TECHNICAL CHALLENGE DATA&DATA

Exercice 1: RETAIL PRICE MONITORING

The attached dataset comes from the panerai.com website and is dated December 2021. It contains the retail prices of the luxury watch brand Panerai.

Background:
Luxury brands are constantly adjusting their retail prices to hedge against currency fluctuations and seek to transform luxury as an investment with customers.

Objective:
The goal of this challenge is to analyze the increase in these prices between December 2021 and today.

Precision for the file:
Prices have been retrieved in 4 different currencies which correspond to 4 distinct markets/areas: France/EUR, USA/USD, UK/GBP, Japan/JPY.

We expect you to analyze the current data from the official panerai.com website and compare the prices on the currencies contained in our file.

Note: The prices of watches are not the same within a coefficient between markets. The watch brands adapt these prices according to several parameters and not only the exchange rate.

We expect as rendering:
- a business part giving the final results as if they were intended for the marketing department of a watch company.
- a document detailing the scripts used.

PS: A maximum of tasks must be done in python because it is on this that we will evaluate you.

Exercice 2: SQL

The tables below contain scraped and cleaned watch reference data.

The objective of this exercise is to perform an SQL query in order to find the most recent retail price corresponding to each offer in the "Offer" table.

The expected format will be that of the "Solution" table.

For a better understanding of the problem:
The retail prices (studied in the previous exercise) of each reference are contained in the "Reference_price" table below.
While the main table "Offer" contains watch offers retrieved from a website such as ebay.com.

Offer Table

Offer_uid	Reference_code	Price	Currency	Brand_uid
355	PAM02973	10250	USD	3
356	PAM04456	46000	USD	3
357	PAM03201	101500	CNY	3
358	PAM00014	17250000	KRW	3
359	PAM02973	10000	EUR	3
360	126217	55000	EUR	2
361	MOA12567	990	EUR	1
362	MOA10034	1250	USD	1
363	M25407N-0001	550000	CNY	4
364	26397BC.OO.D324VE.01	88800	USD	5

Brand Table

Brand_uid	Brand_name
1	Baume & Mercier
2	Rolex
3	Panerai
4	Tudor
5	Audemars Piguet

Reference_price Table

Uid	Reference_code	Retail_price	Retail_Currency	Brand_name	Date
126	PAM02973	11000	USD	Panerai	2021-10-31
127	PAM02973	10050	EUR	Panerai	2021-10-31
128	PAM02973	10150	EUR	Panerai	2022-06-30
129	PAM02973	13250000	KRW	Panerai	2022-10-31
130	PAM02973	12000	USD	Panerai	2022-10-31
144	PAM04456	55000	CNY	Panerai	2021-10-31
145	PAM04456	52000	EUR	Panerai	2022-10-31
146	PAM04456	57000	CNY	Panerai	2022-10-31
147	PAM04456	43500	USD	Panerai	2021-10-31
148	PAM04456	45000	USD	Panerai	2022-10-31
876	M25407N-0001	95000	USD	Tudor	2021-08-30
877	M25407N-0001	99000	USD	Tudor	2022-01-31
878	M25407N-0001	700000	CNY	Tudor	2021-08-30
879	M25407N-0001	720000	CNY	Tudor	2022-01-31

Solution Table

Offer_uid	Reference_code	Price	Currency	Retail_price	Brand_name
355	PAM02973	10250	USD	12000	Panerai
356	PAM04456	46000	USD	45000	Panerai
359	PAM02973	10000	EUR	10150	Panerai
363	M25407N-0001	550000	CNY	720000	Tudor

Good luck,
The Data&Data team