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GRAMENER CASE STUDY



PROBLEM STATEMENT

The aim is to identify patterns which indicate if a person is likely to default.

On the basis of the patterns, we can take the decision whether:

1. Loan should be denied
2. Reducing the loan amount
3. Increasing the interest rate

ANALYSIS APPROACH

1. Loan status has 3 outputs:

- Fully Paid
- Current
- Charged off

2. We ran the analysis through multiple variable columns to find its relation with Charged off%

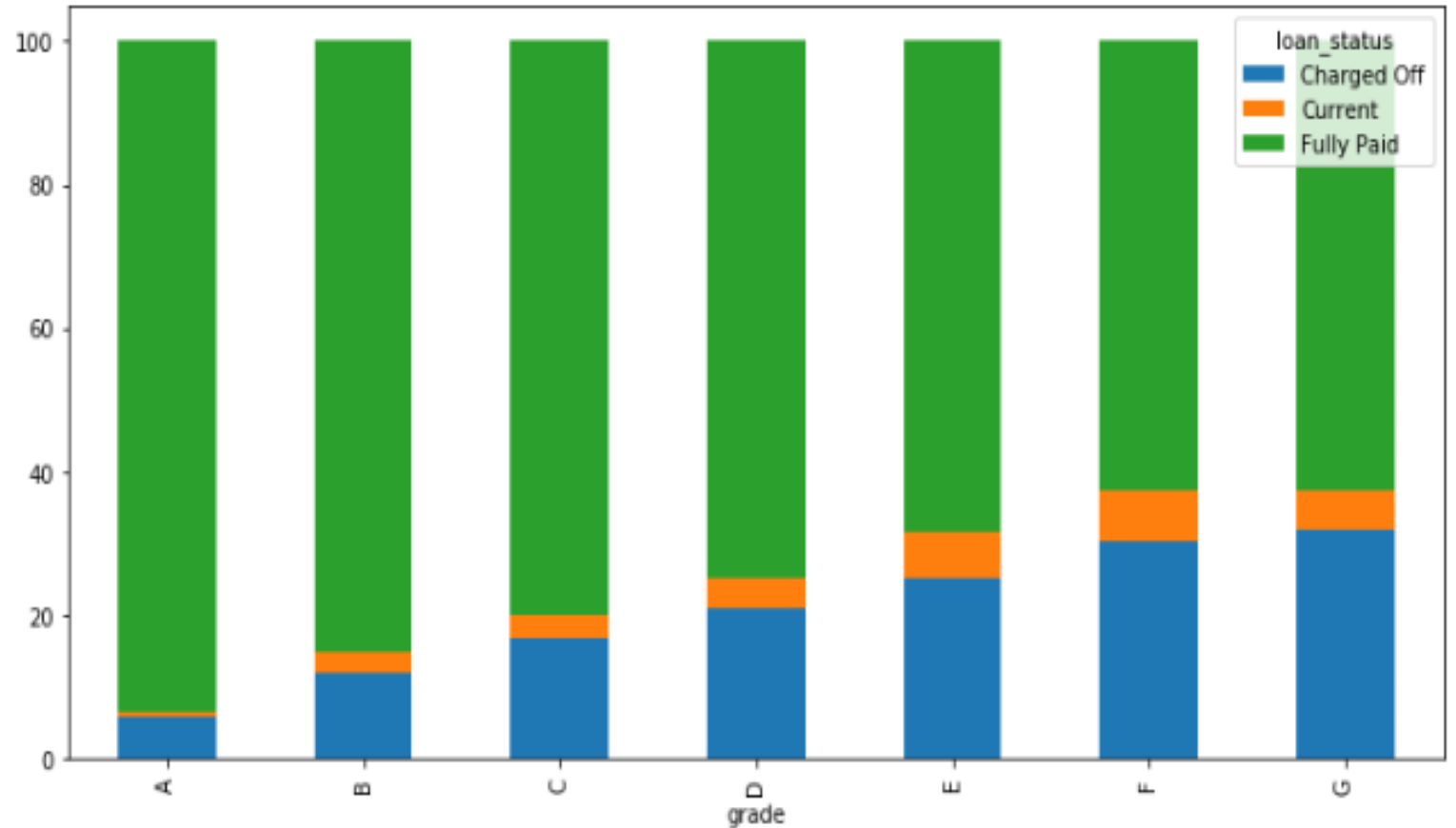
TOP PARAMETERS FOR LOAN DEFAULTER

1. Grade
2. Purpose of Loan
3. Home Ownership
4. Verification Status
5. Income
6. dti

ANALYSIS :

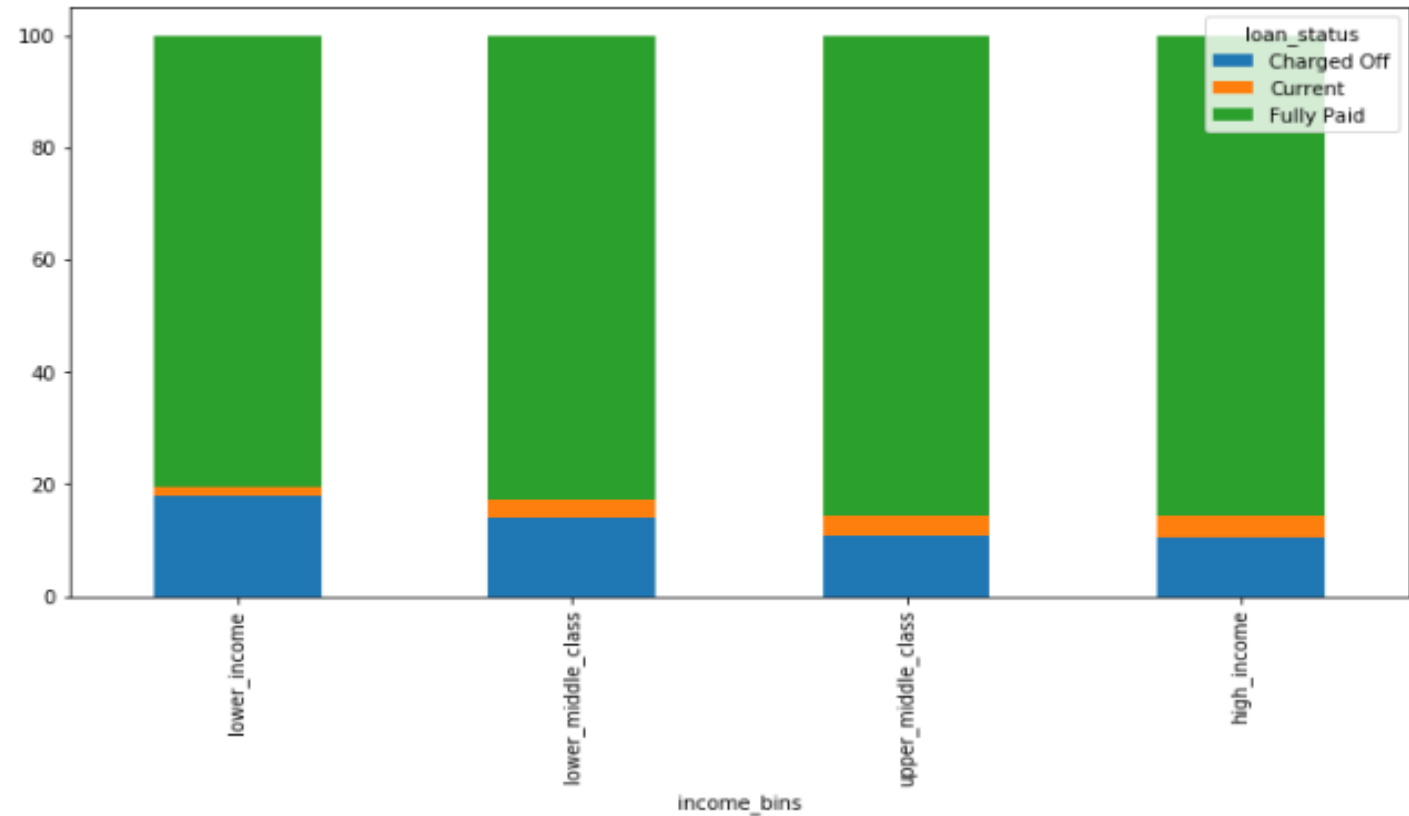
ANALYSIS3: Loan Status Vs Grade

- a) The Graph Shows in percentage for the contribution in both charged off & Fully Paid.
- b) The percentage of Charged off is increasing from grades A to G.



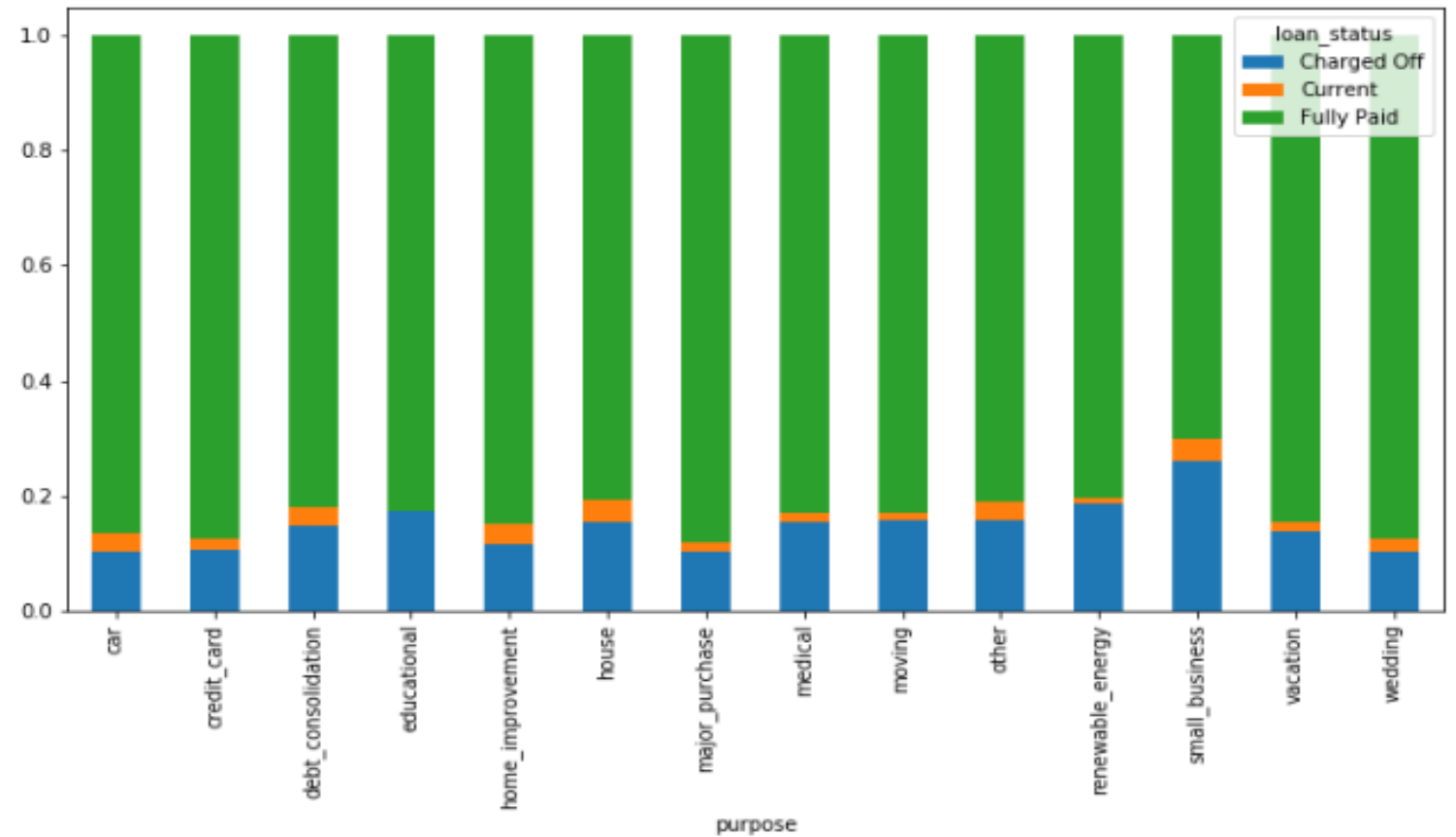
ANALYSIS3: Loan Status Vs Annual Income

- a) The Graph Shows in percentage for the contribution in both charged off & Fully Paid.
- b) The percentage of Charged off is decreasing from income level lower to higher.



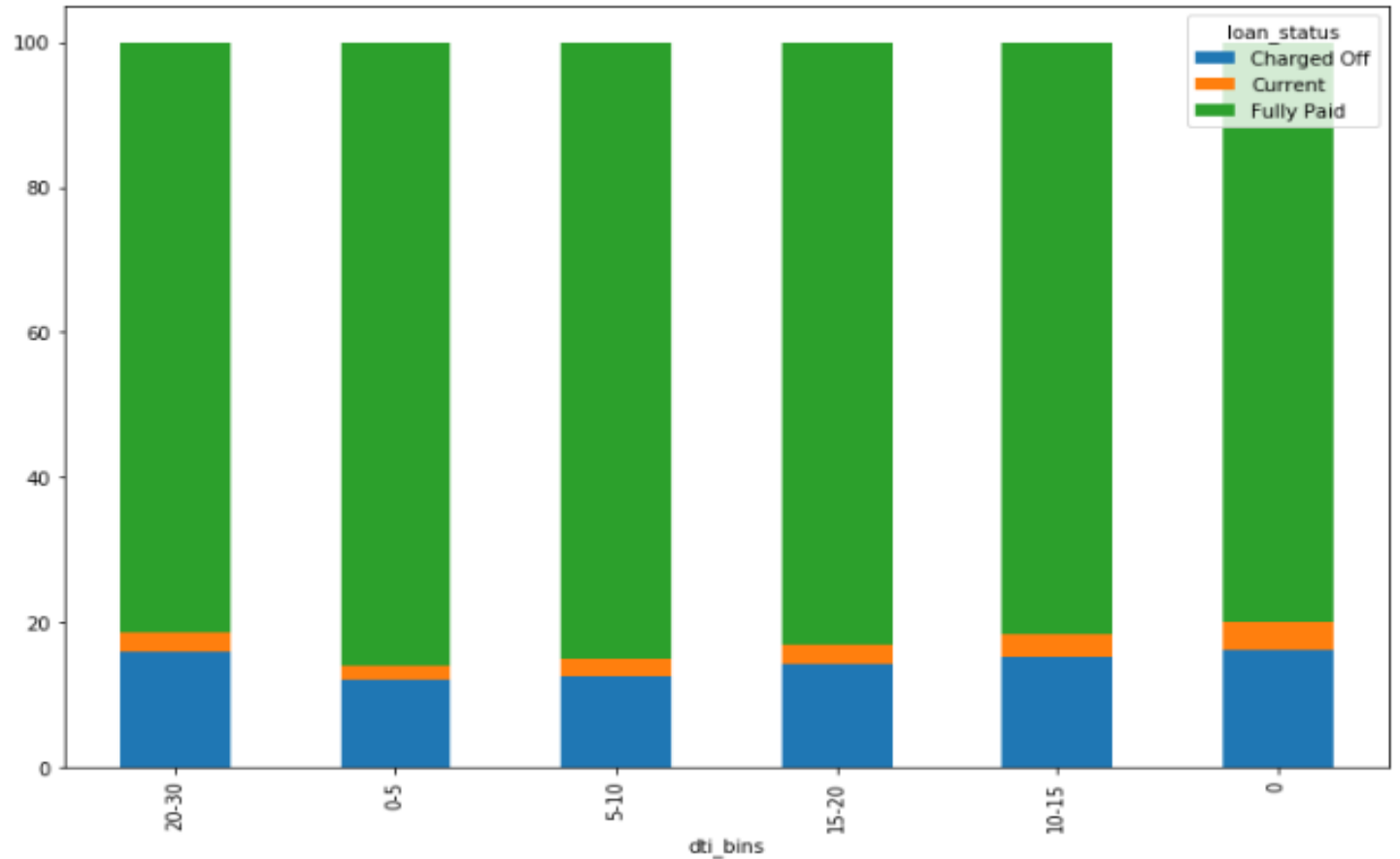
ANALYSIS3: Loan Status Vs Purpose

- a) The Graph Shows in percentage for the contribution in both charged off & Fully Paid.
- b) The percentage of Charged off is higher in purpose for loan taken small business, house, education, debt consolidation.



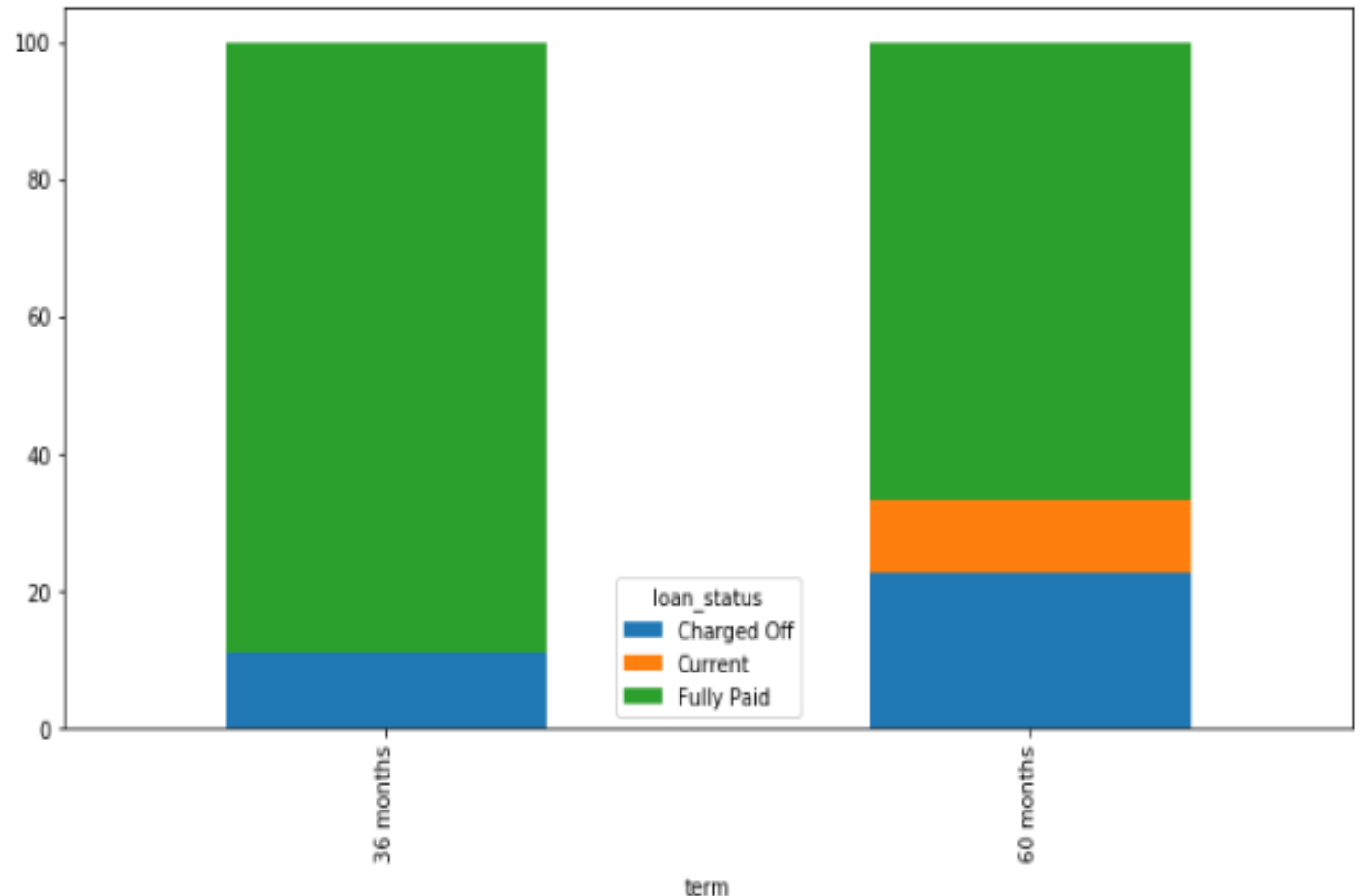
ANALYSIS3: Loan Status Vs dti

- a) The Graph Shows in percentage for the contribution in both charged off & Fully Paid.
- b) The percentage of Charged off is higher in 0 (Zero) and 20-30 bins



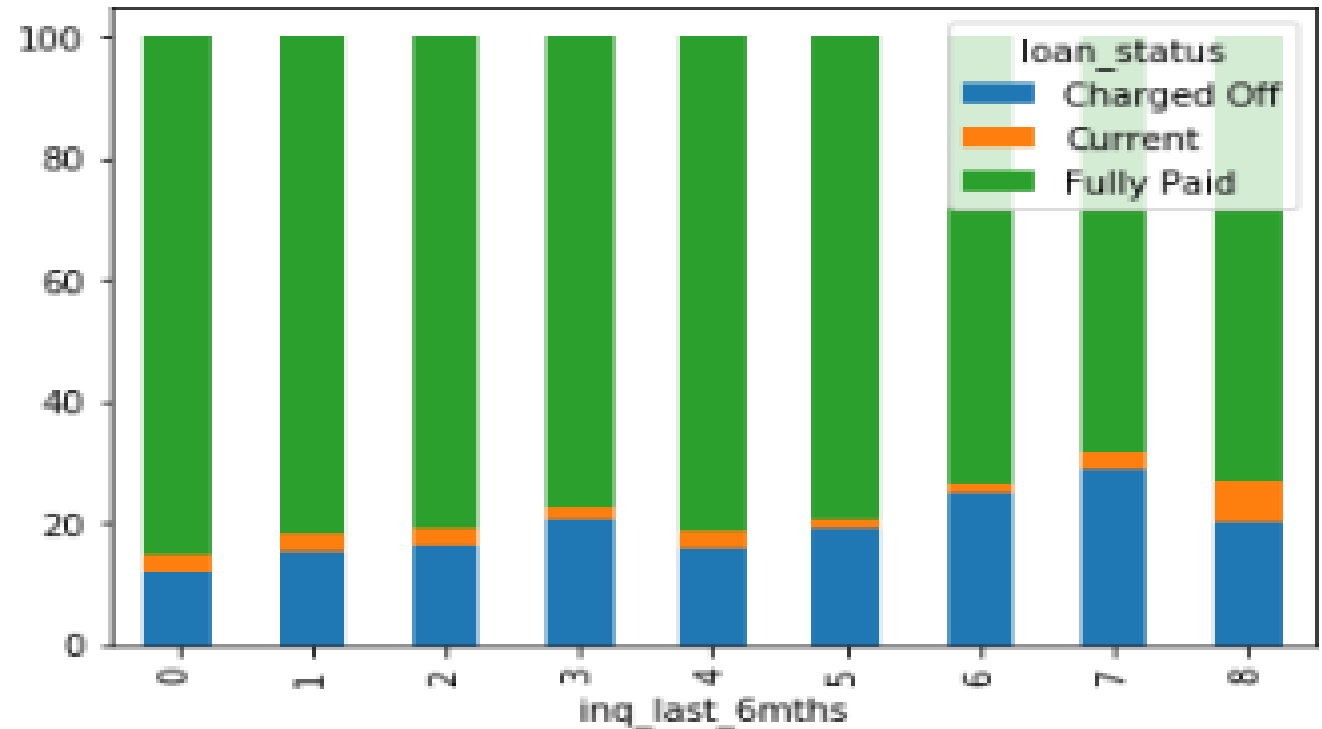
ANALYSIS3: Loan Status Vs term

- a) The Graph Shows in percentage for the contribution in both charged off & Fully Paid.
- b) The percentage of Charged off is higher in term period 60 months.



ANALYSIS3: Loan Status Vs inquiries last 6 months

- a) The Graph Shows in percentage for the contribution in both charged off & Fully Paid.
- b) More number of inquiries is in uptrend and hence higher chances of default



RESULTS

- a) Loan taken for small business and lower income are leading to maximum defaulters.
- b) In grades C to G, the percentage of defaults are more, here grades play an important role in loan disbursal and can be reference from current data to make future decision.
- c) Loan charged off is higher in dti bins 0 (Zero) & 20-30.
- d) Loan disbursal for longer term should be verified sensibly.
- e) More number of inquiries is in uptrend and hence higher chances of default

RECOMMENDATION

- a) The process of income verification should be more accurate as it is an important parameter to control default.
- b) As we see here that numbers of defaults are higher in verified, we need to investigate the documents correctly before the loan is approved.
- c) Target based/last minute loan disbursement should be avoided.