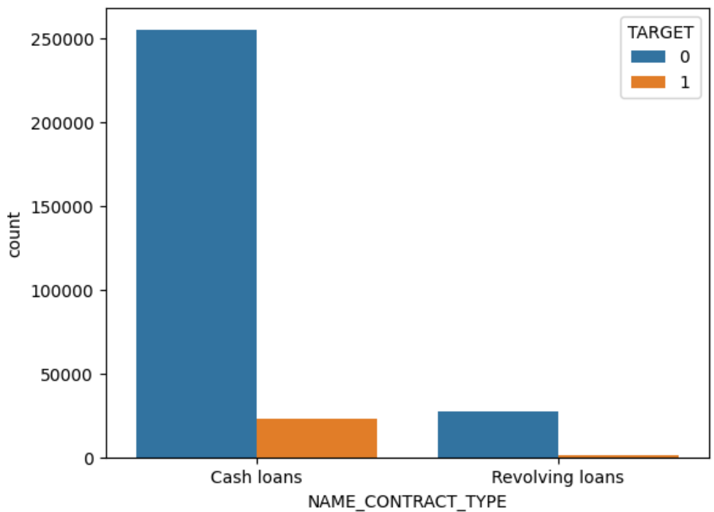
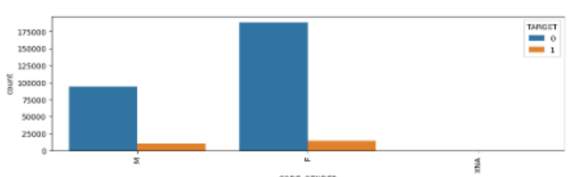
EDA Summary on Bank Loan Defaulters

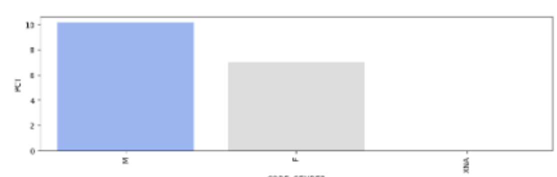
This analysis dives into customer behaviors and risk factors influencing loan defaults, helping identify safer customer segments for banks to target and higher-risk profiles to avoid.



Key Insights by Segment:

- **Loan Type**: Cash loans are most popular, and borrowers are less likely to default with this type.
- **Demographics**:





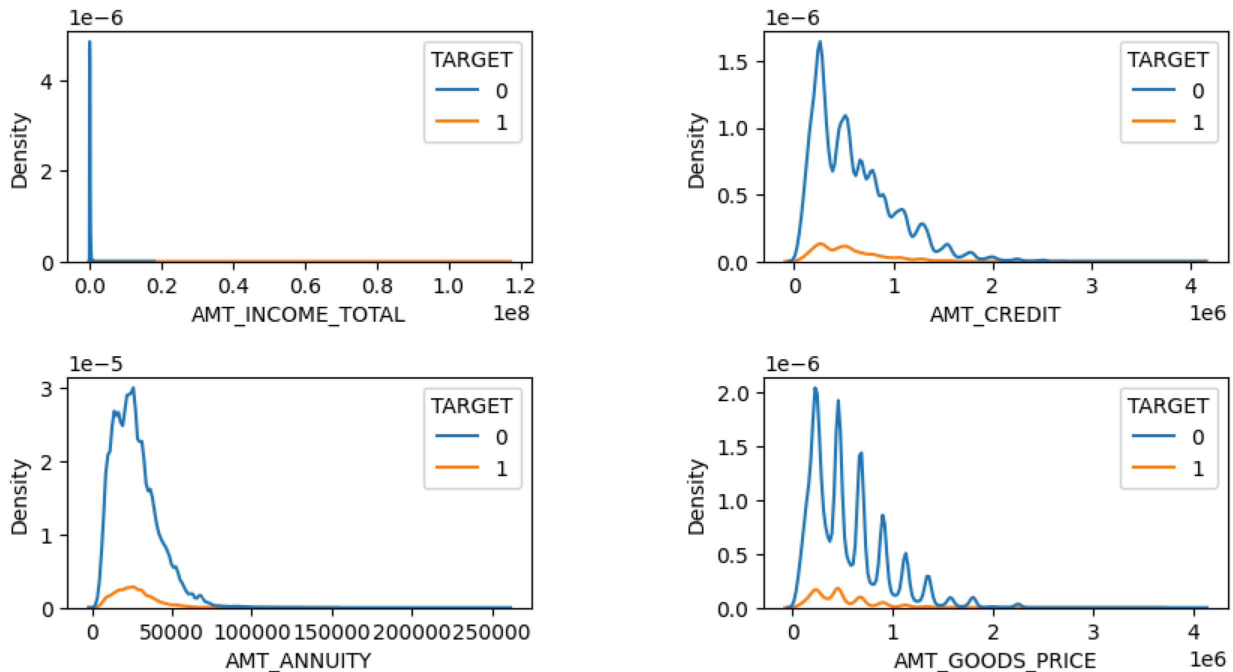
-

Most of the customers who have taken loan are male but male are likely to defaulter

  - **Gender**: Most loans were taken by females, who show a lower default rate (~7%) than males.
  - **Marital Status**: Married individuals are safer to target, with an 8% default rate.

    - **Housing**: Borrowers with their own houses or apartments exhibit a low default rate (~8%).
- **Income & Occupation**:
    - **Income Level**: Income below 1 million is common among borrowers. Targeting loans above 1.5 million for this group might reduce defaults.
    - **Occupation**: Safer occupations include Accountants, Core Staff, Managers, and Laborers (default rate ≤10%), while Low-Skill Laborers and Drivers have high default rates.
    - **Organization Type**: Self-Employed individuals and Business Entity Type 3 are good candidates (default rate around 10%), while Transport Type 3 shows high risk.
- **Family & Education**:
    - **Family Size**: Borrowers with 1-4 children are safer, with fewer defaults.
    - **Education**: Higher education correlates with the safest default rates (<5%).

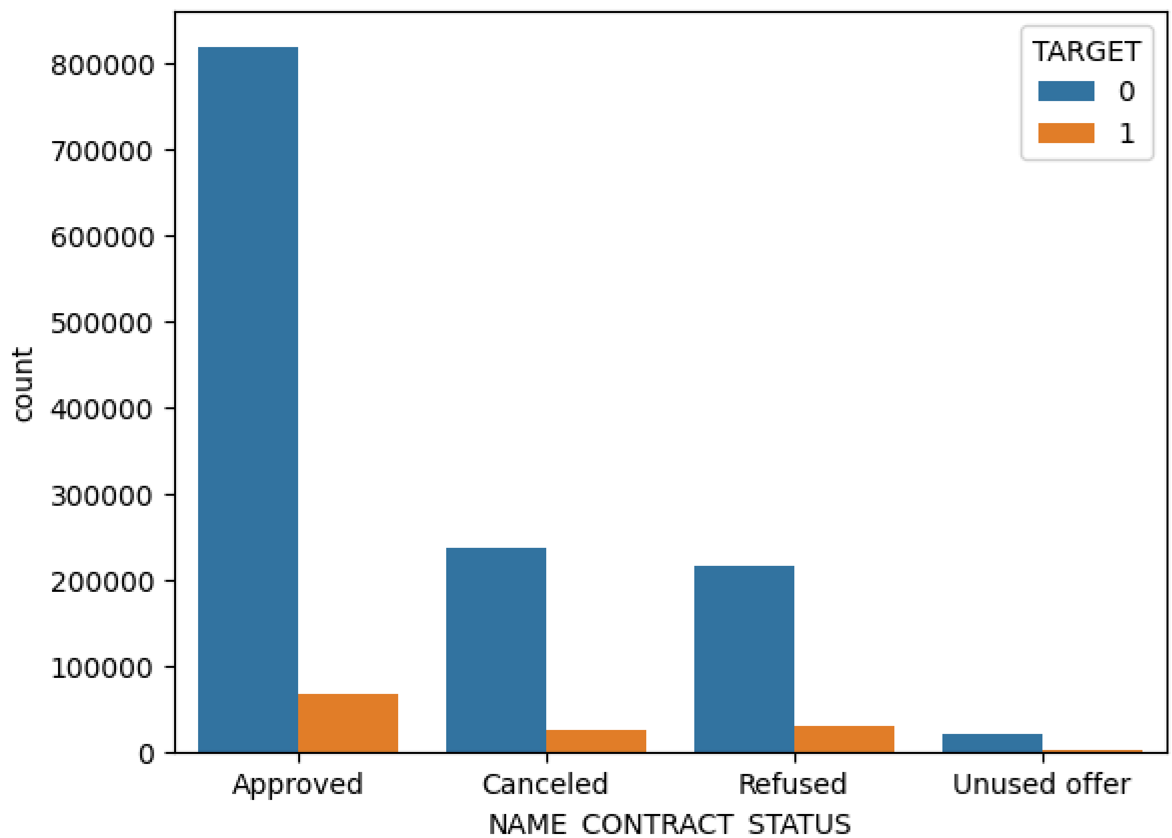
Financial Metrics:



- **Loan Amount**: The recommended credit amount is ≤1 million, with an ideal annuity around 50K and income under 1 million.
- **Correlations**:
    - Credit amount and goods price are linearly related; as credit increases, default rates decline.

- Higher annuity-paying borrowers (~100K) tend to default less, especially for loans <2 million.

Historical Loan Performance:



- **Purpose**: Applications for repairs have high cancellation rates.
- **Refused/Cancelled Loans**: 80-90% of previously refused or canceled customers are current repayers, suggesting an opportunity to reconsider these profiles.

Final Recommendations:

- **Targeted Segment**: Prefer borrowers with low income, stable professions, homeownership, and moderate family sizes. Females, higher-educated individuals, and unaccompanied applicants are lower-risk.
- **Avoidance Segment**: Exercise caution with Transport Type 3 organizations, Low-Skill Laborers, Drivers, and high-income clients with previously unused offers.

By focusing on these safer segments and monitoring high-risk categories, banks can better manage default risks and optimize lending strategies.