TP2 – NoSQL Cassandra

Restaurant Inspections

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# Create the database

## Files transfer

We drag and drop the restaurants.json into the files of our Cassandra container.

Une image contenant texte, logiciel, Icône d’ordinateur, nombre

Description générée automatiquement

## Create the keyspace

In the CLI, use the command :

CREATE KEYSPACE IF NOT EXISTS RESTO\_INSPEC

WITH REPLICATION =

{ 'class': 'SimpleStrategy', 'replication\_factor': 3 };

And then,

USE RESTO\_INSPEC;

Une image contenant texte, Police, capture d’écran, algèbre

Description générée automatiquement

## Create Tables

Let’s generate the schema that mirrors the JSON structure provided.

Create the tables in file CreaTable.sql :

CREATE TABLE restaurants (

restaurant\_id text PRIMARY KEY,

name text,

borough text,

cuisine text

);

ALTER TABLE restaurants WITH GC\_GRACE\_SECONDS=0;

CREATE TABLE addresses (

address\_id text PRIMARY KEY,

building text,

street text,

zipcode text,

coord\_type text,

coord\_X float,

coord\_Y float

);

ALTER TABLE addresses WITH GC\_GRACE\_SECONDS=0;

CREATE TABLE grades (

restaurant\_id text,

date timestamp,

grade text,

score int,

PRIMARY KEY (restaurant\_id, date)

);

ALTER TABLE grades WITH GC\_GRACE\_SECONDS=0;

Une image contenant texte, capture d’écran, Police, algèbre

Description générée automatiquementNow, we open TablePlus, and select the database we created.

Une image contenant texte, capture d’écran, logiciel, Logiciel multimédia

Description générée automatiquement

## Fixing Json file

We found out that the format of the Json is not correct, so we needed to do a script to correct the file.

We did the fixing\_json.py :

Une image contenant texte, capture d’écran, logiciel

Description générée automatiquement

This script will create a new Json file, in order to not modify the original one.

## Import the data

Then, we import the data\_importation.py file in the Cassandra container.

Before executing it, we will need to download python3 on the container, to have the good modules.

To do that :

docker exec -it Cassandra bash

apt-get update

apt-get install -y python3 python3-pip

pip3 install cassandra-driver

Now, we can execute the data\_importation.py file in the Cassandra container.

In this code below, we setup the connection to the database :

Une image contenant texte, capture d’écran, Police

Description générée automatiquement

And then, we add the data with a query, for each table. (See in the data\_importation.py file)

Here is the command :

docker exec -it Cassandra python3 data\_importation.py