CREDIT EDA CASE STUDY

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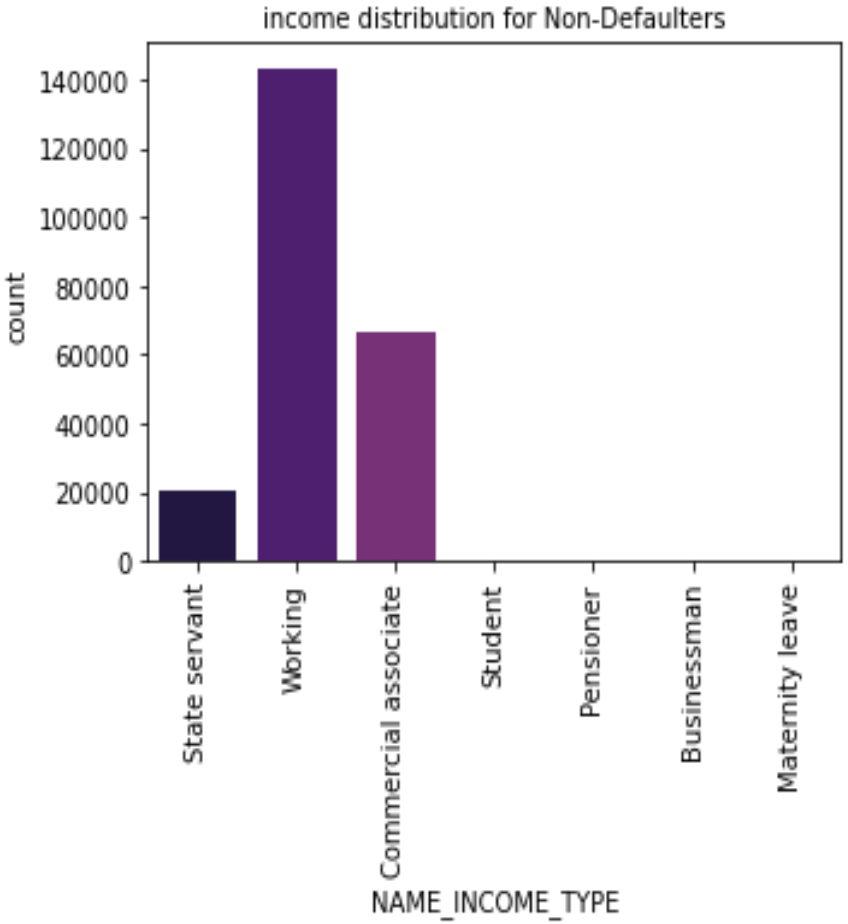
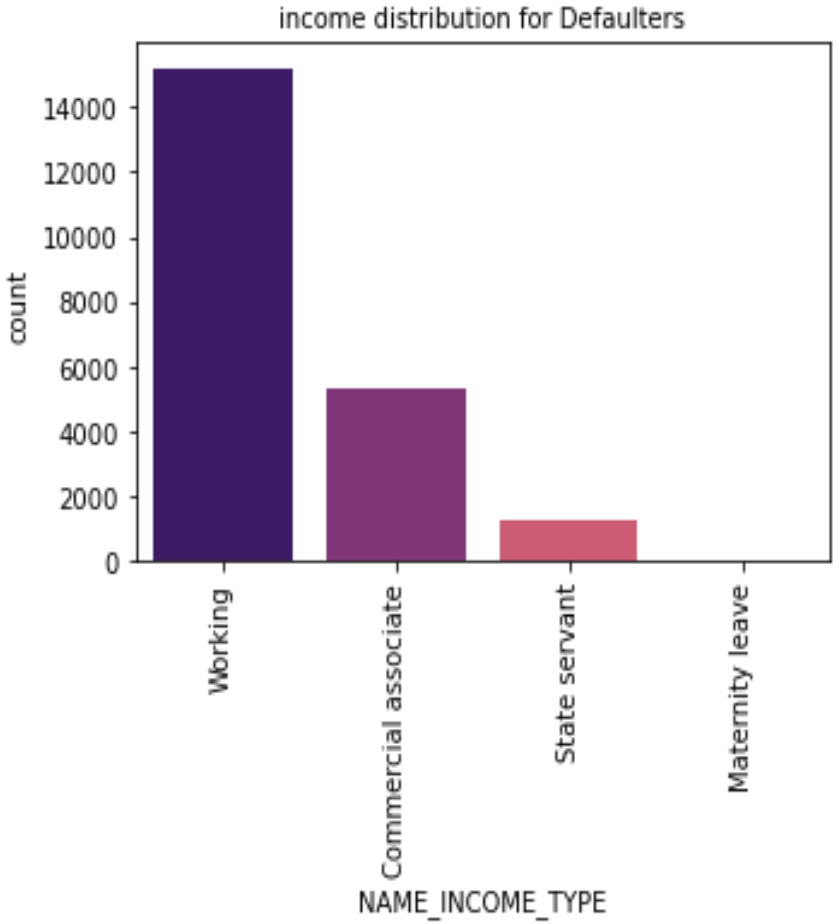
Abirami Murugesan

INCOME TYPE DISTRIBUTION

inference:

working and commercial type are the majority population in both the cases and hence they seek for more no of loans although bank may focus on working and commercial associate types



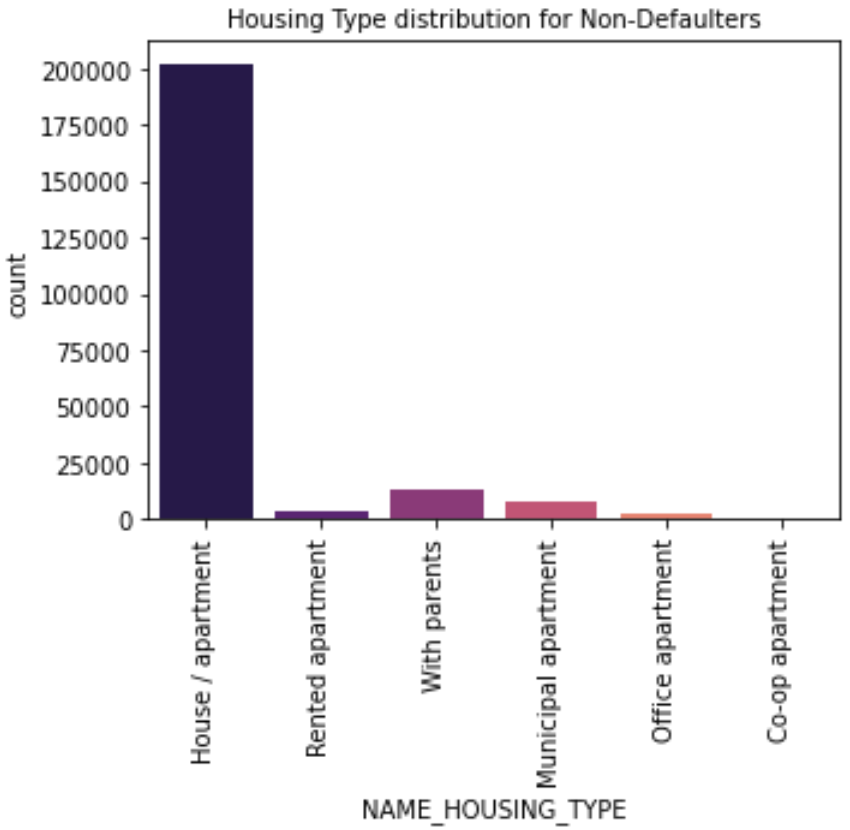


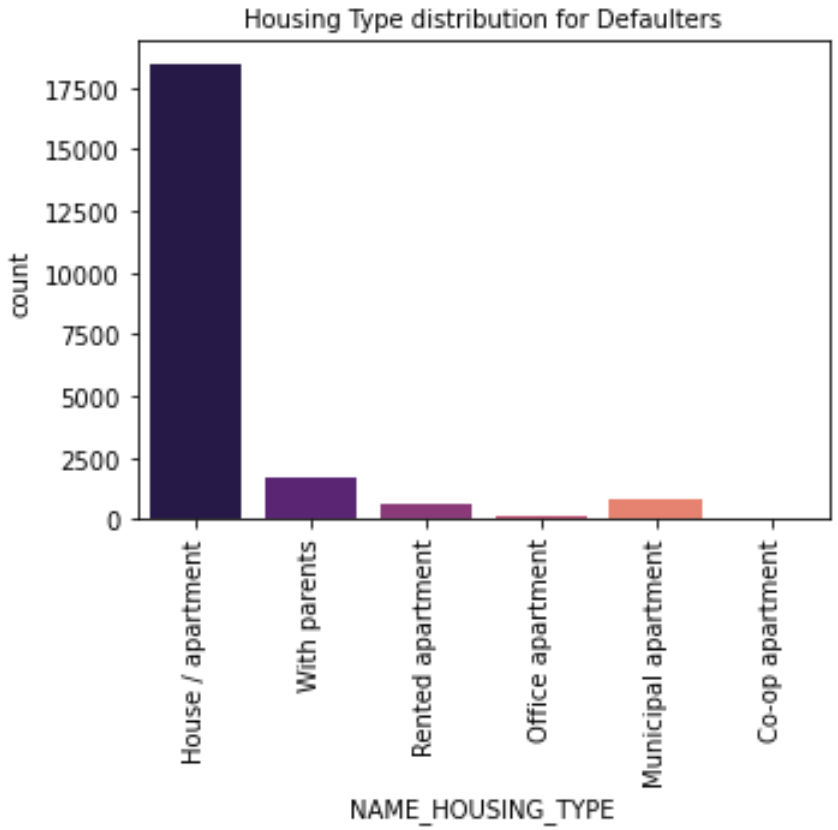
HOUSING TYPE DISTRIBUTION

Inferences:

house/apartment, with parents are majority loan seekers, co-op are the least no of loan seekers

People residing with parents have second highest count

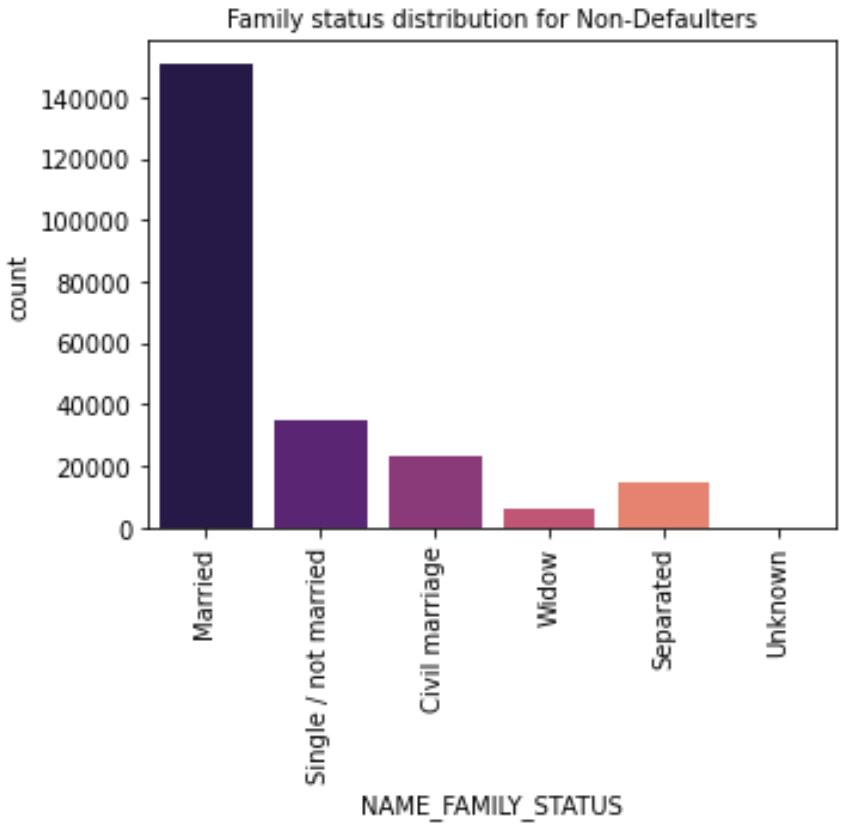


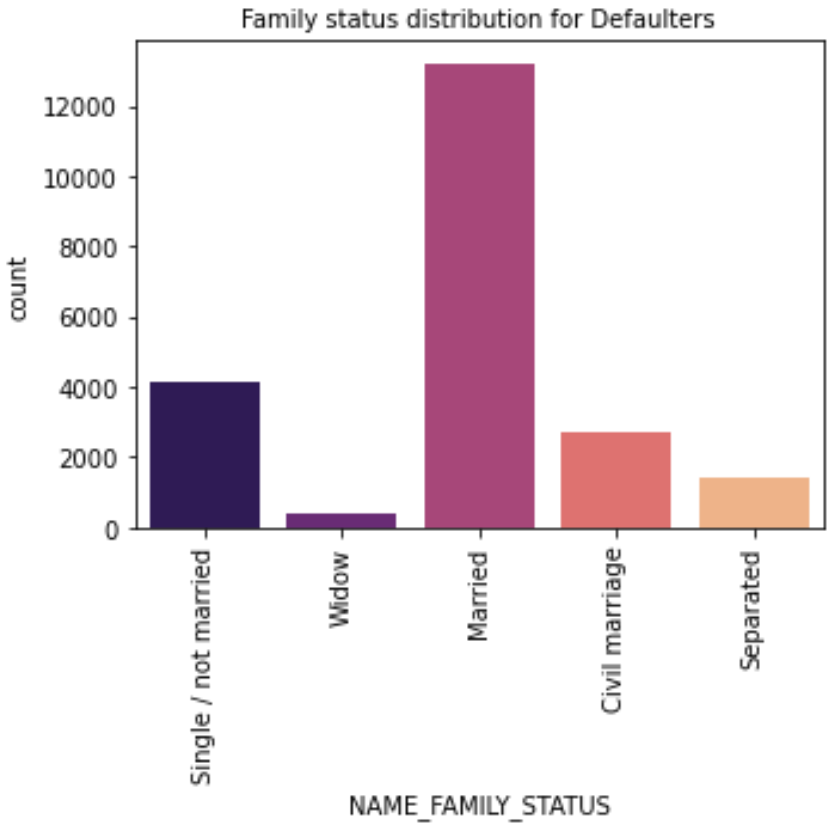


FAMILY STATUS DISTRIBUTION

Inferences:

single , married population are the two categories who tends to take loans on majority

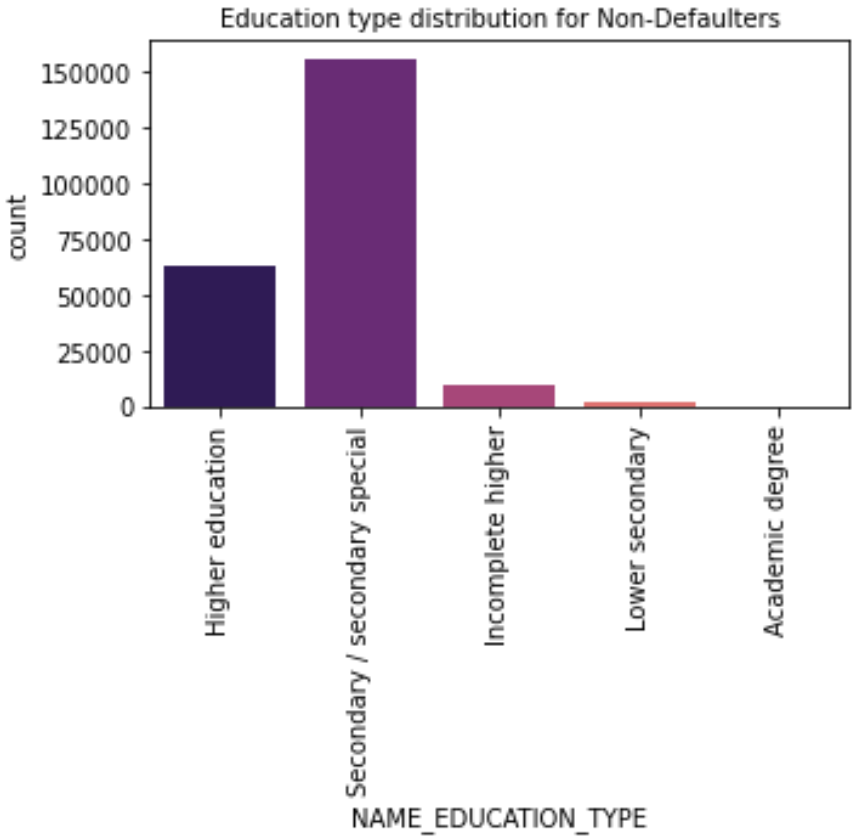


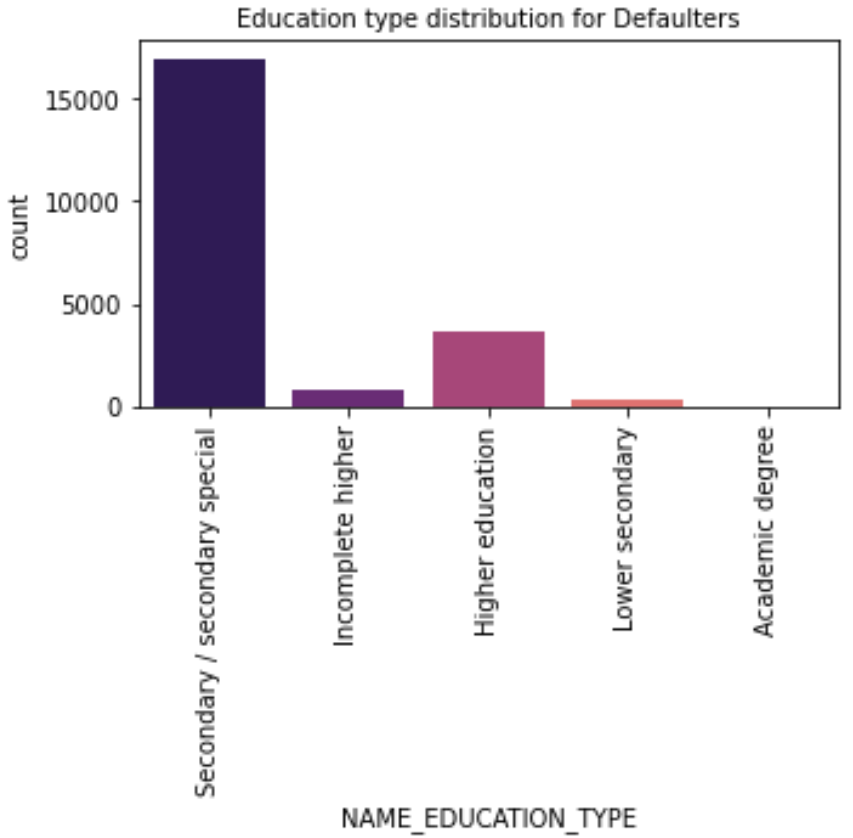


EDUCATION TYPE DISTRIBUTION

Inferences:

secondary/secondary special is the majority loan takers and the least loan takers are from academic degree

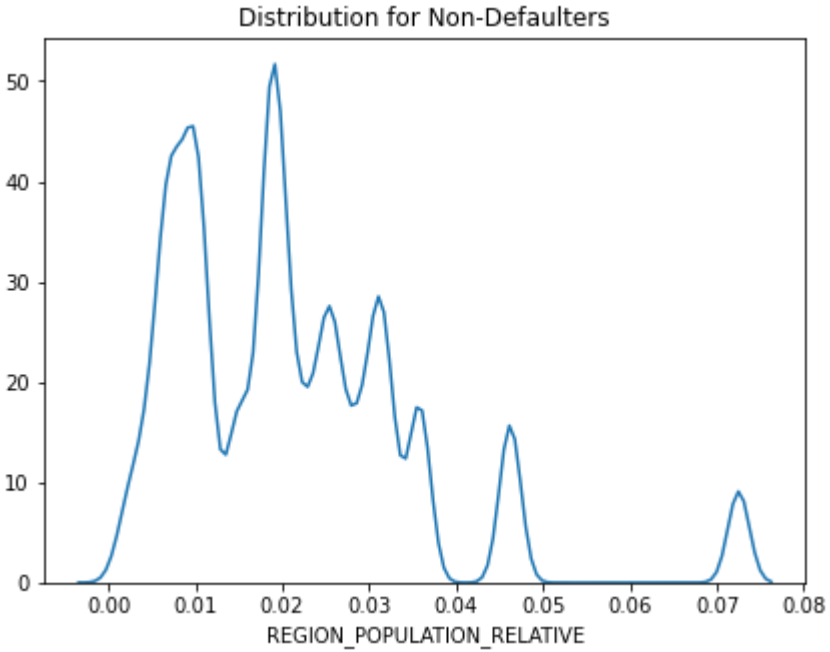


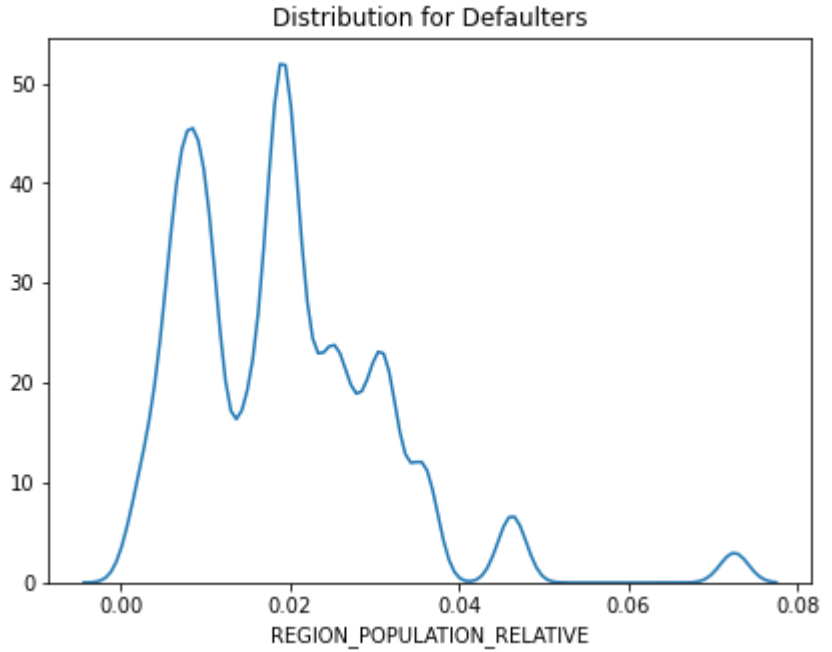


REGION POPULATION RELATIVE DISTRIBUTION

Inferences:

The graphs are skewed to the left and this also states that most of the population stays in less populated area

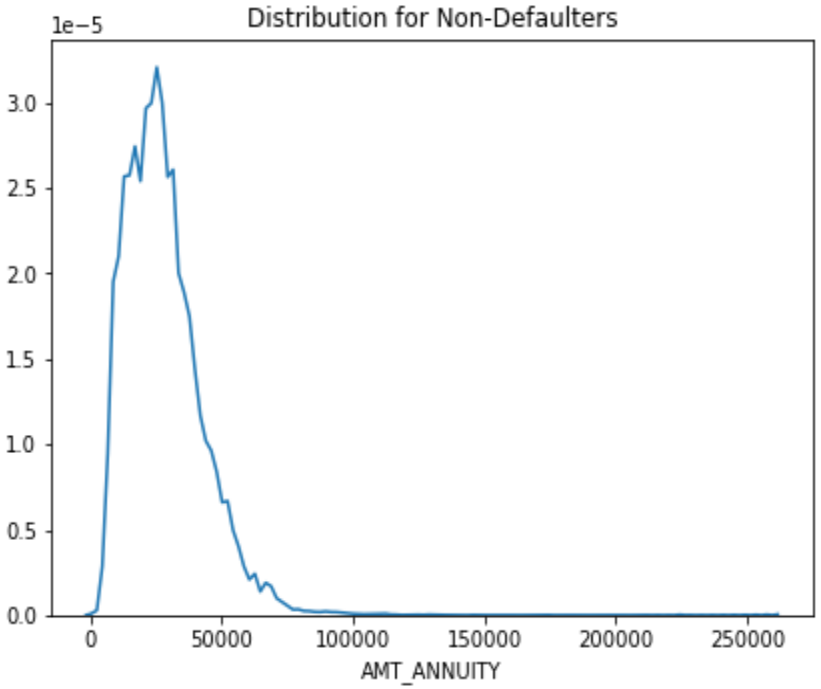


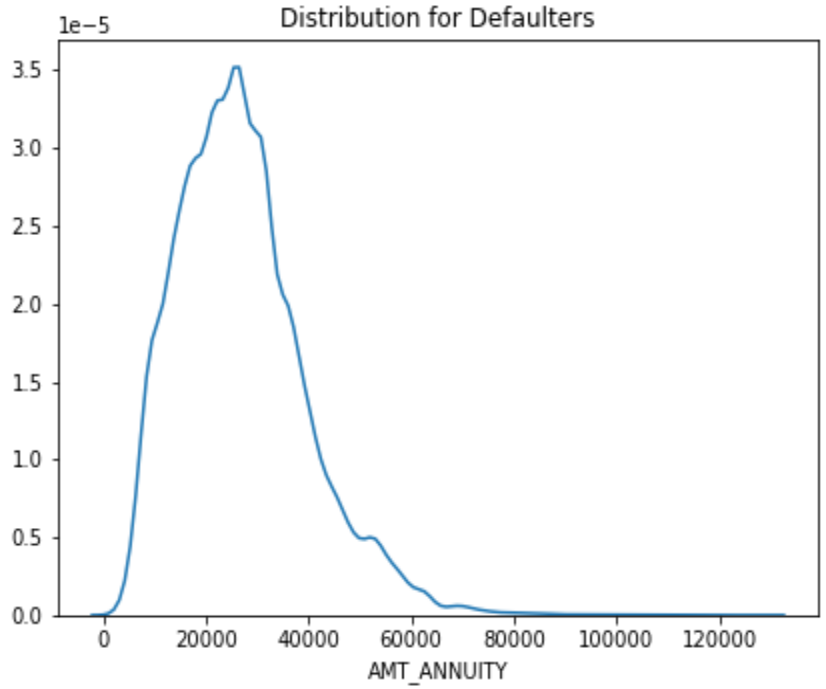


AMT ANNUITY DISTRIBUTION

Inferences:

majority loan takers are paying in the interval of 0-50000 in both thee cases.

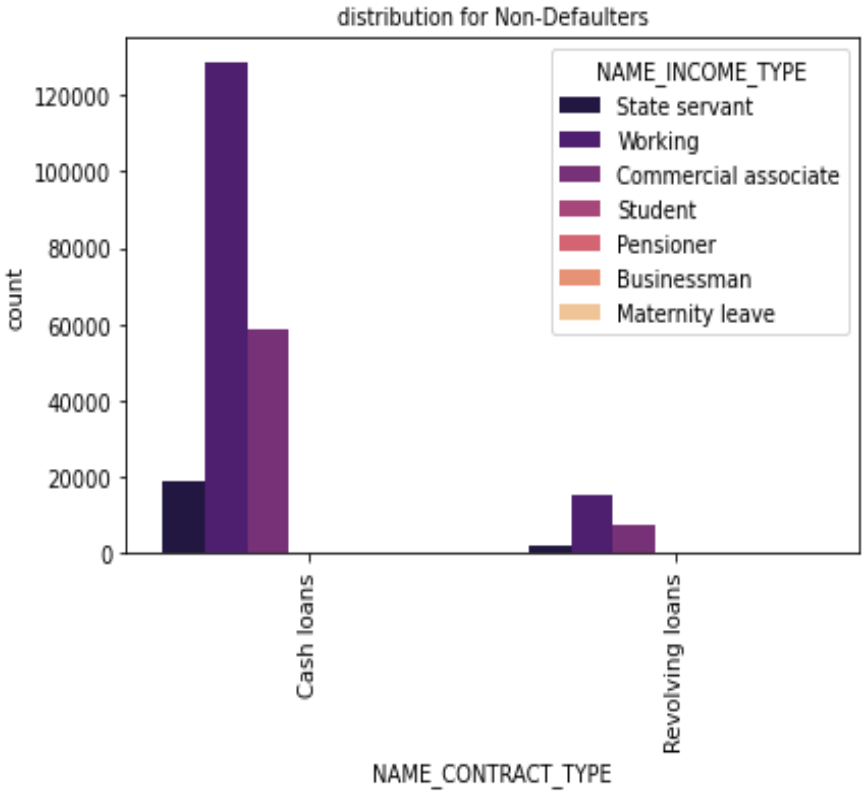


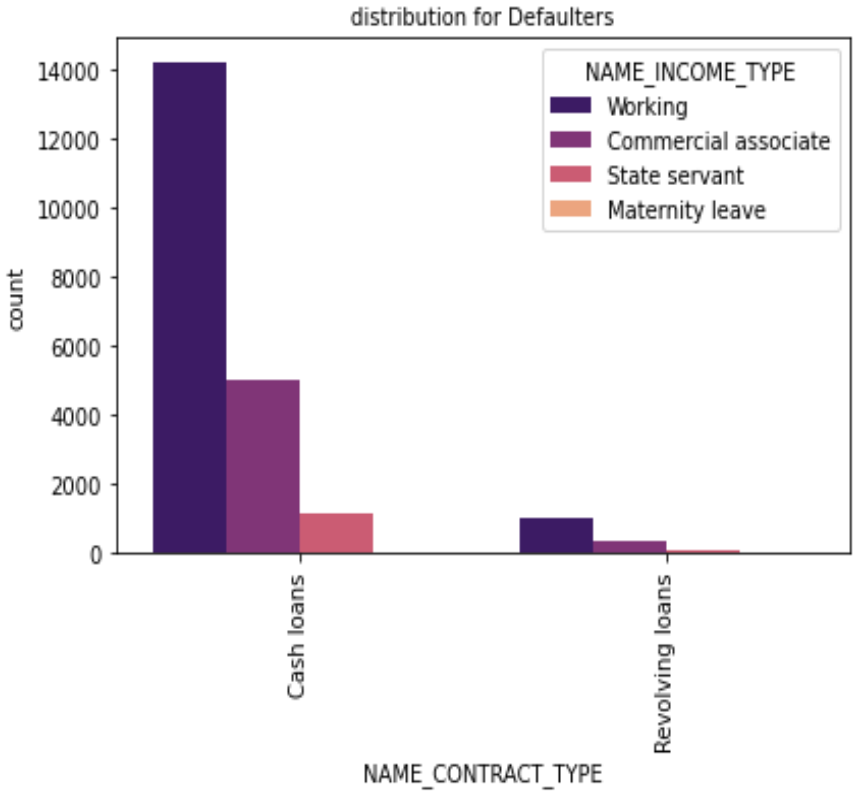


NAME CONTRACT TYPE & NAME INCOME TYPE

Inferences:

working, commercial associate are the two major loan takers in form of cash

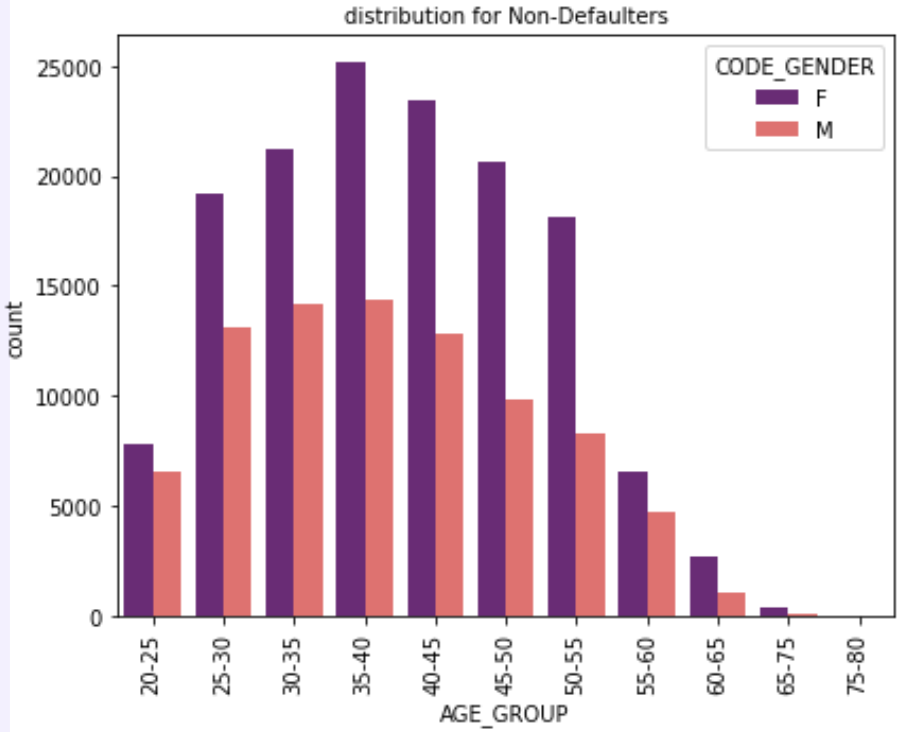


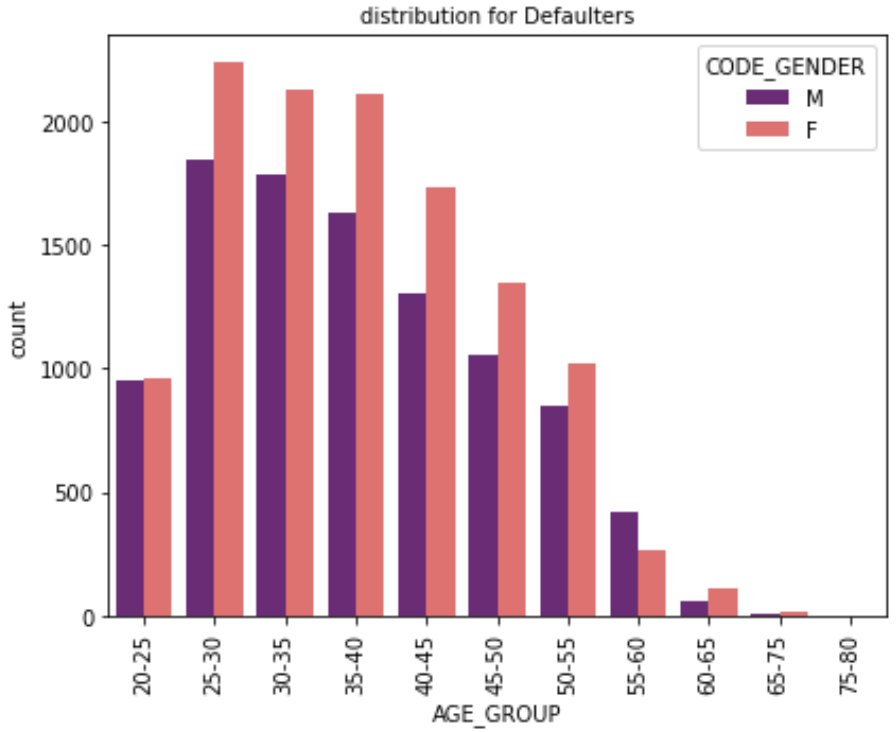


AGE GROUP & CODE GENDER

Inferences:

for people within age group of 35-45 are the major loan payers and for people within age group 25-35 are the major defaulters

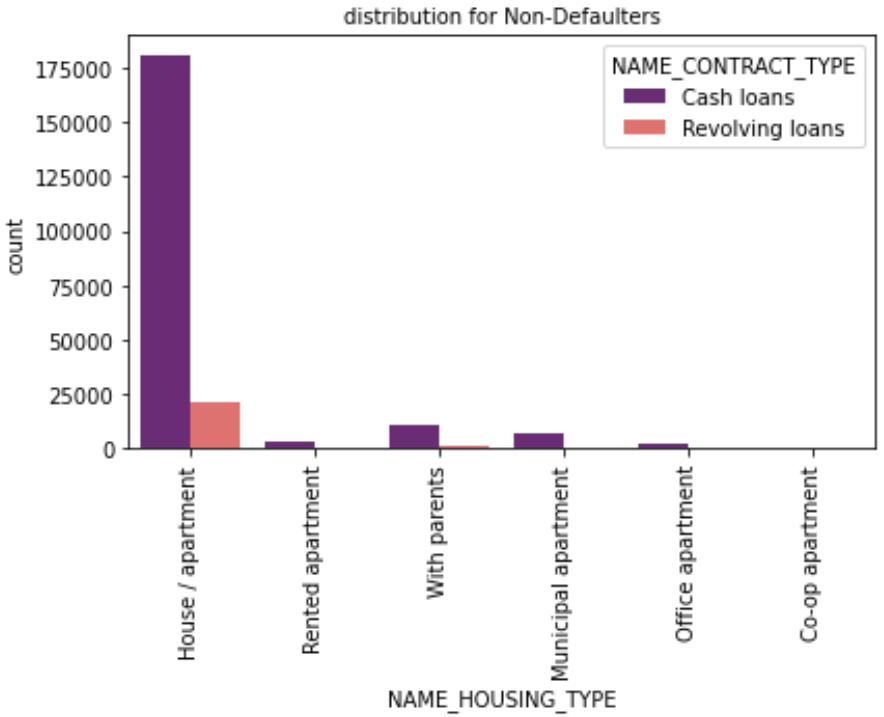


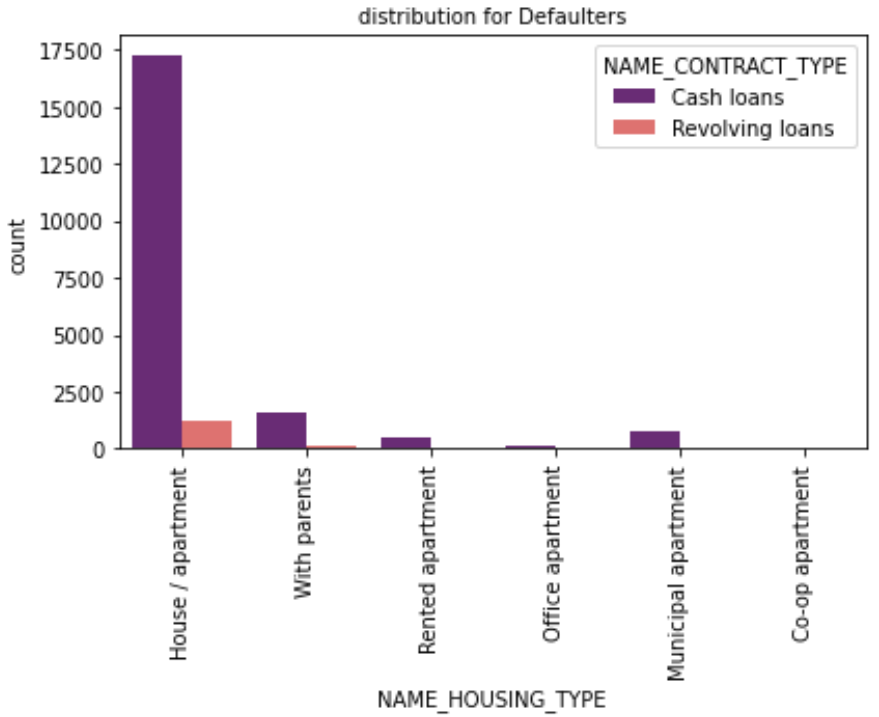


NAME HOUSING TYPE & NAME CONTRACT TYPE

Inferences:

house /apartment are major loan takers preferred with the form of cash



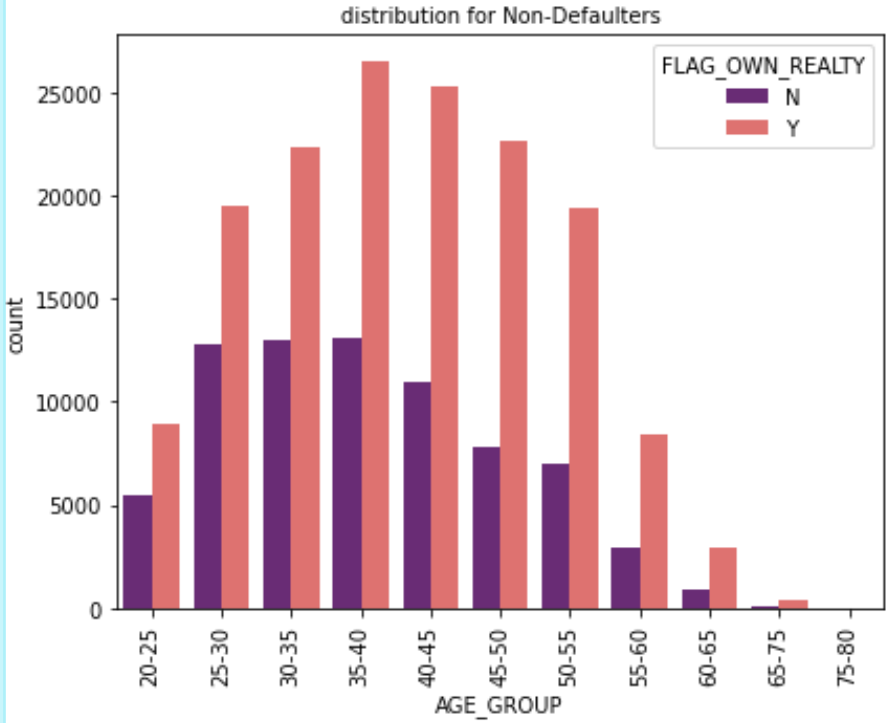


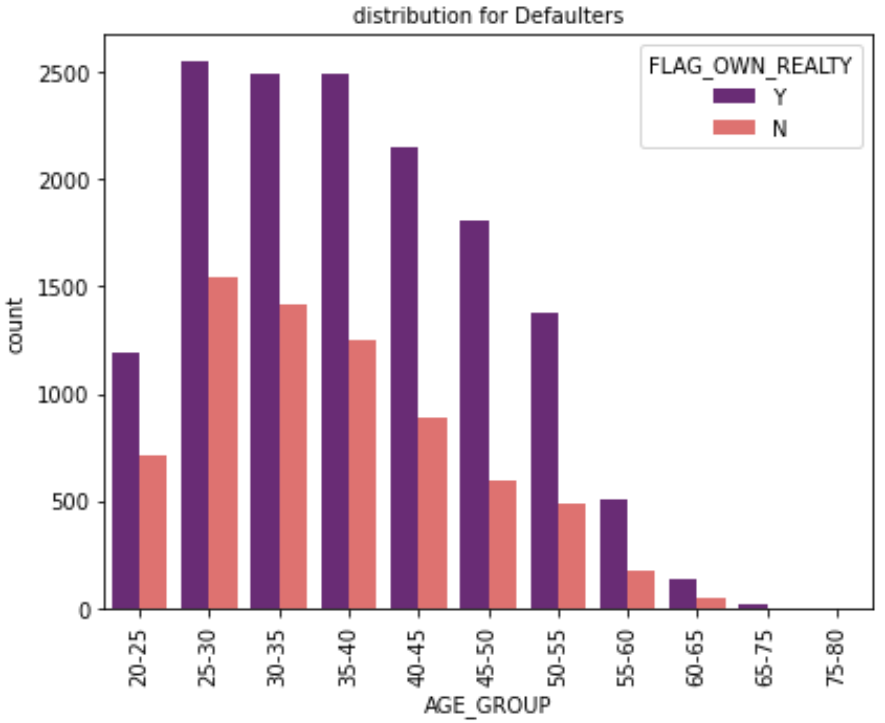
AGE GROUP & FLAG OWN REALTY

Inferences:

people belonging to 35-45 and who are also owning a realty are paying loans regularly and people in the age group of 25-35 who are also owing a realty are major defaulters.

most of the loan takers are realty owners

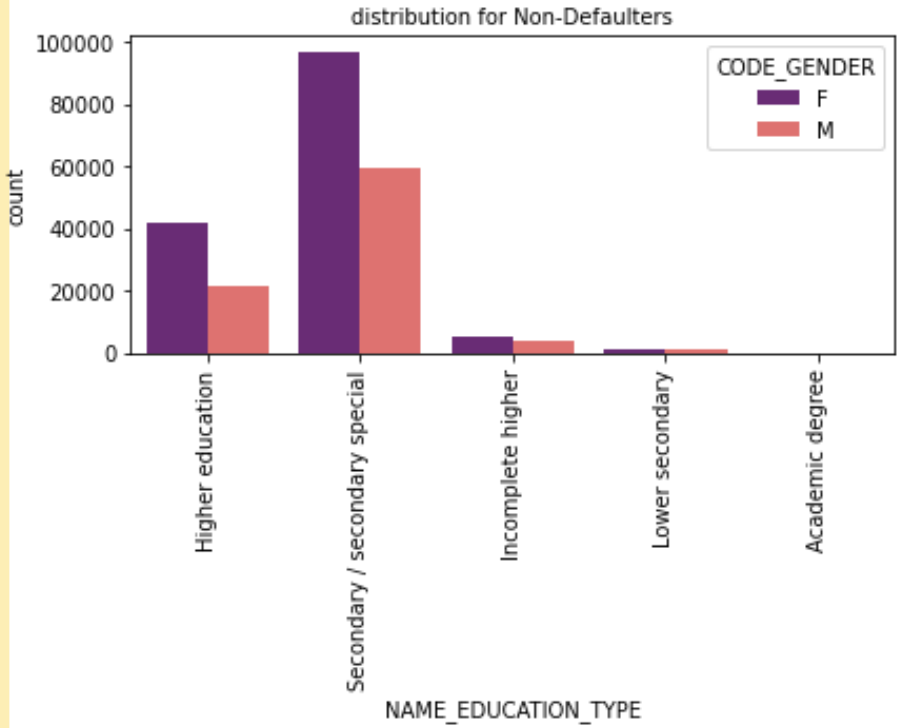


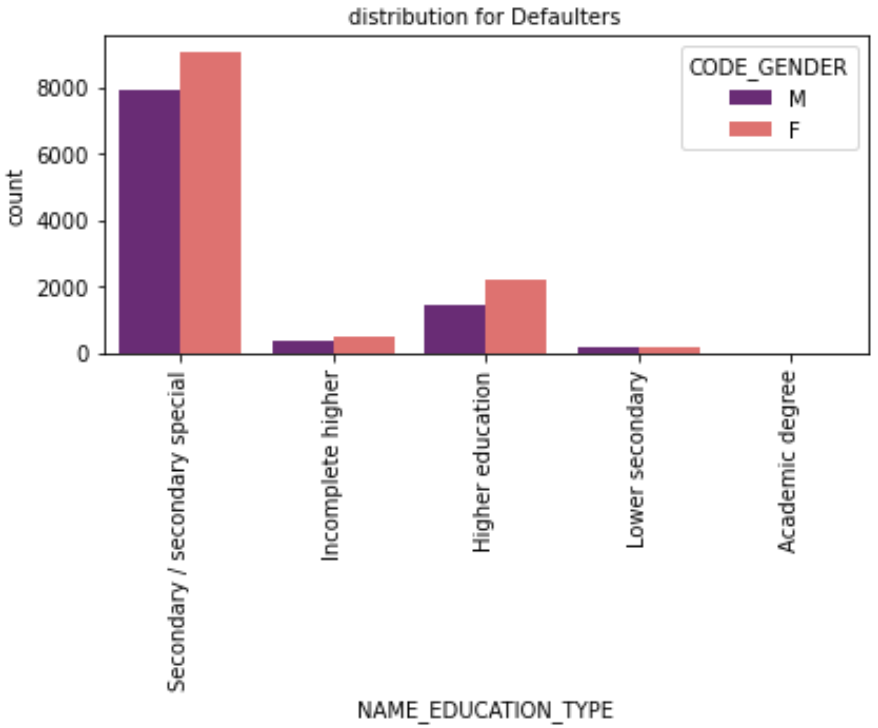


NAME EDUCATION TYPE & CODE GENDER

Inferences:

females belonging to secondary/secondary special have the most count in both the cases



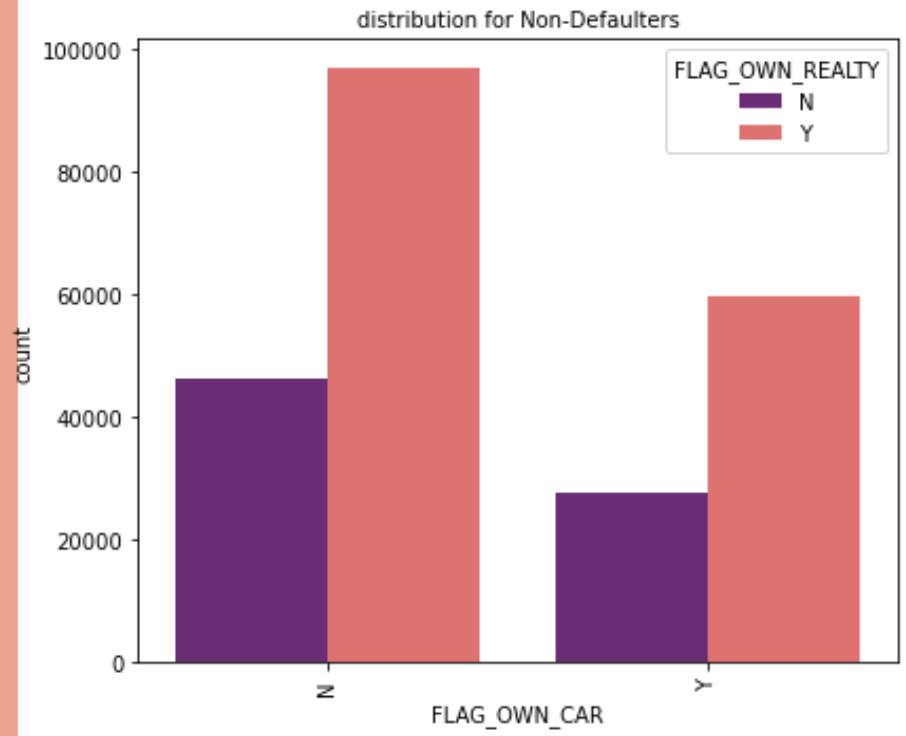


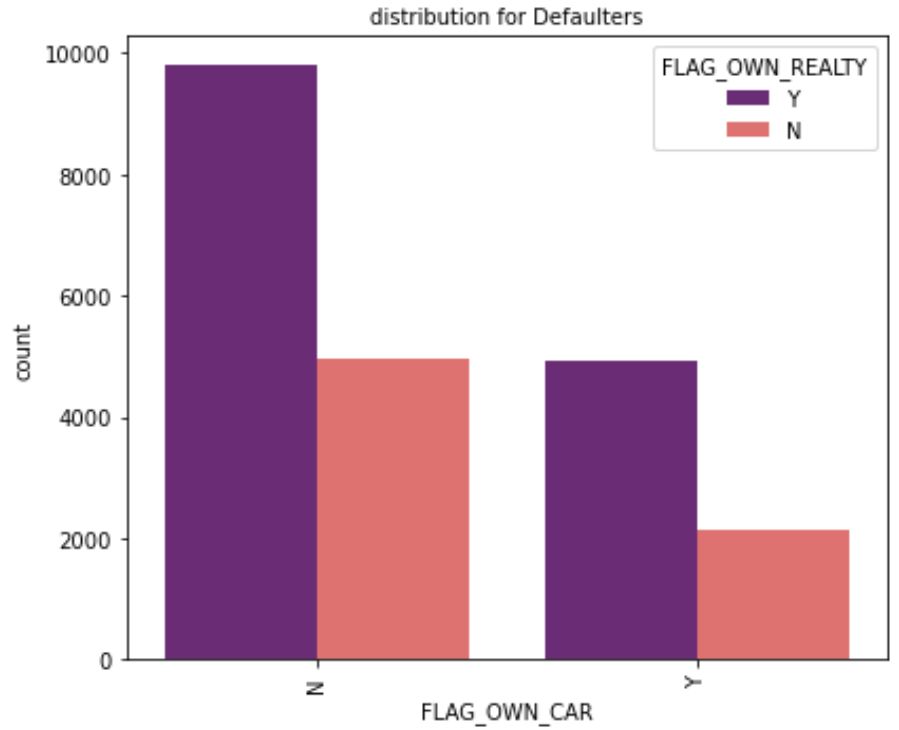
FLAG OWN CAR & FLAG OWN REALTY

Inferences:

population owning a realty and not owning car are major loan takers

people owning both are lesser in both the cases

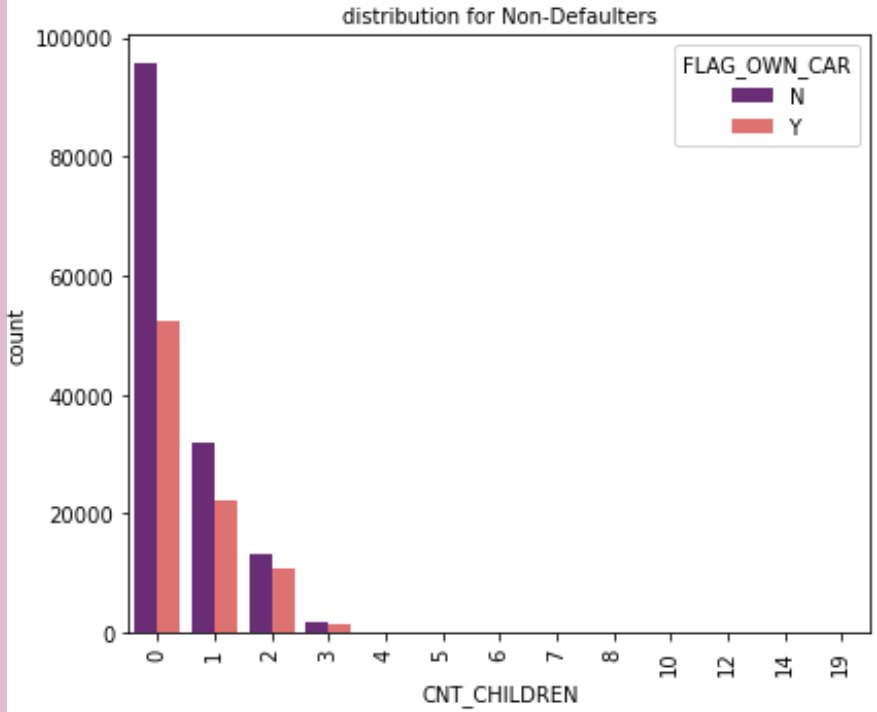


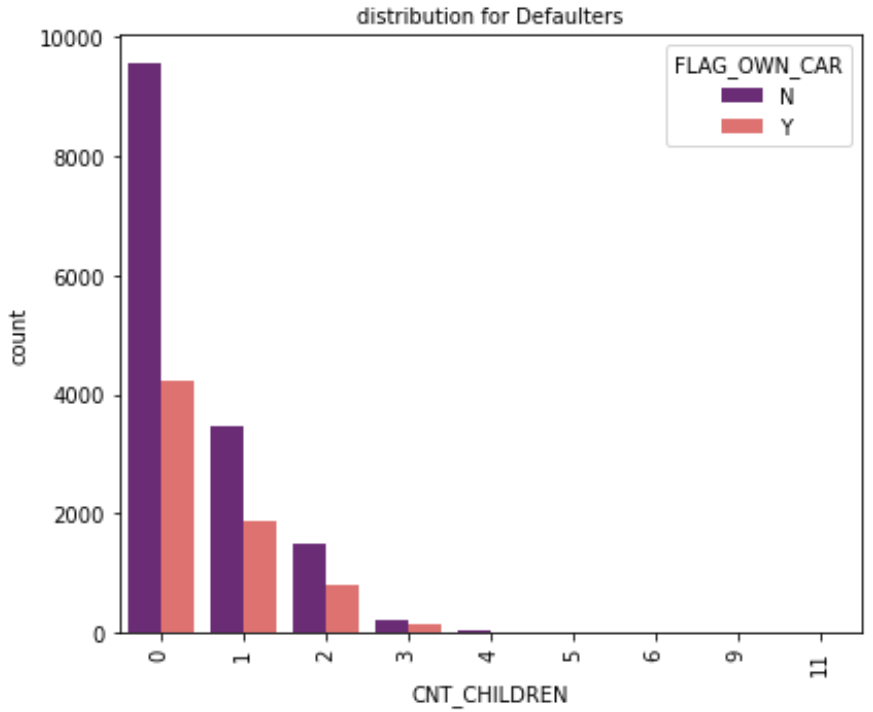


CNT CHILDREN & FLAG OWN CAR

Inferences:

people with no children and are not owning a car are most loan takers in both the cases

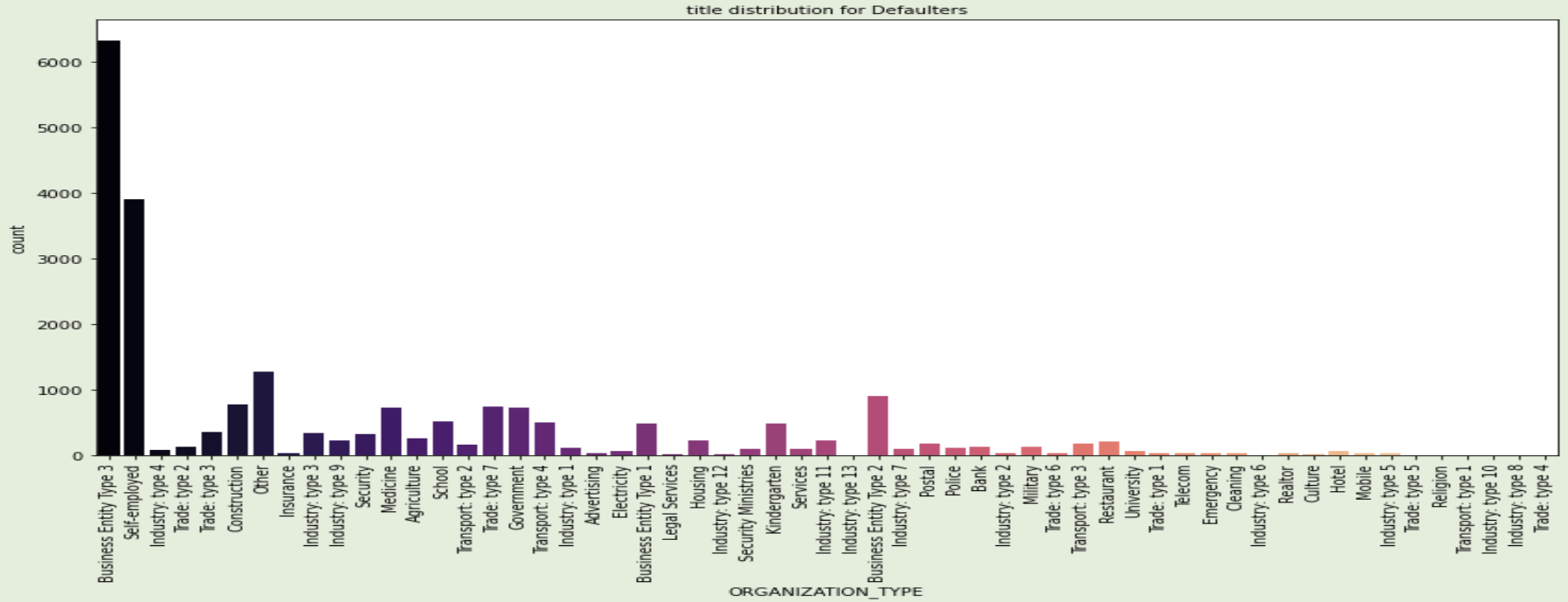


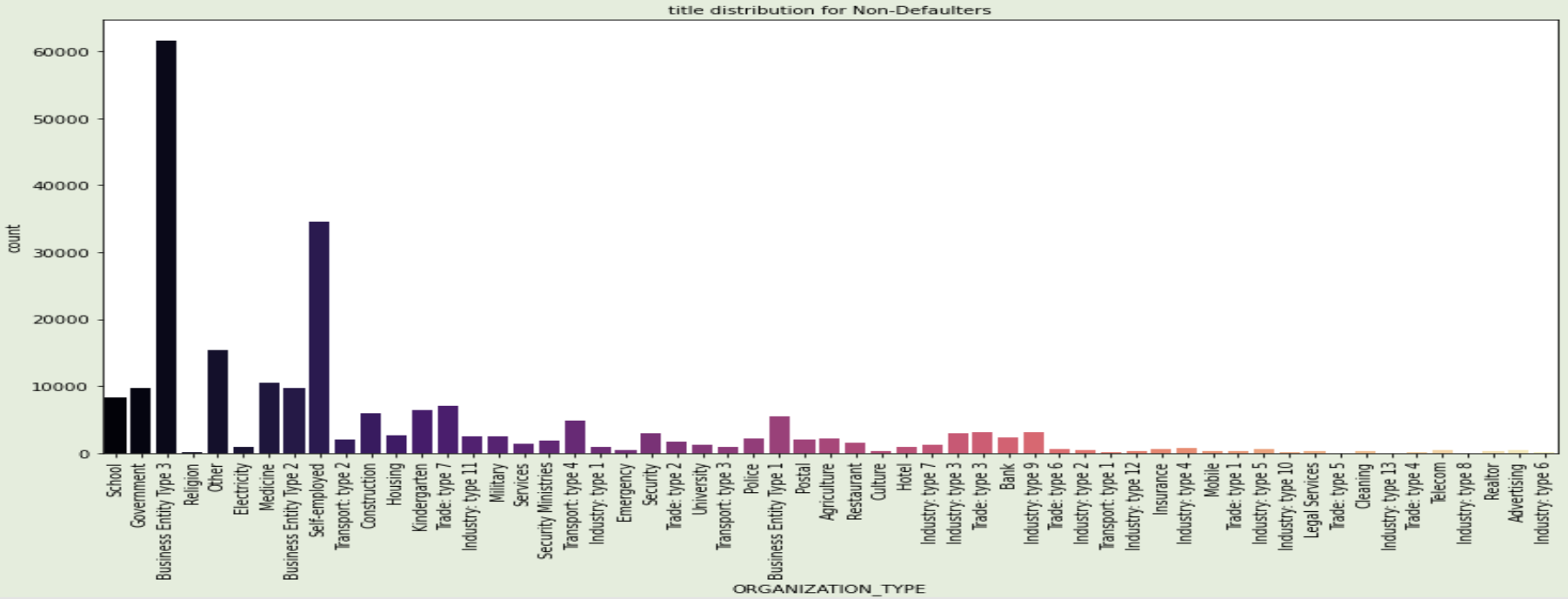


ORGANISATION TYPE DISTRIBUTION

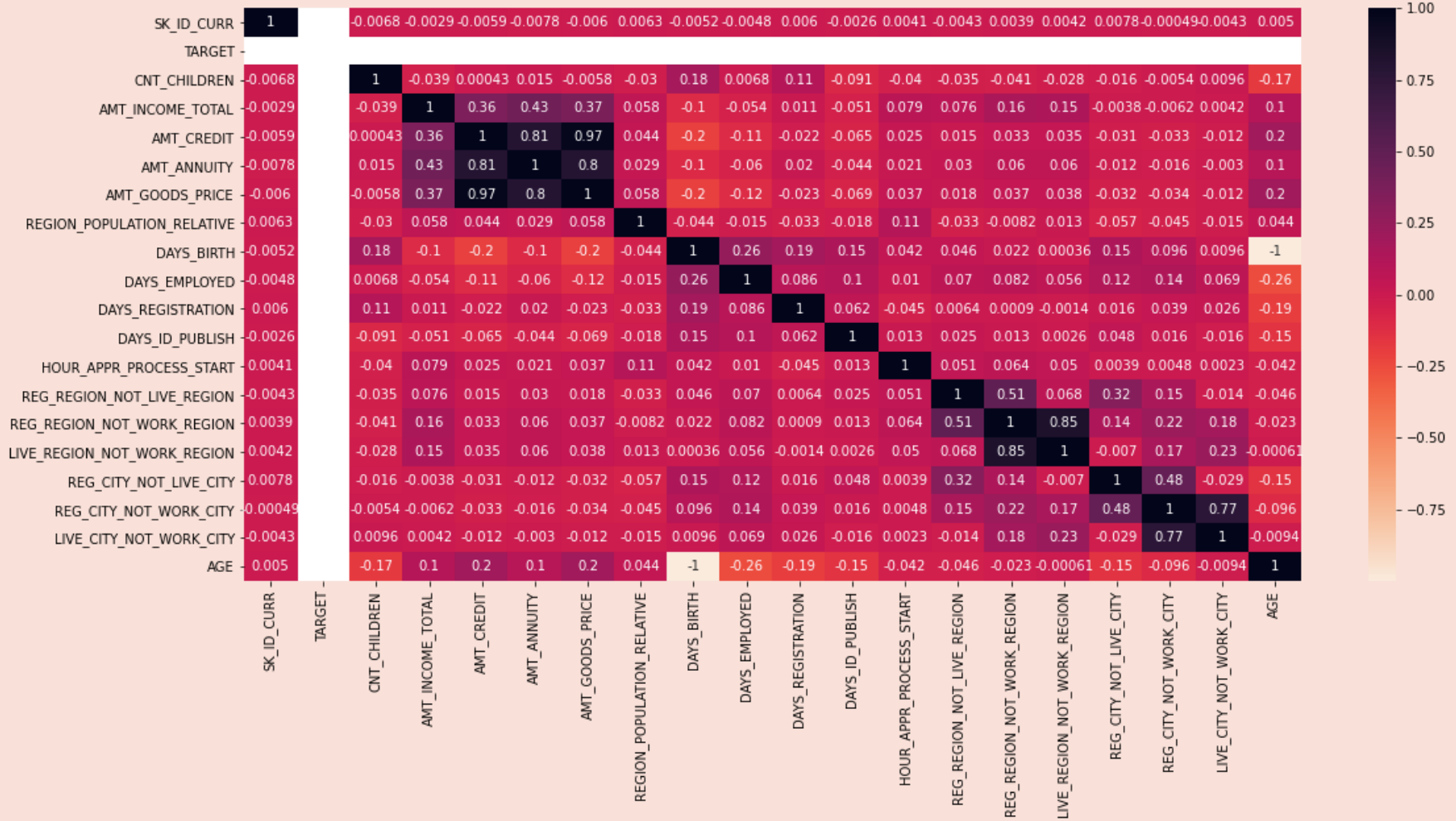
Inferences:

business entity type-3 and self employed are two major types in both cases and business entity type-1 and business entity type-2 are far lesser loan takers compared to business entity type-3.





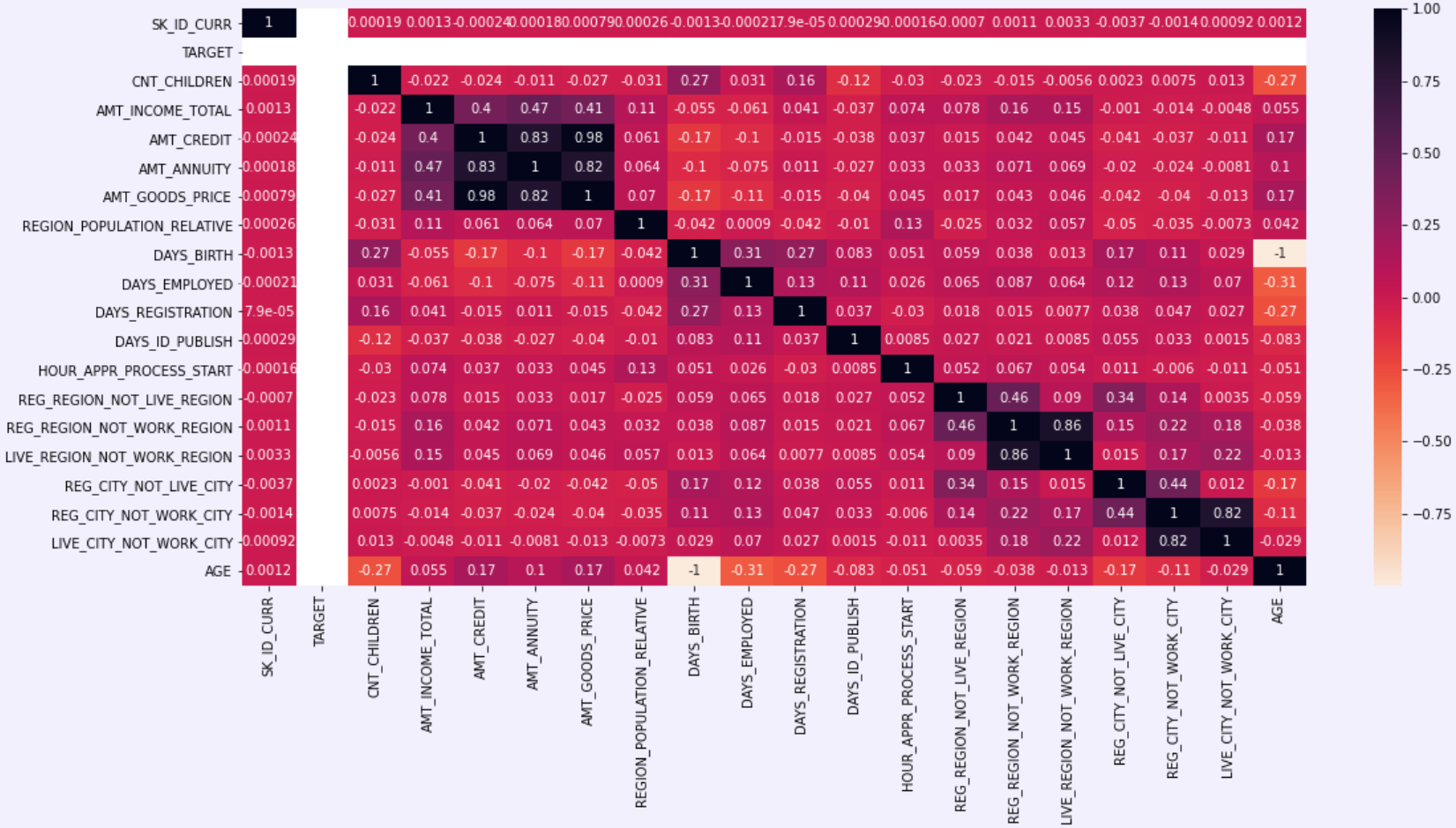
Correlation for defaulter columns



Inference:

+amt credit and amt annuity are proportional and that means increase in credit will also increase in annuity
+people working in crowded places are not earning more
+large credit is offered for higher goods price
+higher income gives higher goods price (proportional)

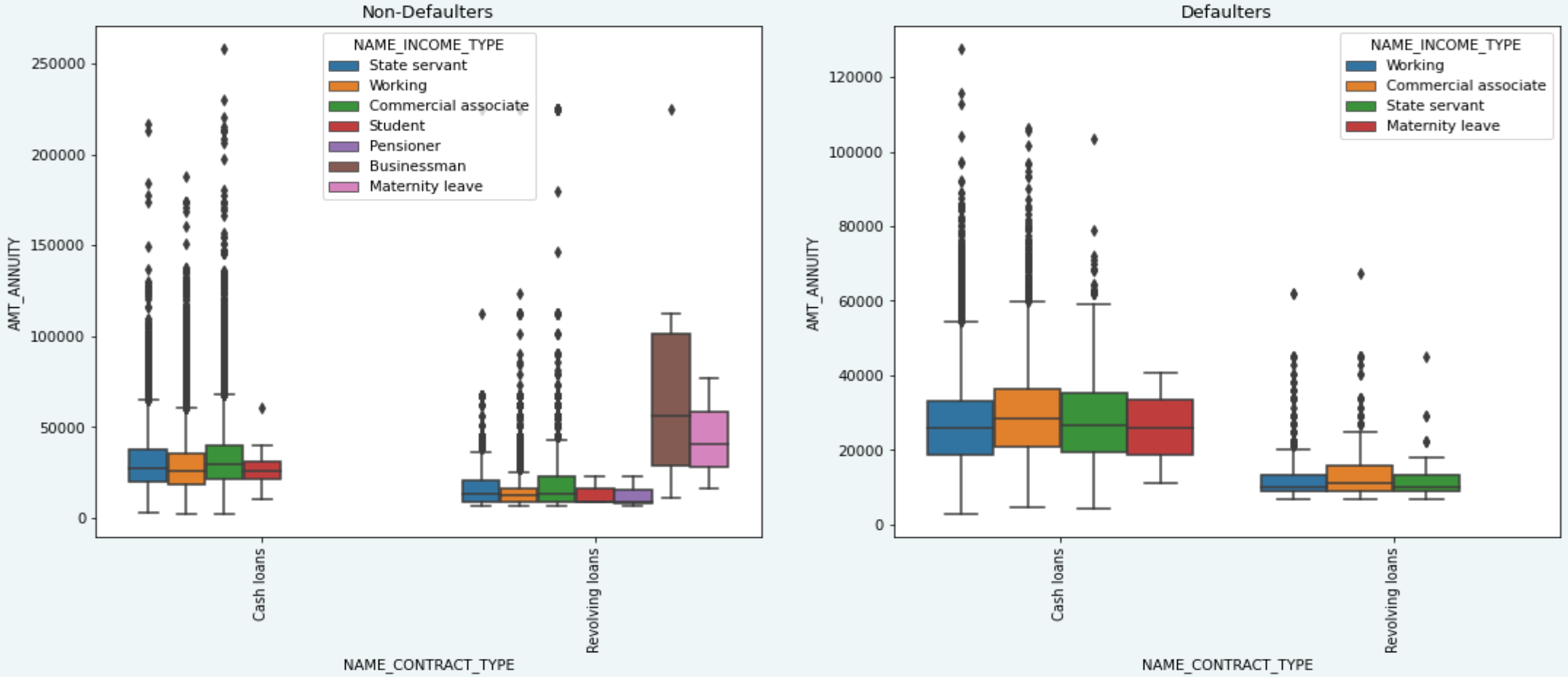
Correlation for non-defaulter columns



Inference:

+amt credit and amt income total are better correlated and by that it states that the higher the income, the higher the credit.
+amt credit and amt annuity are proportional and that means increase in credit will also increase in annuity
+amt credit and amt goods price are better correlated and that states higher credit is taken with much higher valued goods
+total income gets increases with people residing in crowder areas

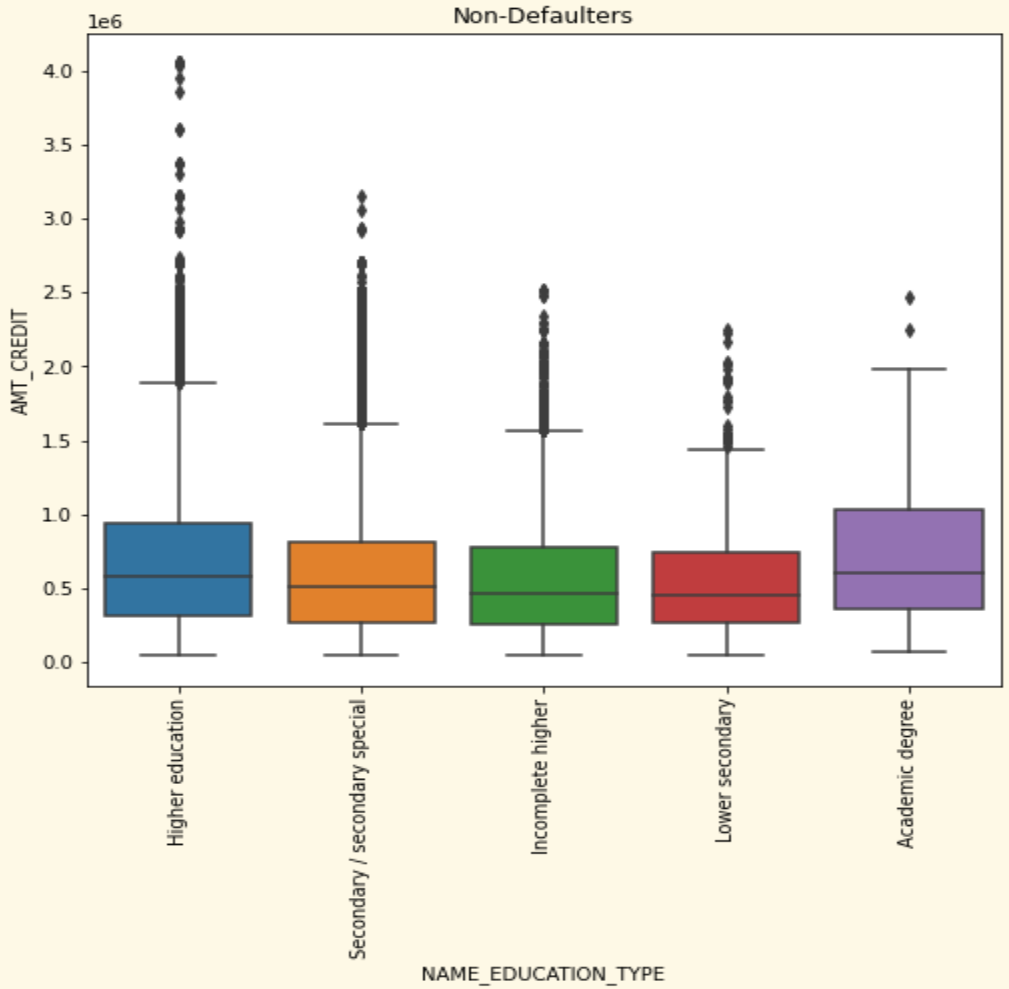
NAME CONTRACT TYPE & AMT ANNUITY & NAME INCOME TYPE

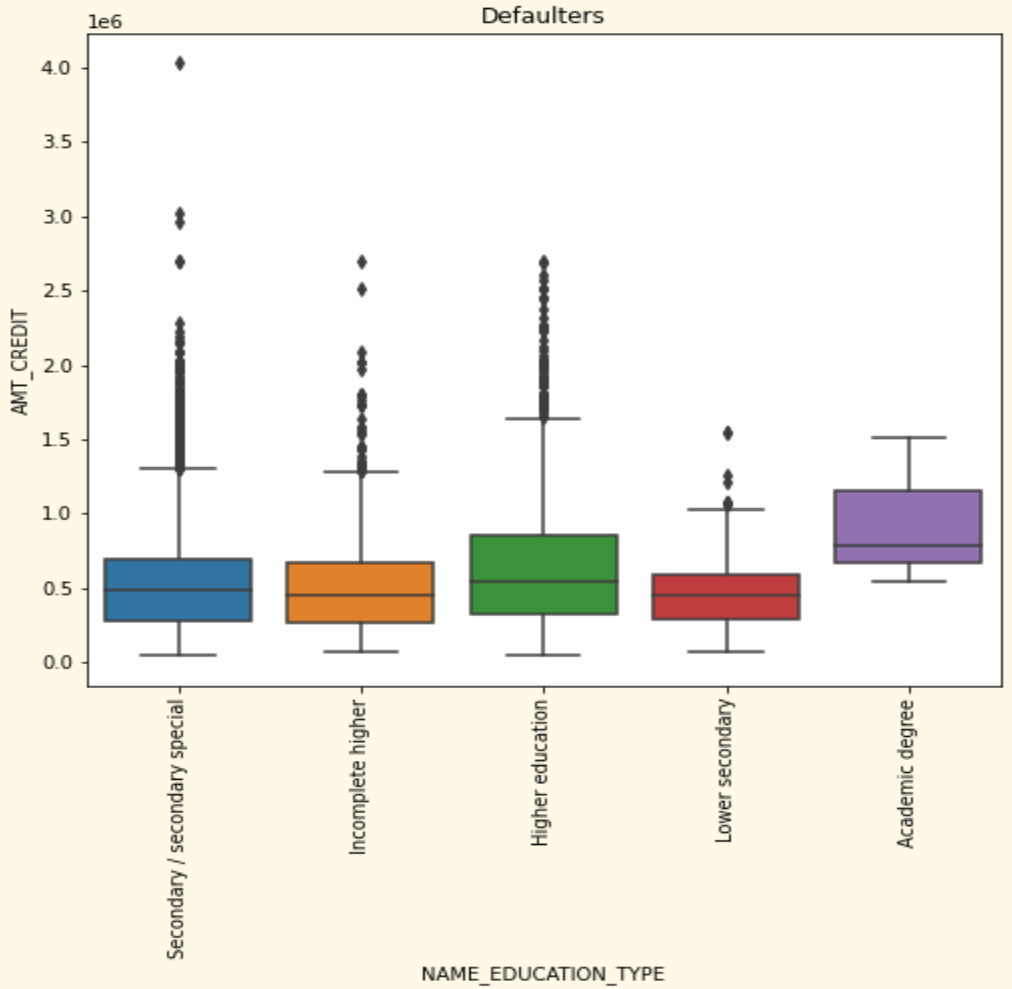


Inferences:

businessmen are the major loan payers, banks seem to give out a comparatively larger no of loan to that particular category.
business are mostly non-defaulters and prefer revolving loans.
most of the distribution businessman taking loans are above the mean.
maternity leave are not comfortable with cash loans.

NAME EDUCATION TYPE & AMT CREDIT

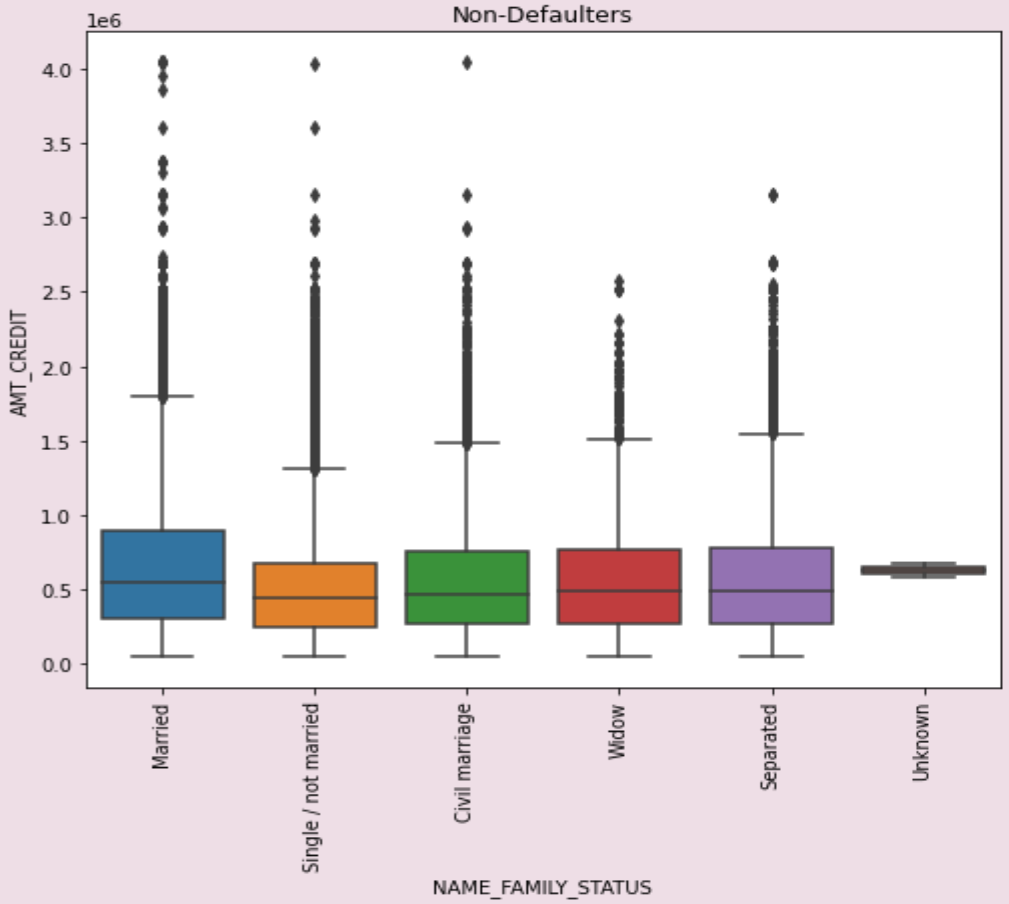


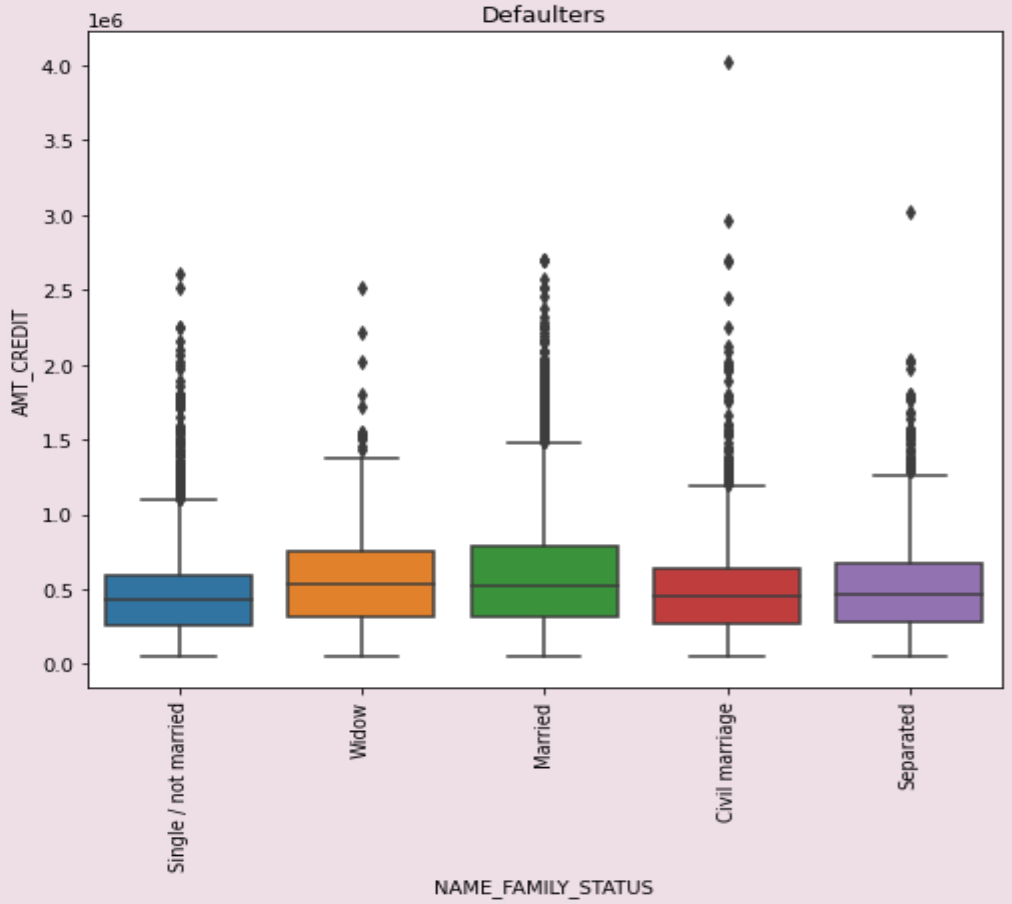


Inferences:

major distribution of academic degree lies above mean and it has lesser no of outliers. Academic degree has larger amount of credit.

NAME FAMILY STATUS & AMT CREDIT

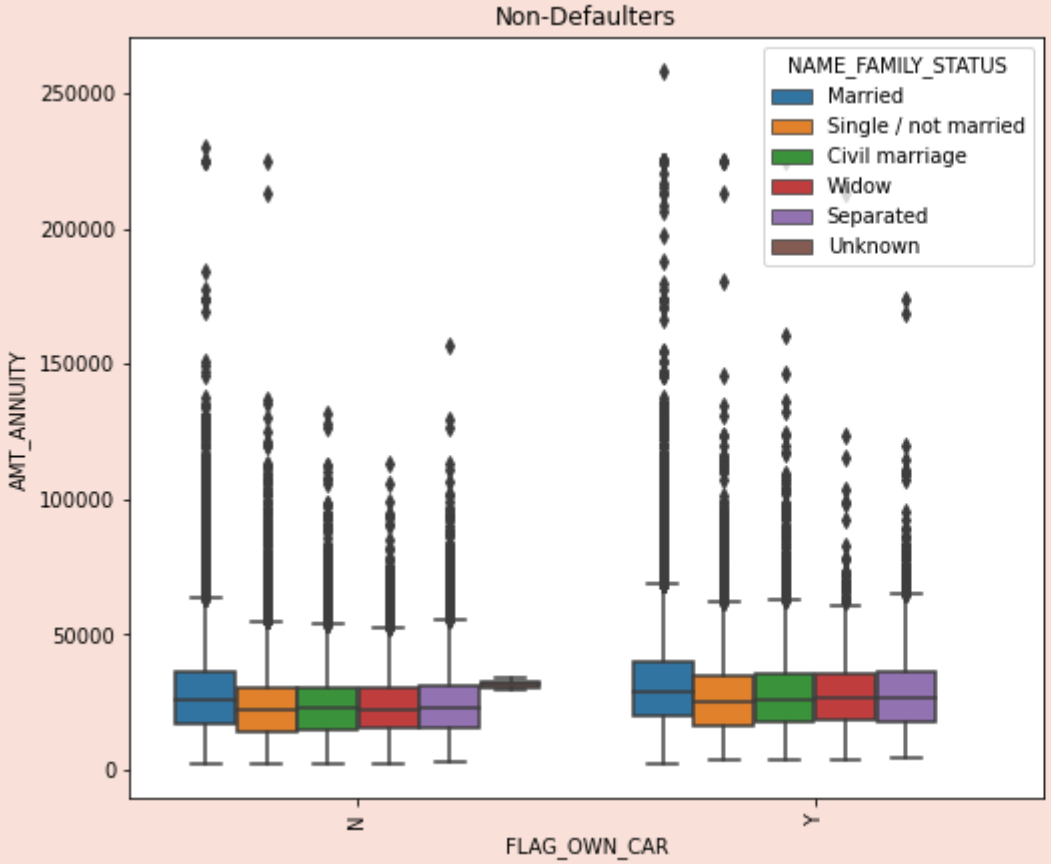


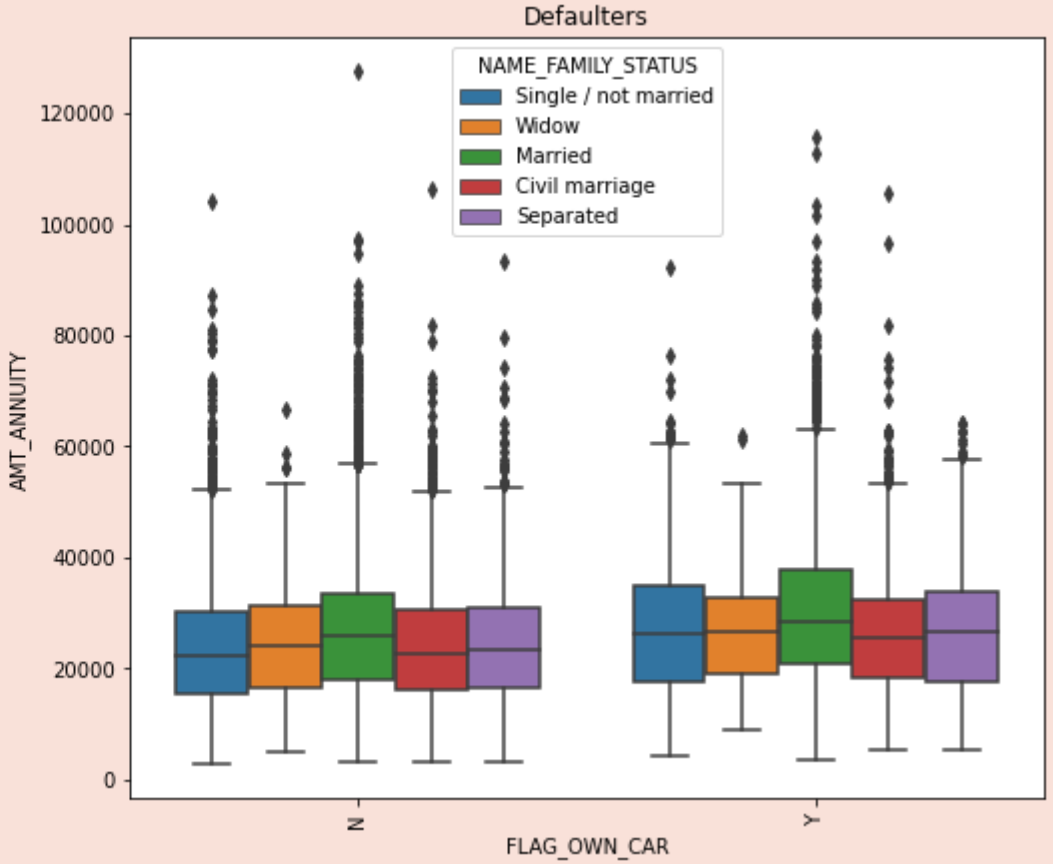


Inference:

married people has more amount of credit in a comman note. large distribution of married people lie above mean.

FLAG OWN CAR & AMT ANNUITY & NAME FAMILY STATUS

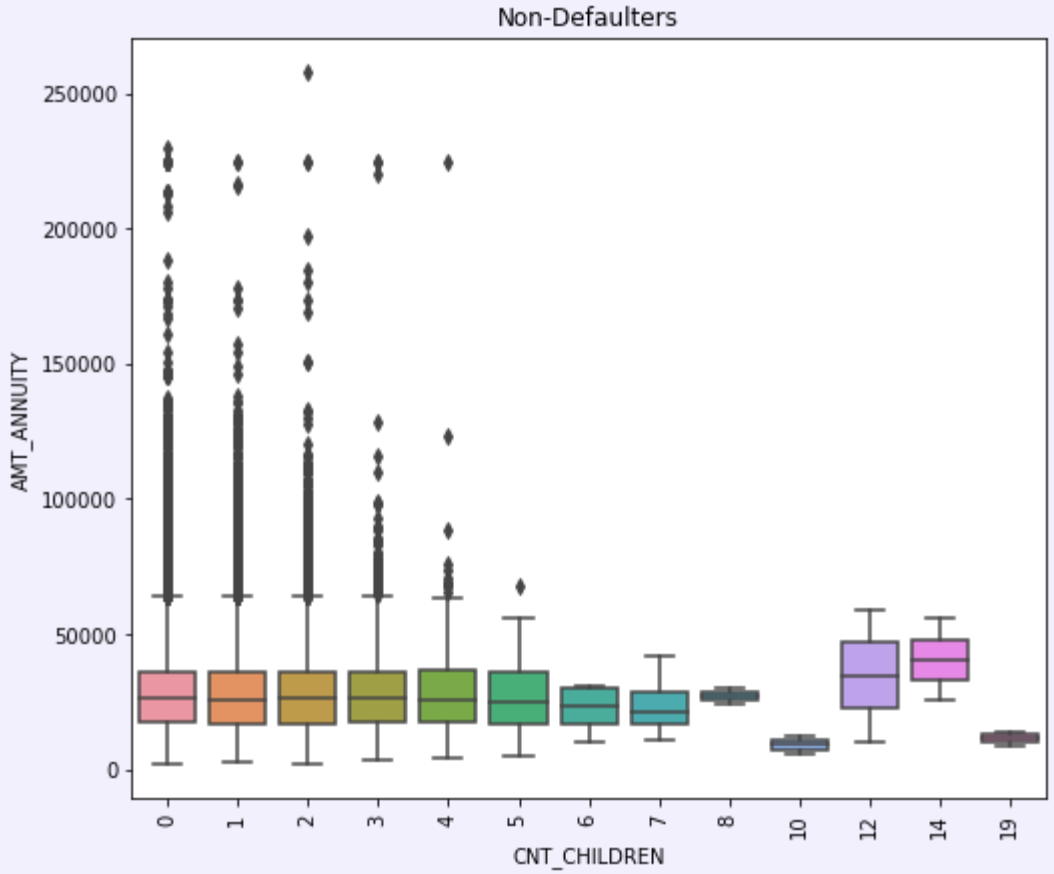


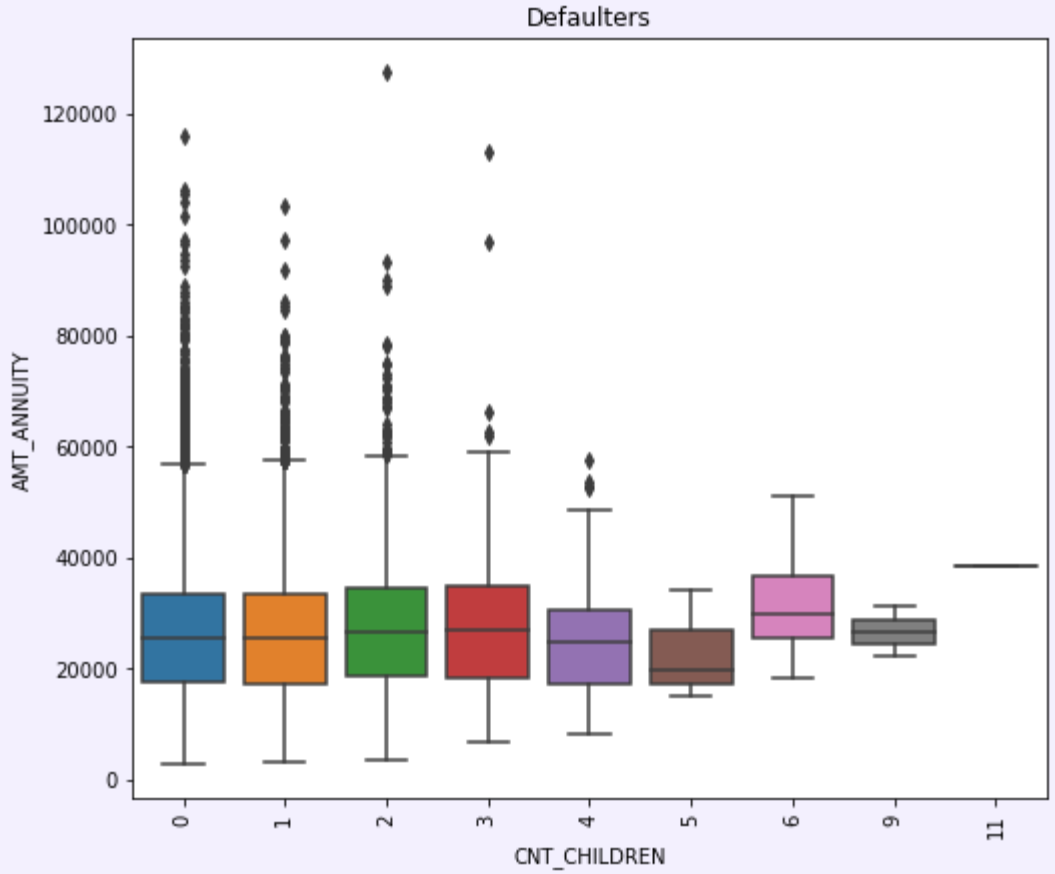


Inference:

married people owning a car tend to be higher in of defaulters. married population also have more outliers. married people have higher amount of annuity in common note.

CNT CHILDREN & AMT ANNUITY

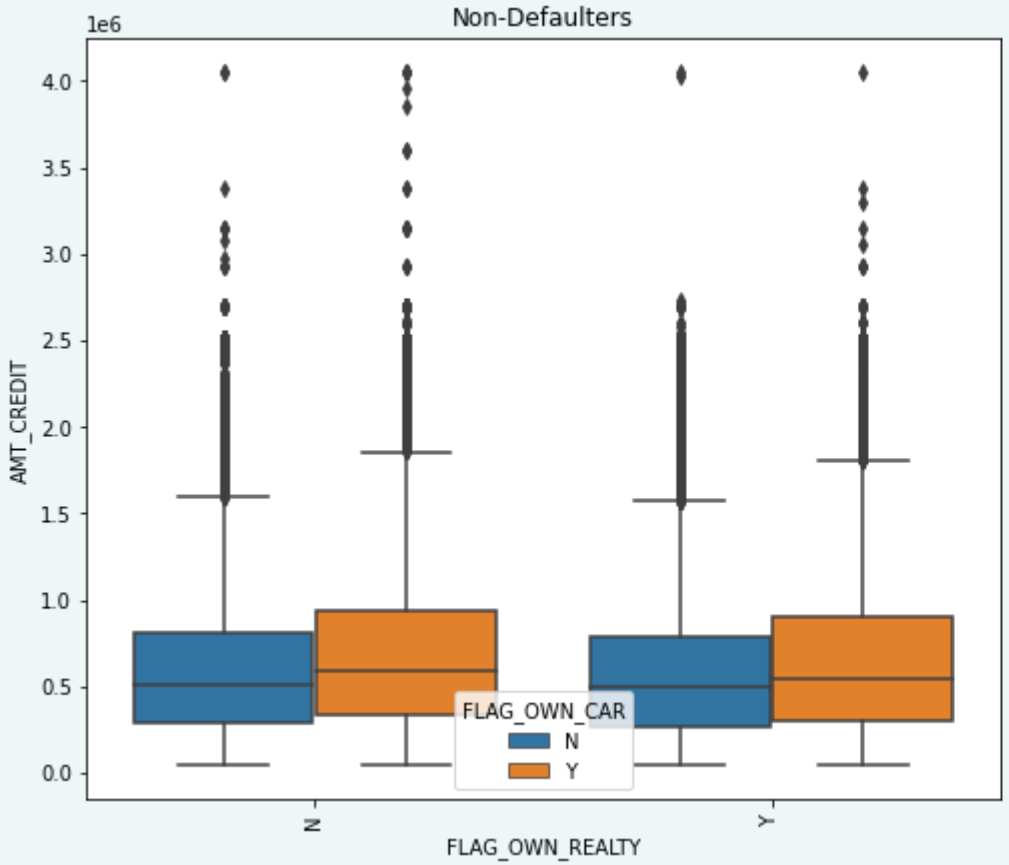


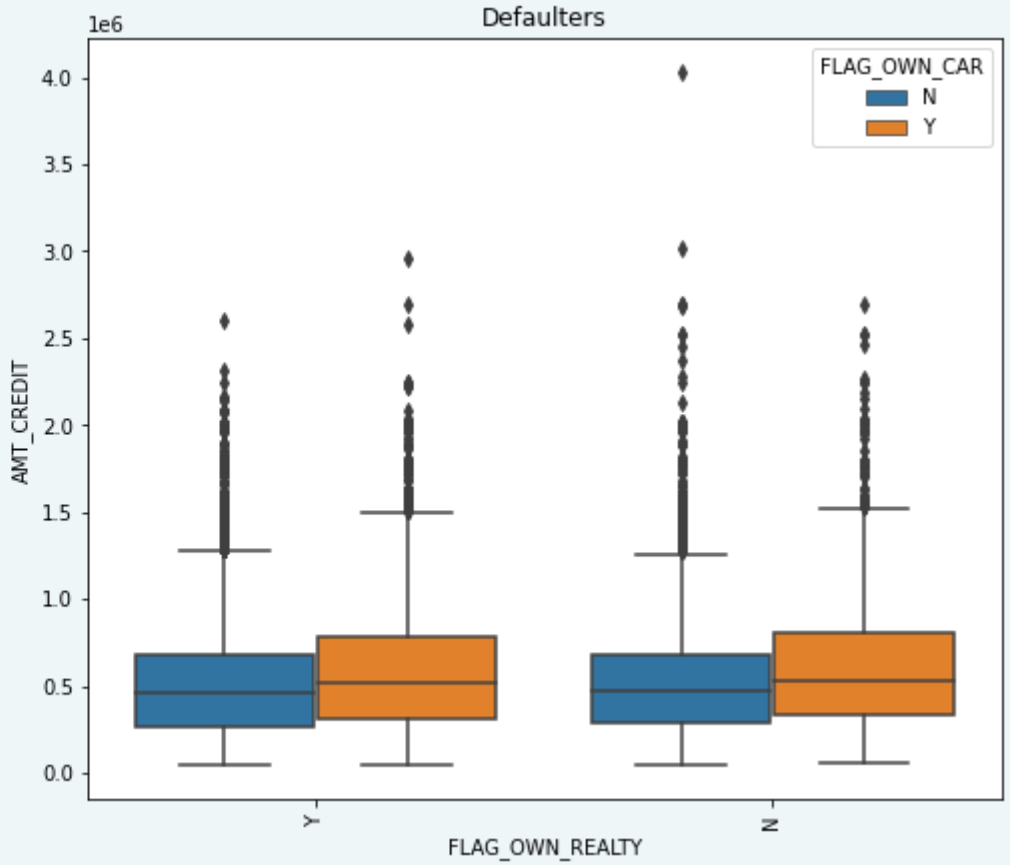


Inferences:

people having 0-3 children have same pattern of quartile distribution. people having more than 12 children seem to pay loan without difficulty

FLAG OWN REALTY & AMT CREDIT & FLAG OWN CAR

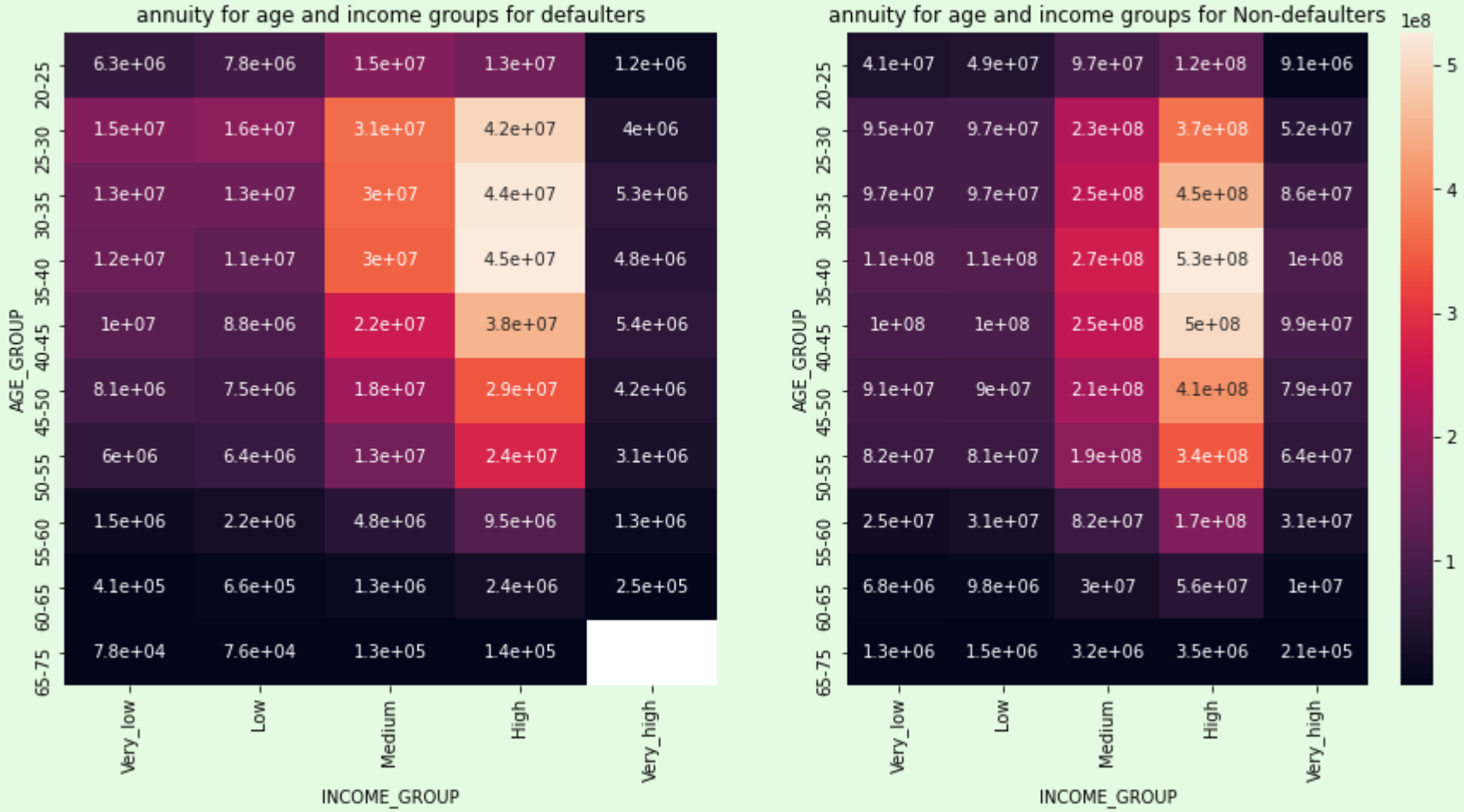




Inference:

people not owning a realty and owning car have higher amount of credit.

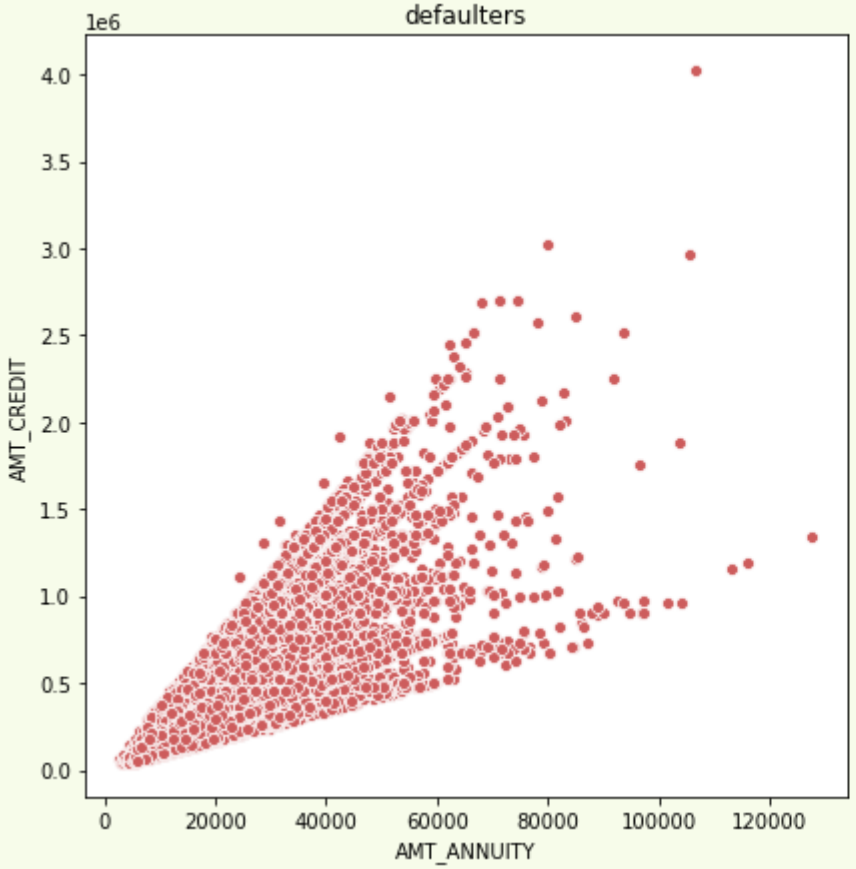
AMT ANNUITY

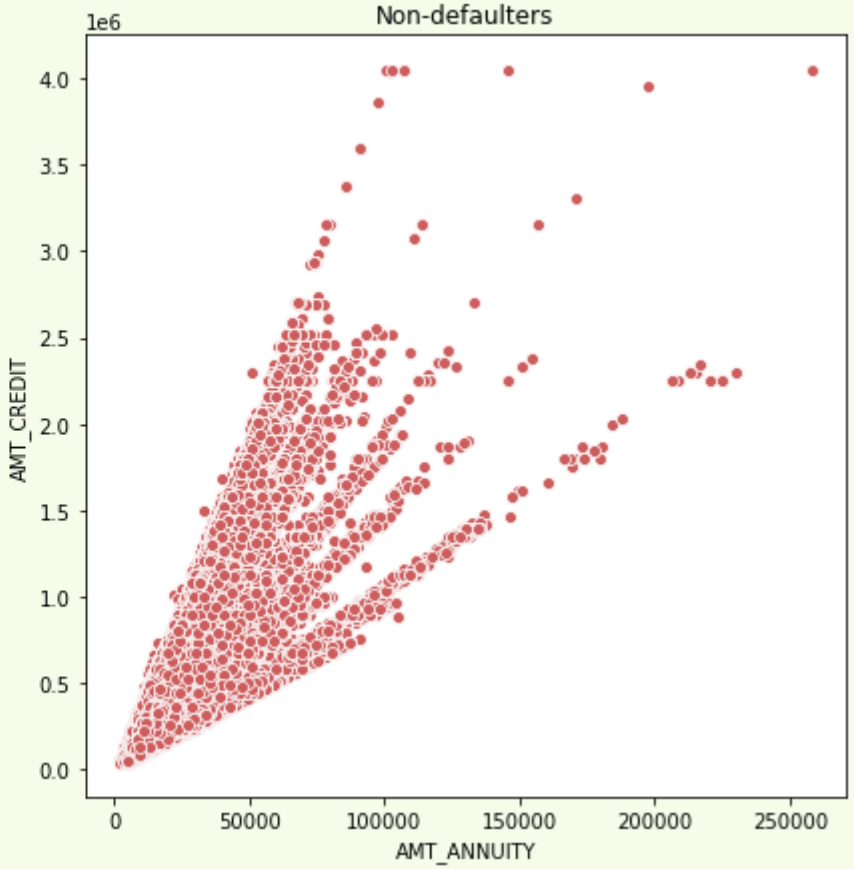


Inference:

people belonging to 25-35 age group and are in medium income group, having higher annuity are mostly defaulters.

AMT ANNUITY & AMT CREDIT

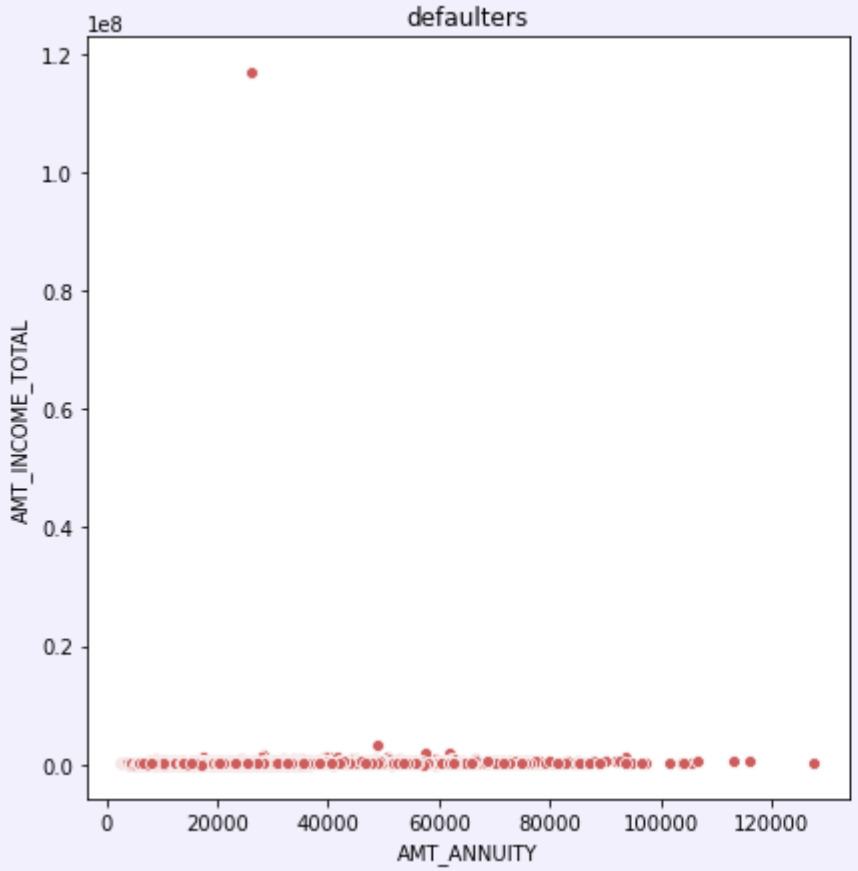


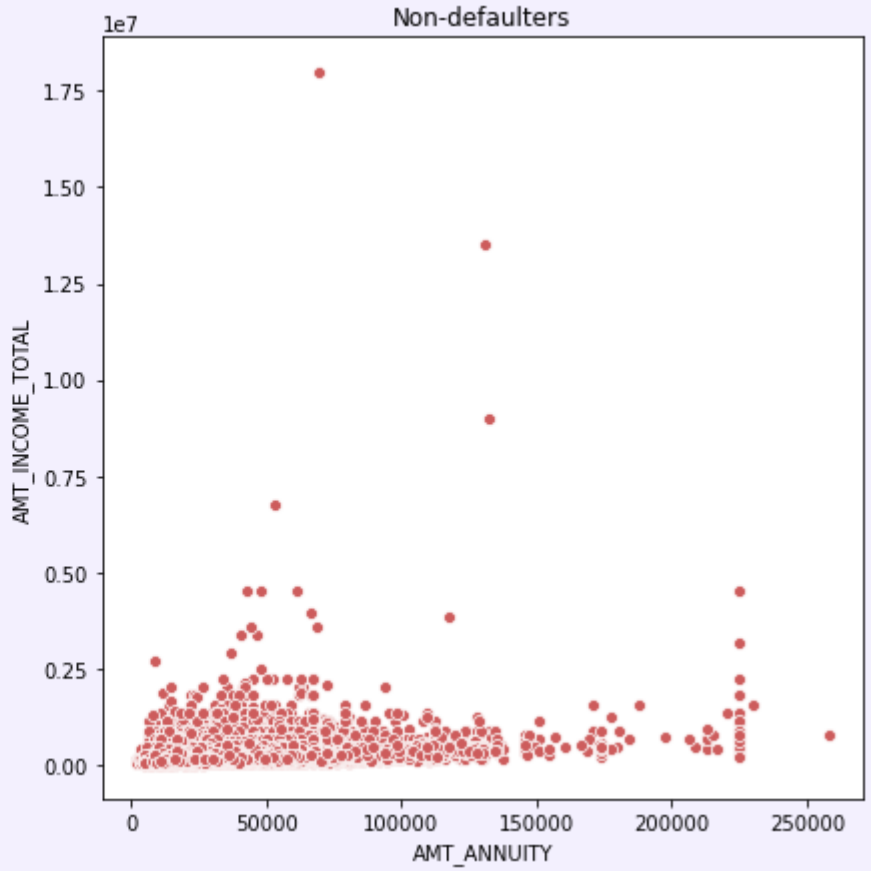


Inference:

amount of annuity increases with increase in amount of credit.

AMT ANNUITY & AMT INCOME TOTAL

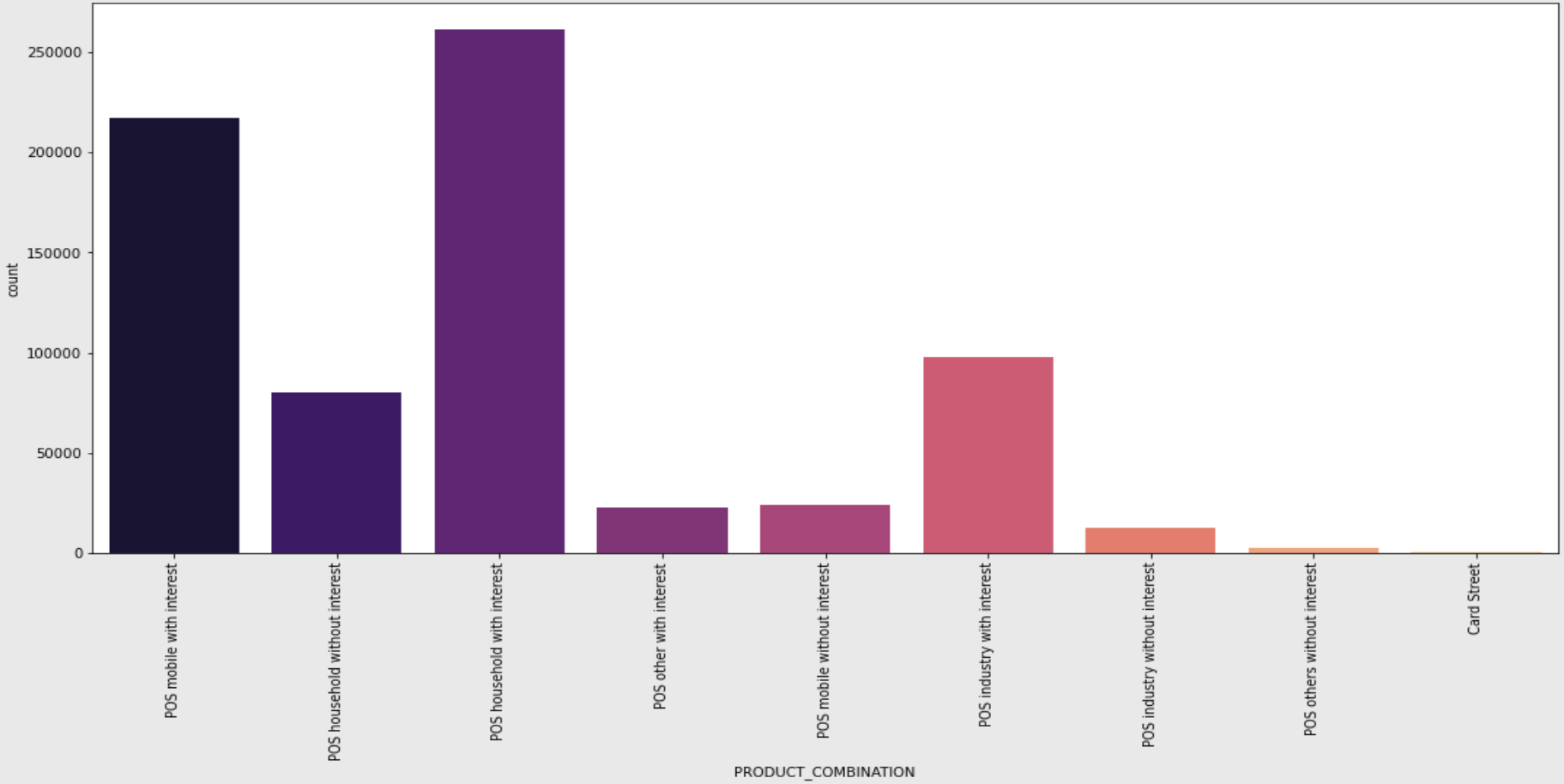




Inference:

amount of income total doesnt increase with amount of annuity, this can also state that due to lower levels of salary higher amount annuity could not be paid

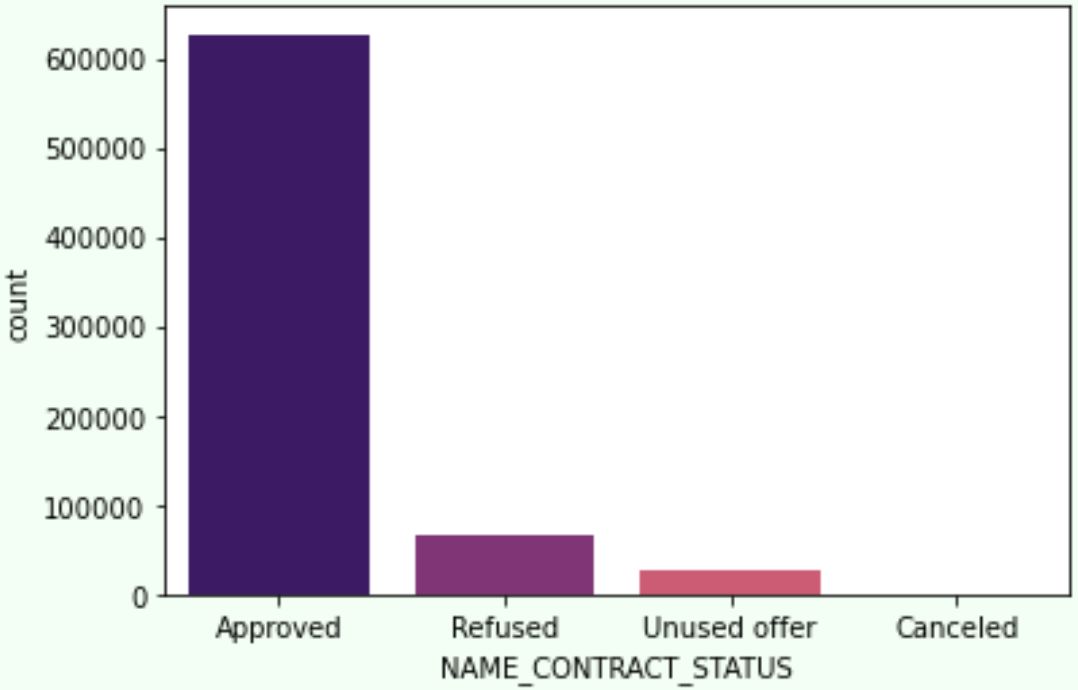
PRODUCT COMBINATION



Inference:

POS household with interest are higher in number, whilst card street are lesser in number

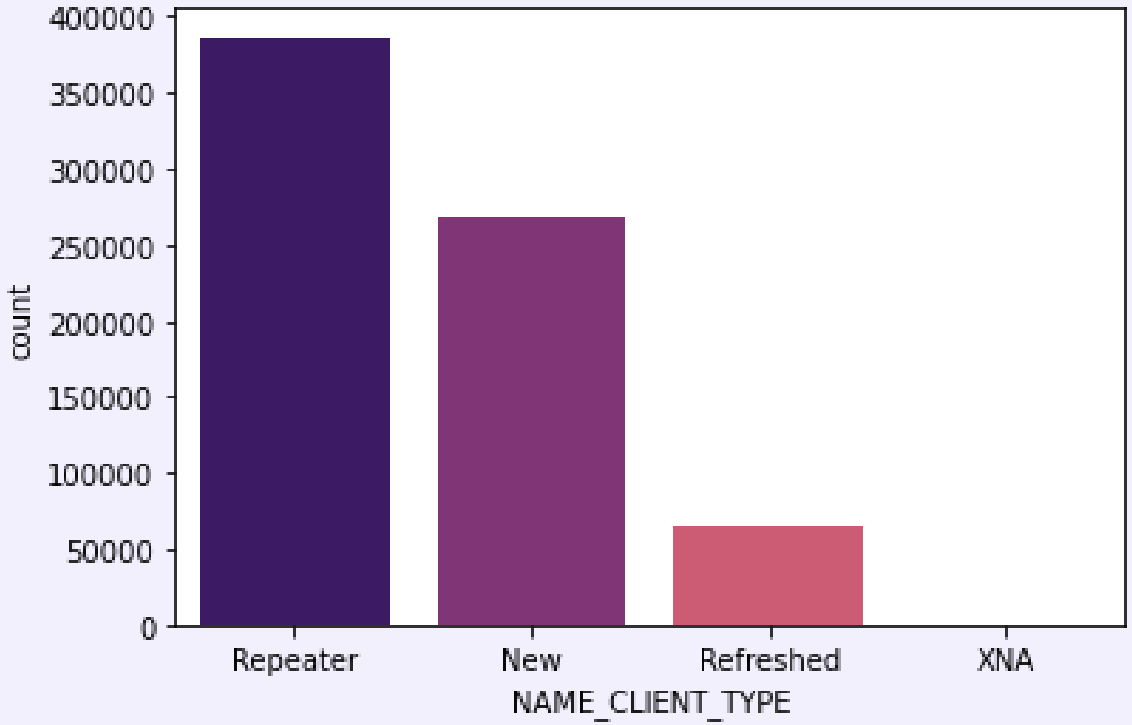
NAME CONTRACT STATUS



Inference:

this graph shows that most of the applications are being approved

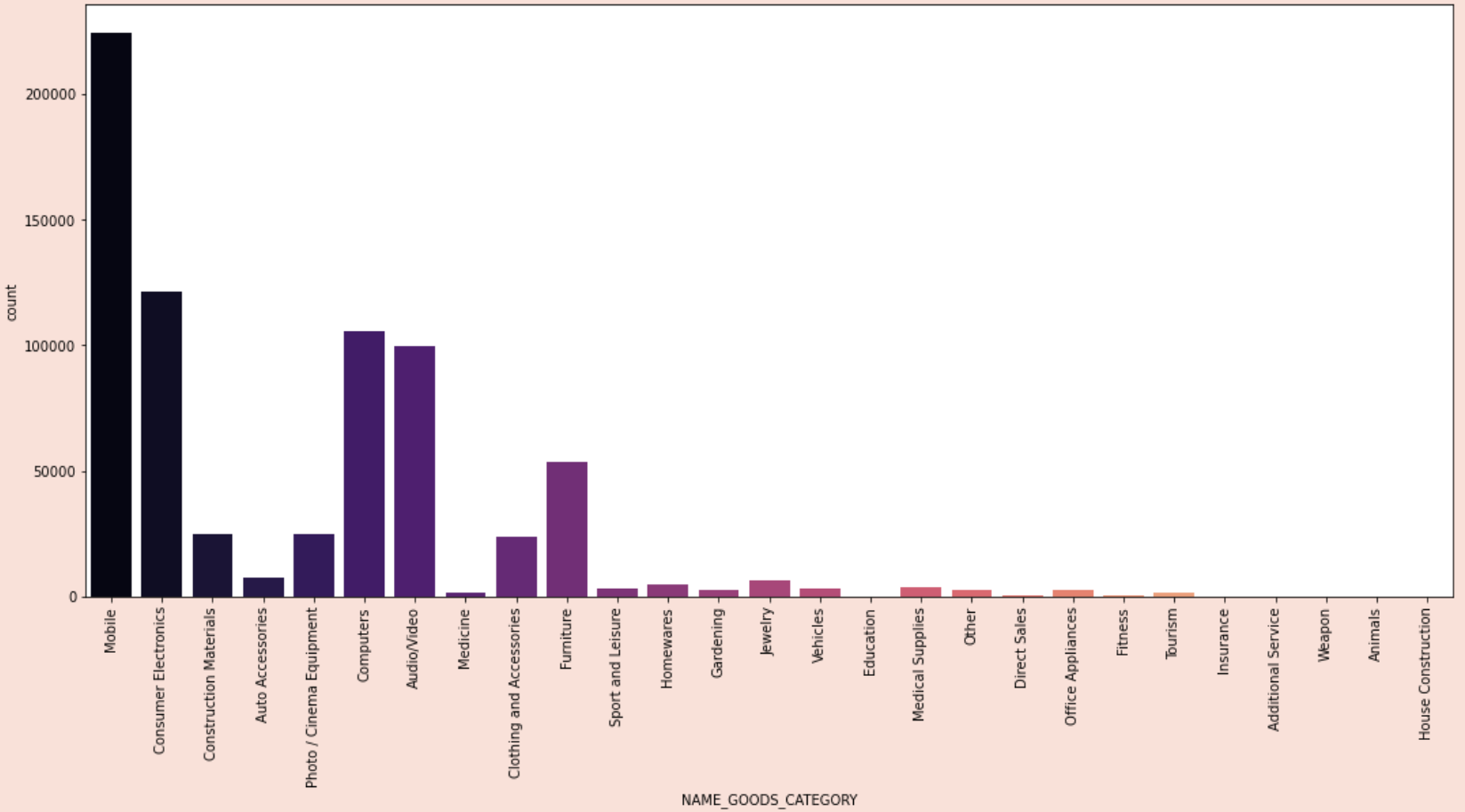
NAME CLIENT TYPE



Inference:

Repeaters are more in number,could be the case that the bank also is interested in giving loans for repeaters.

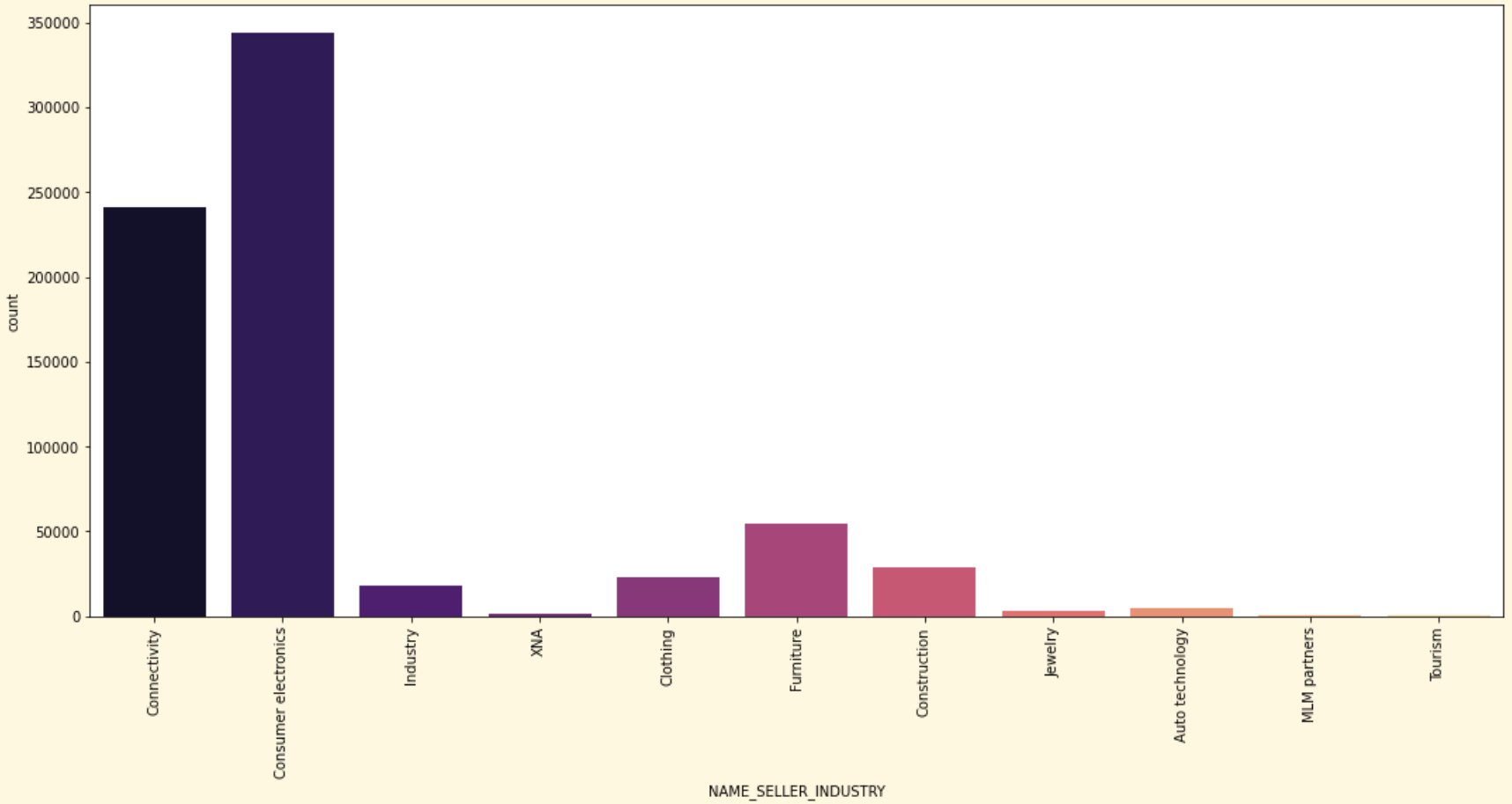
NAME GOODS CATEGORY



Inference:

electronics on genral is the most used category to apply for a loan

NAME SELLER INDUSTRY



Inference:

the consumer electronics category have higher counts, while tourism have the lowest counts

POINTS TO CONCLUDE

1. The ratio of non-defaulters to defaulters seems to be 1:10
2. Ladies tend to take loans more than the Gents, especially ladies from education type Secondary/secondary special
3. The Business entity type 1 is tending to take more loans that other business categories. The second most common category to take loan is self employed
4. Business type tend to pay more annuity and prefer revolving loans
5. People who has rented apartment tend to take more loans among the other housing type category
6. Education type Secondary/secondary special tend to have more income and also take more loans
7. Married and single people tend to take more loans
8. People who already own a property tend to take more loans. Maybe the banks are inclined to provide them loans without much hassles since they have a property to count on if they become defaulters
9. Business people tend to take only revolving loans and they are good enough to pay them back too in general
10. People generally tend to take loans for electronics and banks also approve them

CONCLUSION

- Banks can extend lending revolving loans to business type and self-employed as they pay more annuity.
- Banks can also focus on lending people owning a property in general.
- Banks needs to be precise on lending loans to single/not married people who are also owning cars
- Banks can grant people belonging to secondary education type as they earn a higher income

Thank you