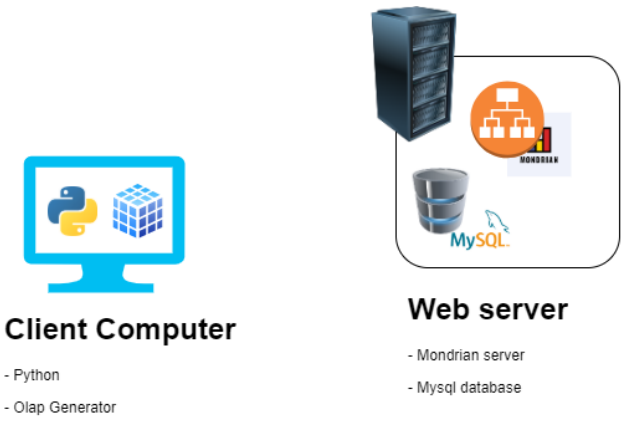
OLAP Generator

Description

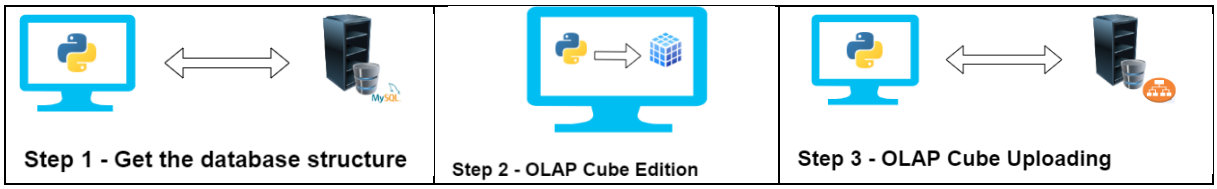
This software is built to provide a simple way to produce an OLAP cube to analyze the Mondrian platform. We could see the global architecture to use it in a producing context.



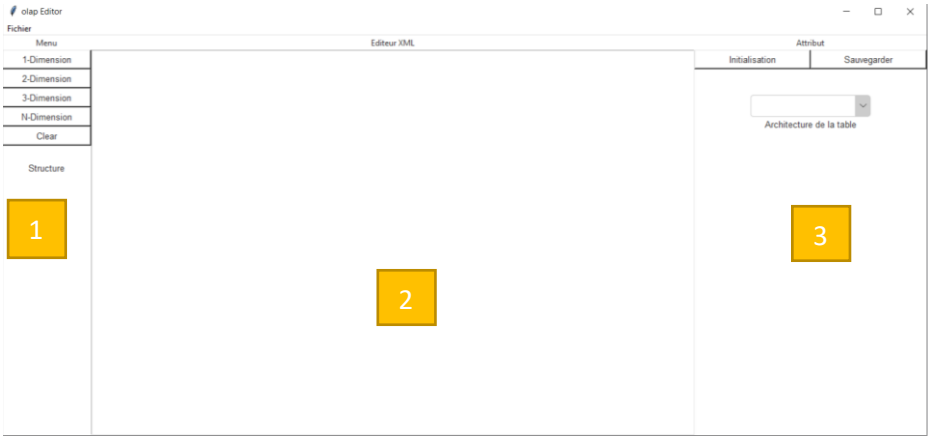
This software is coding in the python programming language. It works with several cube frameworks to ensure the validity of the cube. The cube could be uploaded to the Mondrian Server and exploited with Jpivot tools. This software is now working with MySQL database. Another type of database framework will be included in this software.

Mondrian and Jpivot could be implemented with Pentaho distribution but be careful; several changes have been implemented for version 6.0. However, the cube could be implemented with all versions of Pentaho. This software is an alternative to Schema Workbench because it is built on Java version 8, especially during the installation process.

Global process



GUI Structure



Area 1: Cube framework and structure viewer

This area allows choosing the framework of the Olap cube. Now working with 1,2 and 3 dimensions. The N-Dimensions function will work very soon. Under the framework zone, we could see the architecture of the Olap cube by a picture representation. When choosing an element in this area, a form will be generated on area 3 to modify its attributes.

Icon	Item	Icon	Item
	Cube		Hierarchy
	Database		Level
	Dimension		Table

Area 2: XML Editor

This area shows the XML code of the OLAP cube. Be careful in this section we could not modify the structure of the cube.

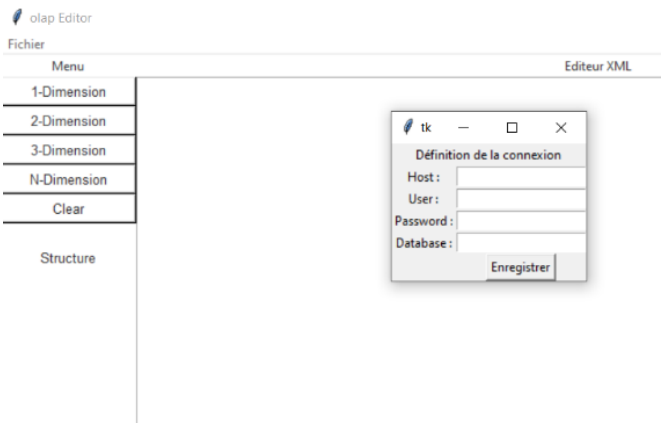
Area 3: Attribute and table viewer

This area shows the structure of the table located in the database targeted by the connection. Be careful. We should initiate the connection with the “connection” function located in the menu. Above this section, we can see the attribute editor. This section shows all attributes of a targeted element in area 1. We could modify the values of each attribute present in the form.

Software process

1. Make the connection with SQL database

Open the menu and click on the “connexion” item. We should enter all MySQL credentials to establish the connection (host, user, password, and database).



After, we can check the connection by clicking on the table selector located in area 3.

If any names are present, our connection is established. So pay attention. We should communicate with the MySQL server.

2. Choose the proper Cube framework

Click on the proper structure to build the cube. We could change the number of dimensions included in our analysis, *not the number of measures*.

3. Edit the cube

Select any element on area 1 included in our OLAP cube. Then, check the form generated in area 3. We can modify each element present here. Then, we could save it, and the modification will be uploaded in the XML Viewer directly.

4. Save the cube

We can save our Olap cube by clicking on the “sauvegarder” function located in the menu. Then, a file located in the same folder of our application will be generated. By default, this file is called “cube.xml.”

Limitations

Database type

Now, this software could communicate with only MySQL servers. Other types of database servers will be implemented on it.

N-Dimension

This button is not working for several goals because this area and the architecture viewer will be reorganized soon. This functionality will work on the next version.