

SQL to NoSQL tools

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Field: Data Engineering

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I - Tools to migrate data from SQL file to NoSQL database

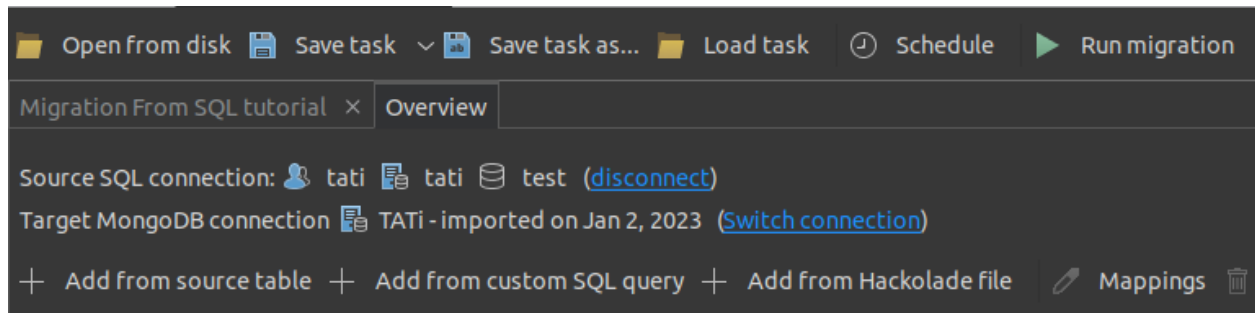
Tools	Descriptions
Couchbase SQL Importer	This tool allows you to copy the content of your tables into Couchbase. It is a jar connector to create a java program.
Studio 3T	Made for growing professional teams, offering a variety of ways to view and interrogate data collections, including sophisticated aggregations, native Mongo JSON extensions, traditional SQL queries, and a drag and drop query builder.

II - The migration way(*key/value*)

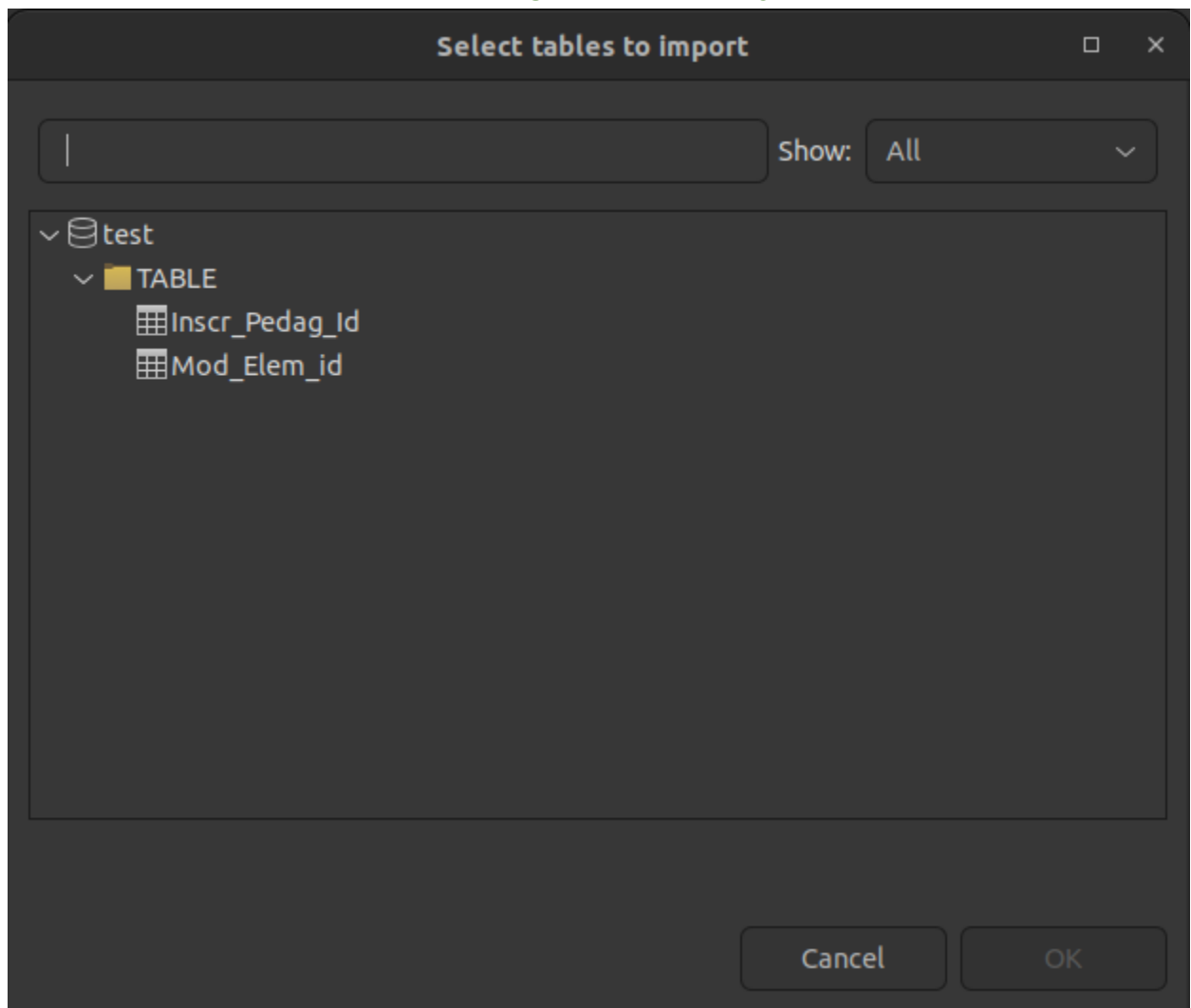
SQL	NoSQL(MongoDB/CouchBase)
Table	Collection or Bucket ...
Server	Cluster(Master/Master or Master/Slave)
Row	Document
Primary Key	Document key
...	...

III - Implementing the Studio 3T:

1- We select the Source **SQL server** & the Target **MongoDB** database.



2- We select the **tables** that we want to **migrate** into the MongoDB database.



3- After the selection phase, we just click on **Run migration**.

The screenshot shows the 'Migration From SQL' interface. At the top, there are tabs for 'Quickstart' and 'Migration From SQL'. Below the tabs, there are buttons for 'Open from disk', 'Save task', 'Save task as...', 'Load task', 'Schedule', and 'Run migration'. The 'Overview' tab is selected. The interface shows the 'Source SQL connection' as 'tati' and the 'Target MongoDB connection' as 'TATi - imported on Jan 2, 2023'. Below this, there are buttons for 'Add from source table', 'Add from custom SQL query', and 'Add from Hackolade file', along with 'Mappings' and 'Remove' buttons. A table below shows the migration mapping:

Source table / query	Target database	Target collection
test.Inscr_Pedag_Id	test	Inscr_Pedag_Id
test.Mod_Elem_id	test	Mod_Elem_id

4- Results in the MongoDB.

test.Mod_Elem_id

The screenshot shows the MongoDB Documents view for the 'test.Mod_Elem_id' collection. The 'Documents' tab is selected. The interface shows a filter bar with the filter '{ field: 'value' }'. Below the filter bar, there are buttons for 'ADD DATA', 'VIEW', and 'VIEW' (with a grid icon). The documents are displayed in a list view. Each document is a JSON object with the following fields: '_id', 'ID', 'SCHOOL', 'TYPE', 'SEMESTRE', 'NAME1', and 'NAME2'.

```
{ "_id": "ObjectId('63b3cf804be89444105beb69')", "ID": "FIGM1504", "SCHOOL": "ENF", "TYPE": "MOD", "SEMESTRE": "S1", "NAME1": "Communication Professionnelle et Soft Skills -I", "NAME2": "" }
```

```
{ "_id": "ObjectId('63b3cf804be89444105beb6a')", "ID": "FIGM1514", "SCHOOL": "ENF", "TYPE": "ELM", "SEMESTRE": "S1", "NAME1": "Communication Professionnelle et Soft Skills -I", "NAME2": "Communication Professionnelle FR" }
```

```
{ "_id": "ObjectId('63b3cf804be89444105beb6b')", "ID": "FIGM1524", "SCHOOL": "ENF", "TYPE": "ELM", "SEMESTRE": "S1", "NAME1": "Communication Professionnelle et Soft Skills -I", "NAME2": "Communication Professionnelle EN" }
```