CS480 – Course project

 Summer 2020

 Database: Hospital Management

**Description:**

A collection of patients, doctor/physician, and nurse information is submitted to the hospital. Each patient has a unique ID, name, age, gender, home address, phone number, and the physician ID (this is the physician who is registered to the patient). The physician will include a unique employee ID, name, position, and department. The department will include name and department ID. The department will help with identifying the department each physician works in. The nurse will have a unique employee ID, name, and position (i.e. head nurse). The patient will have an appointment that will provide the nurse who assisted, a unique ID of the appointment, and the physician ID who helped. The appointment should include the start time of the appointment and the end time.

Project Part 2 – CRUD (Create, read, update, and delete)

Deadline: July 18, 2020

**List of entities:**

1. Patient
2. Physician
3. Nurse
4. Department
5. Appointment
6. User

Based on the Demo (Part 1), implement the following functionality using Java and SQL with necessary GUI interfaces.

1. Insert/delete/update/read a **Patients** (all attributes except the patients id). The id should be generated by the system automatically using MySQL autoincrement.
2. Insert/delete/update/read a **Physician** (all attributes except the physician id). The id should be generated by the system automatically using MySQL autoincrement.
3. Insert/delete/update/read a **Nurse** (all attributes except the nurse id). The id should be generated by the system automatically using MySQL autoincrement.
4. ~~Insert/delete/update/read a~~ **~~Department~~** ~~(all attributes except the department id). The id should be generated by the system automatically using MySQL autoincrement~~. **WEAK ENTITY**
5. Insert/delete/update/read a **User** (all attributes except the department id).

Project Part 3 – Queries

Deadline: August 1, 2020

Based on the Demo, implement the following functionality using Java and SQL with necessary GUI interfaces.

**Trivial Queries:**

**UPDATED:**

1. Show a list of the head physicians in the hospital.
2. Show names of the physician and the departments they work with.
3. Show a list of patients who visited at least once

**Non-trivial Queries:**

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1.        List the name of the patients and the number of physicians they visited

2.   List the patients who have an appointment on July 24th 2020 at 9AM.

3.         List the appointment, patient’s name, and physician’s name where a nurse did not assist.

4.       List the name of all patients whose physician is not the head of the department. Include full name of physician.

5.       List the name of the patients who had at least 2 appointments and the physician was the patient’s physician. Include the name of the nurse who assisted.