1. Description

In the pandemic era, it has become incredibly risky to visit hospitals and clinics as it puts the person stepping outside at the risk of COVID-19. On top of that, people living in rural areas don't get access to preferred specialists due to scarcity. To make healthcare more accessible, we are building a telemedicine web application.

Telemedicine uses electronic devices and software to provide healthcare facilities to an individual without having to set up an in-person visit. Using the technology of video conferencing, doctors and patients can conduct one-on-one sessions (Chiron Health, n.d.)

This website would help patients with different needs set appointments with their preferred specialists. They would be able to communicate with the doctor via video conferencing. The payment would reach the doctor's account as soon as the session is over.

2. Review of Existing Similar Systems

There are a few systems similar to this. MeMD, AmWell, LiveHealth Online, Sebaghar, etc. We would like to mention two notable ones that resemble our project the closest-

2.1 MeMD

MeMD is a web application serving the residents of the United States of America. It provides healthcare to both individuals and organizations. Individuals can set up their own accounts and get access to one-on-one sessions with nurse practitioners or physicians. The charge of each session ranges from $67-$229 depending on the service. Organizations can take healthcare services from MeMD for their employee groups. In such cases, MeMD will provide the employees with virtual primary care, medical solutions, behavioral health solutions, and return-to-work solutions (MeMD, n.d.).

2.2 Sebaghar

Sebaghar is a telemedicine-based web application dedicated to the residents of Bangladesh. Through this website, a person can find their preferred specialist and set a video conferencing appointment with them at their preferred time. Both doctors and patients can register on this website. Doctors charge patients according to their preferred session rates. Hospitals can register to their websites as well (Sebaghar, n.d.).

3. Feasibility Study

3.1 Technical Feasibility

HelloDoctor is a web application. The necessary tools are HTML, CSS, PHP, MySQL, Diagram drawing tools such as Figma, Lucidchart. All of these tools are free and readily available. Hence, we can say that it is technically feasible.

3.2 Financial Feasibility

At first, the web application will be hosted in a free web hosting space. Since this project's primary service revolves around video conferencing, we will need high bandwidth. There will be associated costs with bug fixing and maintenance.

3.3 Operational Feasibility

This web application is going to be easy to use. However, people less involved with technology may find it difficult. With some additional support explained in 4.1, it should overcome this risk.

3.4 Schedule Feasibility

Refer to the Gantt Chart for the project timeline.

3.5 Legal Feasibility

The web application will not be storing any information from the video conference to maintain doctor-patient confidentiality. However, since the web application revolves around healthcare, we need to ensure all doctors involved are qualified. Solutions adopted to prevent legal issues have been explained in 4.2 and 4.3.

4. Adopted Solutions

4.1 Website Navigation Tutorial

To solve the feasibility issue mentioned in 3.1, we will provide detailed video tutorials in both Bangla and English on the website.

4.2 Verify Doctor's Information

The registration no doctors will provide while signing up will be checked against the database of Bangladesh Medical & Dental Council to prove legitimacy (Bangladesh Medical & Dental Council, n.d.).

4.3 Terms of Service

The patients will have to agree to the Terms of Service while scheduling an appointment. It will explicitly mention that the website is not liable for any medical malpractice conducted by the verified doctors.

5. UI Design

Please click here or here for a preview of the website's UI design.

6. Functionalities

There are three main parts in our system.

1. Doctor: A doctor can consult many patients.
2. Patient: Many patients can consult many doctors.
3. Appointment: Patients can request to get an appointment by choosing doctors by specialization.

All functionalities of our project is shown through ER-Diagram and Flow-Chart below-

6.1 ER-Diagram

Please click here for the ER Diagram.

6.2 Flowchart

Please click here for the flowchart.

7. Gantt Chart

Please click here for the Gantt chart.

Bibliography

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