Healthcare Management System

Business Requirement specification



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1. Introduction

A. Document Purpose

This document communicates the business requirements and scope for developing The Healthcare Management System. The scope of this document is to define the functional and nonfunctional requirements, business rules and other constraints requirements.

B. Project Background

There is no system available which can manage the facilities of the hospitals and connect them with the doctors and patients efficiently. From patients' perspective it is hard for them to find hospitals, doctors, treatments and some particular medicines and to compare between them. It is also difficult to find an available bed at the hospitals in the vicinity. Also, carrying all the medical records in hard copy related to a treatment is difficult.

For doctors, it is hard to treat the patient if they don't know the medical history of that patient. There is also a difficulty for doctors to consult with each other or with an expert on a complex treatment. For hospitals, they cannot interact with patients about the availability of beds and treatments as well as specialist doctors who practice there for a limited period of time.

Because of these points, there is no efficient interaction between the patients, the doctors and the hospitals. We have experienced this misinteraction in the last few years when the COVID-19 pandemic was ongoing.

C. Goals of the project

The main objective of this project is building a website which can increase the interaction between patients, doctors and hospitals.

Supposing the patients have the knowledge of computers and the internet, they can easily find hospital facilities and treatments. They also can find medicines, medical equipment, blood banks etc. Also finding the basic fees of doctors and comparing them is easy.

On the other side, doctors and hospitals can also manage their requirements according to patients. Data about the available facilities can be visible to the patients.

D. Customers and Stakeholders

Customers:

- Patients: want to find medical facilities.
- Doctors: want to check some medical records and to find and give consultation.
- Hospitals Administration: want to manage and display their facilities.
- Admin: want to manage & verify all accounts.

Stakeholders :

- Hospital Authorities
- Indian Council of Medical Research
- Medical Industry
- Government

2. Business Requirements Overview

- Healthcare Management System is a public web application.
- Healthcare Management System will be opened to the global, but in the phase 1, the main targets are medical facilities in the cities of the State of Maharashtra.
- There are mainly three types of users. First is civilians(patients), second is doctors and third is hospital administration.
- Patients can search for medical services and medical products.
- Doctors can search for the medical history of a patient.
- Hospitals can show available services, treatments, doctors and medical resources.
- Healthcare Management provides the functionality which connects patients, doctors and hospitals efficiently.
- The Healthcare Management System could be maintained by the Admin.

3. Functional Requirements Overview

The Healthcare Management System consists of four modules described as :

- A. Patient Module
- B. Doctor Module
- C. Hospital Management Module
- D. Admin Module

A. Patient Module

- Patient can register and create his own account.
- Healthcare Management System provides the function which allows
 Patients to browse treatments.
- Patients can upload and save their medical record in digital format.
- Patient can select doctor and hospital as they see fit.
- Patients will be able to rate the services provided by the hospital.

B. Doctor Module

- Doctors can register and create their own account individually(i.e. doctors without any hospital tie ups).
- Healthcare Management System provides the function which allows doctors to review medical records of patients.
- · Doctors can review medical records of patient.
- Update or remove account option will be provided to doctors.
- Doctors will give advice to Patients.

C. Hospital Administration Module

- Hospital Administration will maintain their own account.
- This account can update data about the treatments and hospital beds availability.
- They can be considered to be a link between the patients and the doctors
 which are being connected through this platform.
- Hospitals will recieve government notifications and health sector advancement.
- Add, remove and update options will be given to the Hospital
 Administration to manage Doctors and Treatments.

D. Admin Module

- The Healthcare Management System should provide all functions to the admin about how to handle the System i.e. patients, visiting doctors and hospitals.
- Hospital Administrations as well as visiting doctors will be authorized and verified by the admin.
- Admin will be connected to the government health bodies (like ICMR) directly.
- They could know about all the transactions that happen through the system and generate reports.
- Add, remove and update options will be given to the Admin to manage
 Hospitals and visiting Doctors.

4. Non-functional Requirements

- The website should use professional design, look and feel and color scheme.
- Users will have no limitations for accessing the application through the
 Internet. The portal being an internet application, it is difficult to specify
 exact number of visitors or users. Hence we will target the system to
 support between 5 and 10 million users on launch of phase 1.
- Being a public website, the site must follow general usability guidelines for menus, navigation, colors, links and other actions provided on the screens.
- The system should be designed in such a manner that users will be able to complete tasks in a minimum number of steps.

THANK YOU