



Presentation on CREDIT EDA

Case Study

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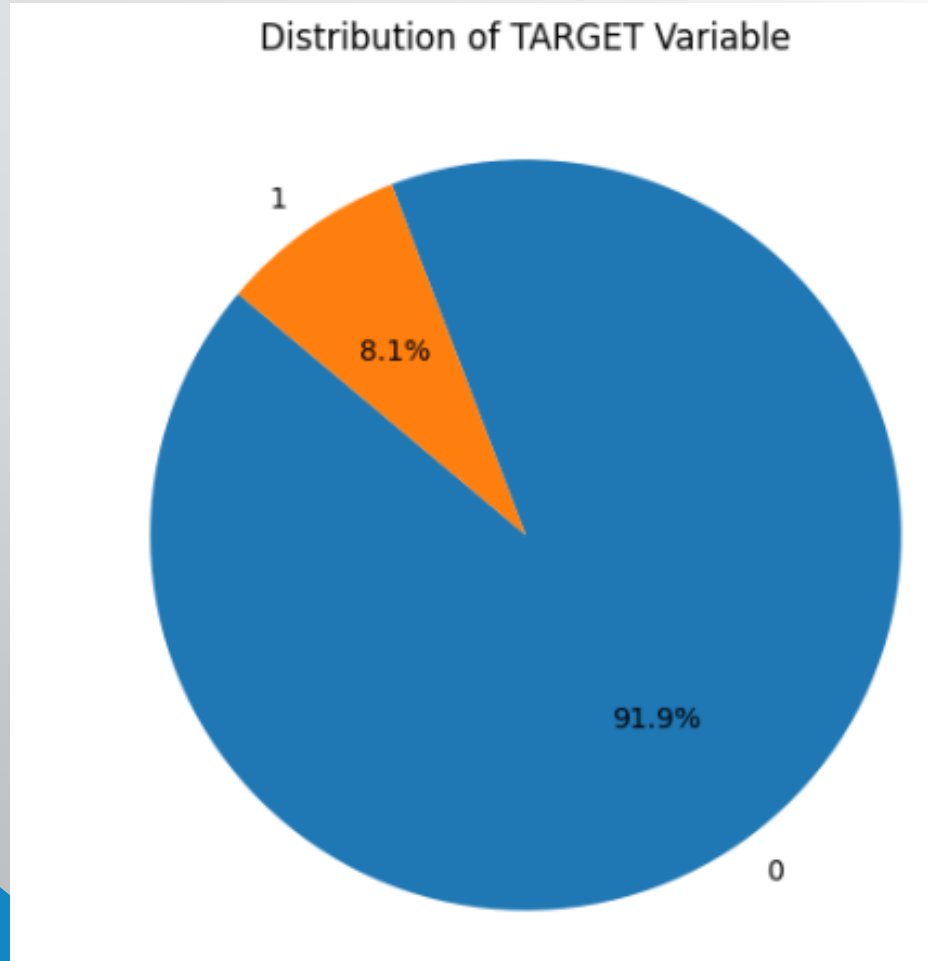
Objectives

- Credit risk analysis aims to identify patterns indicating applicants difficulty in re-paying installments. These patterns can help in taking actions like denying loans, reducing loan amounts, or offering loans to risky applicants at higher interest rates.
- The goal is to prevent the rejection of applicants who are capable of repaying the loan by identifying them through EDA.

Steps

1. Data understanding and sourcing.
2. Check for data quality and Binning.
3. Check for data imbalance and Univariate, Segmented Univariate & Bivariate analysis and Correlation.
4. Merging of application data with previous application data.
5. Data analysis by Univariate, Segmented Univariate & Bivariate analysis and Correlation.
6. Recommendation and Risks.

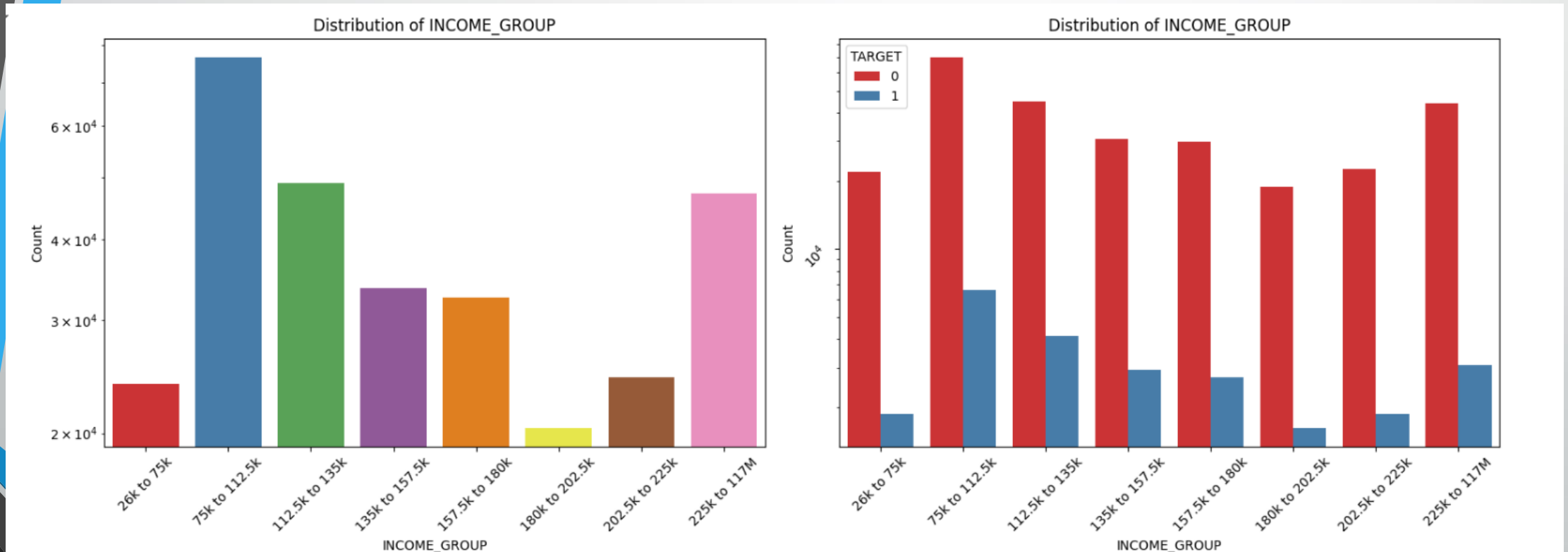
Data Imbalance Check



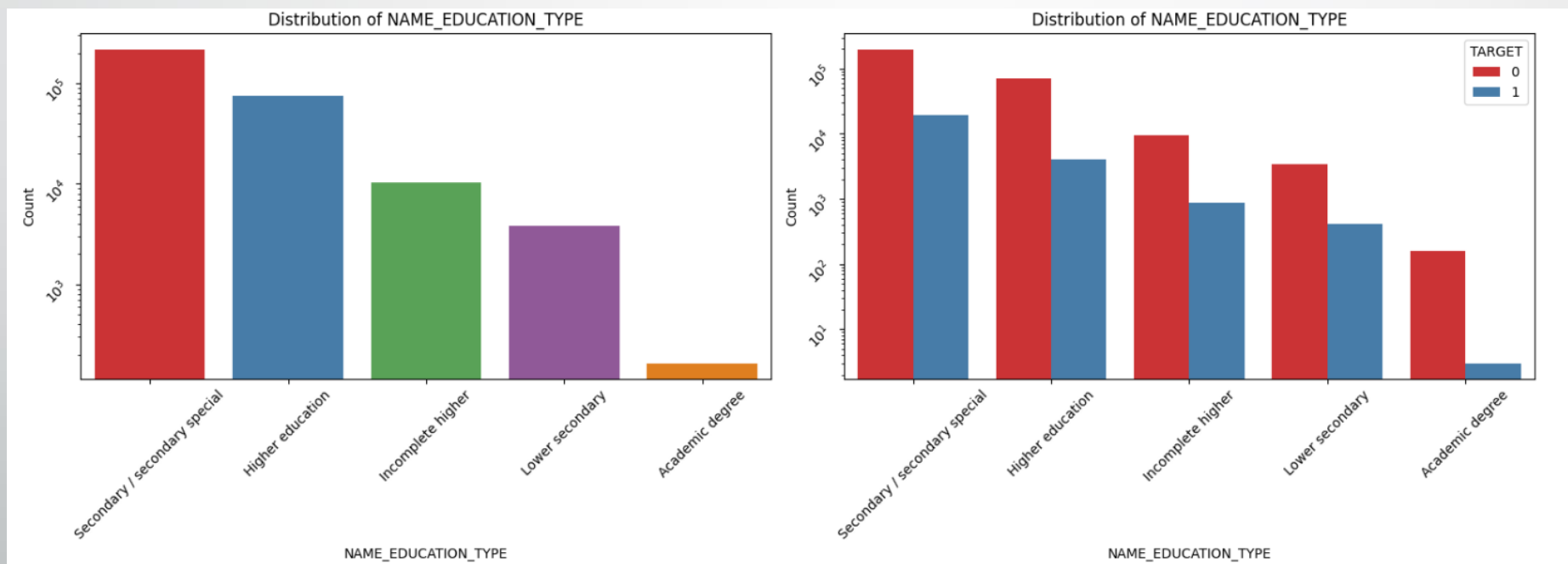
- 1 Denotes Defaulter (High risk)
- 0 Denotes Non-defaulter (Low risk)

Univariate Analysis on 'Categorical Variables'

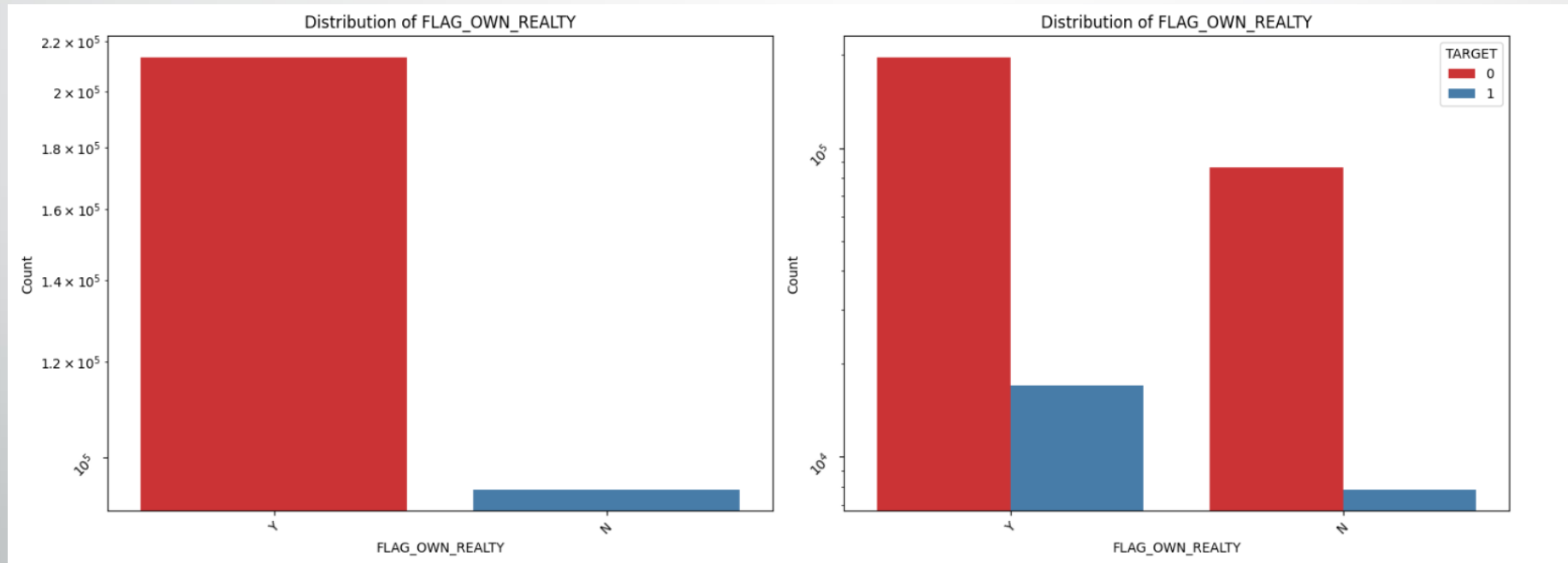
Income Group Defaulters vs Non-defaulters



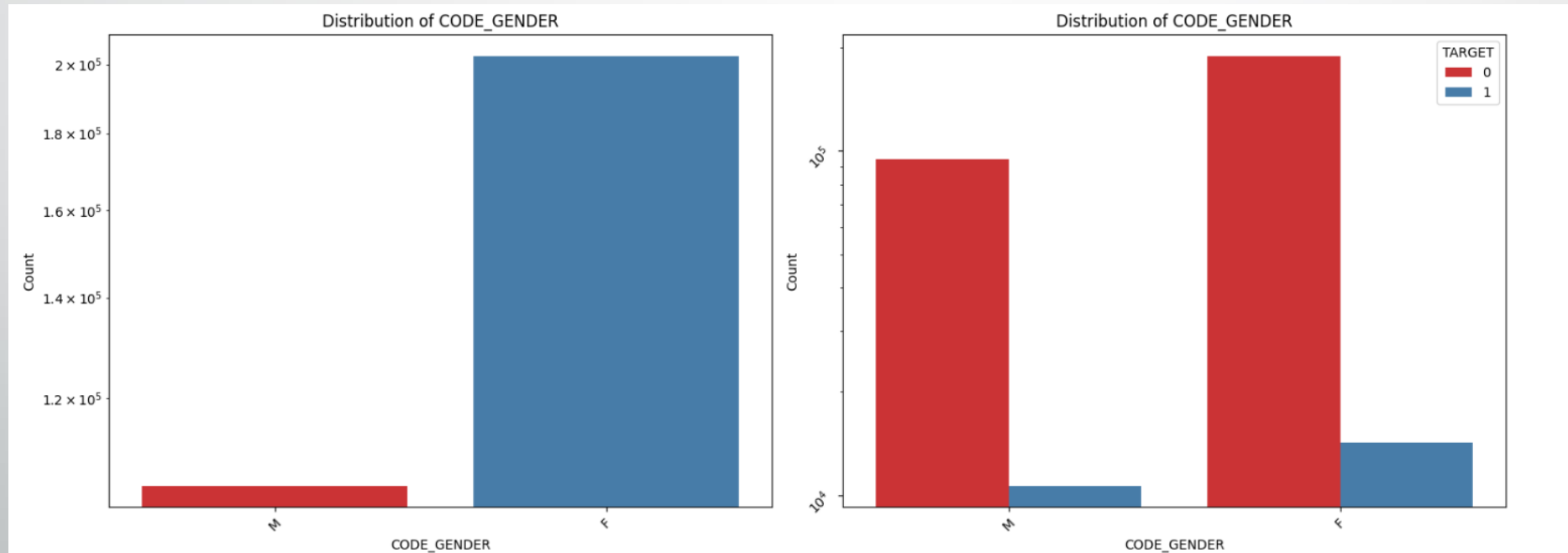
NAME_EDUCATION_TYPE Defaulters vs Non-defaulters



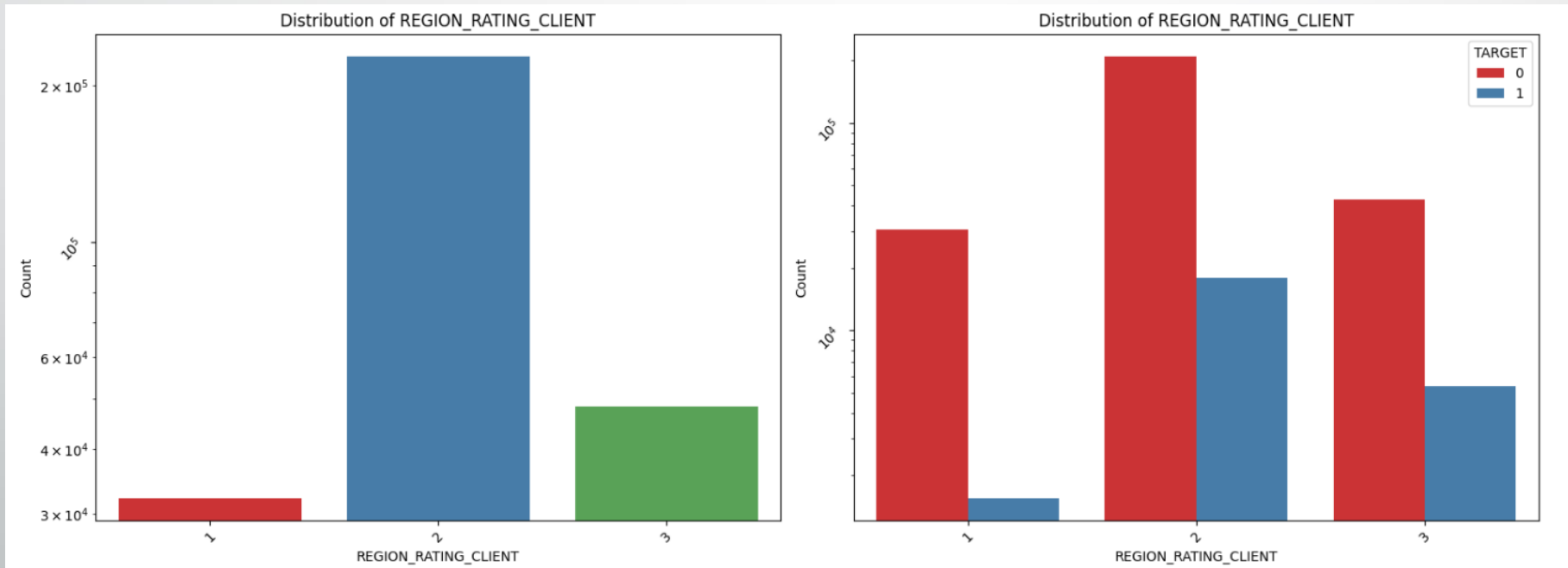
FLAG_OWN_REALTY Defaulters vs Non-defaulters



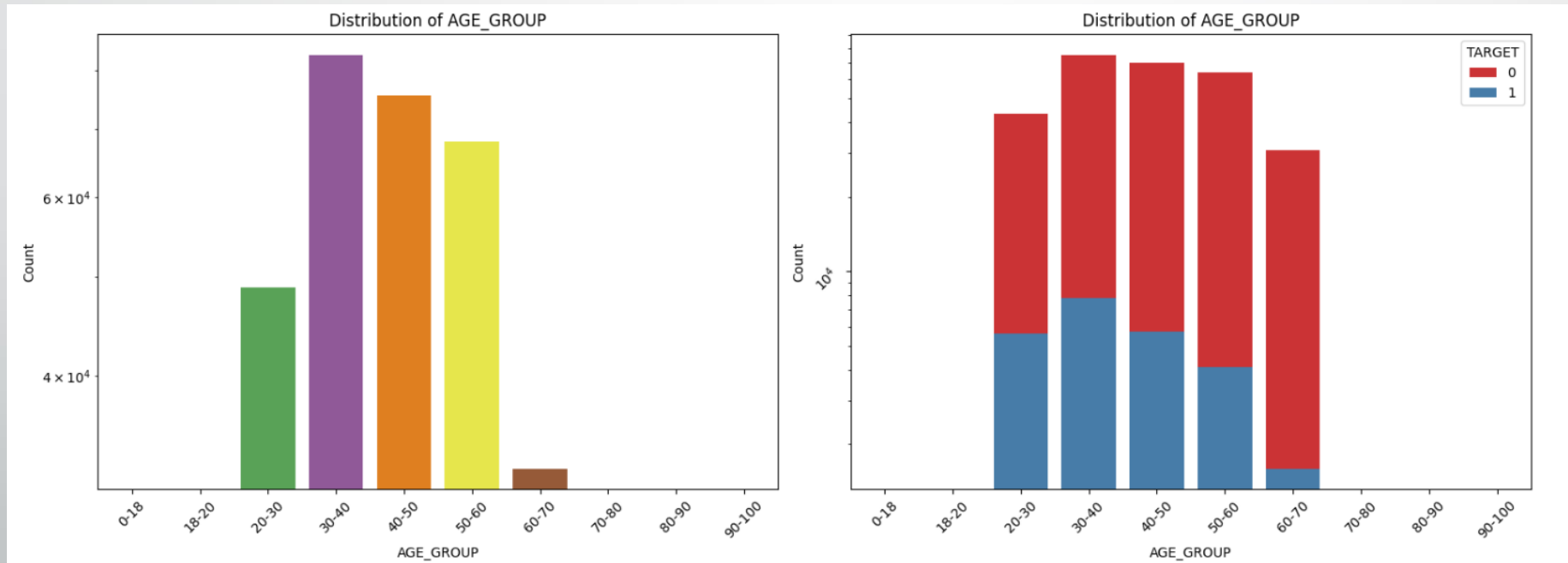
CODE_GENDER Defaulters vs Non-defaulters



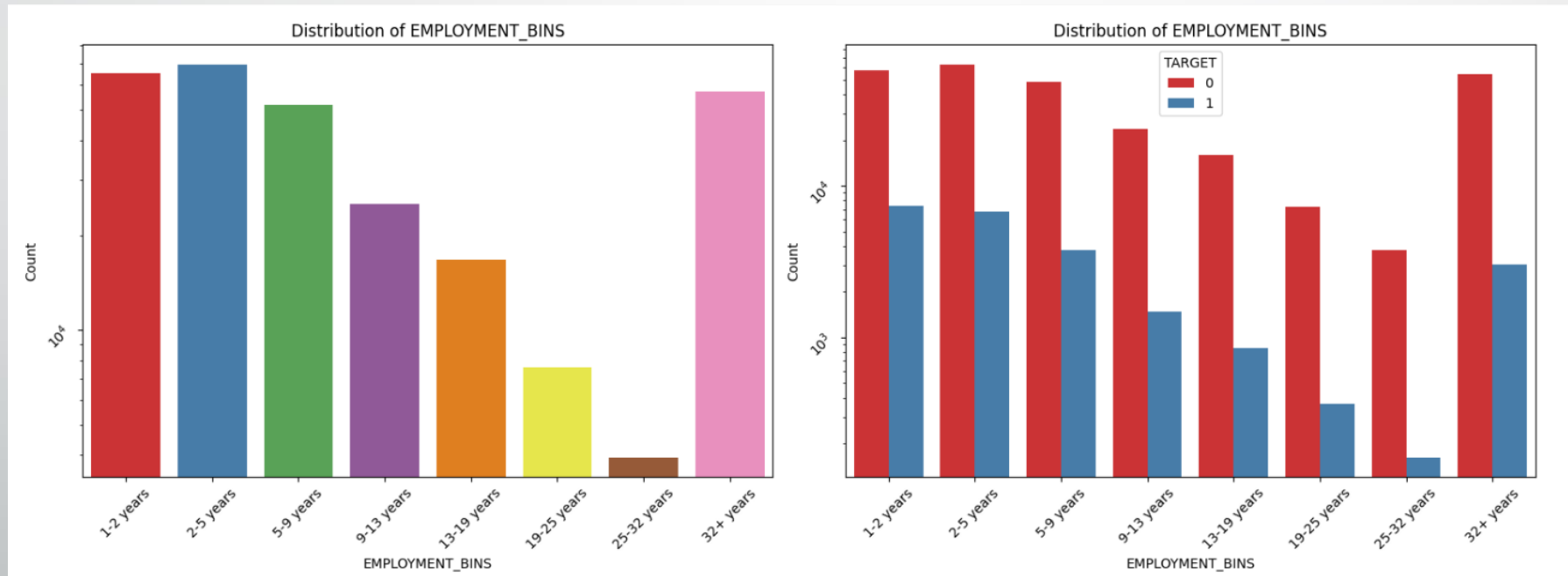
REGION_RATING_CLIENT Defaulters vs Non-defaulters



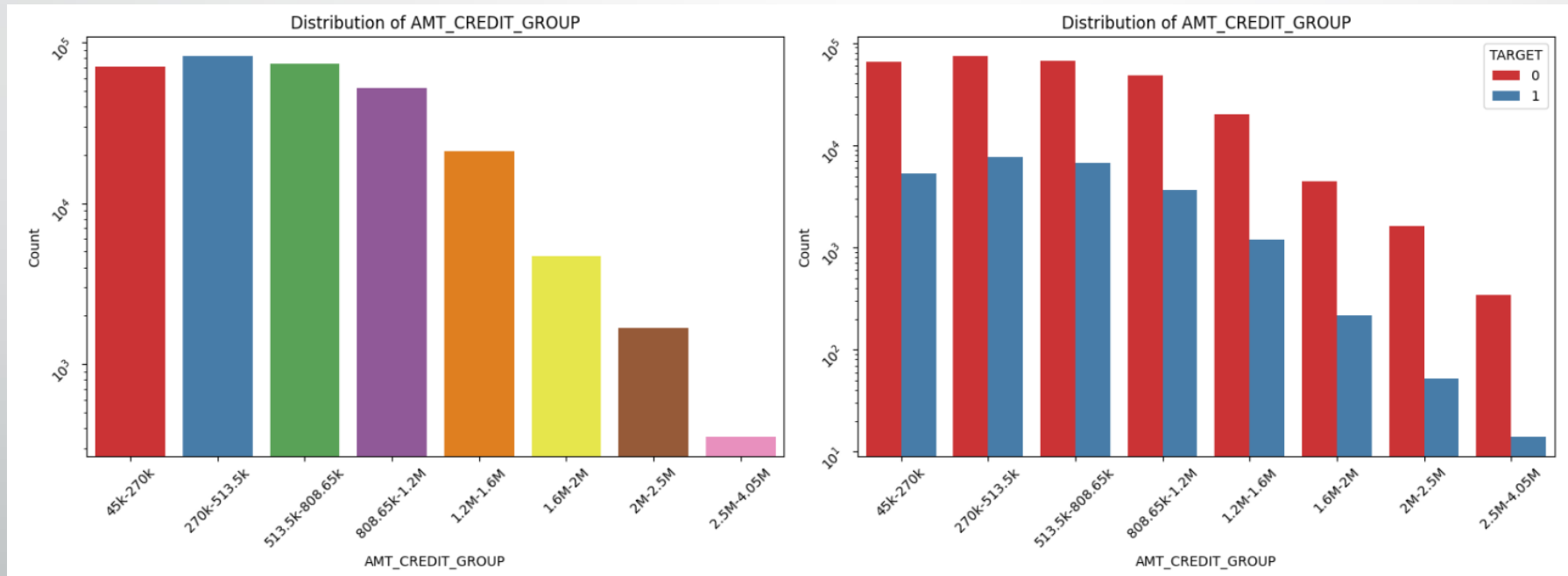
AGE_GROUP Defaulters vs Non-defaulters



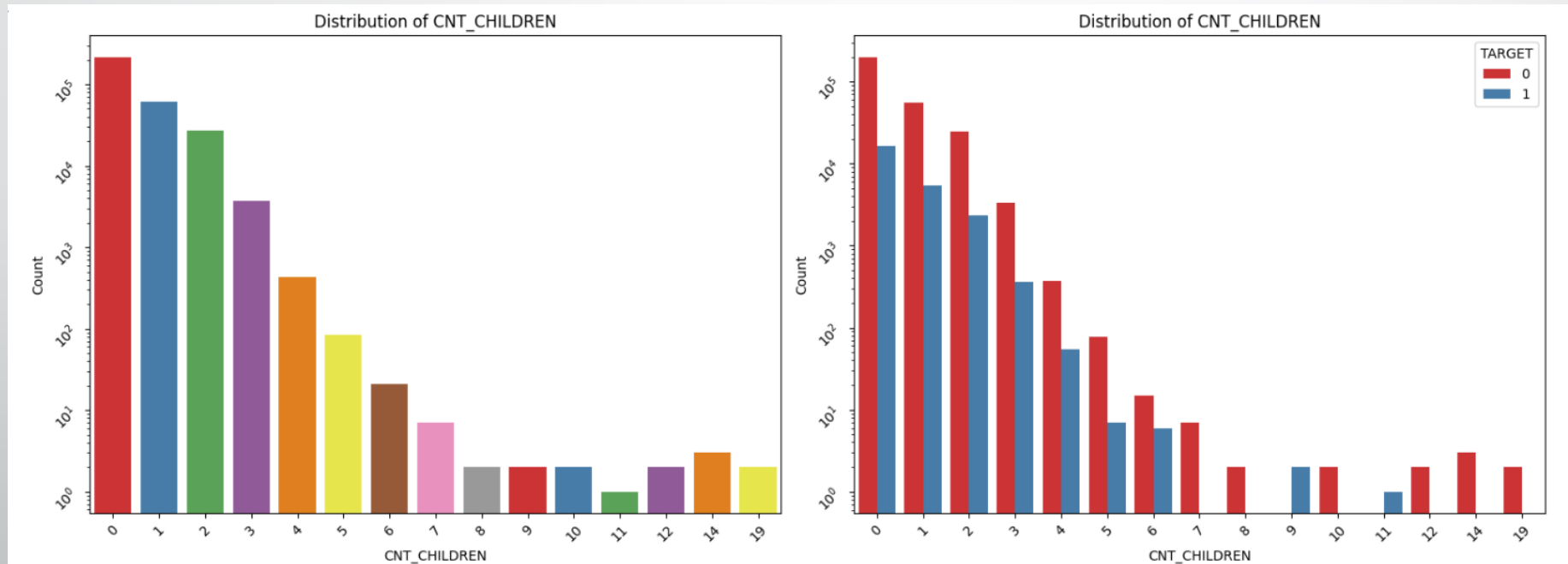
EMPLOYMENT_BINS Defaulters vs Non-defaulters



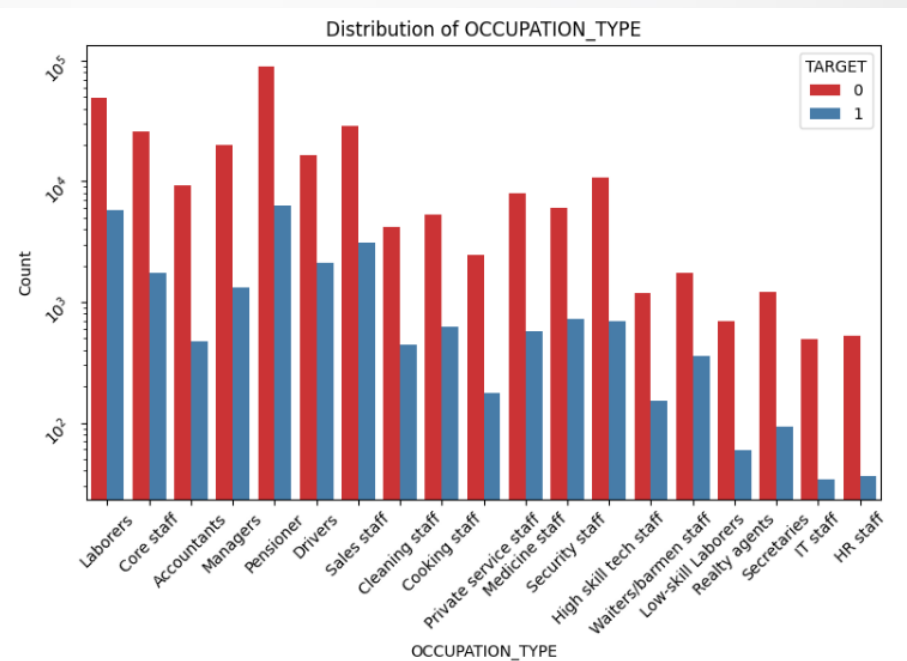
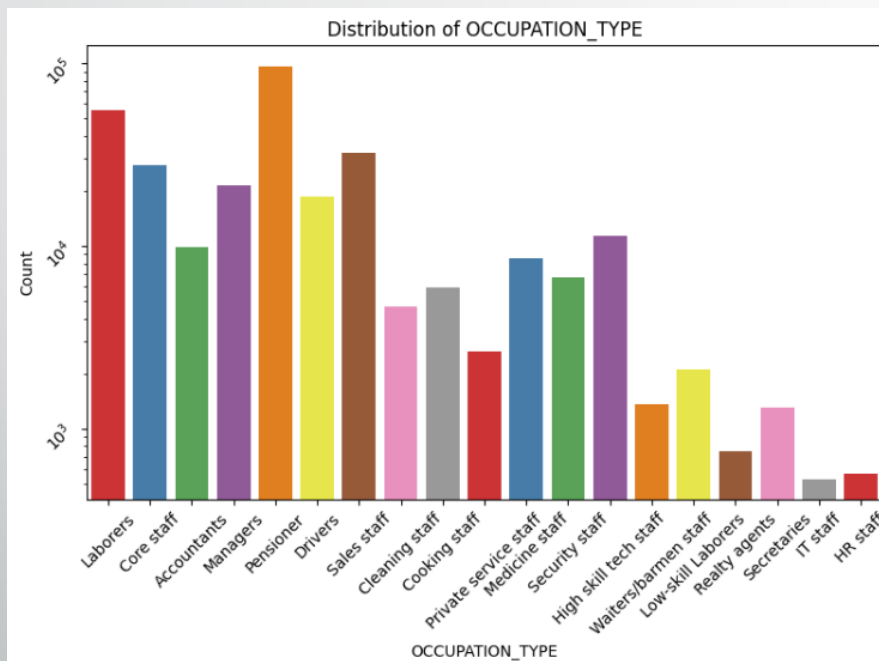
AMT_CREDIT_GROUP Defaulters vs Non-defaulters



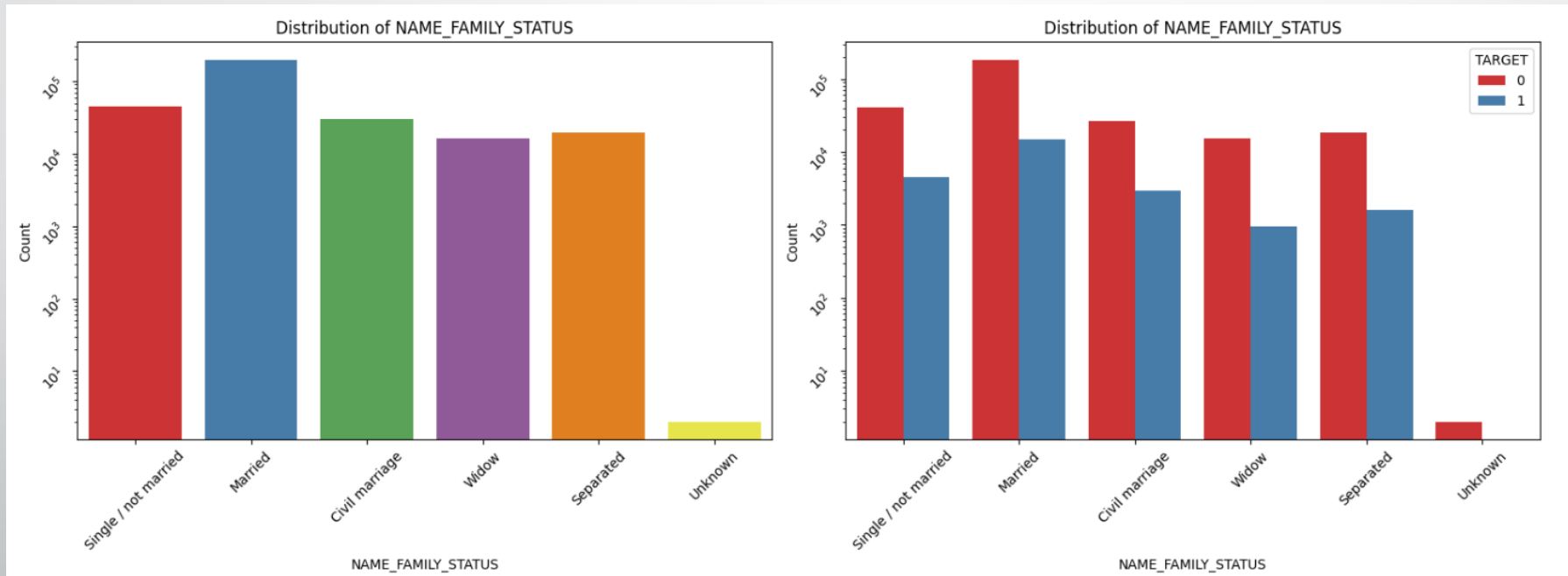
CNT_CHILDREN Defaulters vs Non-defaulters



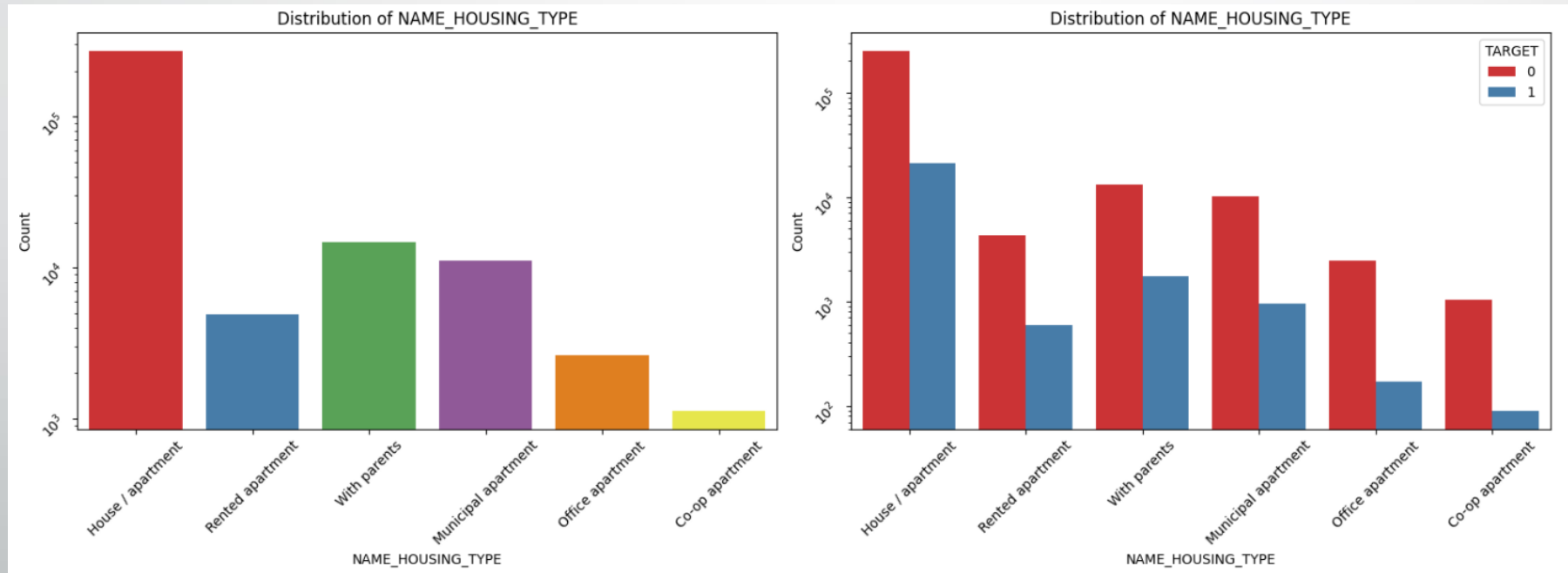
OCCUPATION_TYPE Defaulters vs Non-defaulters



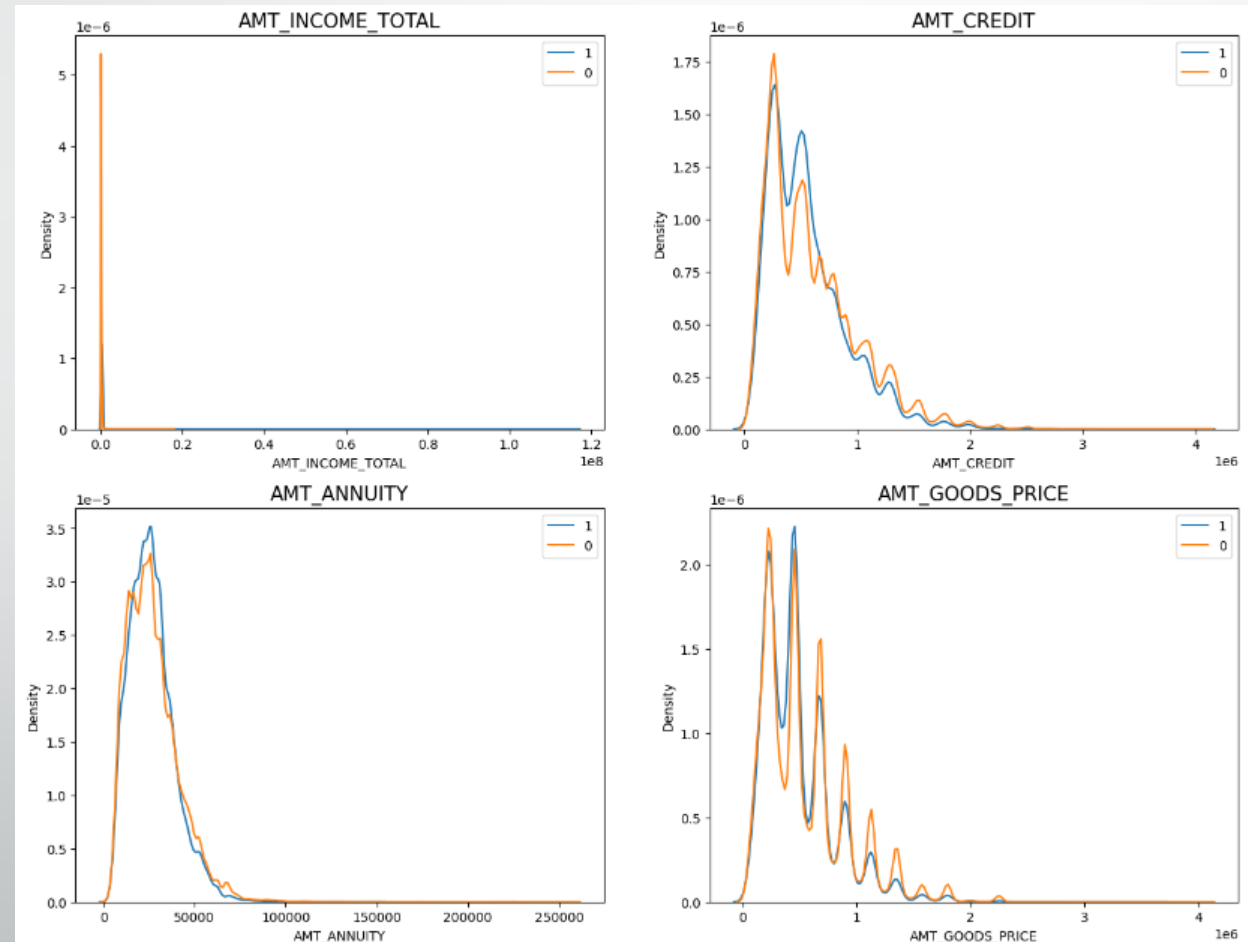
NAME_FAMILY_STATUS Defaulters vs Non-defaulters



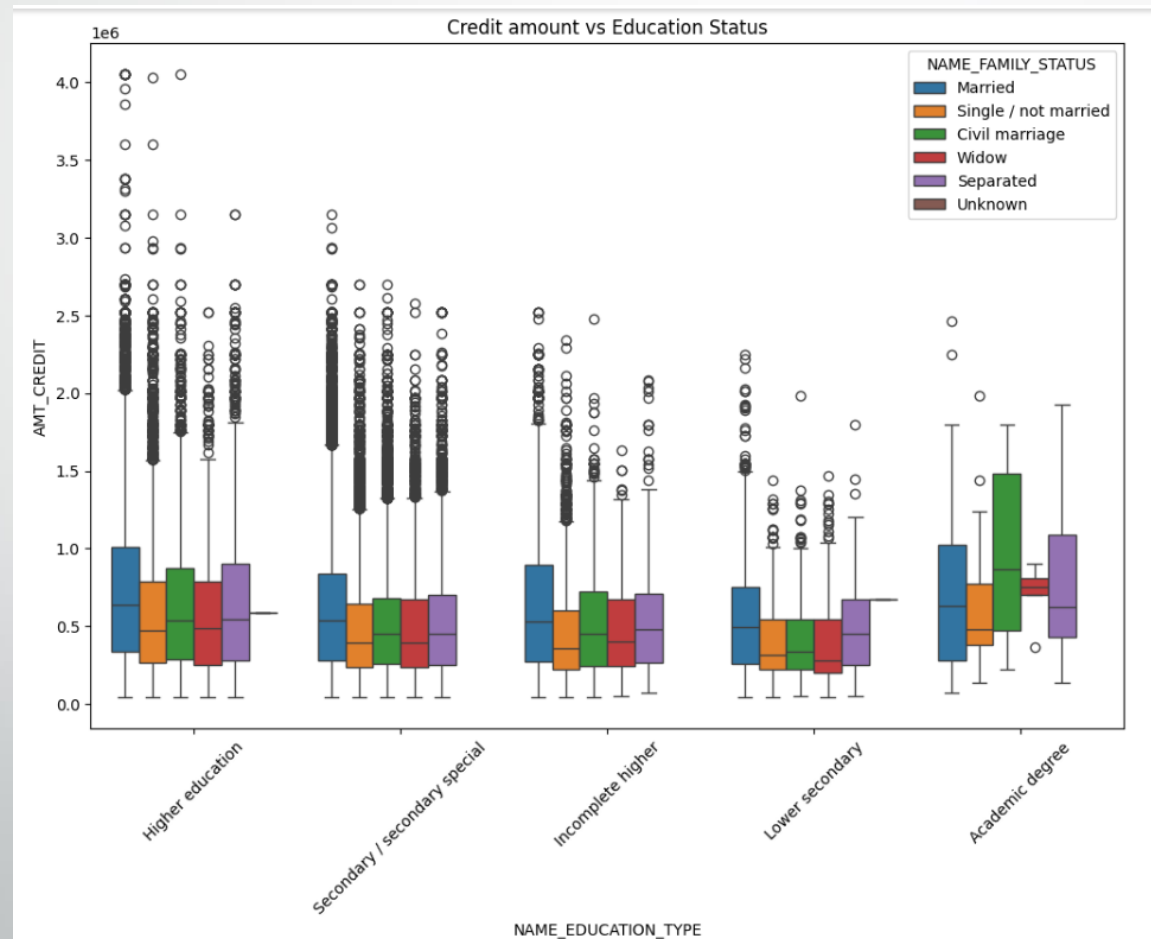
NAME_HOUSING_TYPE Defaulters vs Non-defaulters



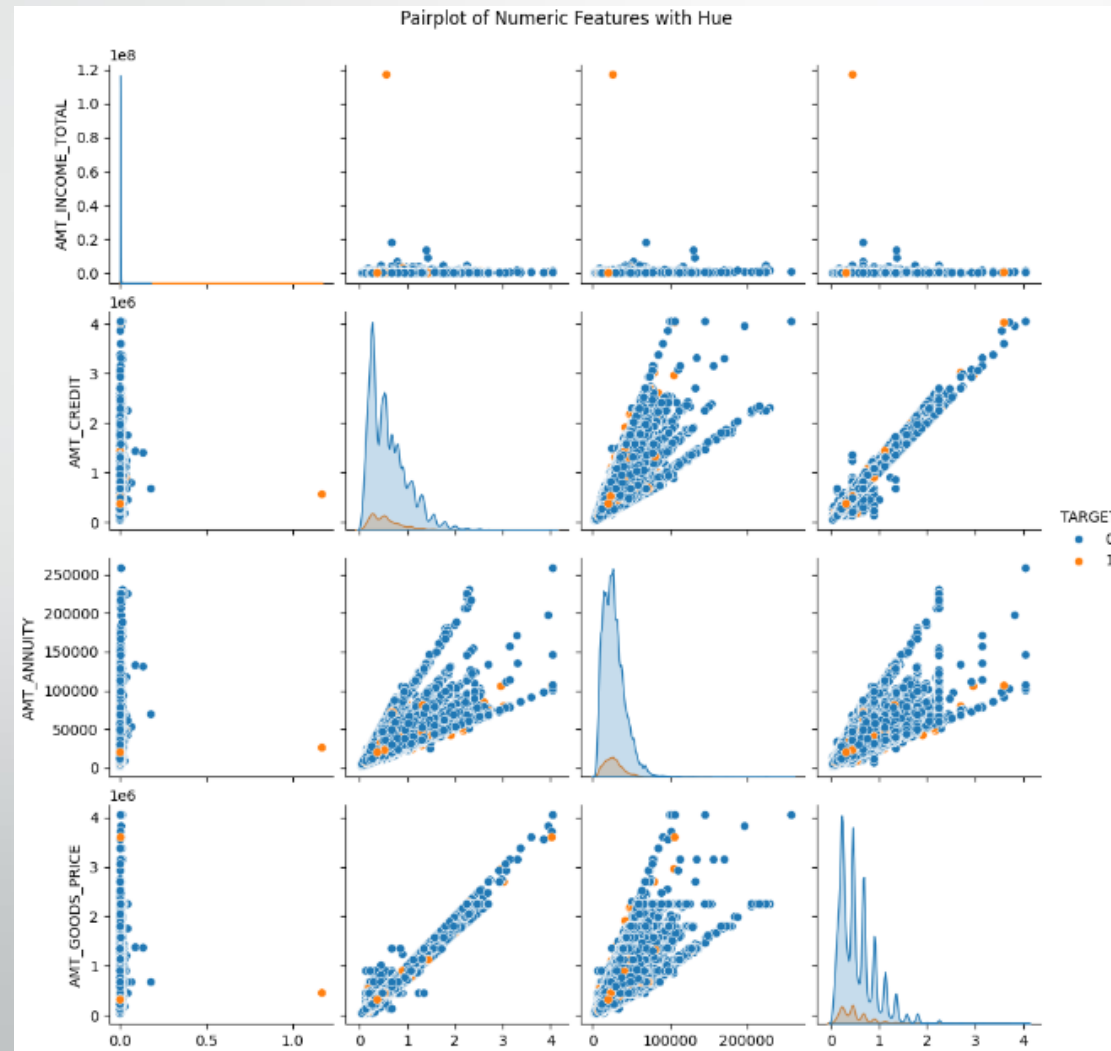
Univariate analysis on continuous columns



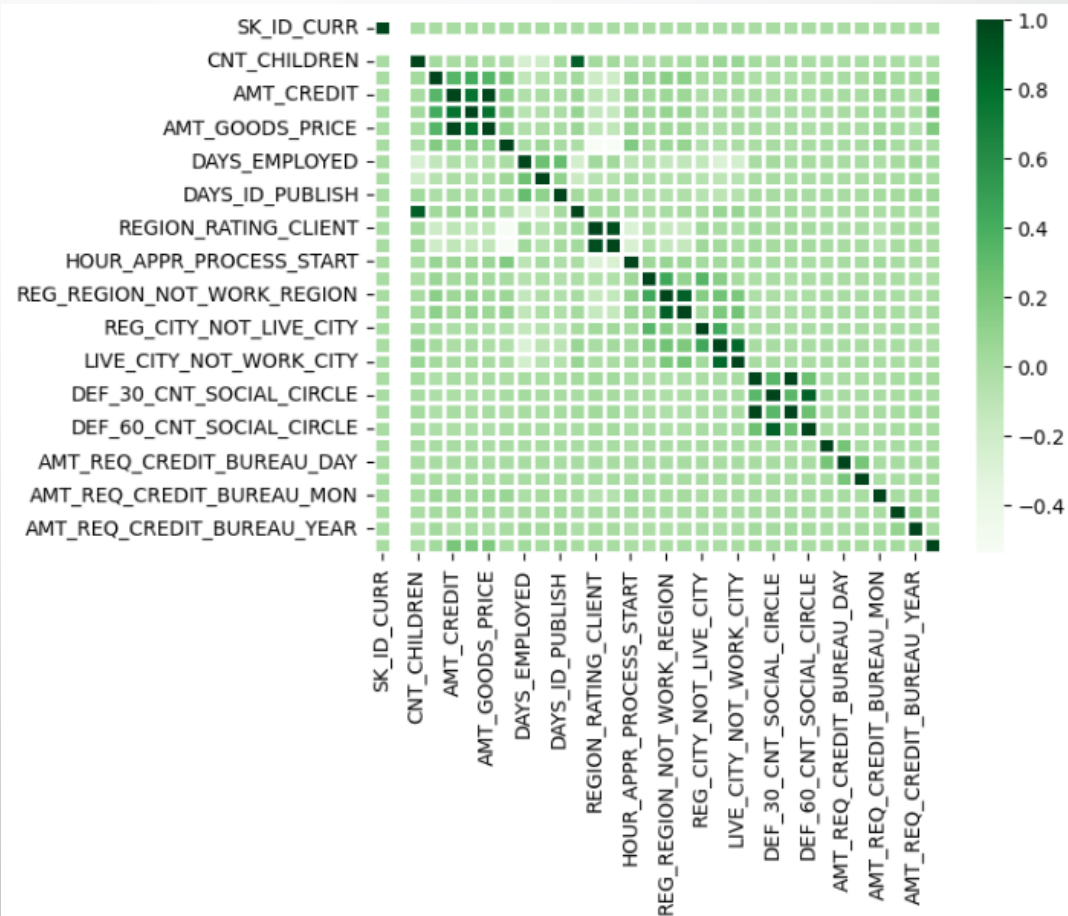
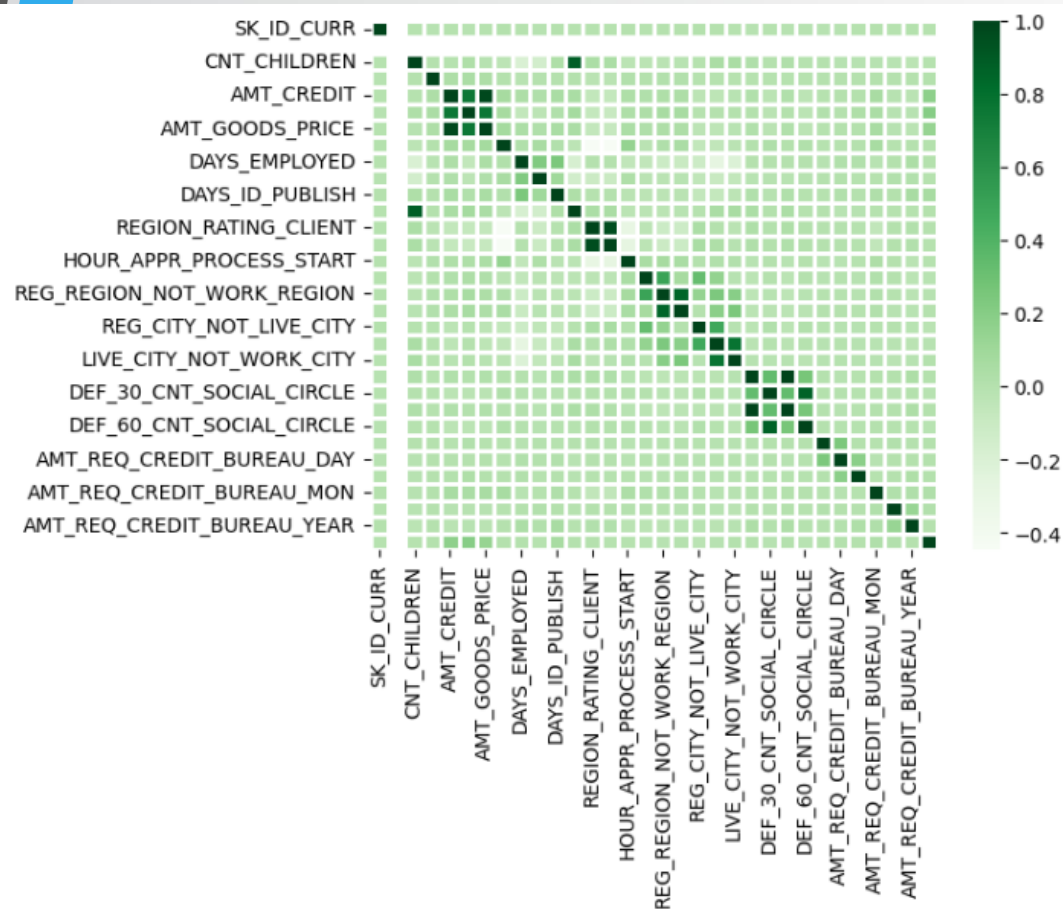
Segmented Univariate Analysis



Bivariate Analysis-Columns of interest



Correlation



Recommended group to whom loan can be provided (suggested to be Low risk/Non-defaulter)

- Old female customer.
- Customer who has unused loan status previously.
- Widow who has unused loan status.
- Female customer with higher education.
- Customer who's previous loan status was approved.
- Old people with any income group.
- Customer with high income category.
- Customers who are working as a state servant.

Risky / Defaulters Category

- Male customers in civil marriage.
- Previously refused loan status group.
- Lower secondary educated customers are most likely to be as defaulter.



Thank you!