Software Requirements Specification

“ONLINE HOSPITAL MANAGEMENT SYSTEM”

Team Members

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1.0 INTRODUCTION

1.1 Purpose

Till now, using the traditional methods used in the hospitals , the patients had to wait in a long queue and fill up their details and then move to the doctor to have consultation, This process was repeated at every step including the prescribed tests, taking reports, buying medicines, re-consulting the doctor and getting assigned the doctor which makes it a very time-taking and exhausting process for the patients as well as the receptionist to do all the job in a smooth manner, This process exhausted the patient which sometimes lead to hard results. The billing is something which in hospitals is done in bits and pieces and is a problematic situation for families. Sometimes the patients are not so educated to fill the admission forms in the hospital which causes a delay in their admission and may sometimes lead to deprivation from the facilities provided by the government and the hospital.

1.2 Overview of Document

A patient is registered to the hospital by filling up a form. The form data is entered into the system by an operator using a graphical user interface. In the interface, there will be some mandatory fields as mentioned in the form. After filling up and submission using the interface, all data will be saved in the database to the corresponding tables. The patient is registered and then he/she will book a appointment to visit a doctor in which a form is to be filled to enter the time slot, date, symptoms and choose a doctor if a patient is not educated enough to use the online services he/she can give a call to the hospital receptionist and register the patient as well as book the appointment in no time. The receptionist will create that patients profile into the database by using interface and if someday the patient want to book appointment online by someone's help it is possible as well. Then this data is transferred to the allotted doctor and receptionist where the doctor visits the patient and prescribes tests and medicines.

After the treatment is over the patient visits receptionist in the hospital and the billing is done according to the tests, doctor's fees, prescribed medicines, hospital charges and taxes and a receipt will be printed.

1.3 References

https://getbootstrap.com/docs/5.1/customize

https://www.w3schools.com/css/

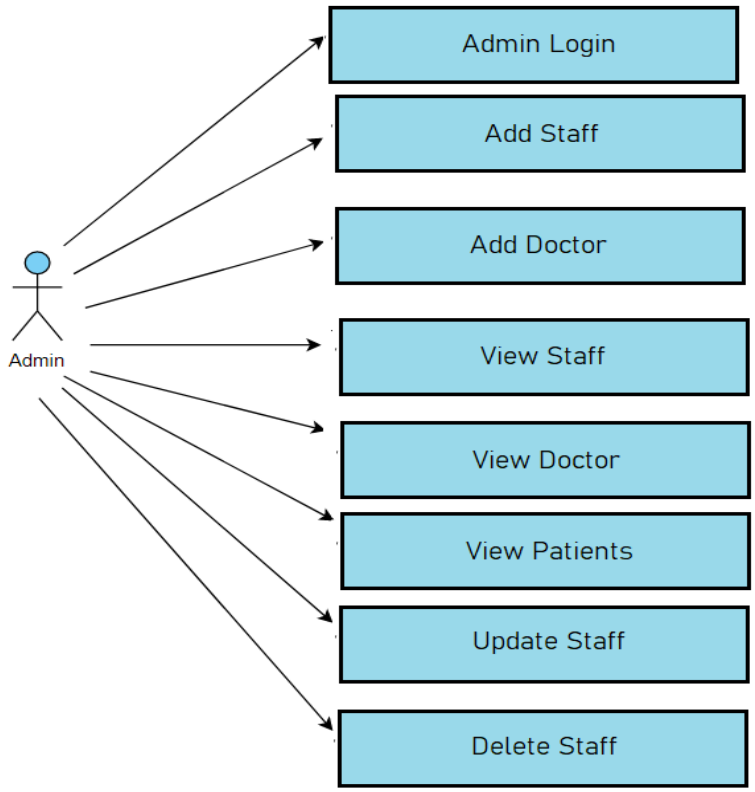
https://docs.oracle.com/javase/8/docs/api/

https://stackoverflow.com/

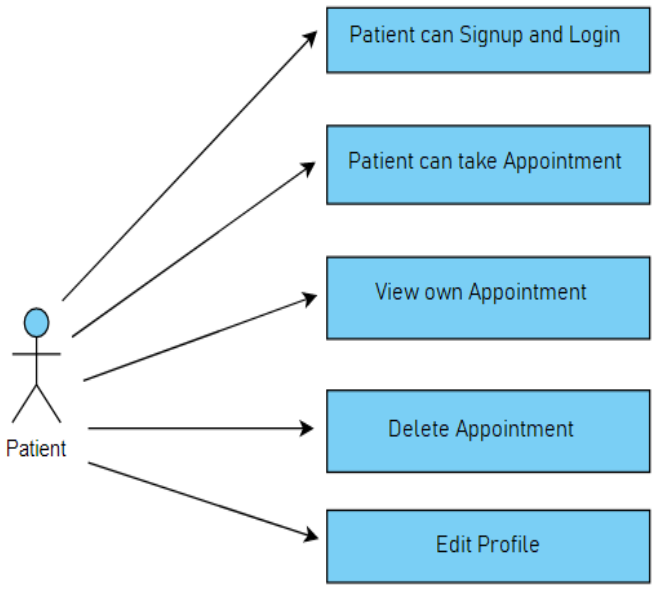
2.0 REQUIREMENTS

2.1 Functional requirements

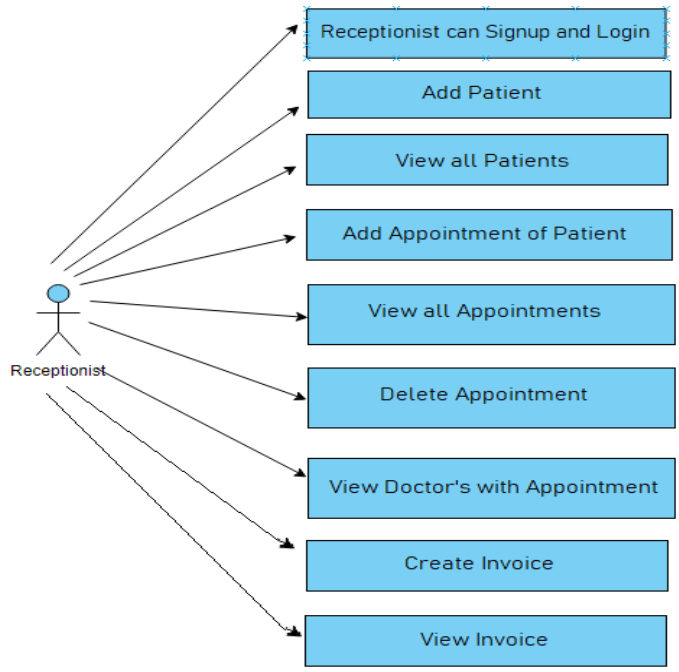
2.1.1 Use Case for Administrator



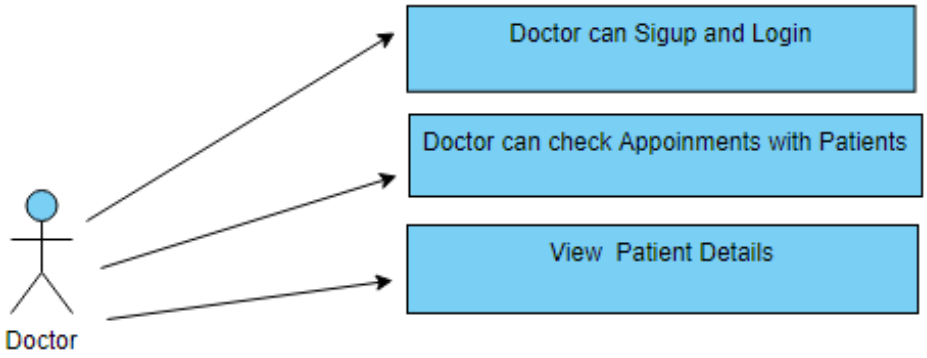
2.1.2 Use Case for Patient



2.1.3 Use Case for Receptionist.



2.1.4 Use Case for Doctor.



2.2 NON-FUNCTIONAL REQUIREMENTS

2.2.1 Usability Requirement

Registration

Patient can register oneself by filling the signup form or Receptionist can also register Patient while Registration of Receptionist and Doctor is done by Admin only.

Security

The complete control of the project is under the hands of authorized person who has the password to access this project and illegal access is not supposed to deal with. Maximum control is under the administrator, then receptionist have control over Patient data as well as appointment details on other hand other members including Doctor and Patient have the rights to just see the records and can edit own profile if any changes happen.

Session Management:

We can store user-related information in a session in form of key and value pairs. The HTTP Session interface defines the setAttribute(key, value) method to store a key-value entry and getAttribute(key) method to get value of a specified key.

As user login, user Id is stored in session storage and by using this user Id we can handle individual functionalities and display the data related to particular user.

As user logout from ones respective profile, the Id stored in session storage get deleted automatically.

Due to session management, if anyone tries to access the details of any user directly through then page directly renders to the homepage and by this way we achieved, security with the help of session management.

Technologies used

React:

React is a declarative, efficient, and flexible JavaScript library for building user interfaces. It lets you compose complex UI's from small and isolated pieces of code called "components". React is a JavaScript library for building user interfaces. React is used to build single page applications. React allows us to create reusable UI components.All the front end was completed with the help of React.

MySQL

MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database. MySQL is open-source and free software under the GNU license. All the User's data which is part of Hospital management system is managed with the help of MY-SQL.

Spring Tool Suite

Spring Tool Suite is an IDE to develop Spring applications. It is an Eclipse-based development environment. It provides a ready-to-use environment to implement, run, deploy, and debug the application. It validates our application and provides quick fixes for the applications. With the help of Spring tool suite, we created a Spring Boot project from Eclipse and used it for the developing the back end part.

V S Code

Visual Studio Code is a streamlined code editor with support for development operations like debugging, task running, and version control. It aims to provide just the tools a developer needs for a quick code-build-debug cycle and leaves more complex workflows to fuller featured IDE's, such as Visual Studio IDE.With the help of V S Code, we created a react js project and used it for the developing the front end part.

Git Lab

GitLab is a web-based Git repository that provides free open and private repositories, issue-following capabilities, and wikis. It is a complete DevOps platform that enables professionals to perform all the tasks in a project—from project planning and source code management to monitoring and security.All the project source code and documentation version control as well as management was done using Git Lab.

2.3 Software & Hardware Requirement:

- Stable internet Connection
- Web Browser (Recommended Chrome Browser)
- Software Requirement:

Framework	React
IDE	STS & Visual Studio
OS	Windows or Linux
Database	MySQL

- Machine Hardware Specification:

RAM	1 Gigabyte
HDD	80 Gigabyte & above
Processor	1.8 Gigahertz & above