Lending Club Case Study

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Problem Statement

The aim of the study is to figure out the driver variables that clearly indicates which set of borrowers with specific set of pre-requisite criteria attached to them needs to be avoided at the time of onboarding for a fresh loan

Identifying Key variables that needs to be considered for the analysis

- To do so I have removed all the columns that provide data post loan sanctioning.

- The key variable that was considered are:

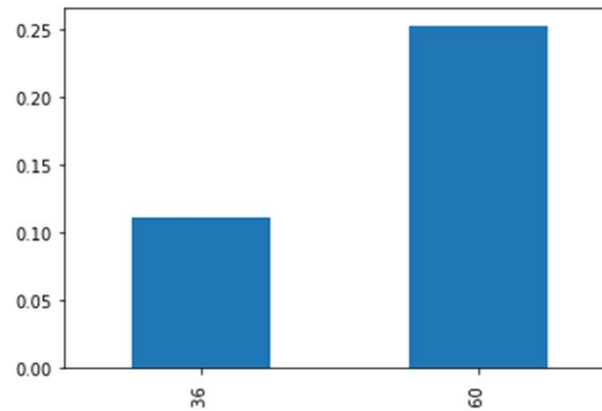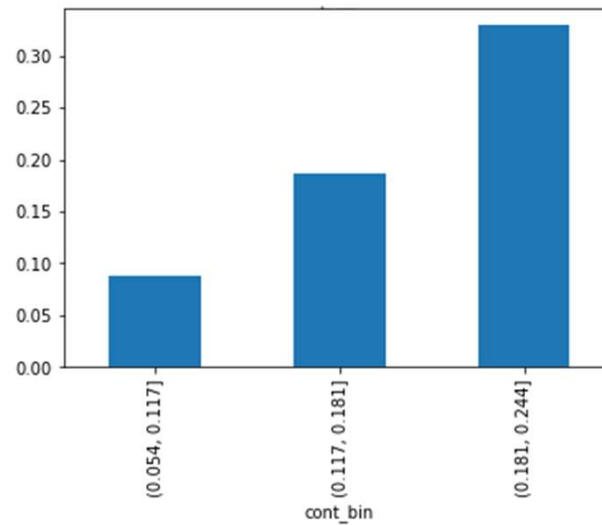|	
Loan Amount	Term
Interest Rate	Grade
Sub Grade	Employee Length
Home Ownership	Annual Income
Verification Status	Loan Status
Purpose	DTI

Univariate Analysis – Part 1

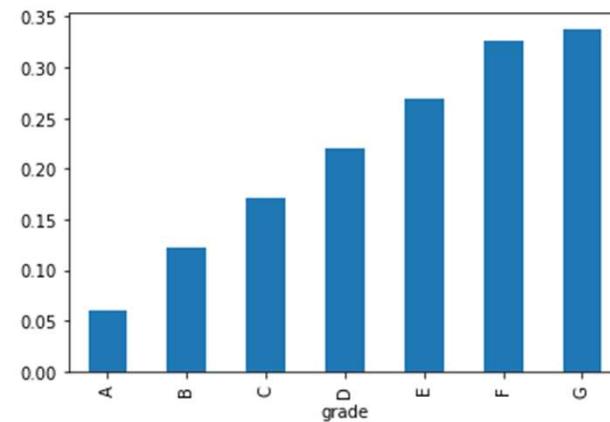- Term – People with longer term loans default more

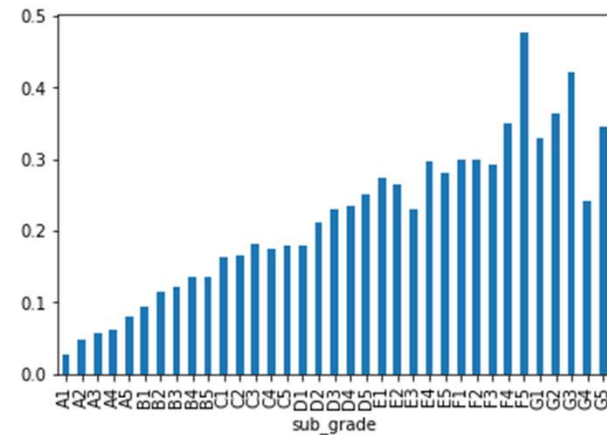- Interest Rate - People with higher interest rate default more

Univariate Analysis – Part 2
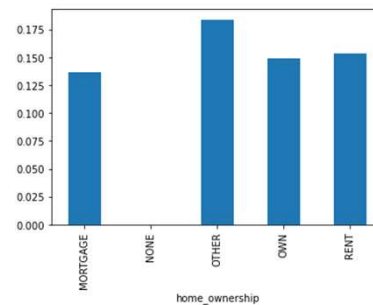
- Grade - People with lower grades default more

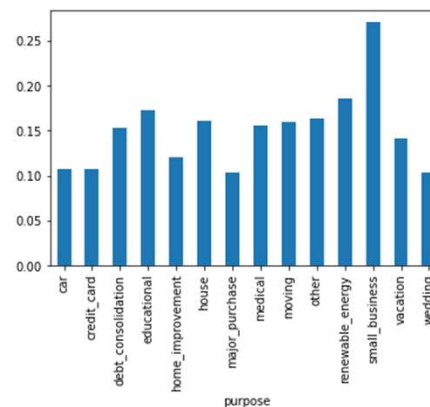- Sub Grade - People with lower sub grades default more
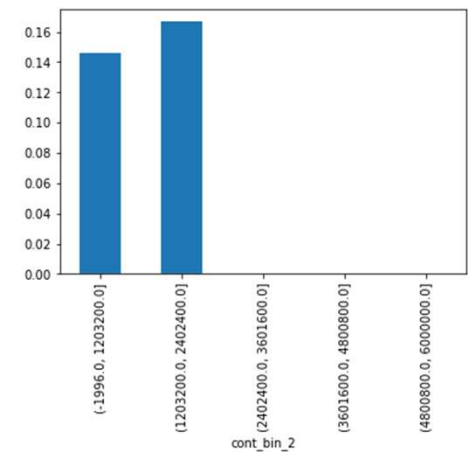
Univariate Analysis – Part 3

- Home Ownership- People with no proper ownership default more

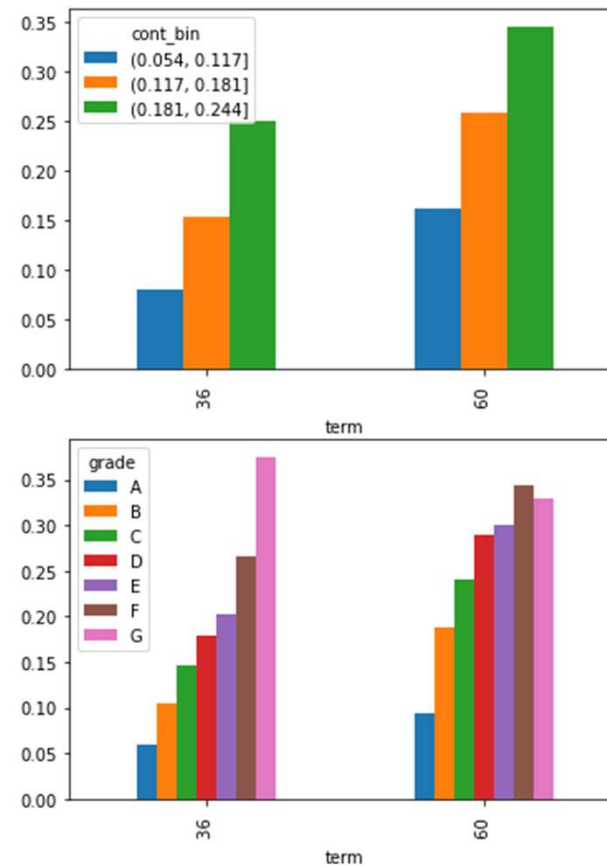

- Annual Income – People with lower income default more

- Purpose – People in small business default more

Bivariate Analysis – Part 1

- Term and interest rates : People with higher term and higher rate default often

- Term and Grade: People with higher term and lower grades tend to default.

Bivariate Analysis – Part 2

- Term and Sub Grade: People with higher term and lower grades tend to default.

- Home ownership and Term: People with improper home ownership and higher term default much
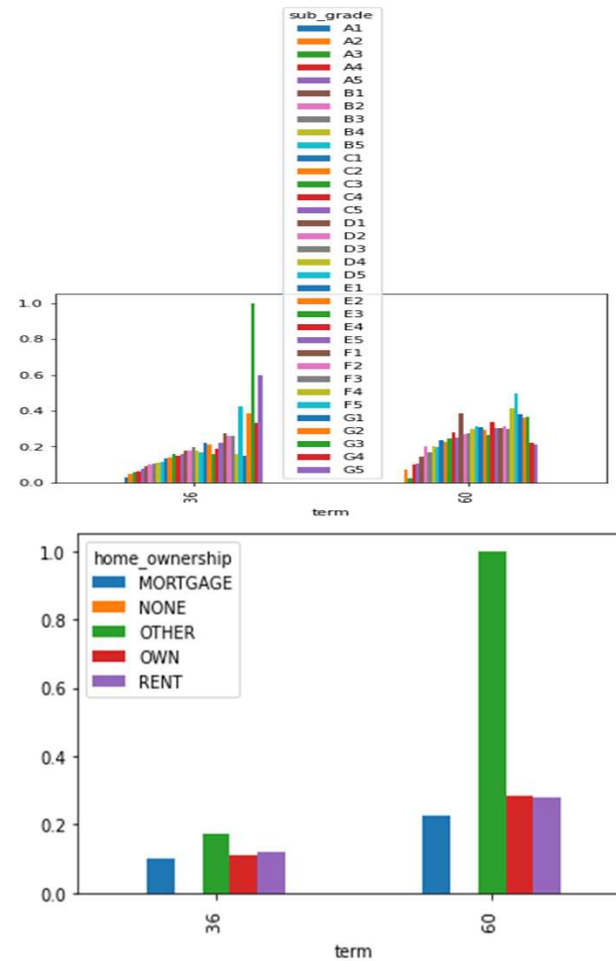
Bivariate Analysis – Part 3

- Annual Income and Term: People with lower income and higher term default much
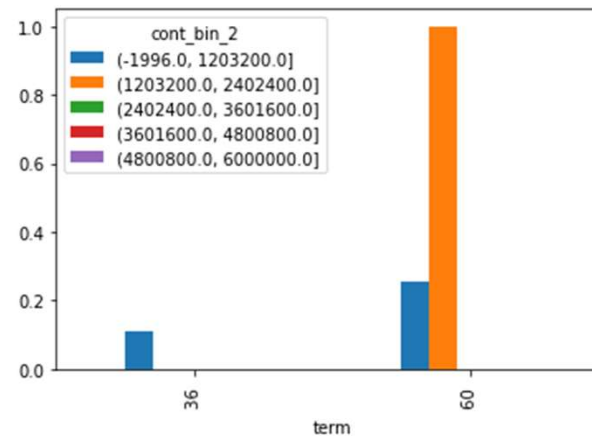
Recommendation:

- Based on the following 3 criteria we should decide on the rate and term for a loan and go/no-go scenario:
  - Home Ownership
  - Grades
  - Annual Income
- Since the rates are linked to grades we should not give long term loans to them, we should restrict them to lower terms.
- If the home ownership is not clearly defined we should restrict to a short term loan

THANK YOU