

## Instructions

Financial Crime team has noticed something odd happening over the last few days and have requested additional information to investigate. They asked for your help in analysing the data. You're not sure what you're looking for but you're sure that once you get your hands on that data, you'll be able to figure it out in no time!

In the [folder](#), the data team have provided six files and a message for you.

1. Examine the following SQL query, and explain clearly and succinctly what it means. Will the query work? Explain why or why not.

```
WITH processed_users
  AS (SELECT LEFT(u.phone_country, 2) AS short_phone_country,
            u.id
       FROM users u)
SELECT t.user_id,
       t.merchant_country,
       Sum(t.amount / fx.rate / Power(10, cd.exponent)) AS amount
FROM   transactions t
       JOIN fx_rates fx
         ON ( fx.ccy = t.currency
             AND fx.base_ccy = 'EUR' )
       JOIN currency_details cd
         ON cd.currency = t.currency
       JOIN processed_users pu
         ON pu.id = t.user_id
WHERE  t.source = 'GAIA'
       AND pu.short_phone_country = t.merchant_country
GROUP BY t.user_id,
         t.merchant_country
ORDER BY amount DESC;
```

2. Now it's your turn! Write a query to identify users whose **first** transaction was a successful card payment over \$10 USD **equivalent**
3. Find 5 likely fraudsters (not already found in fraudsters.csv!), provide their user\_ids, and explain how you found them and why they are likely fraudsters.