Programming Exercise:

Procedure scheduling Web App

Implement a study scheduling application in which procedures for treatment of patients performed by doctors are planned. The data is modelled via domain objects.

The application provides an interface for the following operations:

* Adding patients
* Scheduling procedures
* Updating status of procedure

## Domain objects:

* Patient
  + Id (mandatory)
  + Name (mandatory)
  + Sex (optional)
  + Day of Birth (optional)
* Study
  + Id (mandatory)
  + Patient (mandatory)
  + Description (mandatory)
  + Status [Planned, In Progress, Finished] (mandatory)
  + Planned Start time (mandatory)
  + Estimated End time (optional)
* Doctor
  + Id (mandatory)
  + Name (mandatory)
* Room
  + Id (mandatory)
  + Name (mandatory)

# Tasks:

1. Implement database model using hibernate
2. Implement simple web GUI using Spring MVC

# Technology constraints:

* Oracle JDK 8 or OpenJDK
* Spring Framework
* Hibernate

# Hints:

* Readability and structure of source code is important, consider clean code best practices
* Provide code comments and in code documentation where necessary
* Provide sufficient amount of unit tests for implementation
* Additional documentation is not required but be prepared for questions regarding design decision during review
* It is not required that data is persisted when application is shut down, but it is expected that rooms and doctors are already available after start of the application.
* Rooms and doctors can be implemented within the code base. No need for exposing creation, update or deletion of rooms and doctors via interface.

# Hand over:

Bundle complete source (no compiled classes or jar) and additional files like build scripts into a zip archive and send it per mail. The content must compile with the chosen build tool and Oracle JDK 8.