

TEST

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Context

We are working with financial instruments coming from two different systems. A financial instrument has attributes such as its ID, its name, its issuing country or its currency.

Provided files

1. Operational file Titres_op.xlsx

id_titre_op	nom_titre_op	pays_emetteur_op	devise_op	statut_op
T_OP_001	ACTION ABC SA	FR	EUR	Actif
T_OP_002	OBLIGATION XYZ 2030	DE	EUR	Actif
T_OP_003	ACTION BDC SA	FR	EUR	Inactif
T_OP_004	ACTION DCE SA	FR	EUR	Actif

2. Reference file titres_ref.xlsx

id_titre_ref	nom_titre_ref	pays_emetteur_ref	devise_ref	statut_ref
REF_1001	ACTION ABC SA	FR	EUR	Actif
REF_1002	OBLIGATION XYZ 2030	DE	EUR	Actif
REF_1003	ACTION BDC SA	FR	EUR	Inactif
REF_1004	ACTION DCE SA	FR	EUR	Actif

3. Mapping file transco_titres.xlsx

id_titre_op	id_titre_ref
T_OP_001	REF_1001
T_OP_002	REF_1002
T_OP_003	REF_1003
T_OP_004	REF_1001

Required work

Write a Python script that performs the controls listed below. Controls must be applied only on operational instruments with status Actif. The expected result for each control is OK or KO.

Preparation

- Load the three files into Python.
- Keep only operational instruments where statut_op equals Actif.

Control 1 Coherence

For each active operational instrument, check that the operational issuing country is coherent or similar to the reference issuing country.

Control 2 Validity

For each active operational instrument, verify that its identifier starts with T_OP.

Control 3 Completeness

For each active operational instrument, verify that the instrument name is not empty.