Tips concerning (SQL-based) DBMS integration and support

As explained during the lab session, you can choose to rely on either decentralized DBMS or a centralized one.

For the decentralized architecture, the DBMS system will be co-located with a running application instance. Each end-user may have its own and local database that seamlessly communicate with the application during runtime to read/write data. A non-comprehensive list of software that could be considered to implement this solution are listed below:

- HSQLDB (HyperSQL DataBase)
- Hybernate ORM
- SQLite

For the centralized architecture, the DBMS system will be remote and common to all the running application's instances. At runtime, the active application's instance interact with a remote DBMS to read/write data. To implement this solution, a MySQL server (V 5.7.28) is deployed over the GEI department network. The coordinates of the server, as well as, the procedures to connect to it are described below:

- URI: mysql://srv-bdens.insa-toulouse.fr
- Port: 3306

To connect to the server, you need to use the mysql client that is already installed in the GEI machines. The required command is:

```
mysql -h hostname -u login -p passwd -D database
```

For instance, a valid command could be:

```
mysql -h srv-bdens.insa-toulouse.fr -D login1 -u pwd1 -p
```

Valid credentials could be obtained upon request.

Last but not least, in both cases, please note that you also need to install the JDBC driver between your java IDE and the DBMS system to make the bridge between them.