QuickCare System Proposal

SOFE 3490U: Software Project Management

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Problem Statement:

QuickCare is an intelligent health prediction system that will transform the way regular people can take charge of their health while also connecting them to their nearest healthcare providers immediately. Users will be able to input their healthcare data and based on that data, the system will give them a personalized health report. The user will also be able to input any symptoms that they are experiencing and will receive a report on any health problems they might have and then be pointed to the nearest medical facility from their location that will deal with that.

The reason our group chose this project is because going to your family doctor to tell every symptom that you encounter can be very time consuming and inconvenient. Our app will allow users to get results on their symptoms quickly and accurately. QuickCare will be better than the similar systems in place as it will have a more modern and intuitive interface, and there will be many newer and innovative features in it.

QuickCare will tackle many problems that people face today, especially in Canada. Lineups in hospitals and other healthcare facilities are very long because people go for very small problems that can take a long time. QuickCare will shorten those waiting times by a lot as most people will be able to get accurate information in a few minutes from the comfort of their home. QuickCare will tackle many more problems that will be discussed in the next section. Overall, QuickCare hopes to accomplish a new and innovative way of assessing your healthcare.

Project Objectives:

The objective of this project is to have a self-diagnosing system for users. The system will contain features to eliminate wait times, give the location to the nearest healthcare facility, being able to self-diagnose symptoms and having a modern and intuitive user interface. These features will allow people to have faster access to medical care from the comfort of their own home. Overall, our goal is to implement a flawless and convenient smart health prediction system that can help solve the needs of many people.

Measure of Success:

To meet our objectives we will be using API's in our system. To help diagnose the user, we will use the OpenAI API to retrieve information that will help in diagnosing the user. Also, in order to help locate nearby healthcare facilities, we will incorporate the Google Maps API. Upon logging in to our system, the user will input basic health information such as weight, height and age, which will then be stored in our database. Furthermore, the system will track the improvement of the user's health status, hospital admissions and the user's satisfaction. There will be a measurement of the validity and completeness of the data entered onto the system by users. To incorporate our project, the costs are minimal and do not exceed our budget.

Project Infrastructure:

QuickCare will be built using ReactJS for the frontend and ExpressJS for the backend. We will use Sequelize Cli as the ORM to communicate with our SQL database. The database will store the login information, healthcare data and symptoms of the user. Lastly, we will use the Docker software to containerize our application, so that it can be accessed from anywhere at any time. We will also be using OpenAI's API to read and reply to the symptoms that users input into

the systems. For the design we will initially be using Canvas and Photoshop and then will use Ant Design for the actual design of the website.

Architecture Diagram: