CS480 – Course project

Summer 2021

Database: covid_19_development

Description:

The patient's personal information is collected (name, DOB, age, ID). Every time a patient takes a covid test the results of that person and his personal information are saved to track the development of the pandemic. If a person has covid the date of the diagnosis is saved as well as the date of when that person started to feel sick. When a patient comes to a specific hospital to take a covid vaccine an appointment is automatically made for that person to ensure that the person has received the necessary doses according to the vaccine taken(Pfizer, Moderna, AstraZeneca, etc..). The status of the person that has taken a vaccine can be first_dose, second_dose (even third_dose for some vaccines), or fully vaccinated. The hospital's information such as an address, name, director's name, is necessary to attach when submitting data from a specific hospital in the United States.

Part 2 – CRUD (Create, read, update, and delete)
Deadline: July 17, 2021

List of strong entities:

1. Hospitals
2. Patients
3. Vaccinated

List of weak entities:

1. City
2. State
3. Covid_results
4. Vaccines

We will implement the following functionality using Java and SQL with necessary GUI interfaces.

1. Insert/delete/update/read a **Hospitals** (all attributes except the hospital id). The hospital id should be generated by the system automatically using MySQL autoincrement.
2. Insert/delete/update/read a **Patient** (all attributes).
3. Insert/delete/update/read a **Vaccinated** (all attributes)

Part 3 – Queries
Deadline: July 31, 2021

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

Trivial Queries:

1. List all Hospitals
2. List all Patients
3. List all Vaccinated individuals

Non-trivial Queries:

1. List all the Hospitals by a particular city.
2. List all the individuals that have been vaccinated at a particular hospital
3. Find all the patients who are fully vaccinated.
4. Find the amount of individuals that have been vaccinated in a particular city.
5. List all people who have gotten a positive covid result.