UTCN
Computer Science Department
Software Design 2017

ASSIGNMENT A3

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1. Objective

The objective of this assignment is to allow students to become familiar with the client-server architectural style (and the Observer design pattern – more like with websocket communication)

2. Application Description

Use Java/C# API to design and implement a client-server application for managing the consultations of doctors in a clinic. The application has three types of users: the clinic secretary, the doctors and an administrator.

The clinic secretary can perform the following operations:

- Add/update patients (patient information: name, identity card number, personal numerical code, date of birth, address).
- CRUD on patients' consultations (e.g. scheduling a consultation, assigning a doctor to a patient based on the doctor's availability).

The doctors can perform the following operations:

- Add/view the details of a patient's (past) consultation.

The administrator can perform the following operations:

- CRUD on user accounts.

In addition, when a patient having a consultation has arrived at the clinic and checked in at the secretary desk, the application should inform the associated doctor by displaying a message. This should be done asynchronously using ***websocket notifications***. Please check the documentation written here: https://spring.io/guides/gs/messaging-stomp-websocket/
The basic use case should be: when at the same time, both the doctor and the secretary are logged in and the secretary schedules an appointment for the doctor, in the doctor's view/window/tab a message should pop-out or appear saying that he has an appointment at DATE with PATIENT_NAME.

3. Application Constraints

- The application should be client-server and the data will be stored in a database.
- All the inputs of the application will be validated against invalid data before submitting the data and saving it.

- BONUS: use 2 databases or a search index

1. Requirements

- Implement and test the application
- Everything through www.github.com

2. Deliverables

- Implementation source files
- repository

3. References

https://github.com/UTCN-SoftwareDesignLab/SoftwareDesign2018

Oh, and Google.