

CreditRiskAnalyzer

PRESENTATION

Credit Risk Analyzer

Introduction and Context

This presentation addresses the problem of predicting credit risk for loan applicants.

By analyzing various factors such as loan type, education level, housing type, and gender, we aim to identify patterns that influence loan defaults.

Objective:

Our goal is to provide insights that can help financial institutions make informed decisions, reduce default rates, and ensure that capable applicants are not rejected.

Key Focus Areas:

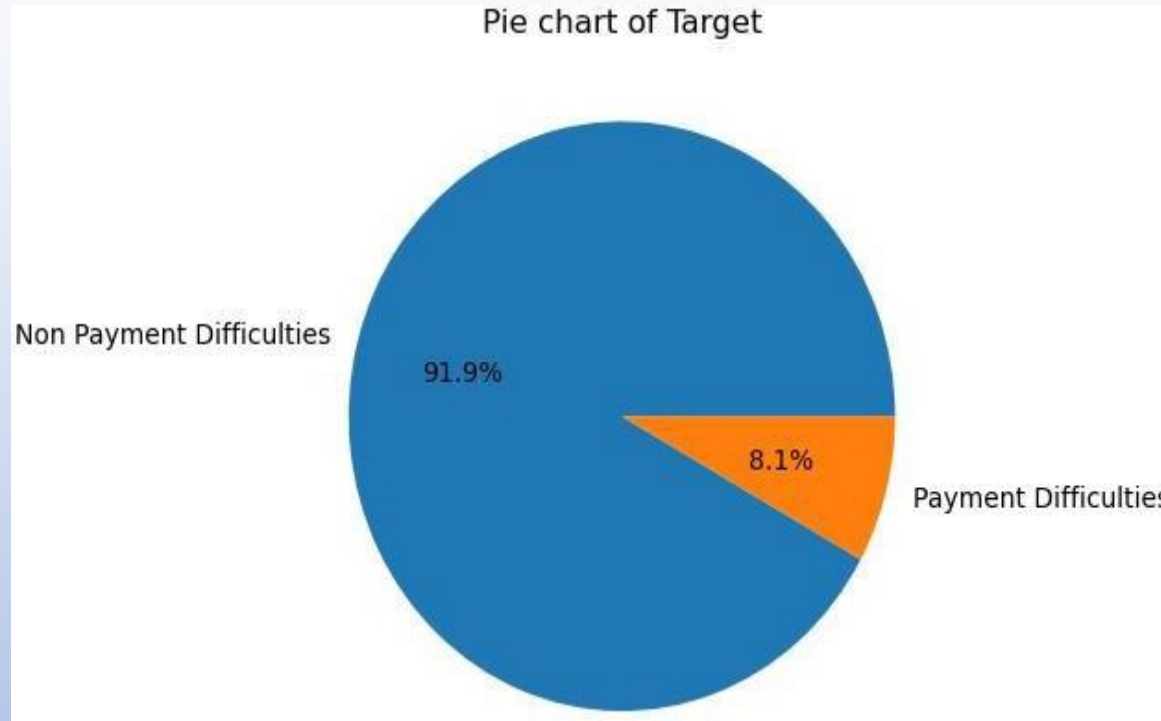
Loan Preference and Default Rates

Factors Influencing Loan Approval

Demographic and Educational Trends

Application and Contract Statistics

DATA IMBALANCE



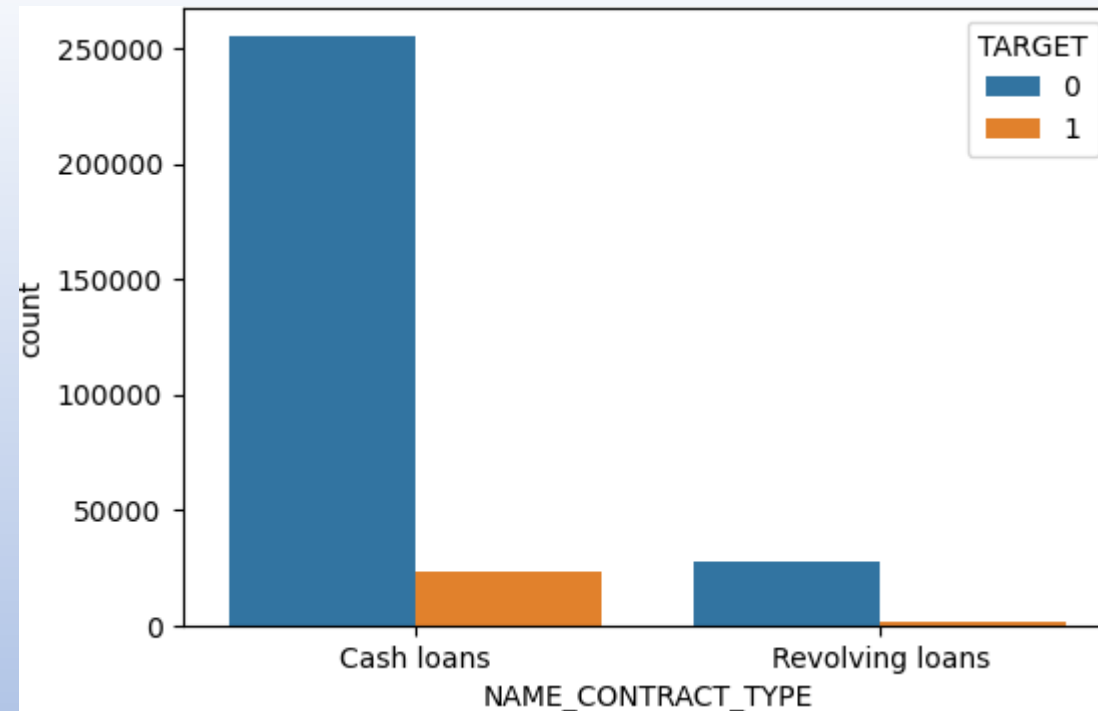
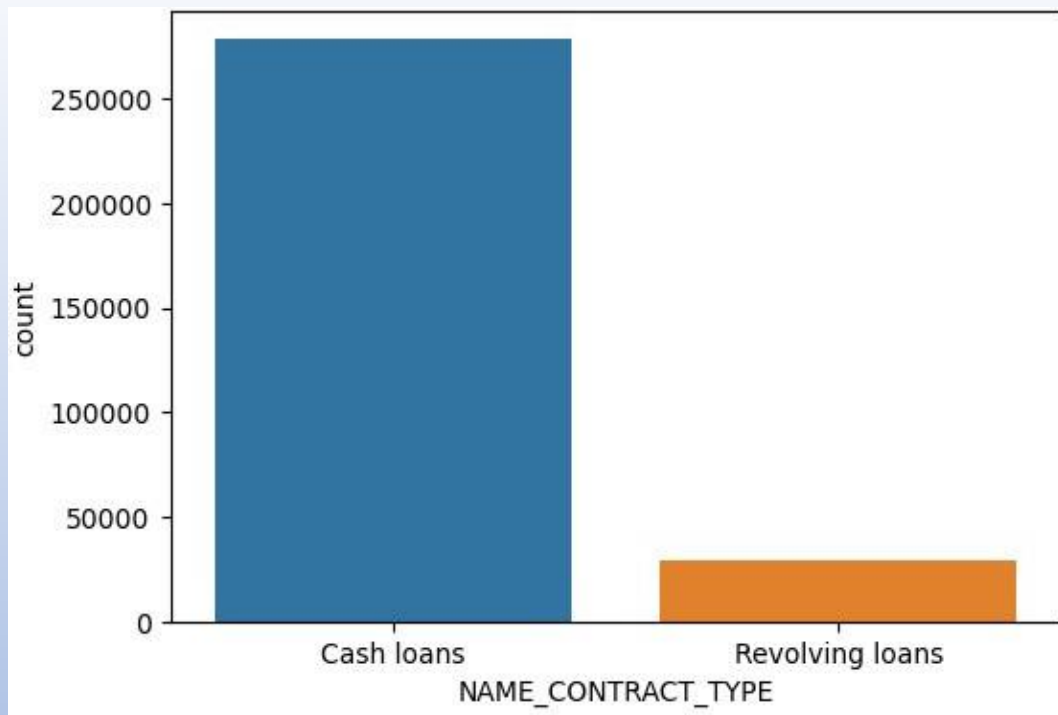
In Data Imbalance pie chart I found that 91.9% clients were Non Payment Difficulties(0) and about 8.1% for Payment Difficulties(1).

TARGET

0=Non Payment Difficulties

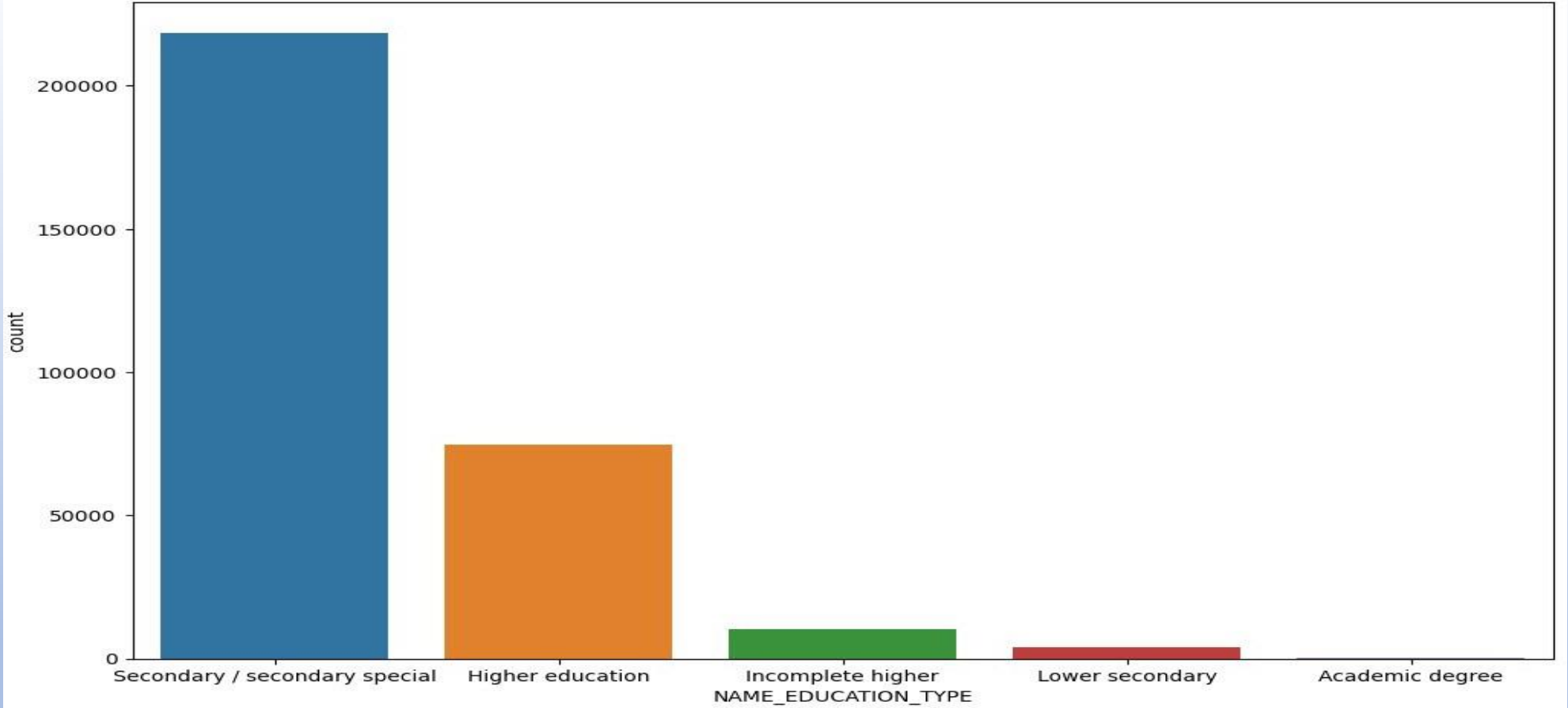
1=Payment Difficulties

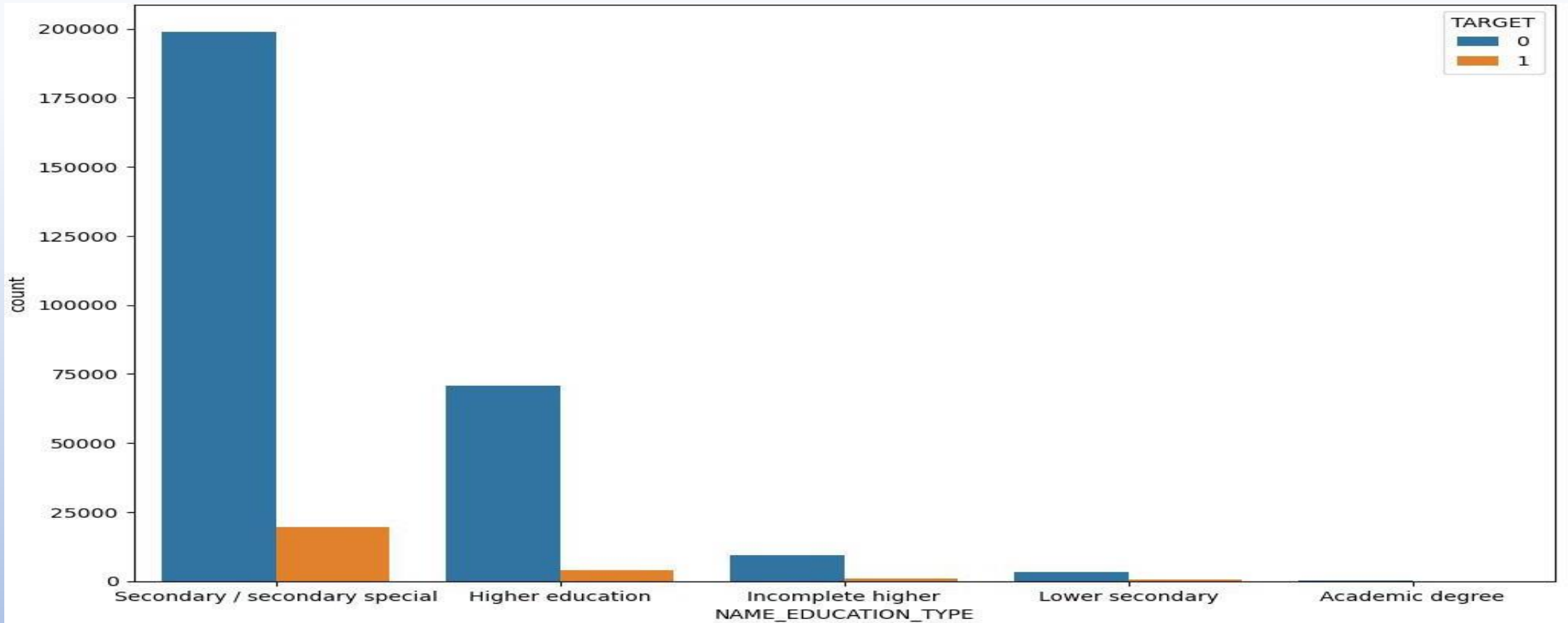
UNIVARIATE ANALYSIS NAME_CONTRACT TYPE



1. Cash loans are huge in comparison of revolving loans.
2. Payment difficulties are more in number for cash loan.

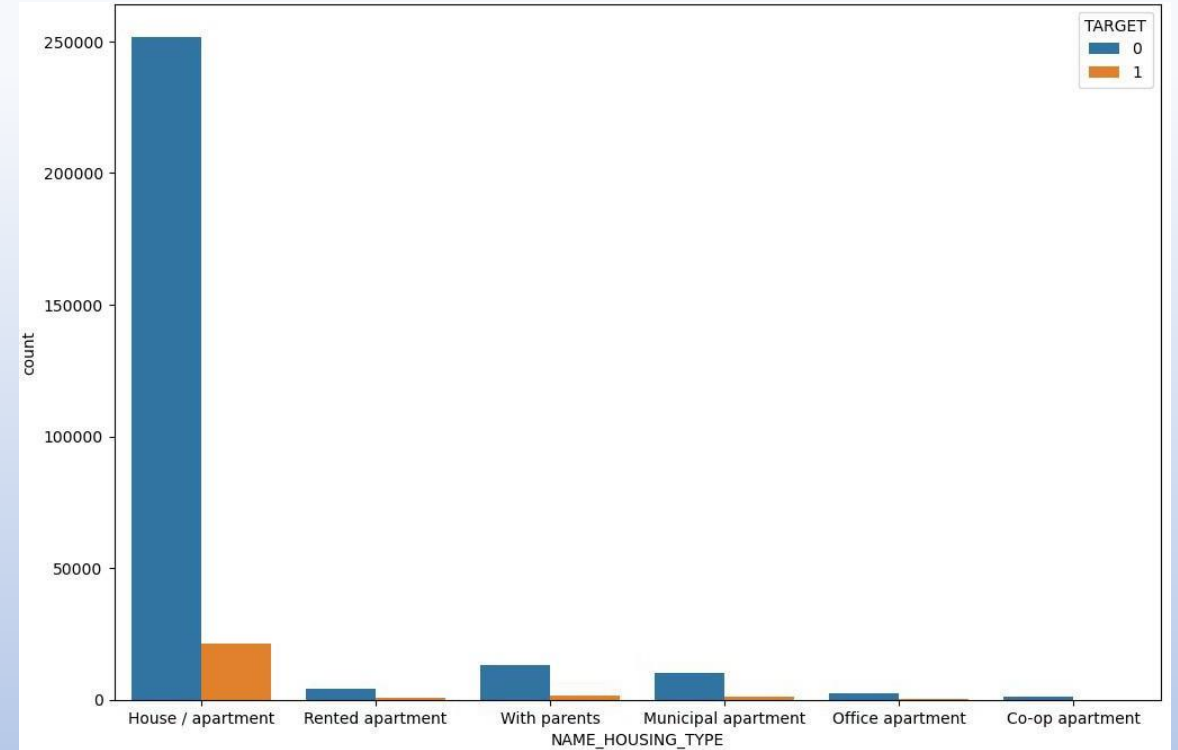
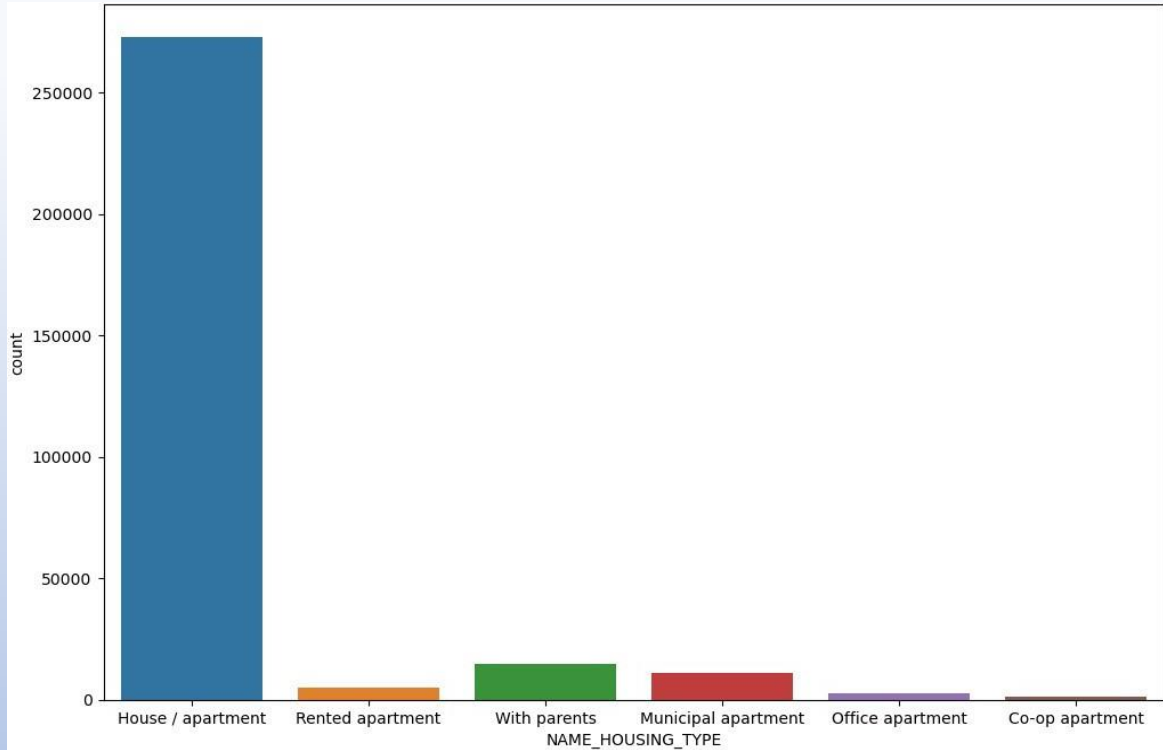
NAME EDUCATION_TYPE





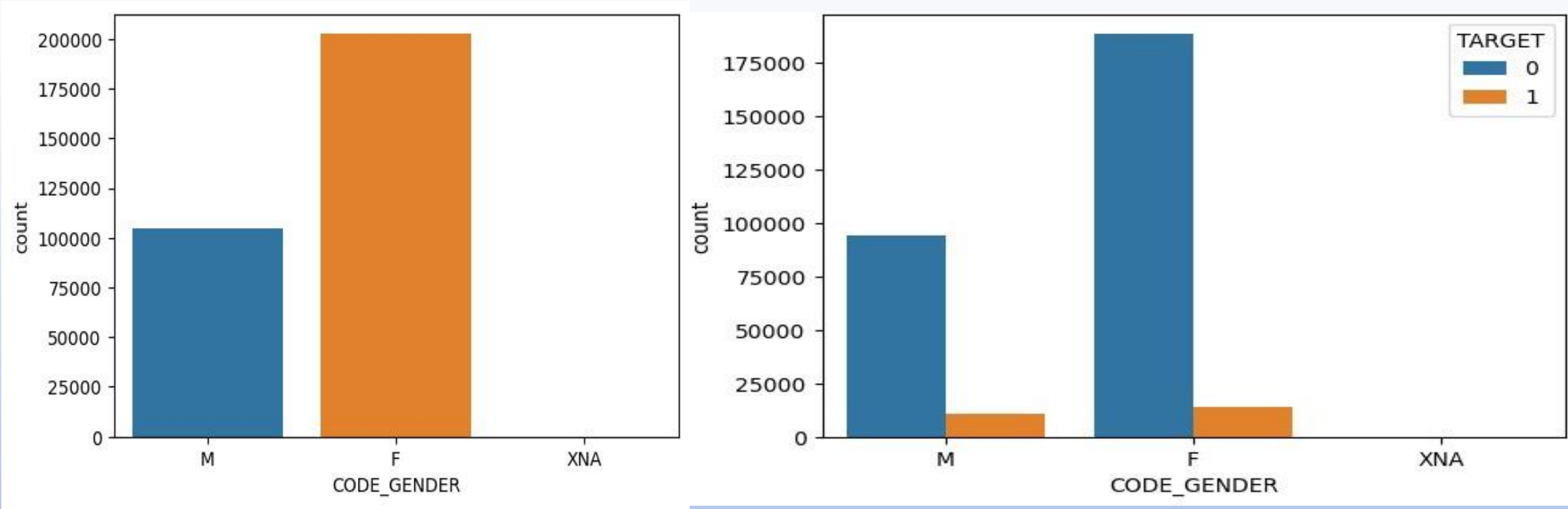
1. Clients with Secondary/secondary special education are more in number as compares to others.
2. Among these education groups, clients with Lower secondary education have the highest default rate.

NAME HOUSE TYPE



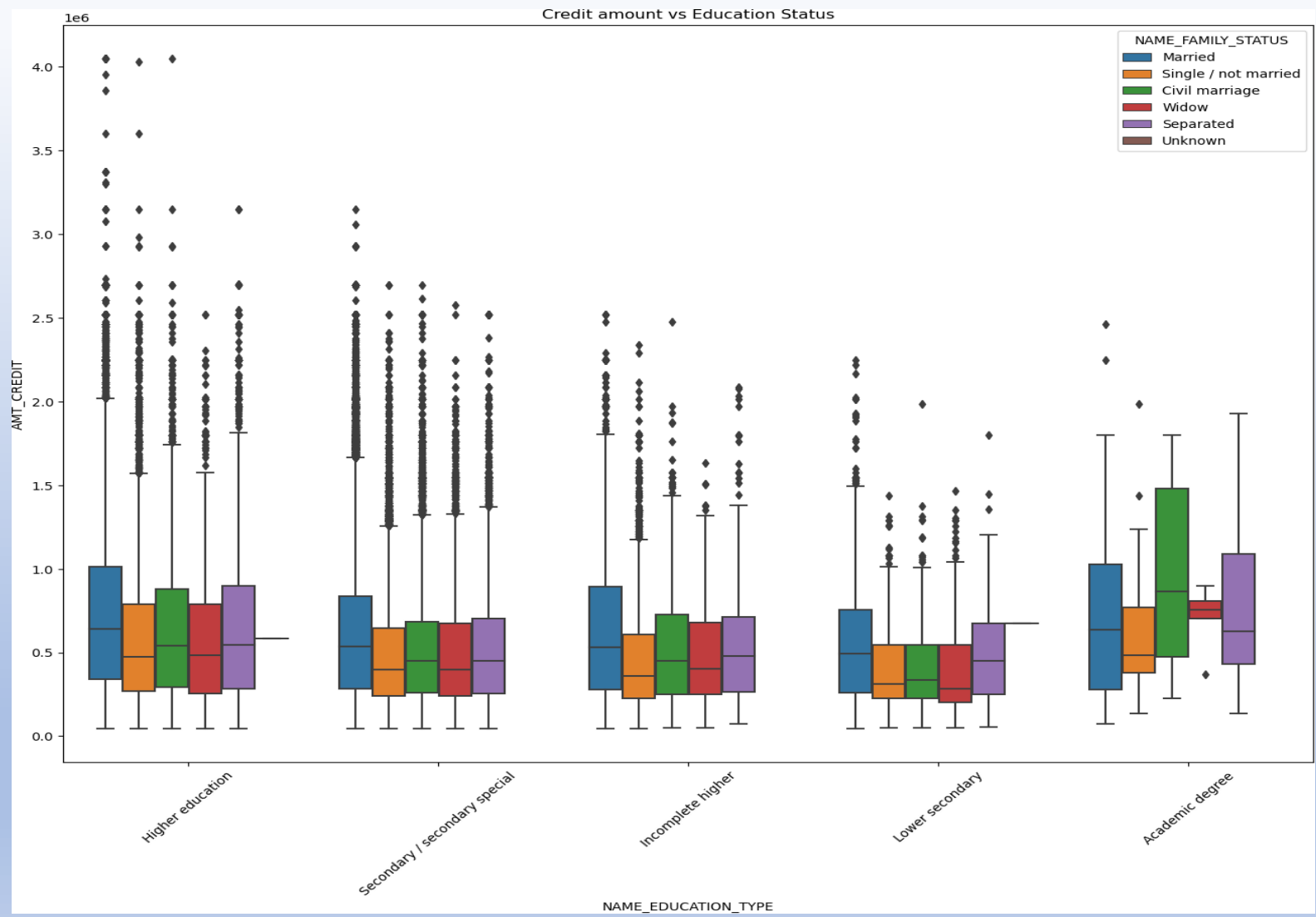
1. Majority of Clients are living in house/Apartment and major loans are taken by these people and also have highest default.
2. People leaving in Co-op Aptment have the lowest default rate

CODE_GENDER



Female clients are more who seeking loan than Men clients and female clients are less payment difficulties than men clients.

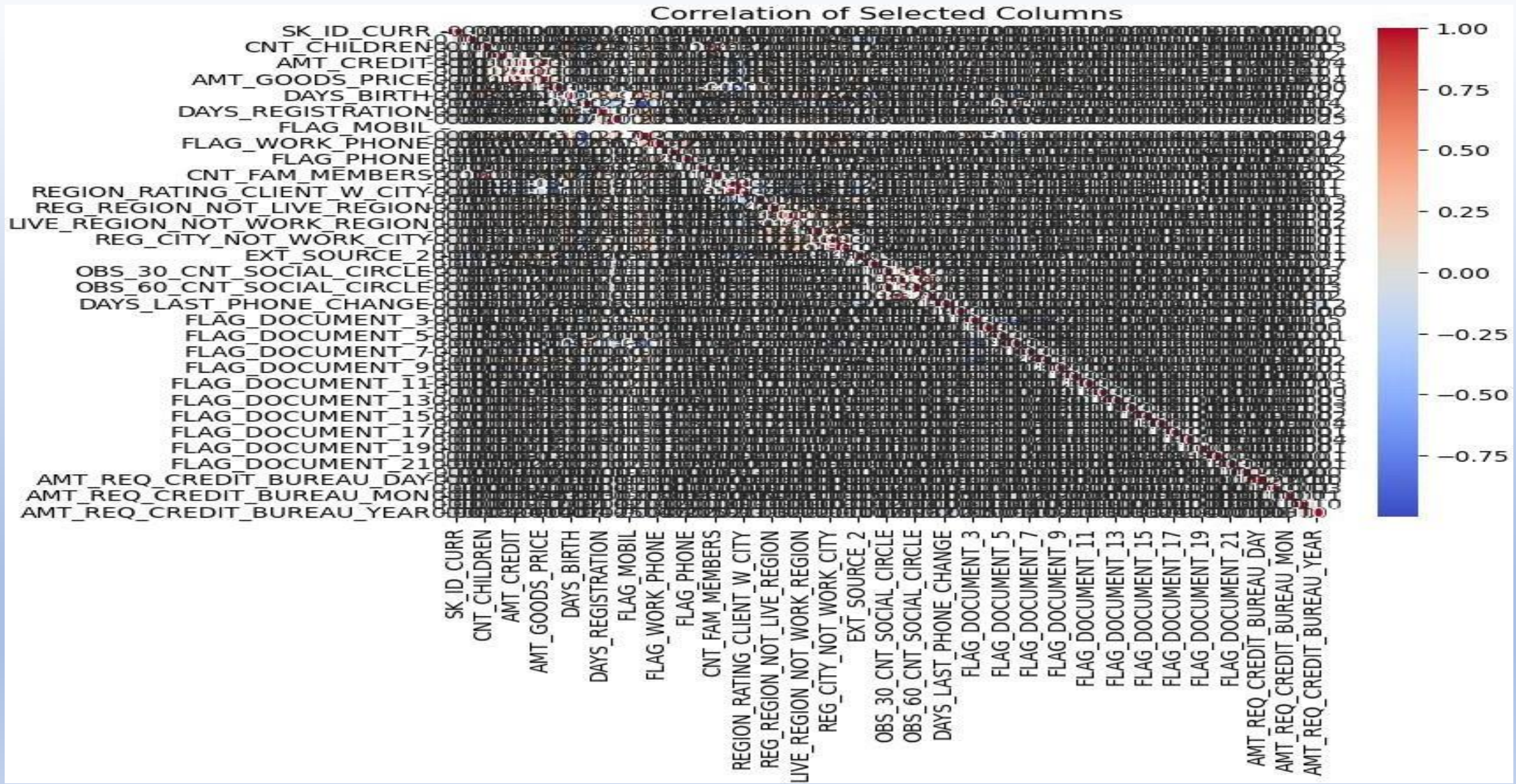
BIVARIATE



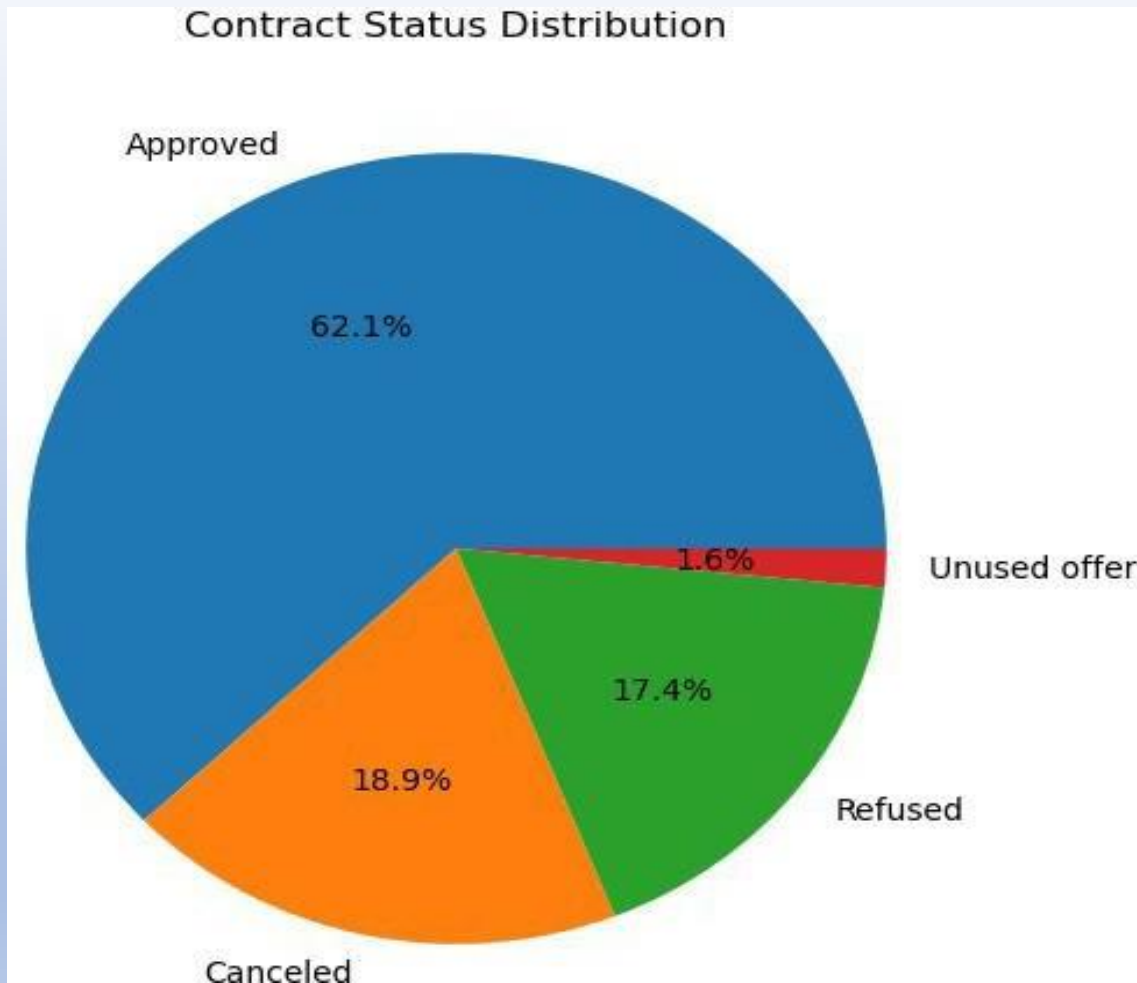
1. Clients with a family status of 'civil marriage,' 'marriage,' or 'separated' who have attained an 'Academic degree' education tend to submit more credit applications.

2. Particularly, clients in a 'Civil marriage' status with an 'Academic degree' education predominantly fall within the third quartile range for credit amounts, indicating a preference for higher credit limits among this group

Correlation

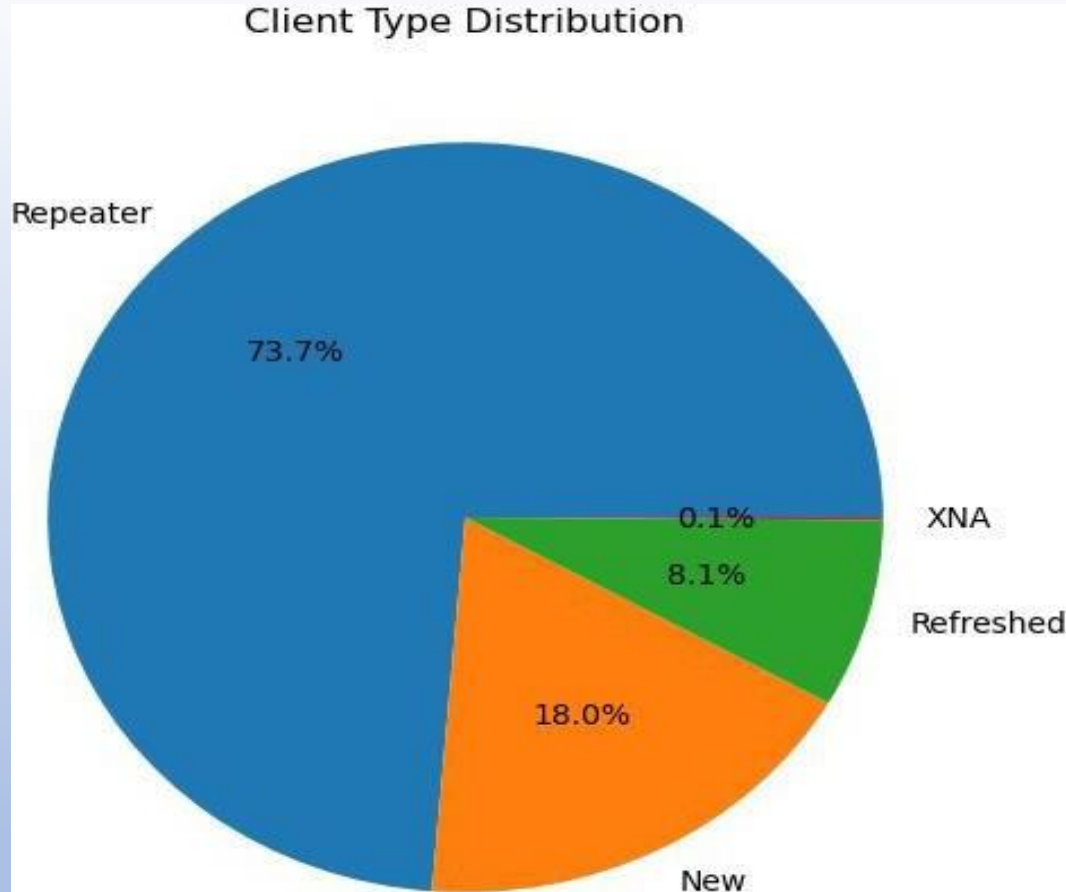


Previous Application NAME_CONTRACT_STATUS



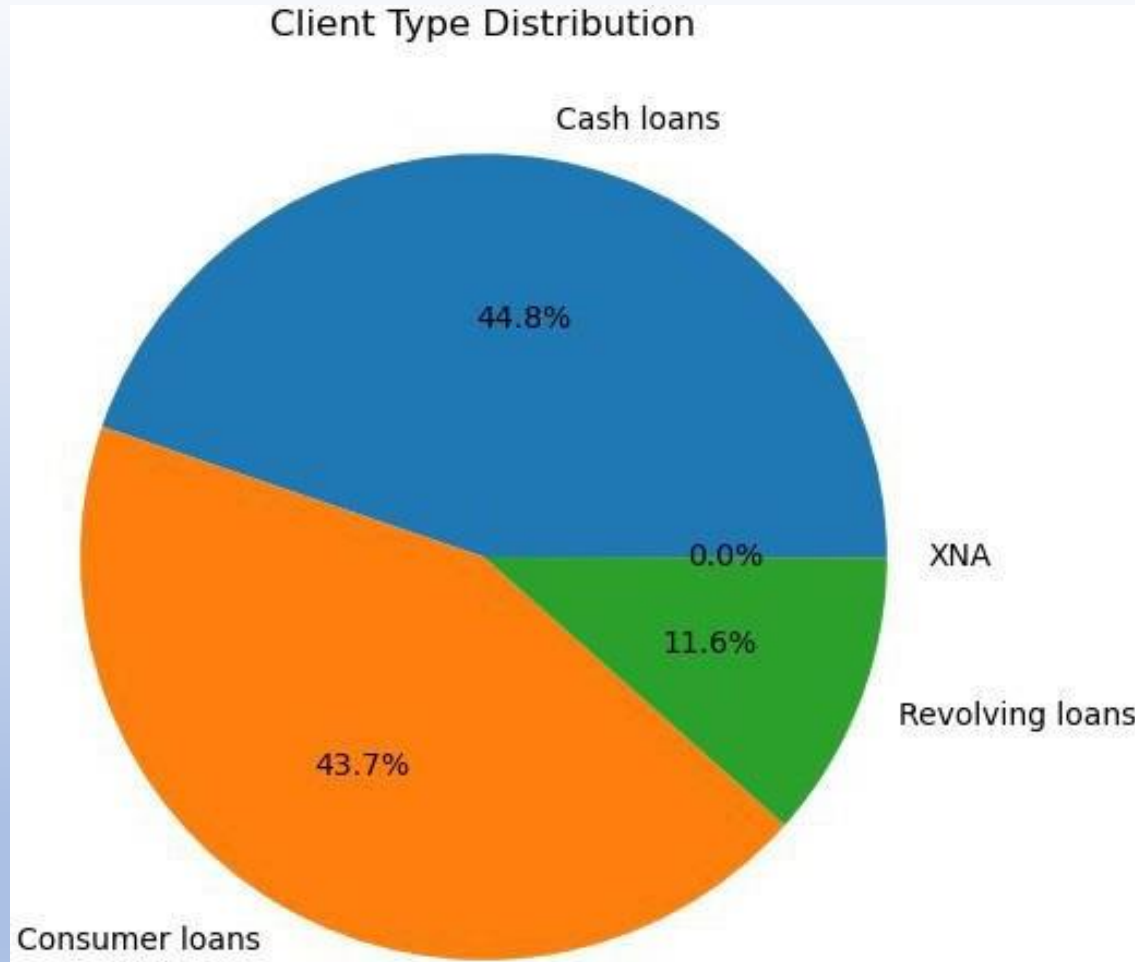
1. 62.1% Applications are approved successfully
2. 18.9% applications are cancelled by the applicant
3. 17.4% application are refused
4. 1.6% applicants are not used the offers

NAME_CLIENT_TYPE



1. **73.7% of applicant are Repeater.**
2. **18.0% of applicants are New.**
3. **8.1% of applicants are Refreshed.**
4. **only 0.1%,applicants are XNA**

NAME_CONTRACT_TYPE



1. The most common contract type is cash loan with 44.8%.
2. The 2nd contract is consumer loans with 43.7%
3. Revolving loans is only 11.6%

Conclusion:

Loan Preference and Default Rates

1. Cash loans are more popular than revolving loans, but they also have a higher incidence of payment difficulties. Clients with secondary/secondary special education are the most numerous, with clients having lower secondary education showing the highest default rate.

Majority of clients live in houses/apartments, and they also account for the highest loan amounts and default rates.

Factors Influencing Loan Approval:

2. People living in cooperative apartments have the lowest default rates.

Female clients apply for loans more frequently than male clients, and they also experience fewer payment difficulties.

Demographic and Educational Trends:

3. Clients in civil marriage, marriage, or separated status with an academic degree tend to apply for credit more often.

Among this group, those in civil marriage with an academic degree tend to seek higher credit amounts.

Application and Contract Statistics:

4. Around 62.1% of applications are approved successfully, while 17.4% are refused.

The most common contract type is cash loan, followed by consumer loans and then revolving loans. A significant portion of applicants are repeat customers.

Key Terms

Non-Payment Difficulties: Clients who consistently make their loan payments on time without any issues.

Payment Difficulties: Clients who struggle to meet their loan payment obligations.

Revolving Loan: A type of loan that allows the borrower to repeatedly withdraw, repay, and withdraw again, typically used for lines of credit where the borrower can access funds up to a set limit and only pay interest on the amount borrowed.