Gramener Case Study
Loan Risk Assessment

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Business Objective

Aim:

- Identifying and profiling the customers that are marked as charged off loans to cut down the credit loss for LendingClub
- Analyzing the parameters behind loan default
- Develop an understanding of loan and customer attributes
- Suggest parameters to develop risk assessment

Results Expected:

- Analysis of various parameters that impact credit loss
- Portfolio of Risky customers

Approach to the Problem

Step 1

- Identify and eliminate Variables that do not impact loans
- Analysing the motive for Charged Off Customers
- Calculate the Credit Loss

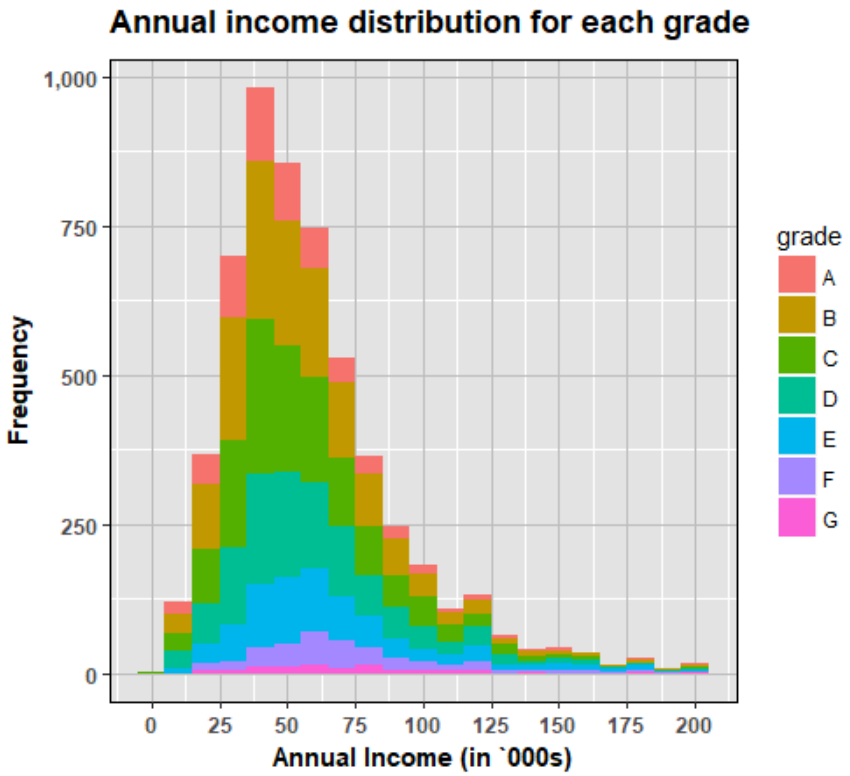
Step 2

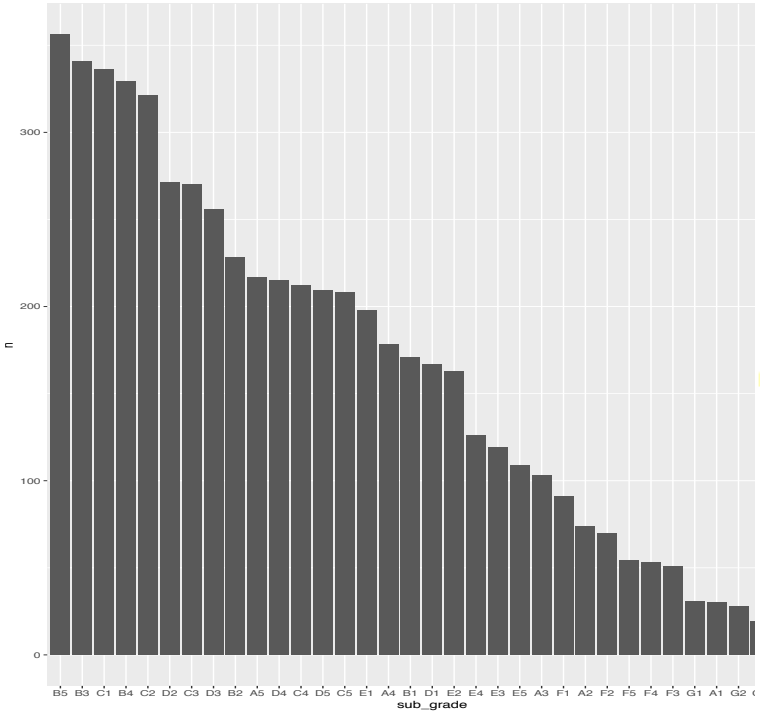
- Analyse the impact of Customer attributes and Loan attributes on Credit Loss
- Analyse the Parameters, Using Univariate, Segmented, and Bivariate approach

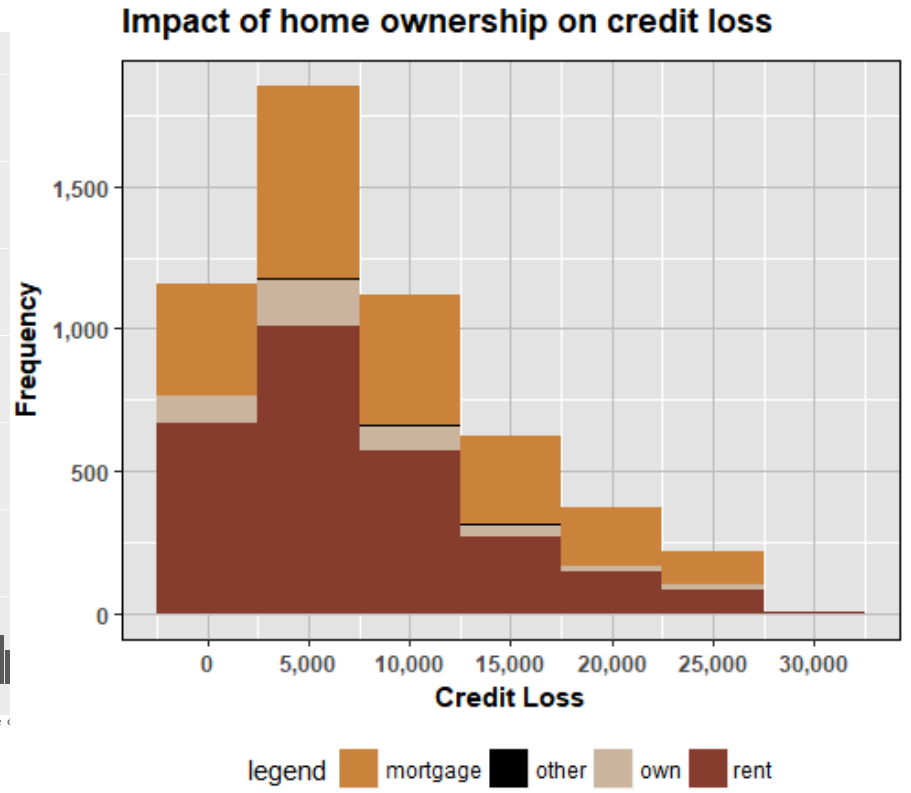
Step 3

- Build a Profile of Risky Customers

Univariate Analysis – Customer attributes

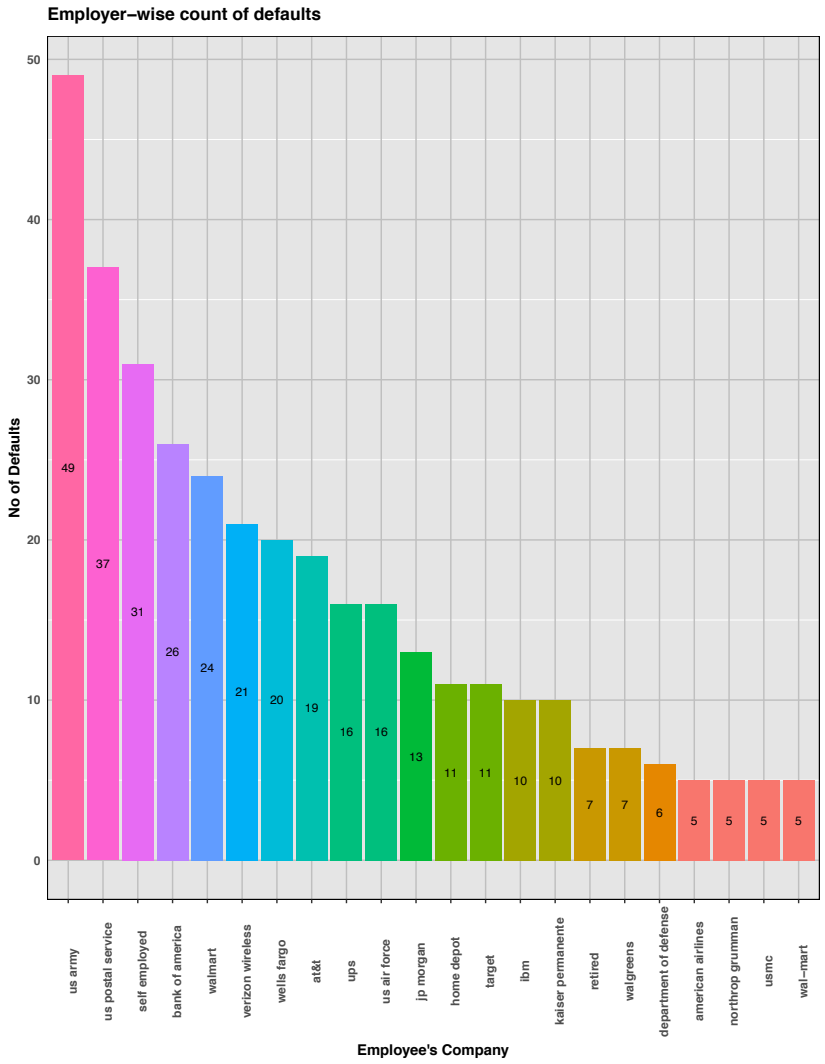


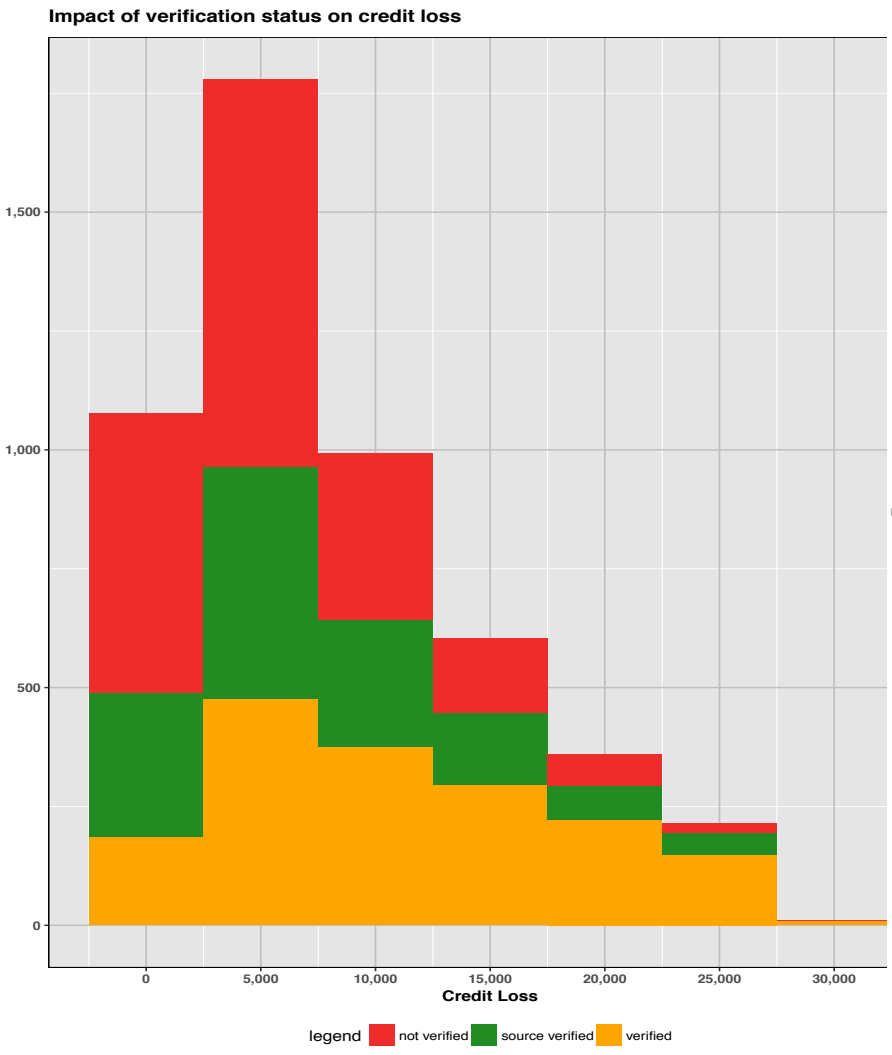


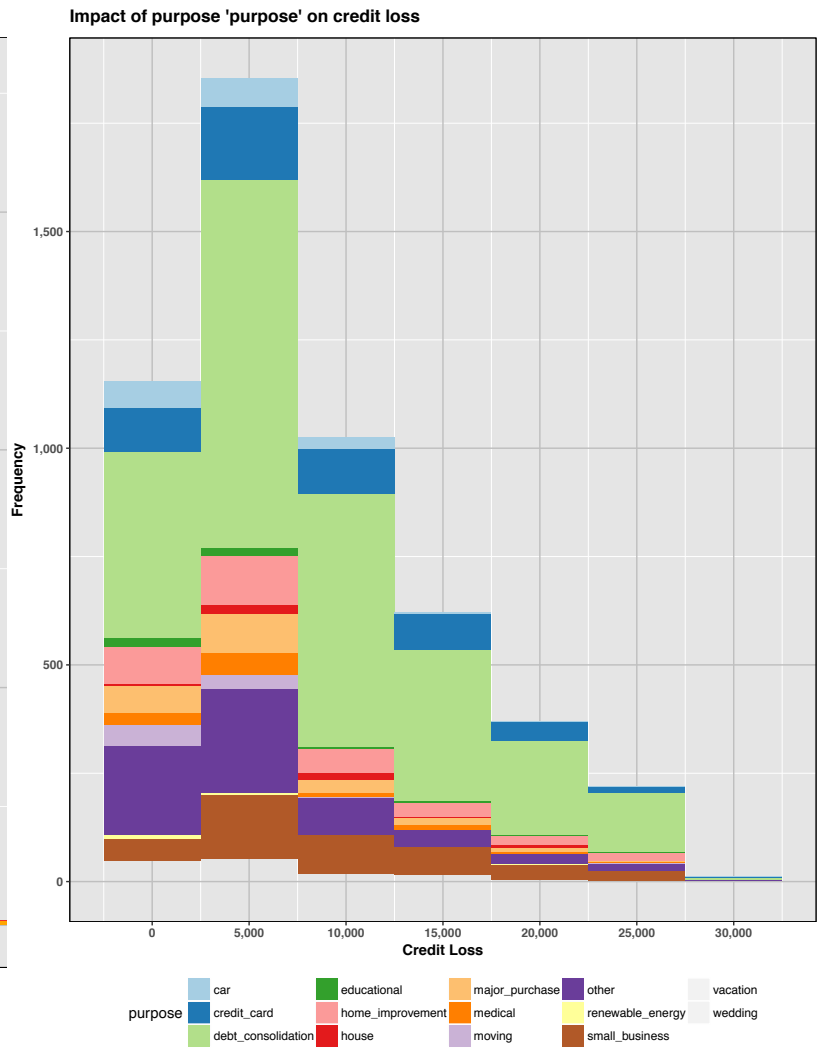


Grades	Ownership	Sub grades
Annual Income: 25K – 75 K	: Rent, mortagage	B5,B3,C1,B4,C2,D2

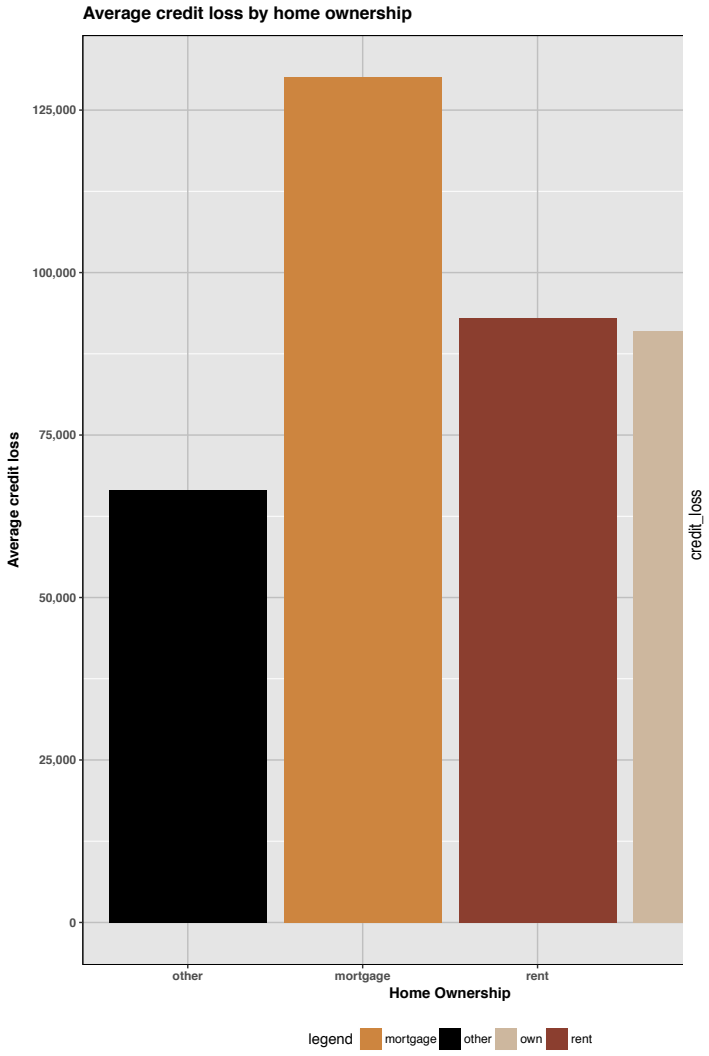
Univariate Analysis – Loan attributes

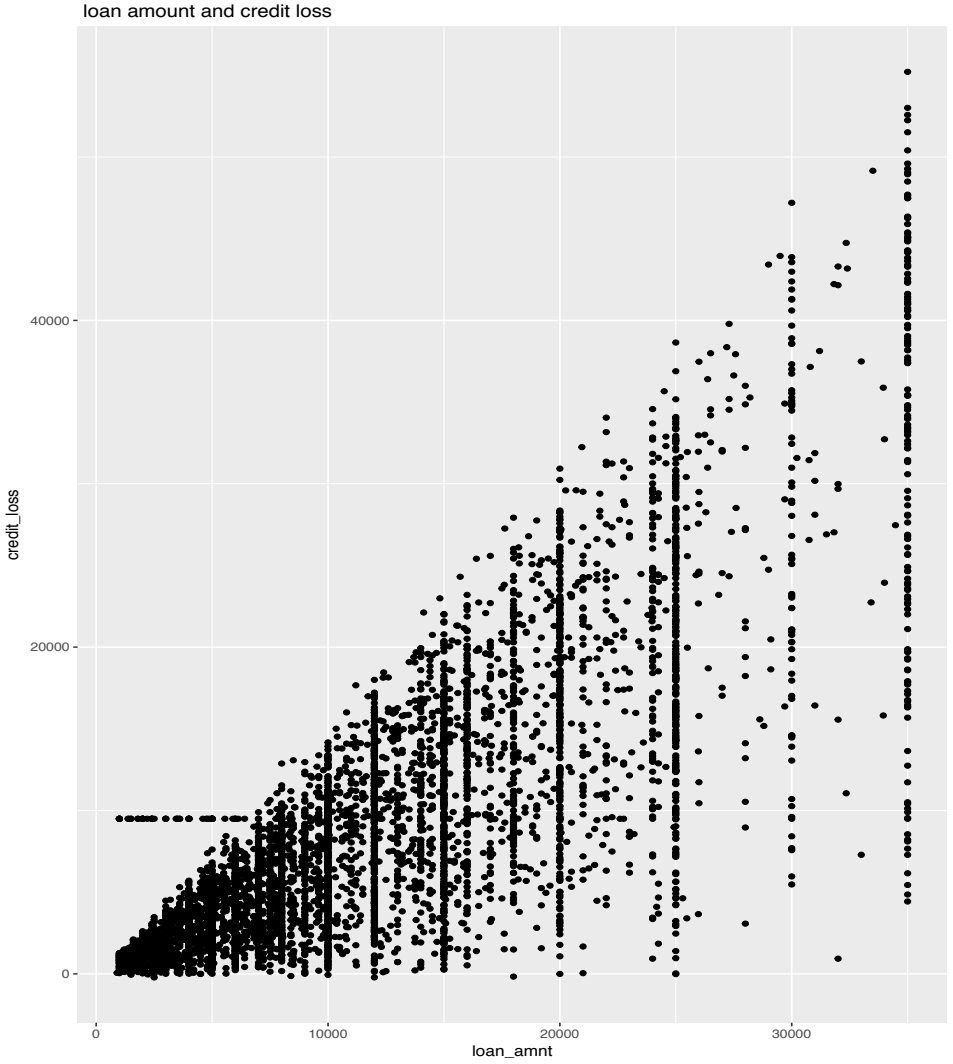


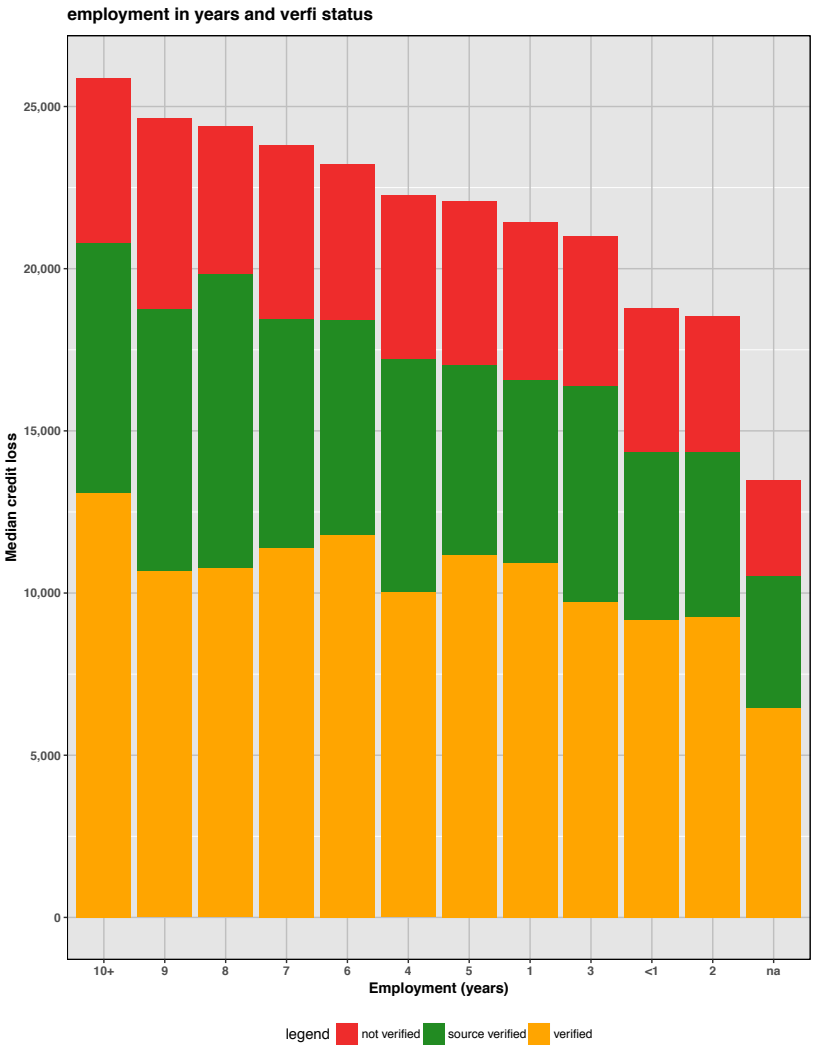




Segmented Analysis – Customer attributes







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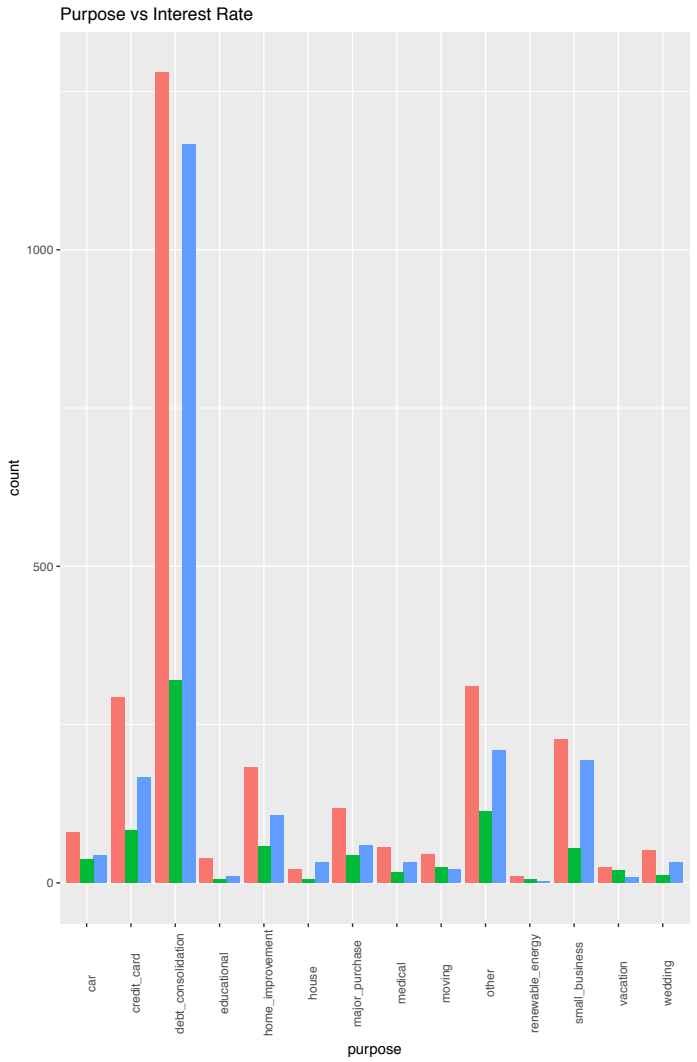
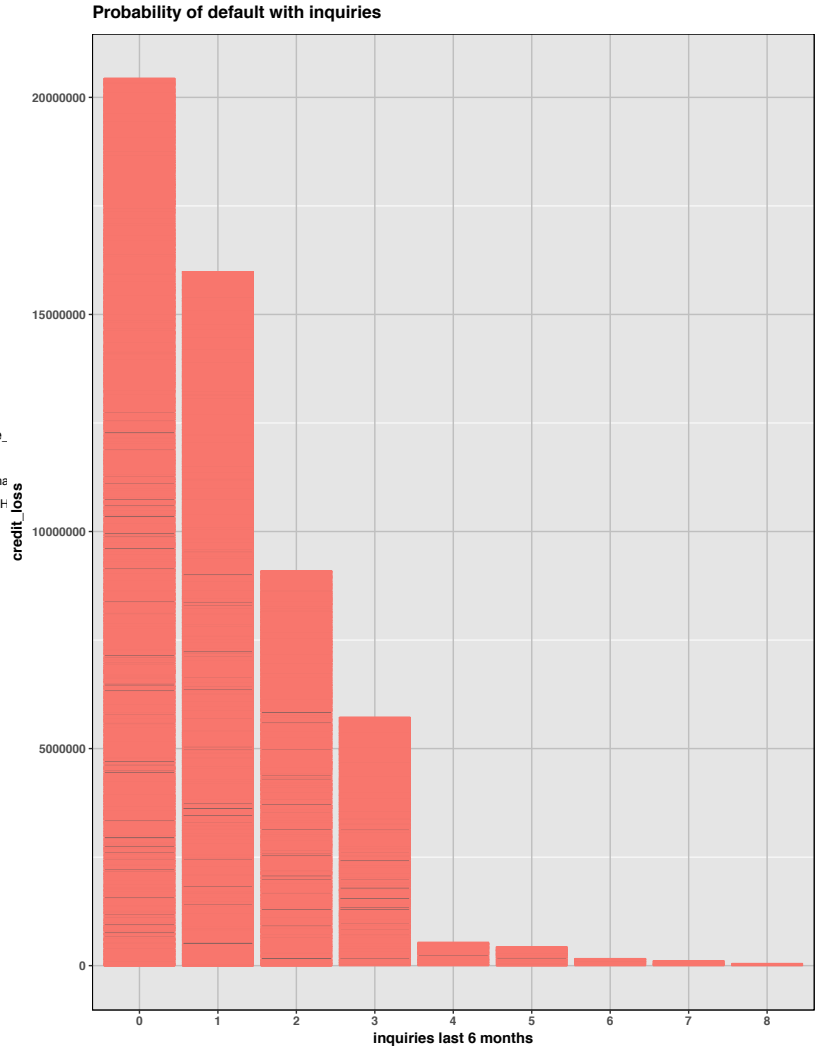
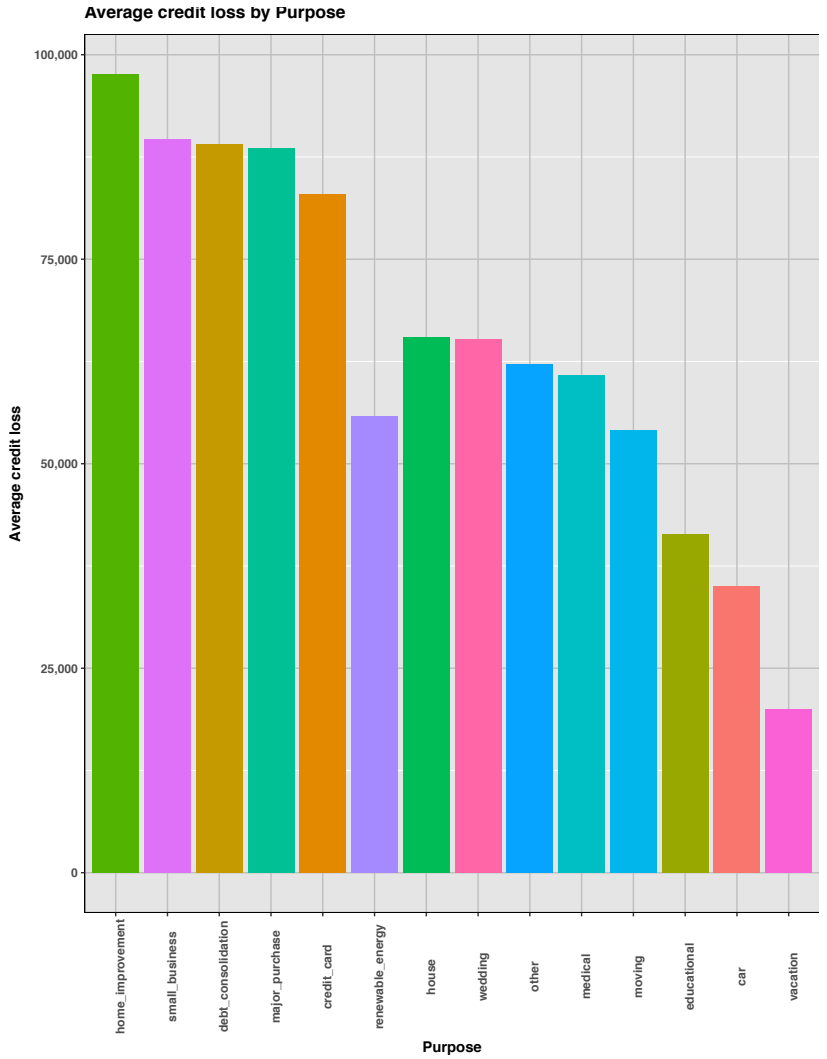
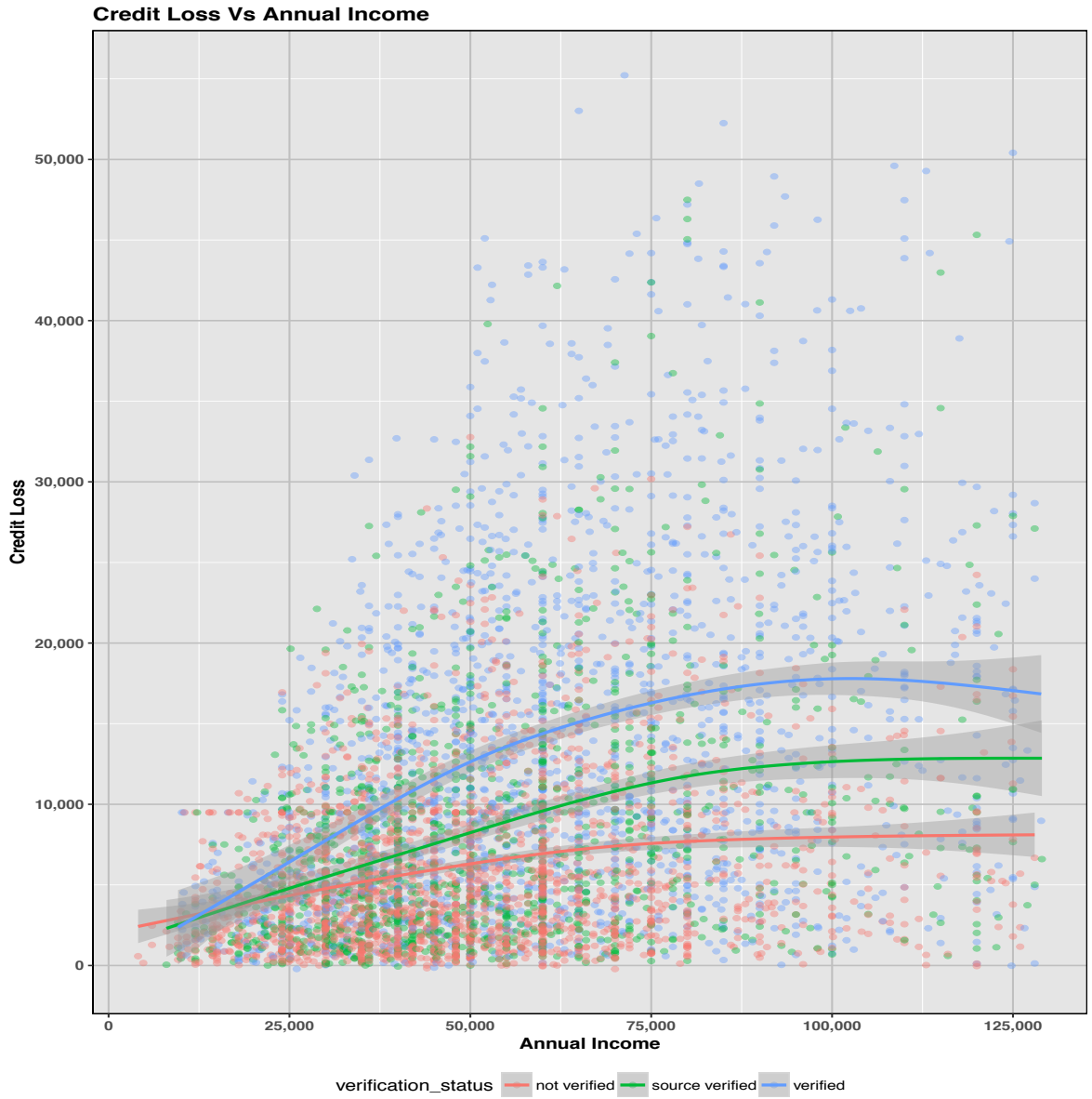




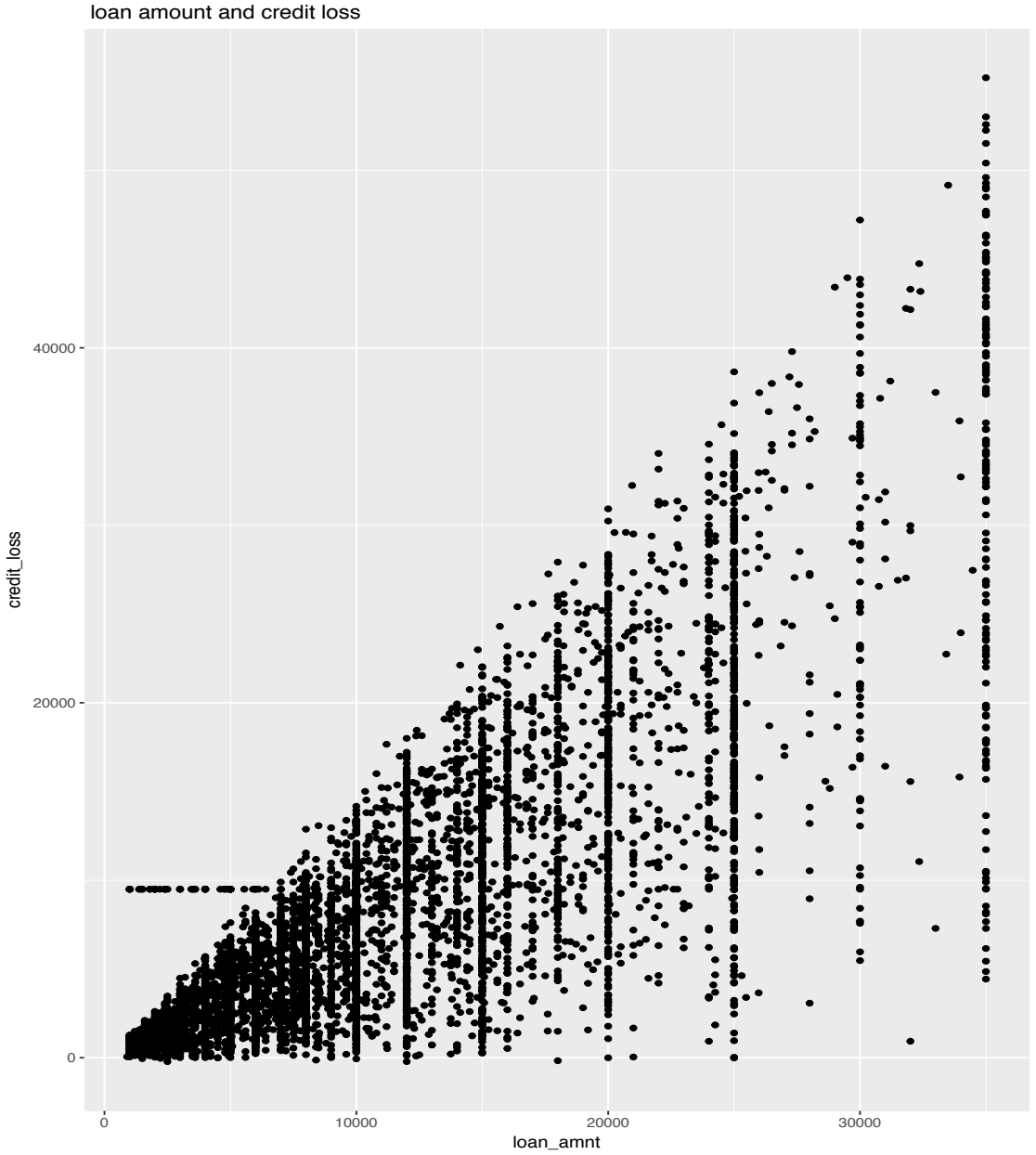


Bivariate Analysis



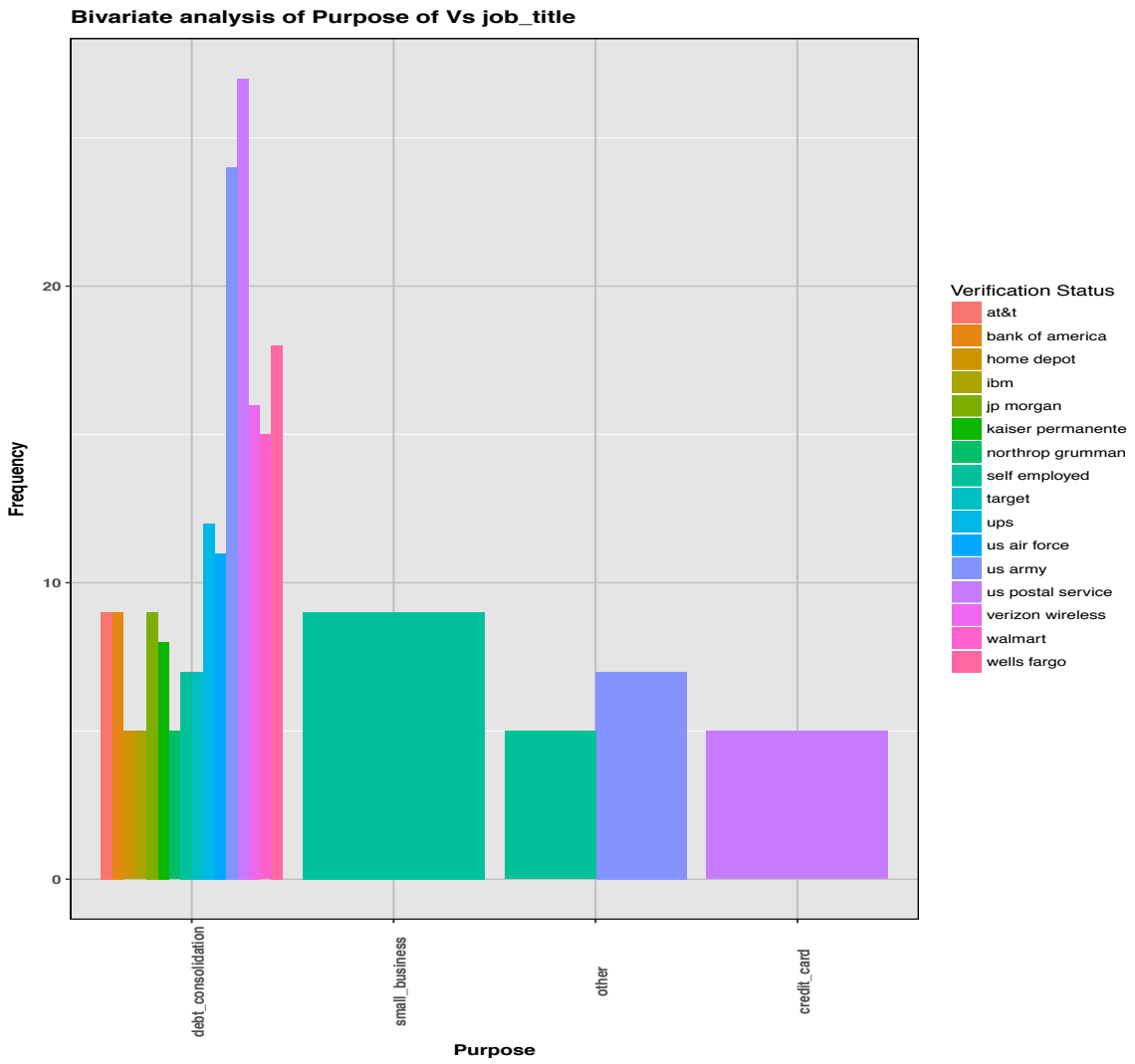
Annual income between 25K to 60K caused significant credit loss

Bivariate Analysis



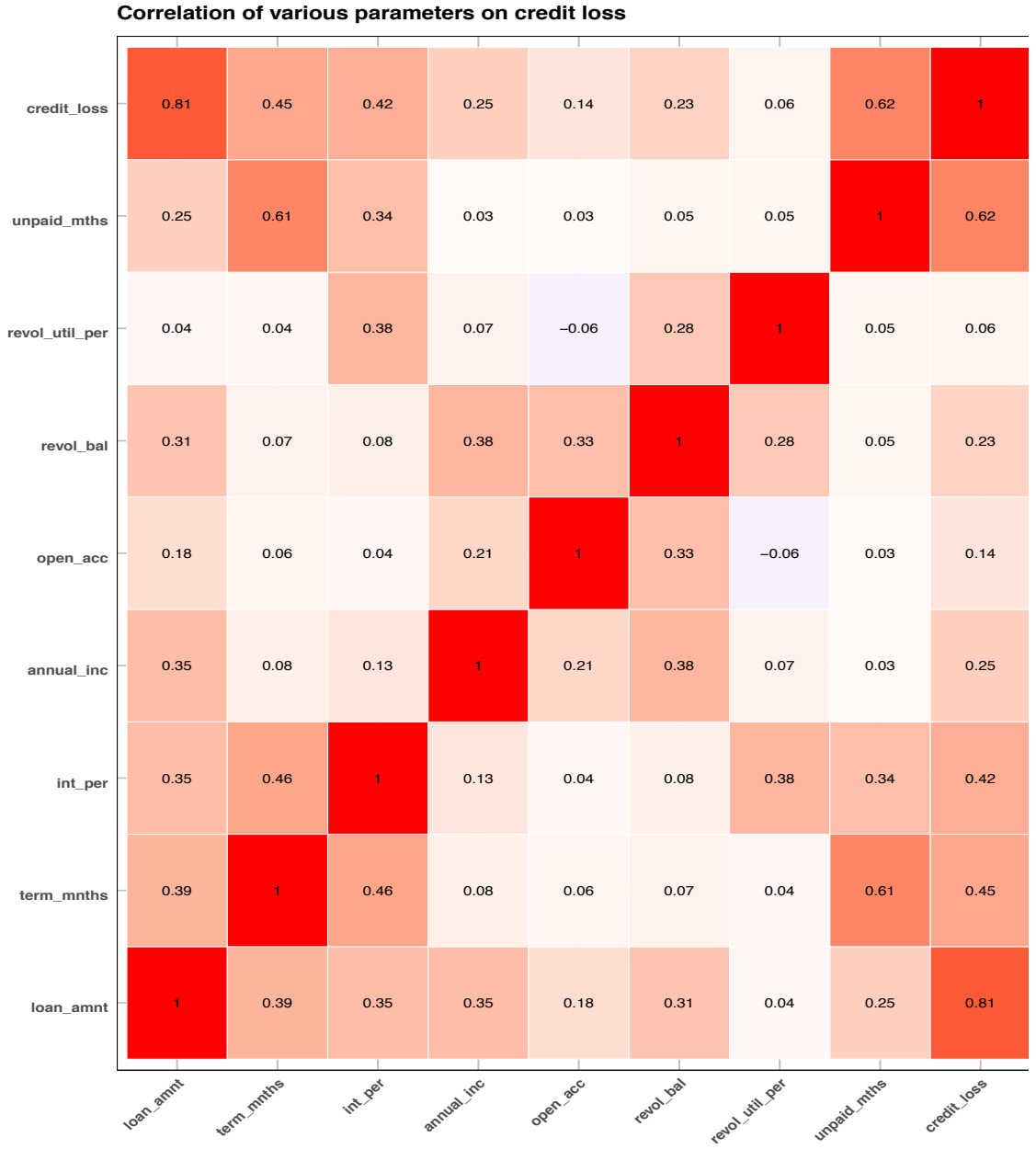
Loan amount of average 0-10K credit loss is the highest

Bivariate Analysis



Purpose	Employer
Debt consolidation	US Army and US Postal Service
Small Business	Self Employed
Credit Cards	US Postal Services
Other	US Army, Self Employed

Bivariate Analysis



Factors that influence based on heat map:

1. Loan Amount
2. Loan Term
3. Interest Rate
4. Annual Income
5. Revolving Balance

Risk Profile

loan attributes	Value Range	customer attributes	Value Range
loan amouunt	2K _ 4K	annual income	30_60K
term	36 months	emp_years	10+,9,7
interest rate	13_17%	emp title	US army, US post service, walmart
verification_status	verified, source verified	grade	BCDE
purpose	Debt Consolidation	subgrade	B5,B3,C1,B4,C2,D2,C3
		home_ownership	Rent, Mortagaged
		inquiries-last_6_months	0,1,2,3
		open_acc	4,6,8,10
		revol_uti	25_90%

Conclusion

- Risk Profile of Risky customers has been analyzed about
- **customer attributes:**
  - annual income, experience, job title, grade, subgrade, home ownership, inquiries-last_6_months, open_acc, revolving balance

- **loan attributes:**
  - loan amount, term, interest rate, verification status, purpose