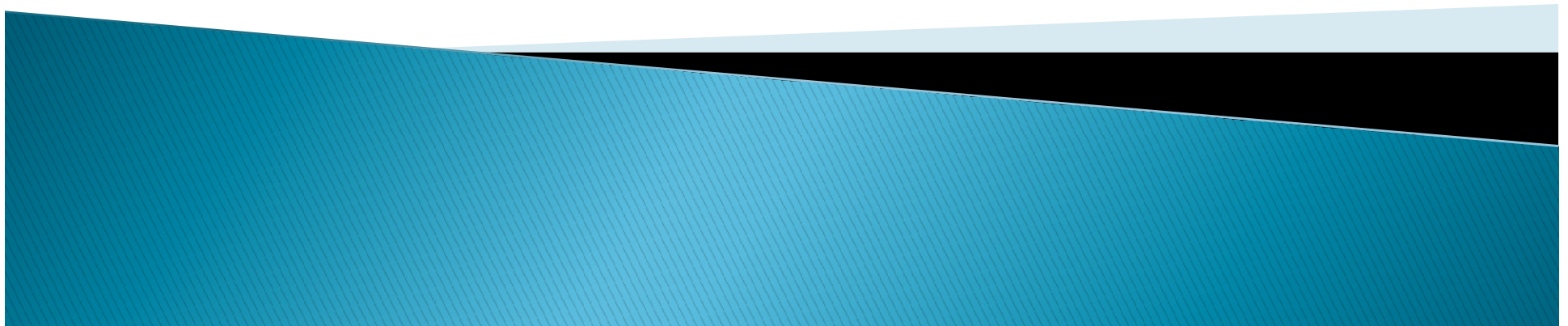


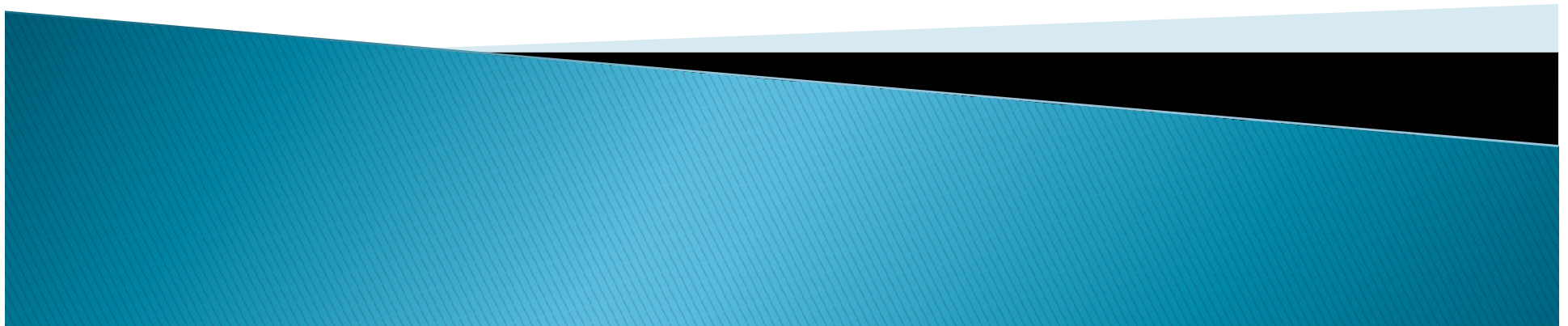
CREDIT EDA CASE STUDY

By
Ananya Ghosh & Shivali Sur

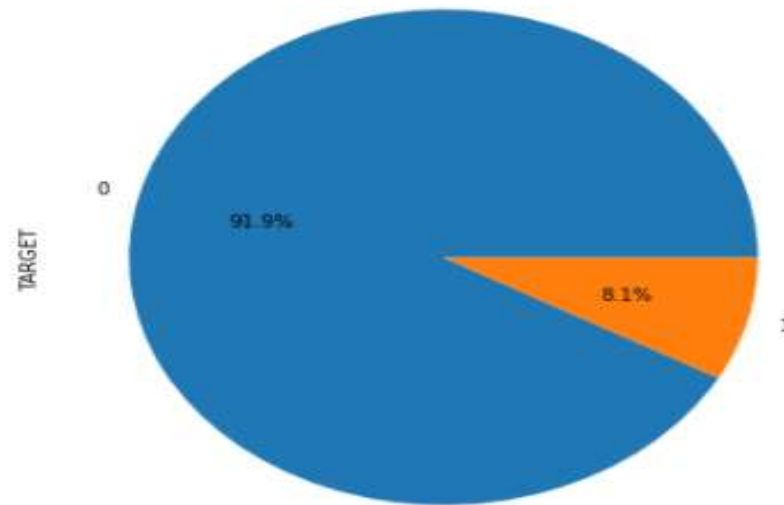


Problem statement

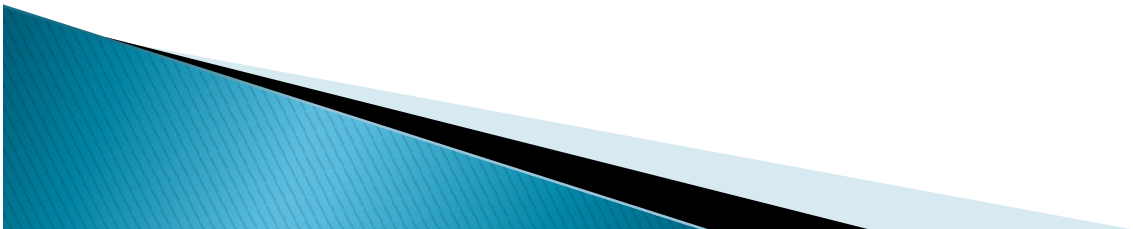
- Analysis of potential customer for bank to decrease the NPA.
- To analyze the patterns present in the data which will ensure that the applicants capable of repaying the loan are not rejected.



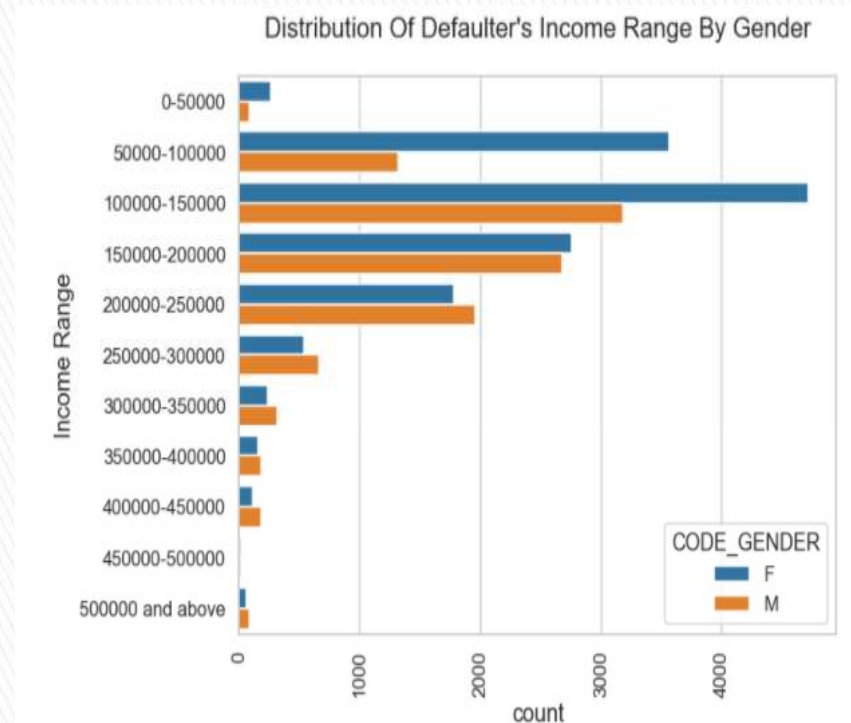
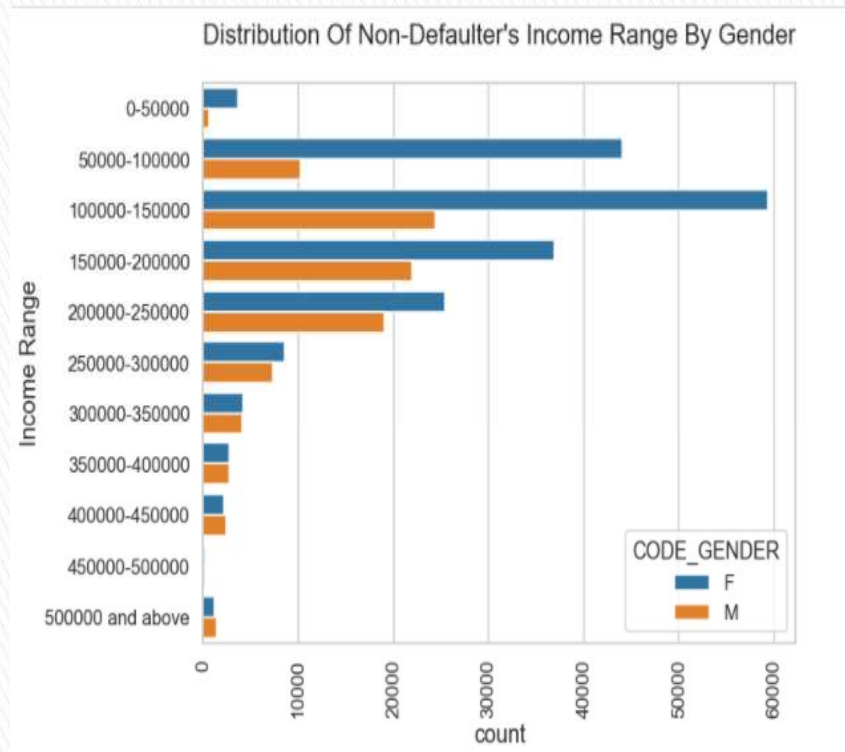
Imbalance Ratio



Imbalance ratio from Defaulters to non Defaulters is : 11.39

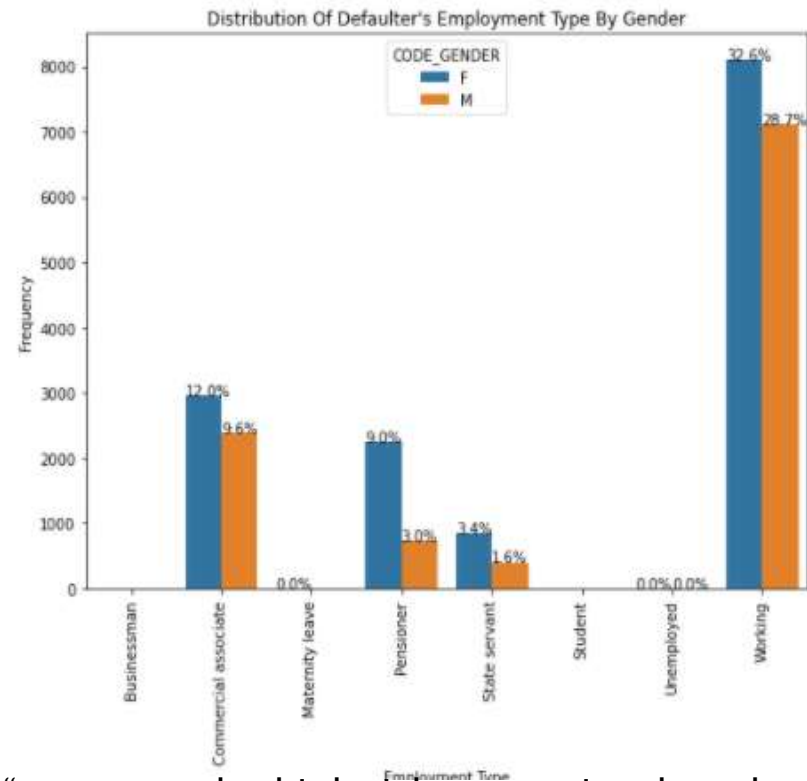
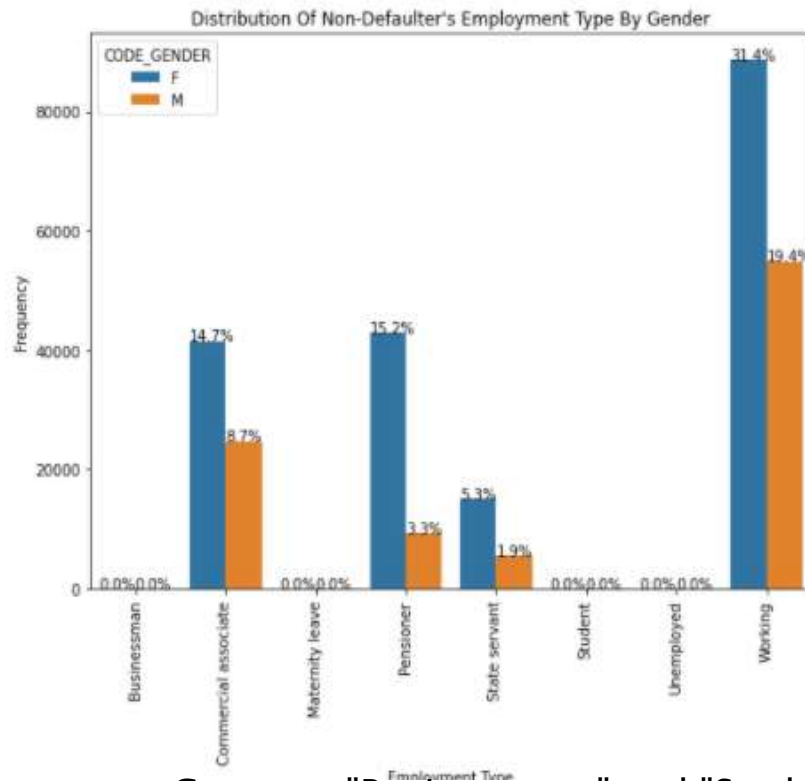


Distribution of Income Range



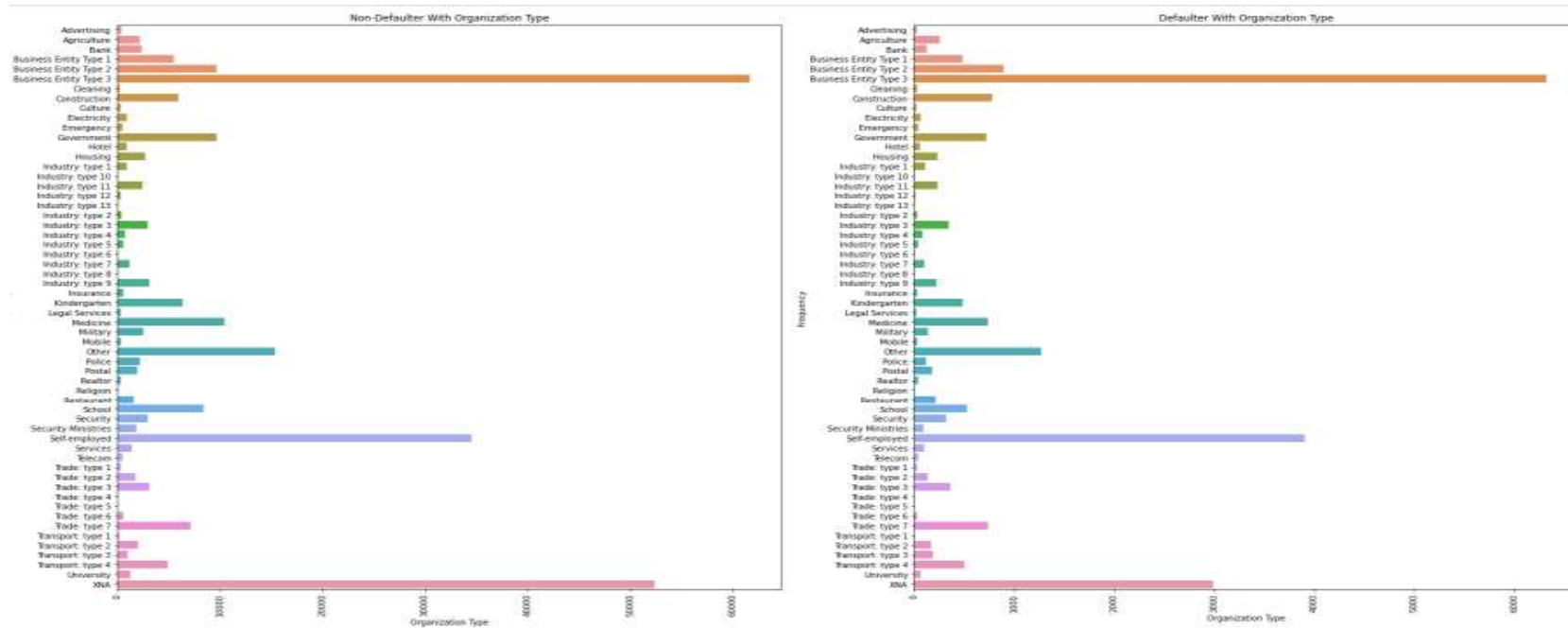
- Applicants with an income range of 50000–2.5lakhs apply for more loans .
- Comparing both the graphs Females are less Defaulter than males
- Female counts are higher than male.

Distribution of Income Type



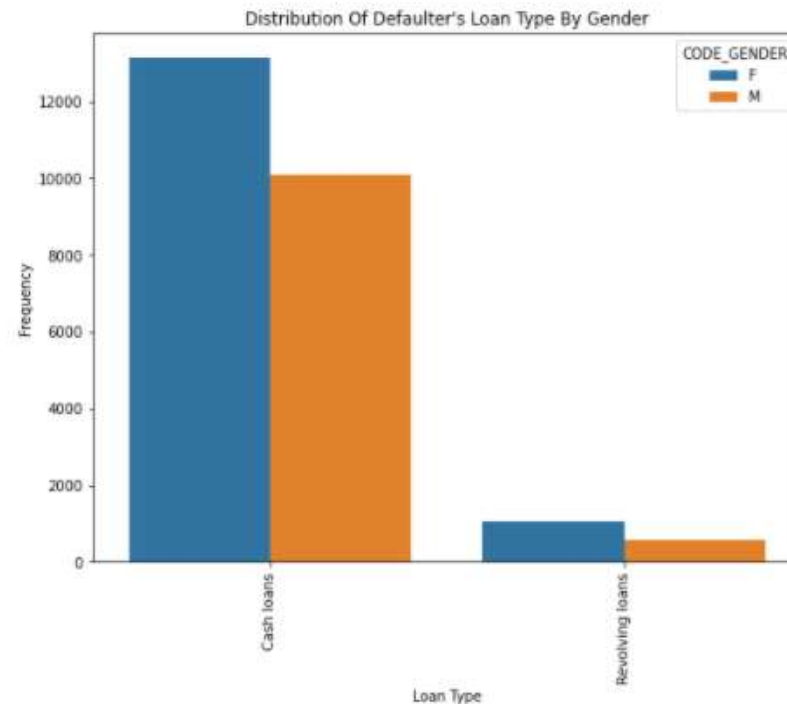
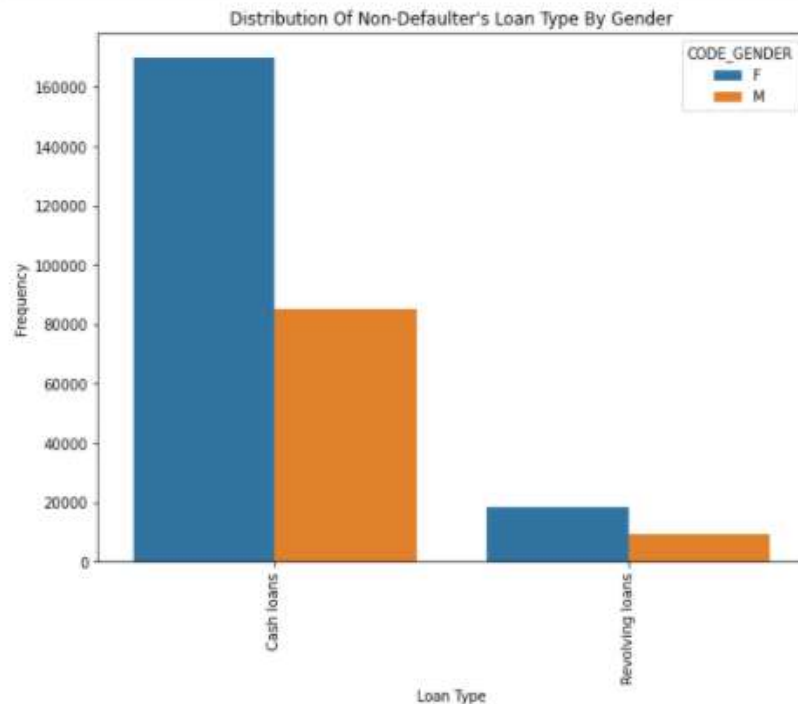
- Category "Businessman" and "Students" comes under high risk categories though they are Non- Defaulter, across both the genders.
- We can consider females to be more reliable for providing loan as compared to males.
- Working class males defaults more.

Distribution of Organization Type



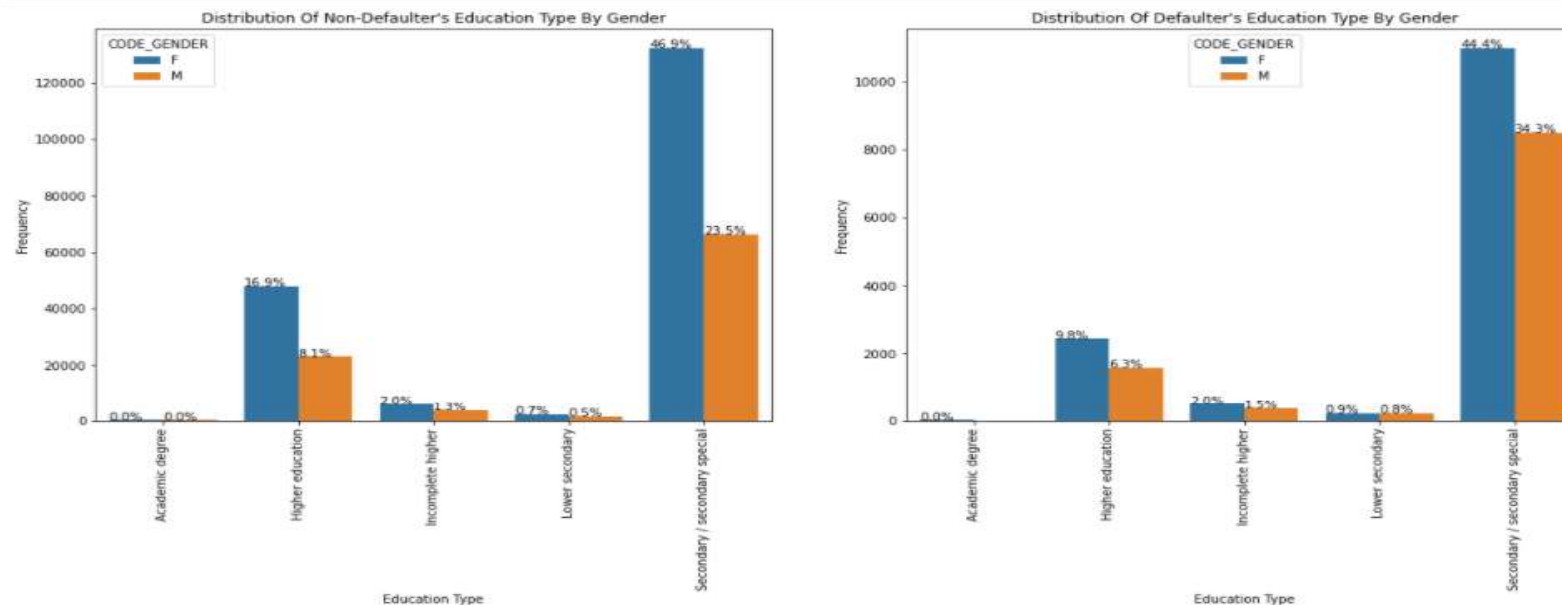
Business Entity Type-3 and Self-employed are more likely to take loans.

Distribution of Contract Type



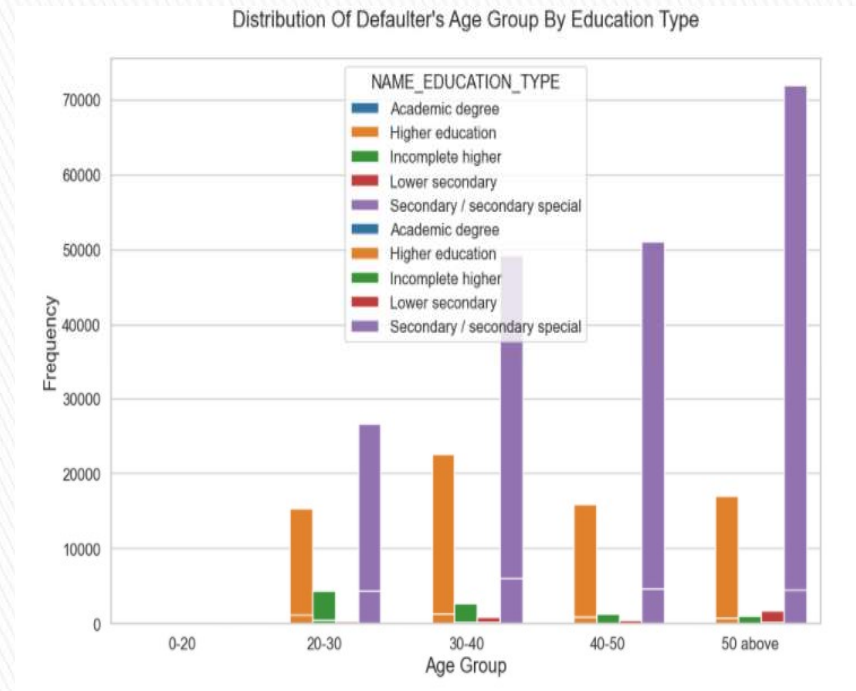
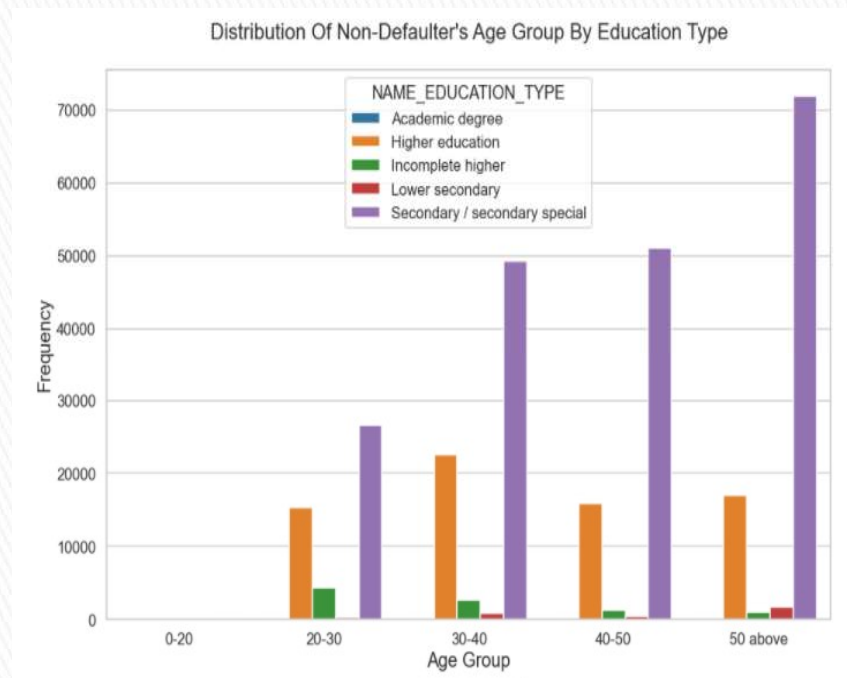
- Cash loans is more preferred across the gender.
- Female applicants take cash loans more than male.
- Male defaulter are more in case of cash loans.
- Female non-defaulter are more in case of revolving loans

Distribution of Education Type



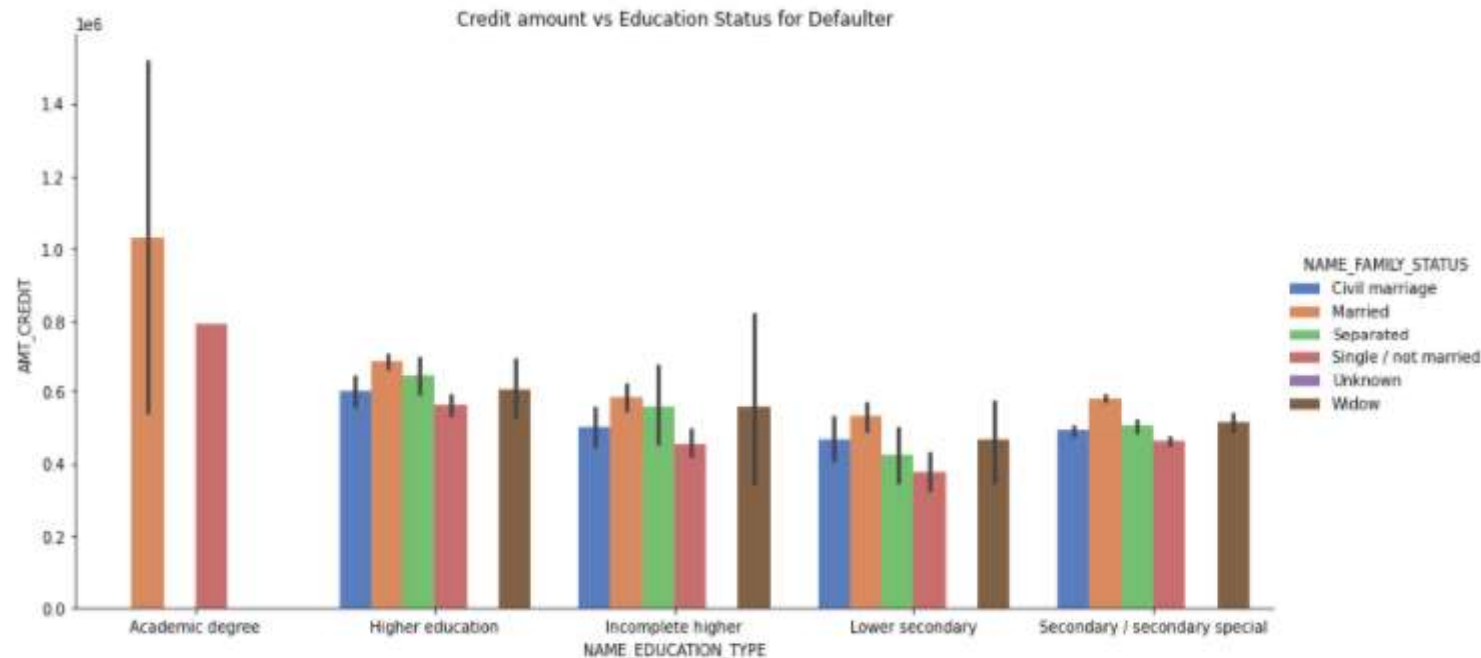
- Comparing both the graphs "Secondary/Secondary Special" are more defaulter as well as non-defaulters.
- In case of "Academic degree" there are no male defaulter.
- In case of "Lower secondary" type male defaults more.
- In case of "Higher education" type female non-defaulters are more as compared to defaulters.

Distribution of Age Group By Education Type



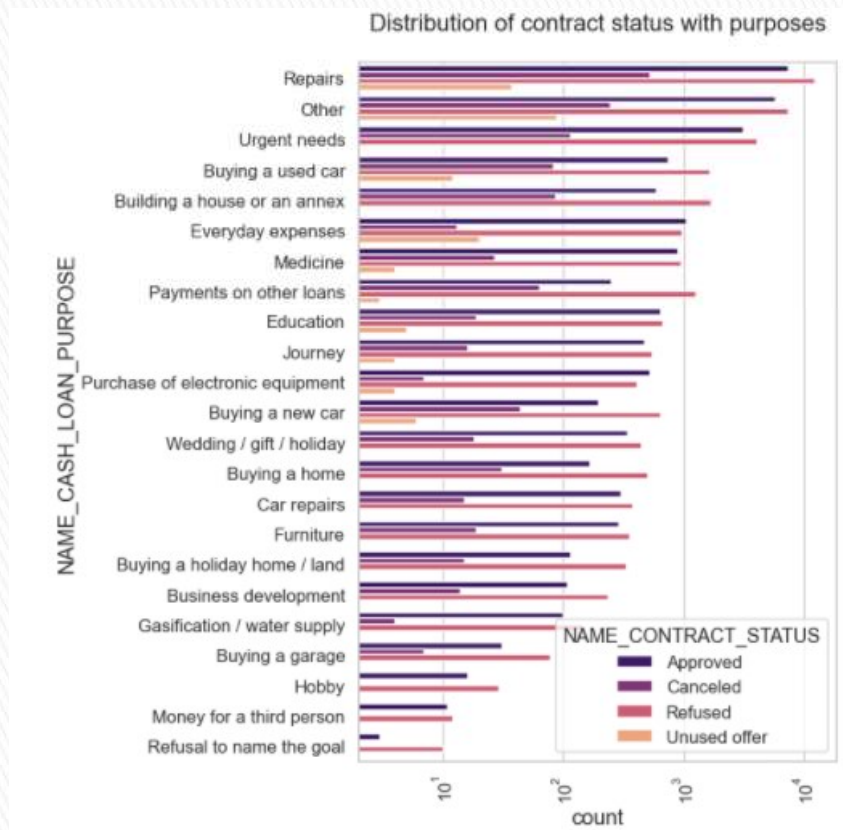
- 30–40 age group applicants with "Secondary" education has more number of defaulters.
- 30–40 age group applicants with "Higher education" type has more non-defaulter.
- 50 above age group applicants with "Secondary" education type has more number of non-defaulters.

Credit Amount Vs Education Status



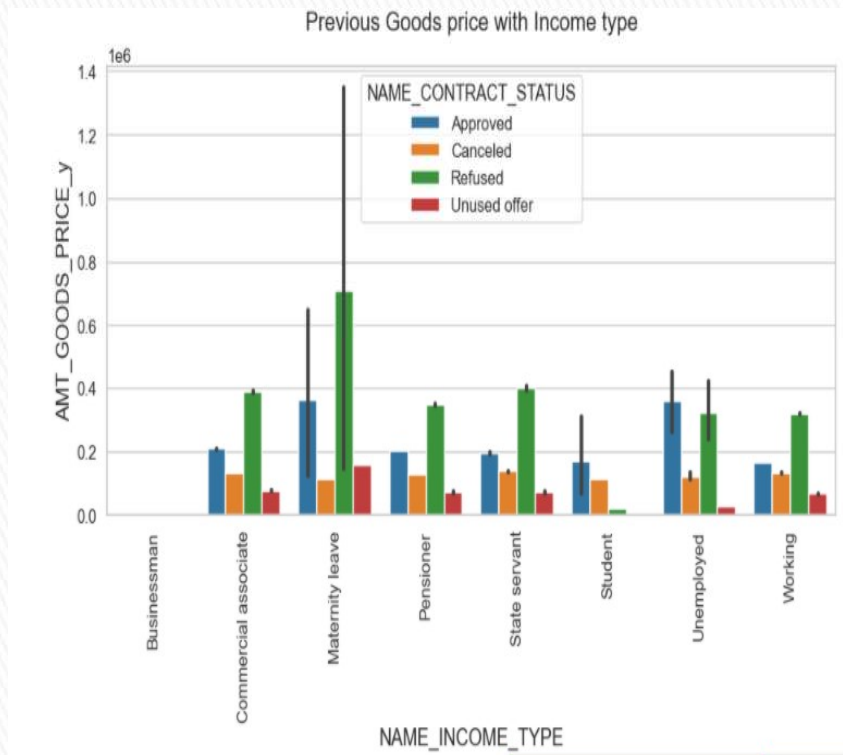
- Married Academic degree holding applicants generally have a higher credit amount and so their default rate is also high.
- Applicant holding "lower secondary" education tends to have a lower credit amount across all segment.
- "Single" and "Married" are the only 2 family types present in academic degree

Distribution Of Contract Status With Loan Purpose



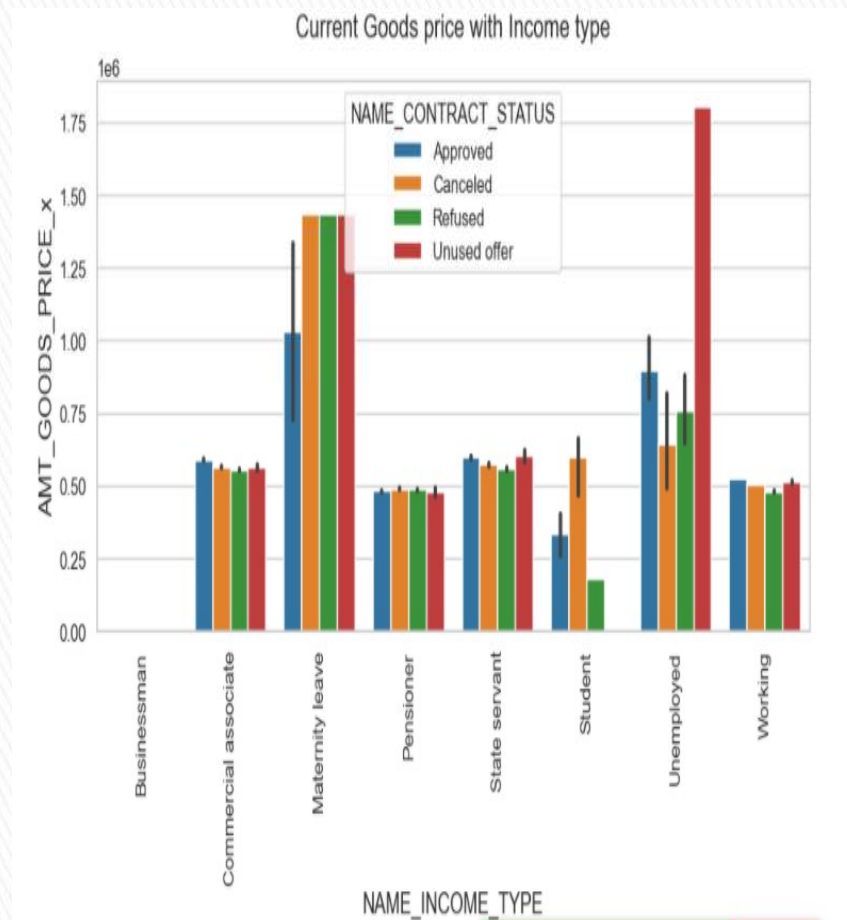
- ▶ A very high number application have been rejected by bank which has purpose as repair or other.
- ▶ In case of "Hobby", "Money for a third person", "Refusal to name the goal" applicants are not cancelling the loan at any stage.
- ▶ There are high number of applications with purpose of loan as "Repair"
- ▶ In case of "Payment on other loan" applications bank is refusing the applications more then accepting it.

Previous Goods price Vs Income Type Vs Contract Status



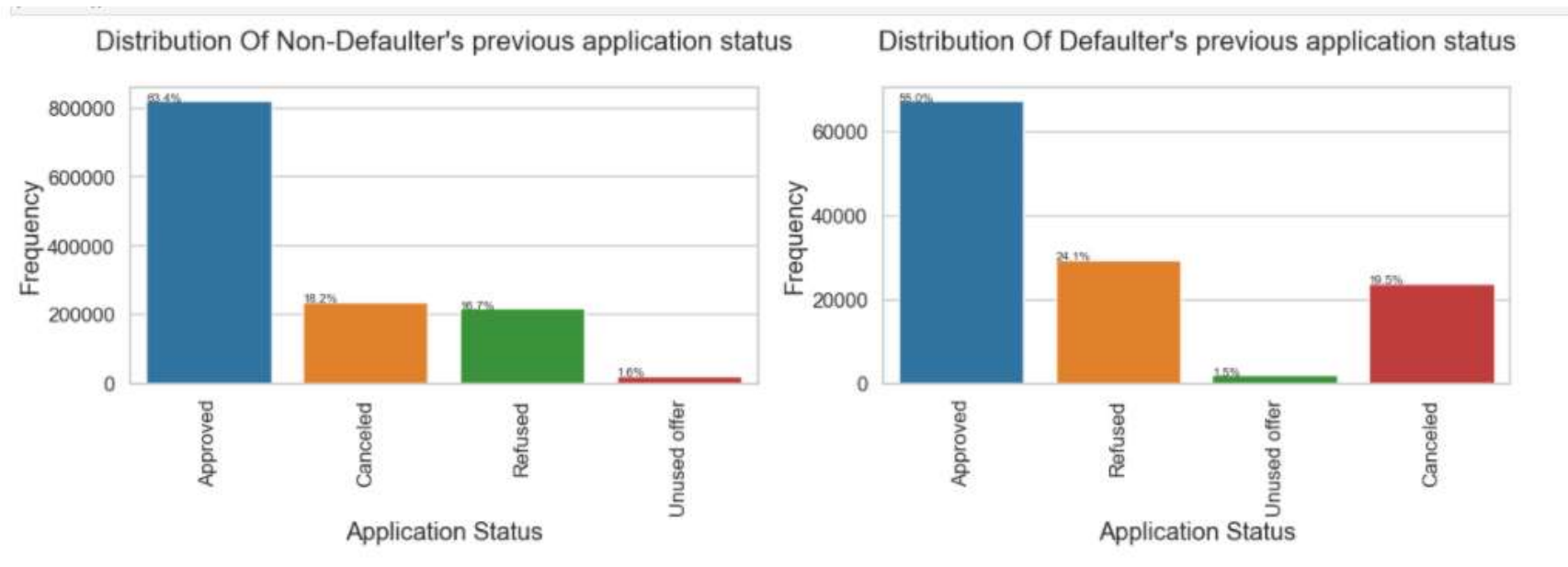
- ▶ From previous data it is evident that applicants belonging to "Maternity leave" category are being highly refused by the bank rather than approved.

Current Goods Price Vs Income Type Vs Contract Status



- ▶ Since amount of the various good price are increase the applicant belongs to "Unemployed" Category are withdrawing their application in different stages.
- ▶ – Applicants belonging to "Maternity leave" category have a high probability of refusal by the bank or cancelled by the applicants as the interest rates offered to them are high.

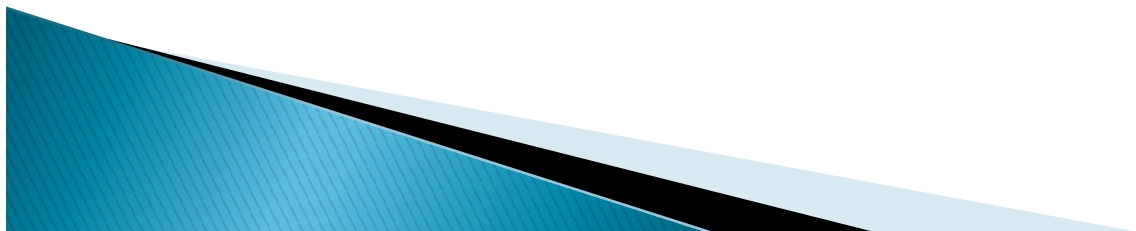
Distribution Of contract Status in Previous Application



- 18.2% of Non-defaulter's application has been cancelled , So bank should analysis these application again which can increase the bank's profitability.
- 16.7% of Non-defaulter's application were not accepted by the bank.
- There are few applicants in "Cancelled" and "Refused" Status who are Non-defaulters .

Case study final conclusion

- ▶ Majority of loan are taking from age group 30 to 40. In this range applicants with "Secondary" education has more number of defaulters.
- ▶ Most of the applicants for loan have income range between 50k to 2.5 lakhs.
- ▶ Highest defaulter are in range 100k to 150k and lowest defaulter are above 4.5 lakhs category.
- ▶ People are preferring more cash loans than revolving.
- ▶ Defaulters are mostly have secondary/special education only.
- ▶ Lowest number of applicants are from Academic degree and they expect more credit amount, although they are Non-defaulters.
- ▶ Most of people who are taking loans has either 0 or 1 children and they are live in House/Apt or with parents.
- Married people are taking more loans.
- Females are more tend to take loans.
- Most of the loans are taken for repair works.
- Applicants taking loans for urgent needs are mostly defaulters.
- Lowest number of applicant are from Academic degree that to they are Non-defaulters.



Suggestion

- ▶ There are few applicants in "Cancelled" and "Refused" Status who are Non-defaulters. Bank should focus and negotiate term with these applicants in future which increase the revenue for the bank.

