Leading Club study

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Objectives of this case study

In a online loan company the loan application are received, and the decision needs to be made considering the risky factors

Driving factore (Derived variables) needs to understood behind the loan defaults

We need to help with risk assessment , using our skills in EDA analysis

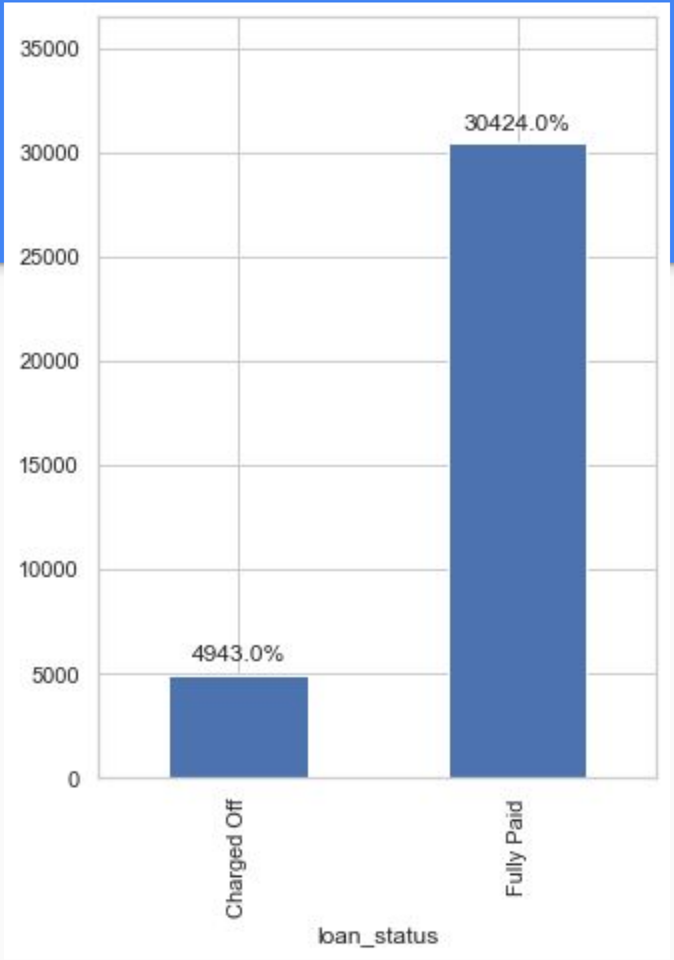
Our approach for the analysis

Data Cleaning	**Univariate analysis**	**Segmented univariate analysis**	Bivariate analysis	Results
Making the data ready for analysis by dropping the missing values Standarding the rows and columns	**Univariate analysis is the easiest type of examining information. "Uni" signifies "one", so at the end of the day your information has just a single variable.**	**We have now compared the default rates across various variable, and some of the important predictors are purpose of the loan,interest rate, annual income,grade etc..**	**Analysing the joint distribution Using the corelation of the variables the analysis is done**	**The conclusion is the analysis**

EDA analysis : Data cleaning

- The unwanted rows and columns are removed
- The columns and rows having more than 50 % of the values are removed
- Checking the data from duplicate values in columns and rows
- Standardizing values of the rows and columns examples if a columns has values with % symbol converting them into appropriate

EDA Analysis



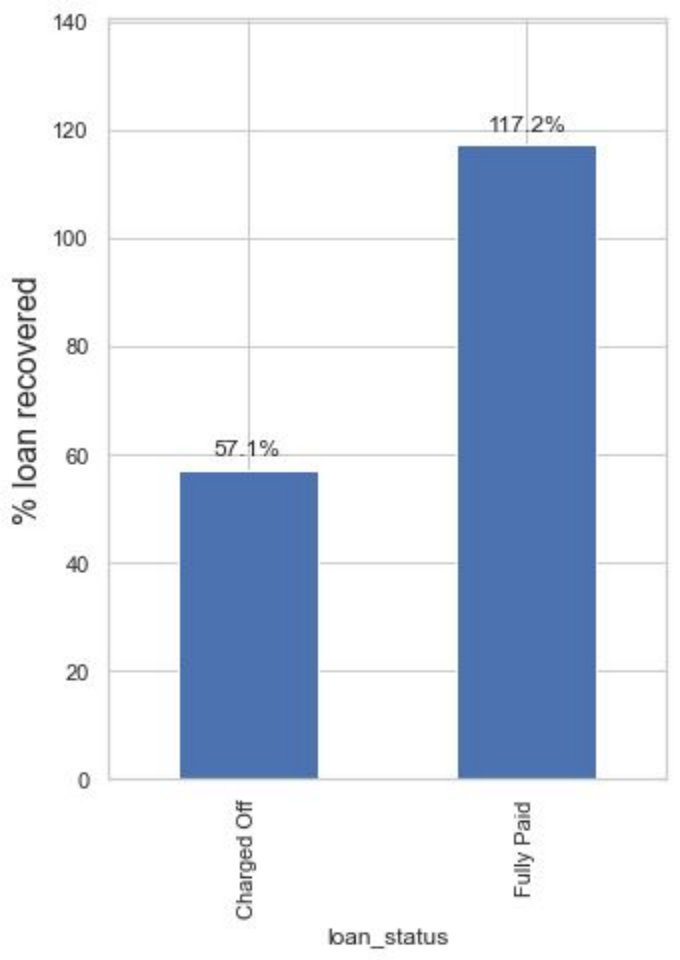
Total loans

Approximately 14% of loans are defaulted
Any variable that increases percentage of default to higher than 16.5% should be considered a business risk.

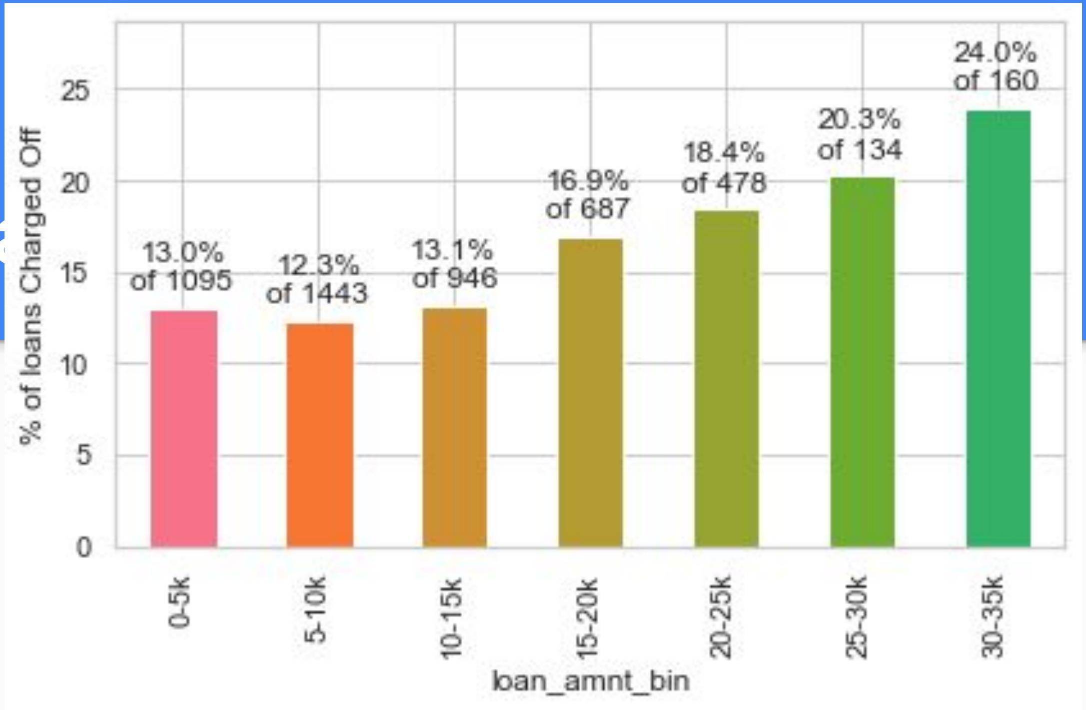
Total Money Earned

57% of the loan amount when loans are defaulted.

17 % profit is made by loan provider

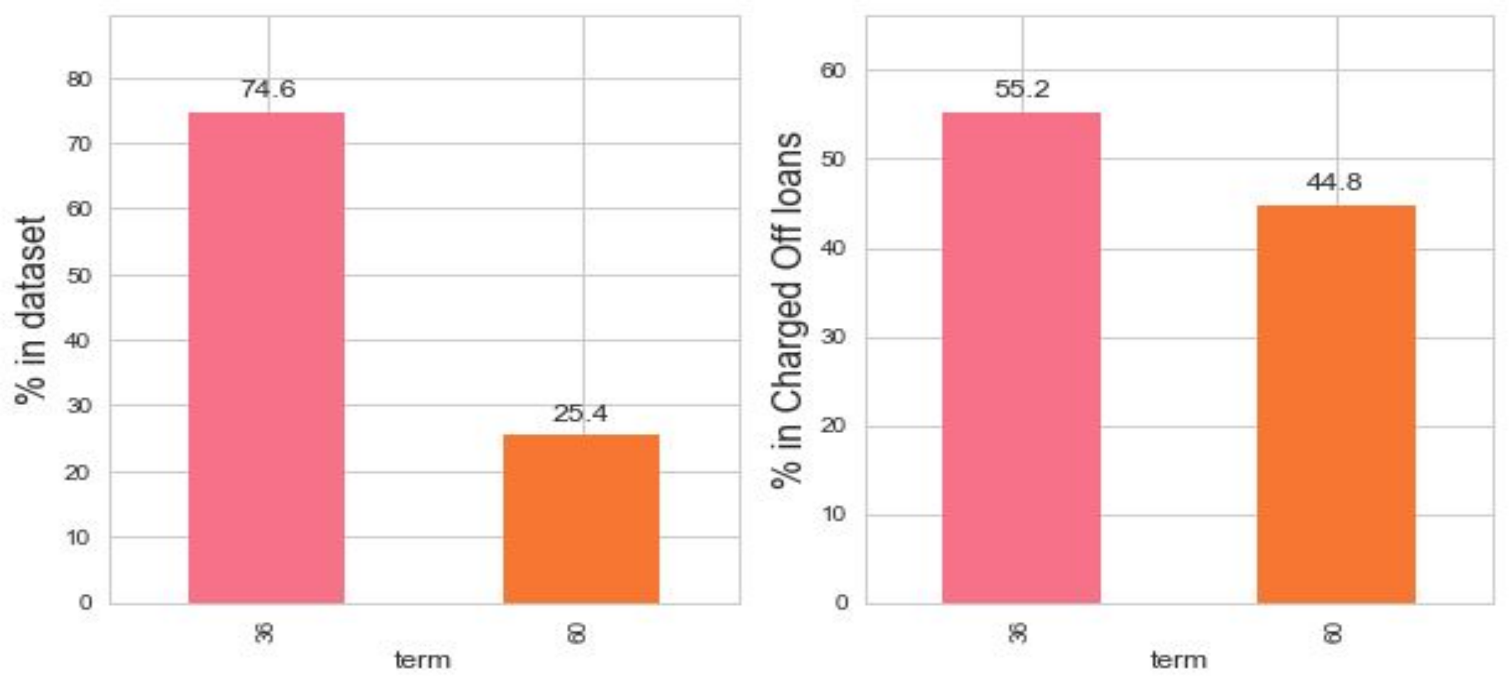


EDA ana



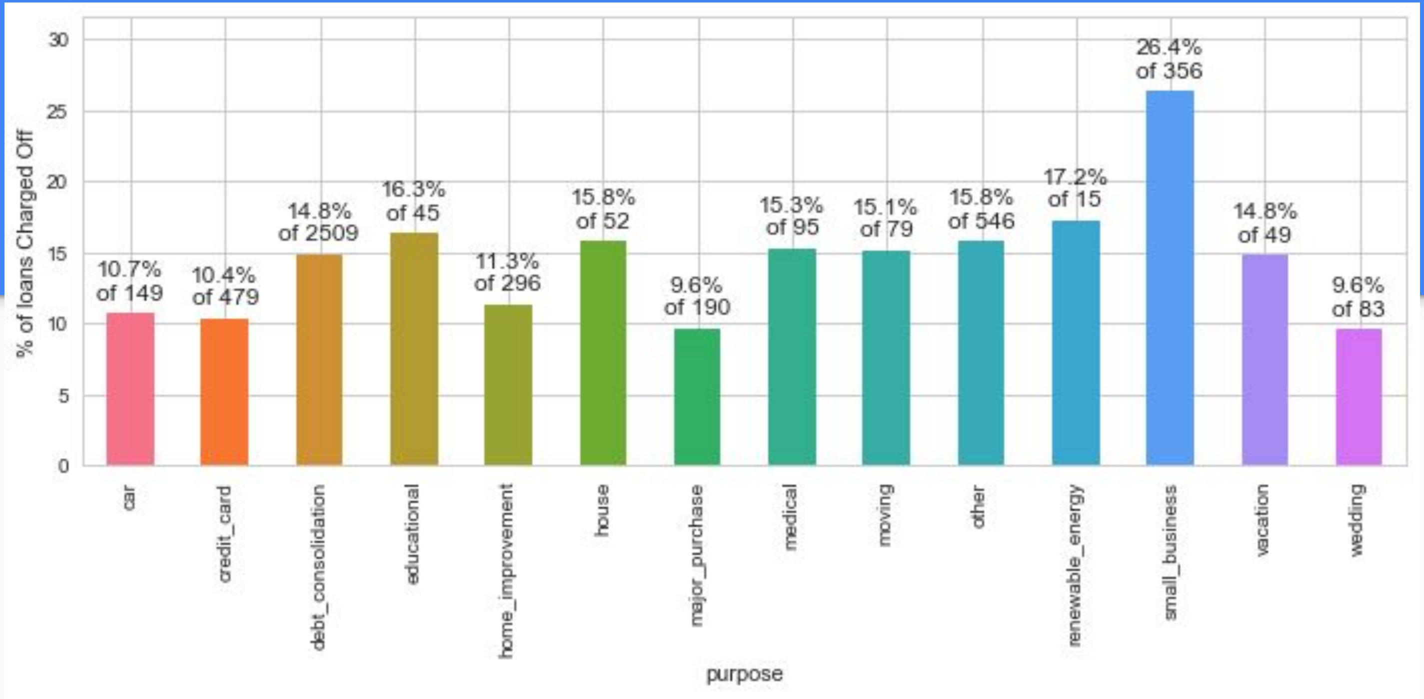
Percentage of charged off loans increases substantially as the loan amount increases .

Higher loan has a risk of defaulters

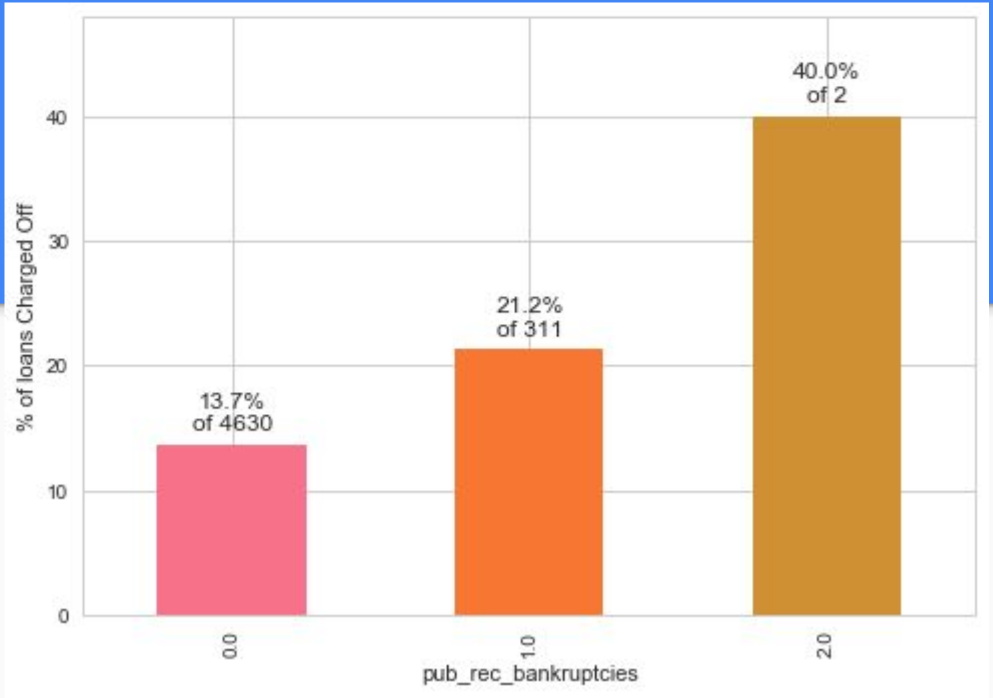


Approx 75% of the total loans are given for duration of 3 years and other 25% of the loans are those given for 5 years.

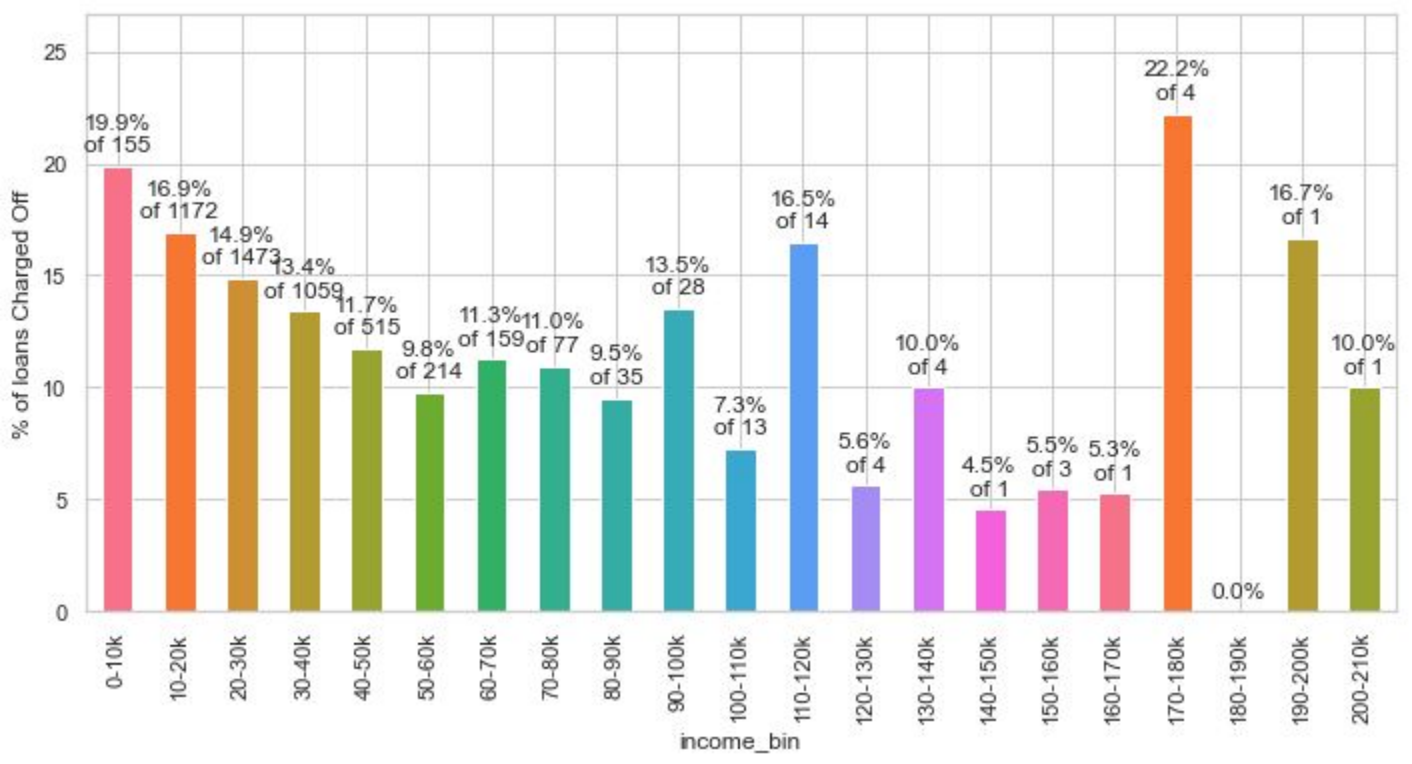
the charged off for term 1 year is 45% so rthe higher tenure of loan lesser chance of charged off



The loans for small business almost 26% are charged off and become risky



Charged off loans increases when the applicant has prior bankruptcy



When the income increases reduces the loan defaulters

And loan defaulters are observed with low income ,

Conclusion

- When the income increases reduces the loan defaulters .And loan defaulters are observed with low income ,
- Charged off loans increases when the applicant has prior bankruptcy
- The loans for small business almost 26% are charged off and become risky
- Approx 75% of the total loans are given for duration of 3 years and other 25% of the loans are those given for 5 years. The charged off for term 1 year is 45% so the higher tenure of loan lesser chance of charged off
- Percentage of charged off loans increases substantially as the loan amount increases .
- Higher loan has a risk of defaulters