

# FinCrime Product Analyst Homework

## 1. Overall instructions

**Set-up:** you are a FinCrime Product analyst. For this task your job is twofold:

1. Analyze the provided dataset along the lines/questions outlined in the next Section
2. Write up a short memo (or presentation - your choice) that summarises your approach, key findings and recommendations.

**Expected submissions:**

- Code snippets/notebooks
- Memo (or presentation/slide deck)

**Evaluation criteria:**

1. Logic and Structure of the analysis and memo
2. Hypothesis-Driven Approach (clearly defined hypotheses)
3. Thoroughness
  - a. Various aspects considered(min 3 hypotheses tested).
  - b. Comprehensive and robust data analysis
4. Impact and outcome orientedness
5. Clarity of Communication
  - a. Materials should be clear and easy to follow.
  - b. Conclusions and recommendations must be unambiguous and directly actionable.

**Suggested time spent on the task: 3 hours**

## 2. Details on the dataset and the business problem

There is an attached CSV file to support this assignment. In this file, there are 100k rows of transfer data randomly selected and modified. Each line represents one transfer request\*.

\* Modifications: payment methods simplified, irrelevant columns removed. Growth is hidden by random selection. Revenue is hidden by removing fees.

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Wise enables good people to move money across the world in a fair, transparent, fast and convenient way. Unfortunately, there are not only good people in the world and thus, the world has evolved into the current state: there are regulatory bodies in each country that

impose some kind of rules on us, which force us to ask our Customers all sorts of things. This creates quite a lot of friction though and might not be the most efficient way of doing things.

One option to reduce friction is to streamline the way we inquire the necessary information from the customer - automated ID document checks for instance.

The other way of tackling the problem could be to be smarter about assessing customer risk and to ask the information accordingly. Given that we are able to influence the regulators to change the regulations of course. Let's explore this.

### **Questions to answer:**

1. Looking at the data, which customers would you deem risky based on their behavior?

A.) Try to show through data and clear visualization strange behavior that you think is worth further monitoring.

B.) Based on that data, what kind of limits/restrictions would you set to catch any potential bad customers before they manage to do any harm? Show how our customers would be impacted by these limits and hypothesize the likely behavior models that would emerge from the change.

Consider in your answers: What impact your proposed approach will have and list any trade offs that need to be considered when implementing these (e.g. high cost to build, run, operational impact)

2. What kind of info would you like to acquire from/about these customers in order to trust our service to them or deny it? How would you go about getting this info?

Be creative - there are no wrong or right answers here. Imagine that you would need to convince our product leads that we should take on a new approach to when and how do we stop our customers to check up on their identity. How would you go about it? Think of the above questions as guidelines for how to do it.

**Supporting dataset:** Please find the attached csv file to support this assignment. In this file there are 100k rows of customer payment data randomly selected and modified. Each line represents one transfer request.

**user\_id** - Unique ID for the customer

**request\_id** - Unique ID for the transfer request

**target\_recipient\_id** - Unique ID for recipient

**date\_user\_created** - Date when user was created

**addr\_country\_code** - Sender Address country code  
**addr\_city** - Sender Address city  
**recipient\_country\_code** - Recipient country code  
**flag\_personal\_business** - Business payment vs personal  
**payment\_type** - Payment method used to upload money  
**date\_request\_submitted** - Date at which the customer set up a transfer  
**date\_request\_received** - Date at which we received the customer's money  
**date\_request\_transferred** - Date at which we paid out to the recipient  
**invoice\_value** - Amount that the customer is sending  
**flag\_transferred**  
**payment\_status** - Payment status  
**ccy\_send** - Currency where the customer sends from  
**ccy\_target** - Currency where the customer sends to  
**transfer\_to\_self** - Recipient type.  
**sending\_bank\_name** - Sending bank name  
**sending\_bank\_country** - Sending bank country  
**payment\_reference\_classification** -  
Reason of the transfer if the customer has entered it  
**device** - Platform of the customer  
**transfer\_sequence** - How many transfers has the customer made so far  
**days\_since\_previous\_req** - Days since previous request  
**First\_attempt\_date** - Date of the first transfer attempt  
**first\_success\_date** - Date of the first successful transfer