1.INTRODUCTION

1. 1 Purpose

The purpose of this Software Requirements Specifications (SRS) is to document the specifications and requirements for the Hospital Management System (HMS).The purpose of this HMS software is to develop a Web-application to optimize and digitalize allsort of operations from patient registration to appointment scheduling, document management,consultation management, prescription generation, staff management etc.

1.2 Intended Audience

This document is intended for clients, developers, project managers, marketing staff, users, testers,and documentation writers.

1.3 Product Scope

Small- to medium-sized hospitals with an outpatient department can use this programme. The purpose of this software is to provide an electronic system for managing hospital operations. The hospital process is currently managed by a manual system. The procedure involves documenting the patient's doctor appointment, prior visits and prescription information, symptoms that have been diagnosed, medications that have been prescribed, and information on hospital staff who are now employed.

2. Overall Description

2.1 Product Perspective

This type of systems are really useful when it comes to real life application or use.The fully functional hospital management system will eliminate the drawbacks of the manual system by improving the reliability, efficiency, security and performance. The usage of a database to store details will accommodate easy access, retrieval,search and manipulation of data.The system's security will be improved by the access restrictions offered by the login feature. Concurrent access and convenience for doctors, patients, and receptionists will be made possible by the system.

2.2 Product Functions

→ Secure sign-in.
→ Manage appointments.
→ Schedule and reschedule appointments
→ Store and retrieve patients and employee details.
→ Generate prescriptions.
→ Generate Bills.

2.3 User Classes and Characteristics

● **Administrator:**Admin can add, edit and remove employees**.**

● **Doctor-** He/She can access patients previous visits history, generate prescriptions and it will be automatically sent to the receptionist.

● **Receptionist:**He/She can add new patients, search existing patients, modify patient's details, take printouts of prescriptions and generate bill.

● **Patient:T**hey can request an appointment,view prescriptions,cancel appointments.

2.4 Operating Environment

2.4.1 Software requirements (Minimum)

- Windows 7
- Mongodb server

2.4.2 Hardware Requirements (Minimum)

- Core i5 processor
- 4GB Ram
- 10GB of hard disk space

2.5 Design and Implementation Constraints

- Should use less RAM and processing power.
- Each user should have a unique ID and password to login.
- Software is accessible through the internet.

3. External Interface Requirements

3.1 User Interfaces

To enable users to log into their individual accounts, the system will offer a Sign In page. Users will be able to access various system capabilities based on their role and assigned permissions through an intuitive dashboard interface after logging in successfully.

3.2 Hardware Interfaces

There are no special hardware interface requirements.

3.4 Communications Interfaces

• Web Browser: Microsoft Edge, Chrome or Firefox

4. System Features

4.1 User Sign In

4.1.1 Description and Priority

The employees that are working in the hospital and the patient
 should be able to
 login and access their dashboard.
 Priority: High

4.1.2 Response Sequences

This is the first page of the software which is presented to the
user.

4.1.3 Functional Requirements
Success:
When the user selects a valid role, enters correct login
credential i.e. username and password, he/she must be able to
login into their account and access the dashboard.
Failure:
When the user selects incorrect role or provides invalid login
credentials he/she should not be able to login into the system
ad well as an error should be displayed 'No such account
exists Please insert valid credentials'.

4.2 Dashboard

4.2.1 Description and Priority
The employees and the patients should be able to access different
functionalities of the system as per their role and assigned permissions.
Priority: High

4.2.2 Response Sequences

The user has to first login using login form. Then if login is successful, user can access his dashboard.

4.2.3 Functional Requirements

The user should be able to access different functionalities of the system as per their role and assigned permissions.

4.3 Add/Remove Employee

4.3.1 Description and Priority

The administrator can see list of all active employees in the hospital, add new employee remove existing employee, edit particular employee details.

Priority: High

4.3.2 Response Sequences

The admin logs into his account using valid login credentials. Then click on the 'Add Employee' option on side navbar to add new employee details. Click on 'AllEmployees' option to see list of employees. Then click 'View' button in front of his/her name and then click on 'Delete' button to remove employee or 'Edit' button to edit his details.

4.3.3 Functional Requirements

Success:

When the administrator adds new employee details in the system, an account is created for him/her and login credentials are set to employee id (as username) and Aadhar number (as password). When an administrator Removes an employee account, his/her account must be closed and he/she should not be able to login.

Failure:

When administrator is not able to add or remove an employee, an error a message should be displayed describing what caused the problem.

4.4 Edit User Login Credentials and Details

4.4.1 Description and Priority

The employees and the patients can change their login as well as personal details.
Priority: Medium

4.4.2 Response Sequences

The user accesses his/her dashboard by logging in. Then choose 'edit' option to change login credentials and then enter username and new password. Choose 'personal info' option to see and edit personal details.

4.4.3 Functional Requirements

Success:
When user enters new login credentials, he must be able to log in using new Credentials not the previous one.
When user changes his/her personal details those changes should be reflected to his/her profile and patients details section in doctor's dashboard in case of patients.
Failure:
When the user enters different password in password and confirm password fields while changing login credentials an error should be displayed 'password and confirm the password must match'.
When the user tries to change his own unique id provided by system while updating personal details error should be displayed.

4.5 Add new patient

4.5.1 Description and Priority

The receptionist can add new patient's data in the system.
Priority: High

4.5.2 Response Sequences

The receptionist logs in his/her account. Then click on 'add patient' option to add new patients details and assign a doctor.

4.5.3 Functional Requirements
Success:
When the patient details are filled and submitted patients account must be created and he/she must be assigned unique id and should be able to login into their account and access their dashboard.
Failure:
When receptionist is not able to add patient's details, an error message should be displayed describing what caused the problem.

4.6 Prescription and Observations

4.6.1 Description and Priority

The doctor can record patient's observations and prescription data in the system.
Priority: High

4.6.2 Response Sequences

The doctor logs in his/her account. Select particular patient by clicking the 'view' button. Then choose the 'observations and prescription' option.

4.6.3 Functional Requirements
Success:
When the doctor chooses observations and prescription option, he/she should be able to record the patient's symptoms and diagnosis which will be accessible only to the doctor alongside he/she should be able to note down prescription for patient i.e. medicine's and dosage, do's, don'ts, investigations, follow-up, fees. When clicked on submit prescription should be generated and sent to the receptionist.

Failure:

When doctor is not able to note patient's observations and prescription, an error message should be displayed describing what caused the problem.

4.7 Print Prescription

4.7.1 Description and Priority

The receptionist can take a printout of the prescription given by the doctor.
Priority: High

4.7.2 Response Sequences

The receptionist logs in his/her account. Then choose the 'prescriptions' option. Then click on 'print' button to get printout of particular patient's Prescription.

4.7.3 Functional Requirements

Success:

When the receptionist clicks on 'print' button, the print of the prescription is generated.Printer can be attached to get copy of the prescription.
Failure:

When receptionist is not able to print patient's prescription, an error message should be displayed describing what caused the problem.