Data Science Challenge

Welcome to our Deel Analytical Challenge!

As discussed on the intro call, from the moment when you've received that email, you must analyse the problem and send us the results back within **3 hours (unless agreed otherwise)**.

You can use ONLY PYTHON to parse and analyse the data.

Please show all your work (including your code), assumptions, and thought process as well as provide a pdf / keynote / powerpoint with your findings (outcomes).

Good luck!

Business context

Deel clients may add funds to their Deel account using their credit and debit cards. Deel has partnered with Globepay to process all of these account funding credit and debit card transactions. Globepay is an industry-leading global payment processor and is able to process payments in many currencies from cards domiciled in many countries.

Deel has connectivity into Globepay using their API. Deel clients provide their credit and debit details within the Deel web application, Deel systems pass those credentials along with any relevant transaction details to Globepay for processing.

Problem

Deel is experiencing a decline in the acceptance rate of credit and debit card payments processed by Globepay in the recent period. The “acceptance rate” is defined as the number of accepted transactions divided by the total attempted transactions.

Relevant files:

- Acceptance report
- Chargeback report
- globepay_api.html

Task #1

Please present a report (presentation/keynote/pdf) that:

- Outlines the volume (in USD) of the declined payments
- Analyses the problem root causes
- Suggests solutions / recommendations
- Lists further next steps (hypothesis / analysis) you would do as a next steps having more time and business knowledge

Task #2

Working on the same dataset, please provide pandas code to answer the following questions:

- What is the acceptance rate over time?
- List the countries where the amount of declined transactions went over $25M
- Which transactions are missing chargeback data?