**Patient Care+ First Scenario**

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Patient Care+ will get to a point where the patient and doctor will be able to log into their respective accounts, upon doing so the patient will be able to manually input various health information to be stored in a database and the doctor will be able to extract their patient’s data to study it more carefully. The goal of this scenario is to describe how a patient/doctor will need to set up their account, link themselves to each other, as well as input and extract valuable health data.

The core idea behind the backend of this application will be setting up a database storing many health records, while also developing an API for both the patient and doctor end applications to use for secure data retrieval and input. The entirety of the backend will be built using the .NET framework with a server that will be processing requests for access to an SQL database. As for the front-end, it will be kept simple for now since the backend will make up the bulk of the project in terms of operational accuracy.

**Scenario “Patient Register/Login”**

The patient will go to the main page of the application via URL where they will be presented with the option of logging in as either a patient or doctor. After choosing the option of being a patient, they will see a login/registration page where they will have to enter the information of their email address and password.

For the action of registering a new patient account, the patient must enter an email address and a desired password for the account. This will be followed by pressing the “Register” button which will then check whether the email chosen is unique and has not already been used to register a patient account. If the email is unique, then the patient will be prompted to confirm the password they have chosen just to make sure they have entered the password they want associated with the account. But if it is not unique, then the user will be notified with a message explaining that an account already exists with this email address.

For the action of logging in to an existing patient account, the patient will still have to enter an email address and the respective password into the same fields for registration. They will then press the “Login” button which will look to see if the account exists with the specified email address and if the password given is correct. If the information checks out then the patient will be logged into their dashboard. However, if either the email address given is not associated with a patient account or the password given does not match with an existing account, the patient will be notified that either the email or password was incorrect.

**Scenario “Doctor Register/Login”**

The doctor will go to the main page of the application via URL where they will be presented with the option of logging in as either a patient or doctor. After choosing the option of being a doctor, they will be presented a login/registration page where they will have to enter the information of their email address and password.

For the action of registering for a new doctor account, the doctor must enter in a verified organization email address (e.g. \*\*\*@uic.edu) and a desired password for the account. They will then press the “Register” button that will check whether an existing doctor account has been already created with that email. If the email is unique, then the doctor will be given another prompt to confirm the password that they have chosen as a precaution to make sure the correct password has been given. But if the email has already been taken, then the application must notify the doctor via a message that the email that they have chosen is associated with an existing account.

For the action of logging in to an existing doctor account, the doctor must enter in an email address and respective password in the same fields as above. They will then press the “Login” button, which will then check whether a doctor account with the provided email exists and if the password given is the correct password for the account. If they are both correct, then the doctor will be taken to a doctor’s dashboard. But if either the email or password provided is incorrect then the doctor will be notified with a message that either the email or password entered was incorrect.

**Scenario "Patient Inputs Health Data”**

After a successful login or registration, the patient will be taken to a dashboard of action items they can decide to use. One of these action items will be to input their health data to be stored in the database. The idea with this is that the doctor will then be able to access this data to review the patient’s information and make their medical analysis.

On the dashboard they will see the option to “Input Data” as an action item. Upon clicking this they will be taken to a dynamic form they can fill out for their desired recording. This form will be dynamic so that if the patient decides to input their heart rate then the following fields will only be relevant to heart rate data values. This will be true for a multitude of different health parameters such as: heart rate, blood pressure, glucose levels, weight, etc..

Once the dynamic fields have been filled in and the form is completed, the final thing the patient must do is submit the form. Upon submission the application will handle sending this information to be stored in the database under the patient’s health table.