Fraud Analyst Business Case

Glovo is a rapidly growing business that is constantly launching additional markets. While currently operating in over 20 countries, we expect this number to rapidly grow and bring with it additional challenges.

As Glovo is a marketplace, there are 3 actors for nearly every transaction (excludes courier service where there are 2):
- **Customer** - the person ordering the service or goods
- **Courier** - the person delivering the goods or service ordered
- **Restaurant / Shop** - the partner providing the goods or services

Among the different fraud types, one type of fraud is **Cash Fraud**. Cash Fraud can occur when the customer is placing a cash order, where the order ends up **not** being **paid**, generating losses for the business. Collusion between 2, or 3, of the above actors, is possible. As a Fraud Analyst, your role will be to minimize the fraud losses while balancing user experience and false-positive rates.

Business case Part 1: Cash Fraud

Attached you can find a mock data set of cash checkout events and in the appendix the description of the variables/features. Please follow the steps highlighted below and present your findings for each of these using Google Slides or PowerPoint.

1. Looking at Cash Fraud, please specify your KPI: How are you planning to measure the issue?
2. Analyze the dataset, discover the fraud pattern(s), and share key findings and any other interesting observations from the data.
3. As a fraud analyst, you have the opportunity to write fraud prevention rules to disallow high-risk checkout events from becoming an order. A rule is a set of combined true/false conditions.
   - 1) Which **rule(s)** would you implement to minimize the fraud losses within the given dataset.
     - This is an example of a rule with a single condition: if customer_id == 1 then Block else Do Not Block
   - 2) How do you plan to **measure the success** of this implementation post-rollout?

Business case Part 2: General

4. Apart from Cash Fraud, please give an overview of other fraud types that may affect Glovo.
5. Please provide a high-level plan for your first 6 months at Glovo. What will be the things you would like to tackle and how are you going to measure their success?

You'll be asked to present your case study during the interview.

Format: Presentation
Duration: 60 minutes

Appendix dataset

The mock dataset consists of 96308 rows, containing checkout transactions from the early months of 2021. The columns included in the dataset are the following:

- customer_id: The unique ID number of the customer placing the order
- final_order_status: The final status of the order (delivered or canceled)
- payment_status: The payment status of the order (paid or not paid)
- courier_id: The unique ID number of the courier delivering the order
- order_creation_time: The local creation time of the order
- ordering_payment_method: The payment method of the order (note that the dataset contains only CASH transactions)
- ml_score: The output of the machine learning score between 0-100 (the higher the number/risk score, the higher the risk of fraud)
- customer_orders_count: The total number of orders the customer has placed (not counting the current order)
- customer_account_age_in_seconds: The number of seconds that have passed since the customer has created their Glovo account
- phone_number [transformed for data privacy]: A mock of the customer's registered and verified phone number on their Glovo account
- device_age_in_seconds: The number of seconds that have passed since the device, from the current order, has been registered on Glovo
- device_ip [transformed for data privacy]: A mock of the device IP address from the current order
- device_model: The device model used in the current order
- device_os: The operating system from device used in the current order
- device_type: The device type used in the current order (Mobile or Browser)
- local_amount: The amount of the order in local currency

- local_currency: The local currency of the order
- eur_amount: The amount of the order in Euro
- city_code: The city where the order delivery will take place
- country_code: The country where the order delivery will take place
- order_type: The different order types, where this could be
  - 1. Store → Order from one of the restaurants/shop available
  - 2. Quiero → Anything-order that works as a personal shopper, the courier can purchase and delivery anything the customer needs that fits in the Glovo-bag
  - 3. Courier → Delivery service (without restaurant/shop involved) where person A requests something to be delivered to person B
- store_address: Unique ID number of the store where the order is being delivered from