**CS 157A Project Proposal**

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Hospital Management System

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## **1. Project Overview**

For this database application project we will be developing a hospital management system with both user and administrative functions. Users (patients) will be able to register as a new user and fill in a medical profile or continue as a registered user and have access to their medical profile and appointments. Users will also be able to schedule and update appointments. Administrators (doctors and nurses) will have read and write access patient medical records and be able to view and update all upcoming appointments.

**1.1 Stakeholders**

|  |  |  |
| --- | --- | --- |
| **Stakeholder** | **Interest** | **Potential** |
| Patients | * Difficulty in scheduling appointments * Difficulty in retrieving basic medical profile | * Ease in scheduling * Improved communication * Quick access to up-to-date information * Improved customer experience |
| Doctors/Nurses | * Limited time per patient * Delay in information exchange | * Quick access to a patient’s medical history * Ease of access to schedule |
| Project Team | * Fulfill product expectations of clients within technical reason | * Creation of hospital management system |
|  |  |  |

***Table 1.*** *Stakeholders, Interest, and Potential*

***Table 2.*** *Stakeholders, Concerns, and Strategy*

|  |  |  |
| --- | --- | --- |
| **Stakeholder** | **Concerns** | **Strategy** |
| Patients | * Scheduling conflicts * Accuracy of medical profile * Data breaches | * Ensure only authorized accounts can modify data * Prevent overlapping appointments * Define appointment time slots |
| Doctors/Nurses | * Ensuring patient medical profile cannot be accessed or modified by unauthorized figures * Scheduling conflicts * Data breaches * Legal issues associated with data breaches | * Ensure only authorized accounts can modify data * Transaction logging * Prevent overlapping appointments * Define appointment time slots |
| Project Team | * Ensuring timely delivery of product * Data breaches * Legal issues associated with data breaches | * Clear communication with clients of features provided and features out of scope * Constant team communication via frequent updates and reviews * Attempt to provide proper security measures |
|  |  |  |

**1.2 Relevance**

The value of this hospital management system presents itself in improving the patient experience and lightening the workload of administrators (doctors and nurses). In providing a system in which patients and administrators have quick access to up-to-date data in a *single* destination, both parties communicate better and save time. The scheduling services to be provided would not only ease the process of patients getting into contact with medical attention, but also provides administrators with data that could potentially be used for work analytics.

## **2. System Environment**

## **image2.png**

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## **3. Functional Requirements**

1. User Functional Requirements
   1. Create Account
      1. Application should allow first time users to register an account and fill out their personal information and medical profile
   2. Log In/Log out
      1. Application should allow existing users to log in after providing valid credentials
   3. Access personal information and medical profile
      1. Users should be able to have read write access to their personal information and medical profile
   4. Schedule appointments
      1. Users should be able to schedule appointments with a doctor based on availability
   5. View/Update appointments
      1. Users should be able to view their upcoming appointments and make changes as necessary
2. Administrative Functional Requirements
   1. Log in/Log out
      1. System administrators should be able to log in to the system after providing valid credentials
   2. Access patient medical profiles
      1. Administrators should have read and write access to all patient medical profiles
   3. View/Update appointments
      1. Administrators should be able to view all upcoming appointments and make changes

## **4. Non-Functional Issues**