

Lending Club Case study

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General Information

- This Project is about giving suggestions to the investors who is ready to fund the borrowers via lending club data. Based on the suggestions the investors should be able to decide whether they need to fund the requested borrower or not. The lending club have provided the data to us, to do the analysis from which the suggestions can be derived. The business problem what the client facing here is the chances of giving loan to the wrong persons who will never pay the loan are high ie providing loan to the defaulters. And also the chances of not giving loan to the right person may result in loss of business for the investors. The data set we used to analysis this issue is the loan.csv file which has the history of previously loan availed borrowers data

Observations

- People who have 1-10 years of work experience have taken more loans compared to other categories (other categories: Less than 1 year and more than 10 years)
- In the given data set, the maximum number of bankruptcies reported is two and there are five members for whom 2 bankruptcies are reported
- From the frequency plot of the 'purpose' variable, we can observe that people have taken loans mainly for debt_consolidation
- People who own a house have barely taken loan for any purpose
- Borrowers with grade A and B have Fully Paid the loan compared to G and F. Also the ratio between Fully Paid and charged off is less in grade 'C'
- 75% of the Loan amount requested by borrowers with 60 months term is less than or equal to 20000. On the other hand with term 30 months people have requested less amount
- The loan term with 36 months Fully paid count is more than the 60 months tenure

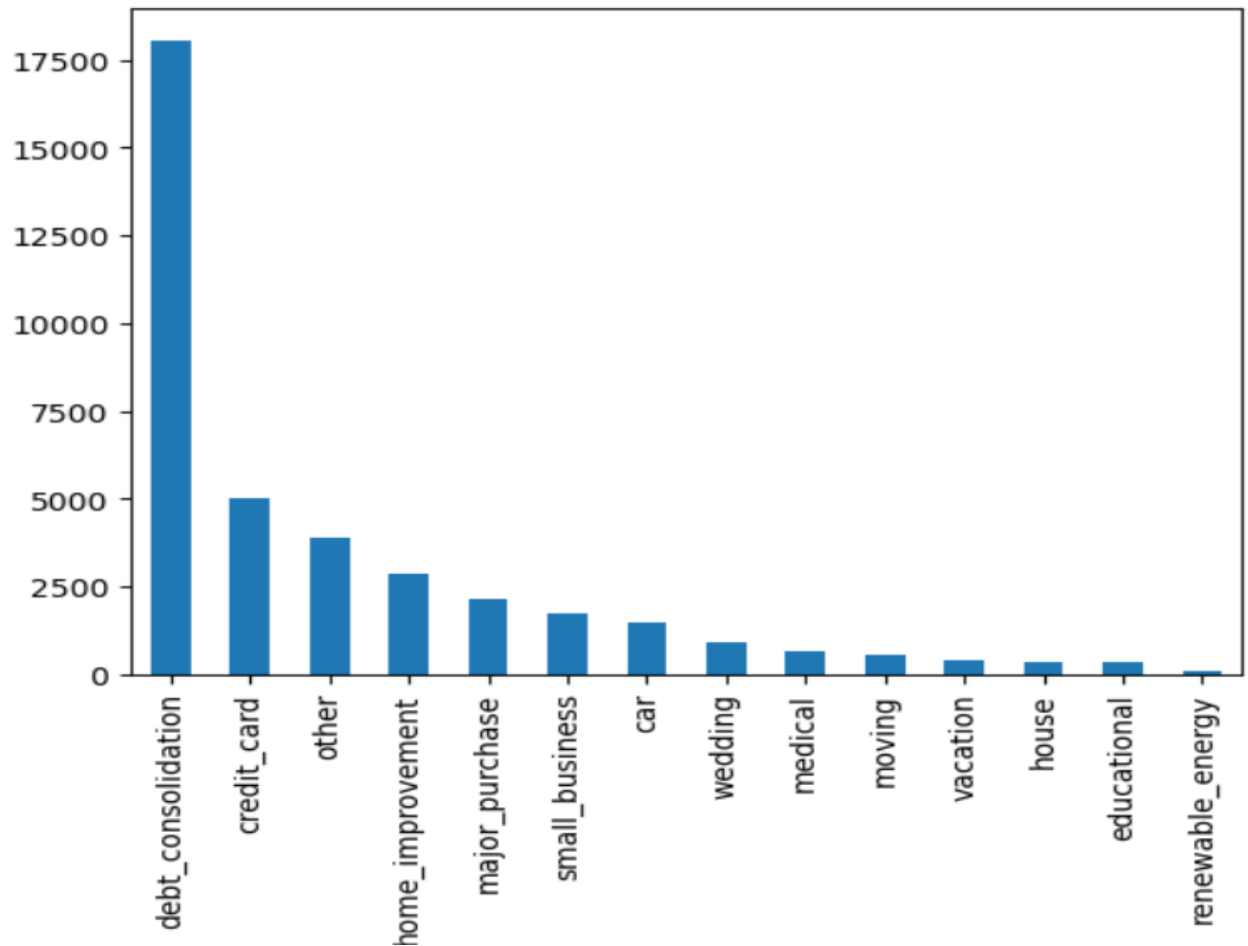
Recommendations

Borrowers where two bankruptcies are reported, 5 borrowers in our case can be directly blacklisted for giving further loans

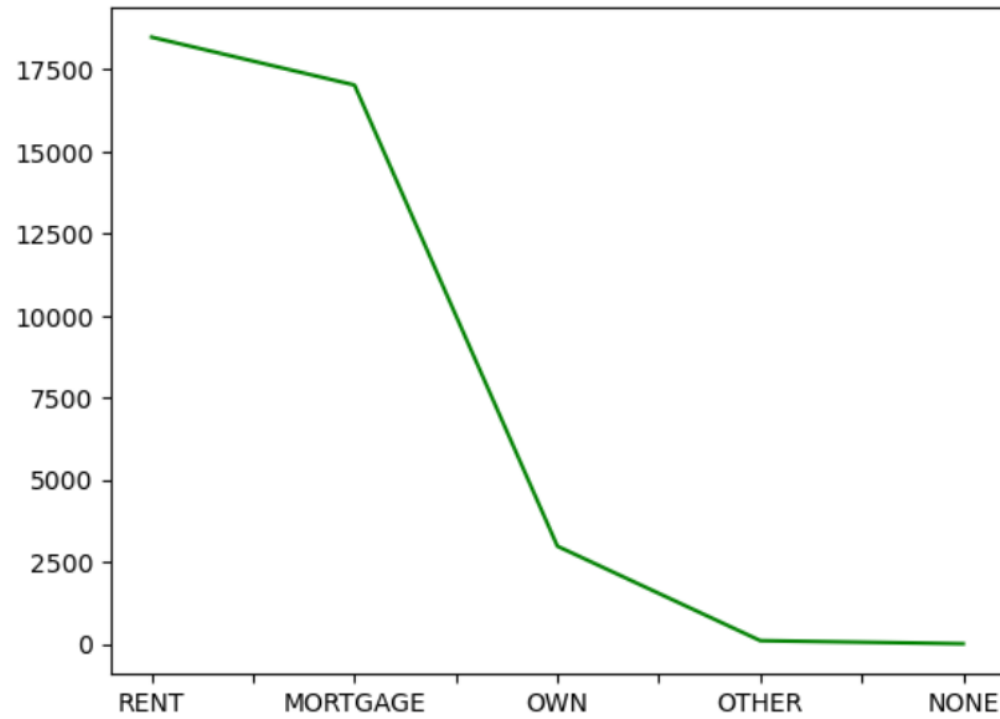
	loan_amnt	funded_amnt	funded_amnt_inv	term	int_rate	installment	grade	sub_grade	emp_title	wrk_experience	...	annual_inc	verification
14127	3600	3600	3600.0	36	17.99	130.14	E	E1	DENT FIX EQUIPMENT	100.0	...	85000.0	Source
18724	15000	15000	15000.0	36	16.40	530.33	E	E1	DELTA MECHANICAL	6.0	...	98000.0	Source
23127	8000	8000	8000.0	36	13.35	270.91	C	C4	Regions Bank	0.0	...	34000.0	
23381	10000	10000	10000.0	36	10.36	324.37	B	B5	Armand morin network	7.0	...	45600.0	Source
31554	3000	3000	3000.0	36	16.82	106.69	E	E2	JPMorgan Chase	9.0	...	37100.0	Not

5 rows × 21 columns

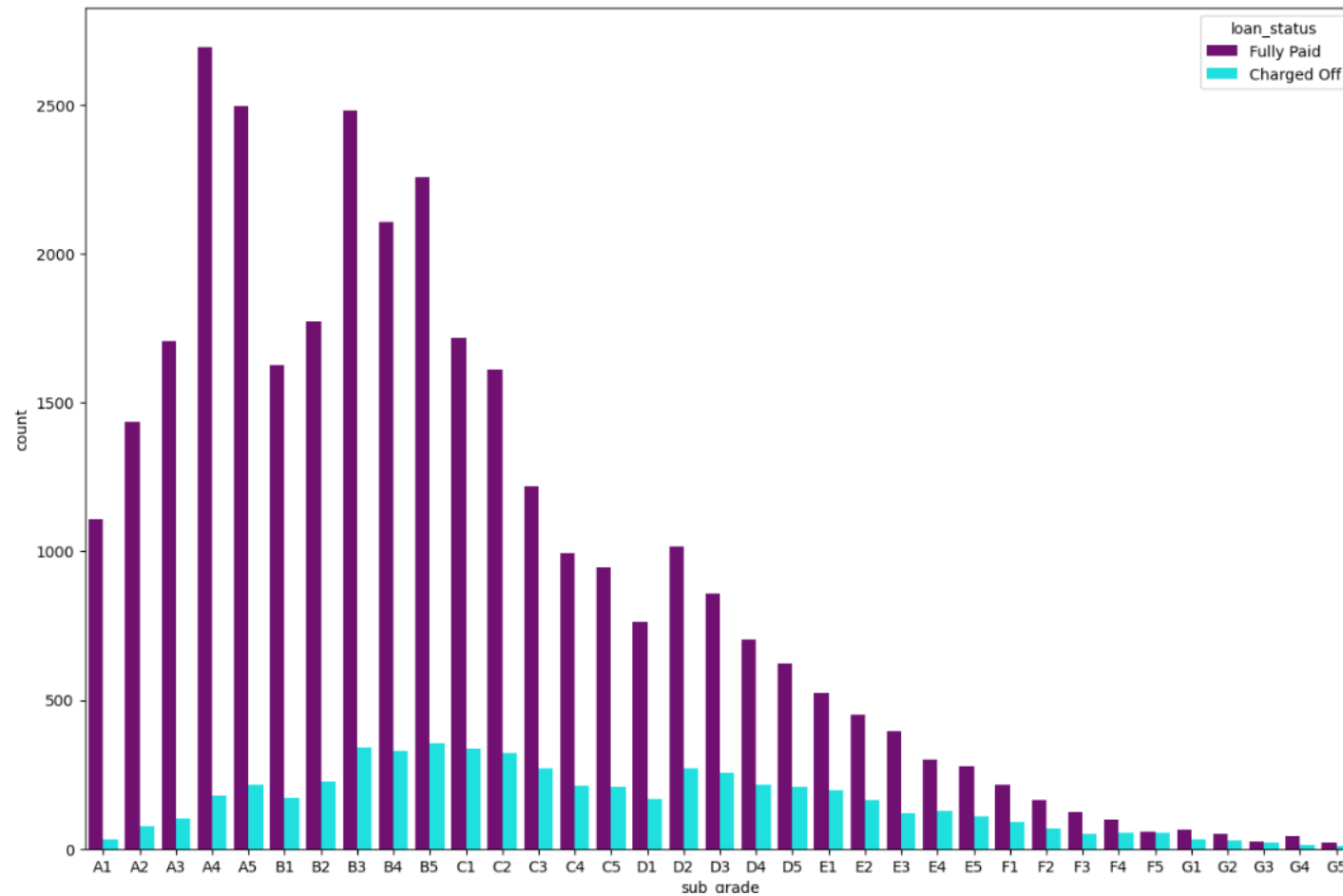
People who take loan for the purpose of debt_consolidation should be scrutinized properly



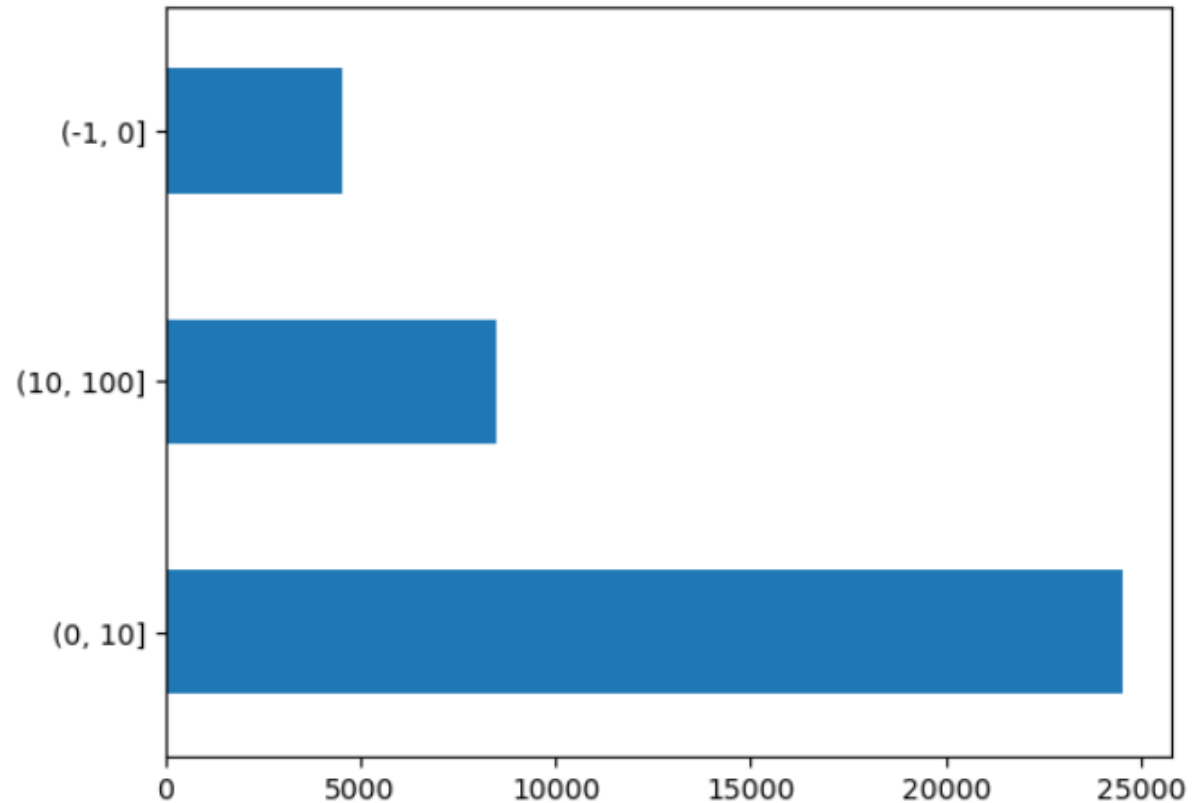
If a borrower owns a home his loan can be approved



From the data analysis , borrowers with grade 'C' should be verified more strictly as they have a greater chance of charge off



People with 1-10 years of work experience could be given priority will approving loans



36 months loan term people are paying loan fully when compared to 60 months. So, better to approve short term loans

