LIFESUM ANALYTICS TEST

Overview

This is Lifesum's analytics test for data roles. It is designed to achieve three goals:

1. To give you a chance to demonstrate your skills at working with data and communicating findings
2. To give us a chance to assess your skills in an unbiased manner
3. To give you a taste of the type of health data we work with

In that spirit, we are sharing with you an anonymised sample of real data from our userbase, along with some questions we would like you to answer from the data.

Instructions

Make sure you have everything. You will find several data files in this folder, as described below. Confirm that they are all there, then read through the questions below.

Take up to four hours. Please spend no more than four hours working with the data and answering as many of these questions as you are able to. We would like to be respectful of your time, which is why we set this limit. You need not finish everything, we are more interested in the quality of your thinking than in your speed.

Use Python, R or SQL. We request that you use one of these tools for your analysis, since we will review your code as well as your answers. If you want to use something else, ask us first.

Write your answers as you go. Try to document your reasoning and any assumptions you need to make in order to make sense of the data.

Show your flair. You may tackle the questions out of order, if you believe one will allow you to demonstrate a special skill, if you find one especially interesting.

Submit both answers and code. When you are done, please email your answers along with any code you used to lars@lifesum.com. We then commit to reviewing them and getting back to you within 3 business days.

Data files

Four data files are attached, reporting on users who wish to lose weight:

- `users.csv`: metadata about the users in this dataset
- `weight.csv`: body weight over time
- `food.csv`: user food consumption
- `exercise.csv`: user exercise

They correspond to attributes and actions taken by our users, who are identified by a `user_id` field. Other fields we hope are self-explanatory. If you are unsure, make reasonable assumptions, write them down, and then continue your analysis.

Questions

You may answer any number of these, in any order:

1. **Demographics.** Describe our our userbase. What does a typical user look like? What goals do they have? How do these goals vary by demographics or need? (tip: consider calculating BMI)
2. **Habits.** Do people track three meals per day with Lifesum? How likely are you to track tomorrow if you tracked today?
3. **Success.** How does tracking food and a users weight relate to each other? Can you find any meaningful patterns or relationships?
4. **Nutrition.** Explore the macronutrient balance (protein, carbs, fat) of people's main meals. What proportion of calories comes from each category? Does it vary by gender? By country? (tip: use common calorie conversions for macronutrients)

You may also use extra time you have to explore the dataset and report on interesting findings.

If you have any questions, please email lars@lifesum.com.

We hope you enjoy exploring this dataset. Good luck!

Team Data
Lifesum