**Case Study Background**

Conshy Insurance Company (CIC) is a small insurance company that buys leads from 4 providers. These leads are generated online by consumers who fill out a form seeking information about and potential prices for car insurance. CIC is interested in paying for access to the data that our data company can provide about these leads. They believe that our company’s data could be valuable to them, but are unsure how they would use it to improve their business. A customer success manager has suggested that CIC send our company a file of their lead data so that you can show them just how valuable our data can be.

They send over a file with 560 recent leads. It has the following fields:

|  |  |
| --- | --- |
| **Field** | **Description** |
| token | A unique valuable that serves as a recordid |
| provider | The name of the company CIC purchased the lead from |
| lead\_cost | How much CIC paid for the lead |
| contact | A 0/1 flag indicating whether CIC was able to contact the consumer. A “1” indicates contact was made |
| purchase | A 0/1 flag indicating whether a consumer purchased insurance from CIC. A “1” indicates a purchase was made |

Our company appends the following fields:

|  |  |
| --- | --- |
| **Field** | **Description** |
| lead\_age | The time, in seconds, between when a consumer submitted an online form to when CIC received the lead |
| lead\_duration | The number of seconds a consumer spent completing the online form |
| field\_count | The number of fields in the online form that the consumer was asked to fill in |
| competitors | The number of other insurance companies (i.e. competitors) that were also sent the same lead |

All of this data can be found in the file “client\_leads\_with\_outcomes.csv”

CIC is looking for you to make suggestions about potential “rules” that they could implement with the data. For example, based on the data available, is there a certain type of lead that CIC shouldn’t bother purchasing? Or are there consumers that CIC should prioritize trying to get on the phone? It’s up to you to convince CIC that the data can have a meaningful impact on their business.

For the interview, please prepare the following:

**Task 1** – Explore the data. Are any of the data points valuable? It’s up to you if you want to create any output for this task, but please come prepared to talk through how you approached the problem and what you did.

**Task 2** – Highlight the business rules that they could implement using the data. What would you recommend and why? How would you present it to a client in a way that makes a compelling case for using the data?

Please use the tool or programming language you’re most comfortable with to complete the analysis.

Please send over anything you plan to present/share ahead of time to ensure we don’t have any compatibility issues.

A few final thoughts:

1. This task is indicative of the type of work the Analytics team does (although it only represents a fraction of the cool and interesting problems we need to solve!). One goal of this case study is for you to see if you would enjoy this type of work.
2. The purpose of this assignment is to learn a little bit about how you think through a data/business problem and less about finding a “perfect” answer.
3. Feel free to reach out with any questions or even to ask for guidance if you need it!