LENDING LOAN CASE STUDY

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CLEANING THE DATA SET

- Identify the columns which are having Nan or same element in all the rows then Drop columns

    - Dropped the columns which have more than / eqal 25682 nun

    - Dropped the columns which are having single value in all rows (*pymnt_plan, initial_list_status, policy_code, etc.*)

    - Dropped the columns which is not help for the analysis (*id, member_id , emp_title ,url ,desc ,application_type*)

    - Removed the loans which are in "Currently Running Status"

FINDING MISSING VALUES AND FILL

- *emp_length* seems to have 2.68% missing values

  - Most common value in emp_length is " 10+ Years" replaced with the same value

- *revol_util seemt* to have 1.3 % missing values

STANDARDIZING THE DATA

- Removed % in *int_rate* and converted to numeric

- *emp_length* is modified as number years and if if is more than 10+ years considers as 10
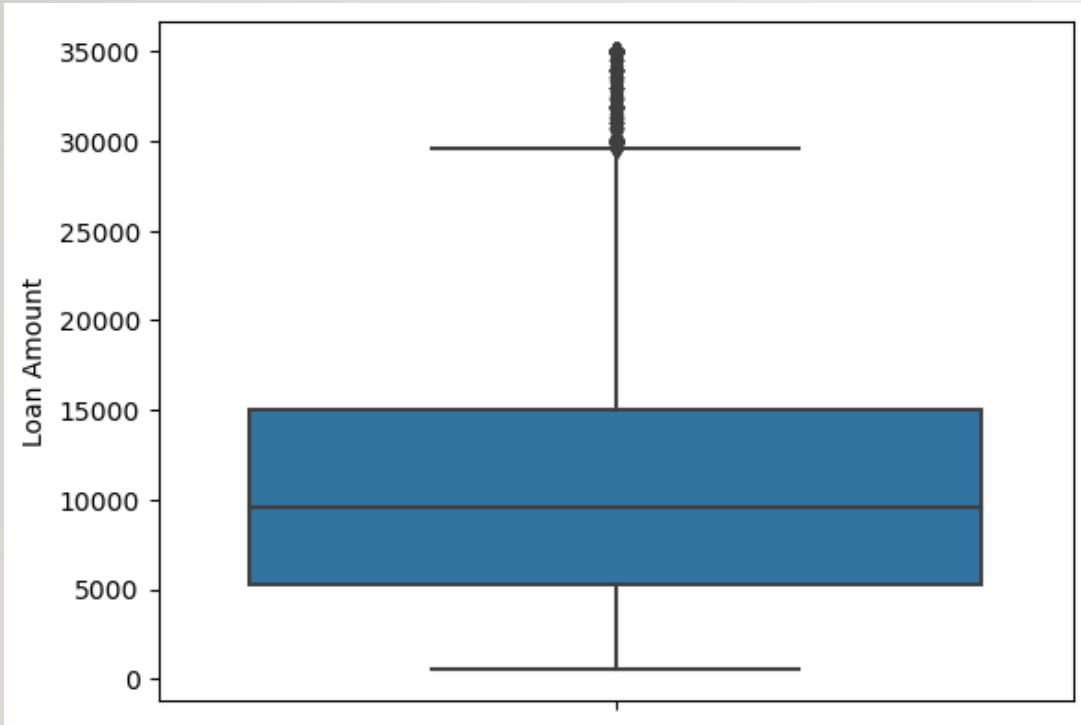
- *revol_util* removed % and convered to numeric
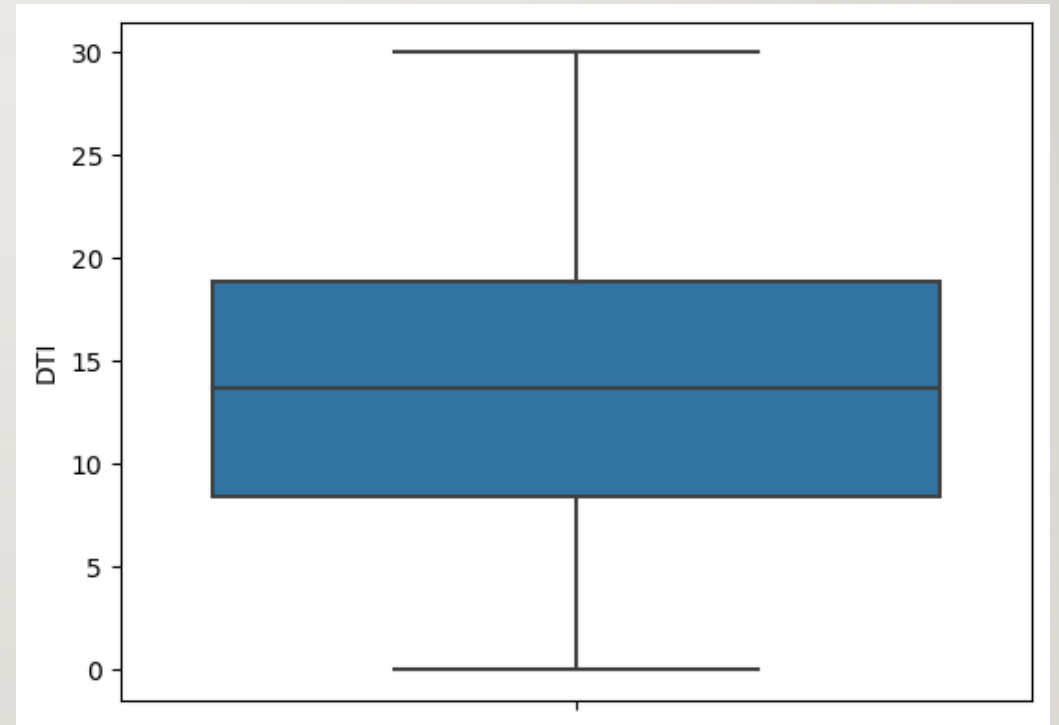
ADDING DERIVED COLUMNS FOR DATE

- Appended *Month* column to capture the loan issued month

- Appended *Year* column to capture the loan issued Year

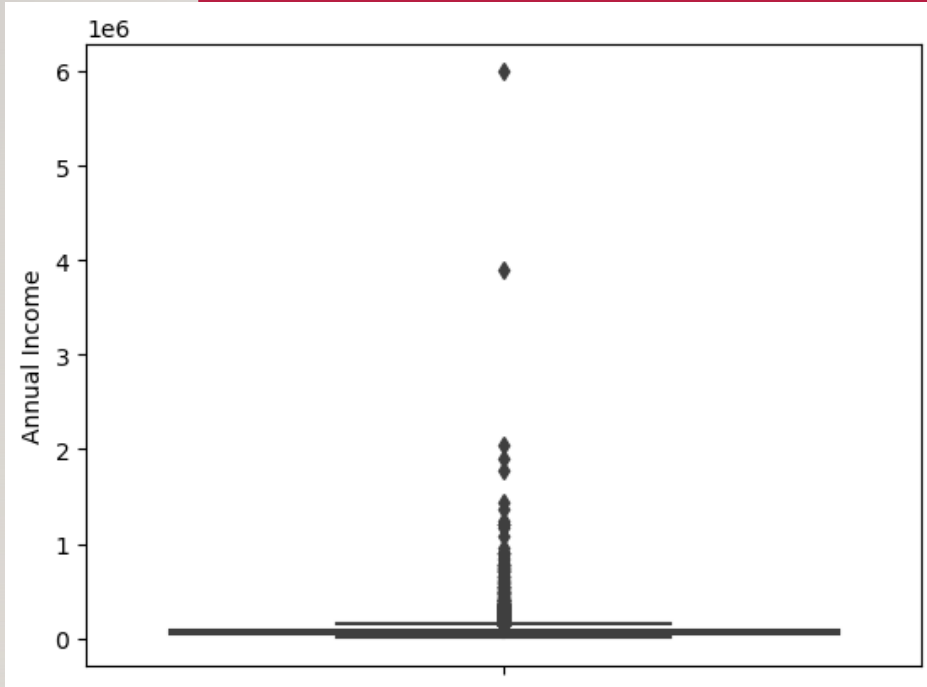# REMOVE OUT LAYERS BEFORE ANALYSIS

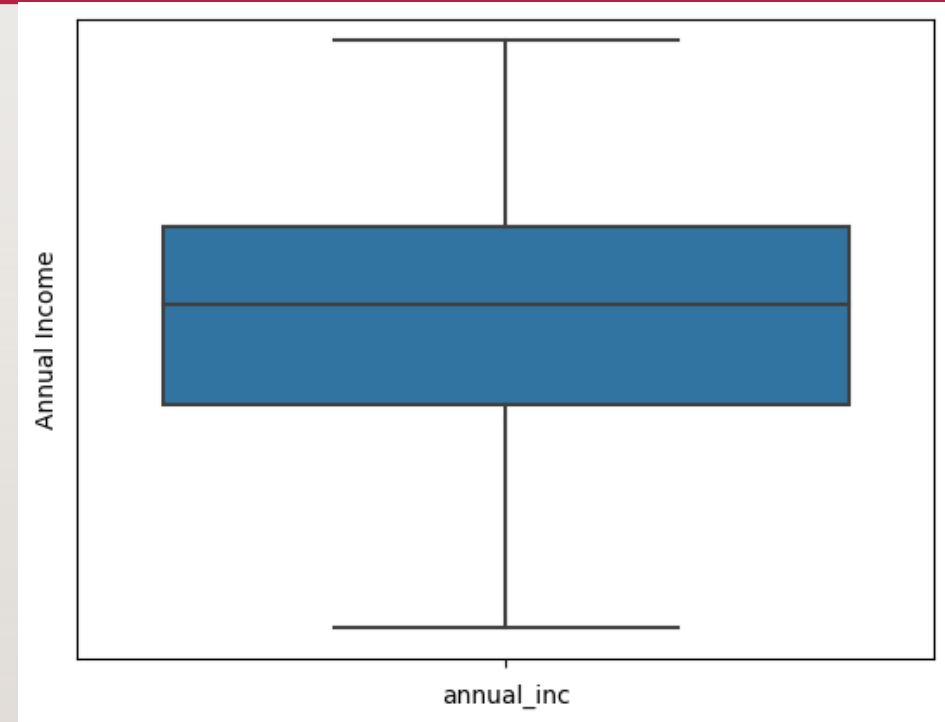The loan amount varies between 0 to 35,000 and mean is 10,000

DTI, no out layers

REMOVE OUT LAYERS BEFORE ANALYSIS

Annual Income
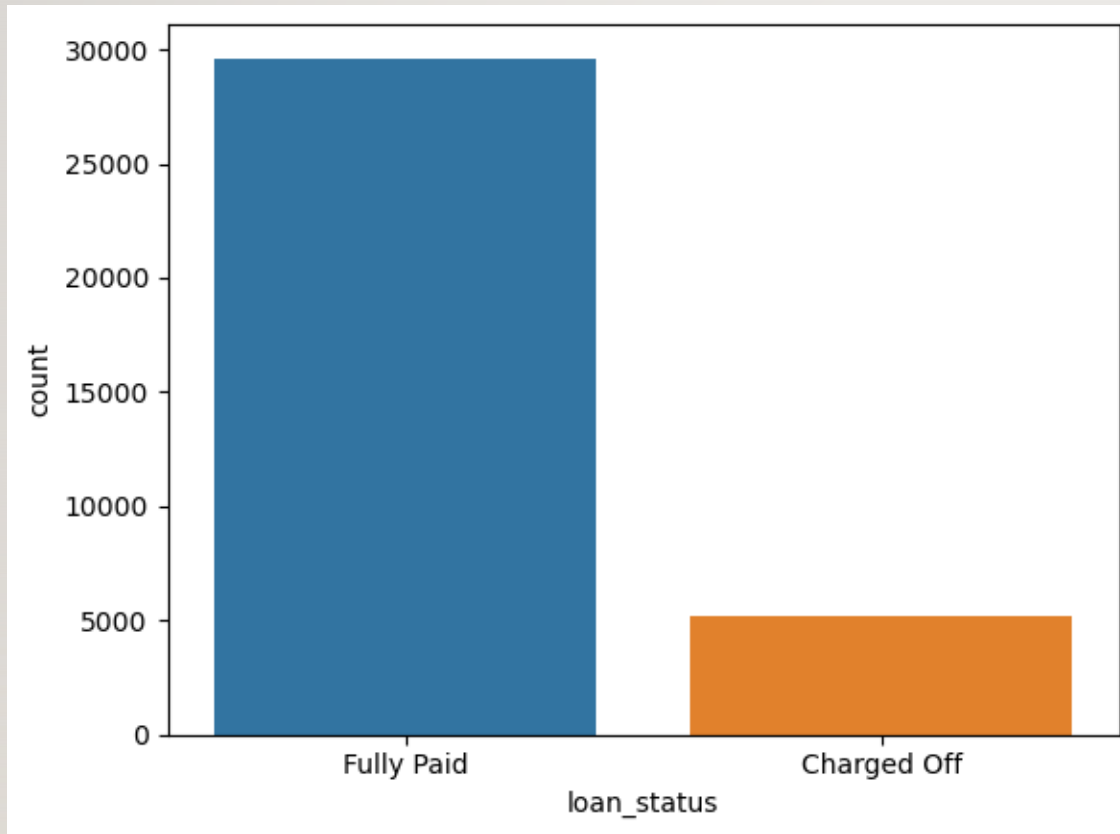As there are many outlier, filtered up to .95 quartail
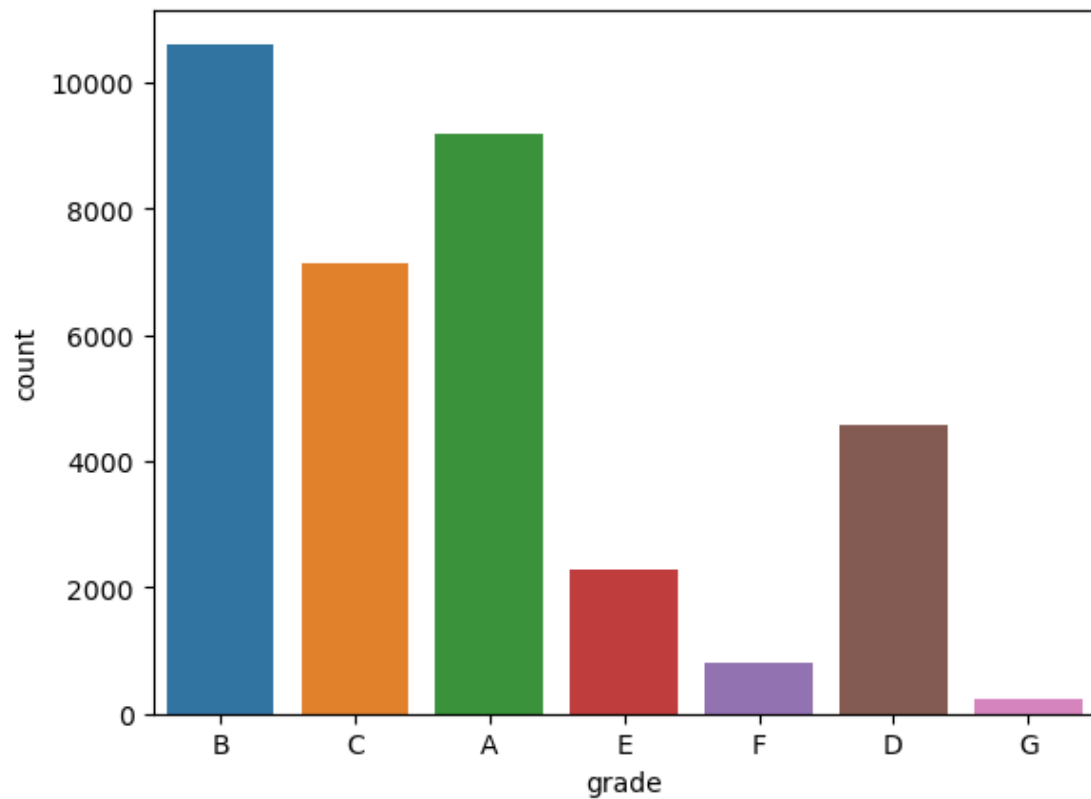
Annual Income
with .95 quartail

CATEGORICAL DATA

Around 14% of loan are having status as Charged off (defaulters) Remaining most loans are Paid
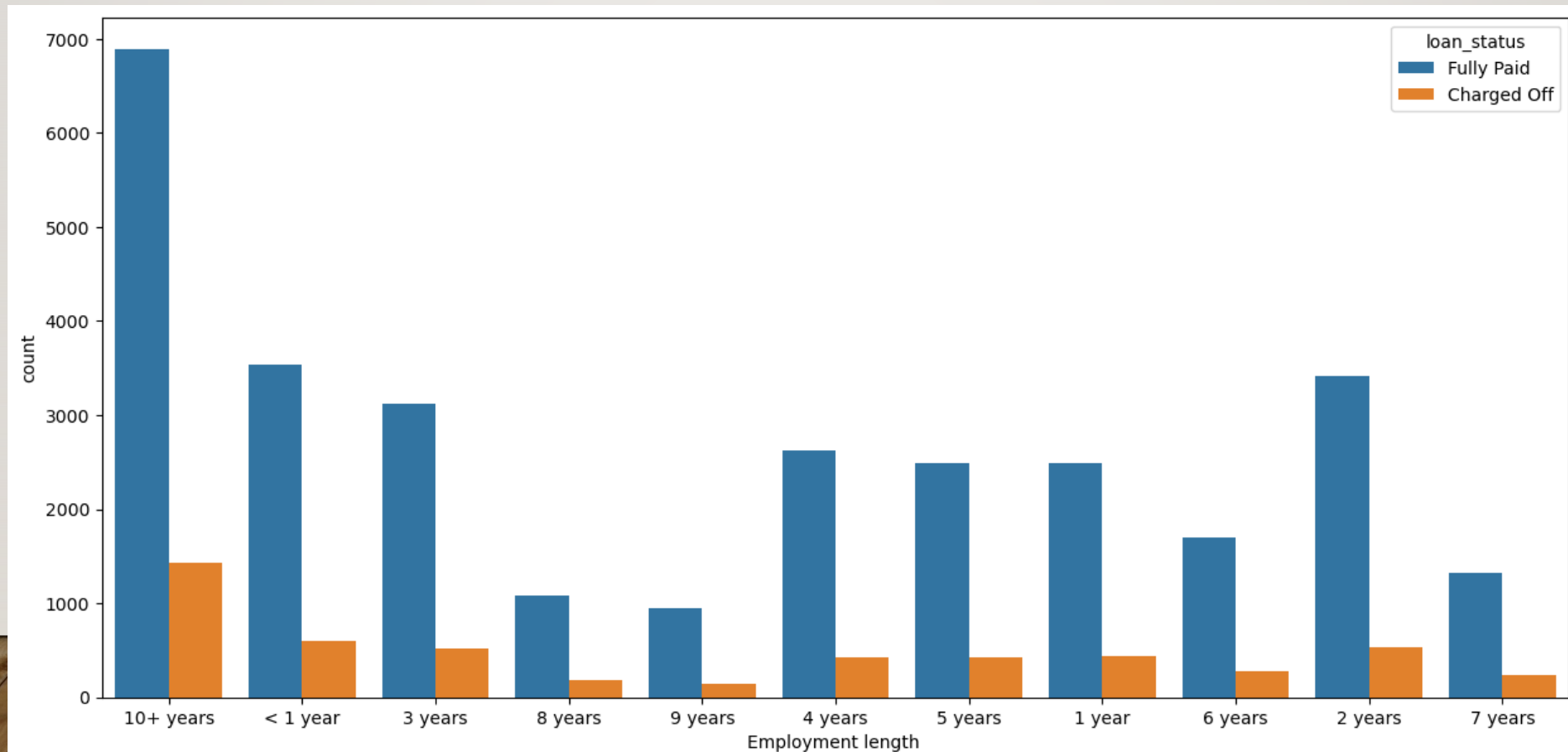
CATEGORICAL DATA

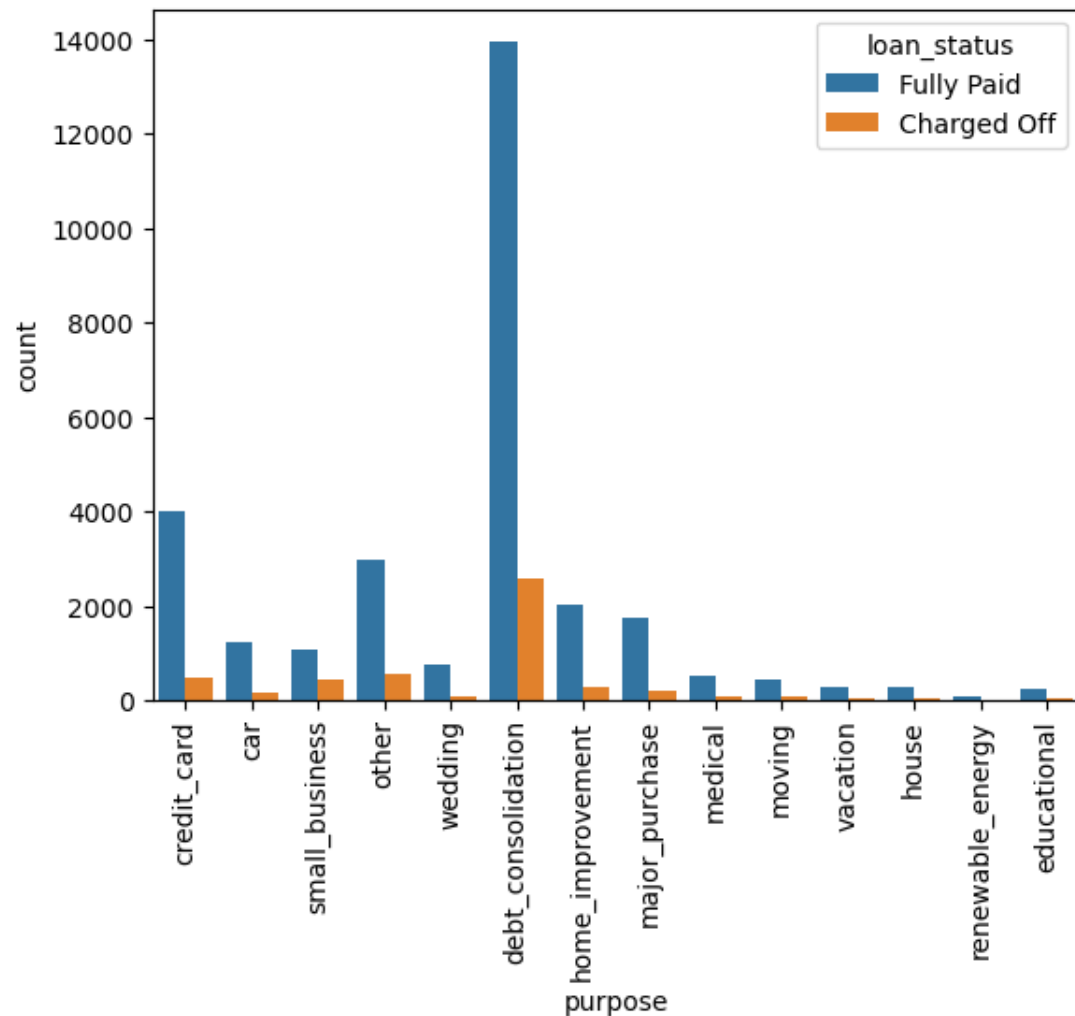Most of the loans are from A, B and C grade

CATEGORICAL DATA

Most of the loans taken by 10+ of exp employee , highly paid by the same
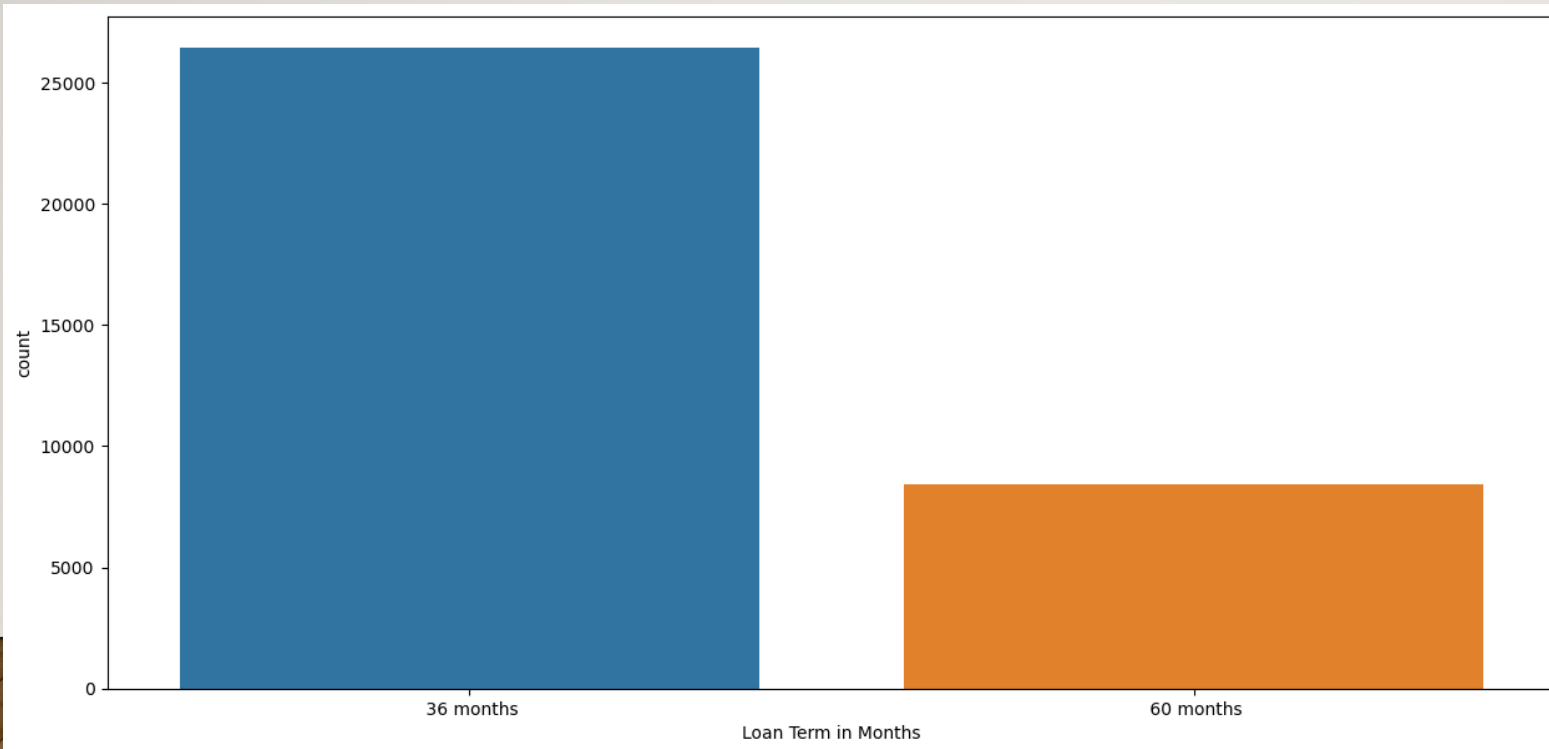
SEGMENTED UNIVARIATE ANALYSIS

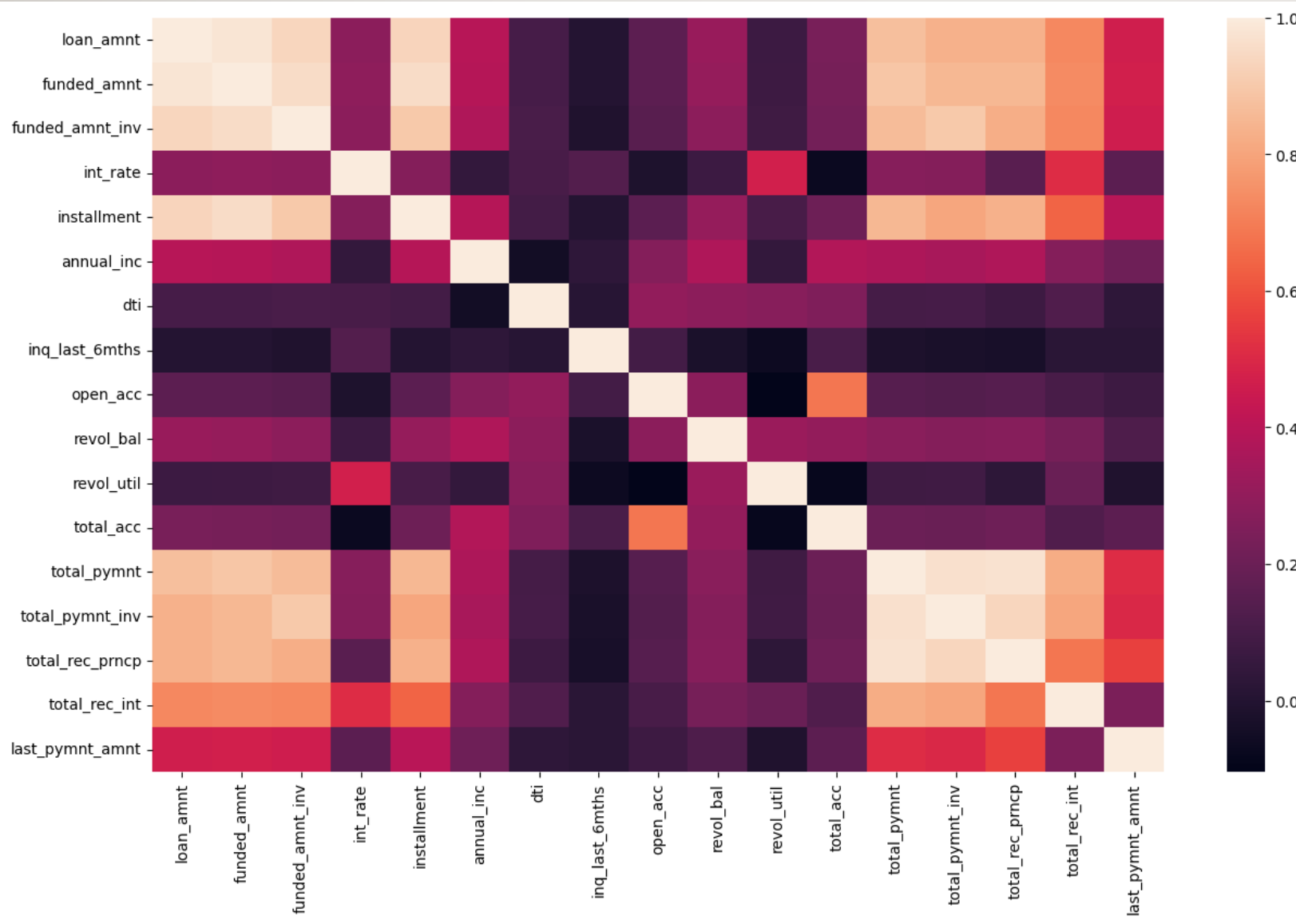Most of the loans are given to Debt Consolidation

SEGMENTED UNIVARIATE ANALYSIS
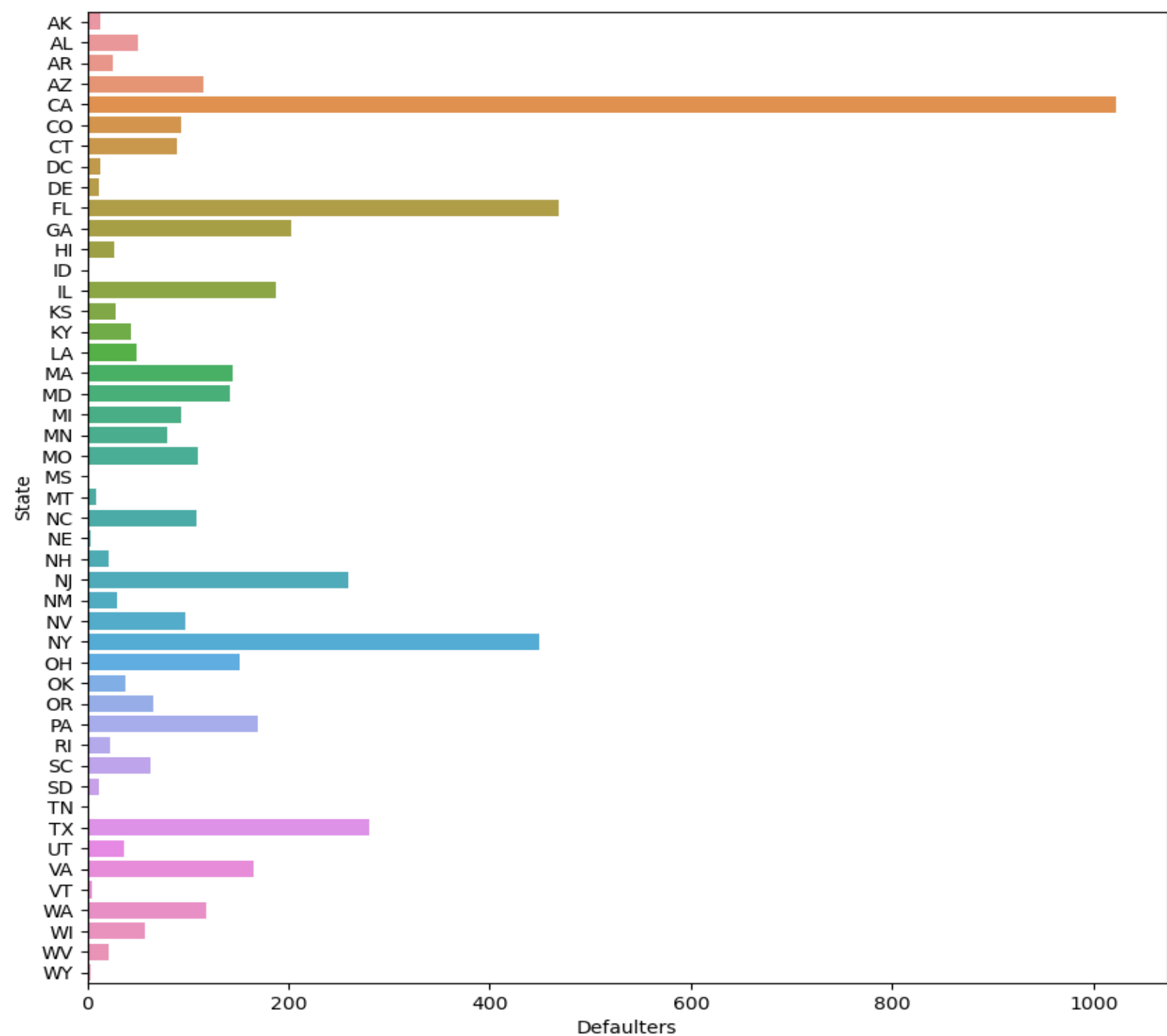
Seems that Loans which are 60 months are most defaulters

HEAT MAP

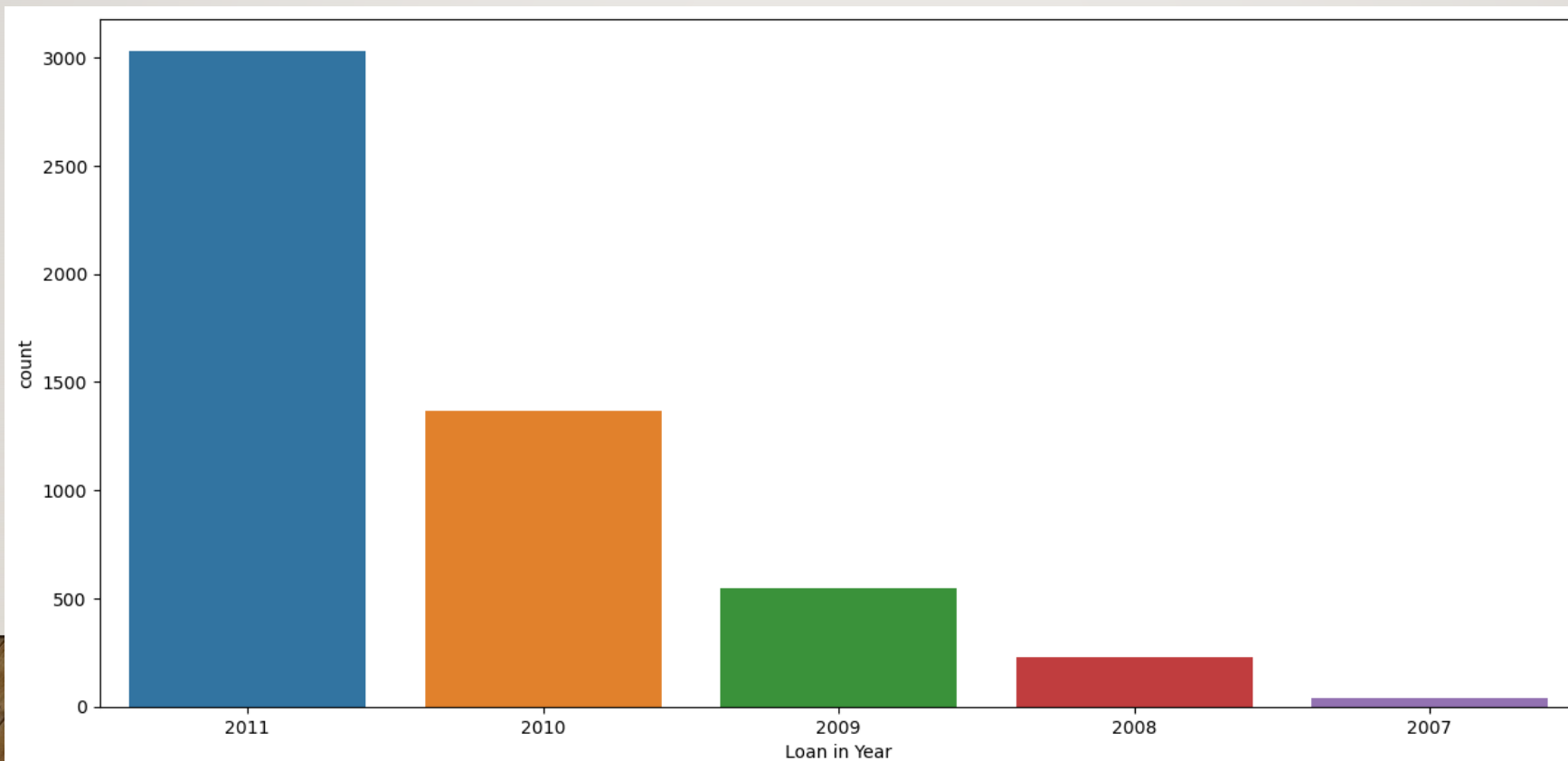The number of inquiries in past 6 months is strong corelated with many of the items

CA applicants has more defaulters, FL, NY, TX follows

LOAN VS DEFAULTERS

Most defaulters are there for loans which are issued on 2011

Thank You