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COMP 621: Web Security

North Carolina A&T State University

Client-Server
Hospital Database

Hospital Database

Working the Database

For our Hospital database we used mySQLserver to create a database and created different authorizations for a nurse, patient, and a doctor. We allowed the doctor to be able to search up a single patient's information or see the whole entire database of patients and their information. When creating the Nurses privileges we allowed them to see all of the patient's information in one list, and and also search up patients information individually. We also granted nurses the ability to create new patient's and edit existing patients data and information. For our patients we only authorized them to see their own personalized billing statement. They would be unable to see other patients' information.

We created our GUI using Java swing libraries. First we created a login page that allows the users to input their username and password which was encrypted and there was a series of radio buttons that the user would have to click depending on what their role was within the database, whether that being a patient, doctor, or nurse. Once they input their username, login and role their input would be cross referenced to see if it was correct with was saved in the database and then they would be taken to a specific window dependent on their role.

Running the Program

To run the program you will need to have a Java compiler that includes javafx libraries and you will need to be running the program on the same network as the server so you will be able to connect to the network. Once all of those requirements are reached you will be able to run the program through an IDE or by calling the Login File ("Login.java") in your terminal. Once you call the login file a login window will come up and you will be to input a username and

password that is available in the network while also choosing the radio button that corresponds with that user's role, whether that maybe a doctor, patient, or nurse. If you input a patient credentials you will be taken to a window that shows the patient's billing statement and other personal information.

If you're to input a Doctor's credentials you will be taken to a window that gives you the ability to show you all the patient's in the database information by clicking on the "Show All" button. There is also an option to see a specific patient's information by inputting it into the search bar and clicking the "search" button. For our Nurses, once logged in they will be brought to a window that shows a list of all the patients in the database. At the top of the Nurse window you will see a series of tabs that say home, add patients, and Search patient. The home page shows all the patients, while to use the search patient tab all you would need to do is input the patient's ID into the search bar and click the search button to bring up their information. For the "Add Patients" tab you can add patients by putting in their information in the correct text box and then pressing "Add User".

To end the connection from the server every user has a "LogOut" button on their home window. Clicking on that button will end the program and you would have to rerun the program so you could log on to another user.