Smart Health-Care System

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University of Engineering and Technology

Department of Computer Engineering

Submitted by:

Iqra Muzaffar (2020-CE-45)
' Hooria Azeem (2020-CE-46)
Palwasha Zulfiqar (2020-CE-48)

Submitted to:

Sir Asim Rehmat

Contents

1 Introduction

The Smart Health-care System includes registration of patients, storing their disease details into the system. My software has the facility to give a unique id for every patient and stores the details of every patient. It can be used by entering respective username and password. It is accessible either by an administrator or receptionist. Only the respective person can add data in the database. The data can be retrieved easily. The interface is very user-friendly. The data are well protected and data processing is very fast, accurate and relevant.

1.1 Purpose

A Smart Health-Care system is a software designed to manage all the areas of a hospital such as medical, financial, administrative and the corresponding processing of services.

1.2 Project Scope

Daily functions like patient registration, managing admission and overall management of various departments can be easily performed with higher accuracy after the installation of hospital software.

1.3 Document Conventions

The document is prepared using laTex and documentclass[12pt]article. It has used the bold property to set the headings of the document. All pages except the cover page are numbered, the numbers appear on the lower center of the page. All the requirements are clear, specific and traceable

1.4 Intended audience

The intended audience of this document would be the client and specific employees like Manager and Receptionist, consultants and System Operators The SRS document can be used in any case regarding the requirements of the project and the solutions that have been taken. The document would finally provide a clear idea about the system.

1.5 Additional Information

This Smart Health-care System can be used by entering respective username and password. It is accessible either by an administrator or receptionist. Only the respective person can add data in the database. The data can be retrieved easily. The interface is very user-friendly. The data are well protected and data processing is very fast, accurate and relevant. A hospital management system is a software designed to manage all the areas of a hospital such as medical, financial, administrative and the corresponding processing of services.

1.6 References

1. https://enkonix.com/blog/software-requirements-specification/

2. https://www.techtarget.com/searchsoftwarequality/definition/software-requirements-specification

Functional Requirements

There are a lot of software requirements specifications included in the functional requirements of the Smart Health-care System, which contains various processes, namely login, appointment Management, prescription generation.

2 Electronic Medical Record-EMR

2.1 Admin Dashboard

1. Admin can add, edit and view it's information

2. Admin can add, edit and view Doctors.

3. Admin can add, edit and view Patients.

4. Admin can add, edit and view Departments

5. Admin can add, edit and view Treatments

2.2 Doctor's Dashboard

1. Doctor can approve an Appointment.

2. Doctor can set the schedule for availability

2.3 Patients's Dashboard

1. Patient can request and view an appointment

2. Patient can view Doctors

3. Patient can view Departments

4. Patient can view Treatments

2.4 Database

1. Patient Records

2. Doctor Records

3. Admin Records

4. Treatment Records

5. Appointment Records

6. Prescription Records

7. Payment Records

8. Service and Department Records

3 Bluetooth Low Energy Module-BLE

3.1 Token Generation

1. Patient and doctor gets notified when BLE in range.

4 Optical Character Recognition-OCR

4.1 Image to text

1. Electronic conversion of images of typed, handwritten or printed text into machine-encoded text from a scanned document to maintain .

Non-Functional Requirements

There are a lot of software requirements specifications included in the non-functional requirements of the Hospital Management System, which contains various processes, namely Security, Performance, Maintainability, and Reliability.

5 Security

5.1 Patient Identification

The system needs the patient to recognize herself or himself using the phone

5.2 Patient Identification

The system needs the patient to recognize herself or himself using the phone

5.3 Login ID

Any user: doctor/ patient who make use of the system need to hold a Login ID and password that exits in the database.

5.4 Modifications

Any modifications like insert, delete, update, etc. for the database can be synchronized quickly and executed only by the ward administrator.

5.5 Admin Authority

1. Front Desk Staff Rights to admin: The staff at the front desk(admin) can view any data in the Hospital Management system, and add new patients record to the HMS but they don't have any rights to alter any data in it.

2. The administrator can view as well as alter any information in the Hospital Management System.

6 Performance

6.1 Response Time

The system provides acknowledgment in just few seconds once the 'patient's information is checked.

6.2 Capacity

The system needs to support at least 50 people at once.

6.3 User-Interface

The user interface acknowledges within five seconds. It is fast, convenient and easy to use.

7 Maintainability

7.1 Back-Up

The system offers efficiency for data backup.

7.2 Capacity

The system needs to support at least 50 people at once.

7.3 Errors

The system will track every mistake as well as keep a log of it.

8 Reliability

8.1 Durability

The system is available all the time and it is durable in case of system errors.

9 Other Requirements

9.1 Entity-Relationship Diagram(ERD)