Loan_Data_Exploration_Part2

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1 Effects of Borrower Characteristics on Loan Repayment

1.1 Investigation Overview

In this investigation, I wanted to look at the characteristics of Loan Borrowers that could be used to predict their loan repayment behaviour. The main focus was on: > - Home ownership > - Monthly Income > - Credit Score > - Borrower State > - Employment Status

1.2 Dataset Overview

The cleaned data consisted of Loan borrower information of 83,507 loan borrowers, with each entry having 15 attributes. The attributes include the above listed borrower traits of interest among others

```
[1]: # import all packages and set plots to be embedded inline
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import plotly.express as px

%matplotlib inline

# suppress warnings from final output
import warnings
warnings.simplefilter("ignore")
```

```
[2]: # load in the dataset into a pandas dataframe
clean_loan_df = pd.read_csv('Datasets/clean_loan_data.csv')
```

```
[3]: # data wrangling, removing records with outliers in the stated monthly income␣
     ↪column

# Calculate the lower quartile and the upper quartile values.
for salary in clean_loan_df.StatedMonthlyIncome:
    q75, q25 = np.percentile(clean_loan_df.loc[:,'StatedMonthlyIncome'],[75,25])

    # Calculate the Interquartile Range
    intr_qr = q75-q25
```