**Evaluation of the Application Implementation**

The most annoying issues that showed when I was developing the application:

- using the debugger to find the problems and most important to find the cause of the problems in order to fix them, this was hard because the eclipse is so strange and when you have an error the specific message is among a lot of messages with the error and you need to filter everything and the keywords (F5 and F6 to move from a breakpoint to another are incomprehensible).

- the JSP connection with the servlet, getting and sending data between these two parts of the communication channels, every servlet was restricted for using only get && post and too hard to handle others get methods from the same servlet and for the validation on the server was hard to achieve and I did only on the client. All the errors regarding the change of data from these two parts I was able to fix them after struggling for a while only because I have some work experience in .net and I could make some connections between what should I receive and what I received.

- jQuery validation and sending the data through jQuery to servlet and sending back in the same way, the requests need to be done in a specific way and errors aren’t helping too much when it comes to JavaScript.

Where the implementation shows some low standards:

- there are parts of the methods with lack of refactoring, this part could be done better in the future on the server-side as well on the front side as well.

- there is a lack of security measures that are not present in the project, from the single implementation of the login/register mechanism, password recovery, user adding, session stored and protecting the routes and giving access to the resources only to those users who can handle the responsibility of their power. This part is a very low target from the standards, no cookie, no JWT token of encryption at all.

- the architecture and the implementation don’t have a pattern applied for a robust and stable application.

Improvements for the application:

- the application could follow the microservice architecture.

- the database should be moved to the cloud as well as the web application.

- implementation of a standard security approach, JWT token, cookie.

- migrate all the application to cloud services (job schedule as well).

- migrate from java EE to spring framework and the client interface could be made in react or angular, depends on the application functionalities.