



Lending Club Case Study

SUBMISSION

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Objectives

- To identify these risky loan applicants, then such loans can be reduced thereby cutting down the amount of credit loss. Identification of such applicants using EDA is the aim of this case study.
- Lending Club wants to understand the driving factors (or driver variables) behind loan default, i.e. the variables which are strong indicators of default. The company can utilize this knowledge for its portfolio and risk assessment.





EDA method used

Understand data files for risk factors

Explore available data inputs

Clean up data

Plot pivot tables

Plot graphs

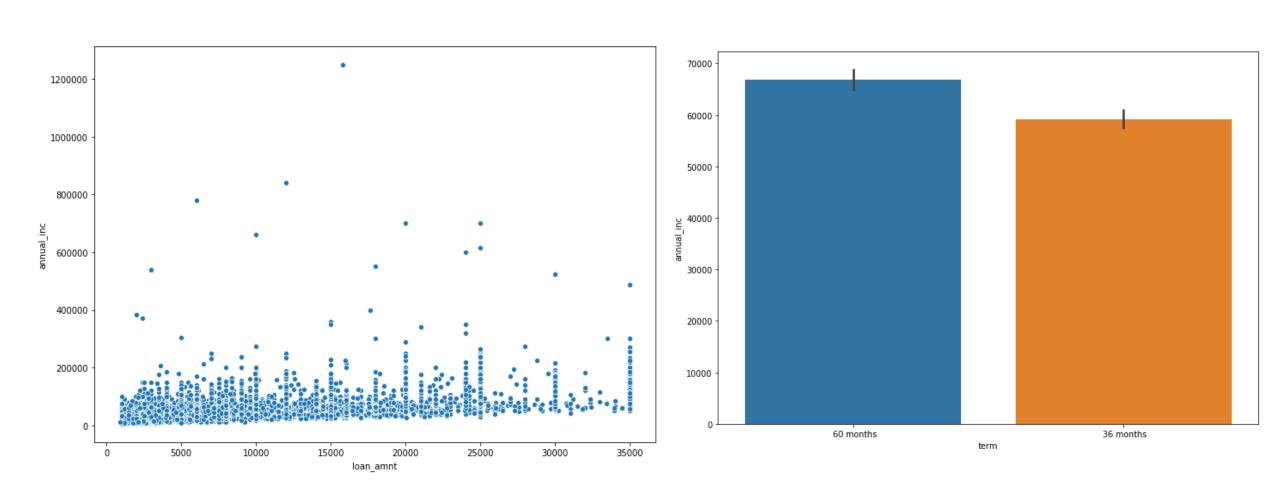
Identify key conclusions

Summarize key factors





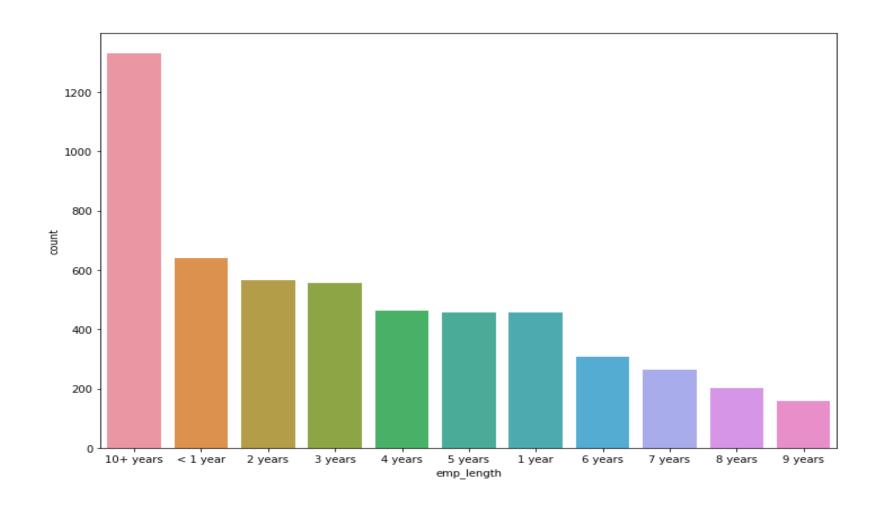
Analysis 1:People with annual salary less than or equal to 300000 tend to default more. They should take loan for longer term







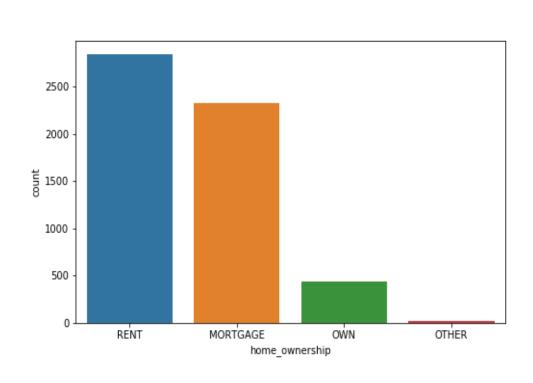
Analysis 2: People with 10+ years experience default most

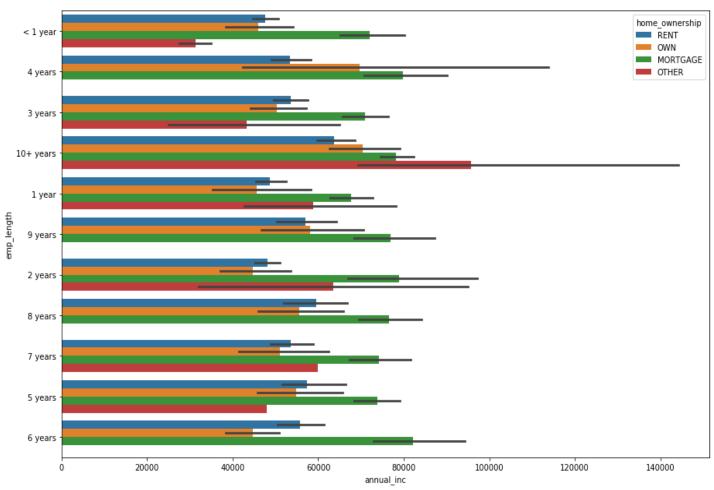






Analysis 3: People living on Rent or have home Mortgage default most

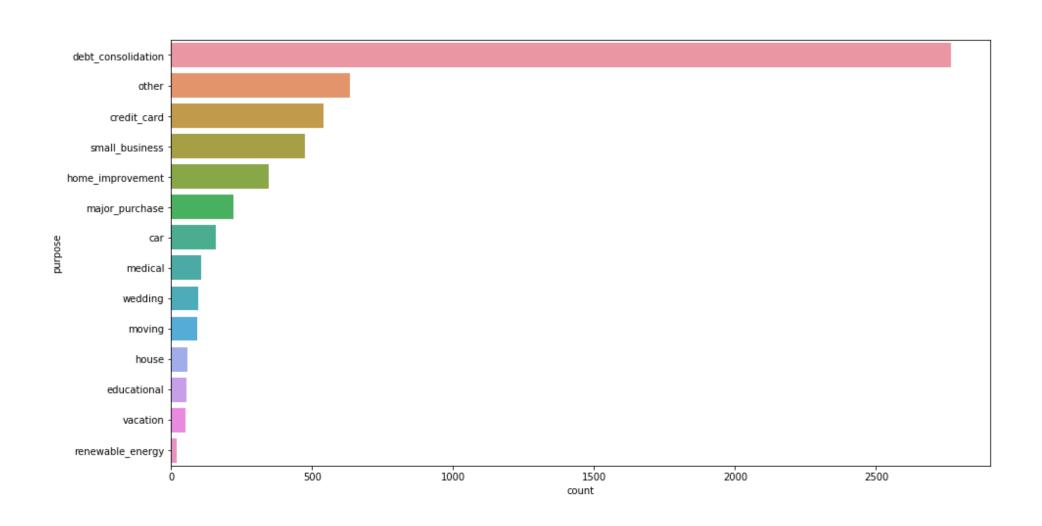








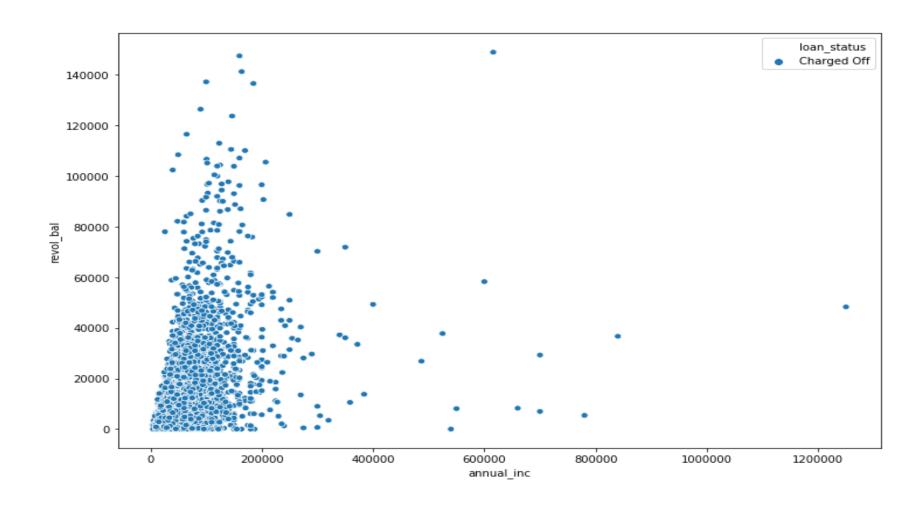
Analysis 4: DEBT Consolidation has most defaulters.







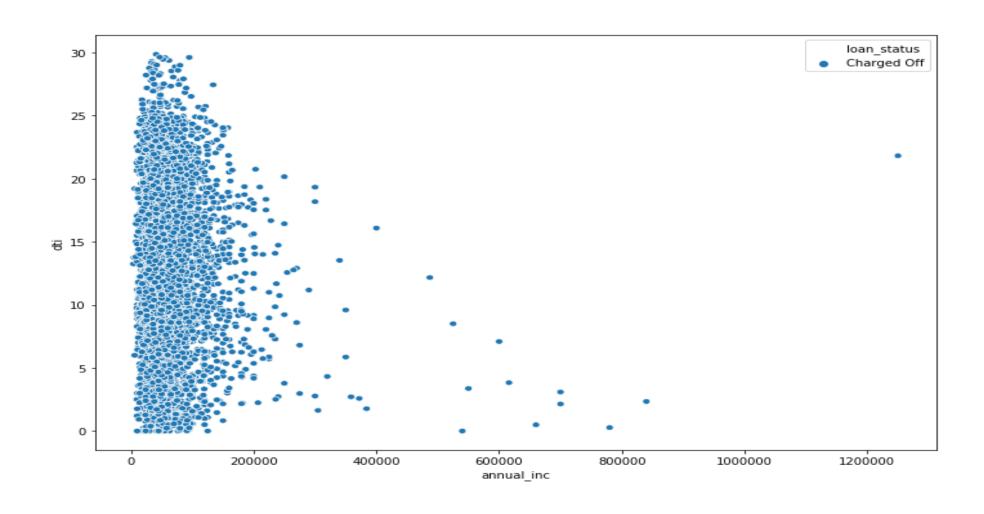
Analysis 5: Less Income and more rotational balance default more







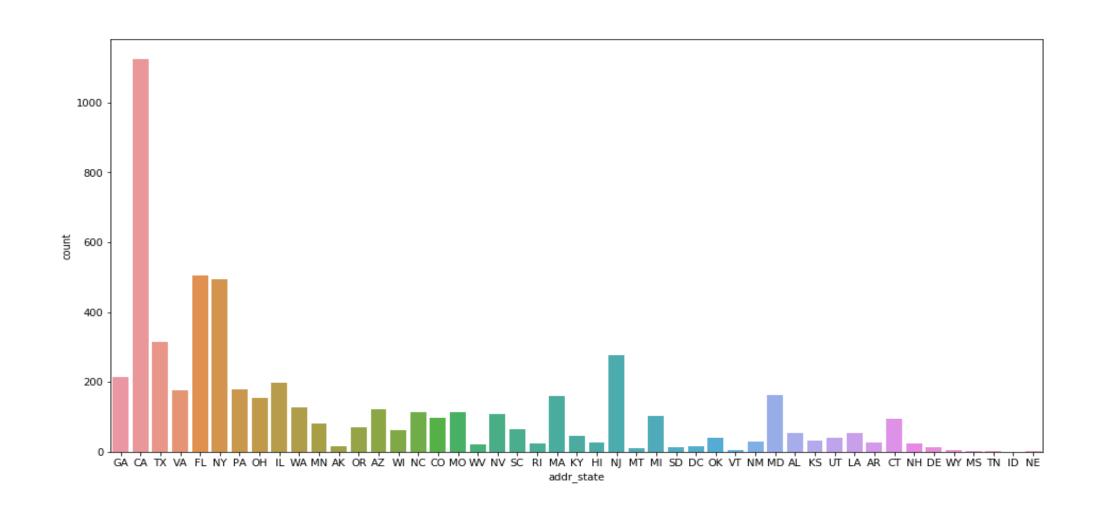
Analysis 6: Higher the DTI, higher the risk







Analysis 7: Highest defaulter are in CA, FL, NY







Conclusion

Key Indicators:

- 1. Salary with respect to Time Period
- 2. Employment Length with respect to DTI and annual salary.
- 3. Loan amount with respect to home ownership
- 4. Loan taken for debt consolidation
- 5. Loan applicants applied from CA, FL and NY.