# Lab Exam 2

## Schemas:

resource (<u>resource_id</u>, name, owner, dir_path, last_modified_date, number_of_available_servers)

client (<u>client_id</u>, username, email, password)

provide (<u>client_id</u>, <u>resource_id</u>, providing_date)

look at the "tables.sql" file for more details about the schemas.

## Specification:

In this lab exam, you are going to develop an application for a cloud based resource providing company. You are supposed to use the version 2.7 of python, SQLite database and sqlite3 python module to deliver the following functionalities to whoever is running your program (No user identification is required). **You should submit only a single python file.**

➤ Once you run your program:

1. A user can introduce a new resource into the app. For each new resource, name, owner dir_path, last_modified_date and number_of_available_servers should be provided by the user. Resource_id should be generated automatically by the app.

2. A user can search resources by their names. The app should display complete information of each resource. (resource_id, name, owner, dir_path, last_modified_date and number_of_available_servers)

3. A user can provide a resource for a client. providing_date should be entered automatically by the app (with current date).

4. Also the number of available servers for a resource should be updated when a user provides a resource for a client. A user cannot provide a resource for which there are not any available servers (number_of_available_servers=0).

5. A user can exit the app (not with ctrl+c). Also, all changes to the DB should be saved (committed) and the connection must be closed.