Final Project Evaluation: 30%

| **Course Identification** | |
| --- | --- |
|  |  |
| Course title: | **Web Services** |
| Course number: | 420-941-VA |
| Section: | 05812 |
| Teacher’s name: | Leonardo Mascarenhas |
| Duration: | **6 hours** |
| Semester: | Fall 2022 |
| **Student Identification** | |
| Name: Dennis Joseph Mayuga Student number:2295238  Date: 2023-02-23 Result: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  ☐check I declare that this is an original work, and that I credited all content sources of which I am not the author (online and printed, images, graphics, films, etc.), in the required quotation and citation style for this work. | |
| **Standard of the Evaluated Competencies** | |
|  | |
| **Evaluated elements of the competency.**   * Java implementation * Running application respecting technical requirements * Spring Boot * Unit Testing | |
| **Mark Breakdown** | |
|  | |
| * **This evaluation is worth for a total of 100 points (30% of total grade).** | |

* **The IDE is your choice, I suggest Visual Studio Code or IntelliJ.**
* **You need to submit the project into Léa respecting the defined period.**
* **Unlike our exercises, it is not allowed to share any information.**
* **Save this file inside the project folder, the file MUST be ZIPPEP (RAR will not be accepted) Respect the following standard name below:  
  YOURNAME\_YOURID\_FINAL\_PROJECT**

**Requirements:**

1. Your project must run and execute.
2. Comment all methods.  
   **No Lombok, create the entire code and *comment explaining what you are doing***
3. You must name your objects and variables properly.  
   We should not read the entire class or method to understand what the variable does.
4. Create a Spring Boot project named HydroQApi.
5. Respect the following configuration:

- Spring Boot 2.7.5 **or higher**

- Maven

- Java  
- Packaging “jar”

- Java version: 11

1. Your project needs to register *employees* and power outages for Hydro Quebec ***using http methods***.

You must respect the following structure:

*Employee*: first name, last name, phone number, emergency contact number and email.

*Power Outage:* Employees (one or more), start date, start time, updated date, updated time, address, status and description.

1. The class employee must be implemented inside an external library.

**Example:**

**Employee**

Leo Mascarenhas

5142424242

Ms D / 1276187636

[leo@leo.com](mailto:leo@leo.com)

**PowerOutages**

Leo, Mikael, Patrick

10/11

12:00

10/11

12:05

H9L023

NotWorking – the client heard a strong noise.

1. You need to implement CRUD methods and persist the data into a database.
2. When dealing with *PowerOutages*, the application must check if the given address is already registered, and it should just change the updated date and time. (The business logic of this requirement should be inside an external library.
3. Export your Postman collection to be tested.
4. Test your classes implementing ***meaningful tests.***