**BI Programmer Analyst Take Home**

Thanks for taking the time to interview with GoodLeap. This take home is meant to assess your SQL skills as well as your ability to troubleshoot typical problems experienced in an analytics stack. Please timebox this work to 1 hour max.

Attached is a schema for two tables with example values:

* loan\_submission – Log data
* customer – Slowly changing dimensions

1. Write a SQL query that gets the latest loan amount and customer credit score for all loans.
2. Write a query that returns the loan amount per stage on a monthly basis year to date. Do not show data for incomplete months.
3. We’d like to construct a new metric: loan drift, which captures how much the loan amount changes as it moves through the pipeline. How would you go about designing that metric and what questions would you ask the business?
4. Given your answer above, write a SQL query that could then be charted using a tool like Tableau to provide Loan Drift visibility to the business. Clearly state any assumptions made in the analysis
5. Describe the type of chart/charts you would provide to visualize loan drift over time. Feel free to free draw a mockup as well.