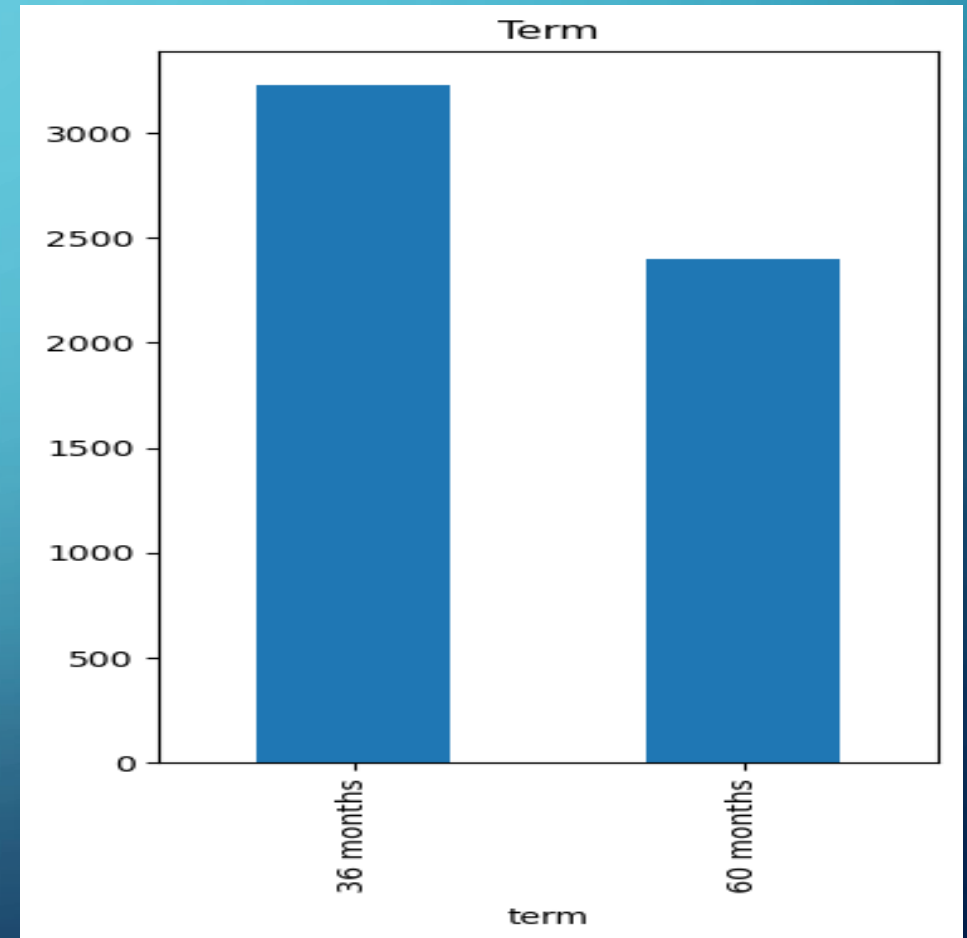


A decorative graphic on the left side of the slide, consisting of a network of white lines and small circles on a blue gradient background, resembling a circuit board or data flow diagram.

LOAN DEFAULTERS CASE STUDY

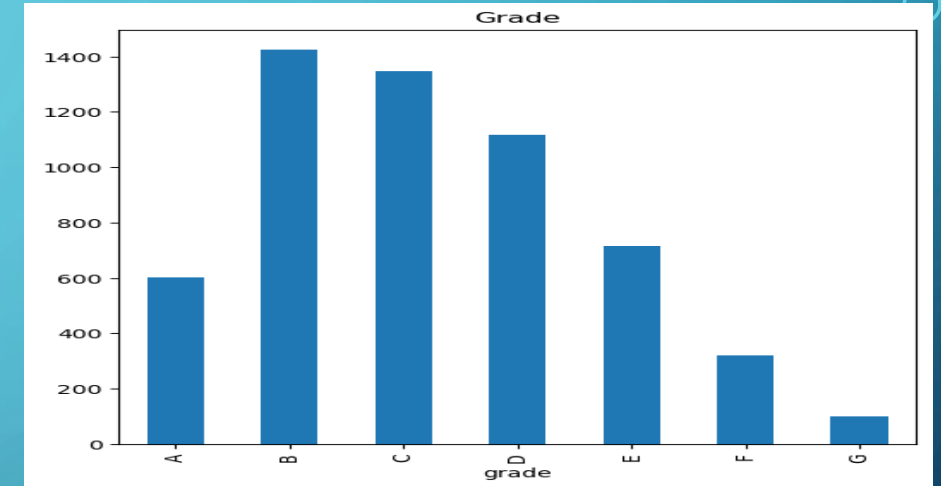
Categorical Univariate analysis

There are more number of defaulters with **36 months** as Term of loan



Categorical Univariate analysis

There are more number of defaulters with grade as **B**.

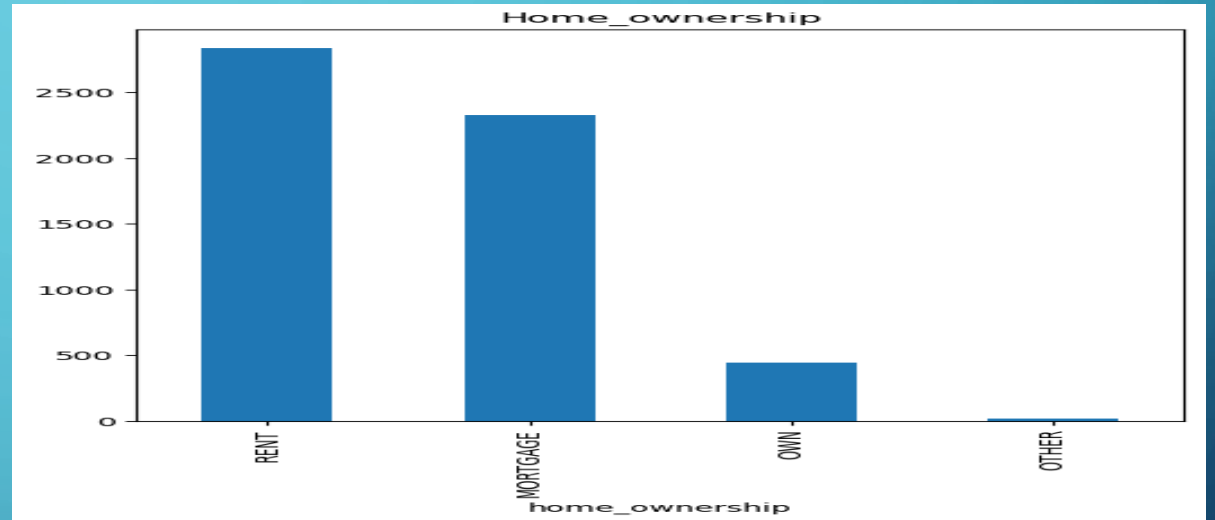


There are more defaulters with **10+ years of experience**

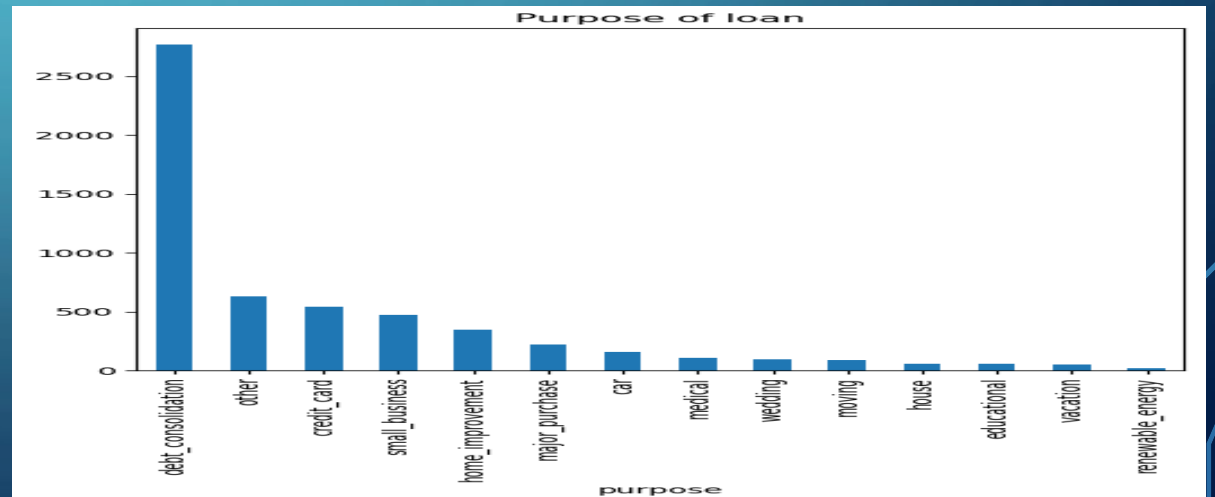


Categorical Univariate analysis

There are more number of defaulters with home_ownership as '**Rent**'.

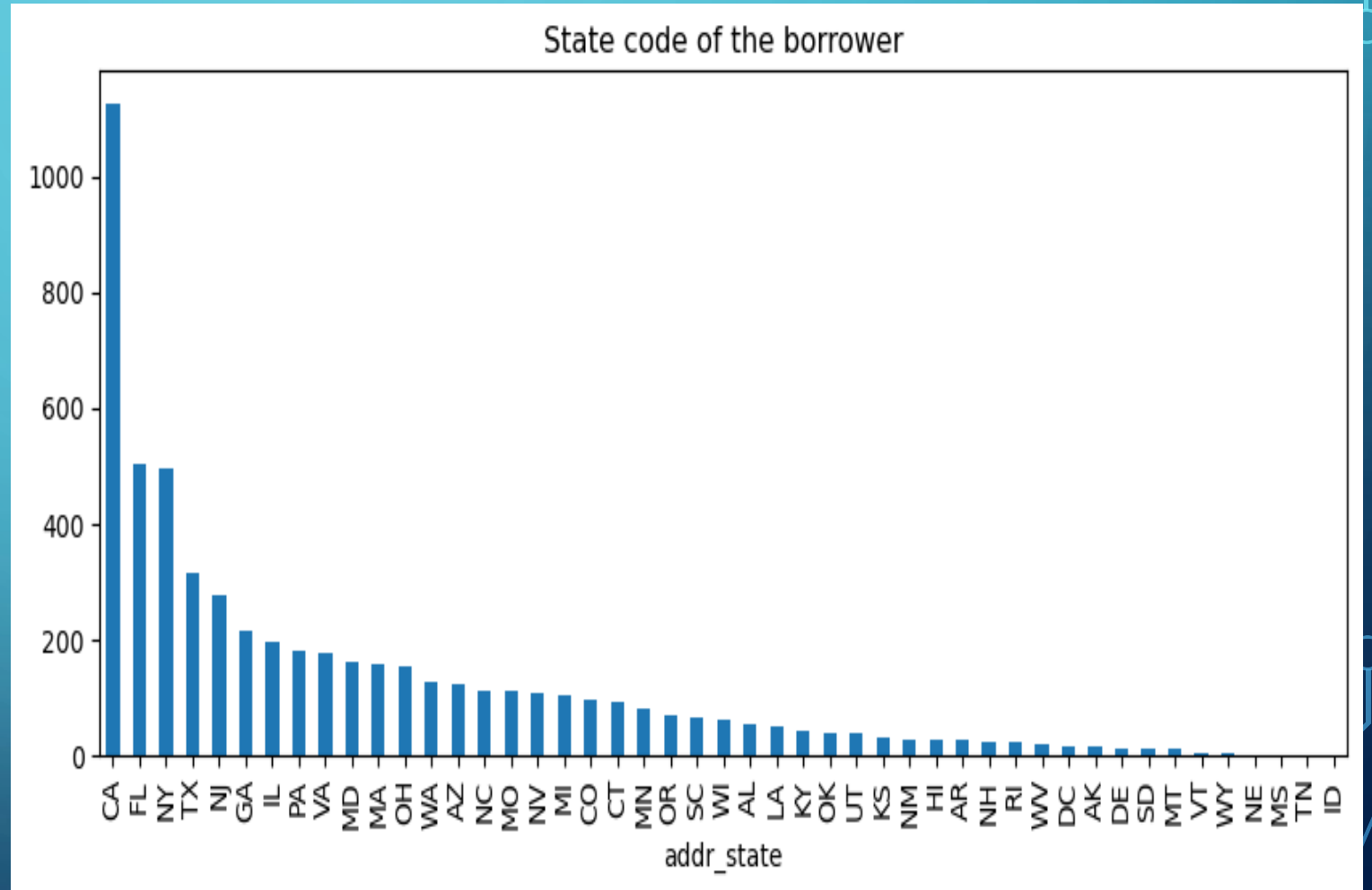


There are more defaulters with '**debt consolidation**' as a purpose.



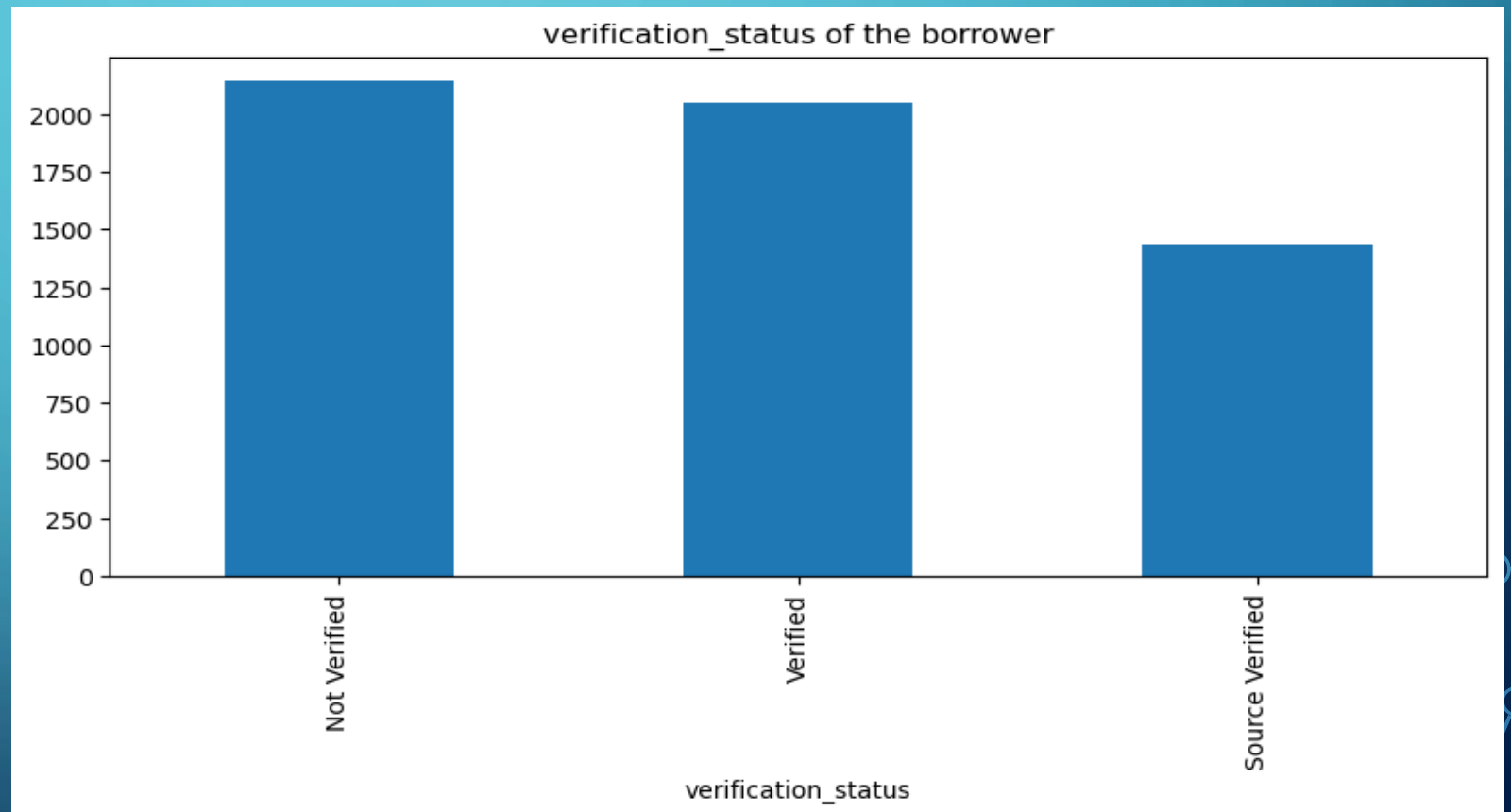
Categorical Univariate analysis

More defaulters are from the state with `addr_state` as CA.

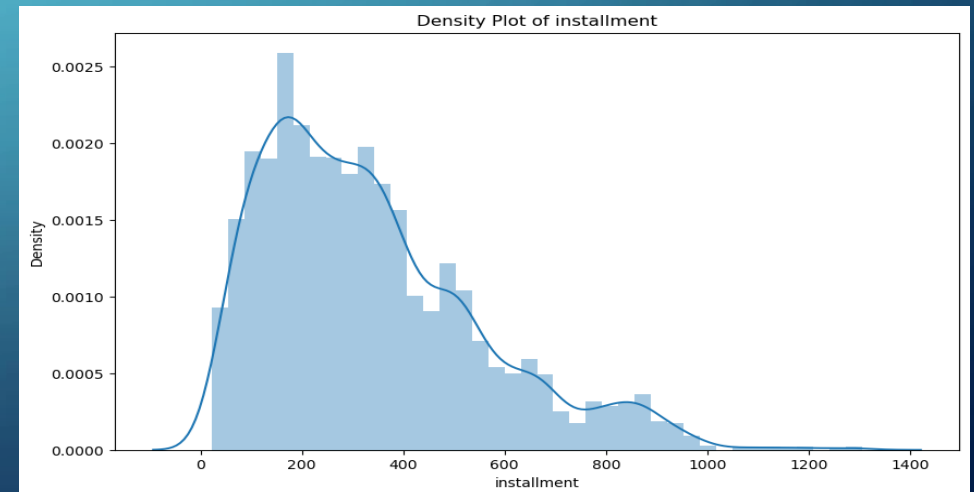
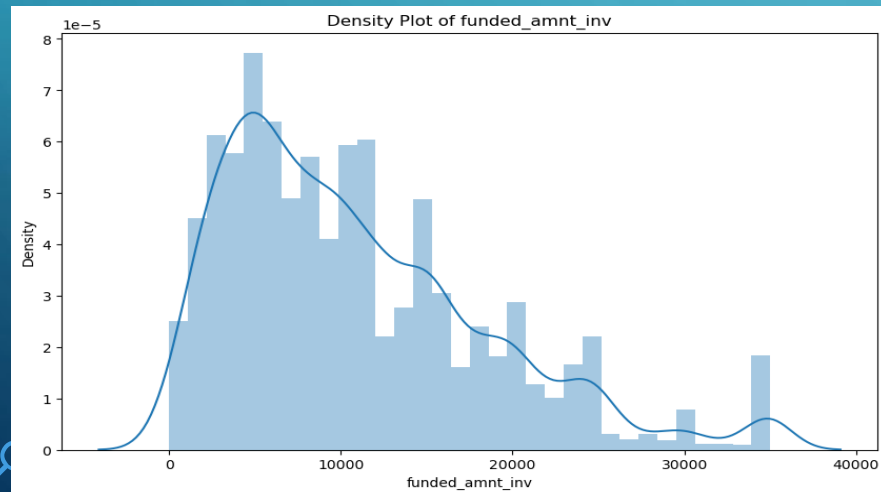
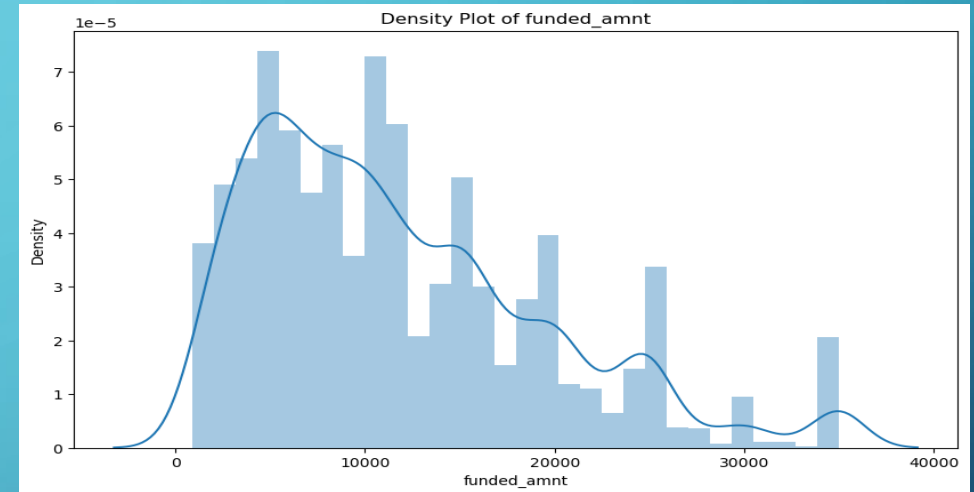
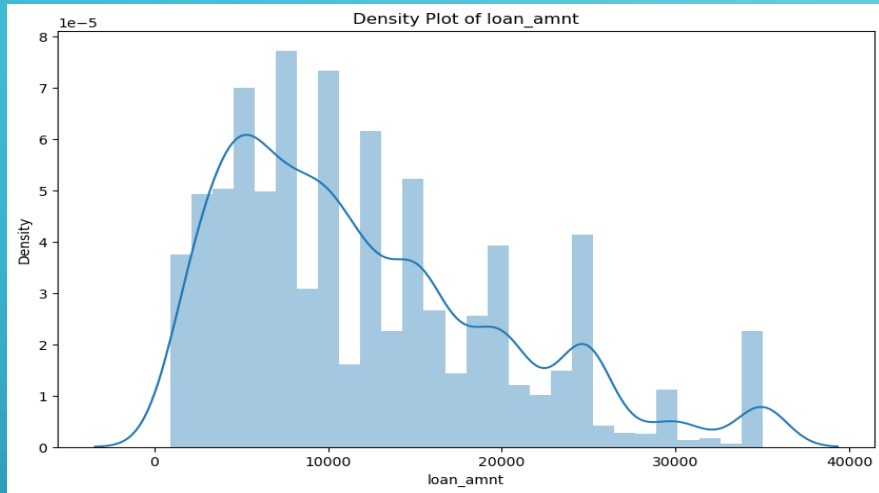


Categorical Univariate analysis

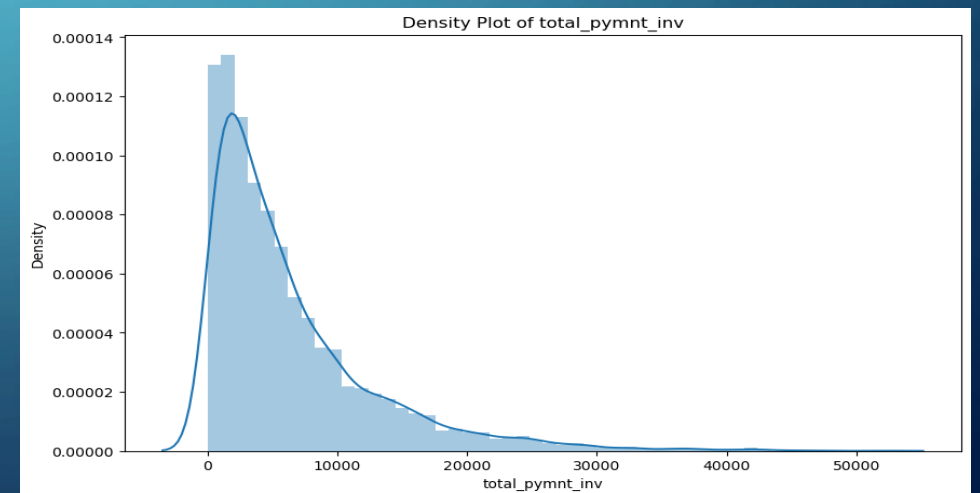
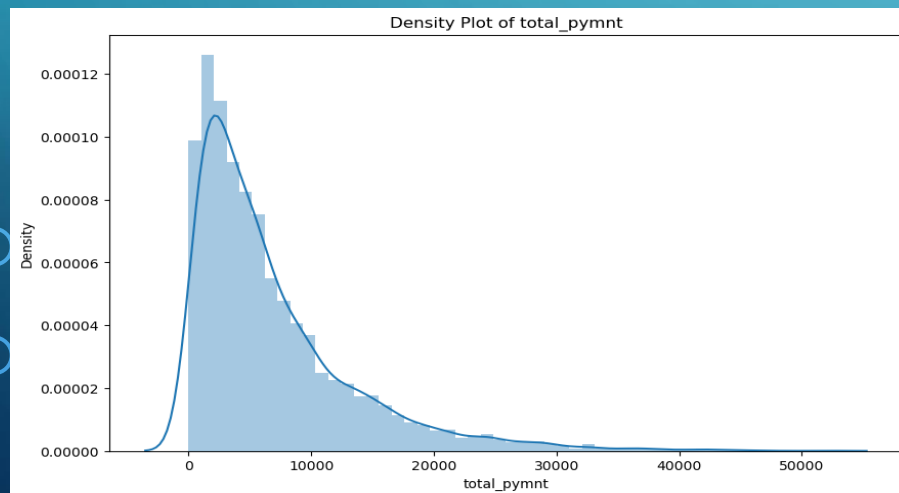
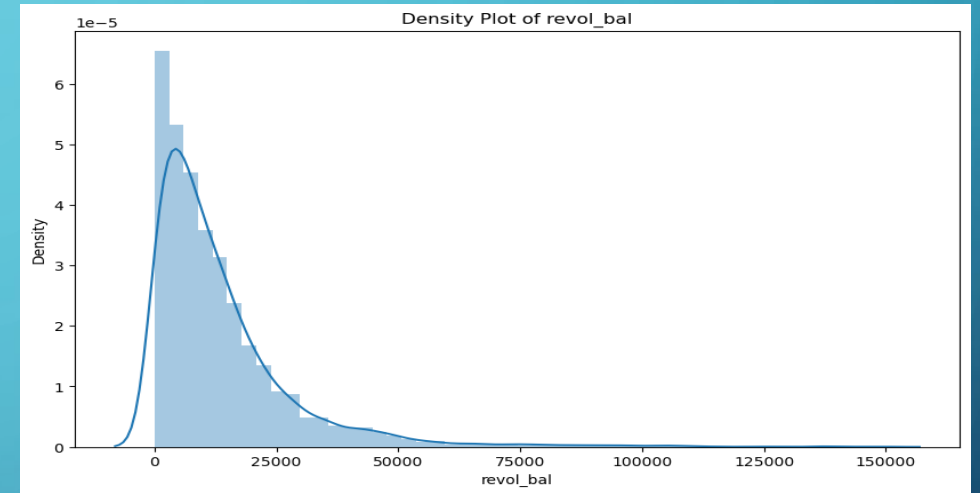
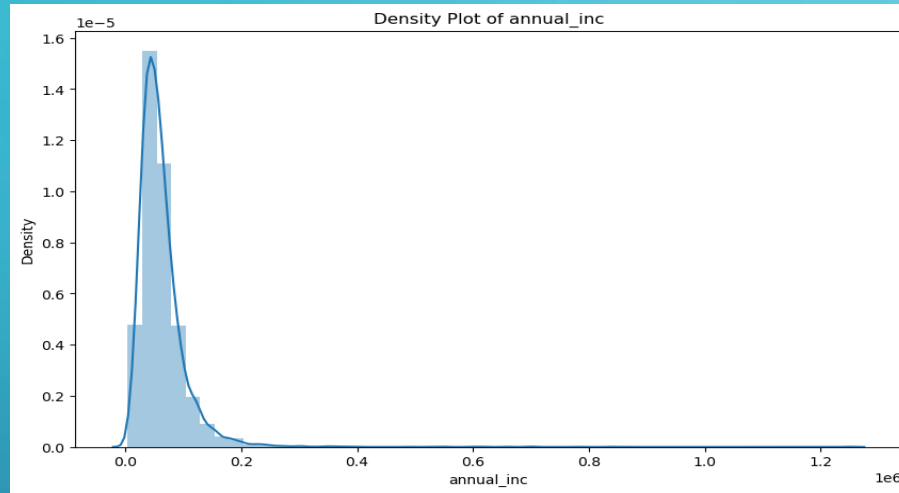
More defaulters are with
verification_status as **Not
Verified**.



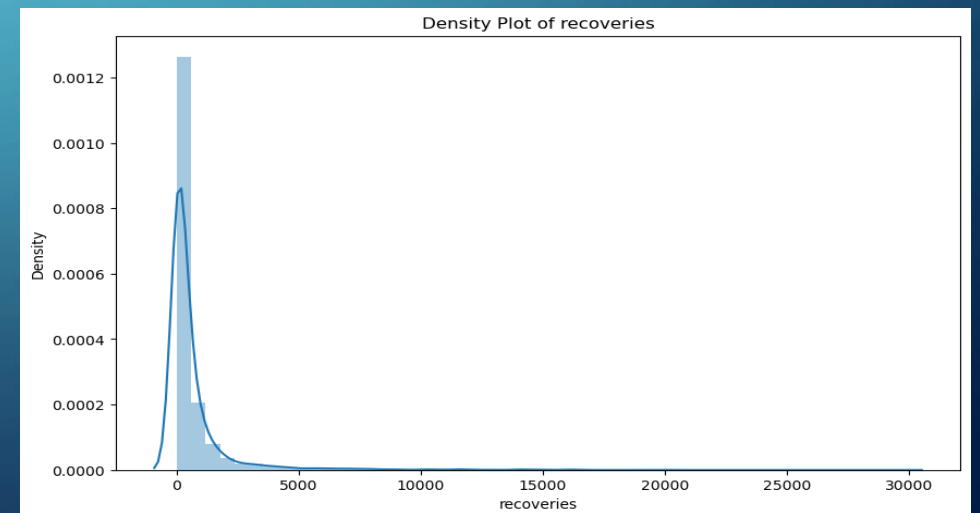
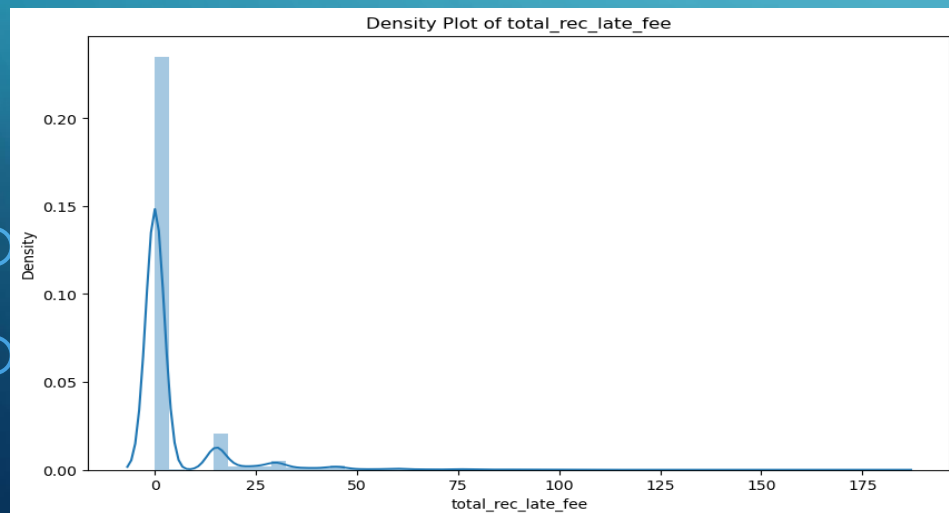
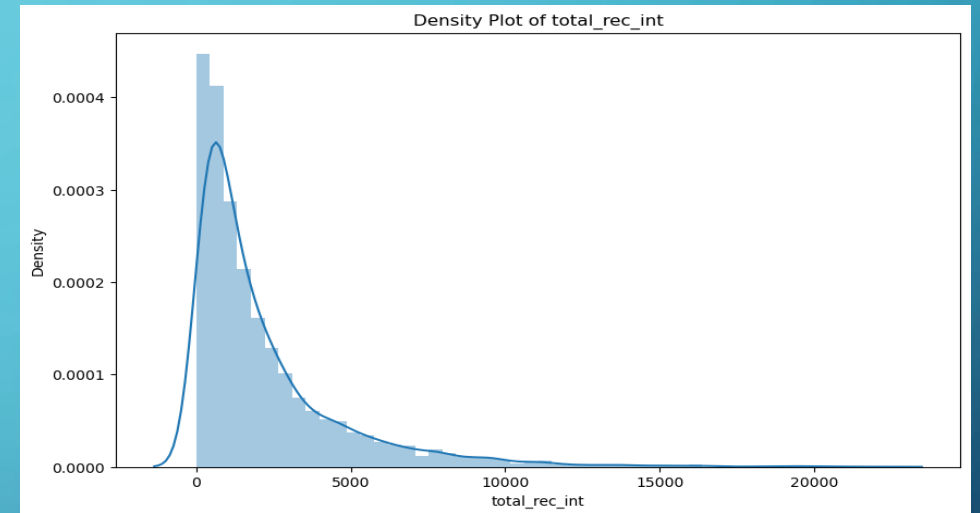
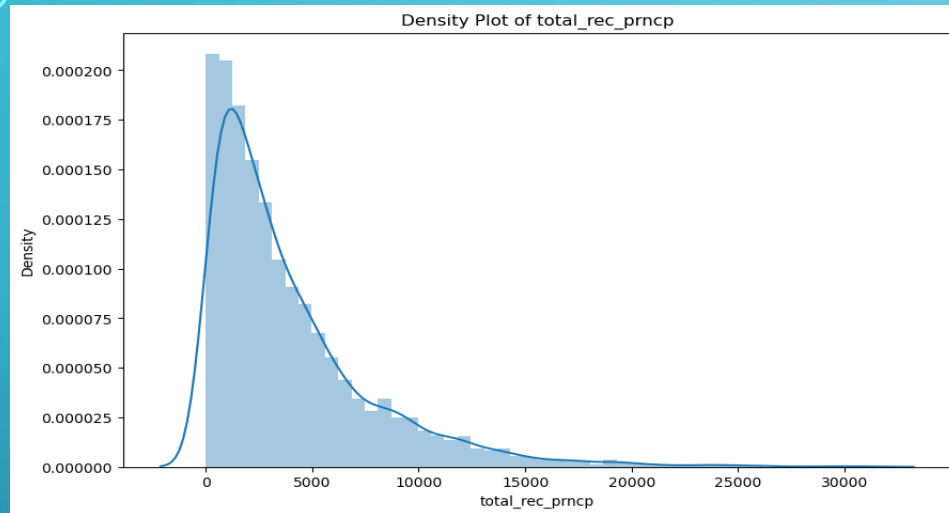
Univariate analysis on Continuous variables



Univariate analysis on Continuous variables



Univariate analysis on Continuous variables



Most density of loan amount is more around 5000

There are more number of people with funding amount around 1000

The density of funding amount by investors is more around 5000

Most of the installment amount are around 150-180

Most of the borrowers with annual income 25000-50000

Most people returned amount is between 1000-2000 in the total amount funded

Most people returned amount given by investors is between 1000-2000 in the total amount funded by investors and 0-1000 is also nearer to this

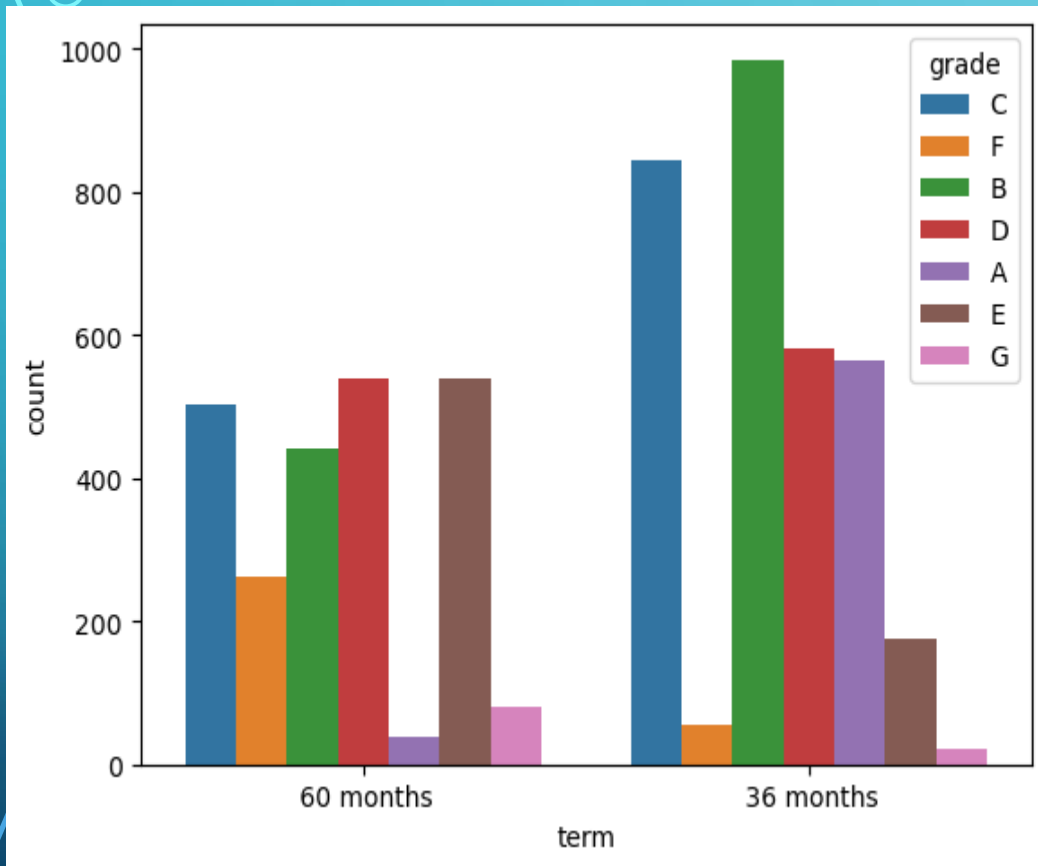
Most people returned amount is between 500-1000 in the interest amount

Recovery of late payment is very less

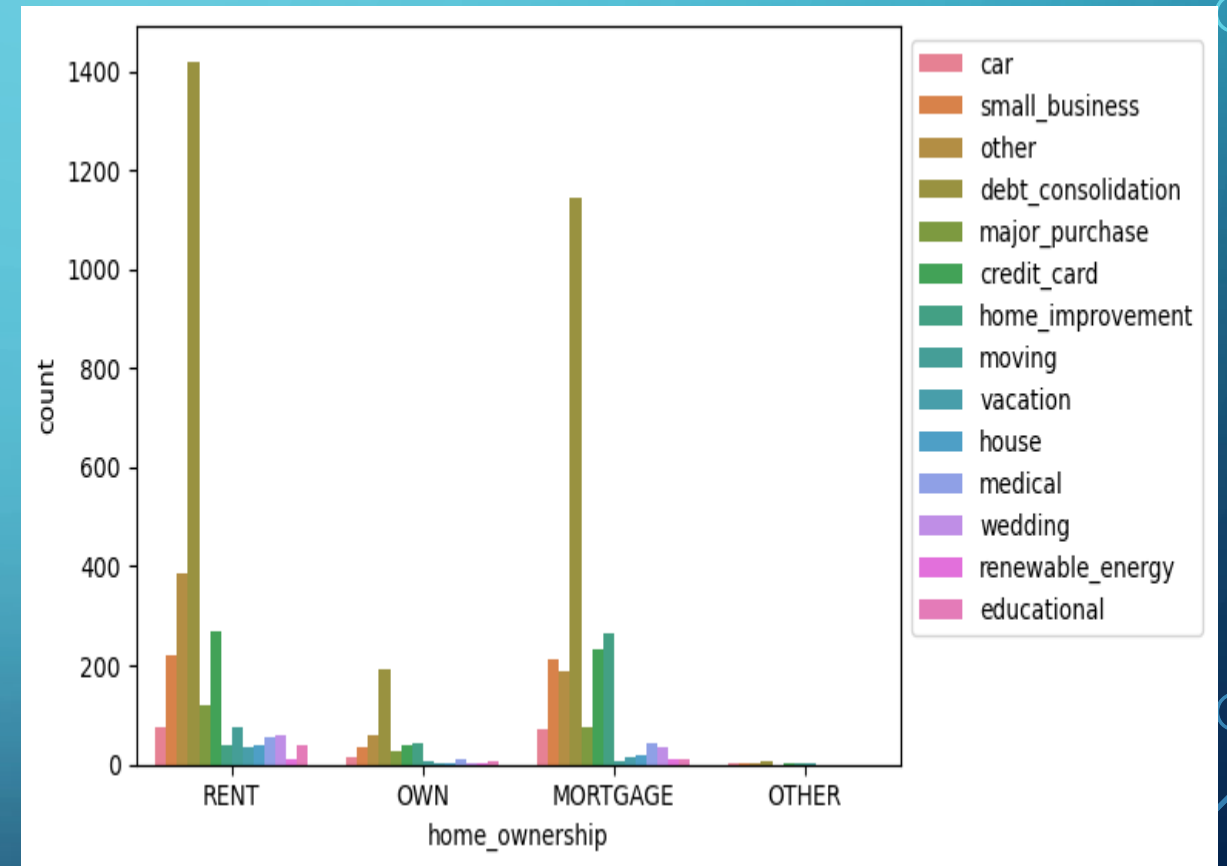
Recoveries are minimal

Most of the defaulters took loan amount around 5K and their annual income is reported between 25K-50K

Bivariate analysis

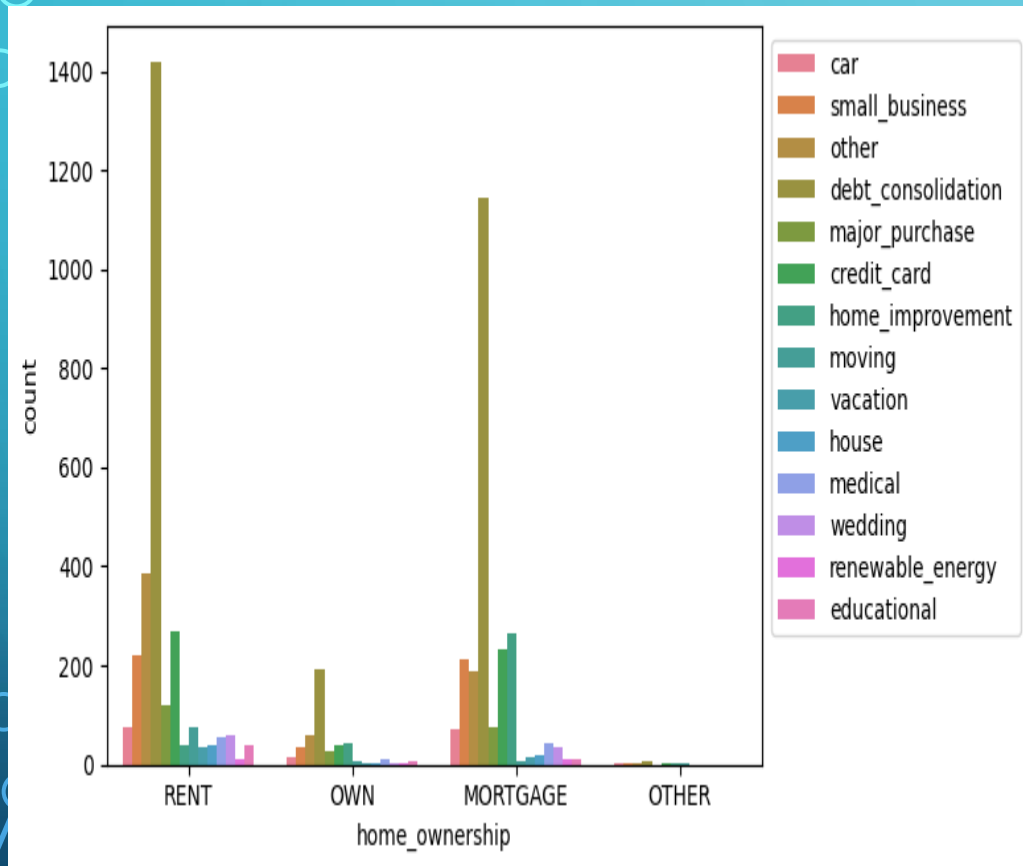


Most of the defaulters with 36 months as loan and grade as B



There are more defaulters with home Ownership as Mortgage and with 10+years of experience

Bivariate analysis

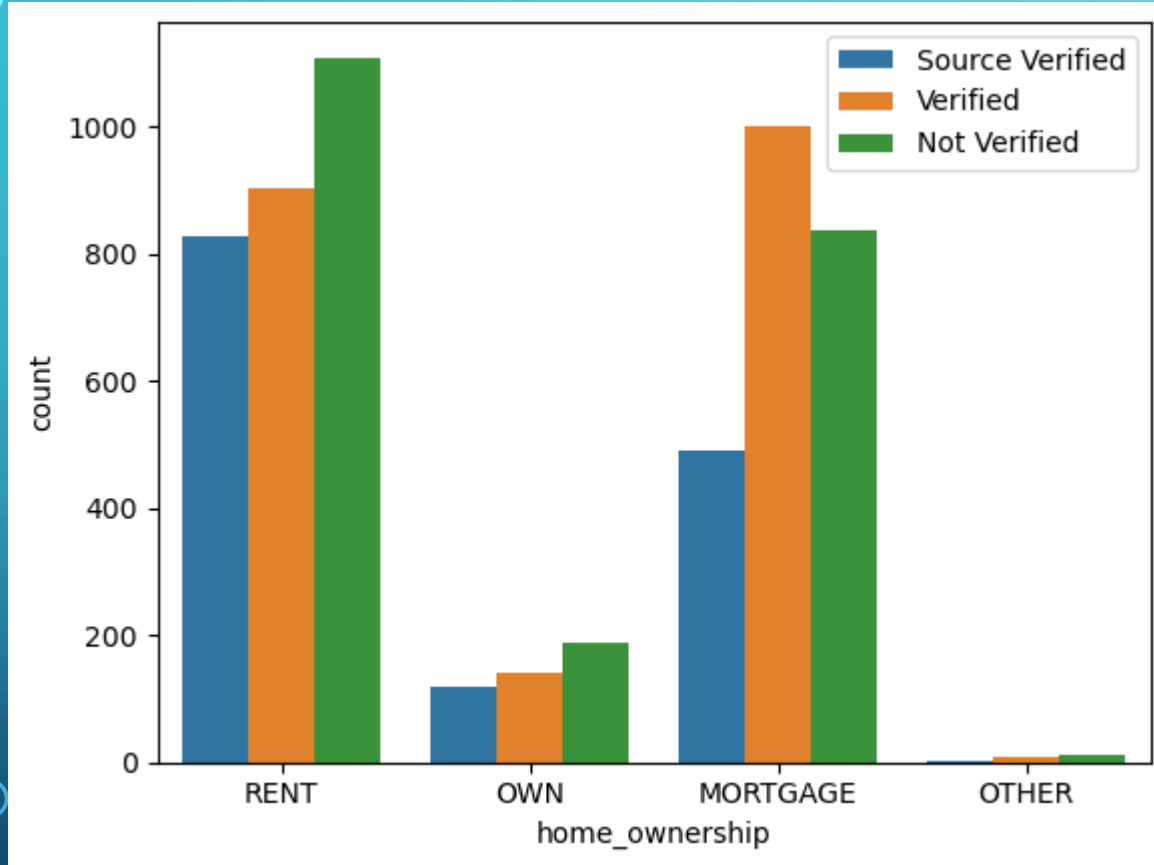


There are more number of defaulters with home ownership as Rent and Purpose as debt_consolidation



There are more number of defaulters with home ownership as Rent and addr_state as CA.

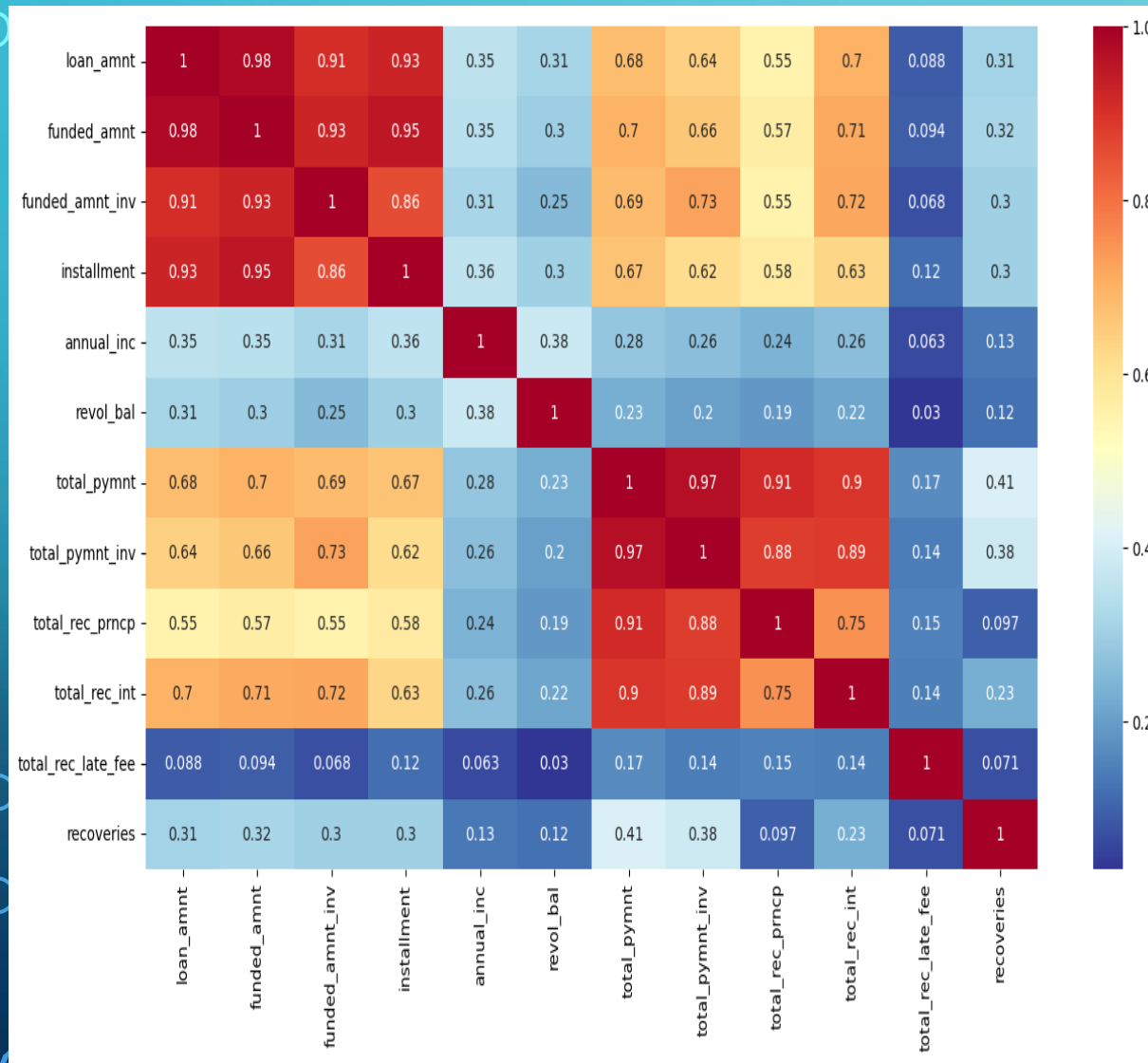
Bivariate analysis



There are more number of defaulters with home ownership as Rent and addr_state as Not Verified.

Most of the defaulters with Home_ownership as Rent and Purpose is debt_consolidation and addr_state as CA and the emp_length is 10+ years and the verification status as Not verified.

Multi-variate analysis



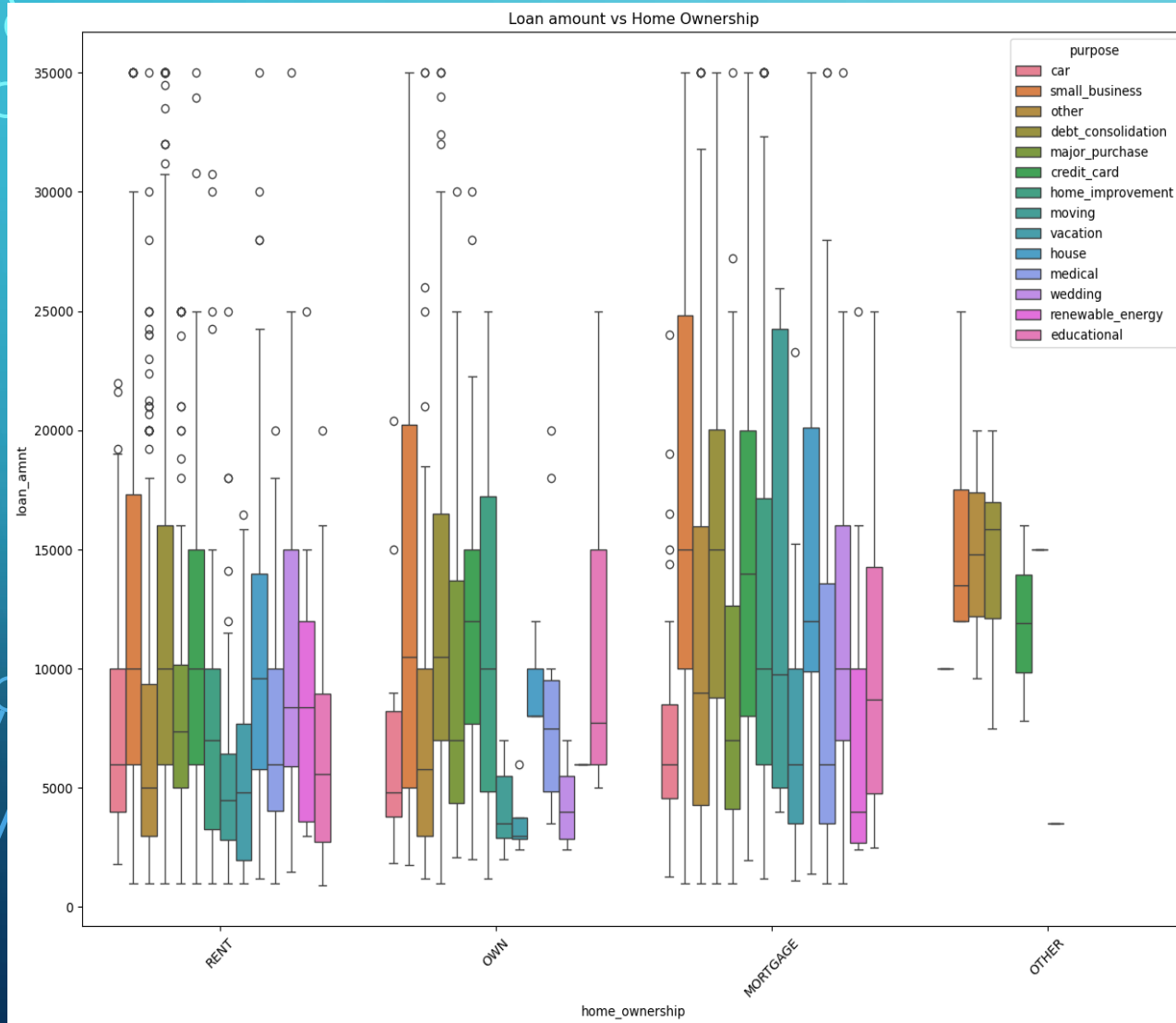
loan_amnt, funded_amnt, funded_amnt_inv, installment are highly correlated.

total_pymnt, total_pymnt_inv, total_rec_prncp, total_rec_int are also highly correlated.

loan_amnt and annual_inc has weak correlation.

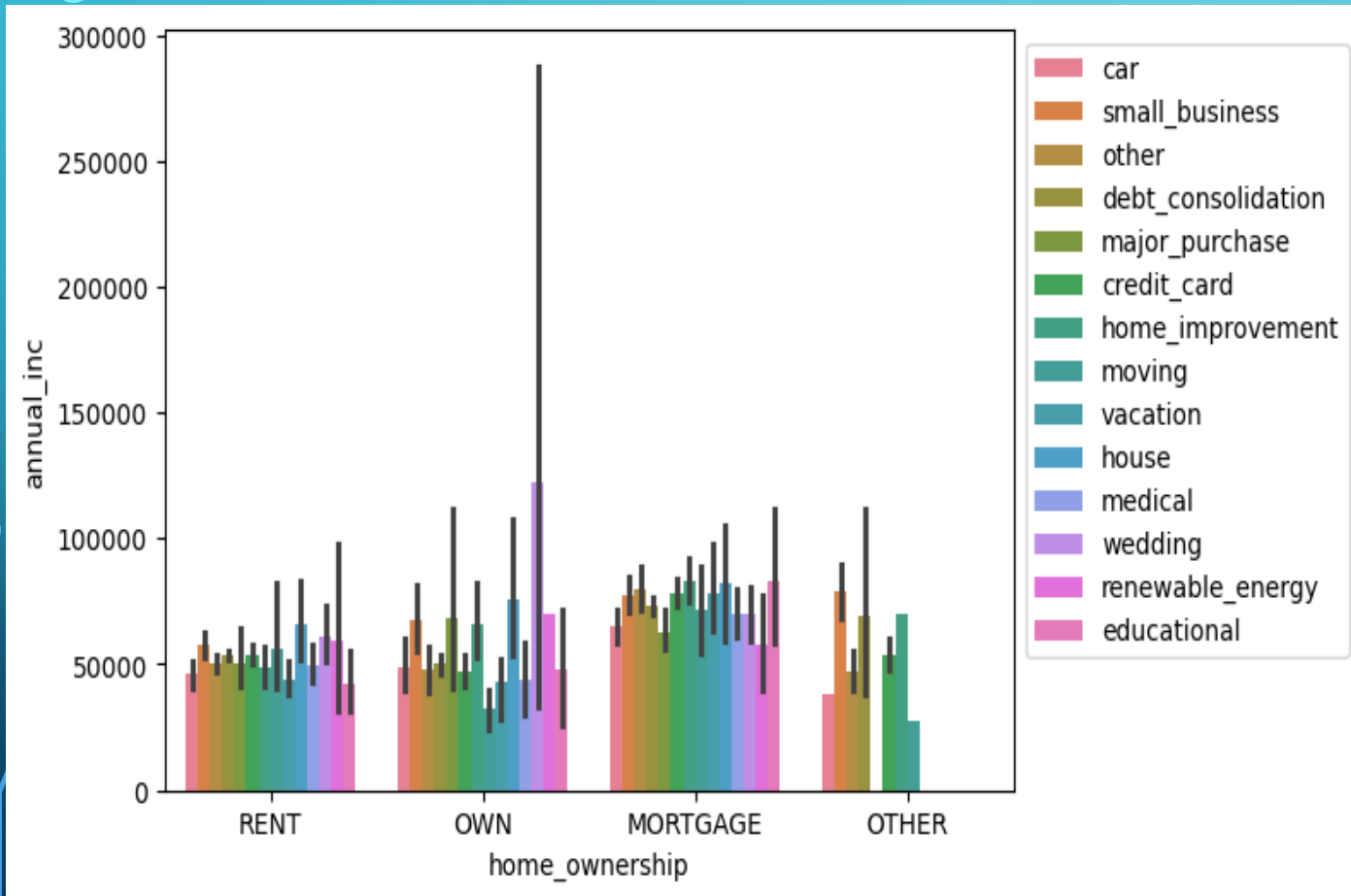
annual_inc and total_pymnt, total_pymnt_inv, total_rec_prncp, total_rec_int, recoveries are also have weak correlation.

Multivariate analysis



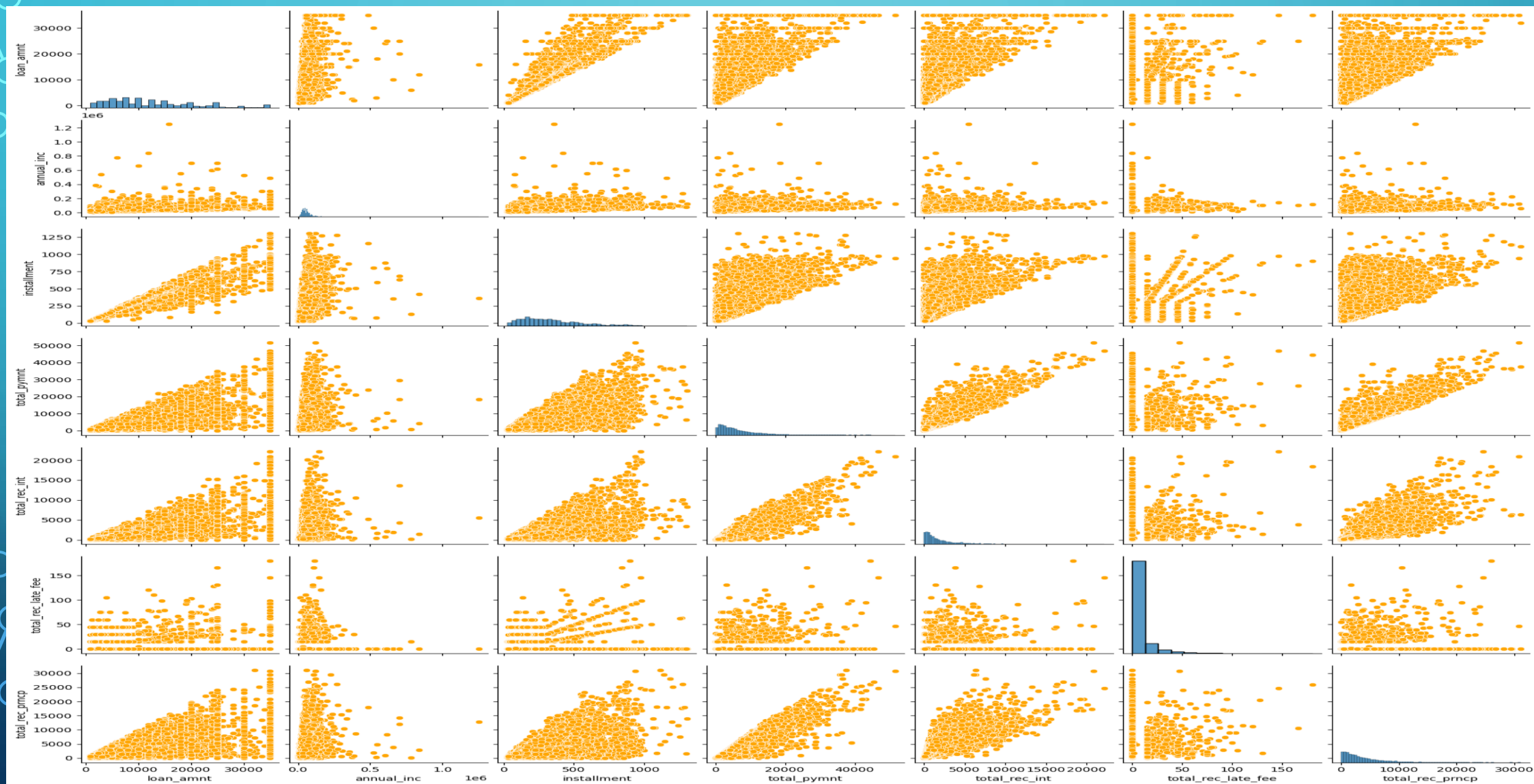
As per the above analysis people with small_business and home_ownership as mortgage took more loan amount

Multivariate analysis



As per the above plot people with own house and purpose as Wedding has more income and more outliers as well.

Multivariate analysis



CONCLUSION:

- There are more defaulters with home Ownership as Mortgage and with 10+years of experience.
- There are more number of defaulters with home ownership as Rent and addr_state as CA.
- There are more number of defaulters with home ownership as Rent and verification status as Not Verified.
- Most of the defaulters with Home_ownership as Rent and Purpose is debt_consolidation and addr_state as CA and the emp_length is 10+ years and the verification status as Not verified.
- loan_amnt,funded_amnt,funded_amnt_inv,installment are highly correlated.
- total_pymnt,total_pymnt_inv,total_rec_prncp,total_rec_int are also highly correlated.
- People with small_business and home_ownership as mortgage took more loan amount.
- People with own house and purpose as Wedding has more income and more outliers as well.