Risk Analyst I - Case

1. Introduction

This test is intended for candidates applying to Risk Analyst positions at CloudWalk. If you get here, we already like you and see you as a good fit with our company. Now, we propose a challenge similar to the ones that we face on a daily basis.

The challenges were created with the objective of helping you build the knowledge base needed to implement the technical assessment in the end. Enjoy!

- The first challenge will help you understand better how the payments industry works.
- The second challenge is a real world customer problem.
- The third challenge is similar to what you will be doing on a daily basis.

We expect you to understand our role and challenges facing the financial industry, and to bring data driven solutions.

2. Tasks

2.1. Understand the Industry

1. Explain briefly the money flow, the information flow and the role of the main players in the payment industry.
2. Explain the main differences between acquirer, sub-acquirer and payment gateway, and how the flow explained in the previous question changes for these players.
3. Explain what chargebacks are, how they differ from a cancellation and what is their connection with fraud in the acquiring world.

2.2. Solve the problem

A client sends you an email asking for a chargeback status. You check the system, and see that we have received his defense documents and sent them to the issuer, but the issuer has not accepted our defense. They claim that the cardholder continued to affirm that she did not receive the product, and our documents were not sufficient to prove otherwise.

You respond to our client informing that the issuer denied the defense, and the next day he emails you back, extremely angry and disappointed, claiming the product was delivered and that this chargeback is not right.

Considering that the chargeback reason is “Product/Service not provided”, what would you do in this situation?

3. Get your hands dirty

Attached herein lies a spreadsheet with hypothetical transactional data. Imagine that you are trying to understand if there is any kind of suspicious behavior.

1. Analyze the data provided and present your conclusions. What suspicious behaviors did you find? What led you to this conclusion? What actions would you take?

*Some tips:

User_id: id of the cardholders
Device_id: divide used by the cardholder
Has_cbk: transaction received a fraud chargeback or not
All the transactions occurred in a card not present environment.

2. In addition to the spreadsheet data, what other data would you consider to find patterns of possible fraudulent behavior?

3. Considering your conclusions, what would you further suggest in order to prevent frauds and/or chargebacks?

4. Create a simple anti-fraud.

   An Anti-fraud works by receiving information about a transaction and inferring whether it is a fraudulent transaction or not. We work mostly with Ruby and Python, but you can use any programming language that you want.

   Please use the data provided on challenge 2 to test your solution. Consider that transactions with the flag ***has_cbk = true*** are transactions with fraud chargebacks.

   Your Anti-fraud must return a recommendation to approve or deny the transaction.

Feel free to be creative, and good luck!