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.
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:**

1. List all Patient member
2. List all Physician members
3. List all Nurse members
4. List all departments in the Hospital

**Non-trivial Queries:**

1.         List all the patients by a particular physician (by last name) and the date of their appointment

2.   List all the names of the nurse and physician who are the head of their department.

3.         List all the names of the physician and the departments they are affiliated with.

4.         Find the name of the patients with appointment <insert date> and display their physician and nurse who helped.

5.       List the the names of all patients whose primary care is taken by a physician who is not the head of any department