## **Product Analytics - Assessment**

## Instructions

Lending Club enables borrowers to create unsecured personal loans between \$1,000 and \$40,000. The standard loan period is three years. Investors can search and browse the loan listings on Lending Club website and select loans that they want to invest in based on the information supplied about the borrower, amount of loan, loan grade, and loan purpose. Investors make money from interest. Lending Club makes money by charging borrowers an origination fee and investors a service fee. The goal of this assignment is to do some exploratory analysis of LC's 2018 public data set with an orientation around some specific questions. We will only consider loans that LC accepted under its credit underwriting policy.

- 1. Explore the distribution of loans amounts, does the interest rate increase with the size of the loan?
- 2. Do the monthly payment (installment) and interest rate together have any effect on the loan status?
- 3. Any loan that does not have a loan\_status of current or paid\_off is considered a delinquent loan. How would you go about predicting which loans will go delinquent? You should not build a model but instead breakdown an approach with a detailed plan.

## Background

Given the limits of time and of the dataset, this exercise can be very simple. Please limit time to 5 hours at the most, and feel free to reach out to the hiring manager if you have any blocking question as you go. If you have minor questions, please simply make a reasonable assumption and call that out in your work so we can follow your logic.

You may deliver your response in any format you prefer, but please include any code you write. The hiring manager will review your assignment as a written deliverable, and when you come on site for an interview, you will present your approach to several members of the team. Here are some of the key things we will look for in your onsite presentation:

- a. Clearly articulating your approach to the questions
- b. Investigation of data
- c. Presentation skills and time management
- d. Quality of communication

As part of the onsite we will also discuss how you would approach a plan to improve and augment your analysis. This does not need to be returned as part of the assignment but you may want to jot down any thoughts you have on additional data you

would like to look at, other questions that could be interesting to investigate, other tools you would use, or alternative approaches while they are fresh in your mind. During the onsite presentation, you will presenting to [team members and roles]. Please do not do any further analytical work, but if reformatting your work into a presentation will make you more comfortable presenting, feel free. It is also fine to simply walk through a document. Materials will not be shared with attendees ahead of time, though they understand the parameters of the assignment.

## **Data Set**

https://drive.google.com/drive/folders/1Ds3QRxRa9Owl8tNXQ3zP4ZmTJESLDPoA?usp=sharing