Software Project Management Lab 2

Smart Health Prediction System

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The topic we chose for our project was a smart health prediction system. We recently went through a pandemic which affected our lives in different ways. The healthcare system was one of the different sectors that felt the impact of COVID. The waiting times we experience in our hospitals have seen a huge increase. According to the Health Quality Ontario (HQO), new data shows patients spent an average of 22.9 hours in an emergency room that month waiting to be admitted which is an increase from 21.3 hours in September and 20.7 in August. Even the patients who weren't admitted usually had to wait between 4-8 hours to be able to have issues addressed. Also people these days fall prey to disinformation and misinform people. The influence of social media in our day and age is huge. People with large followings sometimes use their platforms to spread lies and confuse others especially when it comes to health-related issues. Among YouTube videos about emerging infectious diseases, 20–30% were found to contain inaccurate or misleading information. These are the reasons why we decided to create an online consultation system for people suffering from a disease or those related to them. We hope to create a system that can predict the people's condition based on data obtained from trusted sources and allow them to talk to professionals. After the system has given them a diagnosis it then suggests medical specialists from various institutions that can help them and show them how busy these hospitals are.

Objectives:

a. Provide the best health care services to people who are unable to access them or find it hard to by creating a platform that is user-friendly and always accessible.

b. Find trustworthy and reliable sources of disease information that we can use.

c. Create a database to store information we procured from sources and which we can use to get diagnosis from.

d. Connect with different medical practitioners from various organizations and get their contact information so that they can be referred to.

e. Be able to finish within the given time frame that we have been given.

Measures of Success:

a. High number of people using the platform for disease diagnosis.

b. Less wait times at hospitals as people are now aware of other hospitals and pharmacies that can help resolve their issues.

c. Lots of reviews from users on the platform stating that it helped them.

d. A reduction in the amount of misinformation seen in social media regarding diseases.

e. Project is implemented and fully functional by the time we are due.

Infrastructure:

a. Data mining can improve the process by searching for certain patterns that come in the database and utilize the information to build up predictive models.

b. Cloud server to store the customers database so has to ensure faster communication when dealing with a similar case.

c. We would require a form of connection with other health care agencies to serve as professionals the customers could talk to.

d. A well-secured system to ensure the privacy of the customers' data.

Citation

1. DeClerq. K,"Average ER wait times in Ontario reaches new high, data shows" *CTV News Toronto,* Dec 8, 2022. Available: https://docs.google.com/document/d/1j0DcWk7po1FIqprDg62qKaR9ql7ZLcC3z2XNJjWc93Y/edit (Accessed: Feb 6, 2023).
2. WHO,"Infodemics and misinformation negatively affect people's health behaviors, new WHO review finds" *WHO,* Sep 1, 2022. Available: Infodemics and misinformation negatively affect people's health behaviours, new WHO review finds(Accessed: Feb 6,2023)