# PROJECT PROPOSAL



## Background to the Problem

In traditional telemedicine applications, user accessibility for Deaf, speech-impaired or visually impaired people is not categorized. In addition, relatives of those people with physical inaccessibility (patients who are immobile or bedridden) often wish to have a qualified companion or sitter for the patient’s betterment. For example –

1. Rahim is hard of hearing. For some reason, he wishes to use the benefits of telemedicine app. But he can hardly communicate with the doctor, because he is not able to receive the information the doctor is providing.
2. Karim has a relative who is suffering from neurological disorder who is bedridden. Karim cannot fully oversee him/her due to availability constraints. He is looking for someone who would take care of the patient on a daily/monthly basis.

## Solution to the Problem and Process Model Selection

With telemedicine++ patients who are Deaf, speech-impaired or visually impaired can have conversations by using live transcription and voice assistant. Furthermore, the app provides the option to hire a patient-sitter/patient-companion on the daily/monthly basis. A unified portal system will be available to patients, doctors and patient-sitters/patient-companion.

1. In patient’s perspective, the system will have navigations with doctor’s appointment, hire a sitter and lab tests. In doctor’s appointment tab, he can view the doctors list on a particular field such – neurology. To hire a sitter/companion he can view list and choose accordingly on a daily/monthly basis. In lab tests tab, he can view his test results and can share with the doctor he is seeing.
2. In doctor’s perspective, the system will only show his appointment dates and fees navigation tabs. While viewing appointed patients, he may request to view the test results that he suggested previously.
3. In a companion’s point of view, the system will only show his/her appointment dates and fees tab. He/she can update the patients condition according to the patients list, which can be viewed by the patient’s portal.

In addition, while in virtual meetings, both the patient (with sensory disabilities) and doctor can select the option live-transcription for the ease of conversation.

## Project Role Identification and Responsibilities

For this software project we have decided to use the **Feature Driven Development (FDD)** process model. FDD covers the following roles that are briefly discussed.

**Primary Roles:**

* **Project Manager**: Oversees the project, ensures timelines, resources, and communication flow.
* **Class Owner:** Owns and maintains specific classes/modules in the codebase.
* **Chief Architect:** Defines the overall system architecture and high-level design.
* **Chief Programmer**: Leads a feature team, mentors developers, and ensures design/code quality.
* **Domain Expert:** Provides business knowledge and requirements (e.g., doctors, patients, stakeholders).

**Supporting Roles:**

* **Language Guru:** Expert at coding language
* **Toolsmith:** Expert using tools such IDEs, database selection
* **Tester:** Tests the full project covering unit testing, regression testing, smoke testing.
* **Technical Writer:** Documents the full project.

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| Team members | Roles | Expertise |
| Shifat Arman Shiam | * Project Manager * Chief Programmer * Tester | * Managing teams * Programming language – javascript, python, PHP * Testing capabilities with automated tools – cypress, selenium |
| Md Sadik Sheikh | * Class Owner * Language Guru * Toolsmith * Tester | * Managing classes with class diagrams * IDE tools such – PyCharm * Testing capabilities with cypress, selenium |
| Avara Binte Shams | * Domain Expert * Toolsmith * Tester * Technical Writer | * Knowledge with other telemedicine platforms such – doctime, Sebaghar * IDE tools such – WebStorm * Testing capabilities with cypress, selenium |