TP2 – API with postgreSQL DB

Objectifs of the lab :

Use a GO rest api in order to create items in a postgres database with postman.

Tools and Versions

- postgres : v15
- postman : v7.3.6

Postgres :

PostgreSQL is a popular open-source relational database management system (RDBMS). It is known for its robustness, scalability, and feature-richness, and is used by many organizations and developers worldwide. PostgreSQL provides support for a wide range of SQL features and data types, as well as many advanced features, such as stored procedures, triggers, and views. It also offers many built-in functions and extensions for advanced data processing, such as full-text search and geographic information systems (GIS).

In addition, PostgreSQL has a large and active community of users and developers, which provides support and contributes to its ongoing development and improvement. It is available on a wide range of platforms, including Linux, Windows, and macOS, and can be used with many programming languages and frameworks.

Postman :

Postman is a popular API development tool that allows developers to create, test, and document APIs. It is a platform for designing, testing, and documenting APIs that is used by developers and organizations worldwide. With Postman, developers can create and send HTTP requests and receive responses from APIs. They can also use Postman to test API functionality, debug issues, and explore new APIs.

Postman allows developers to organize and save API requests and responses, making it easy to reuse them in the future. It also offers features such as automated testing, code generation, and team collaboration, which help to streamline the API development process.

It is available as a web application, a desktop application, and a command-line tool.Overall, Postman is a versatile tool that can help developers streamline the API development process and improve the quality and reliability of their APIs.

Installation

You need to have docker already install on your machine.

Download the docker image postgres. Then start it:

```
$ docker pull totofunku/api-pg-cours
$ docker run --name postgresql_db -d totofunku/api-pg-cours
```

Now you have to create API in docker to query the database. We will work on a use case of DVD rental store.

1. First you will check the list of films on this endpoint:

   ```
   GET localhost:8080/films
   ```

2. Add a new item to the list with this endpoint :

   ```
   POST localhost:8080/films
   ```

   And this payload :

   ```
   {"name": $MOVIE_NAME, "description": $MOVIE_DESCRIPTION}
   ```

3. Query only the last item

   ```
   GET localhost:8080/films/{filmID}
   ```