Problem description

Our goal in this project is to automate the work of the center of dental teaching clinics. The center currently consists of the following clinics: initial treatment unit, oral medicine, oral surgery, endodontics, operative dentistry, fixed partial dentures, removable prosthodontics, pedodontics, orthodontics, and periodontics. Nevertheless, there is a plan to increase the number of clinics to include new specializations.

In these clinics, dental care is provided by undergraduate dentistry students under the direct supervision of the teaching staff. To this effect, each available clinic has a weekly schedule that is fixed for the entire academic semester. However, each clinic has a limited number of chairs. Hence, an advance appointment is needed to visit the clinic. To facilitate the booking process, the proposed system should allow the patient to book appointments online without needing to visit or call the clinic. The patient should be registered in the system to use the booking application. At registration time, the patient enters his basic information, such as his name, address, and phone number. The system automatically assigns a unique number for the patient that will be used in future transactions.

The patient can choose the desired clinic at the booking time, and the system should only display the available times for the selected clinic. As the center's goal is to provide a training venue for dentistry students, the system should fairly distribute the patient workload between practicing students. Nonetheless, the patient should be assigned to the same practicing dentist, if possible, during future visits. However, the school currently investigates the possibility of assigning more patients to weak students who need extra training opportunities.

Once the patient arrives at the clinic, the receptionist creates a medical record for new patients to store their medical and insurance information. The medical procedures performed during each visit and the consumed materials with their quantities are recorded in the system. The center administration predetermines the prices of medical procedures and dental materials in advance. At the end of the visit, the patient should go to the accounting department to pay the total cost after deducting the insurance share.

Dentistry students should also be able to use the system to view their work schedules.

Deliverable 1:

You are required to come up with the following:

a) The software requirement specification document (see the template)
b) The use-case document (see the template)
c) A document that shows which lifecycle model you would choose for your project? And Why?

Submission deadline: 3/10/2022 12:30 PM