

Lender Club Case Study

Presented by – Asheesh Jakhmola

I did following things

- To find the parameters which impacts to loan Charged off , I compared Charged Off loans with Fully Paid loans. Following formula used for Charged Off loans

*Formula=Count of Parameter of Charged Off * 100/ Count of Parameter of Fully Paid*

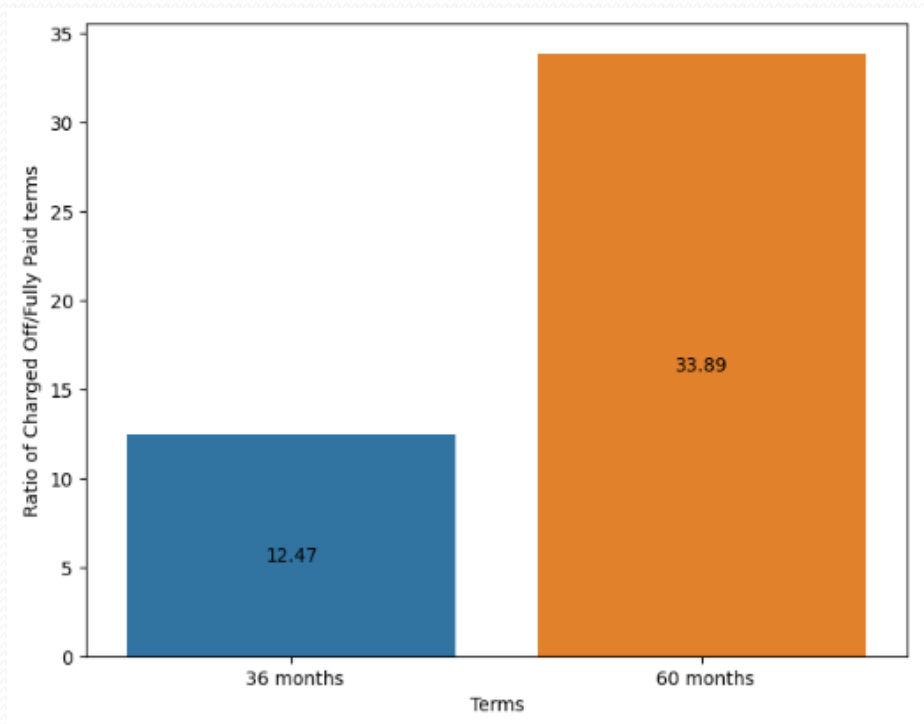
- Similar comparison I did to find if current loan are more venerable that past charged off loan. Following formula used for Current loans

*Formula=Count of Parameter of Current * 100/ Count of Parameter of Fully Paid*

- For category parameters, did the count comparison.
- For Interest rate , I took ceiling of interest and then did comparison.

Analysis

Loan term count comparison between Charged Off and Fully Paid loans



Analysis:

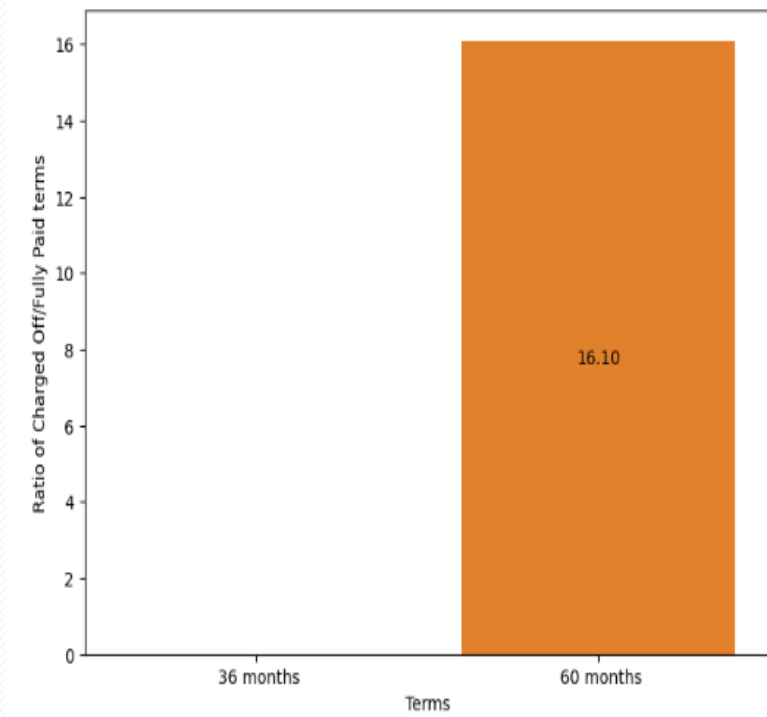
- 60 months loan are approx thrice of 12 months in ratio.

Conclusion:

- Long term loan are more venerable.

Formula=Count of loan terms of Charged Off * 100/ Count of loan terms of Fully Paid

Loan term count comparison between Current and Fully loans



Analysis

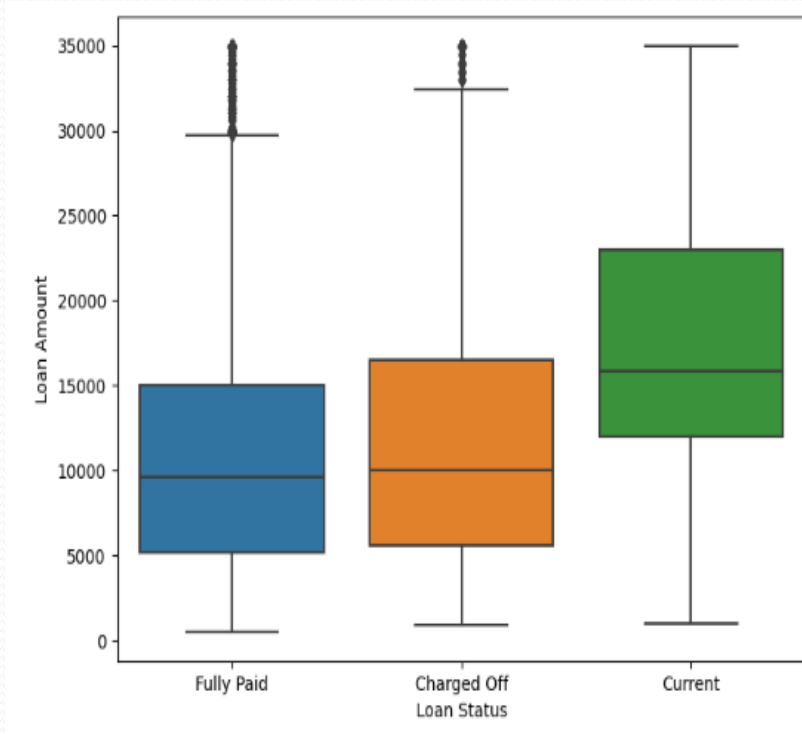
- All current loans are 60 months term.

. Conclusion:

- Current loan are more venerable.

Formula=Count of loan terms of Current * 100/ Count of loan terms of Fully Paid

Loan Amount comparison



- Box graph for loan amount of all type loan status

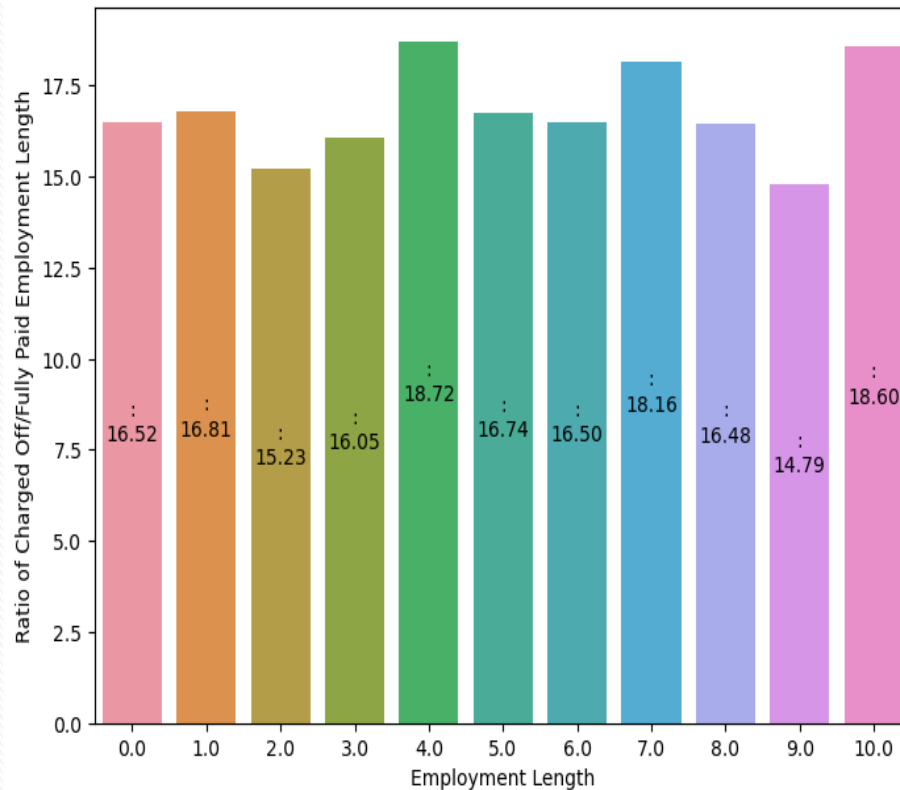
Analysis

- 25 percentile & median of the Fully Paid & Charged Off loans are very same.
- The median of the Current loan are approx to 75% of Fully Paid & Charged off loans.
- Not giving any conclusive point for loan venerability.
- 25 percentile Current loan are less than 10K.

Conclusion:

- No or very less impact of loan amount on loan venerability.

Employment length count comparison between Charged Off and Fully Paid loans



Analysis

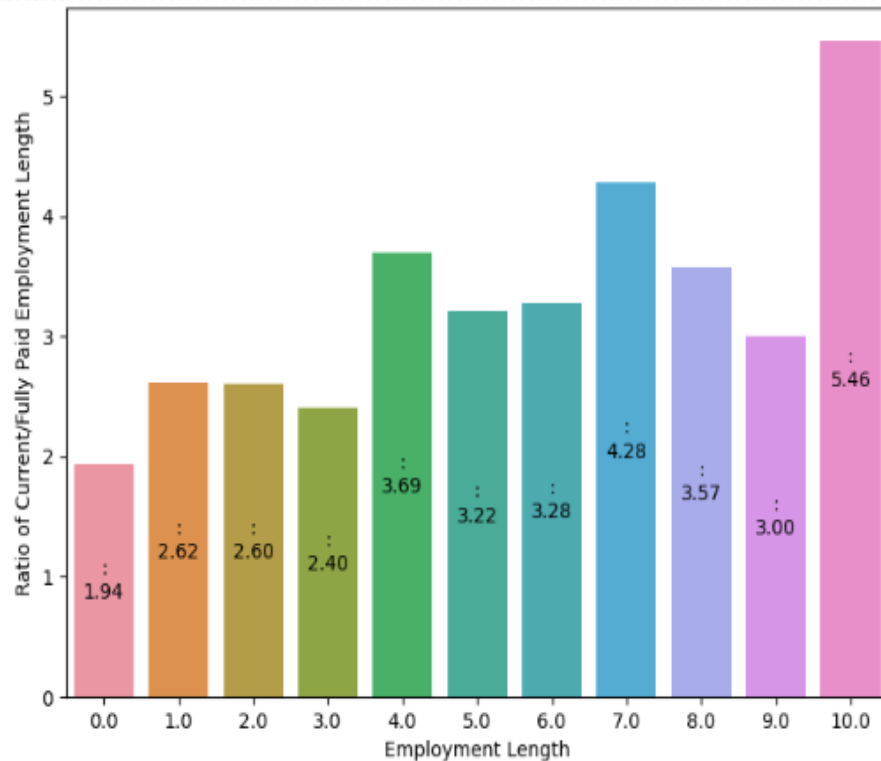
- Employment length ratio are not fluctuation much.

Conclusion:

- No or very less impact of employment length on loan venerability.

Formula=Count of employment length of Charged Off * 100/Count of employment length of Fully Paid

Employment length count comparison between Current and Fully Paid loans

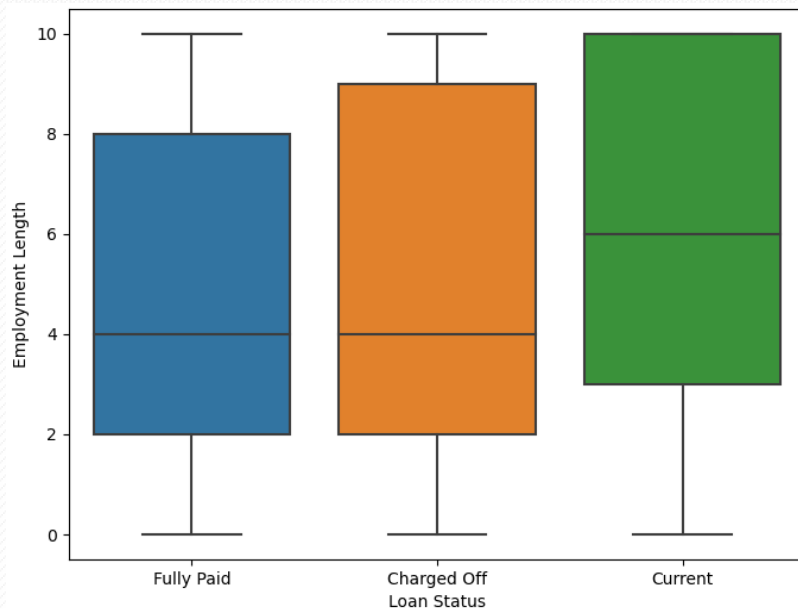


Analysis

- The no of loan seeker are increasing as employment length increases.

Formula=Count of employment length of Current* 100/Count of employment length of Fully Paid

Box graph of employment length



- Box graph for loan interest rate of all type loan status

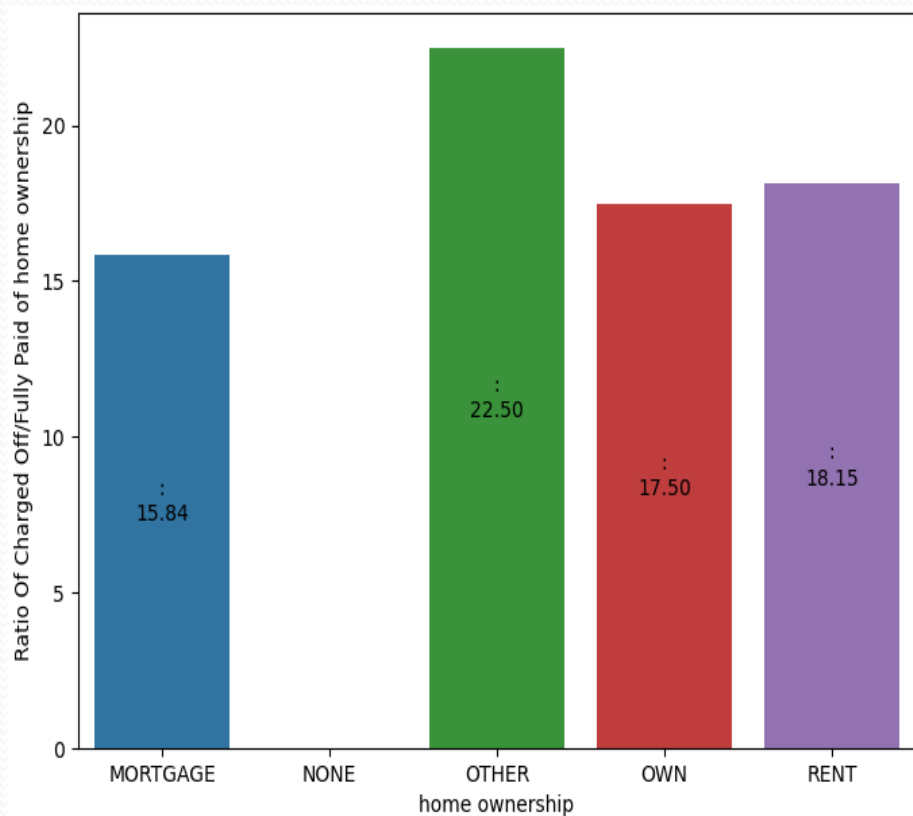
Analysis

- Median of employment length of Fully Paid and Charged Off are very same.
- Median of employment length of current loan are higher than Fully Paid & Charged Off.

Conclusion:

- No or very less impact of employment length on loan venerability.
- For Current loan, no of loan seeker are increasing as employment length increases.

Home ownership count comparison between Charged Off and Fully Paid loans

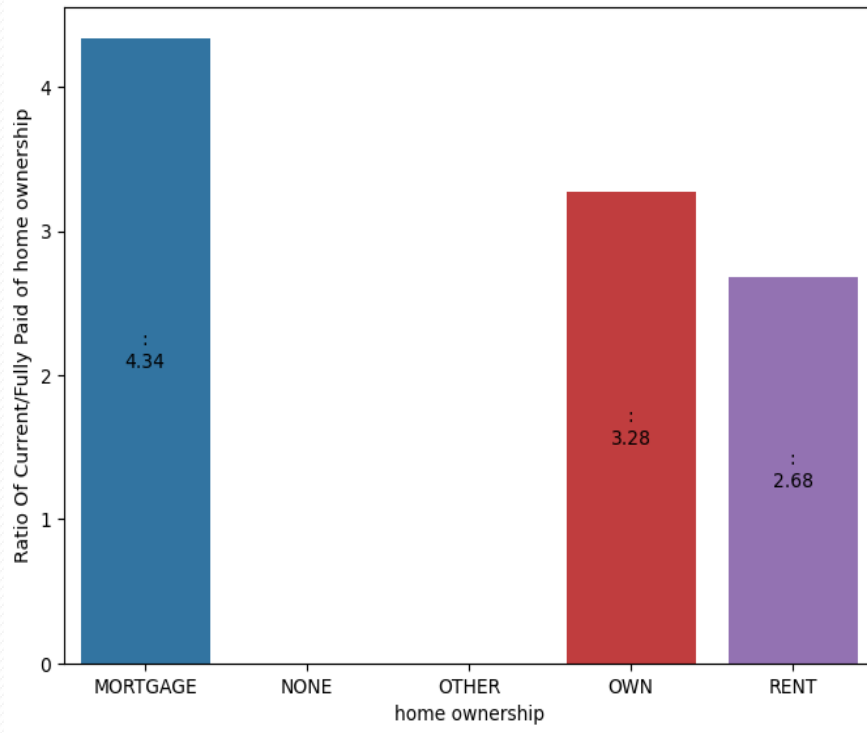


Analysis

- OTHER type of home ownership ratio have higher loan venerability .
- Mortgage type ratio are the second least venerable.

Formula=Count of home ownership of Charged Off * 100/Count of home ownership of Fully Paid

Home ownership count comparison between Current and Fully Paid loans



Analysis

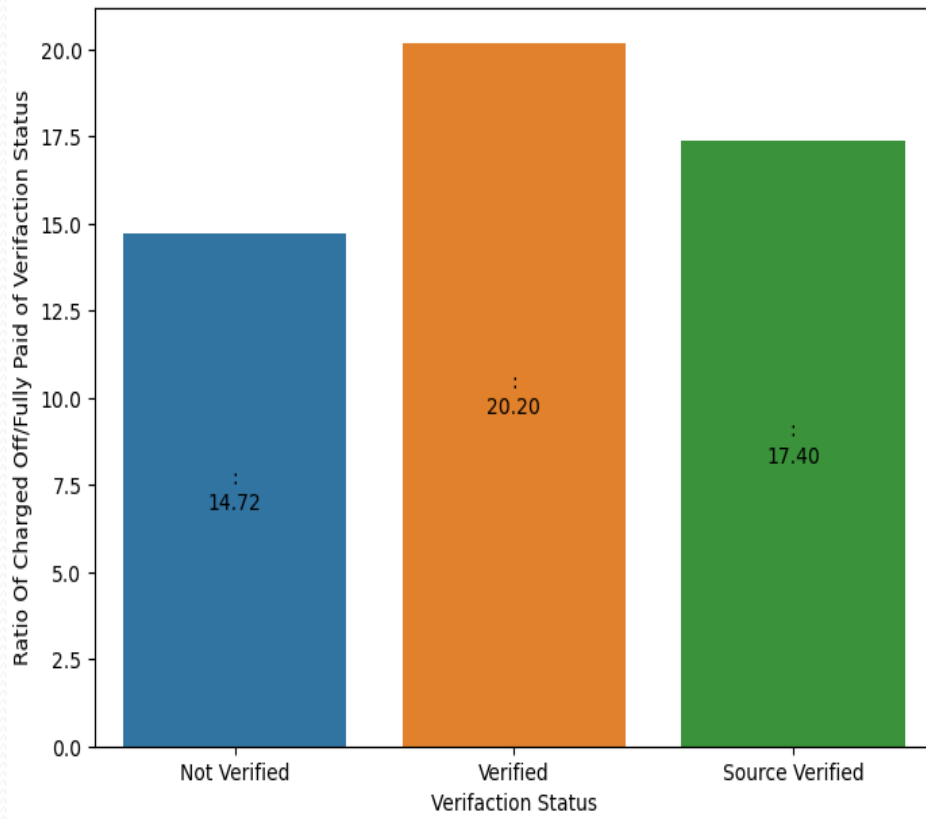
- In Current loans Mortgage type have higher ratio than other type.

Conclusion:

- Current loan are less venerable.

Formula=Count of home ownership of Current * 100/Count of home ownership of Fully Paid

Verification status count comparison between Charged Off and Fully Paid loans



Analysis

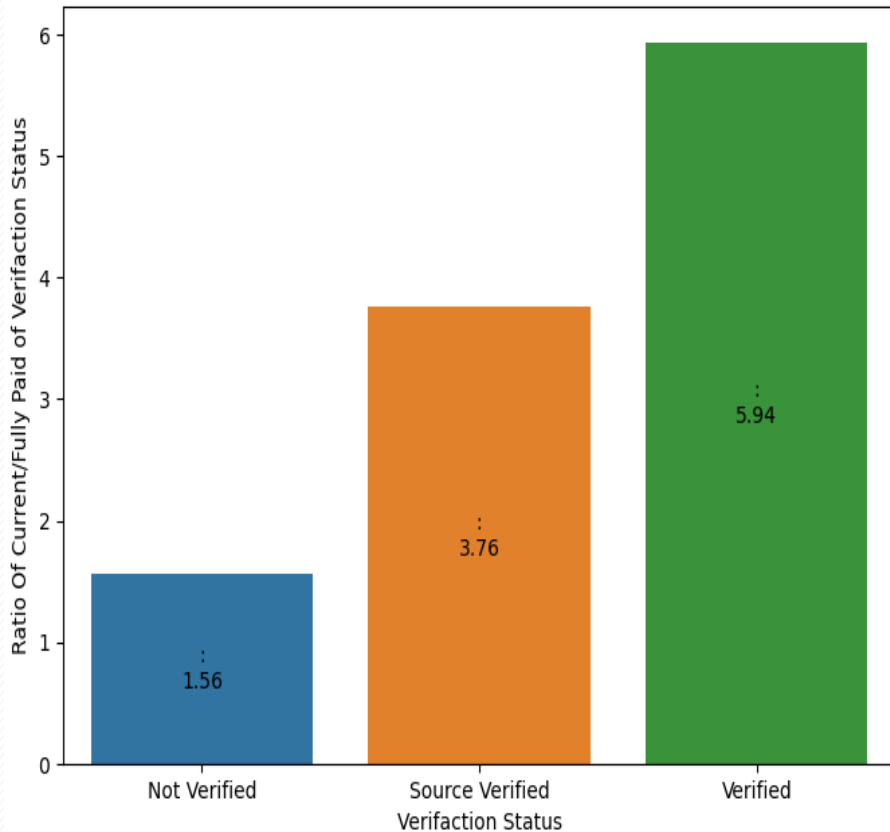
- Verified & Source verified are higher ratio than Not Verified.

Conclusion

- Verified & Source Verified are more venerable.

Formula=Count of verification status of Charged Off * 100/Count of verification status of Fully Paid

Verification status count comparison between Current and Fully Paid loans



Analysis

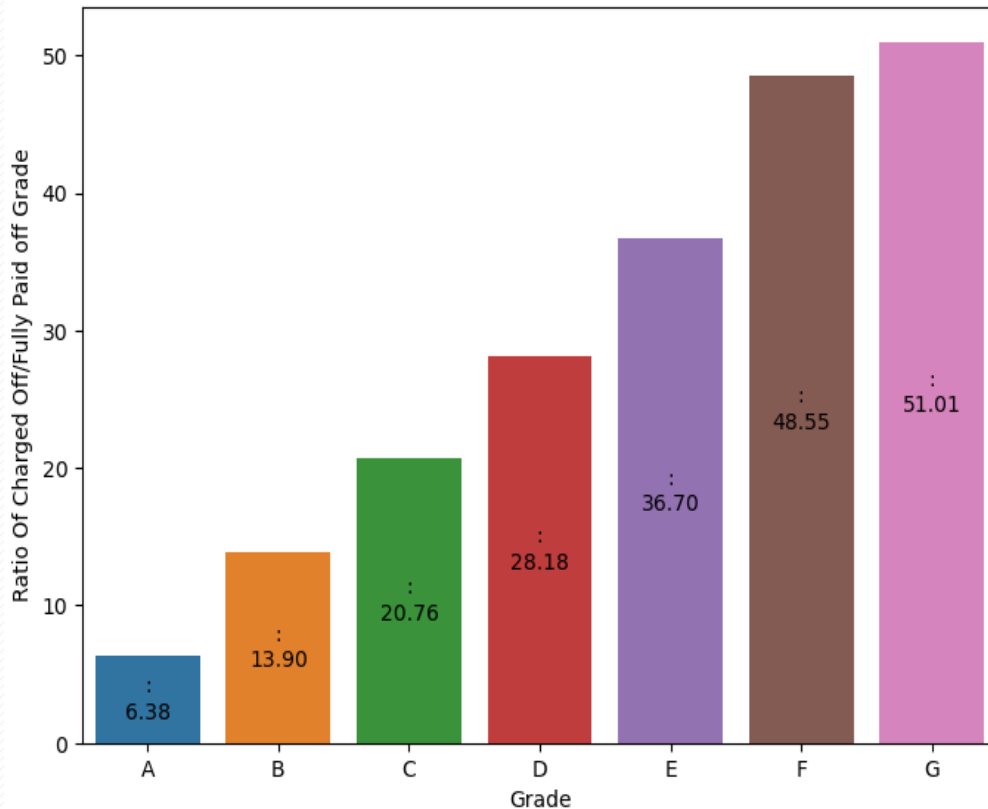
- Current loan Verified & Source verified as much higher than not verified.

Conclusion:

- Current loans more venerable.

Formula=Count of verification status of Current* 100/Count of verification status of Fully Paid

Grade count comparison between Charged Off and Fully Paid loans



Analysis

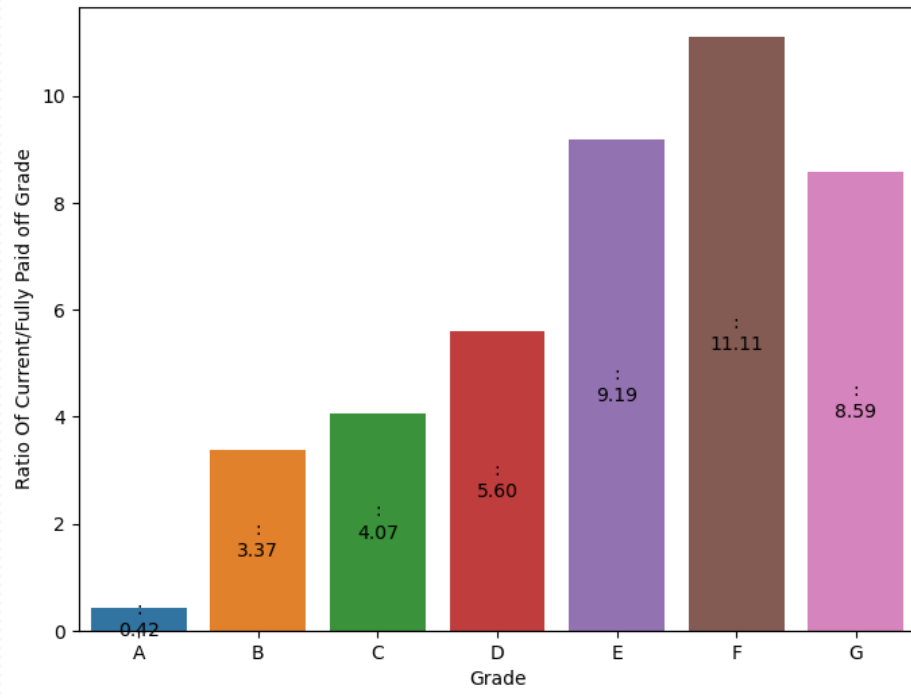
- Grade rate for A, B C, D, E, F, G in increasing order.
- Grade G loan are getting much more charged Off than F and same applied for the grade type too.

Conclusion:

- A is the least and G is the most venerable loan grade.

Formula=Count of verification status of Charged Off * 100/Count of verification status of Fully Paid

Grade count comparison between Current and Fully Paid loans



Analysis

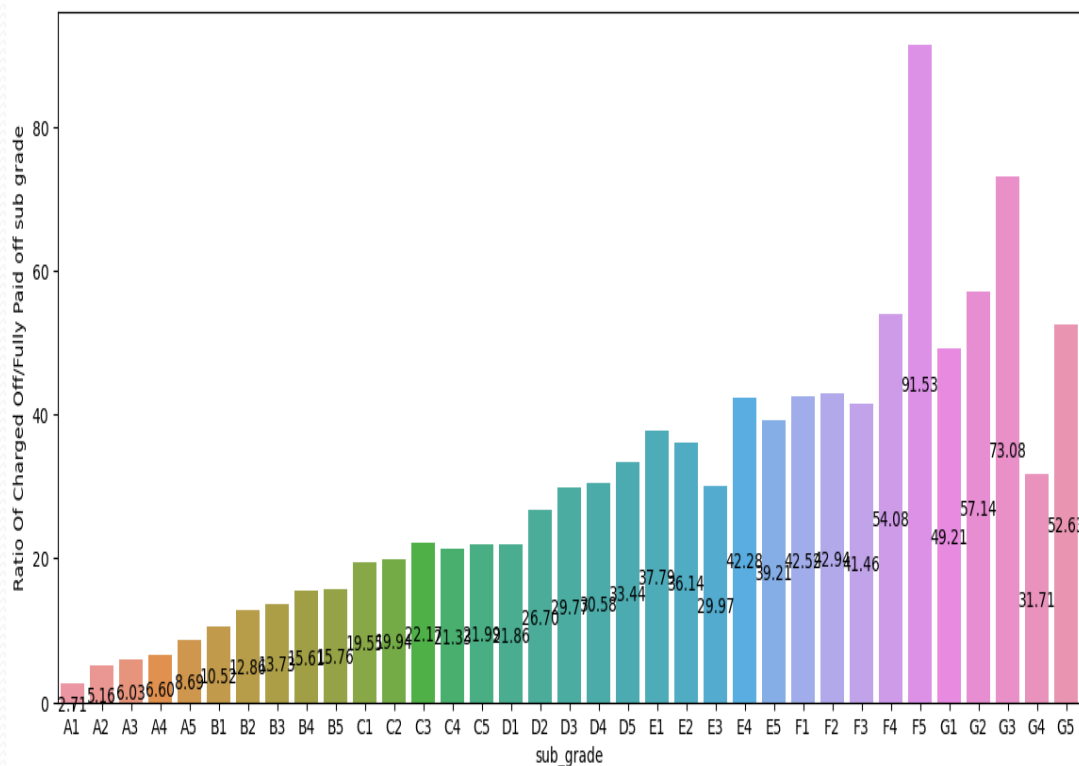
- G grade loan is less in the current loan .

Conclusion:

- Higher risk grade is bit lesser in the current loan than past.

Formula=Count of Grade of Current* 100/Count of Grade of Fully Paid

Sub Grade count comparison between Charged Off and Fully Paid loans



Analysis

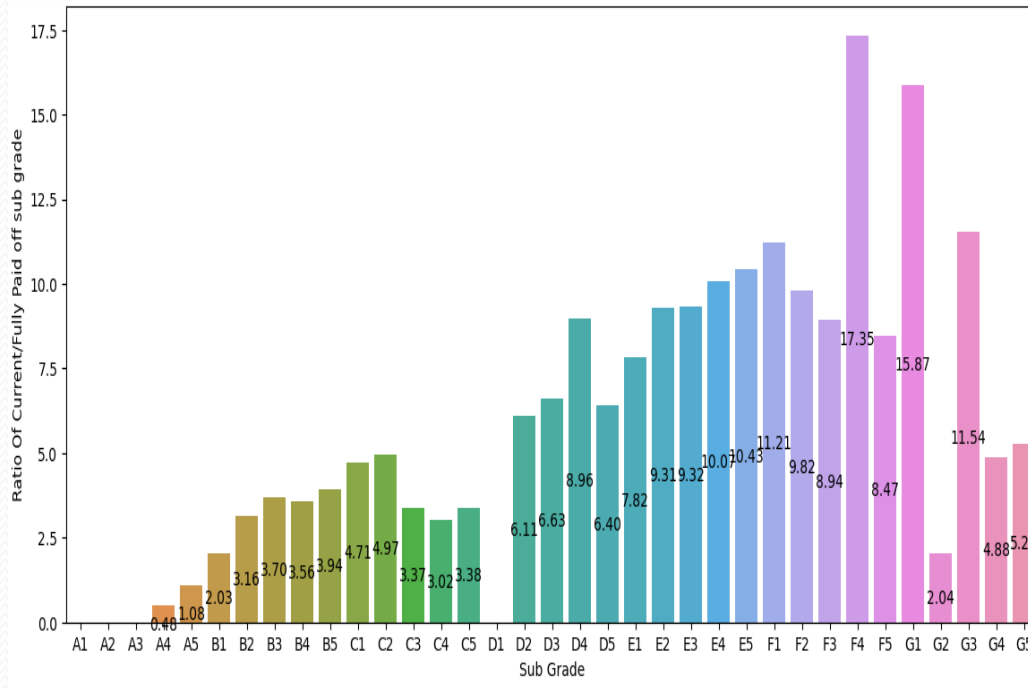
- Sub grade ratio for A, B C, D, E, F, G in increasing order.
- Sub grade ratio for A1, A2 A3, A4, A5 in increasing order.
- Sub grade F5 loan are getting much more charged Off than other

Conclusion:

- in sub grade F5 is the most venerable.

Formula=Count of sub grade of Charged Off * 100/Count of sub grade of Fully Paid

Sub Grade count comparison between Current and Fully Paid loans



Analysis

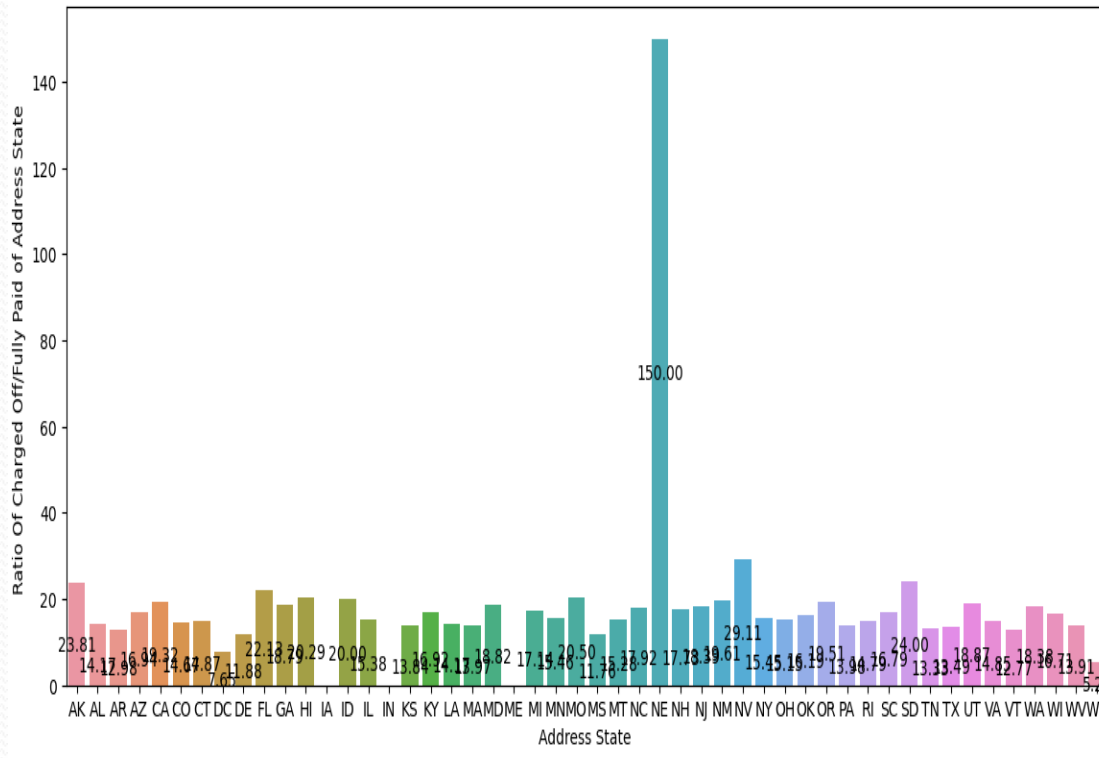
- A1, A2, A3, D1 sub grade loan are not in the current loan.
- In ratio F4 & G2 sub grade loan increased.

Conclusion:

- Overall current loans are trying to manage the risk.

Formula = $\text{Count of sub grade of Current} * 100 / \text{Count of sub grade of Fully Paid}$

Address State count comparison between Charged Off and Fully Paid loans



Analysis

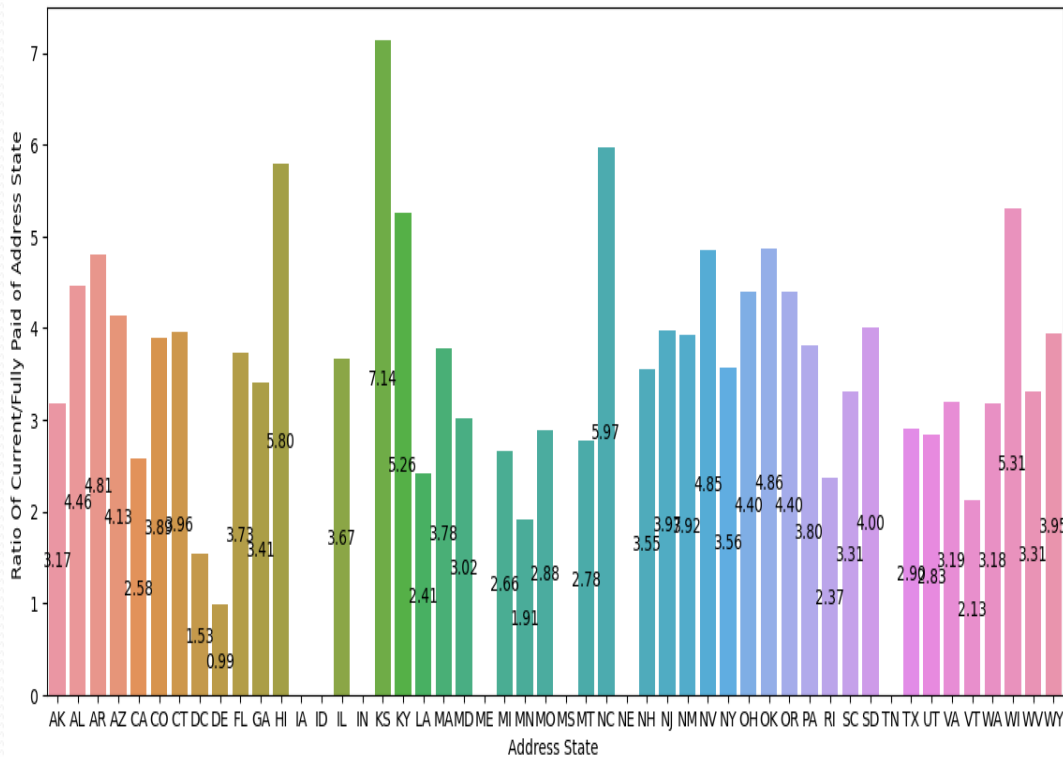
- NE State have the highest ratio.

Conclusion:

- NE is the most loan venerable state.

Formula=Count of address state of Charged Off * 100/Count of address state of Fully Paid

Address State count comparison between Current and Fully Paid loans



Analysis

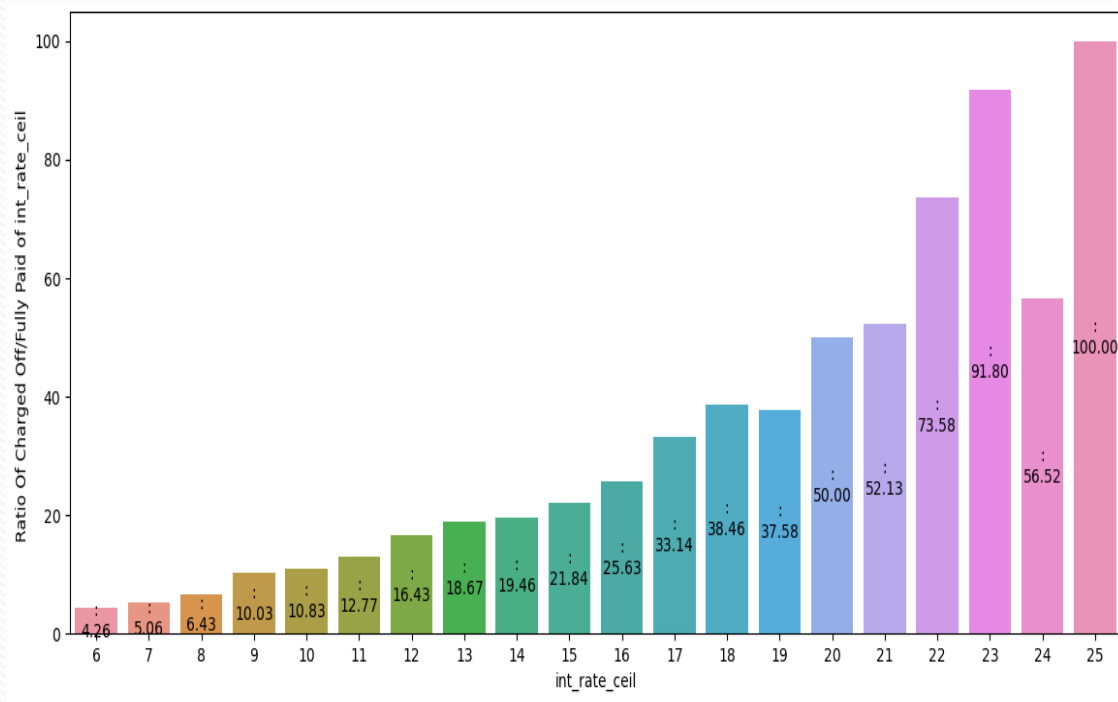
- State ratio are not fluctuation lot.

Conclusion:

- Less no of loans given to NE state.

Formula=Count of address state of Current * 100/Count of address state of Fully Paid

Interest rate count comparison between Charged Off and Fully Paid loans



Analysis

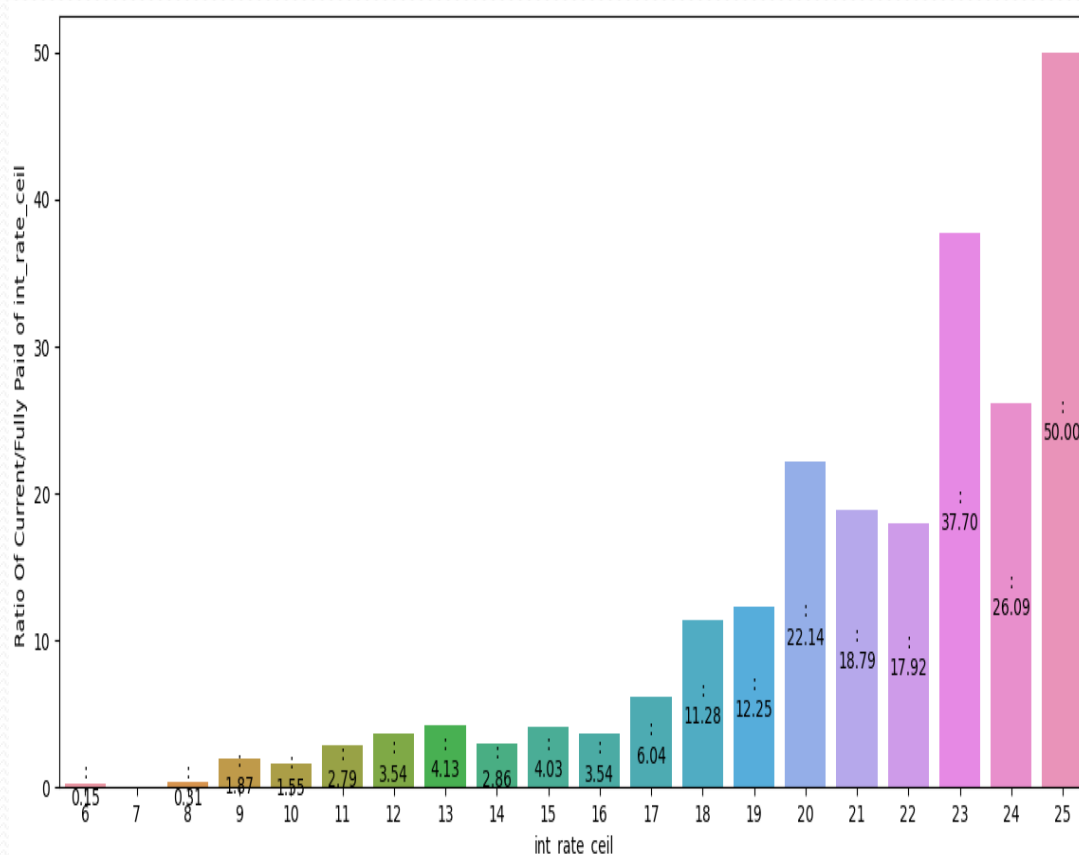
- Ratio is increasing as interest rate increases.

Conclusion:

- On higher interest her more loan get Charged Off.

Formula=Count of ceiling (Interest Rate)of Charged Off * 100/Count of ceiling(Interest Rate) of Fully Paid

Interest rate count comparison between Charged Off and Fully Paid loans



Analysis

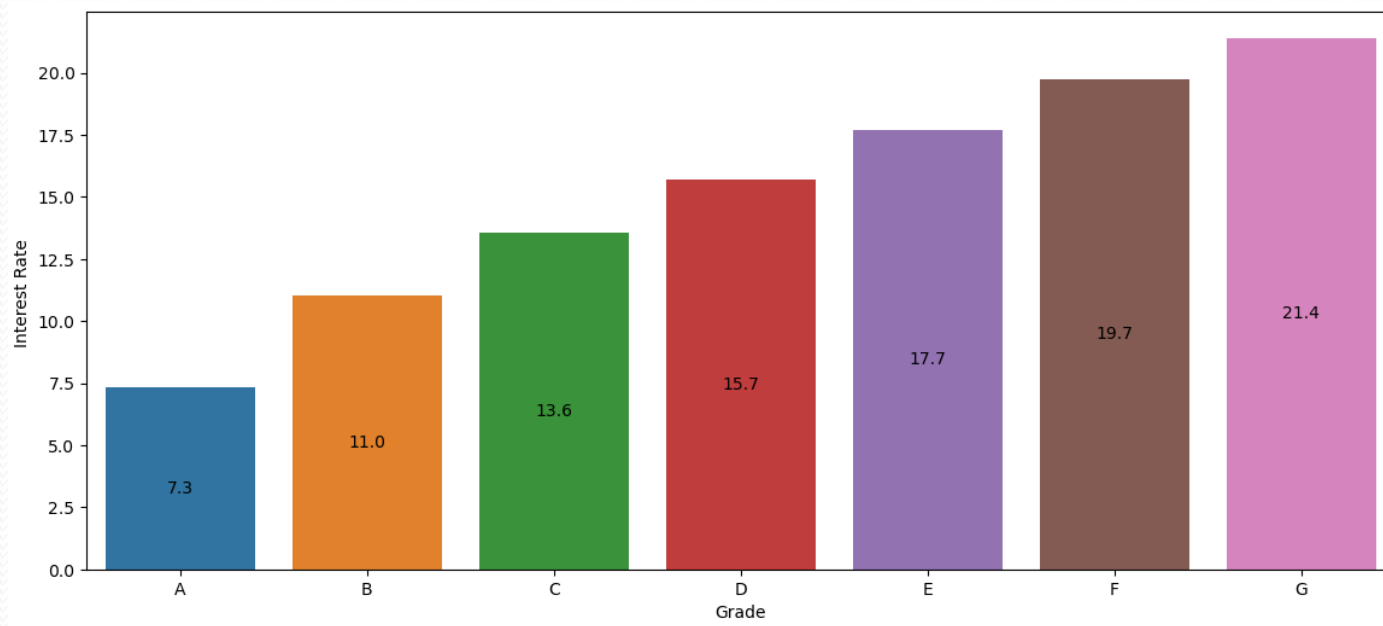
- In ratio 6, 7, 8 interest rate loan are very less, and 23, 24, 25 interest rate.

Conclusion:

- Current loan have more venerability.

Formula=Count of ceiling (Interest Rate)of Current * 100/Count of ceiling(Interest Rate) of Fully Paid

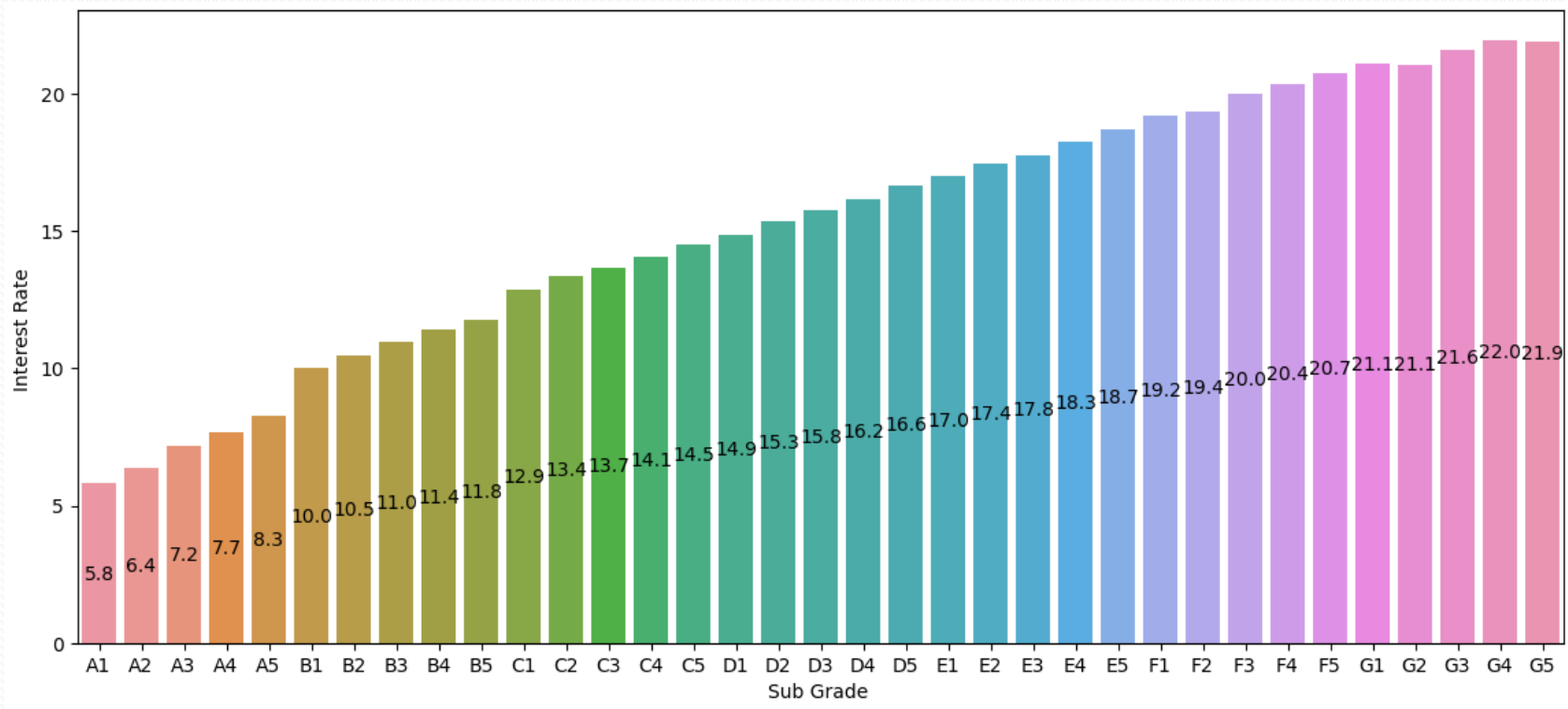
Interest rate & Grade Relation



Conclusion:

A has the least interest rate and G is have the highest interest rate and it is gradually increasing from A to G.

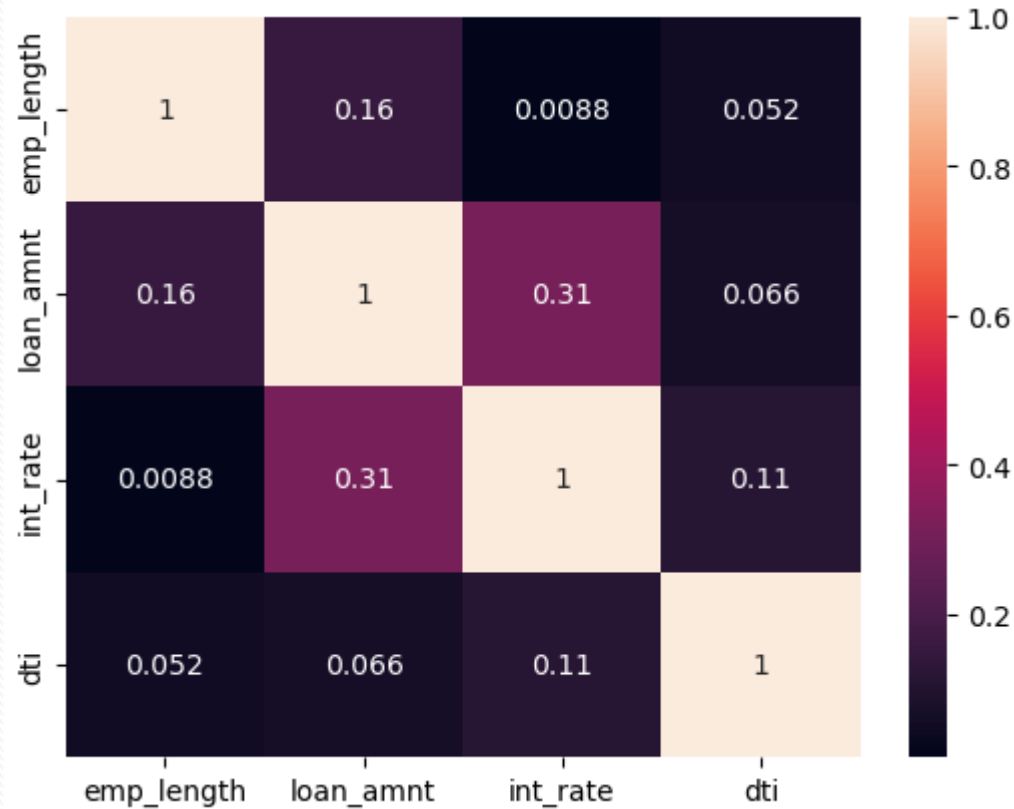
Interest rate & Sub Grade Relation



Conclusion:

A1 has the least interest rate and G5 is have the highest interest rate and it is gradually increasing from A1 to G5.

Heat Map of correlation



Conclusion:

- No or very less correlation among dti, interest rate, loan amount and employment length .

Conclusions

Conclusion from Charged Off and Fully Paid loans:

- Long terms (60 months) loans have higher loan venerability.
- No or very less impact of loan amount on loan venerability.
- No or very less impact of employment length on loan venerability .
- Verified & Verified Sources loans have higher loan venerability.
- On home ownership, try to reduce the risk as it contains more mortgage.
- In Current loan, NE state do not have high number of loans.
- For grade A to G interest rate increases.
- For Sub grade A1 to G5 interest rate increases.
- A1 are least and G5 is the highest loan venerability .
- No or very less correlation among dti, interest rate, loan amount and employment length.

Conclusion for Current loan:

- Current loan have only long terms (60 months) loans. Therefore have higher loan venerability .
- Current loan have higher loan amount.
- No. of loans are increasing as employment length increases.
- Current loan have more verified & verified sources and have higher loan venerability .
- Other type of home ownership have higher loan venerability and mortgage have lesser loan venerability.
- NE state have higher loan venerability.
- In Current loan, higher interest rate and higher grade loans number are there.



Thank You