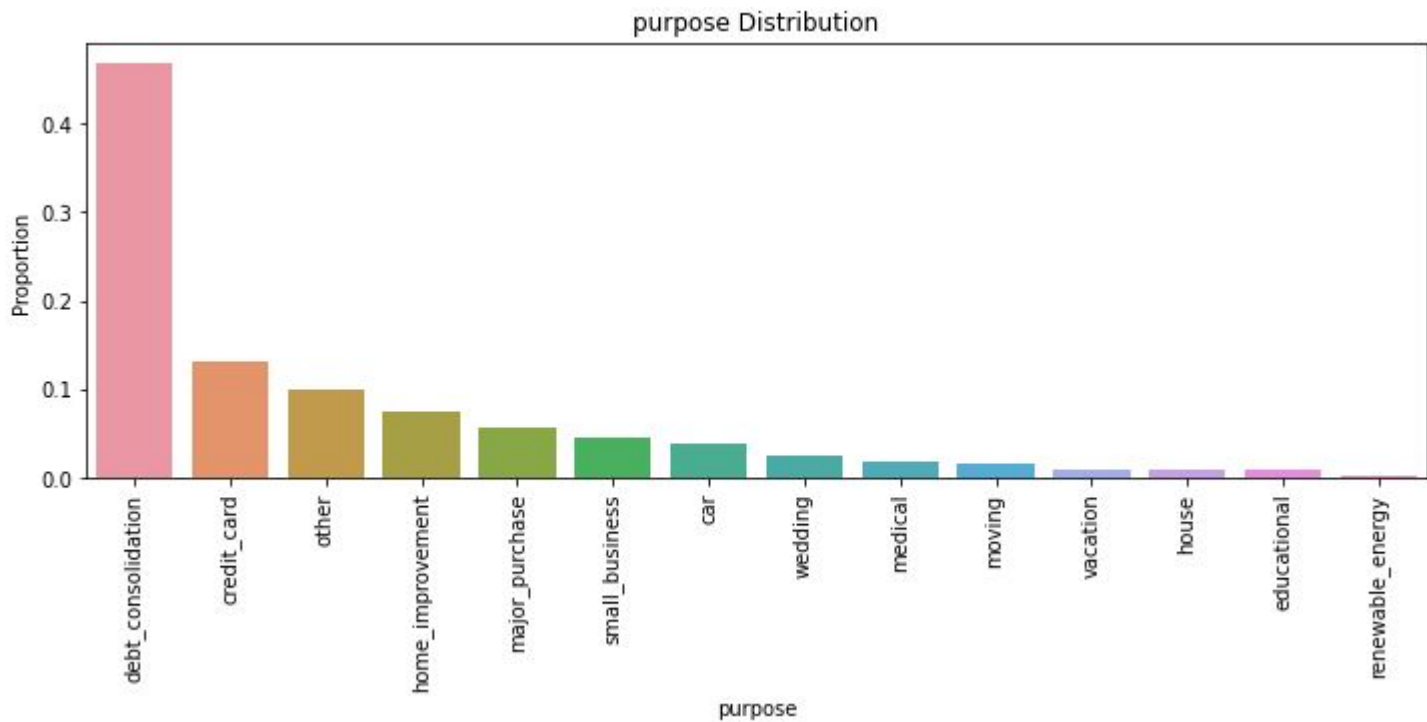
Most sanctioned loans

Top 10 Loans- Small business, Debt consolidation, Credit Card, House, House_improvement, Wedding, etc.

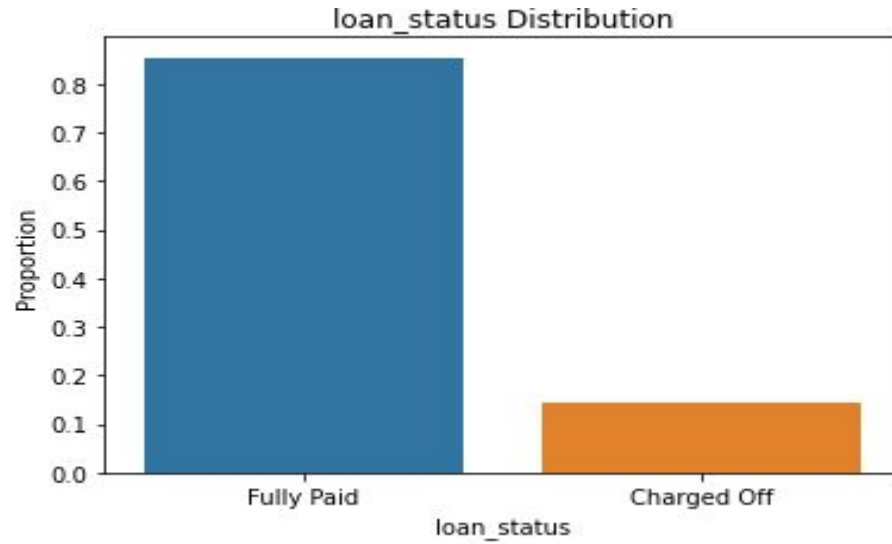


Popular loans products

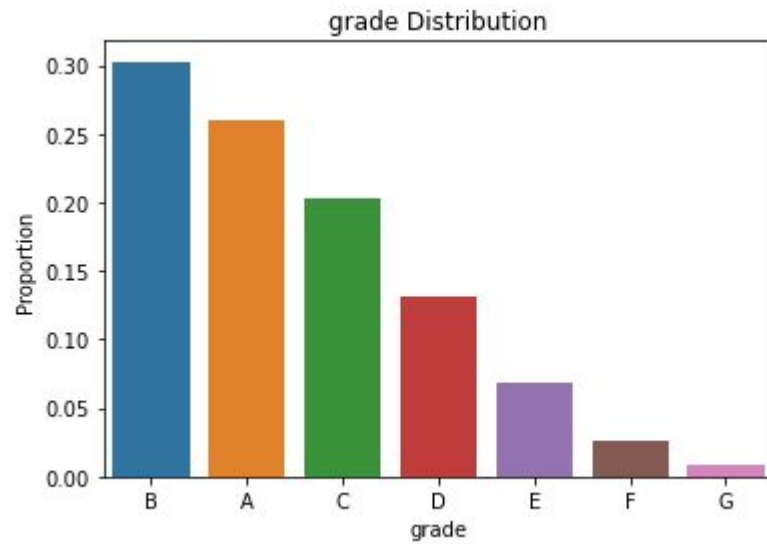
Home_improvement, credit cards,Debt Consolidation, Purchase loans, etc



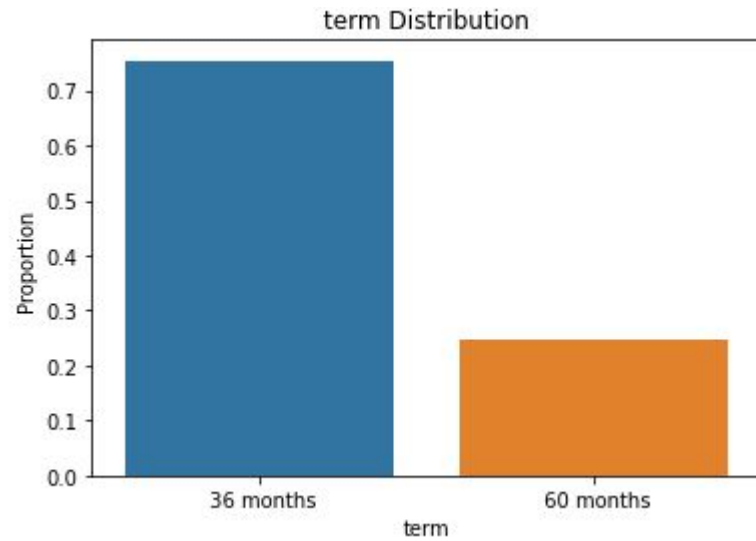
Loss Incurred - Customer failed to repay loan



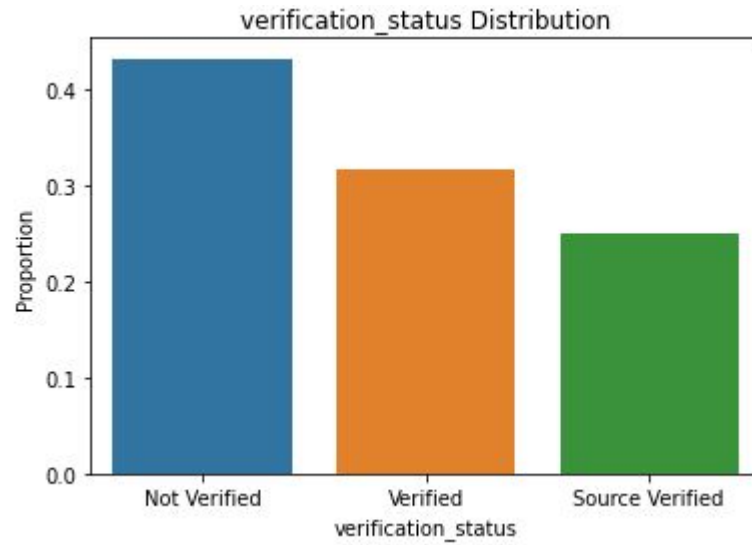
Trend in grade distribution



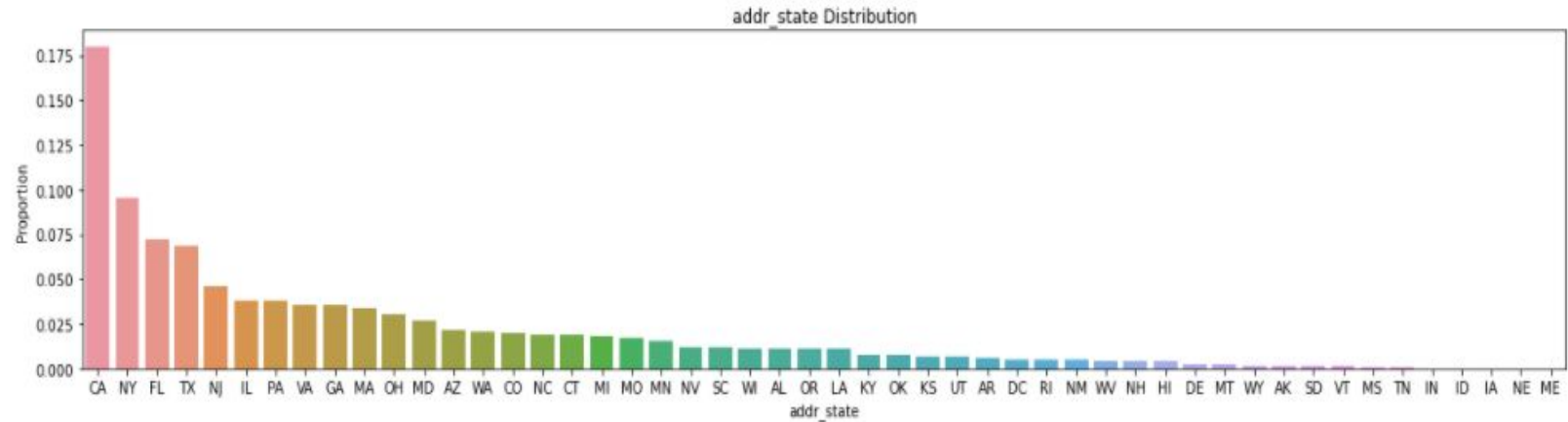
Trend in tenure



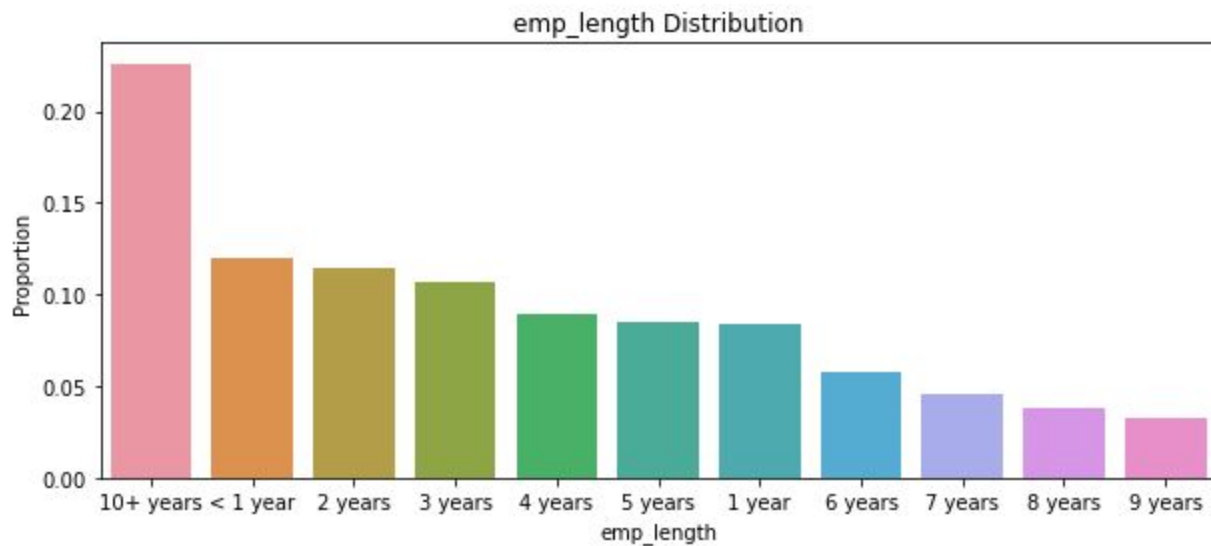
Application scrutiny status



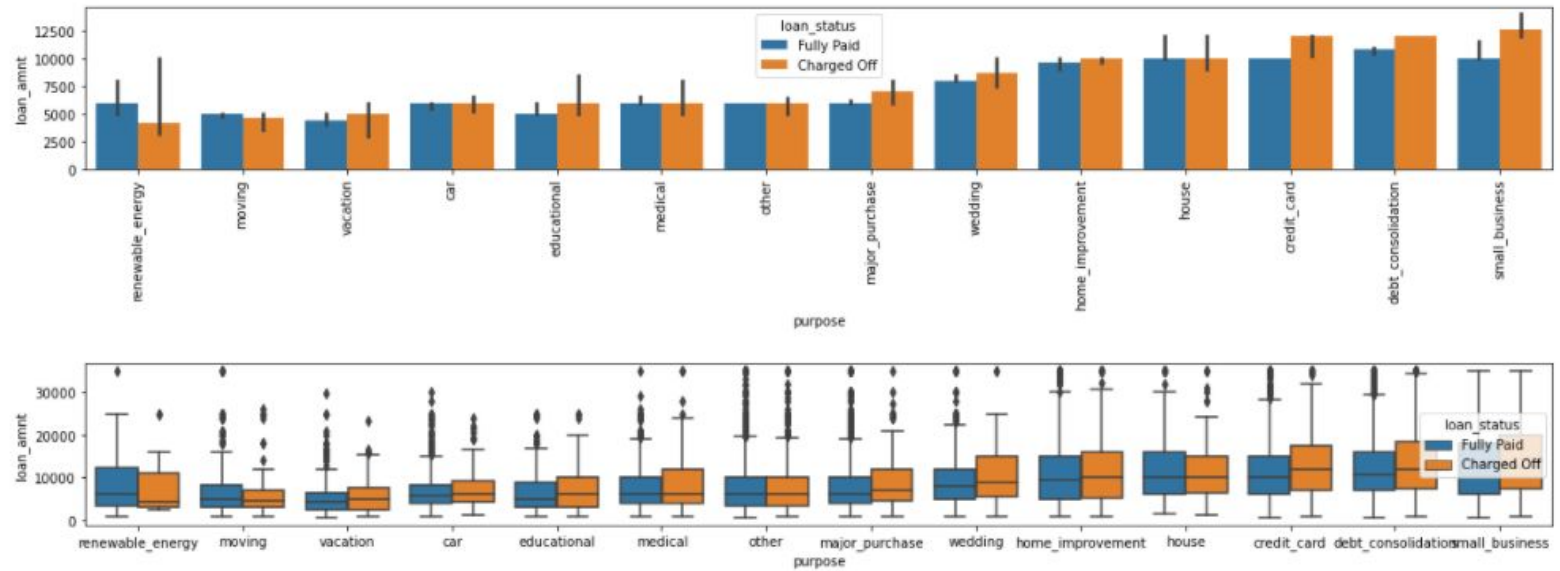
Deciding parameter -State



Deciding Parameters - Employee length



Trend in loan re-payment -purpose wise



Deciding Parameters - Loan Sanction



- ★ Grade
- ★ Tenure
- ★ Credit History
- ★ Interest Rate
- ★ Annual Income



THANK YOU !