Credit - Exploratory Data Analysis

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Objective

Clients face a lot of difficulties while applying a loan or during the process like denying the loan, reducing the loan amount, lending the loan at higher rates etc. This case study helps to identify such applicants using EDA and ensures that the consumers capable of repaying the loan are not rejected. Also help the companies to understand the factors behind loan defaults.

# Proportion of Defaulters compared to Non-Defaulters.
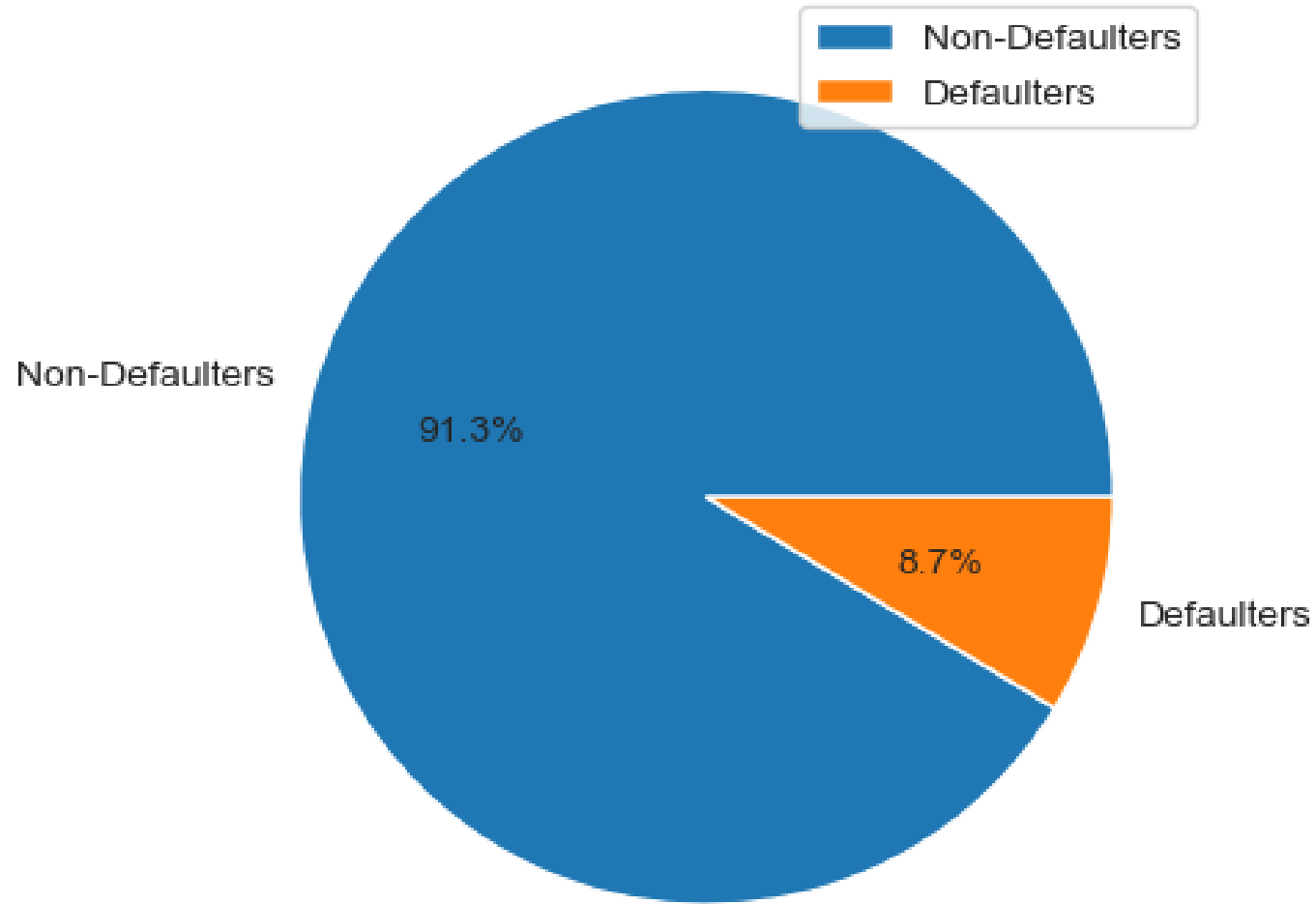
The number of Non-Defaulters are greater than the number of Defaulters.

- **Percentage of Non-defaulters who were able to pay the loan but were refused = 87.11%**

- **Percentage of Previously Approved applicants who defaulted in Current loan = 8.14%**

- **Hence the Finance and Risk Analyst should focus on the data imbalances and Approve or Refused basis the correct data.**

# Payment Status Against the Defaulters and Non-Defaulters
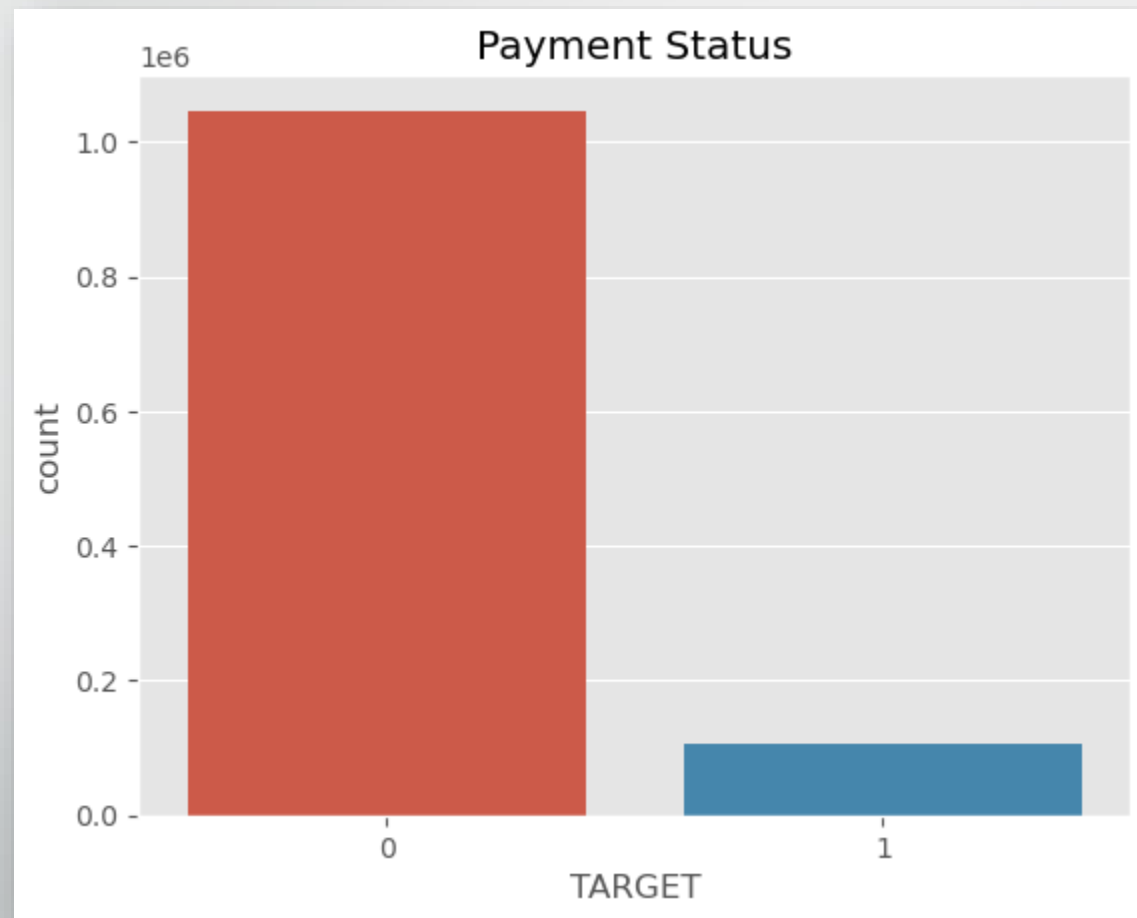
# Distribution of Income Range cross the Genders (Defaulters Vs. Non-Defaulters)
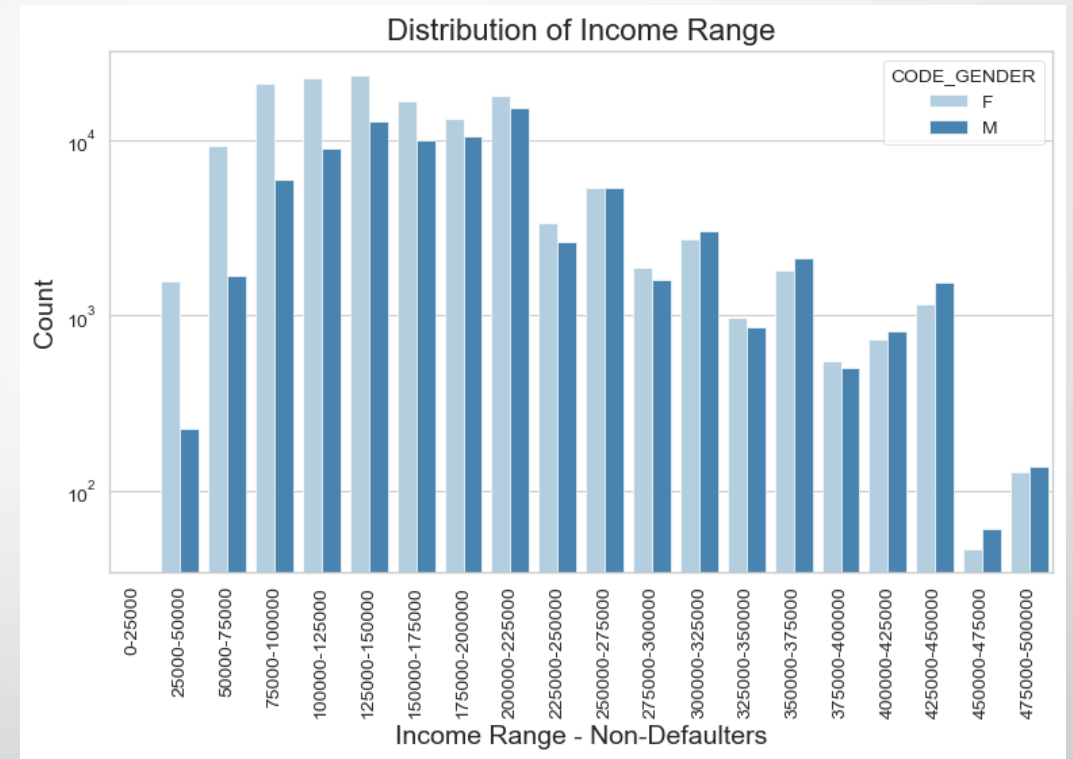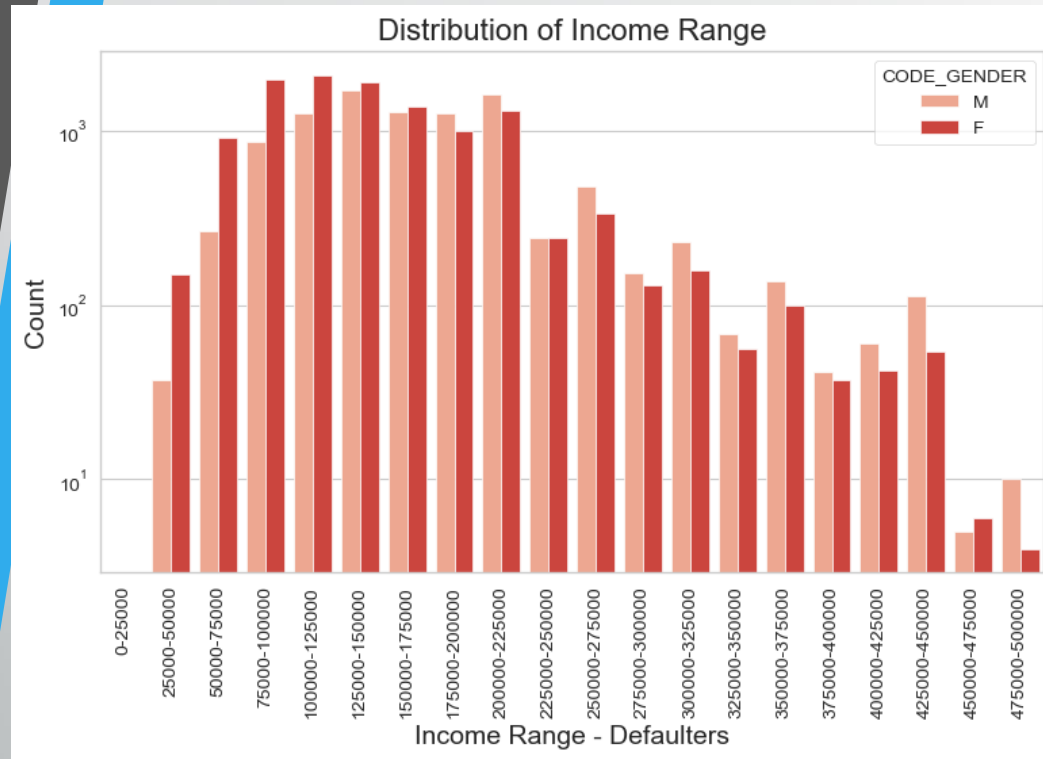
- **Female applicants has higher income range than Males in both the Defaulters and Non-Defaulters list.**

- **Highest income is between the range of 150000 – 225000.**

- **Lowest income is between the range of 450000 – 500000.**

Distribution of Income Type cross the Genders (Defaulters Vs. Non-Defaulters)
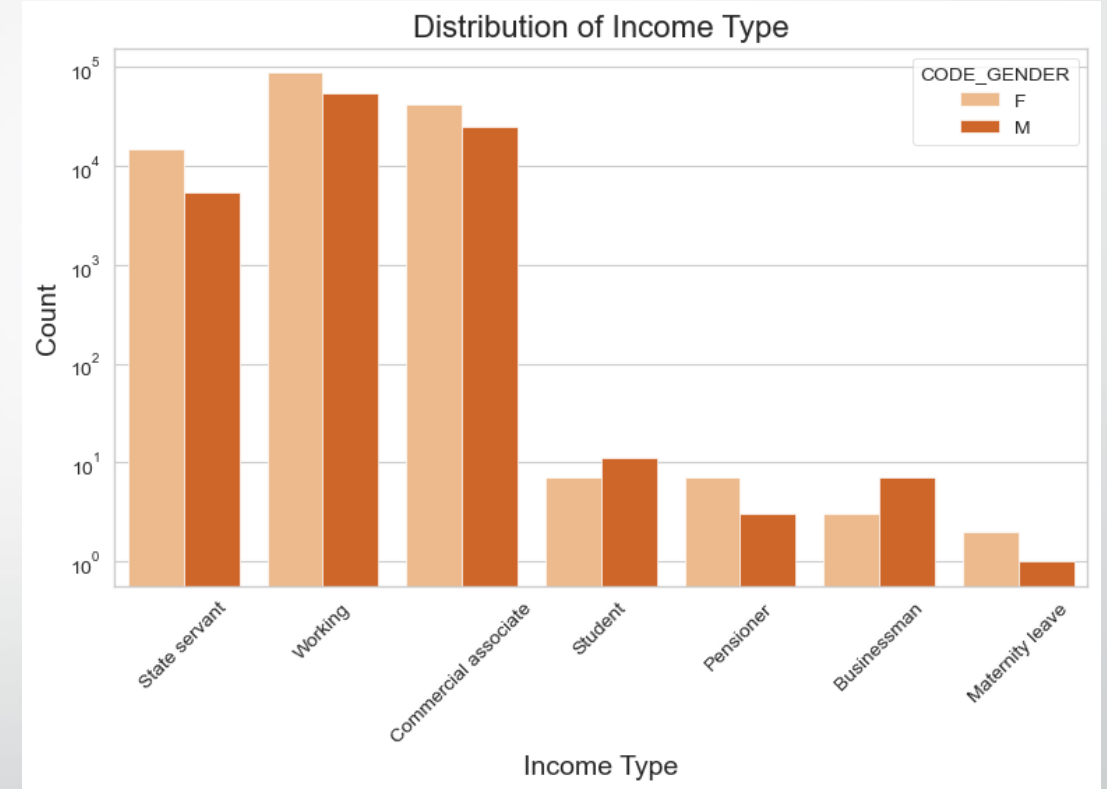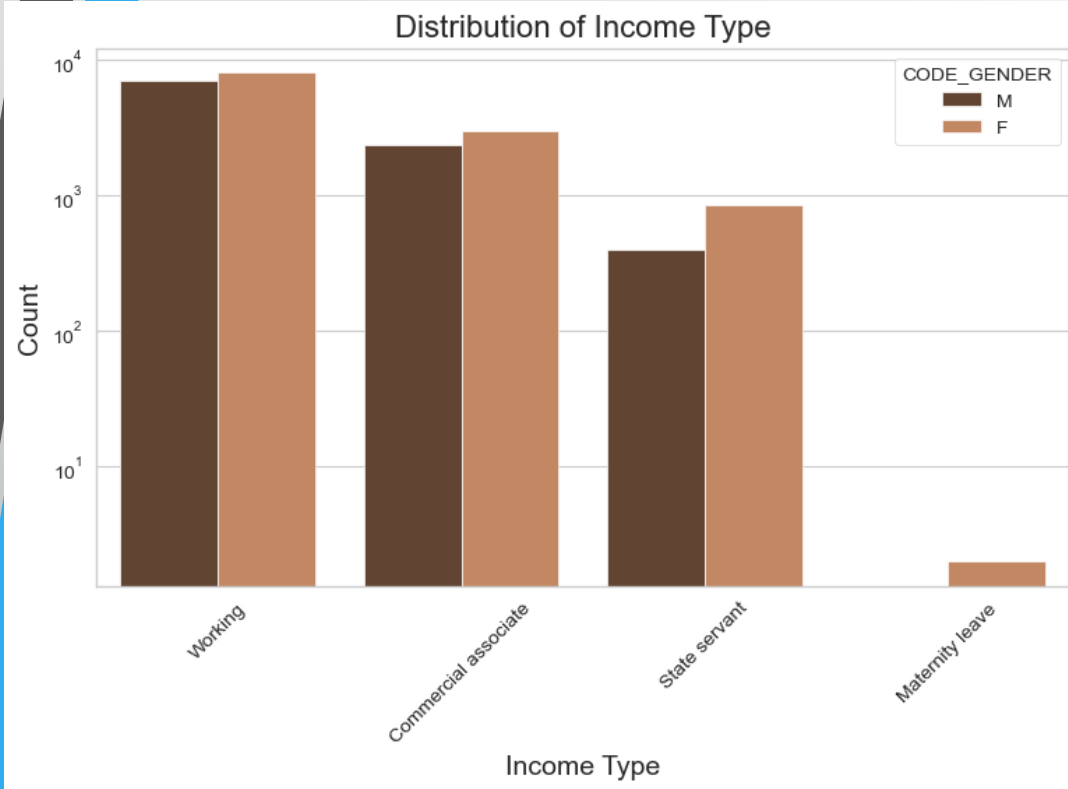
- **Working Professionals, State Servants and Commercial Associates are granted maximum amount of loans.**

- **Women on Maternity Leave are granted the low amount of loans.**

- **Loan is granted to Females mostly when compared to males.**

- **Maximum number of Working Professionals fail to repay loans on time.**

Distribution of Contract Type cross the Genders (Defaulters Vs. Non-Defaulters)
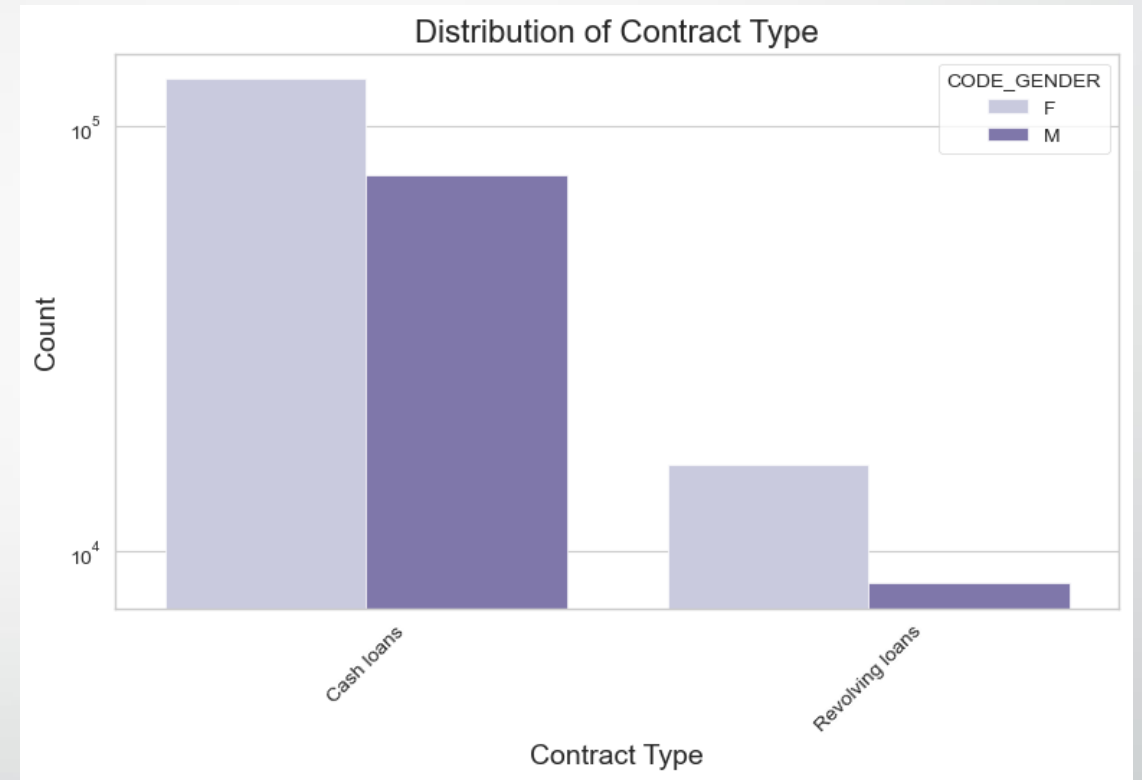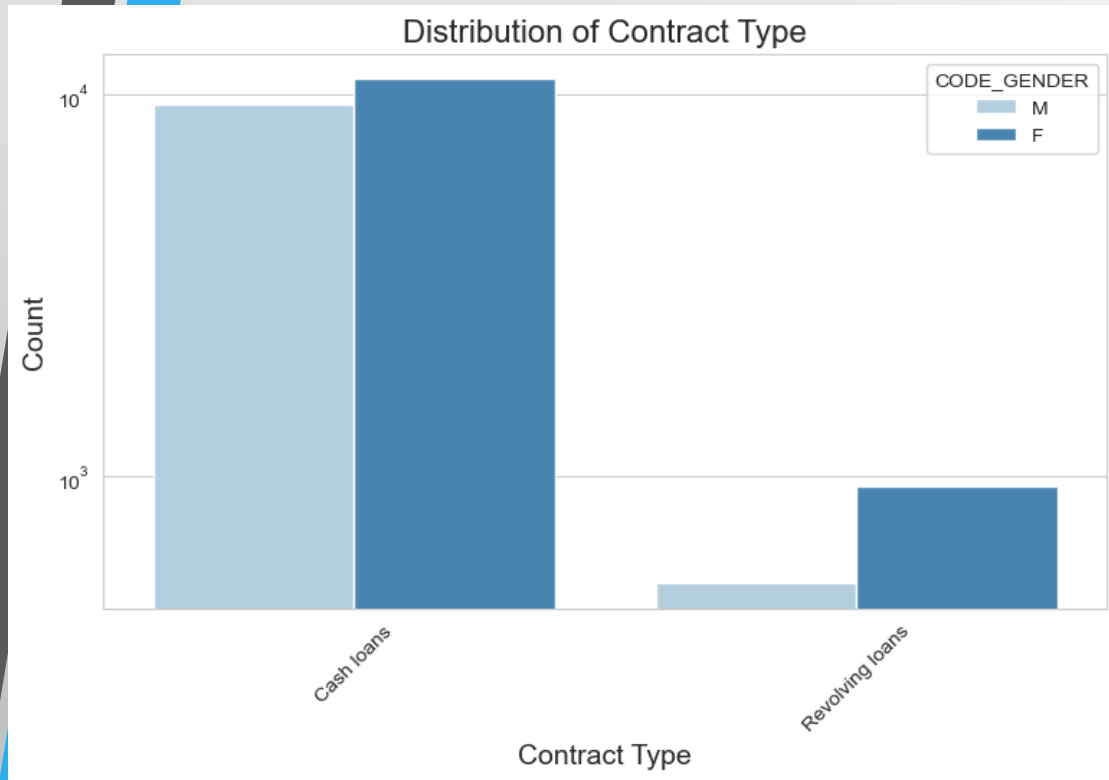
Maximum Females who apply for maximum Contract Type in form of Cash loans and Revolving Cash, fail to repay loans on time.

Distribution of Organization Types for Defaulters vs. Non-Defaulters
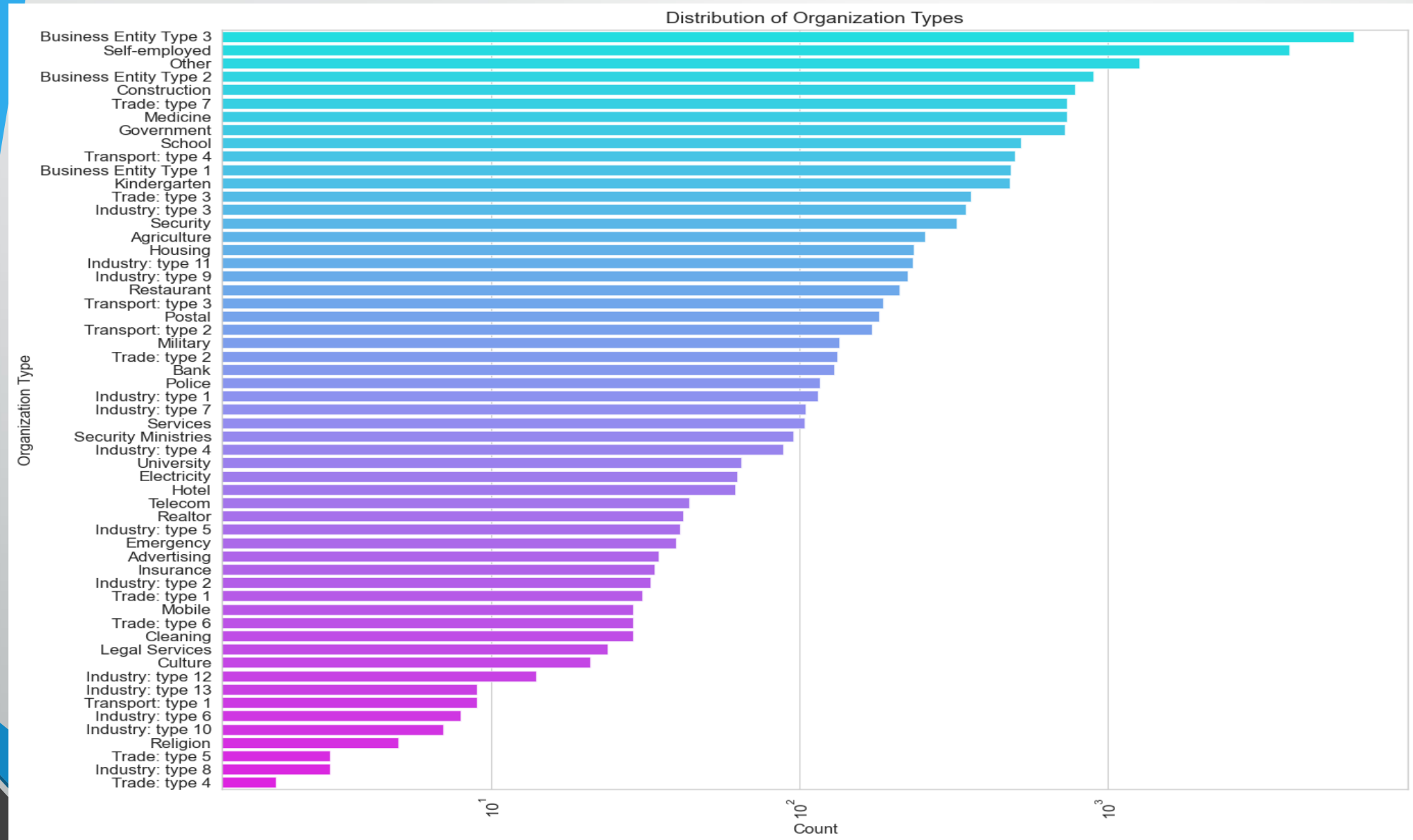
Conclusion:

- **The data is highly imbalanced, as the Applicants who were capable of repaying the loans on time were Refused.**

- **And the applicants who were incapable of repaying the loans on time were Approved.**

- **Hence the Finance and Risk Analysis should focus more on the data errors and approve or refuse loans accordingly.**