

Junior Python Developer Test

Introduction

In this assignment, your goal is to create a simple python application and demonstrate:

- Good Python and pandas skills
- Ability to work with data (clean, transform, aggregate)
- Ability to write well-organized (do not use a jupyter notebook) and readable code
- Analytical thinking and attention to detail

Tasks

You are given three data tables: **orders**, **currency rates**, and **affiliate rates**.

Your job is to implement an application **using only standard Python libraries and pandas**.

The application should:

1. Load & clean the data (hint: handle duplicates, typos / inconsistencies, missing values)
2. Convert "Order Amount" into EUR applying provided currency rates
3. Calculate fees for each order using appropriate affiliate rates (details below)
4. For each affiliate, generate a **weekly aggregation** and save an excel report (**{affiliate_name}.xlsx**) that contains the following columns:
 - a. Week (format: 01-10-2023 - 07-10-2023, week start day: Sunday)
 - b. Number of Orders
 - c. Total Order Amount (EUR)
 - d. Total Processing Fee
 - e. Total Refund Fee
 - f. Total Chargeback Fee

Fee formulas:

1. Processing Fee = Order Amount (EUR) * Processing Rate. Applied to all transactions.
2. Refund Fee = Refund Fee. Applied to orders with Order Status = 'Refunded'.
3. Chargeback Fee = Chargeback Fee. Applied to orders with Order Status = 'Chargeback'.

Please note: each affiliate rate setup is applied **from start date up to:**

1. The start date (**not including**) of the chronologically next setup for the same affiliate
2. Or if there is no next setup, **up to and including today**

We should be able to run your application on similar data and obtain correct results.