# Assignment: Credit EDA Case Study

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# Business Objectives

- This case study aims to identify patterns which indicate if a client has difficulty paying their instalments which may be used for taking actions such as denying the loan, reducing the amount of loan, lending (to risky applicants) at a higher interest rate, etc. This will ensure that the consumers capable of repaying the loan are not rejected. Identification of such applicants using EDA is the aim of this case study.

- In other words, the company wants to understand the driving factors (or driver variables) behind loan default, i.e. the variables which are strong indicators of default.  The company can utilise this knowledge for its portfolio and risk assessment.

# TARGETED AUDIENCE WHO CAN REPAY LOAN :
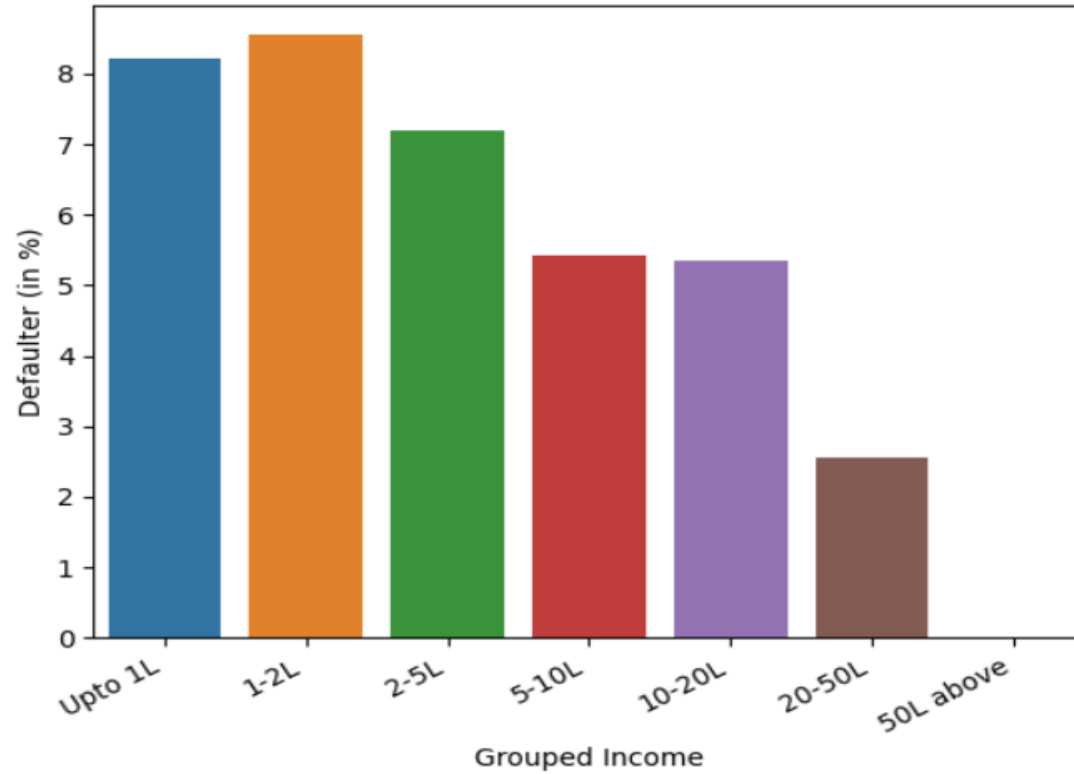
Correlation for Non-Defaulter Columns:
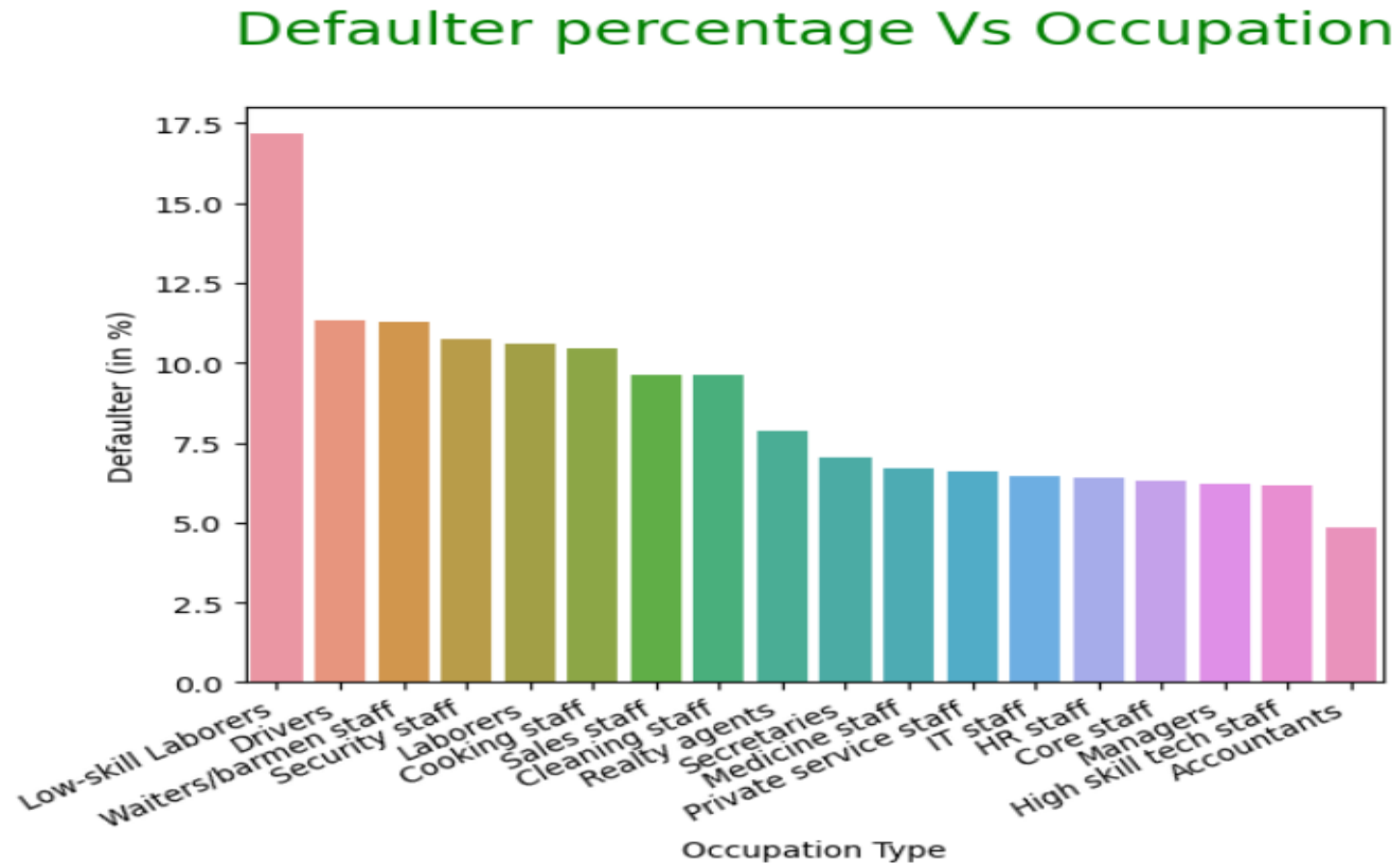
Age Group Vs Defalut percentage
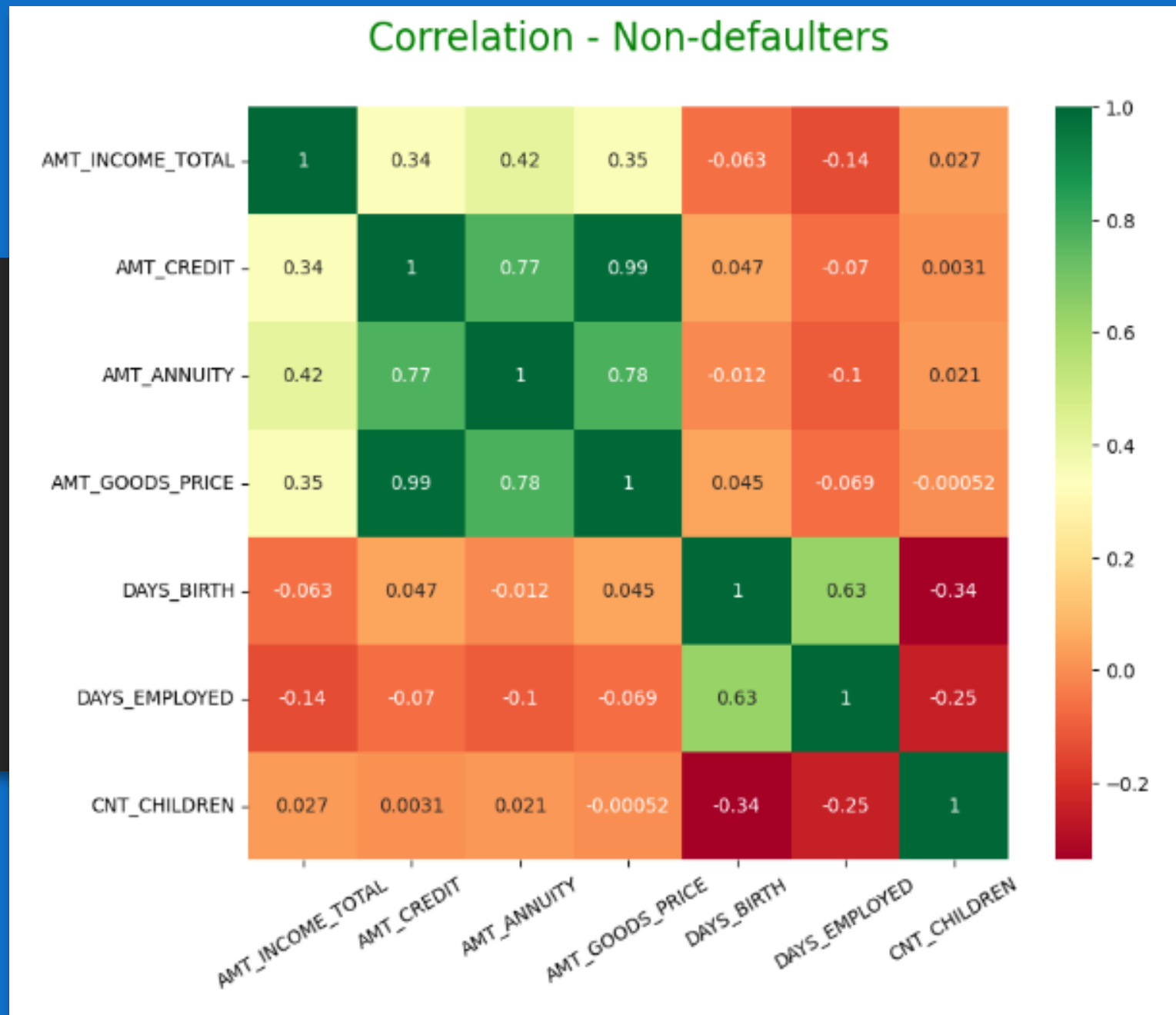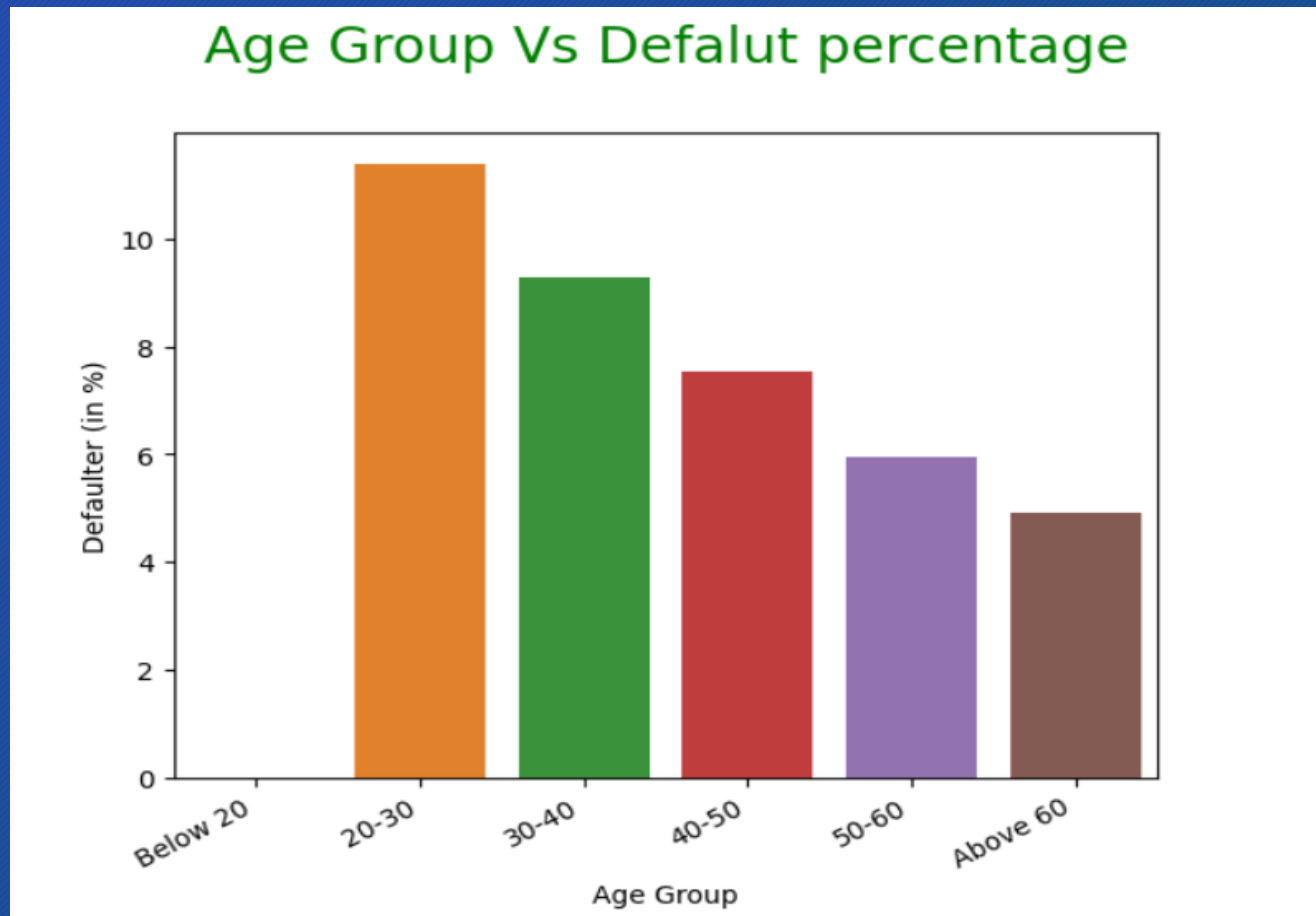
**AGE Group :** We need to target age group of 50+ . These people payback the loan amount mostly.

Defaulter percentage Vs Grouped Income

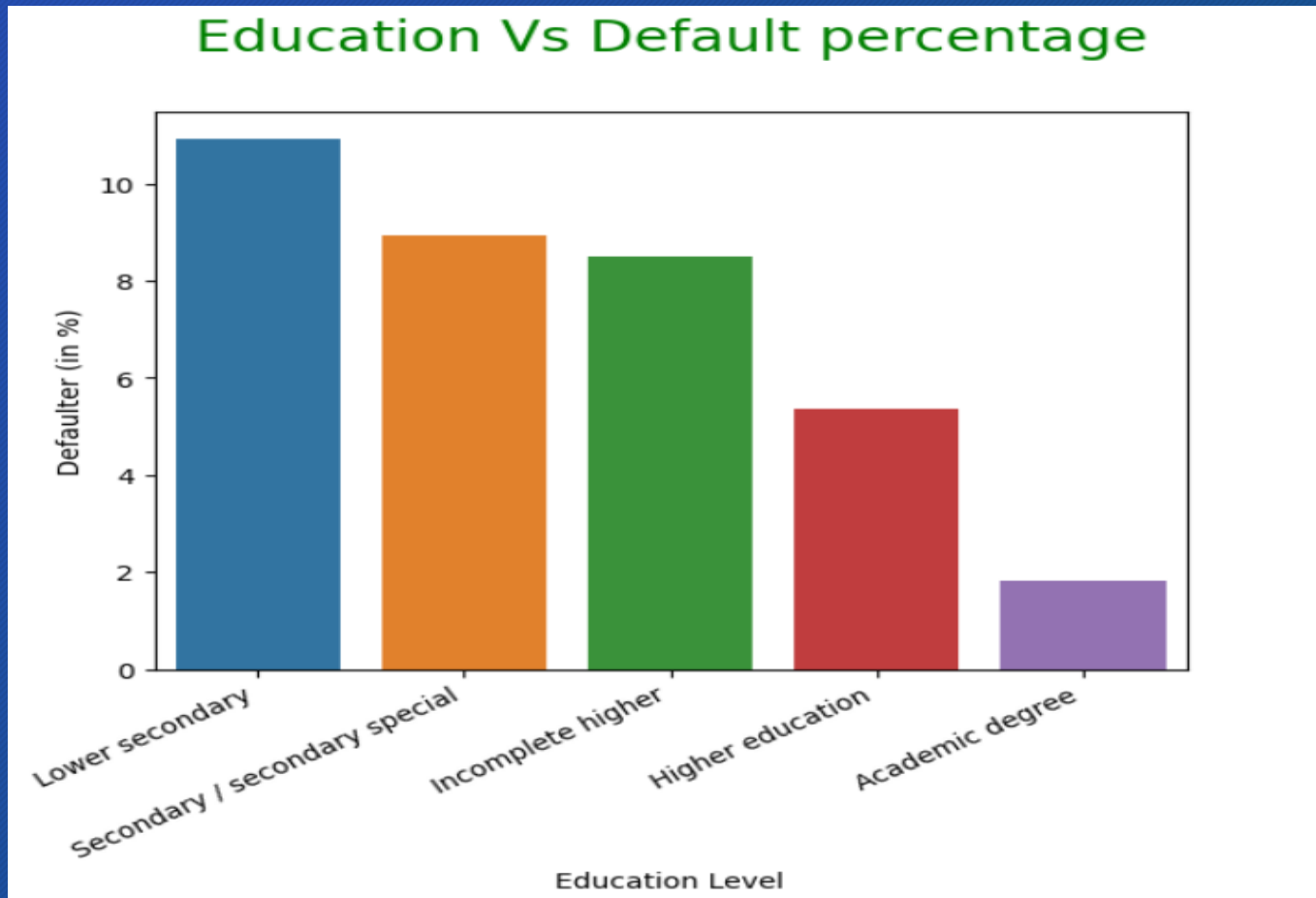**Income of Client** : The client should have high income. So, that he can repay the loan amount.

Defaulter percentage Vs Occupation

**Occupation:** We need to target age group of 25 to 35 age. These peoples payback the loan amount.

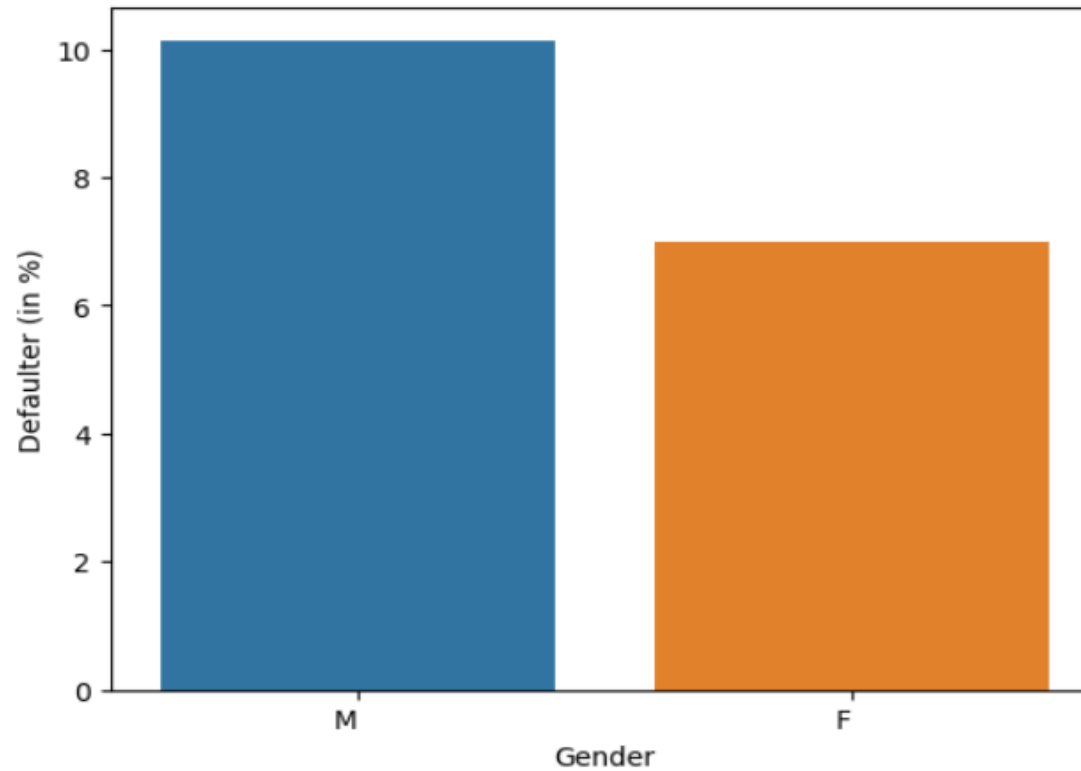Education Vs Default percentage

**Education Level :** People with higher education level mostly repay the loan amount then other lower education level.

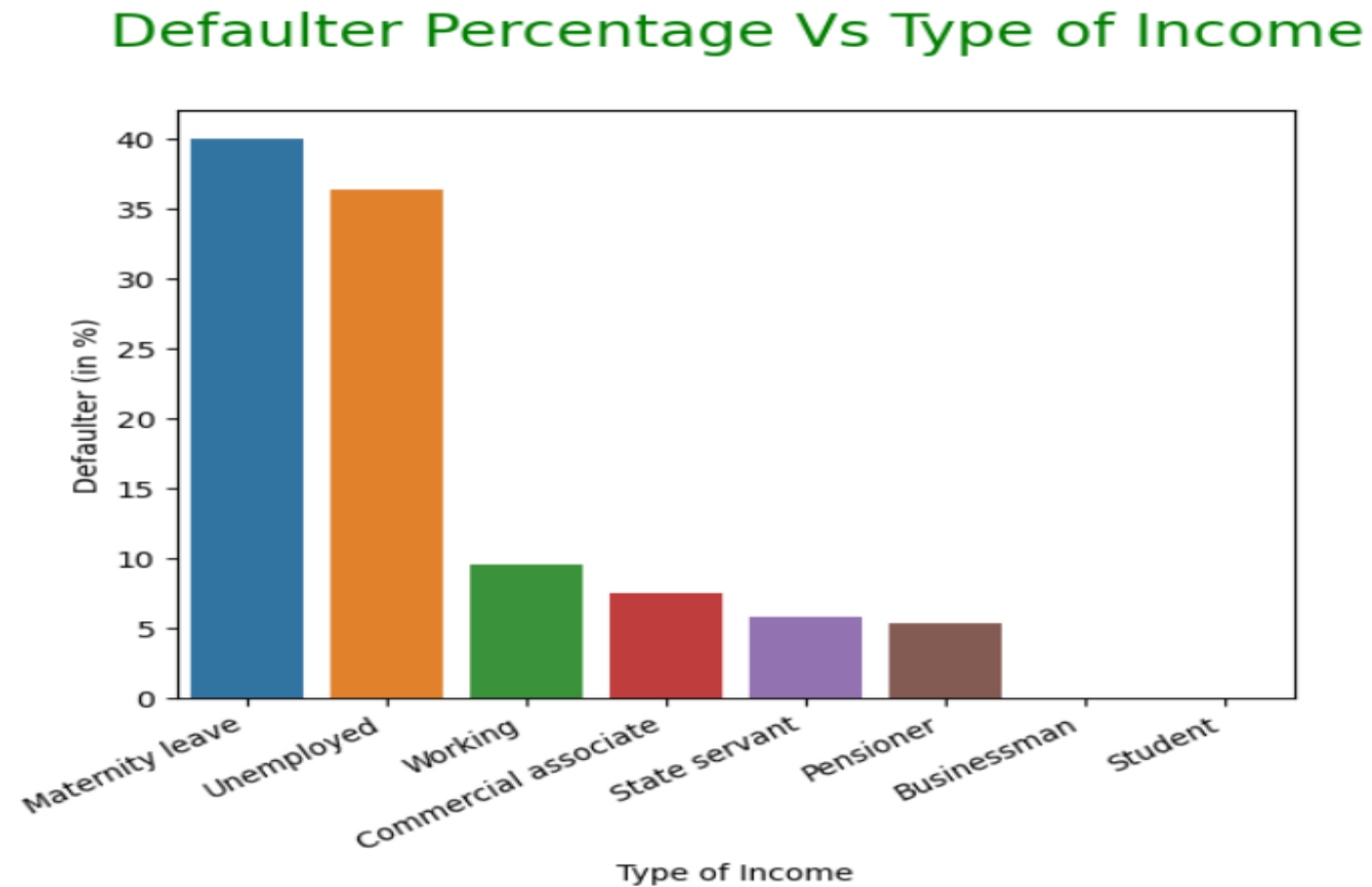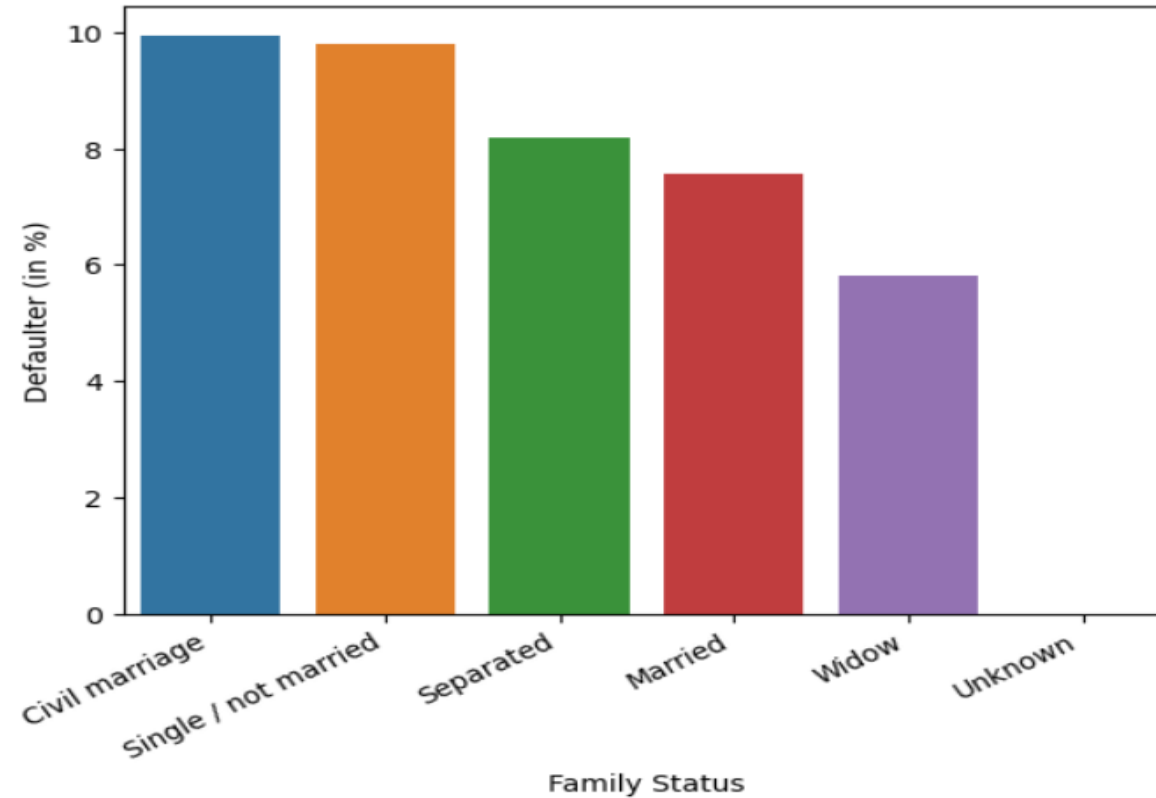**Gender:** Male clients are more likely to default then female. So, we can target female clients.

**Type of Income:** People from the working class, businessmen and students. They are more likely to payback the loan amount.
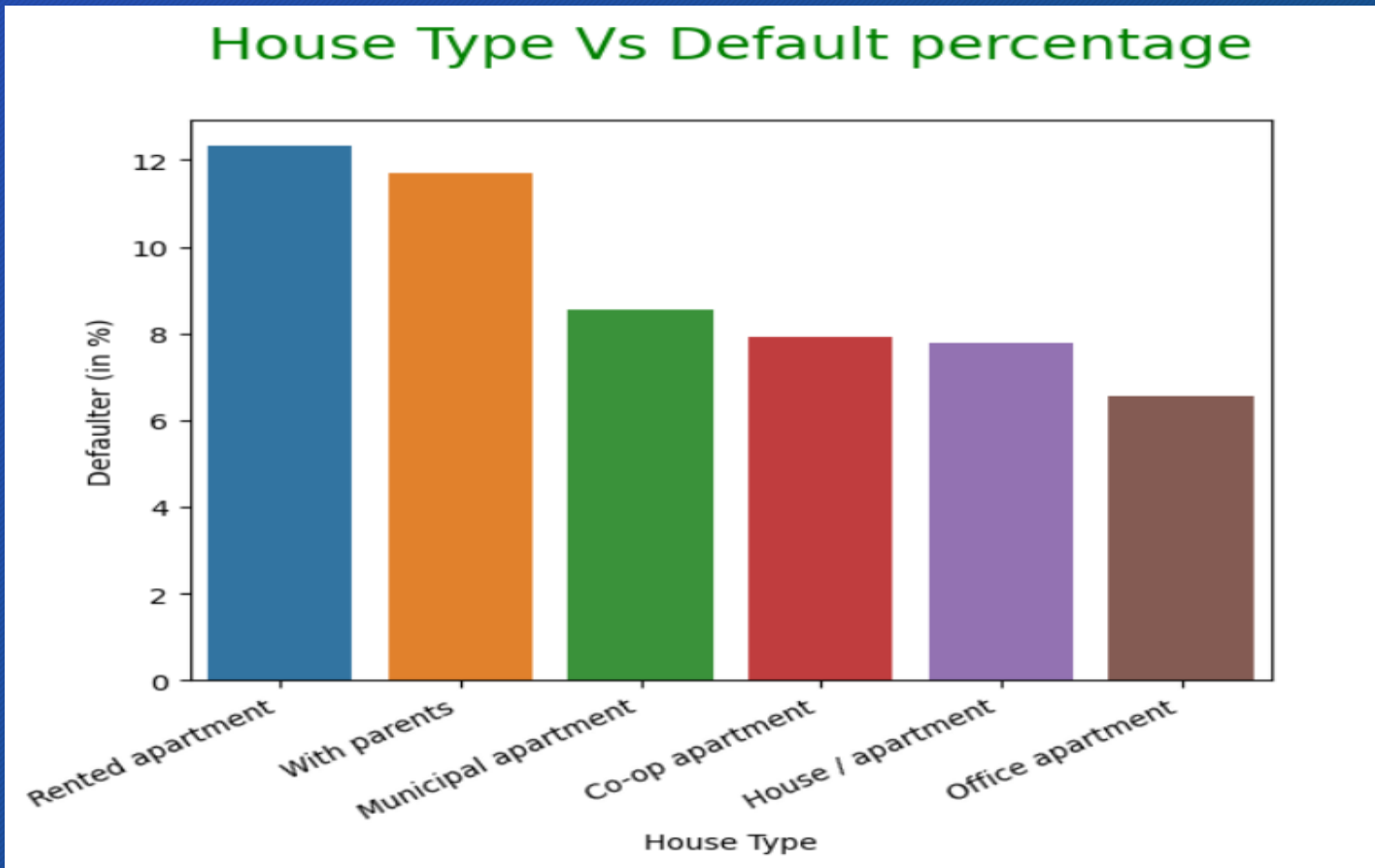
Family Status Vs Default percentage

**Family Status:** Married person is more likely to payback the loan amount, other than rest.
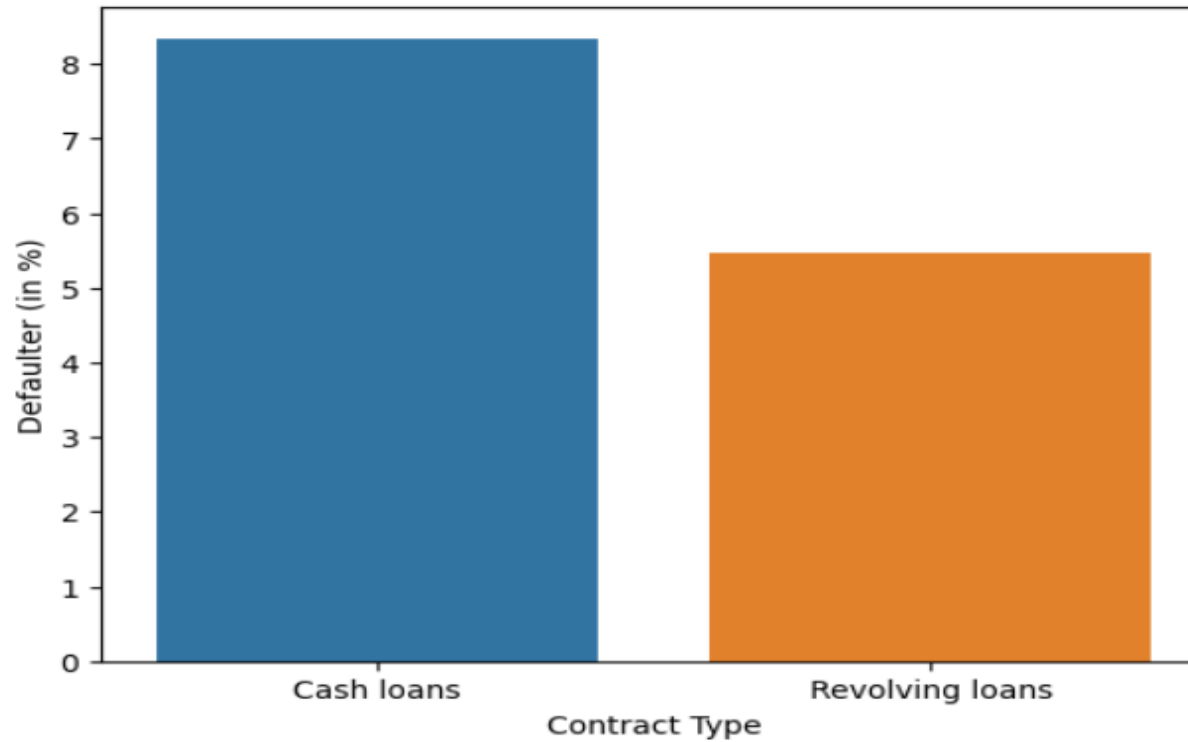
House Type Vs Default percentage

**Housing Type:** Person with there own house/apartment are more likely to repay the loan amount.
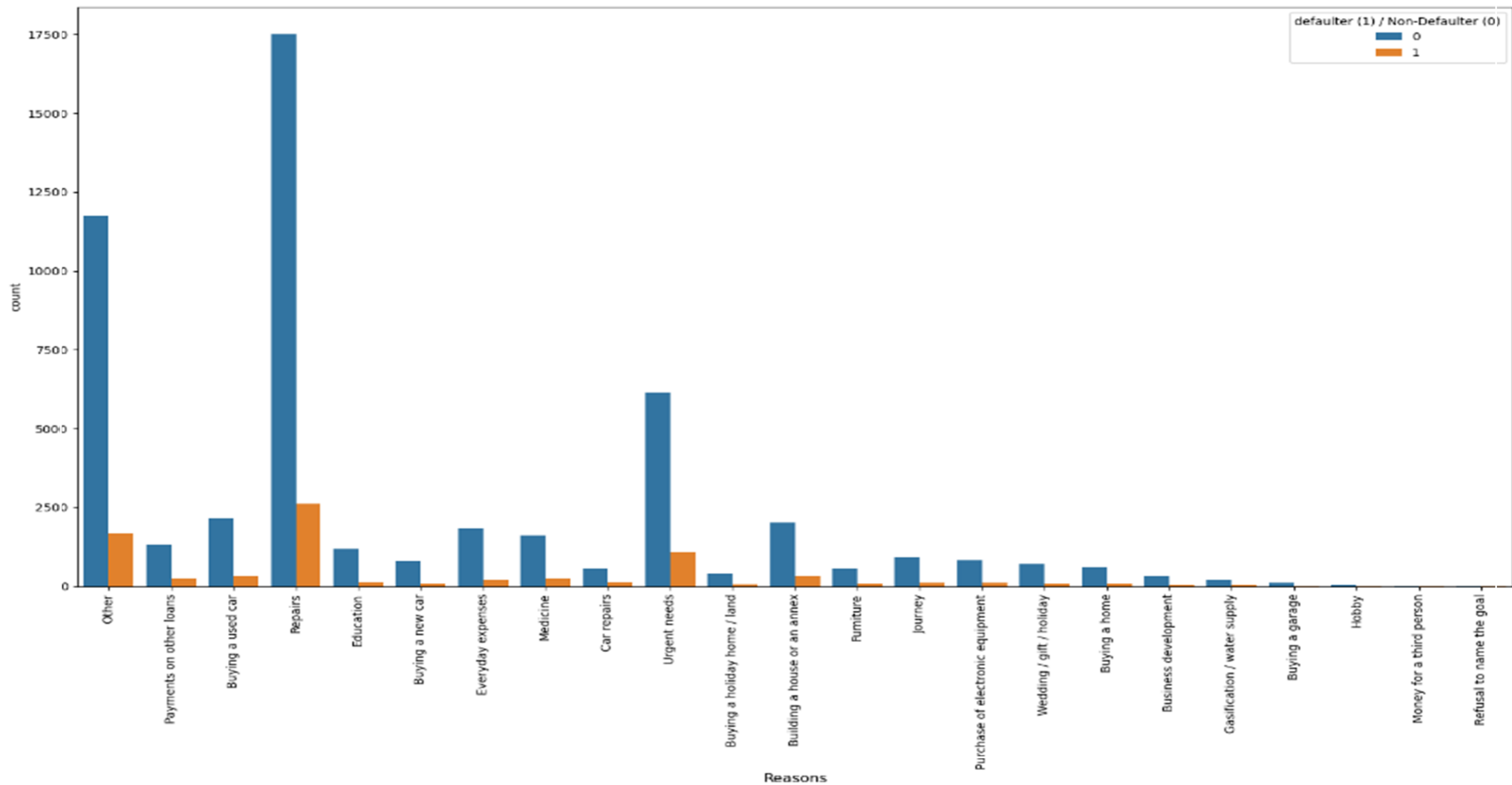
**Type of Contract :** Clients whose contract type is for revoking for loan are mostly repaying the loan amount.
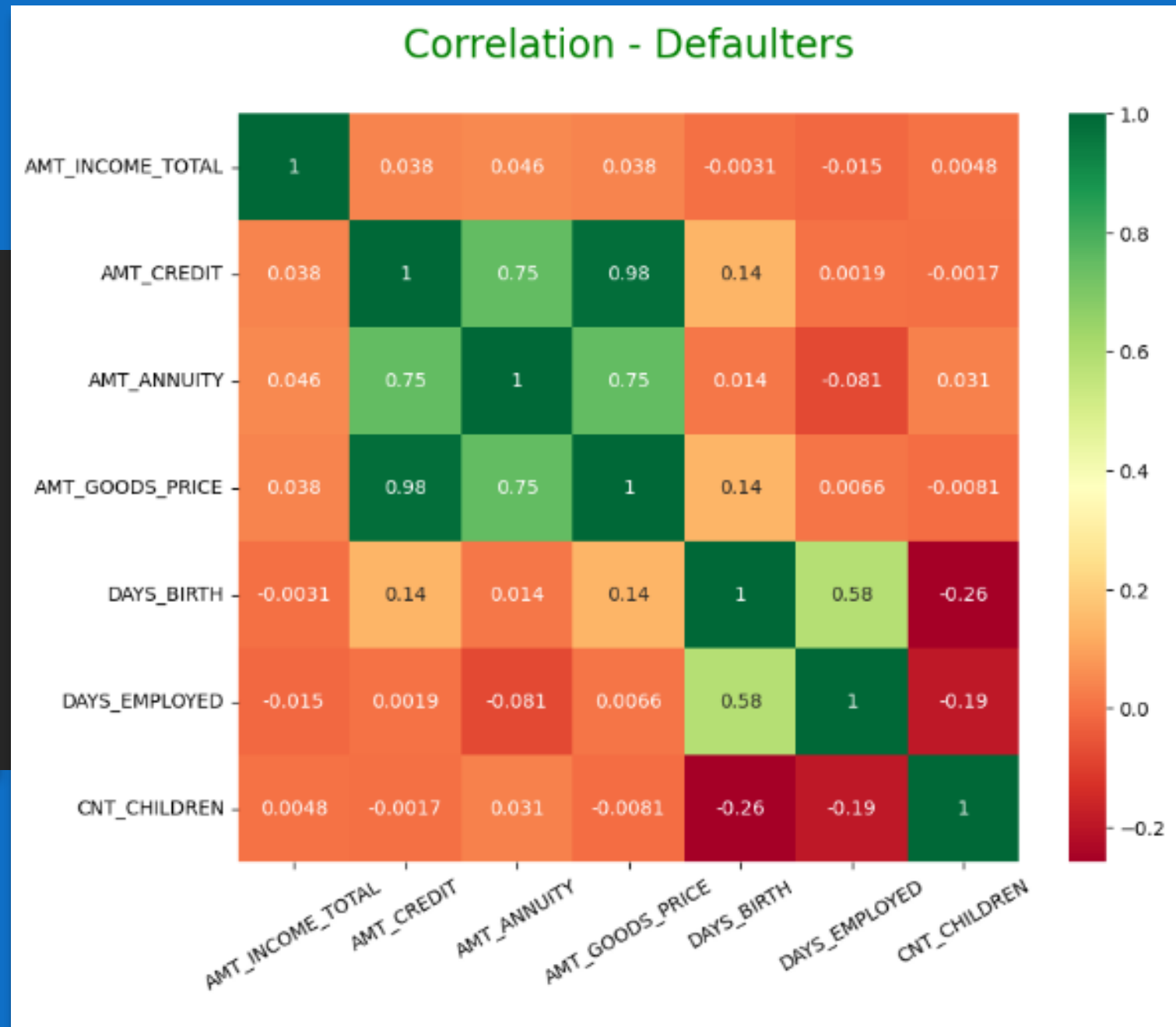
**Purpose of Cash Loan**

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**<u>Purpose of Cash loan:</u>** Those who are taking loan to buy garage, home etc. are repaying the loan more as compared to the others.
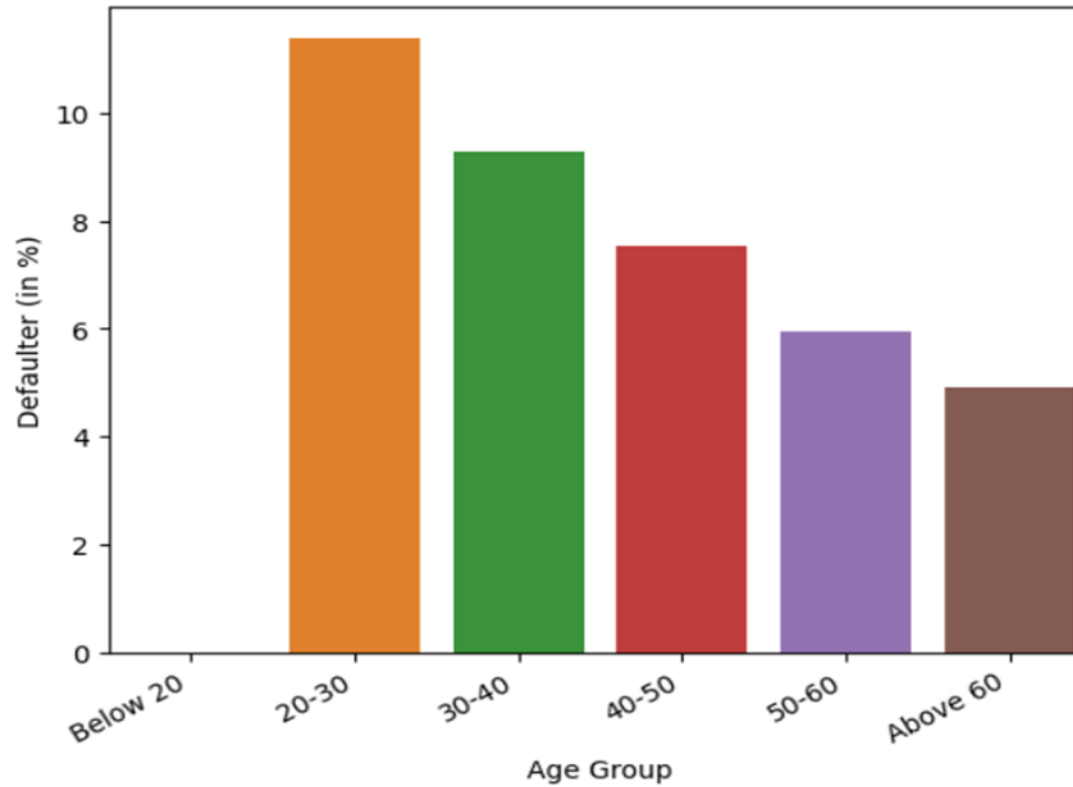
# TARGETED AUDIENCE WHO CAN DEFAULT :

Correlation - Defaulters
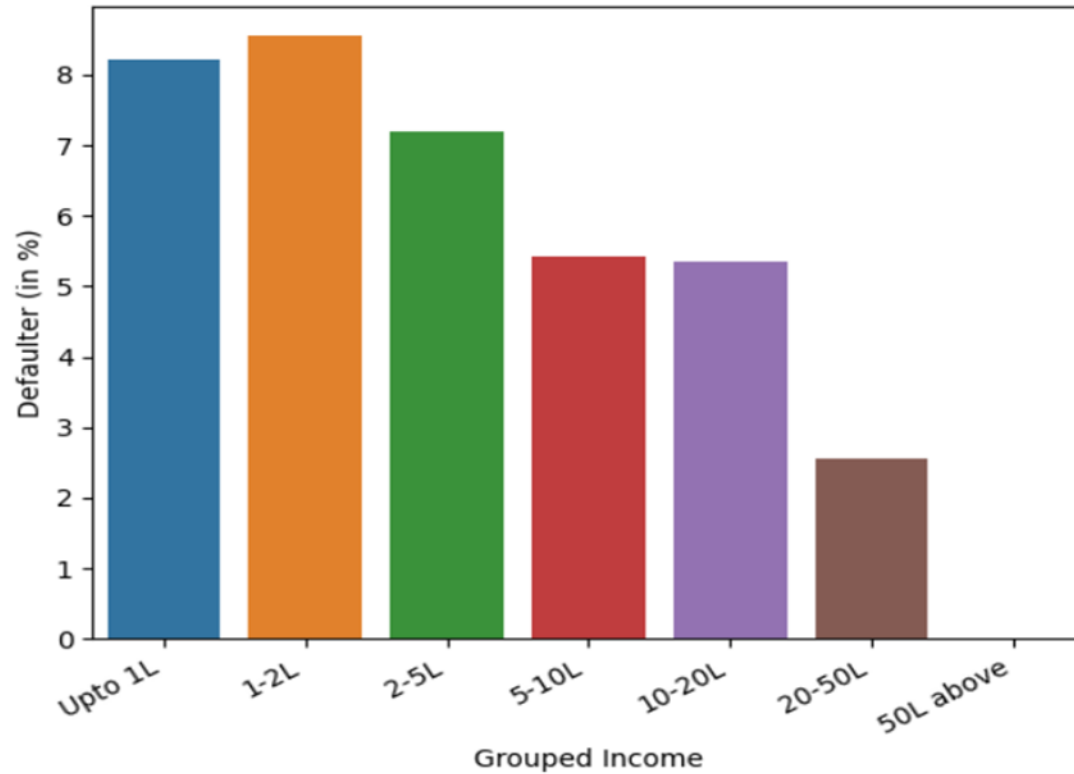
Correlation for Defaulter Columns:

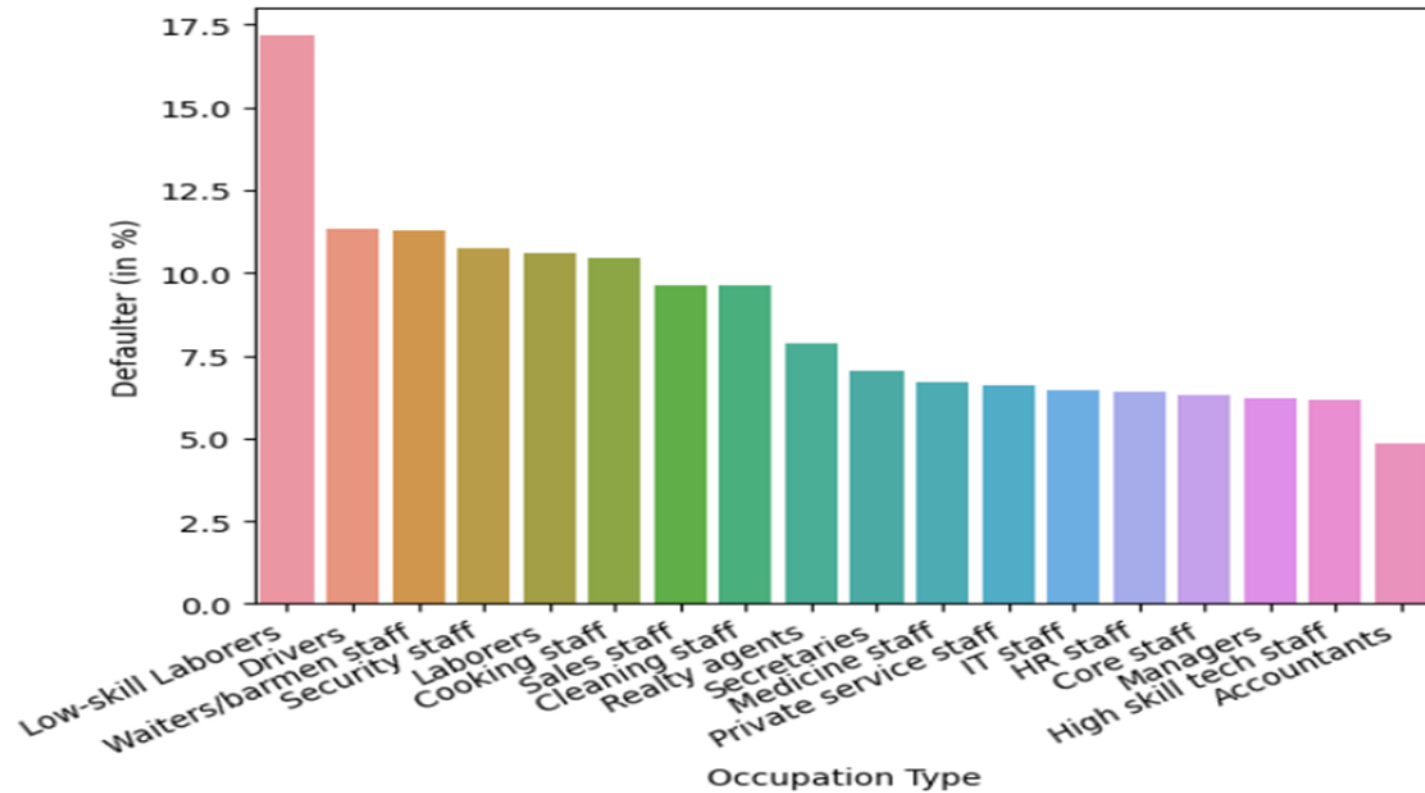Age Group Vs Defalut percentage

**AGE Group** : People from the age group of 25 to 35 age are more likely to default.
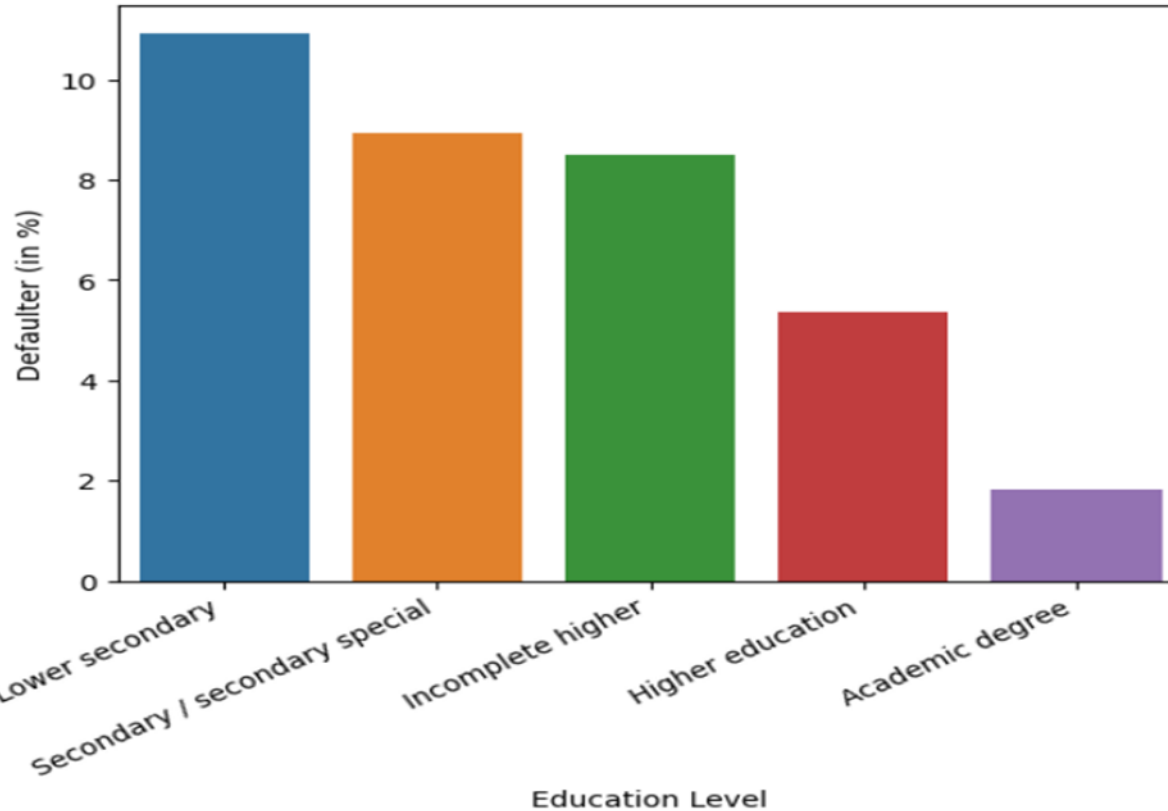
Defaulter percentage Vs Grouped Income

**Income of Client :** The client with income less than 5 Lakhs can more likely be defaulter.

Defaulter percentage Vs Occupation

**Occupation:** The people from the low skilled workers are unable to payback the loan amount. So, we can less focus on them.
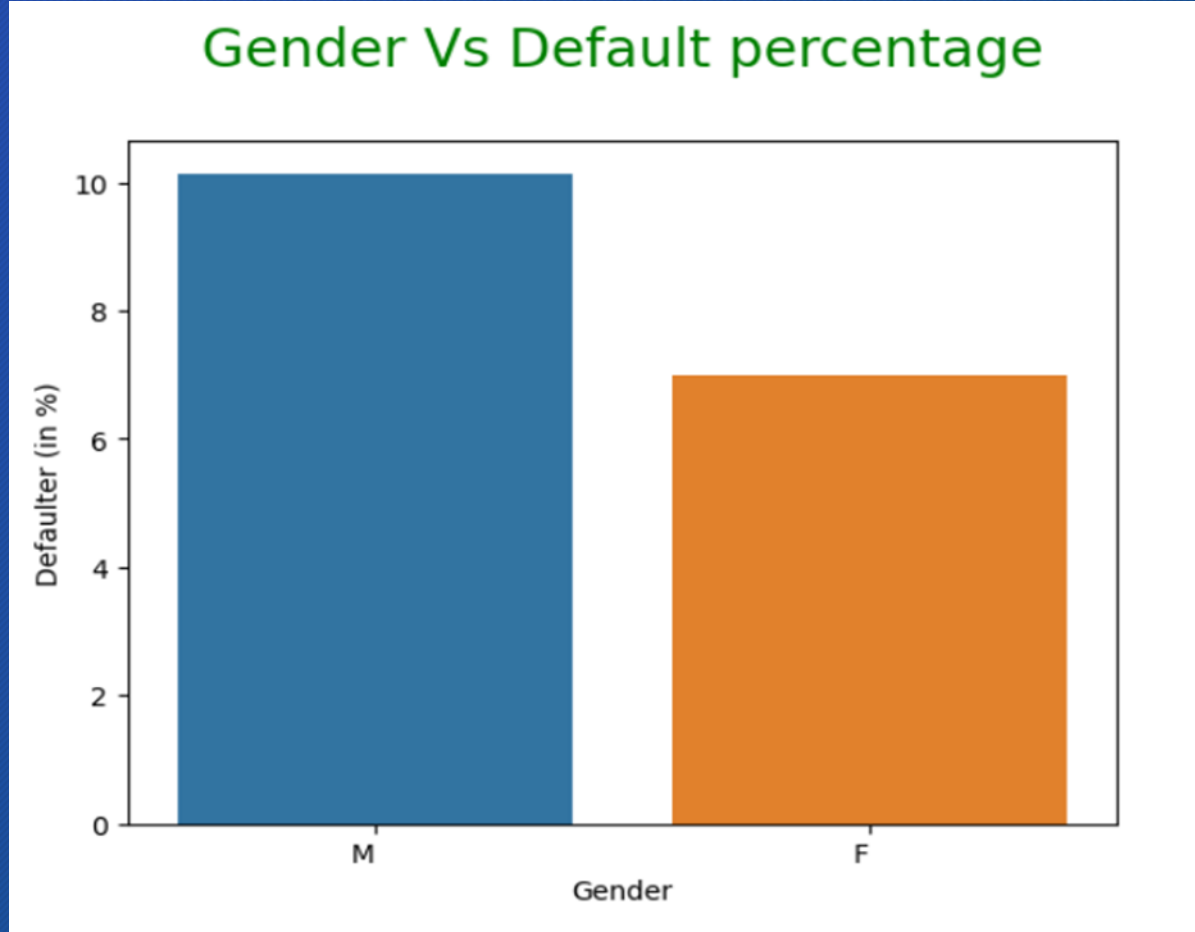
**Education Level :** The person with less education level use to do more default as compared to the higher education level people.

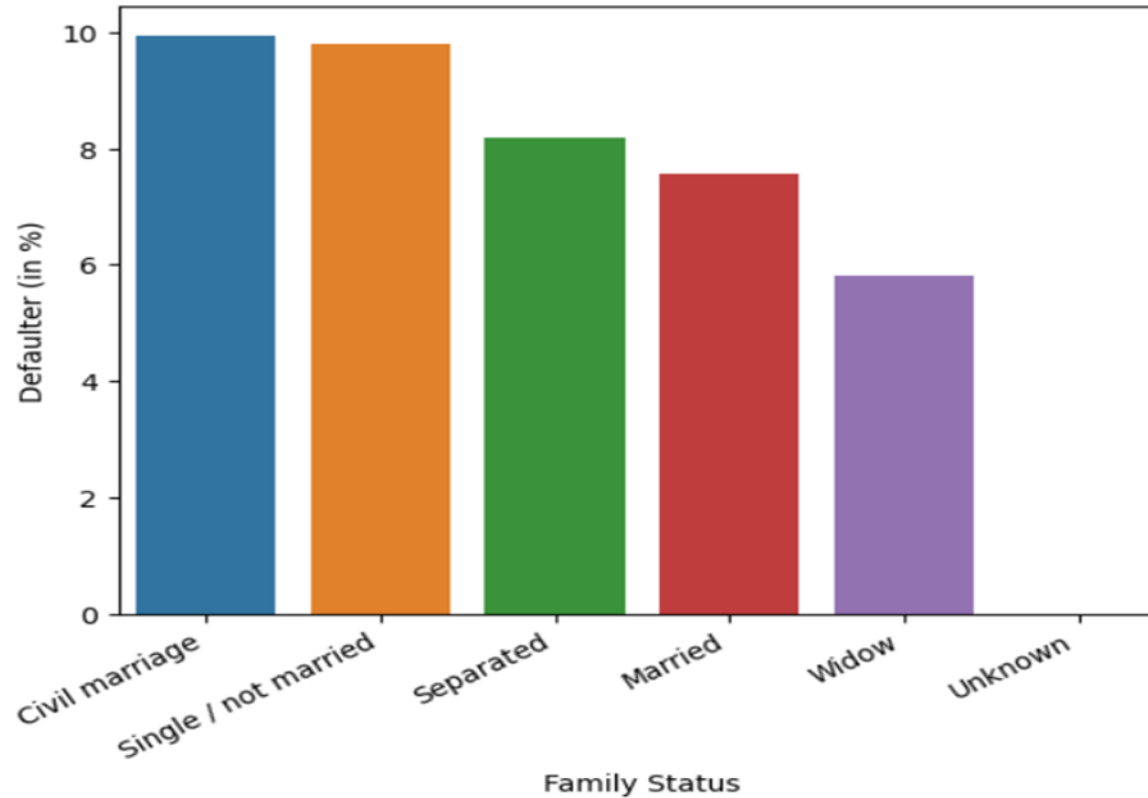**Gender:** There are more chances of defaulting from Male as compared to Female.

Family Status Vs Default percentage

**Family Status:** Most of the defaulters are from the group where there family status belongs to Civil marriage or Unmarried.
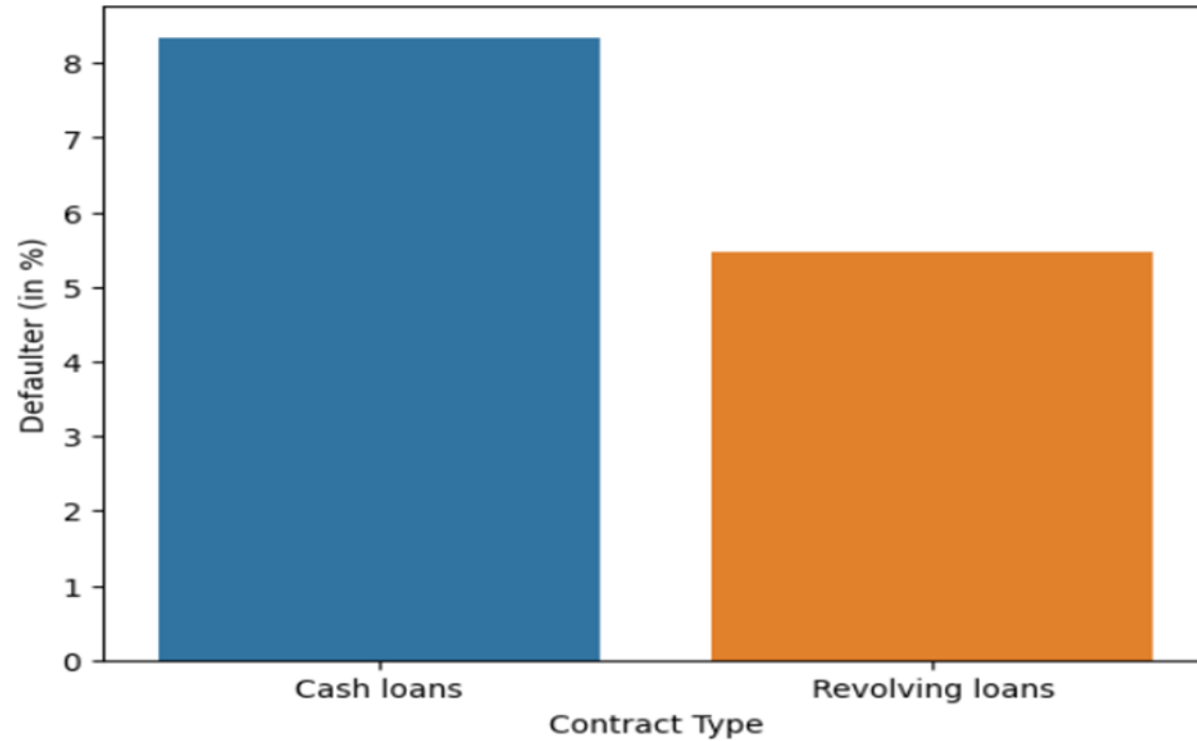
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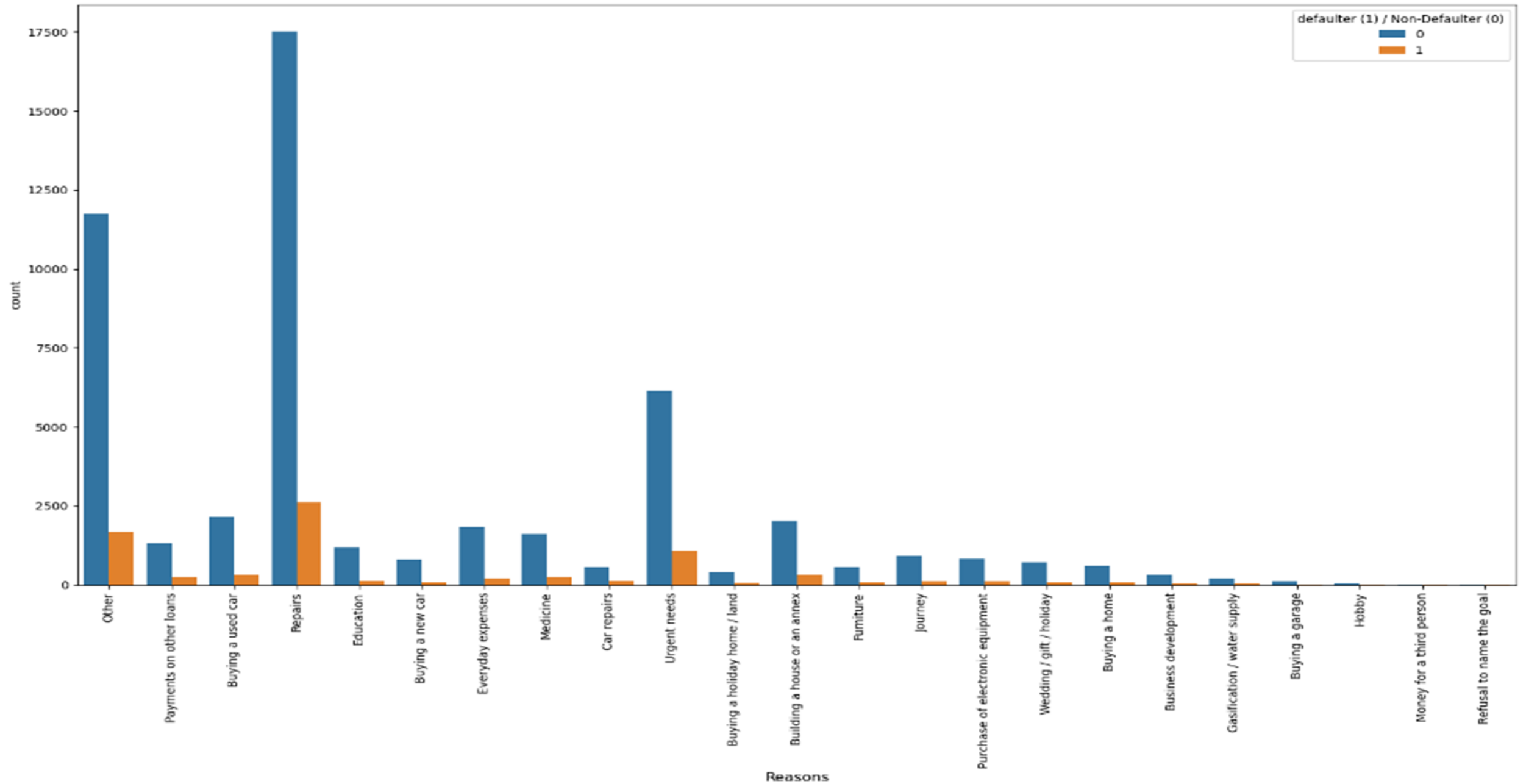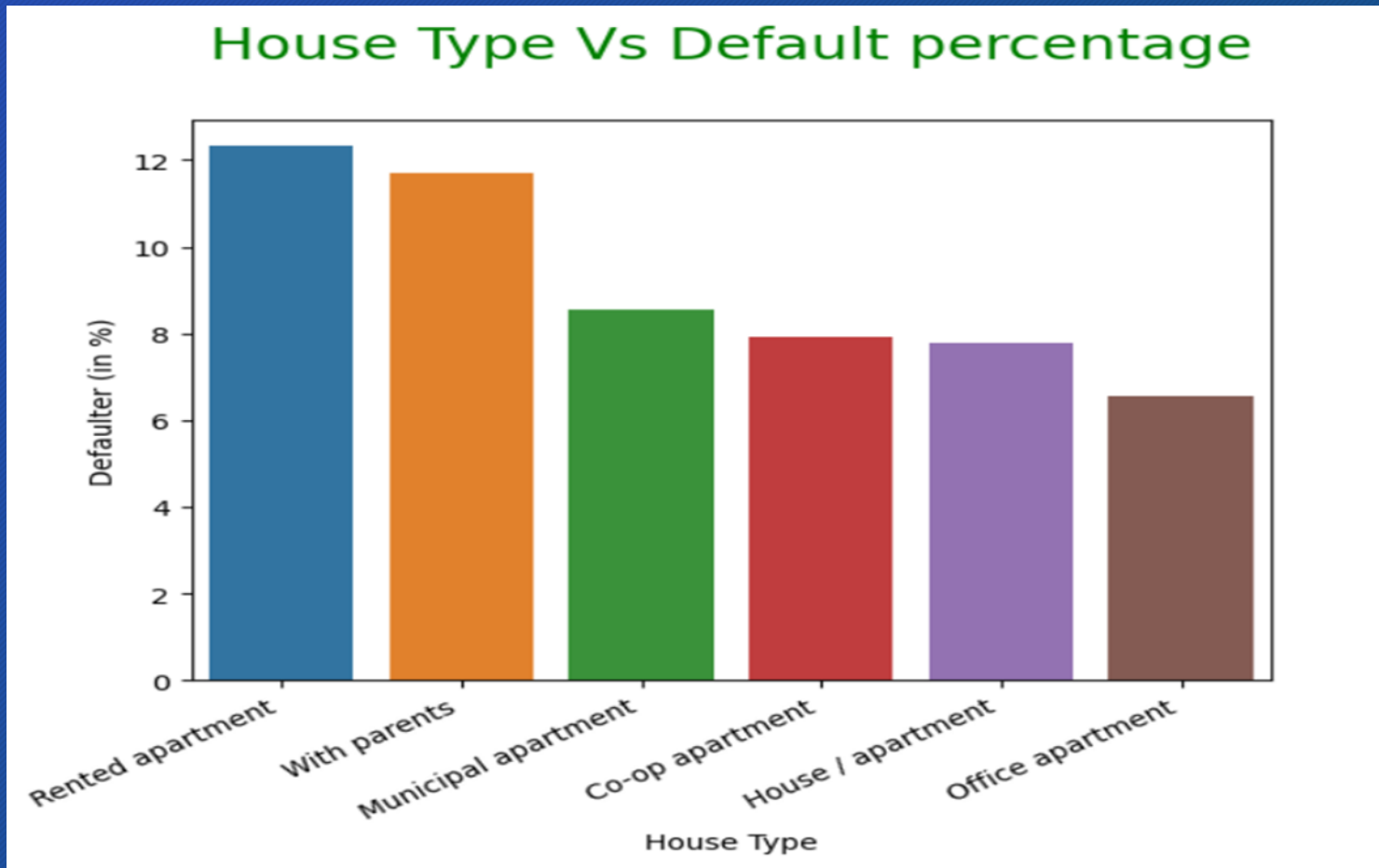**<u>Housing Type</u>:** Person who is living in rental apartments are more likely to default then the others.

**Type of Contract :** Clients whose contract type is for cash loan are more in defaulting position.

Purpose of Cash Loan

House Type Vs Default percentage

**Purpose of Cash loan:** People who are taking loan for the repairs and urgent needs are more likely to NOT payback the loan amount.

# FINAL CONCLUSION:

**Bank can focus on the person who is fulfilling the following:**

- Young males with lower secondary education and of lower income group and staying with parents or in a rented house, applying for low-range cash contract, should be denied.

- Females are likely to repay but not if they are on maternity leave. Hence, bank can reduce the loan amount for female applicants who are on maternity leave.

- Since people taking cash loans for repairs and urgent needs are more likely to default, bank can refuse them.

- Since the people who have unused offers are more likely to default even though they have comparatively high total income, they can be offered loan at a higher interest rate.

- Banks can target businessmen, students and working class people with academic degree/ higher education as they have no difficulty in repayment.

- Bank can also approve loans taken on purpose for buying home or garage as there less chances of defaulting.

Thank You