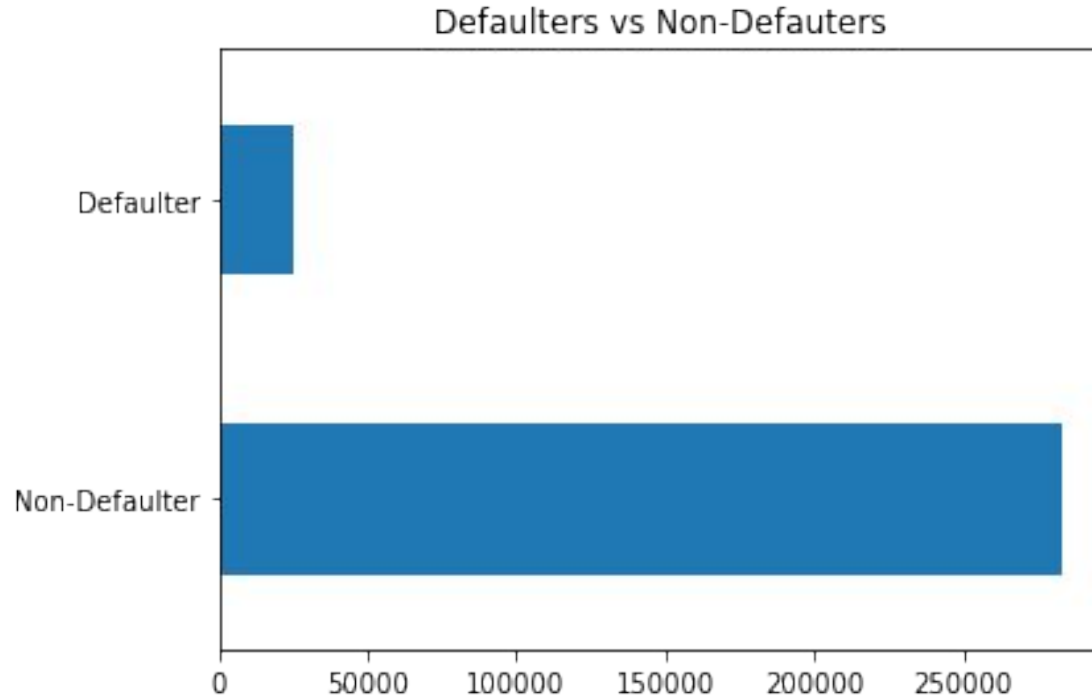# EDA CREDIT ASSIGNMENT

By Dhruv Gangwani
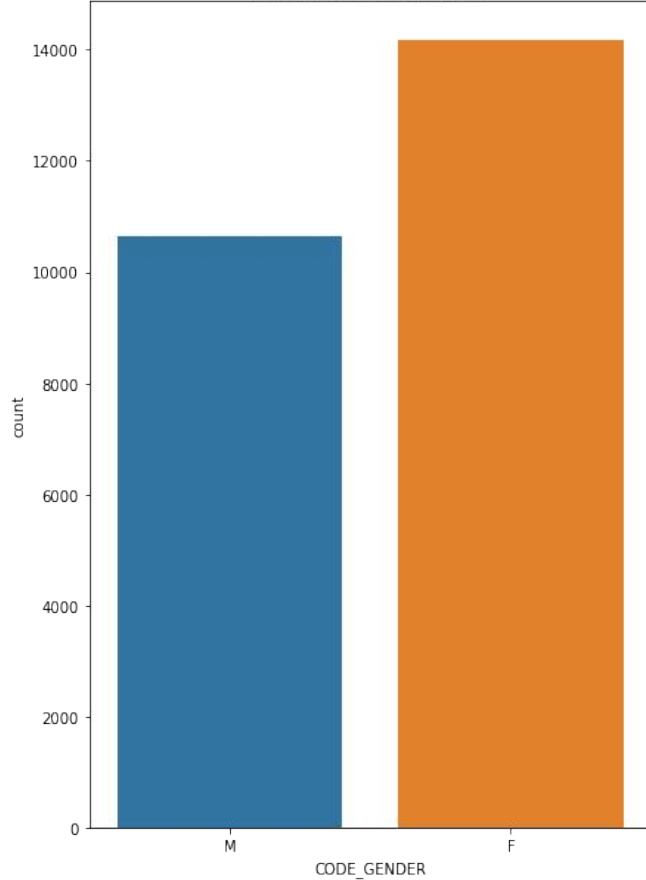
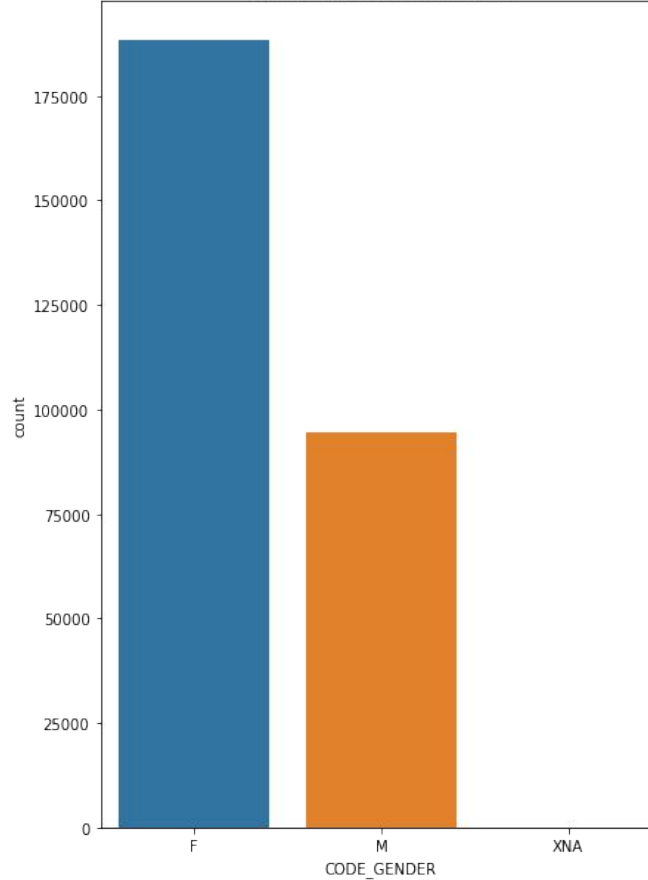# Check the balance b/w defaulters and non-defaulters

as seen from the bar-graph, the number of defaulters as compared to non-defaulters in only around 10 percent. but, each defaulter costs banks a lot of money that's why this analysis is very necessary.

Gender Type

### gender Type of Defaulters

Gender Type of Non-Defaulters

The above made graph shows that the females are higher defaulters as well as non-defaulters. That can be because there's a higher number of females as compared to males. But there's a clear difference in the number of males in defaulters and non defaulters. The males are more likely to default than females.

Ownership of a Car
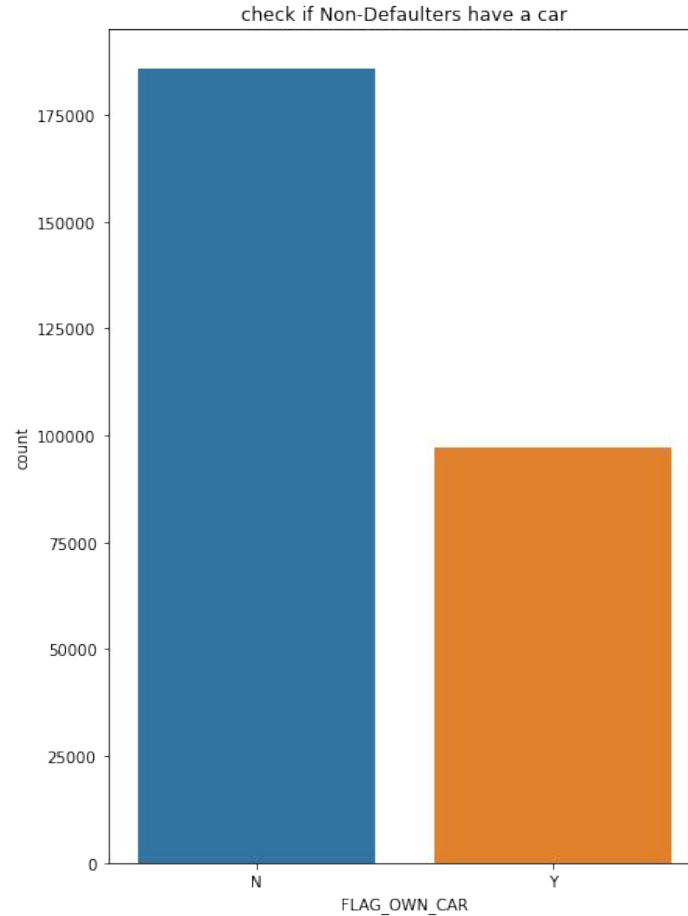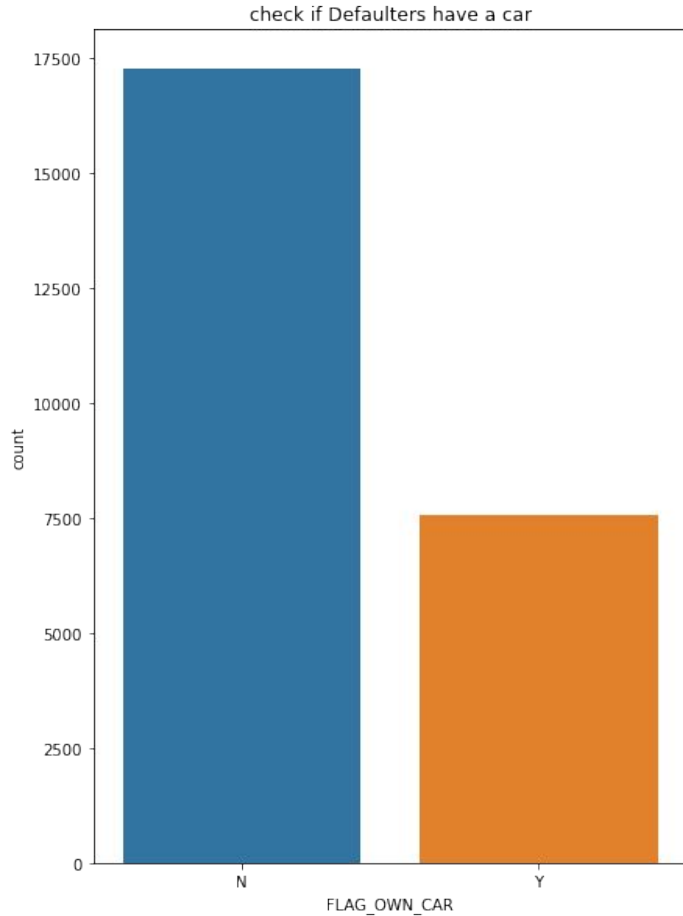
the above graph shows that the number of clients having the car and not having the car is almost same in both the dataframes, though the number of clients having a car is higher in non-defaulters. Of course at such an early stage it's impossible to tell if that's a co-incidence or a fact that can be considered

Ownership of Realty

check if Defaulters have a house/flat

check if Non-Defaulters have a house/flat
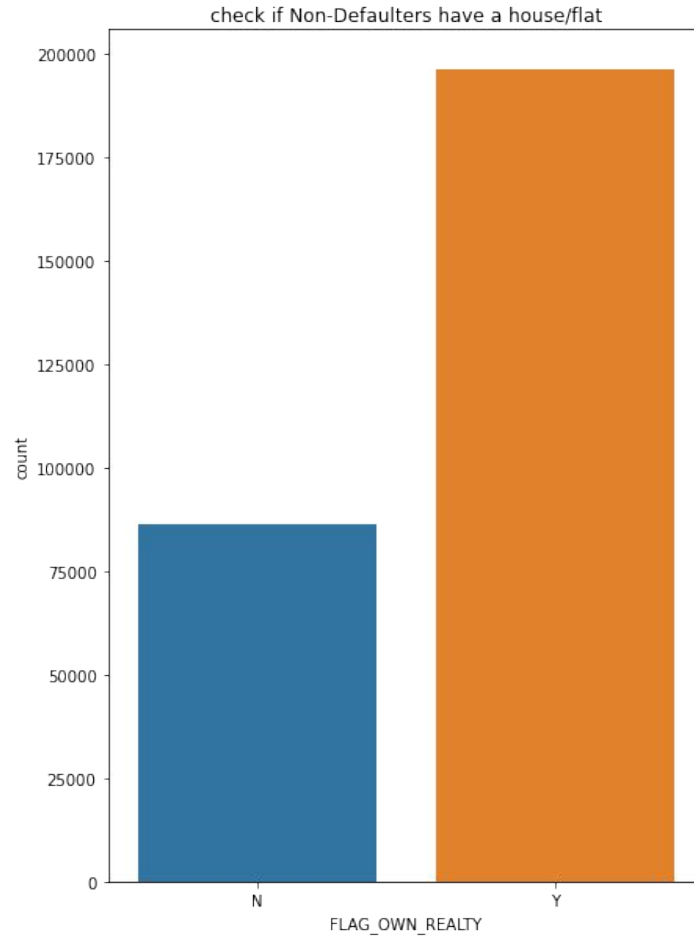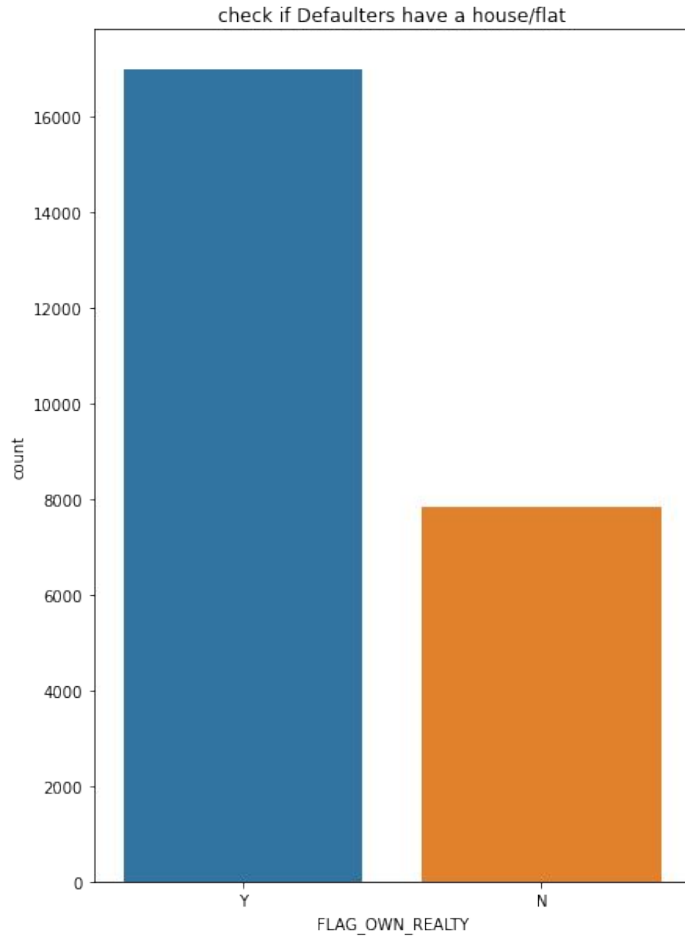
the above graph shows that the number of clients having a house/flat and not having a house/flat is almost same in both the dataframes, though the number of clients not having a flat is slightly higher in defaulters. Of course at such an early stage it's impossible to tell if that's a co-incidence or a fact that can be considered

Source of Income
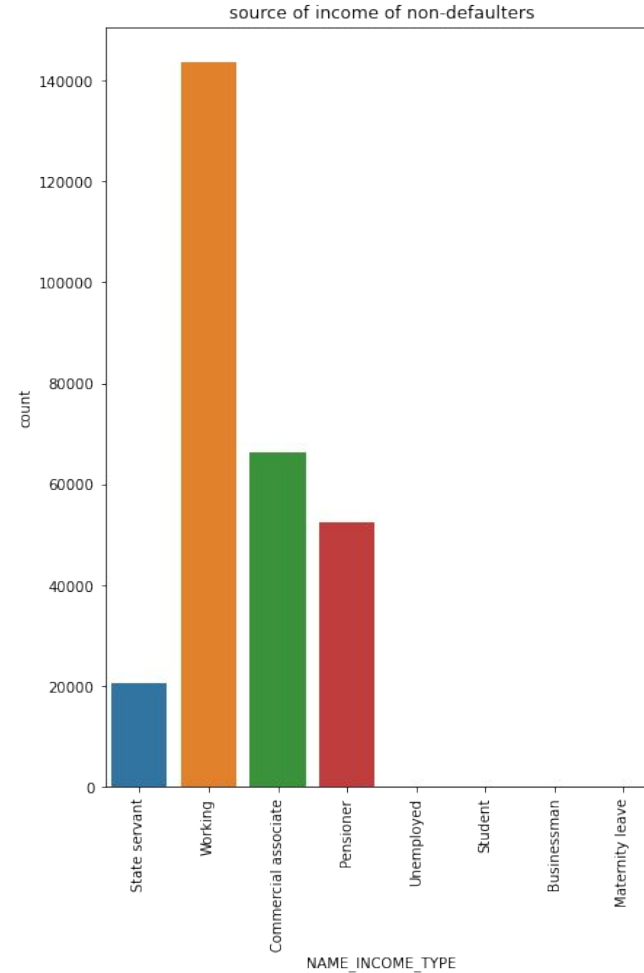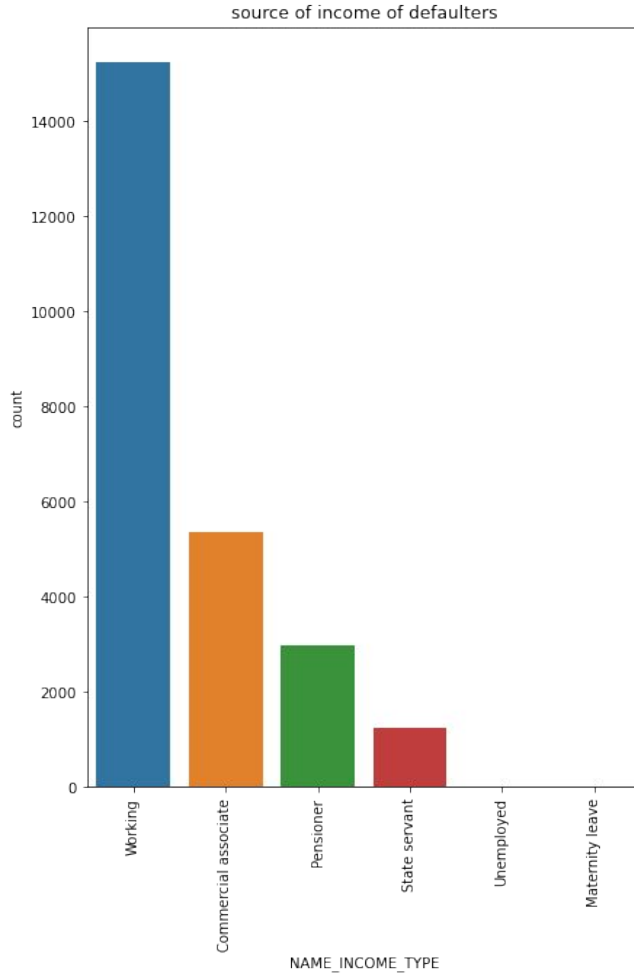
the difference in various categories in this graph is quite clear. It is fairly clear that the working people just as likely to default as they are to pay back the loan. Compared to them, Pensioners, Commercial Associates and State servants are a lot less likely to default the loan. Also important to note is that there's not a single instant of Businessman or student of defaulting a loan in the sample. So, the bank would be better of to lend money to students, businessmen, pensioners, and commercial associates since the possess the least risk of defaulting

Education Type

education of defaulters

education of non-defaulters
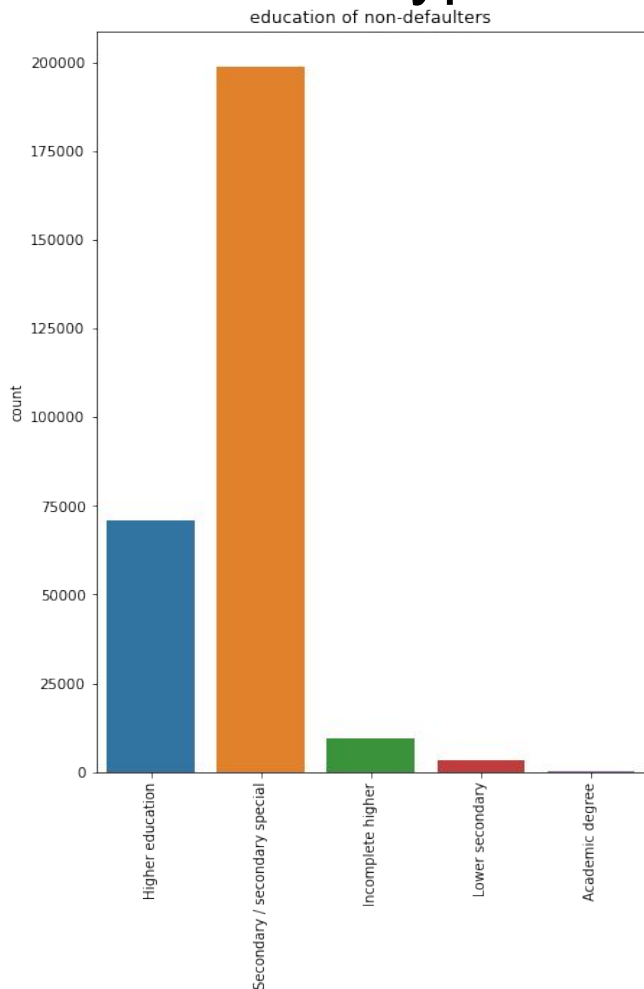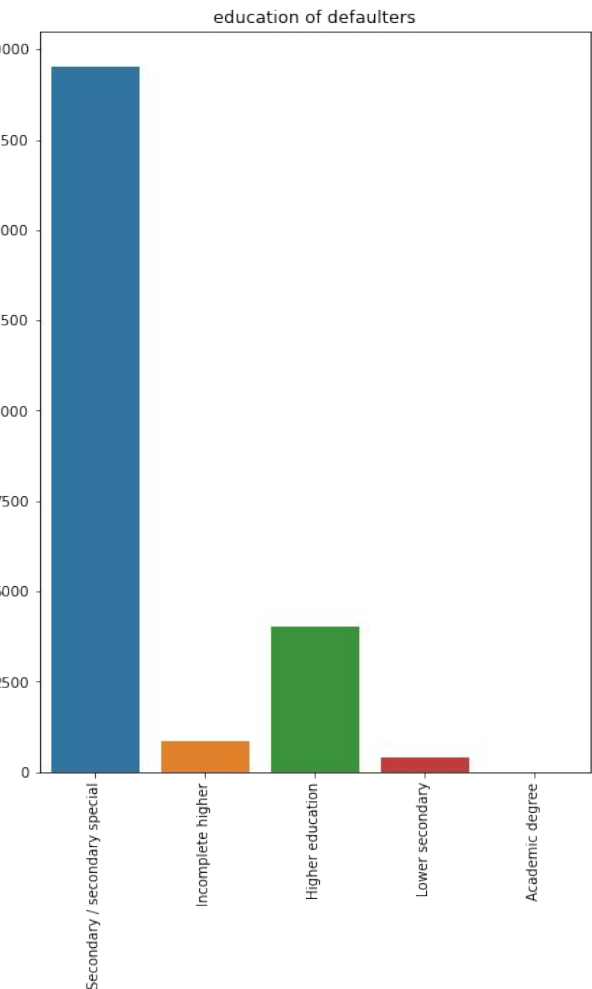
The graph shows that the people with higher education are less likely to default than those who don't have higher education. The people with Secondary/Secondary Special are just as likely to default as they are to pay back the loan. The graph of those with lower education is slightly higher in the defaulter table than the non-defaulter table but the difference is so less that it cannot be conclusive

Family Status

family status of defaulters

family status of non-defaulters
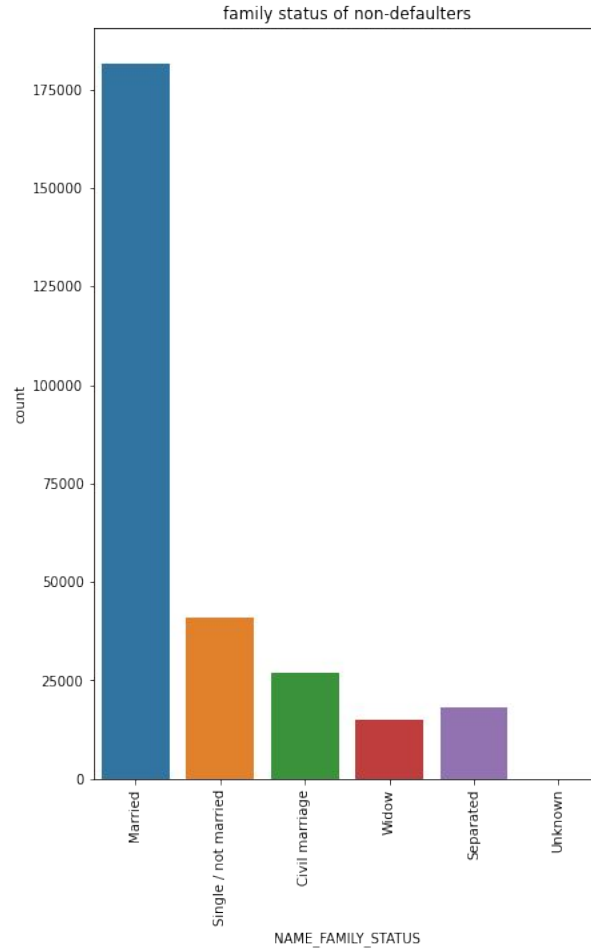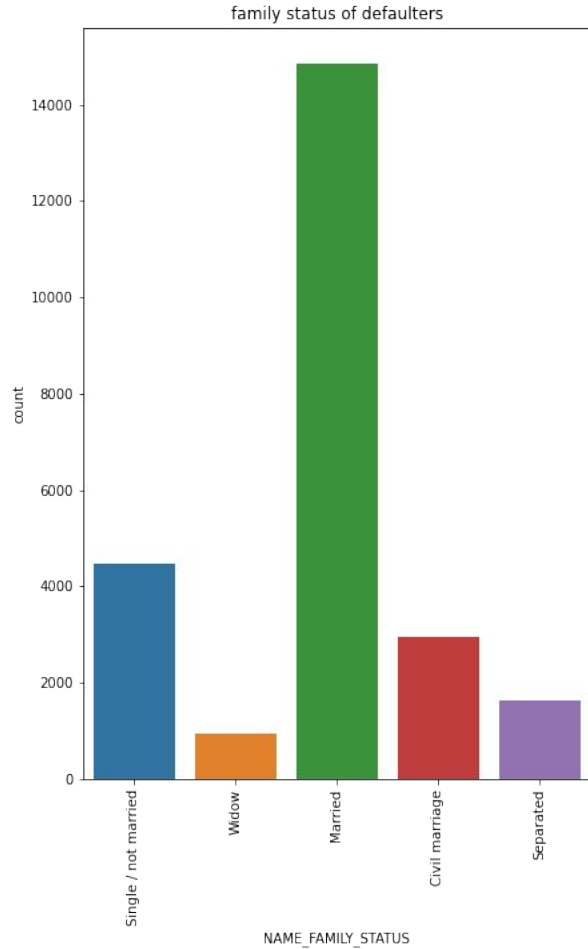
The graph shows that the single/not married people and those in a civil marriage higher in the graph of defaulters while widows are higher in the non-defaulters graph

Housing Type

house type of defaulters

house type of non-defaulters
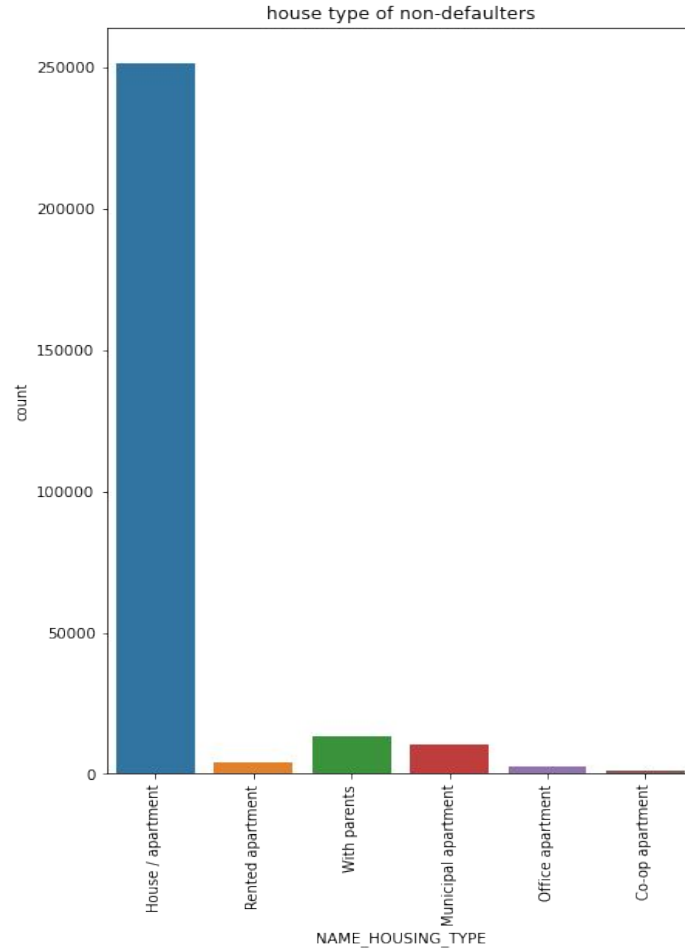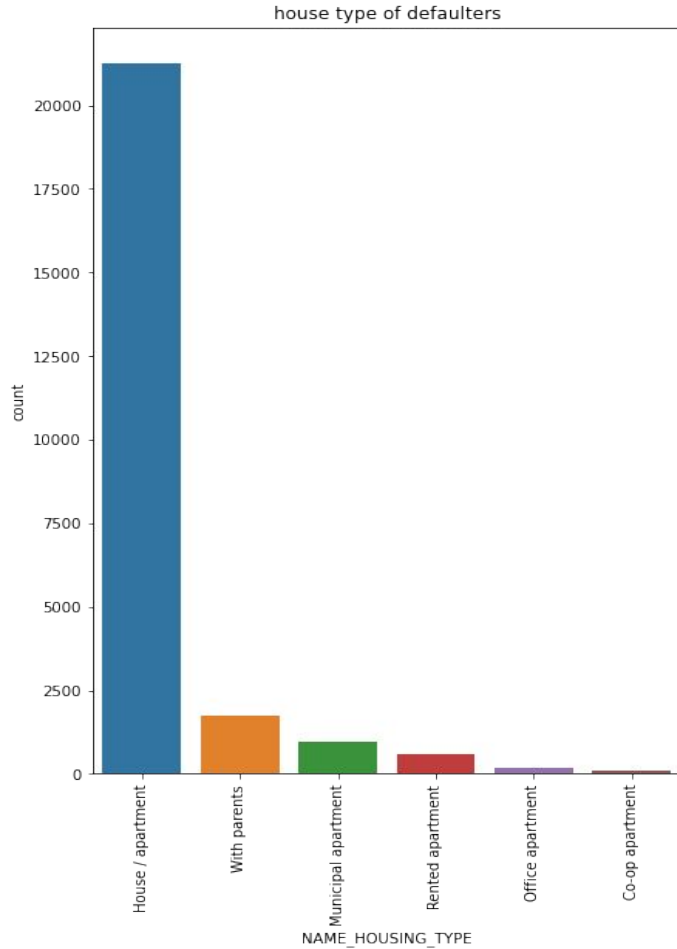
The graph shows that those who live with parents or in rented apartments are more likely to default.

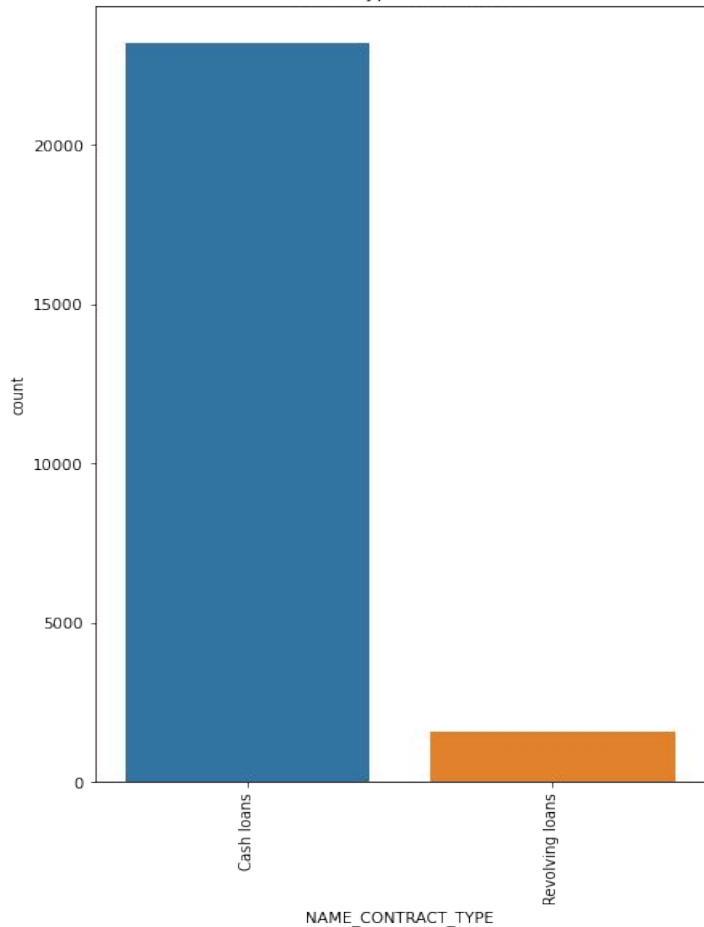# Occupation Type
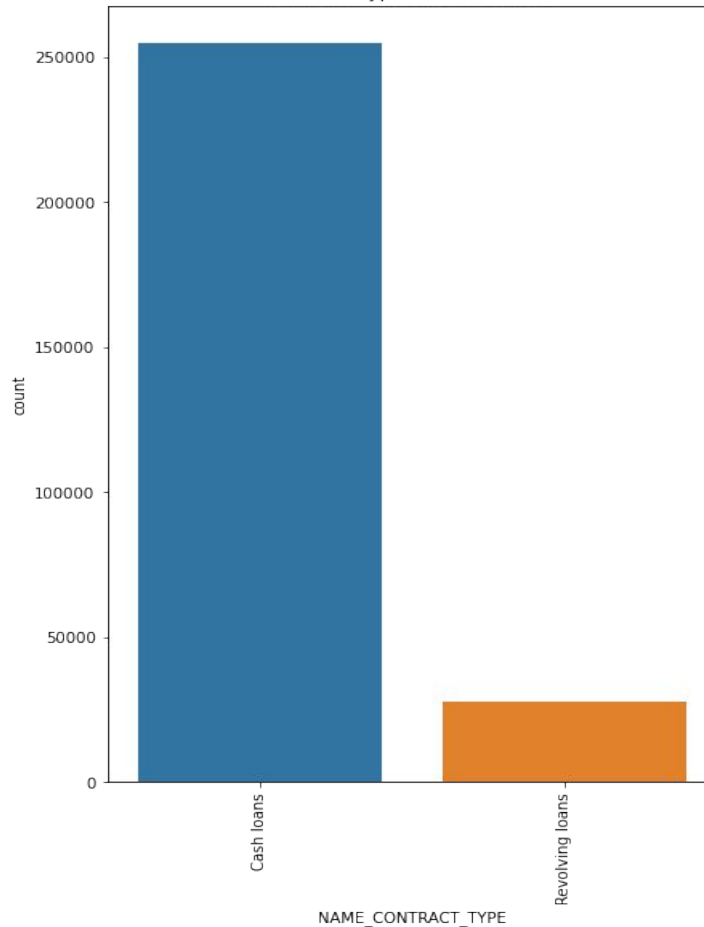

occupation type of defaulters

occupation type of non-defaulters
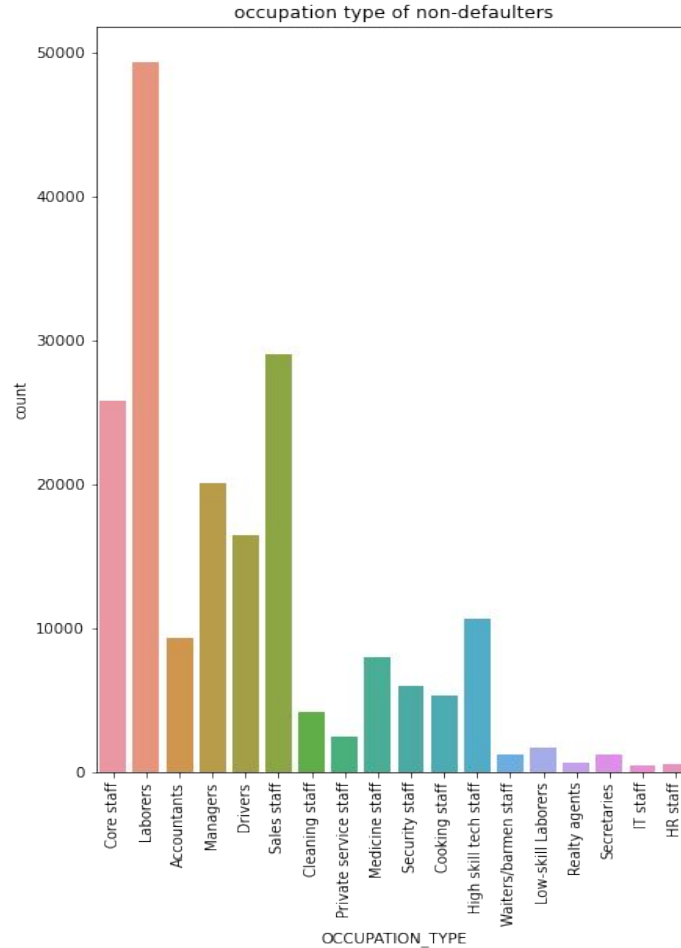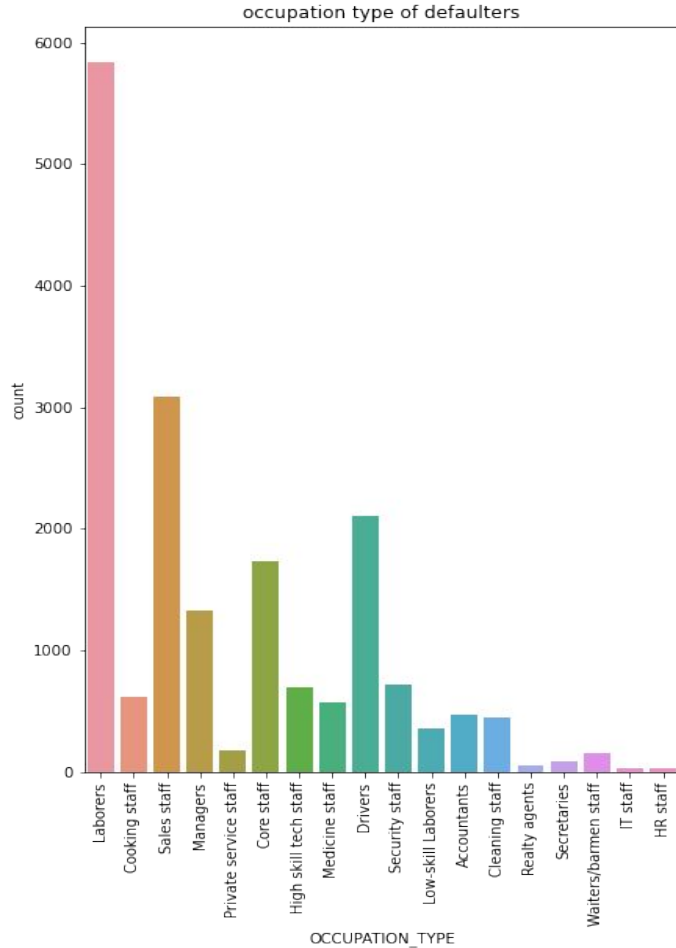
Sales staff, service staff, managers and core staff are more likely to pay back the loans than other types.

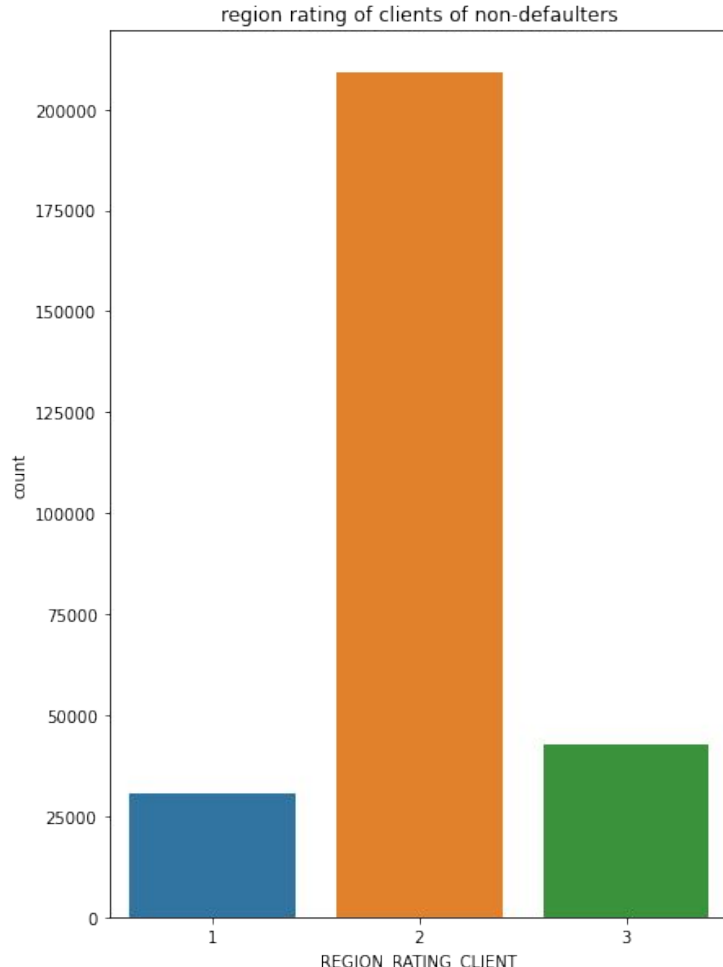# Contract Type

The graph shows that the people with revolving loans are more likely to pay them back

Regional Rating of Clients
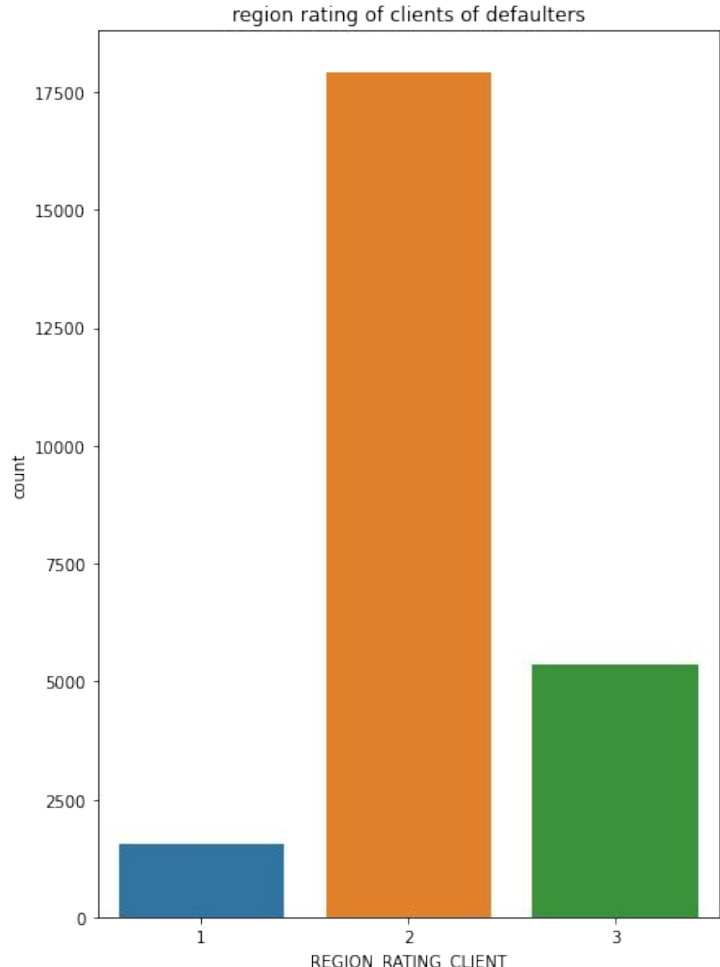
region rating of clients of defaulters

region rating of clients of non-defaulters

people with the region rating of 1 are higher in non-defaulters and people with region rating of 3 are higher in defaulters

Age Group
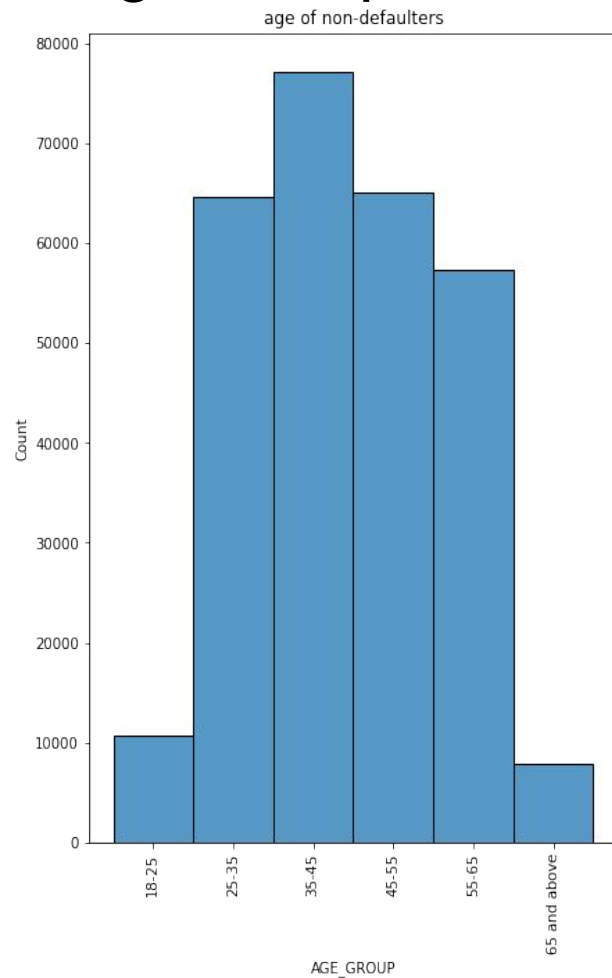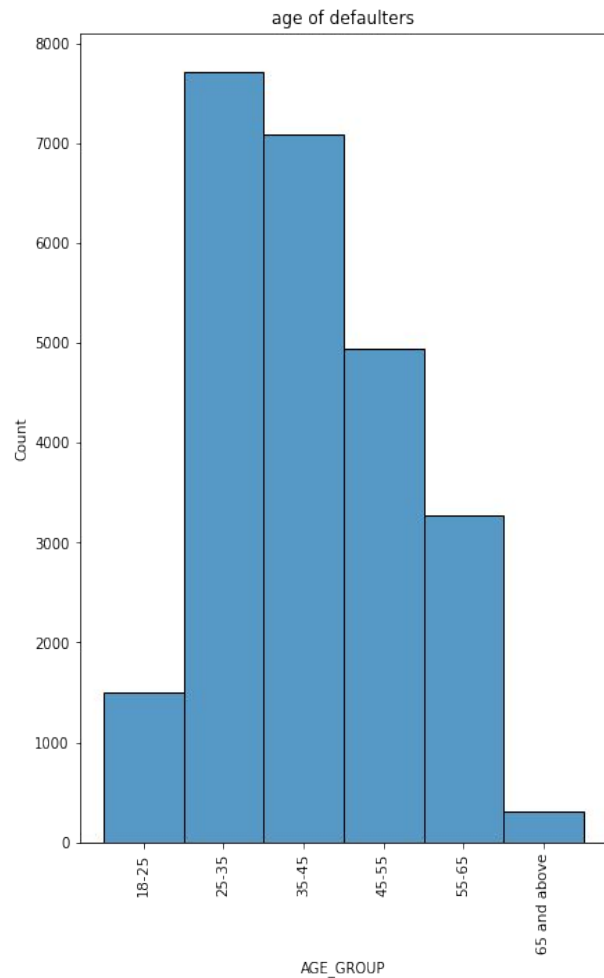
The graph shows that the people older than 35 are more likely to return the loans than those younger.

Contract Status
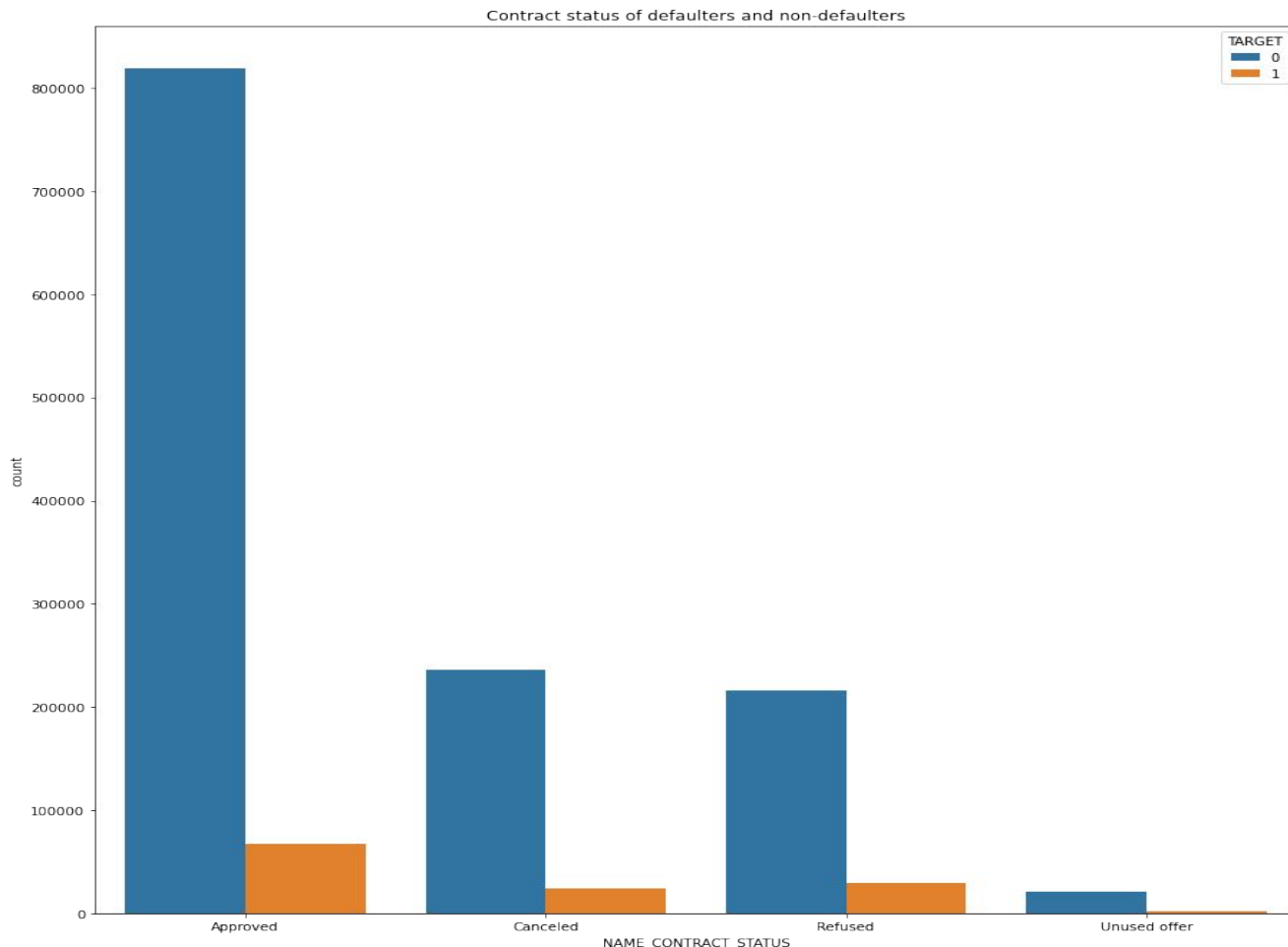
People who's previous offers were unused are least likely to default while those who's previous loans were approved are more likely to default. But they cannot be discarded because they are also the ones with the highest return percentage

Client Type

client type of defaulters and non-defaulters
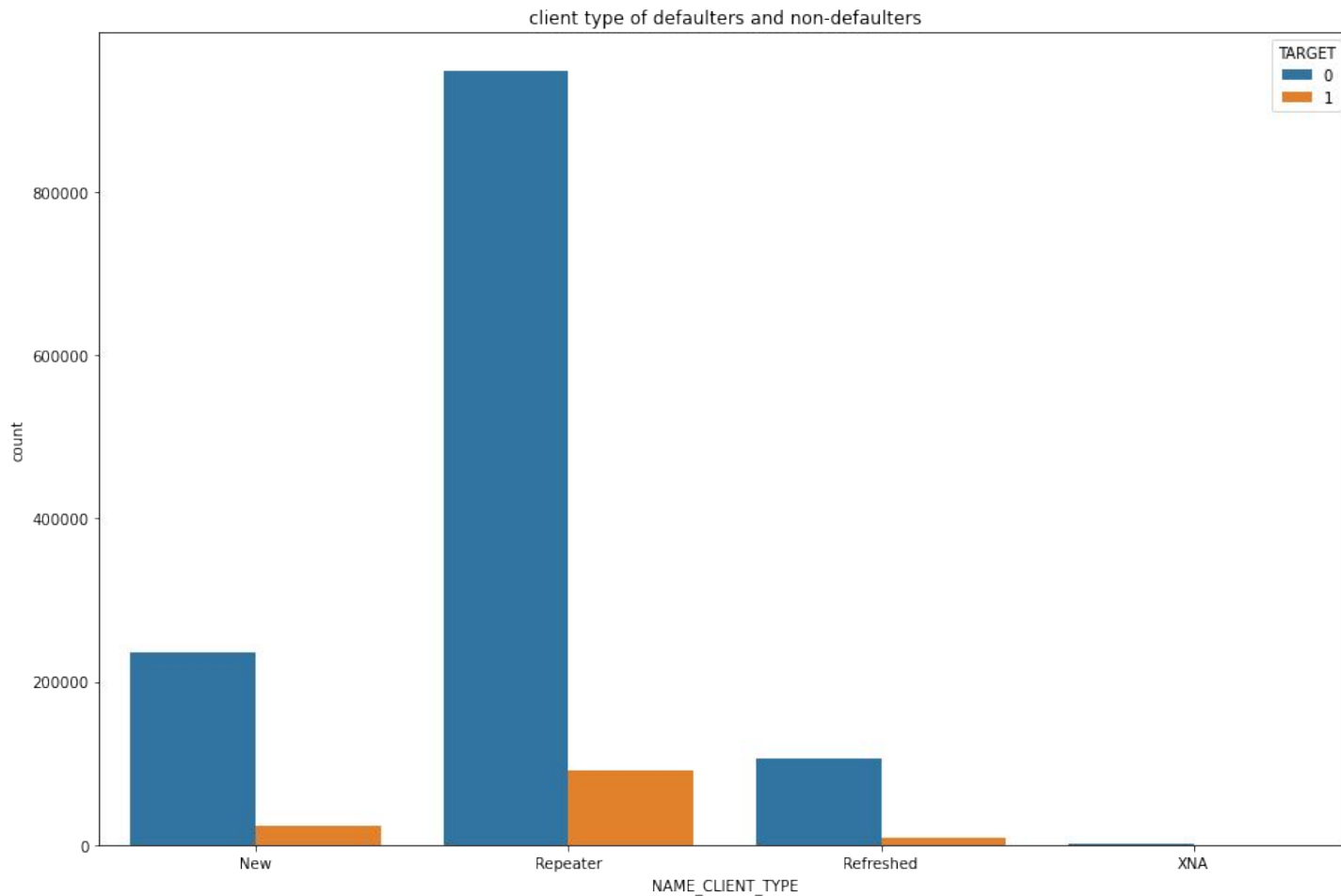
The new and refreshed clients are least likely to default while repeater are more likely to default. But since repeaters are the highest percentage of non-defaulters also, we cannot discard them

Conclusion

- The Bank should lend more to females than males as they are less likely to default the payments
- The bank should focus more on Businessmen and students as they never default and also on pensioners and commercial associates as they have less number of defaults.
- The bank should give priority to people with higher education
- The bank should avoid giving loans to single/unmarried people
- The bank should avoid giving loans to those who live with parents or in a rented apartment
- Banks should give priority to Sales staff, service staff, managers and core staff.
- The bank should give priority to those who take revolving loans instead of cash loans
- people with the region rating of 1 are higher in non-defaulters and people with region rating of 3 are higher in defaulters
- The banks should prefer people of age 35 and above to give loans as they are more likely to pay them back
- Bank should prefer those people who's previous offers were unused as they have a higher chance of paying them back
- The bank should prefer new and refreshed clients since they have the least numbers of defaults in their payments