LENDING CLUB CASE STUDY

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INTRODUCTION

- The lending club case study is for analysing the loan dataset for an insight for decision making in loan lending company.
- In this case study, Exploratory Data Analysis is applied to analyse the data for business driven decision making
- Required methods like Univariate and Bivariate analysis etc done on the dataset and represented with different types of plots to get the best analysis results from the dataset
- We can use this analysis for business driven decision making for lending loan to customers to reduce/avoid loss and make most of the profit to the company

GETTING INTO ANALYSIS

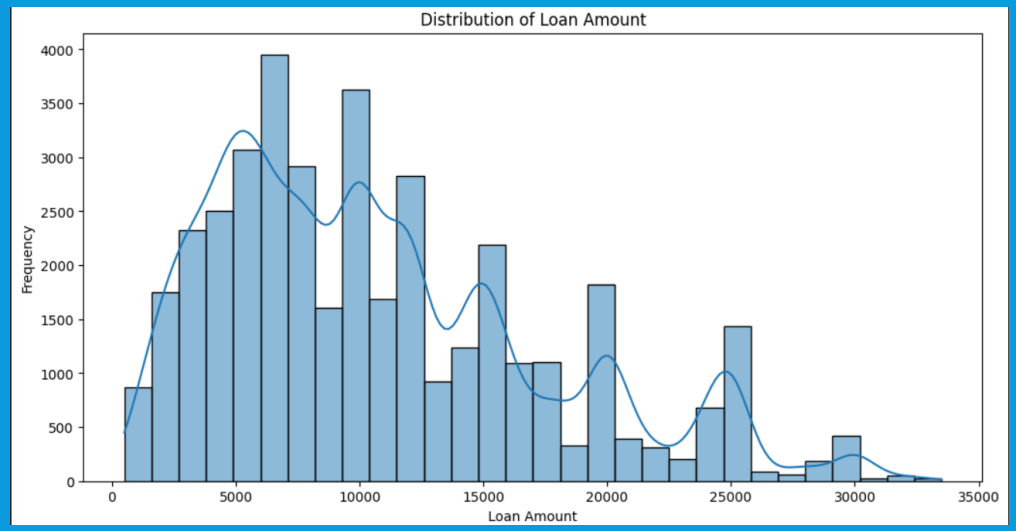
You can find different types on analysis done in this dataset to understand it better along with plots for better readability and understanding of the data.

DATA CLEANING

- In the beginning of the file of python code, you will see below :
- Missing values are handled
- 30% threshold is applied to handle columns with NA values
- Dropping unnecessary columns from dataset
- Outlier treatment applied on Loan amount column
- Defined a custom function to calculate default rate
- Univariate and Bivariate analysis applied for further analysis on the dataset as explained in next slides

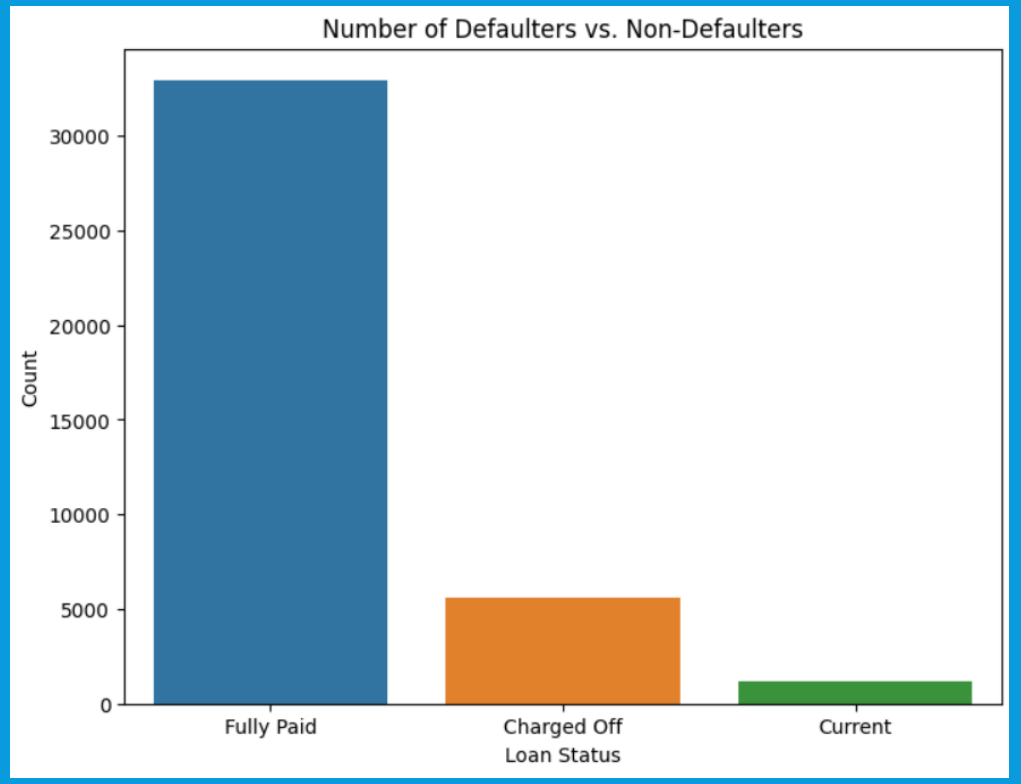
IDENTIFYING POTENTIAL LOAN DEFAULTS

- Univariate analysis is applied for identifying potential of loan default to reduce credit losses



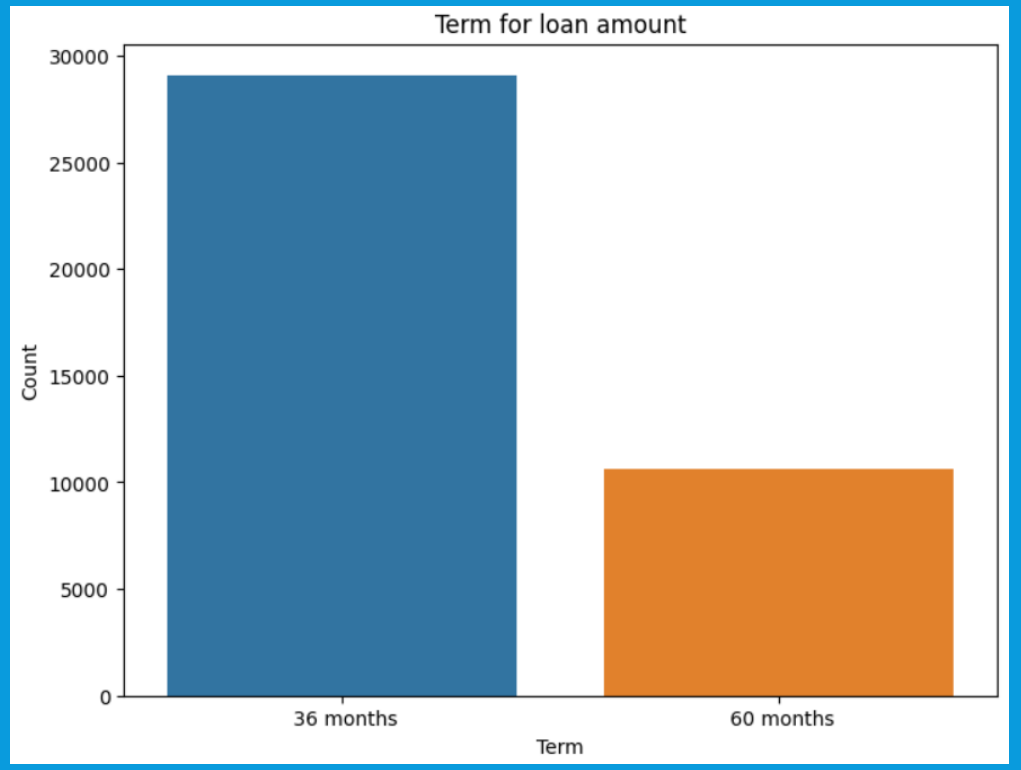
DEFAULTERS VS NON-DEFAULTERS

- Plotting number of defaulters vs non-defaulters
- This can help understand if loan lending to customers is being done correctly and business is in loss or profit
- Here, we can see, most of the loans are fully paid indicating not much loss and profit of the company



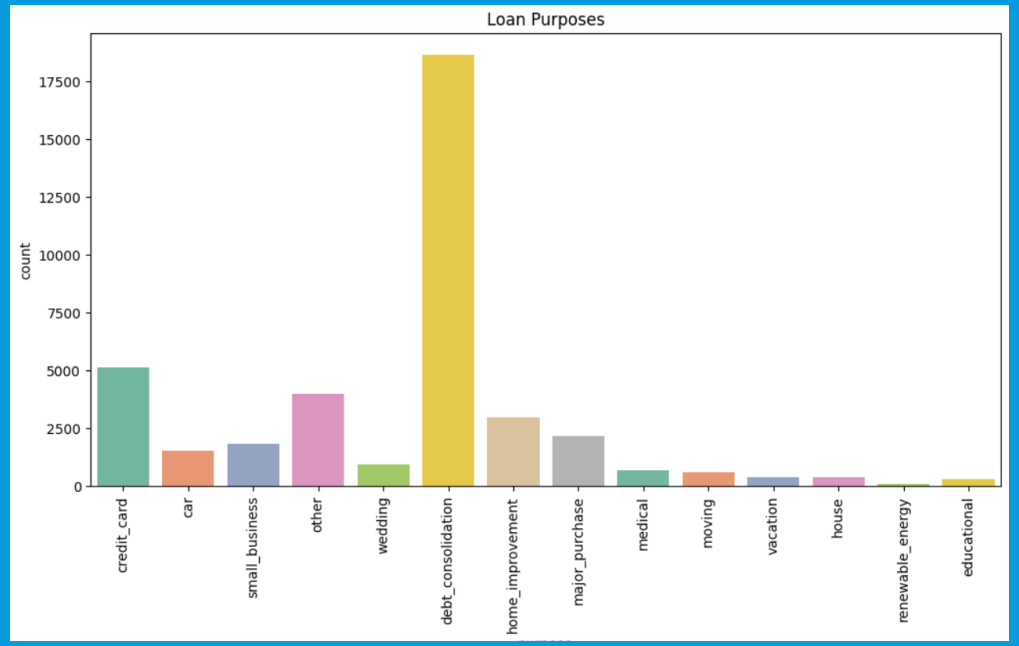
LOAN TERM

- Plotting how many customers take loan for what term.
- This can help understand customers prefer loan with longer term or shorter term



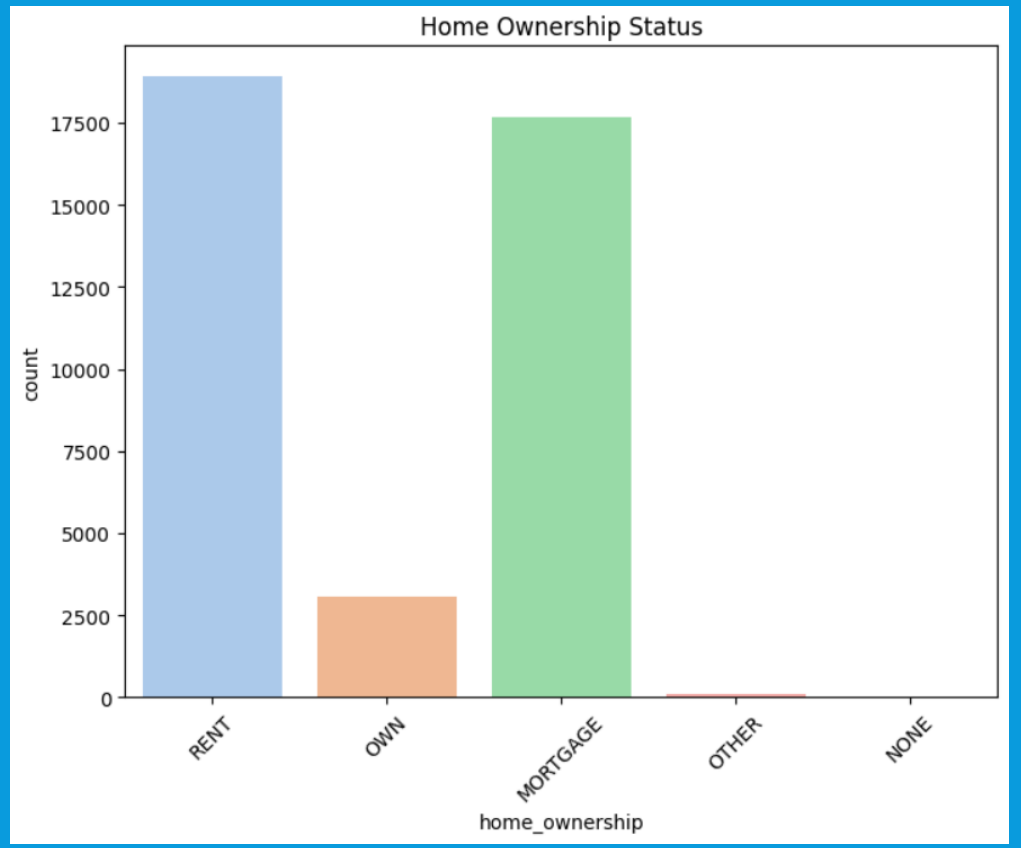
LOAN PURPOSES

- Analysing here purposes for which customers have taken loan
- Here, we can see most of the loans are taken for debt consolidation and second most for credit card
- We can use this analysis for targeting and approaching customers for offering loan accordingly



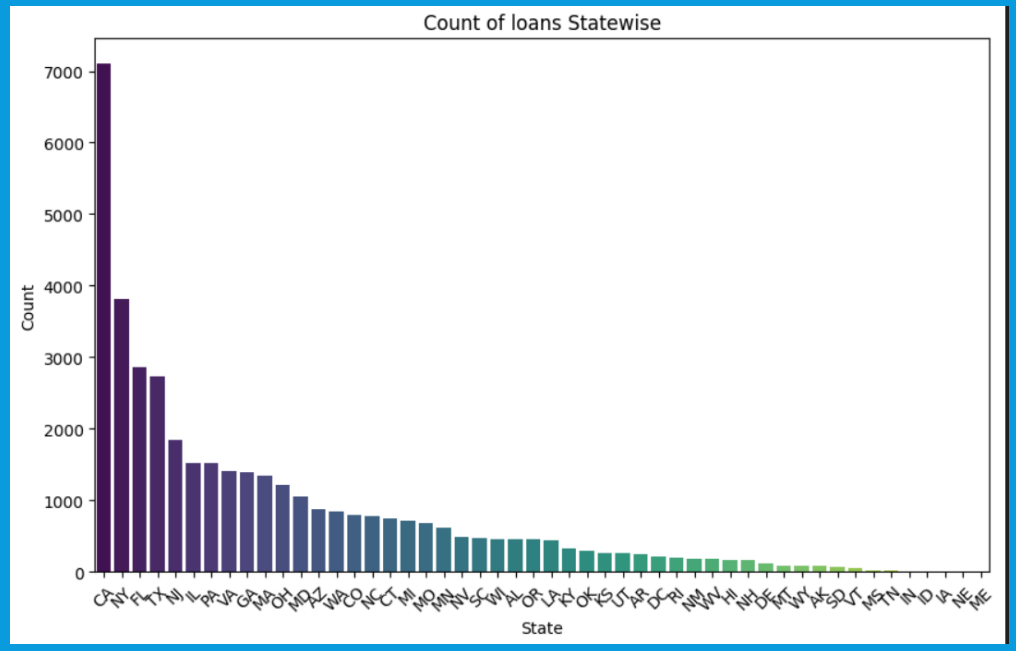
HOME OWNERSHIP

- This shows ownership type of home of the customers
- We can see most of the customer's home type is either rent or mortgage



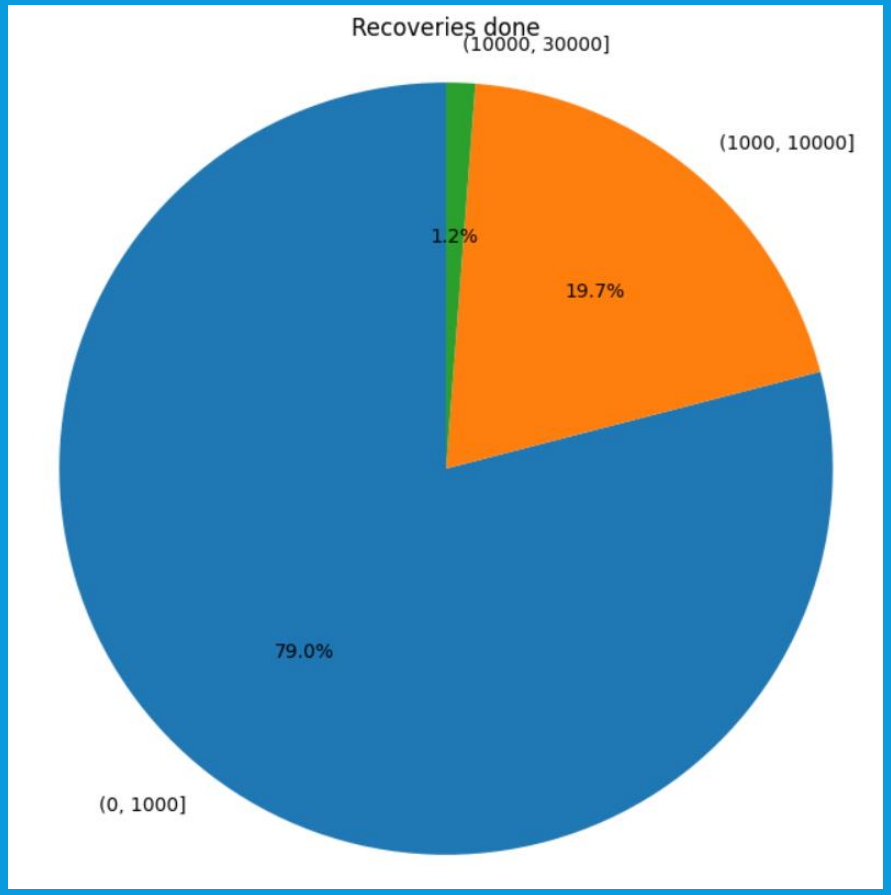
COUNT OF LOANS STATE WISE

- State wise analysis of loans
- Here, we can see most of the loans are taken by customers in CA and then followed by other states like NY, FL, TX, NJ etc
- Using this analysis, we can target the customers state wise to for offering loans



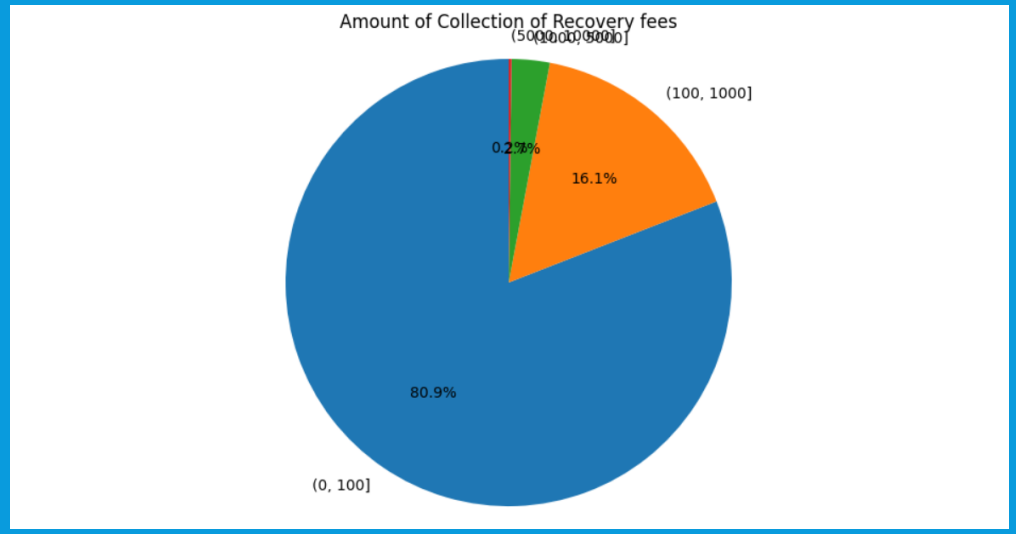
RECOVERIES DONE

- This shows that most of the recoveries done are done



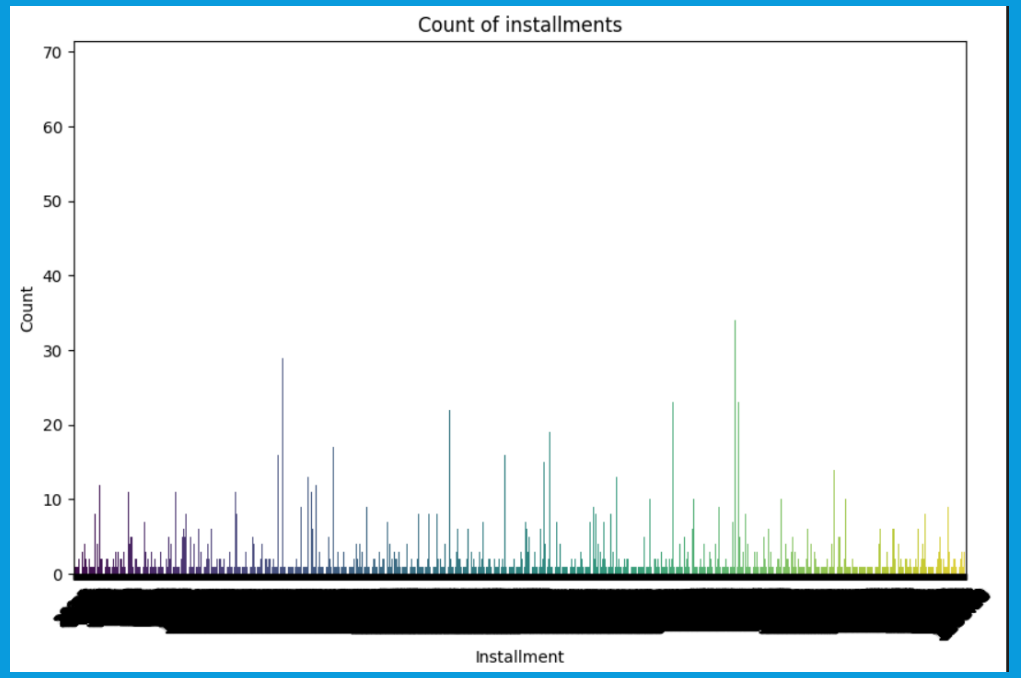
AMOUNT OF RECOVERY FEES

- This shows recoveries amount and the amount of most of the recoveries done is between 0 to 100



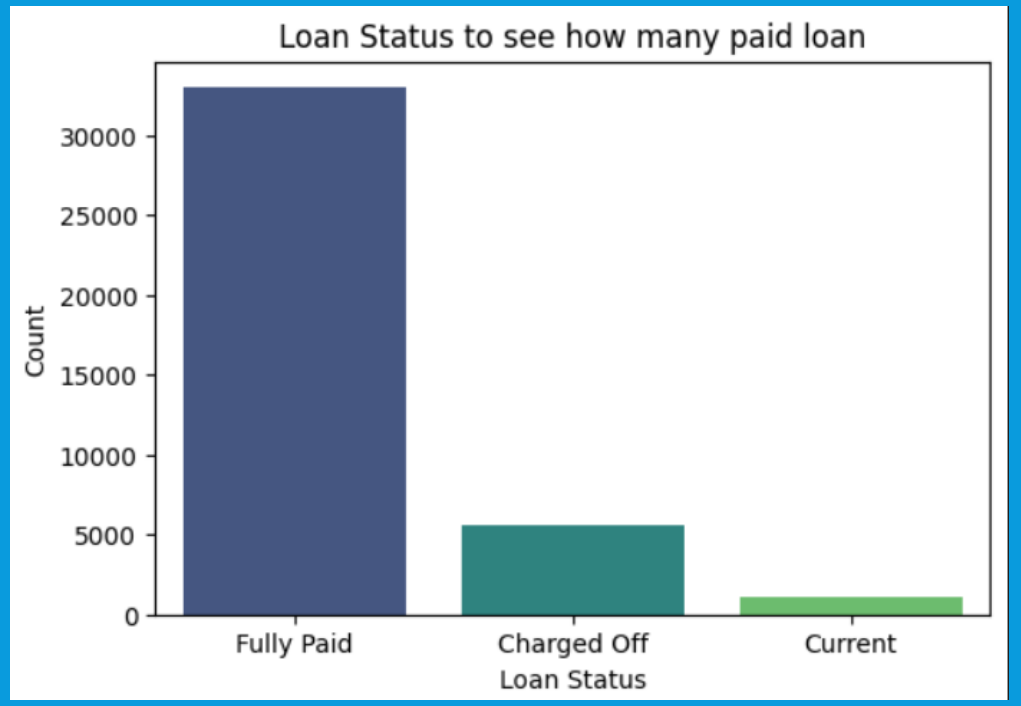
COUNT OF INSTALMENTS

- This shows count of large amount instalments is less as compared to count of smaller amount istalments



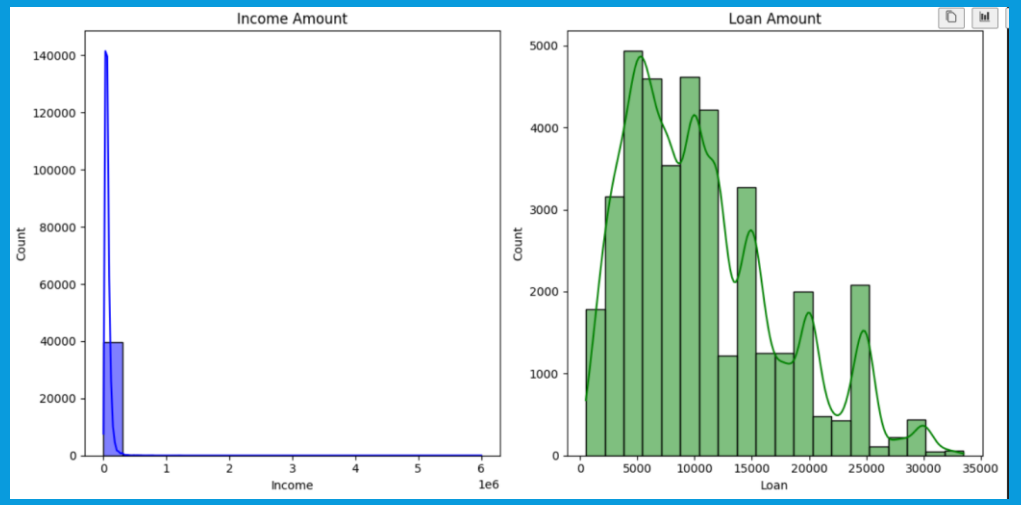
LOAN STATUS

- This show loan status that how many are paid fully, how many charged off and how many are current



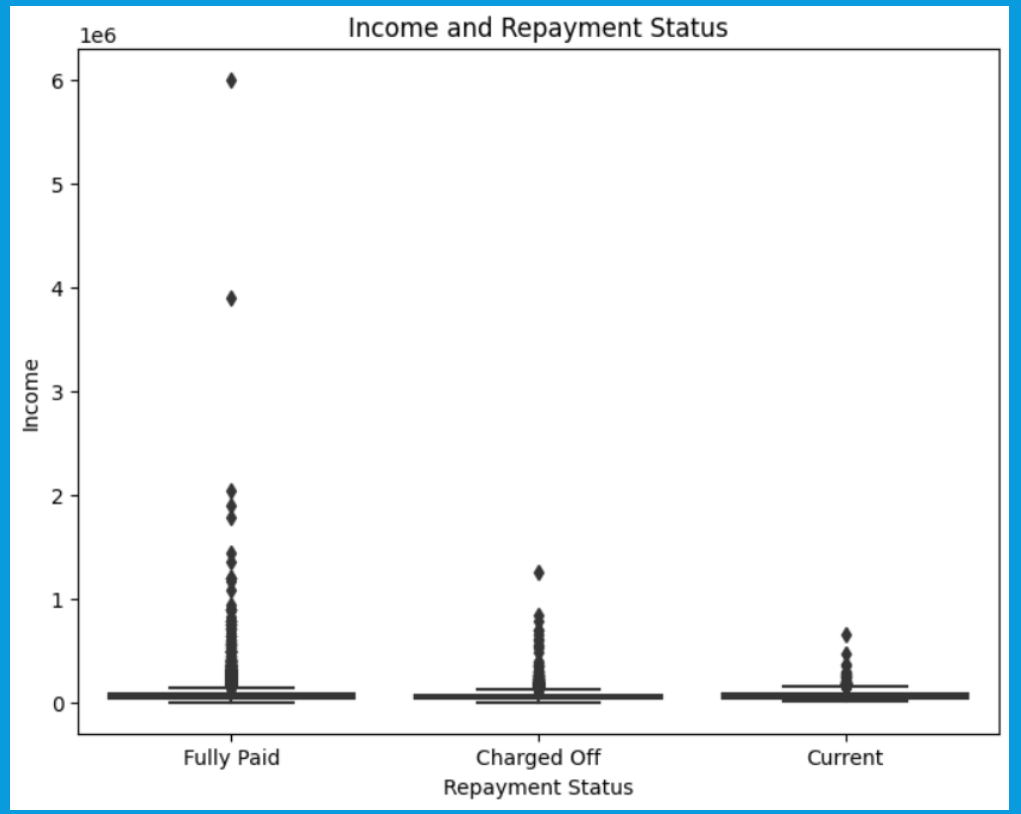
INCOME VS LOAN AMOUNT

- This analysis shows income vs loan amount



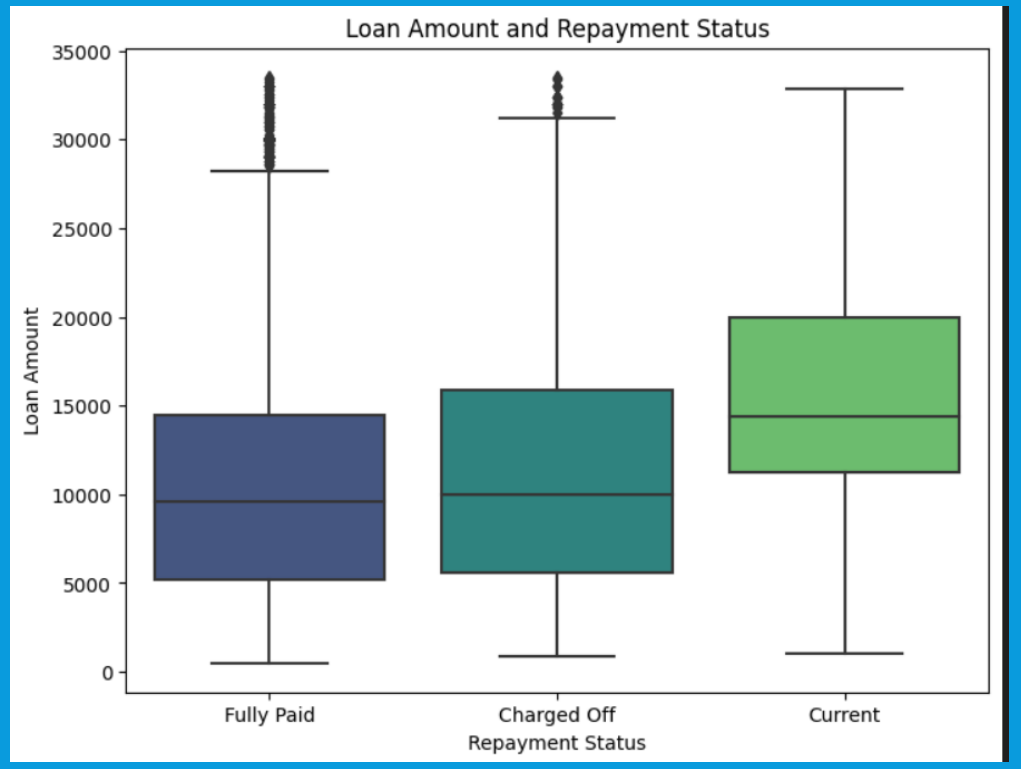
INCOME AND REPAYMENT STATUS

- This shows income and repayment status of the loans



LOAN AMOUNT VS REPAYMENT STATUS

- This shows loan amount and repayment status of the loans



ANALYSIS AND CONCLUSION

- Referring to our analysis done above on the given loan dataset, we have seen many factors that can help to target customers to pitch for offering them loans to get more customers with more profit and less risk component.
- We can consider different factors for this like which state's customers most likely too take loans and pay back fully, income of customers and purpose of their loan and so on as mentioned above.
- With this analysis, we can reduce the risk factor and increase profit for this loan lending company.

THANK YOU !

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