Software Requirements Specification

for

Hospital management system

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1. Introduction

1.1 Purpose

Hospital Management System is an organized computerized system designed and programmed to deal with day to day operations and management of the hospital activities. The program can look after inpatients, outpatients, records, database treatments, status illness, billings in the pharmacy and labs. It also maintains hospital information such as ward id, doctors in charge and department administering. The major problem for the patient nowadays to get report after consultation, many hospital managing reports in their system but it's not available to the patient when he / she is outside.

1.2 Product Scope

1) Information about Patients is done by just writing the Patients name, age, phone, SSN, id, birthdate and gender. Whenever the Patient comes up his information is stored freshly.

2) Bills are generated by recording price for each facility provided to Patient on a separate sheet and at last they all are summed up.

3) Diagnosis information to patients is generally recorded on the document, which contains Patient information.

4) Information about various diseases is not kept as any document. Doctors themselves do this job by remembering various medicines.

1.3 References

SRS documentation for Hospital Management System - Free Student Projects

enterprise-performance-management-in-hospitals.pdf (pwc.in)

k7OsK5GWRpWVUAauH0ab (pathlms.com)

2. Overall Description

2.1 Product Perspective

This initiative provides a procedural guide to how patient seeks care, specifics of the date of treatment and ultimately, based on various factor such as space reserved, lab results, treatment and medicine received, etc., how the billing is measured. A Health card billing facility is also considered.

2.2 Product Functions

The following main role will be done by the data represented in the hospital management system application:

- Patient data include inpatient and outpatient details
- Report from the laboratories and diseases diagnosis from doctors
- Billing with data

This app will help you measure your bill much faster and better this help organization

to keep knowledge effectively and systematically.

2.3 User Classes and Characteristics

The entire project mainly consists of 7 module

1-Admin

- manage department of hospitals, receptionist, doctor, Lab doctor, pharmacist and Radiologist accounts.
- view report
- add new options

2-Doctor

- Manage patient. account opening and updating
- Create prescription for patient
- Provide medication for patients

3- receptionist

- confirm patient's reservation
- add patient data
- edit patient data
- update patient data
- determine the empty room that are reserved

4- Lab doctor

- add report about testing

5- pharmacist

- add/delete/update medicine

6- Radiologist

- add report about rays

7-Accountant module:

- Create invoice for payment
- Order invoice to patient
- Take cash payment
- Watch payment history of patients

2.4 Design and Implementation Constraints

Any update on hospital patient record should be registered to update and correct the value.

Design constraints:

this would allow doctor or users to access medical information automatically,

if appropriate. They will also measure the bill for the patient in question.

This app also has the power to add, edit and remove record whenever it necessary.

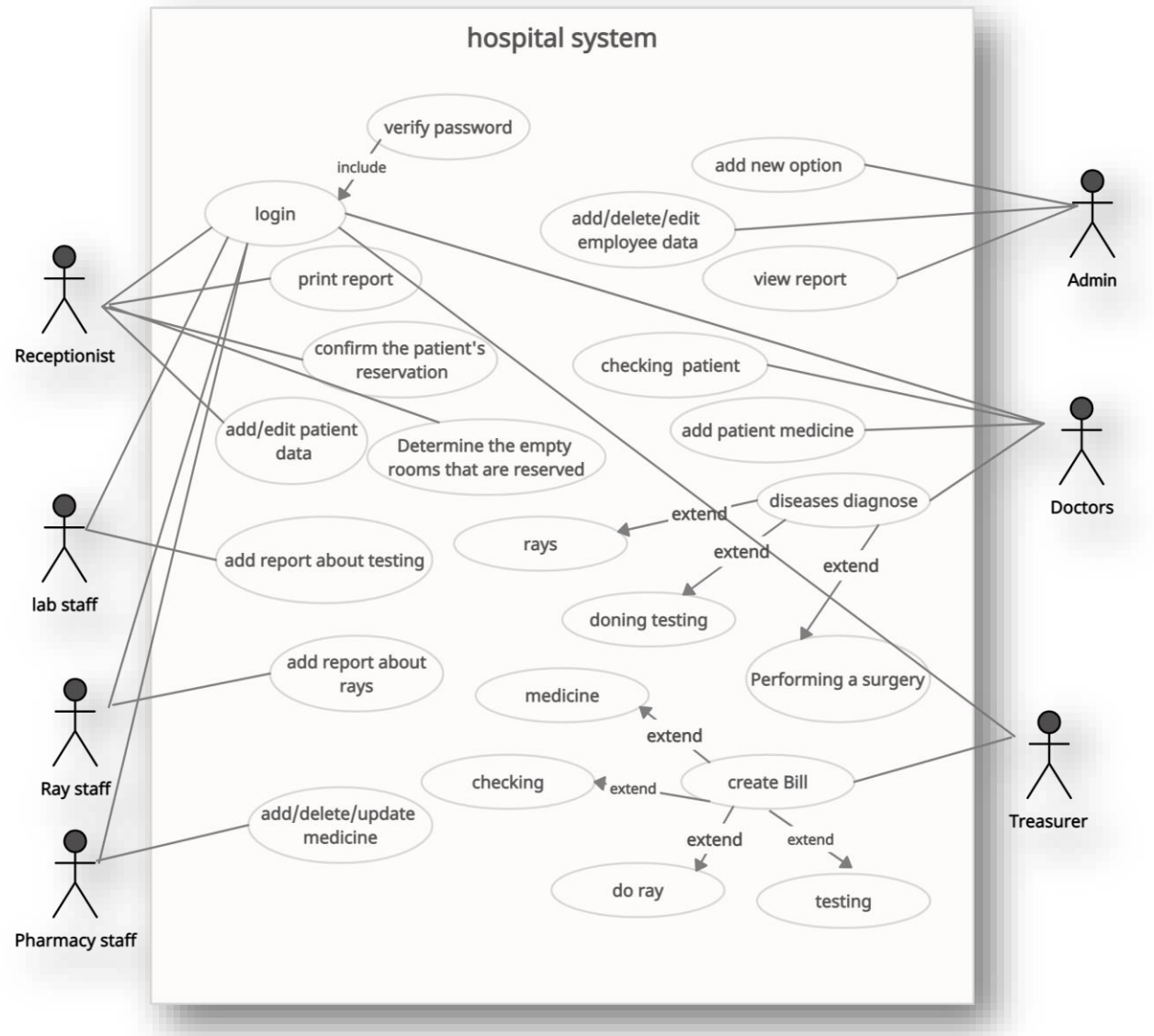
This initiative would continue to smooth the transition of hospital operations.

2.5 Assumptions and Dependencies

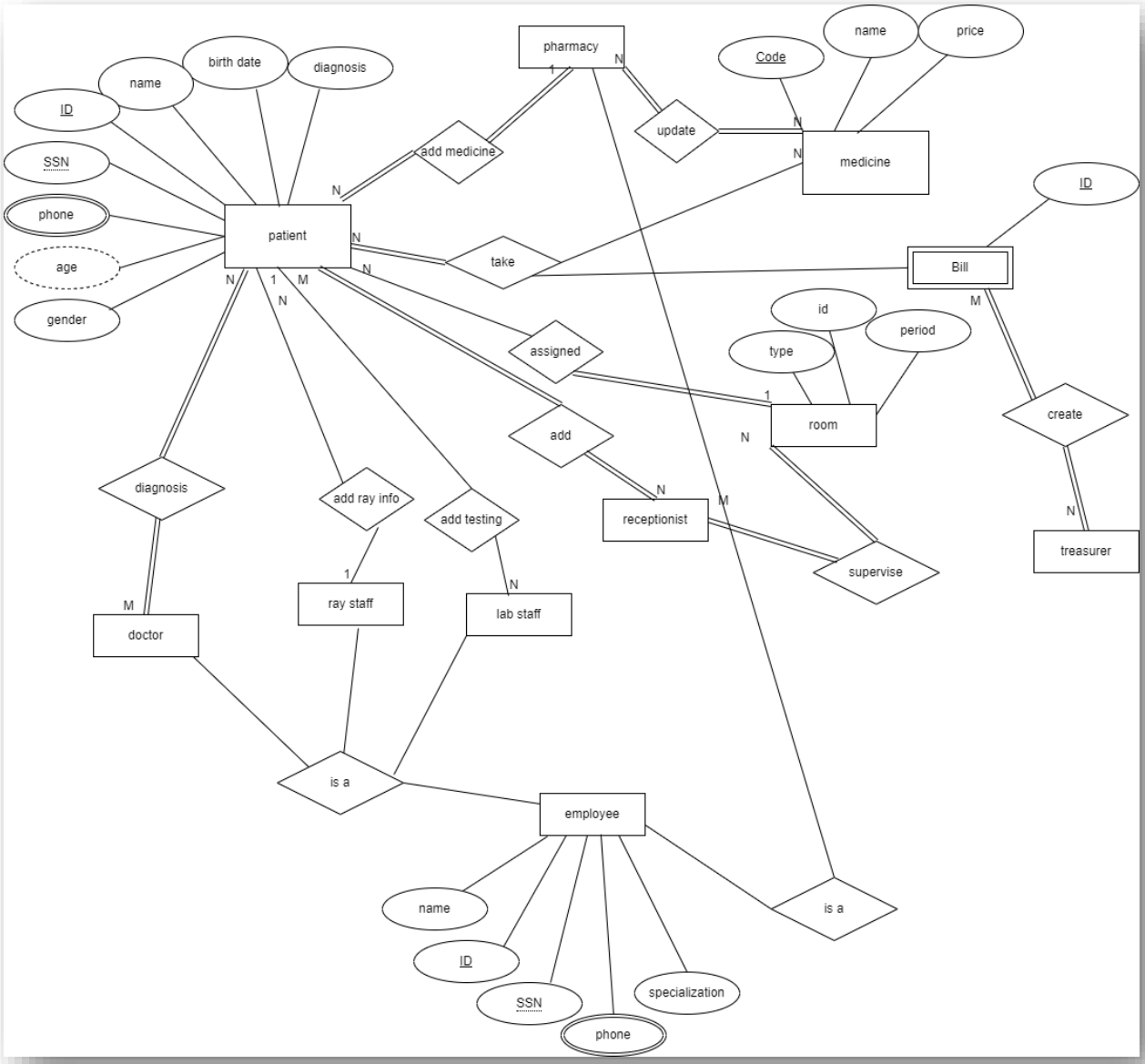
All data enter will be right and up to date.

3. UML Diagram

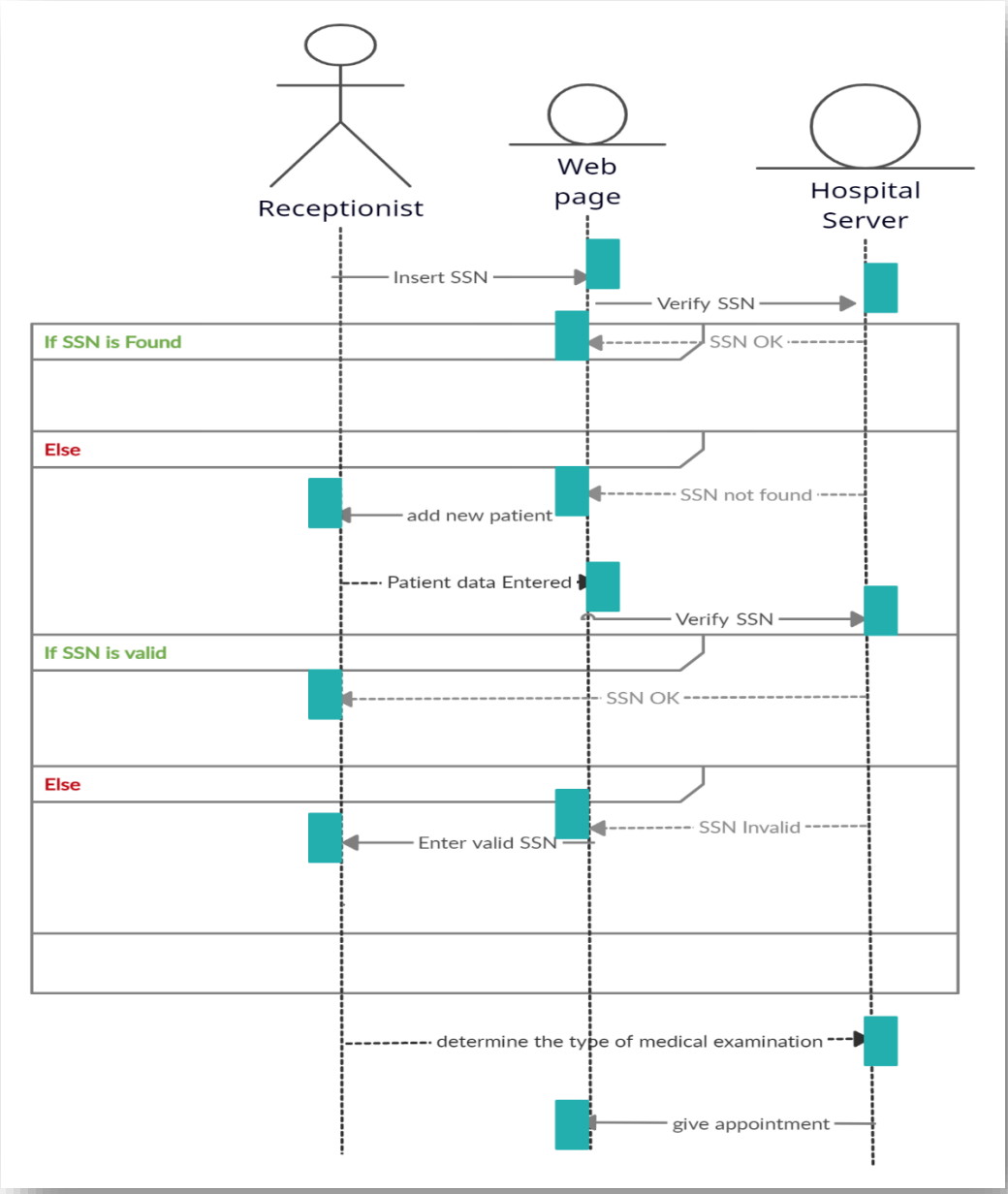
3.1 use case diagram



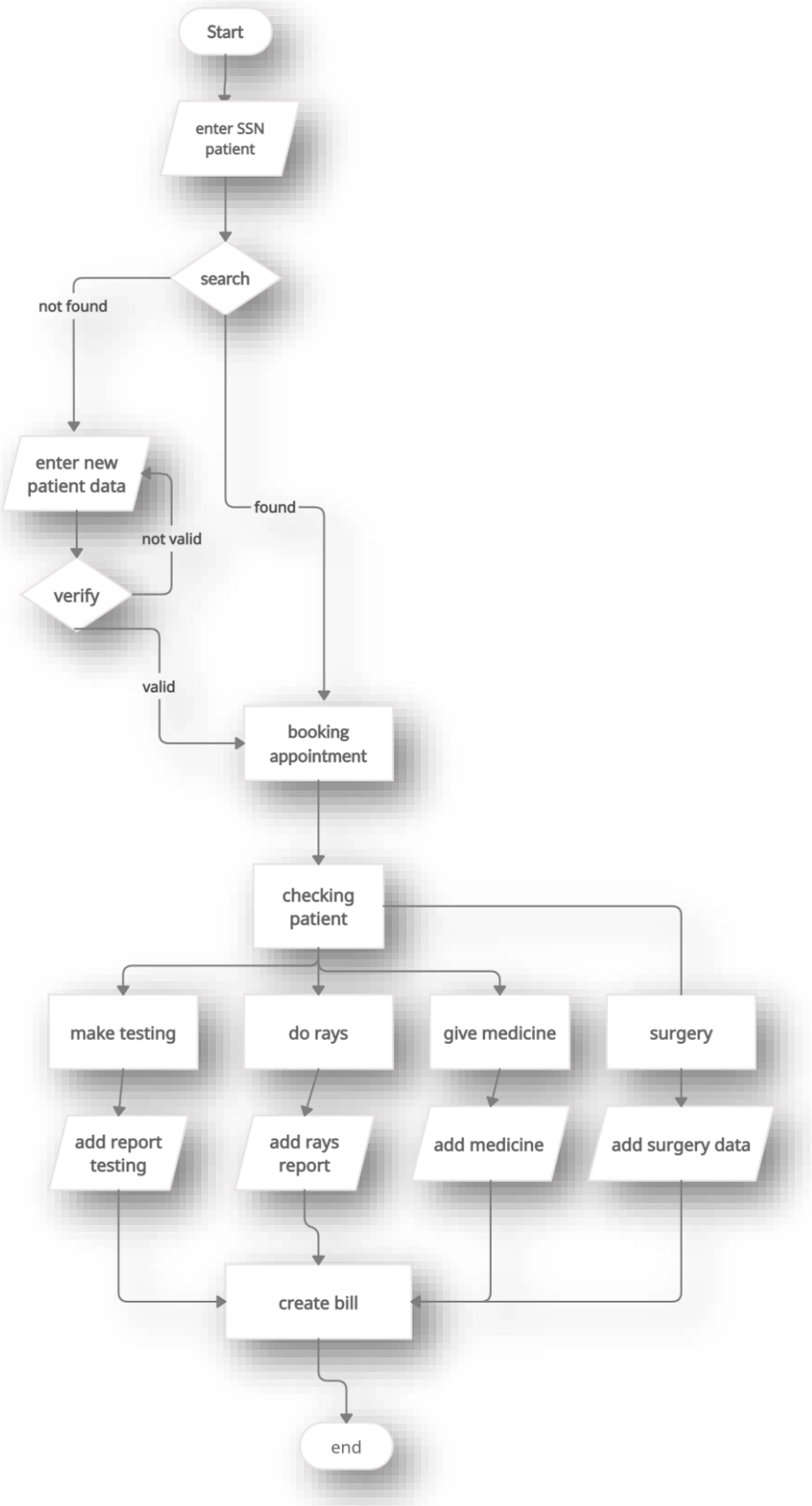
3.2 Entity Relationship diagram



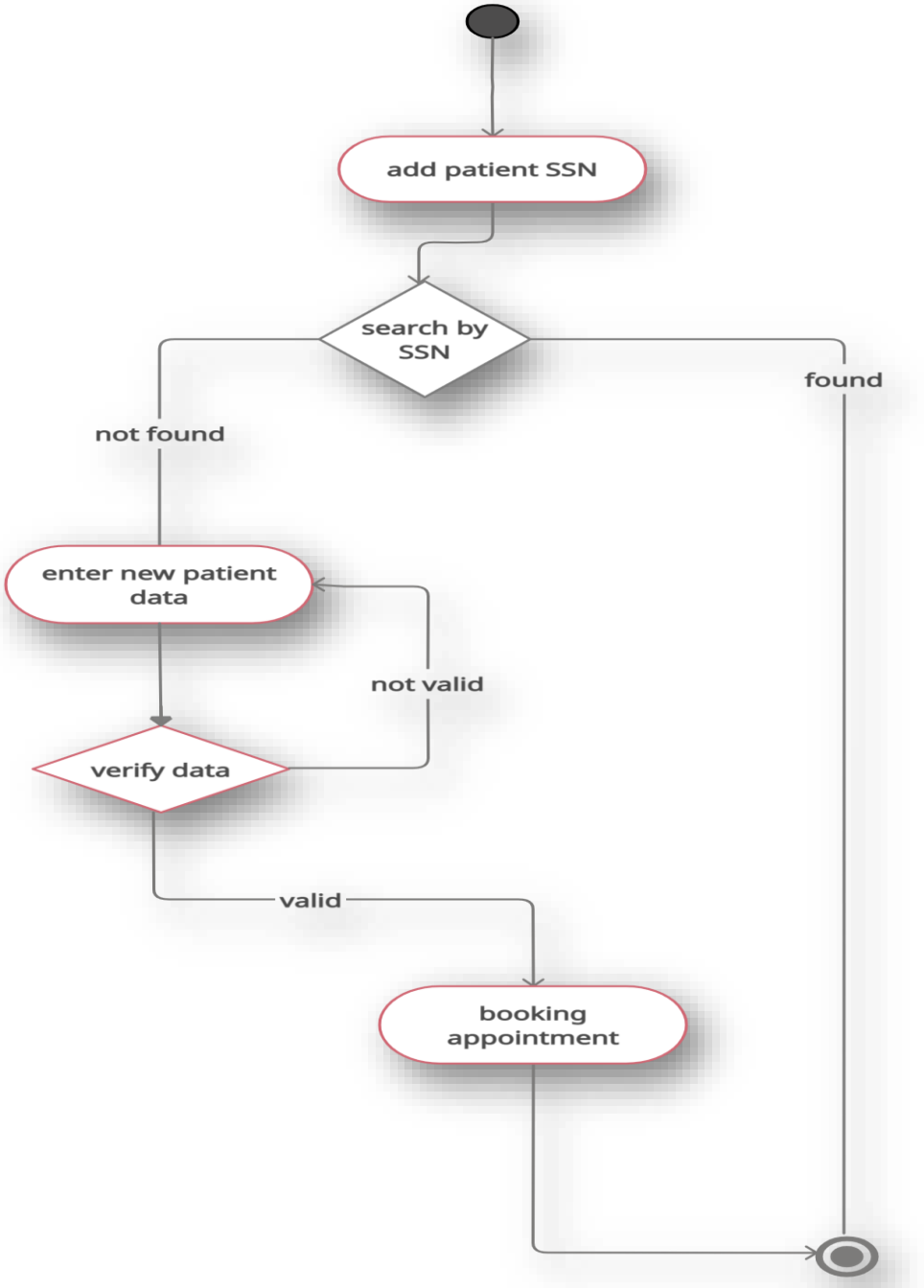
3.3 Sequence diagram



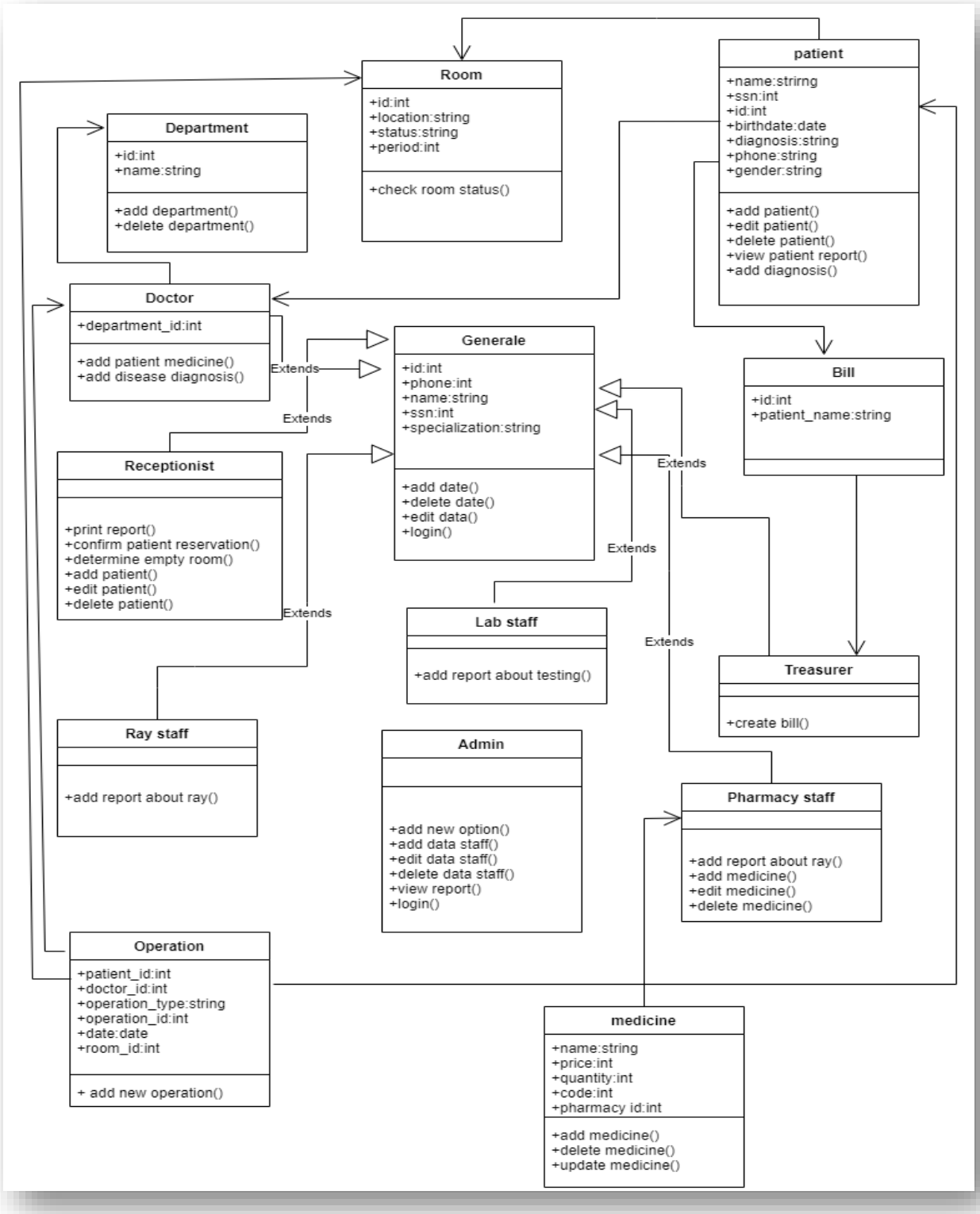
3.4 Flowchart diagram



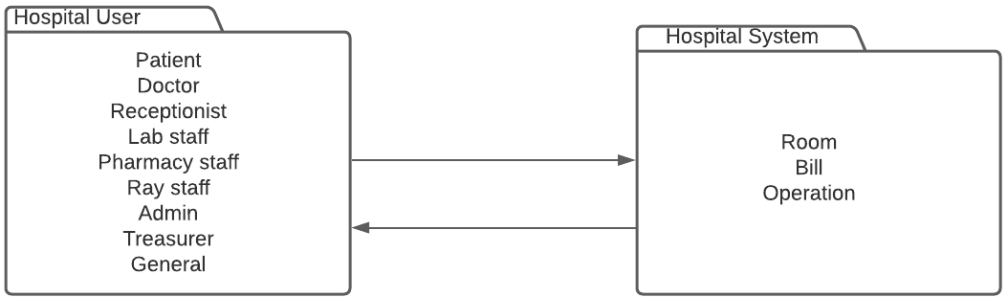
3.5 Activity diagram



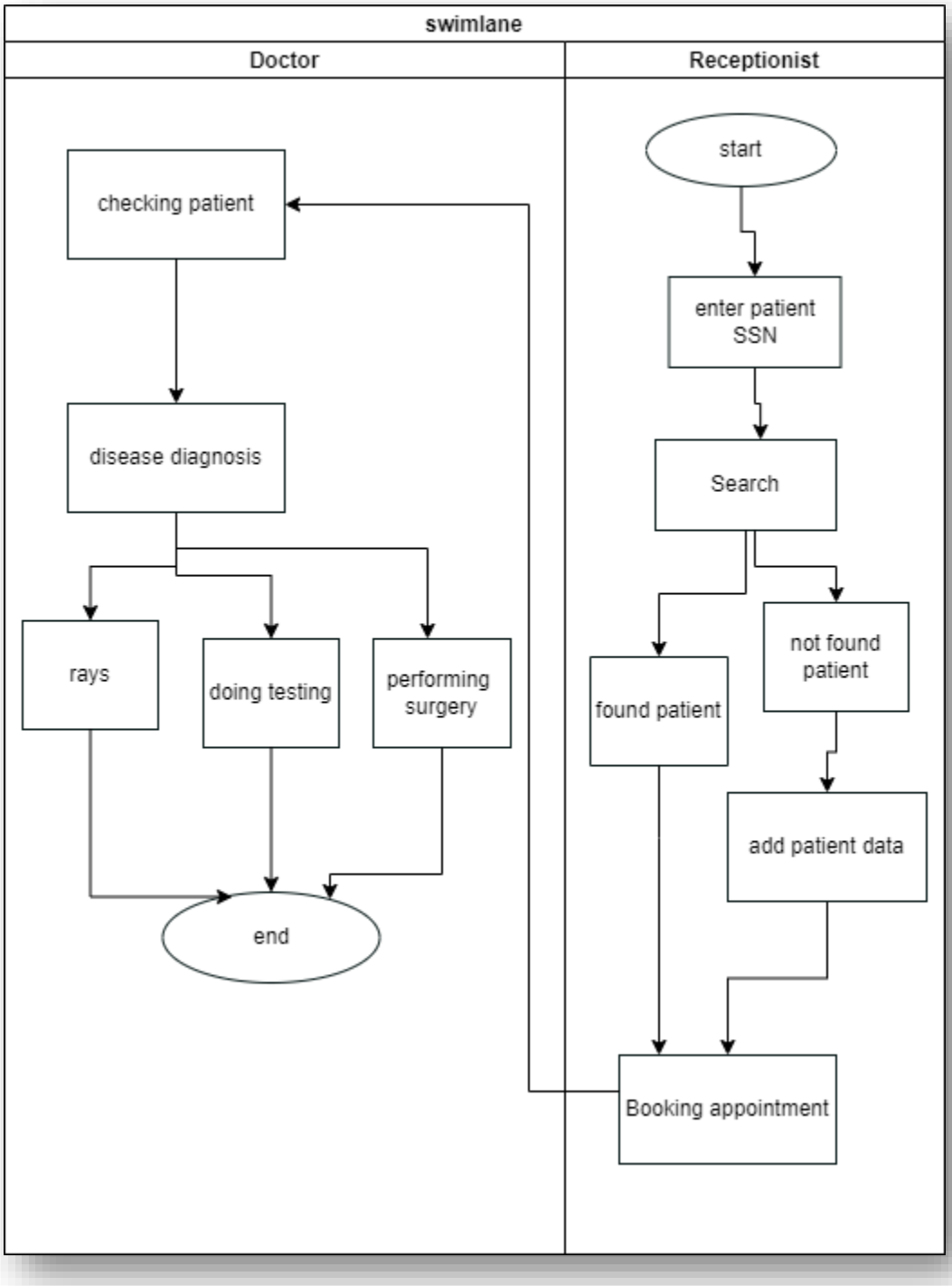
3.6 Class diagram



3.7 package diagram



3.8 Swimlane diagram



4. System Features

Functional Requirements:

There are a lot of software requirements specifications included in the functional requirements of the Hospital Management System, which contains various process, namely Registration, Check out, Report Generation, and Database.

4.1 Registration Process of SRS (Software Requirements Specification)

- adding Patients: The Hospital Management enables the staff in the front desk to include new patients to the system.
- assigning an ID to the patients: The HMS enables the staff in the front desk to provide a unique ID for each patient and then add them to the record sheet of the patient. The patients can utilize the ID throughout their hospital stay.

4.2 Check Out of SRS:

- Deleting Patient ID: The staff in the administration section of the ward can delete the patient ID from the system when the patient's checkout from the hospital.
- adding to beds available list: The Staff in the administration section of the ward can put the bed empty in the list of beds-available.

4.3 Report Generation of SRS:

- Information of the Patient: The Hospital Management System generates a report on every patient regarding various information like patient name, Phone number, bed number, the doctor's name whom its assigns, ward name, and more.
- Availability of the Bed: The Hospital Management system also helps in generating reports on the availability of the bed regarding the information like bed number unoccupied or occupied, ward name, and more.

4.4 Database of SRS:

- Mandatory Patient Information: Every patient has some necessary data like phone number, their first and last name, personal health number, postal code, country, address, city, 'patient's ID number, etc.

● Updating information of the Patient: The hospital management system enables users to update the information of the patient as described in the mandatory information included.

5. Other Nonfunctional Requirements

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

5.1 Security:

● Patient Identification: The system needs the patient to recognize herself or himself using the phone.
● Logon ID: Any users who make use of the system need to hold a Logon ID and password.
● Modifications: Any modifications like insert, delete, update, etc. for the database can be synchronized quickly and executed only by the ward administrator.
● Front Desk Staff Rights: The staff in the front desk can view any data in the Hospital Management system, add new patients record to the HMS but they don't have any rights alter any data in it.
● Administrator rights: The administrator can view as well as alter any information in the Hospital Management System.

5.2 Performance:

● Response Time: The system provides acknowledgment in just one second once the 'patient's information is checked.
● Capacity: The system needs to support at least 1000 people at once.
● User-Interface: The user interface acknowledges within five seconds.
● Conformity: The system needs to ensure that the guidelines of the Microsoft accessibilities are followed.

5.3 Maintainability:

● Back-Up: The system offers the efficiency for data backup.

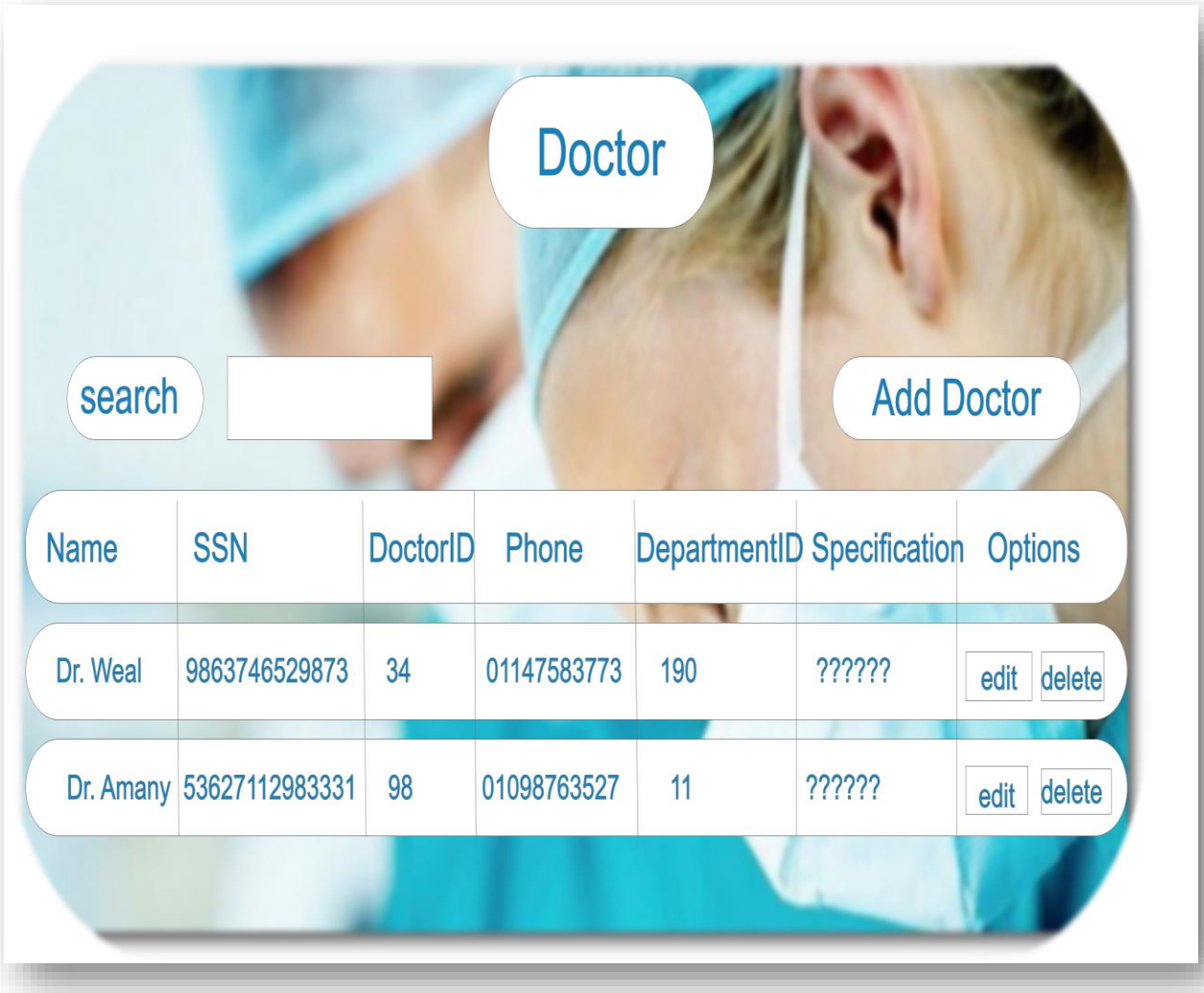
- Errors: The system will track every mistake as well as keep a log of it.

5.4 Reliability:

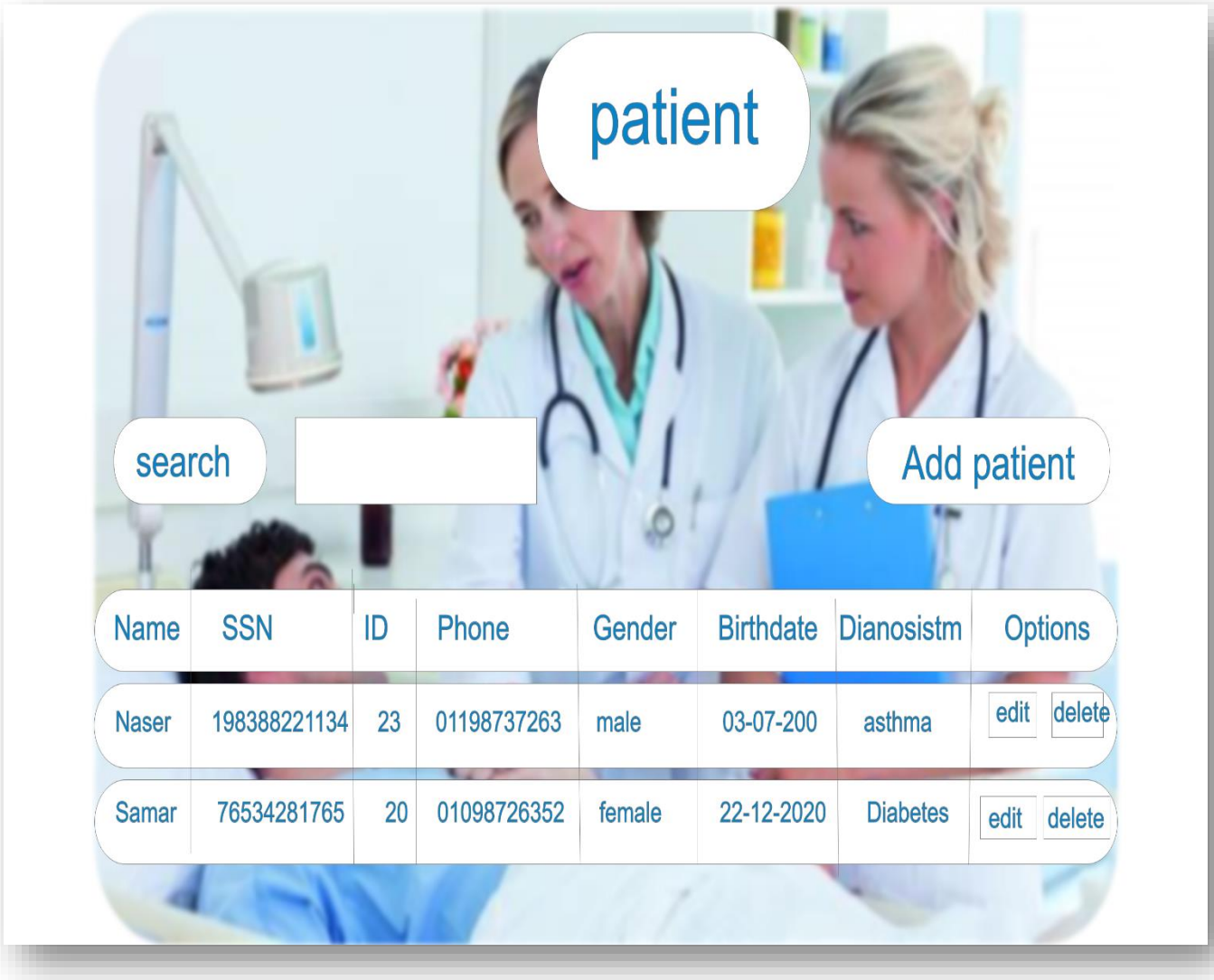
- Availability: The system is available all the time.

6. User Interface

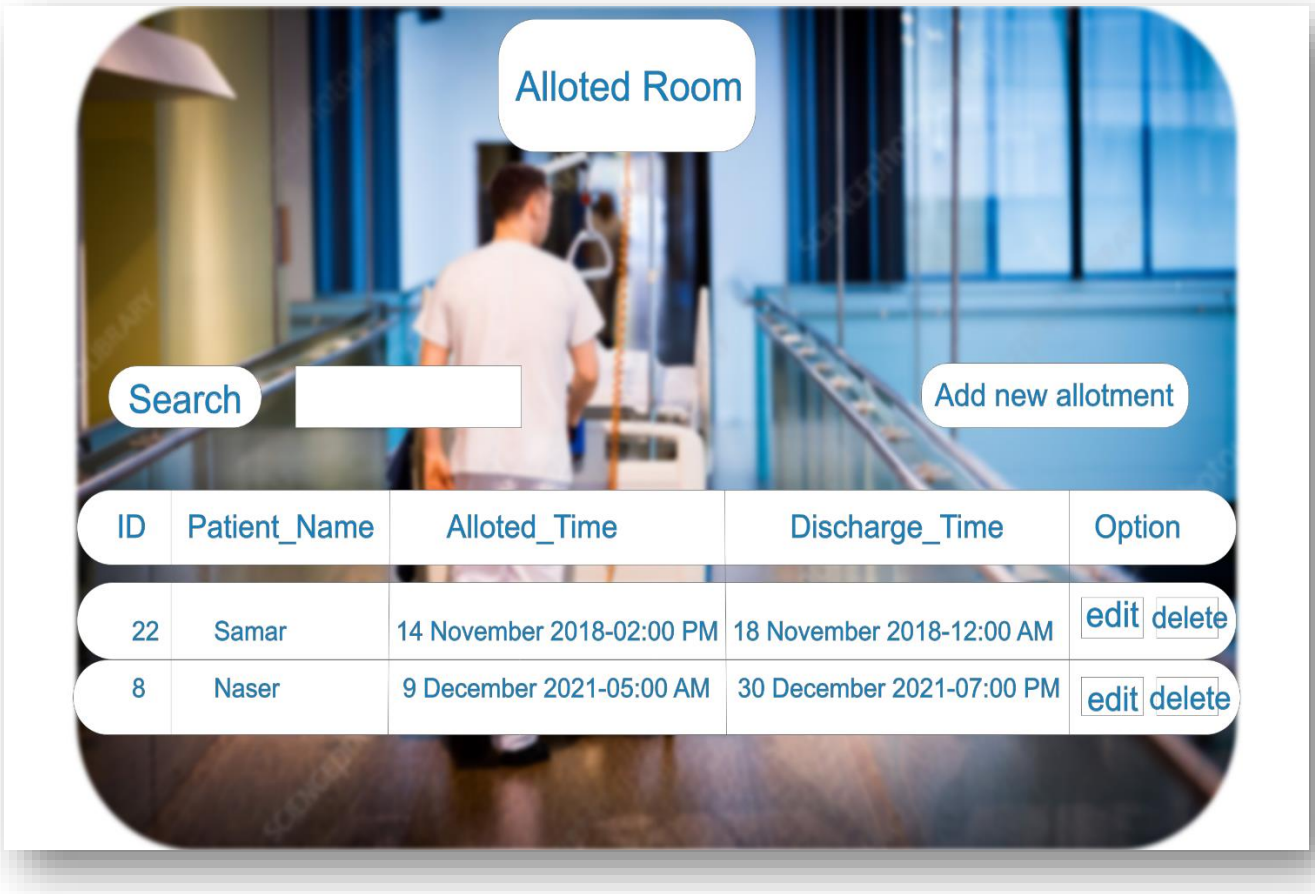
6.1 Doctor module



6.2 patient module



6.3 Room module



6.4 Operation report