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- Purpose :
The purpose of this Software is for the automation of Apollo Hospital Management. It maintains two levels of users one is Administrator Level and User Level. The software includes Maintaining Patient details , Providing Prescription , Precautions and Diet advice . Providing and maintaining all kinds of tests for a patient . Billing and Report generation.

Scope :

The proposed software product is the Apollo Hospital Management System. The system will be used to get the information from the patients and then storing that data for future usage. The current system in use is a paper-based system. It is too slow and cannot provide updated lists of patients within a reasonable timeframe. The intentions of the system are to reduce over-time pay and increase the number of patients that can be treated accurately, requirement statement in this document is both functional and non-functional.

Definitions, Acronyms and Abbreviations :

CFD:- Context Flow Diagram

DFD:- Data Flow Diagram

IDE:- Integrated Development Environment

SQL :- Structured Query Language

SRS :- Software Requirement Specification

GUI :- Graphical User Interface

EDM :- Entity data Model

Ms SQL :- Microsoft Structured Query Language

Terminology :

Health systems management or health care systems management describes the leadership and general management of hospitals, hospital networks, and /or health care systems. In international use, the term refers to management at all levels. In the United States, management of a single institution (e.g. a hospital) is also referred to as medical and health services management, healthcare management, or health administration.

Health systems management ensures that specific outcomes are attained, that departments within a health facility are running smoothly, that the right people are in the right jobs, that people know what is expected of them, that resources are used efficiently and that all departments are working towards a common goal.

Overview :

This Software Requirements Specifications (SRS) is the requirements work product that formally specifies Hospital Patient Info Management System. It includes the results of both business analysis and systems analysis efforts. Various techniques were used to elicit the requirements and we have

identified your needs, analyzed and refined them. The objective of this document therefore is to formally describe the system's high level requirements including functional requirements, non-functional requirements and business rules and constraints. The detail structure of this document is organized as follows:

Section 2 of this document provides an overview of the business domain that the proposed Apollo Hospital Patient Info Management System will support. These include a general description of the product, user characteristics, general constraints, and any assumptions for this system. This model demonstrates the development team's understanding of the business domain and serves to maximize the team's ability to build a system that truly does support the business. Section 3 presents the detail requirements, which comprise the domain model.

General Description

Product Perspective:

This Hospital Patient Info Management System is a self-contained system that manages activities of the hospital as Patient Info. Various stakeholders are involved in the hospital patient info system.

Product Functions :

The system functions can be described as follows :

Registration: When a patient is admitted, the front-desk staff checks to see if the patient is already registered with the hospital. If he is, his/her Personal Health Number (PHN) is entered into the computer.

Otherwise a new Personal Health Number is given to this patient. The patient's information such as date of birth, address and telephone number is also entered into computer system.

Patient check out: If a patient check out, the administrative staff shall delete his PHN from the system and the just evacuated bed is included in available-beds list.

Report Generation: The system generates reports on the following information : list of detailed information regarding the patient who had admitted in the hospital.

User Characteristics :

The system will be used in the hospital. The administrators, front-desk staff will be the main users. Given the condition that not all the users are computer-literate. Some users may have to be

trained on using the system. The system is also designed to be user-friendly. It uses a Graphical User Interface (GUI).

Front-desk staff :

They all have general reception and secretarial duties. Every staff has some basic computer training. They are responsible for patient's check-in or notification of appropriate people.

Administrators :

They all have post-secondary education relating to general business administration practices. Every administrator has basic computer training. They are responsible for all of the scheduling and updating day/might employee shifts.

General Constraints :

The system must be delivered by January 1st 2023.

The existing Telecommunication infrastructure is based on IEEE 100802.3 standards and the system must conform to this standard using category 5 for networking.

The system must be user-friendly.

Assumptions and Dependencies:

It is assumed that one hundred IBM compatible computers will be available for the system is installed and tested.

It is assumed that the hospital will have enough trained staff to take care of the system.

Specific Requirements

Registration:

Add patients

The HPIMS shall allow front-desk staff to add new patients to the system.

Assign ID

The HPIMS shall allow front-desk staff to give each patient a ID and add it to the patient's record. This ID shall be used by the patient throughout his / her stay in hospital.

Check Out:

Delete Patient ID

The administrative staff in the ward shall be allowed to delete the ID of the patient from the system when patient checks out.

Add to beds-available list

The administrative staff in the ward shall be allowed to put the beds just evacuated in beds-available list.

Report Generation :

Patient information

The HPIMS shall generate reports on patients about the following information : patient's PHN, patient's name, ward name, bed number and the doctor's name which was assigned.

Bed Availability

The HPIMS shall generate reports on bed availability about the following information : ward name, bed number, occupied / unoccupied.

Database :

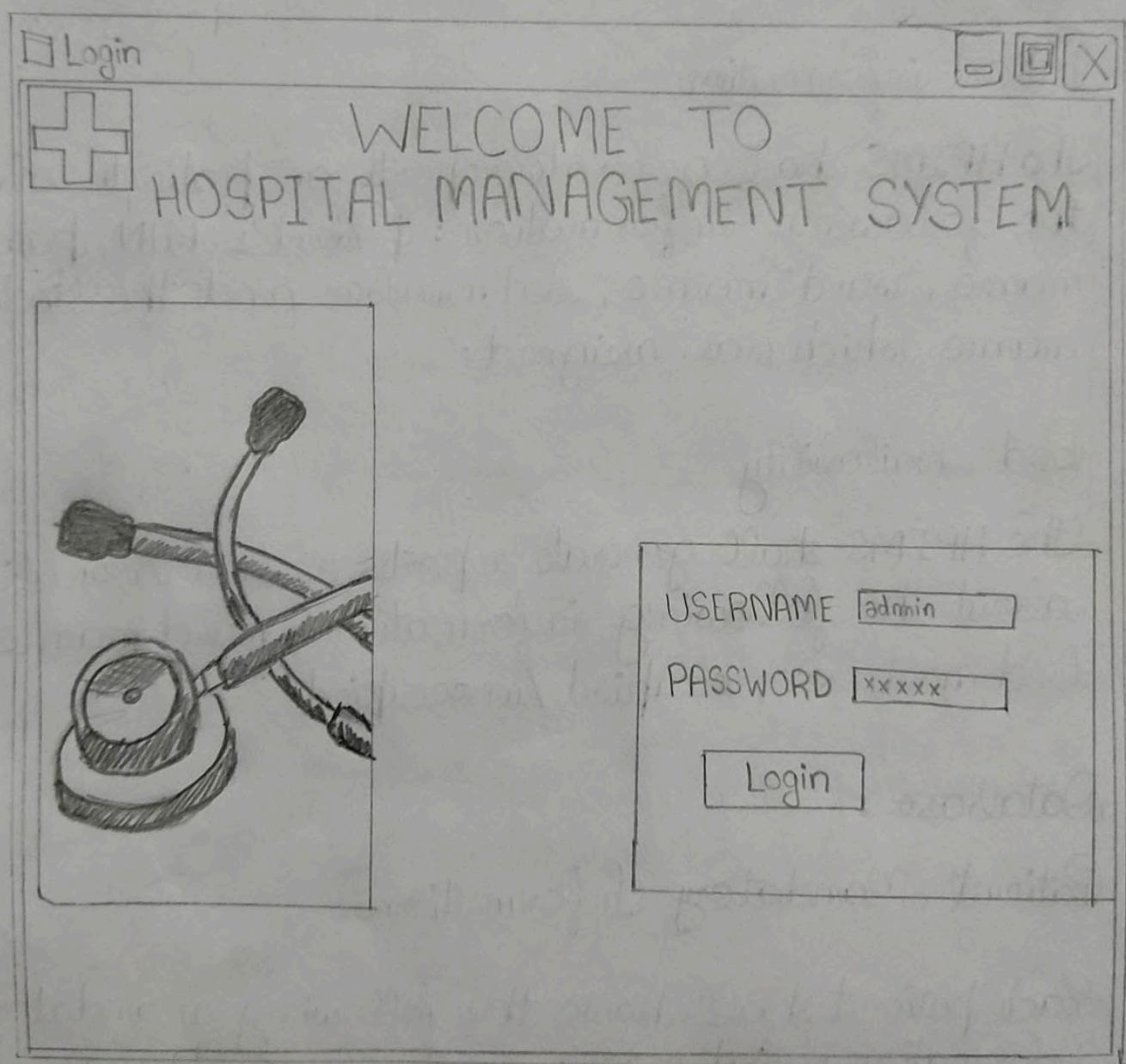
Patient Mandatory Information

Each patient shall have the following mandatory information : first name, last name, phone number, personal health number, address, postal code, city, country, patient identification number.

Update Patient Information

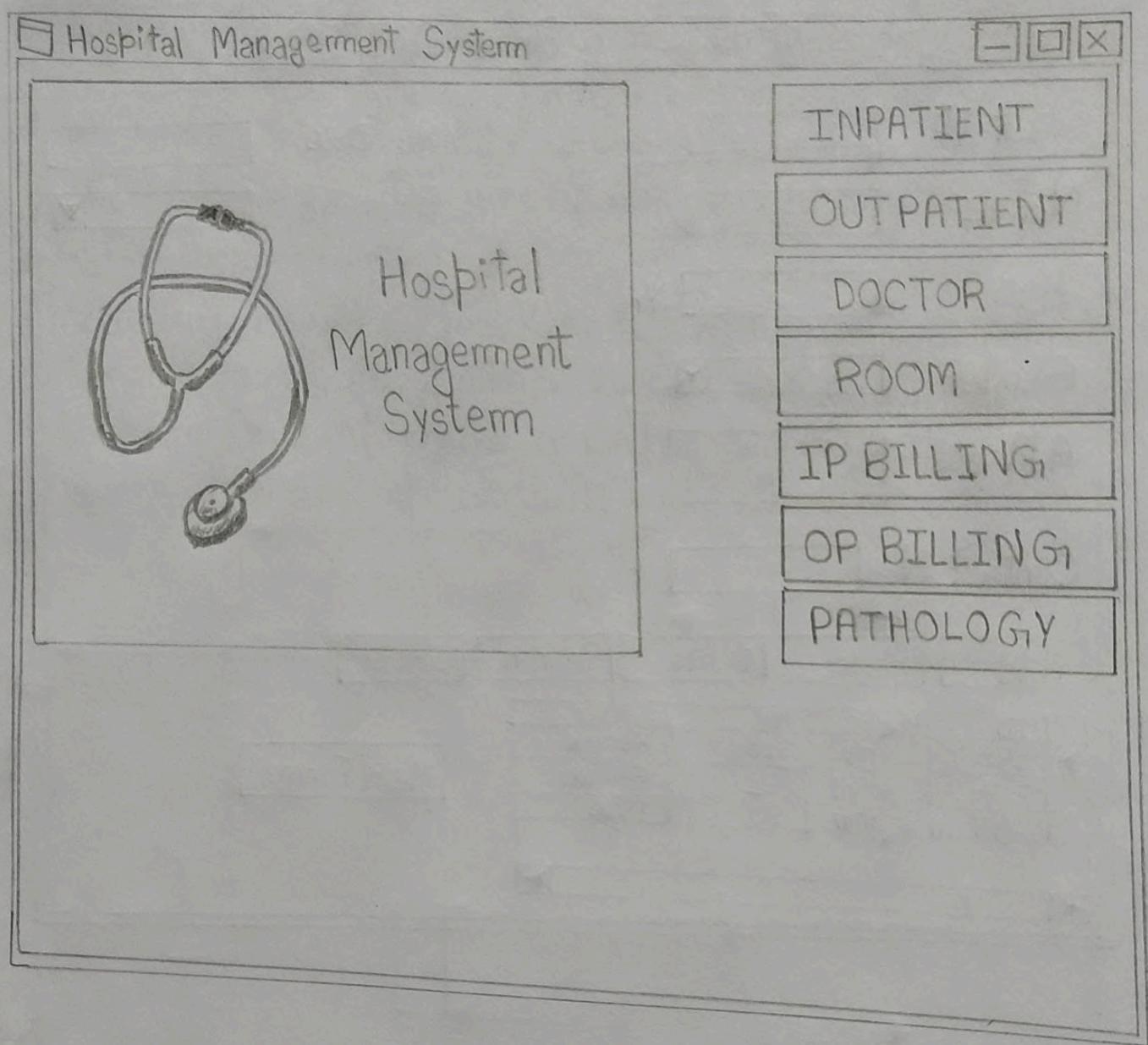
The HPIMS shall allow the user to update any of the patient's information as described

Log in Form:



Homepage of Apollo Hospitals System:

Homepage of Apollo hospitals system:



Inpatient Registration Form:

Inpatient

INPATIENT REGISTRATION

Patient ID	<input type="text"/>	Reg. Date	<input type="text"/>
Name	<input type="text"/>	Room No	<input type="text"/> ▾
Age	<input type="text"/> Yrs		
Gender	<input type="text"/> ▾		
Address	<input type="text"/>		
Contact No.	<input type="text"/>		

Add Save Delete Search Close

ID	Name	Age	Gender
► 145	Sneha	25	Female
234	Sakshi	21	Female
147	Gaurav	20	Male

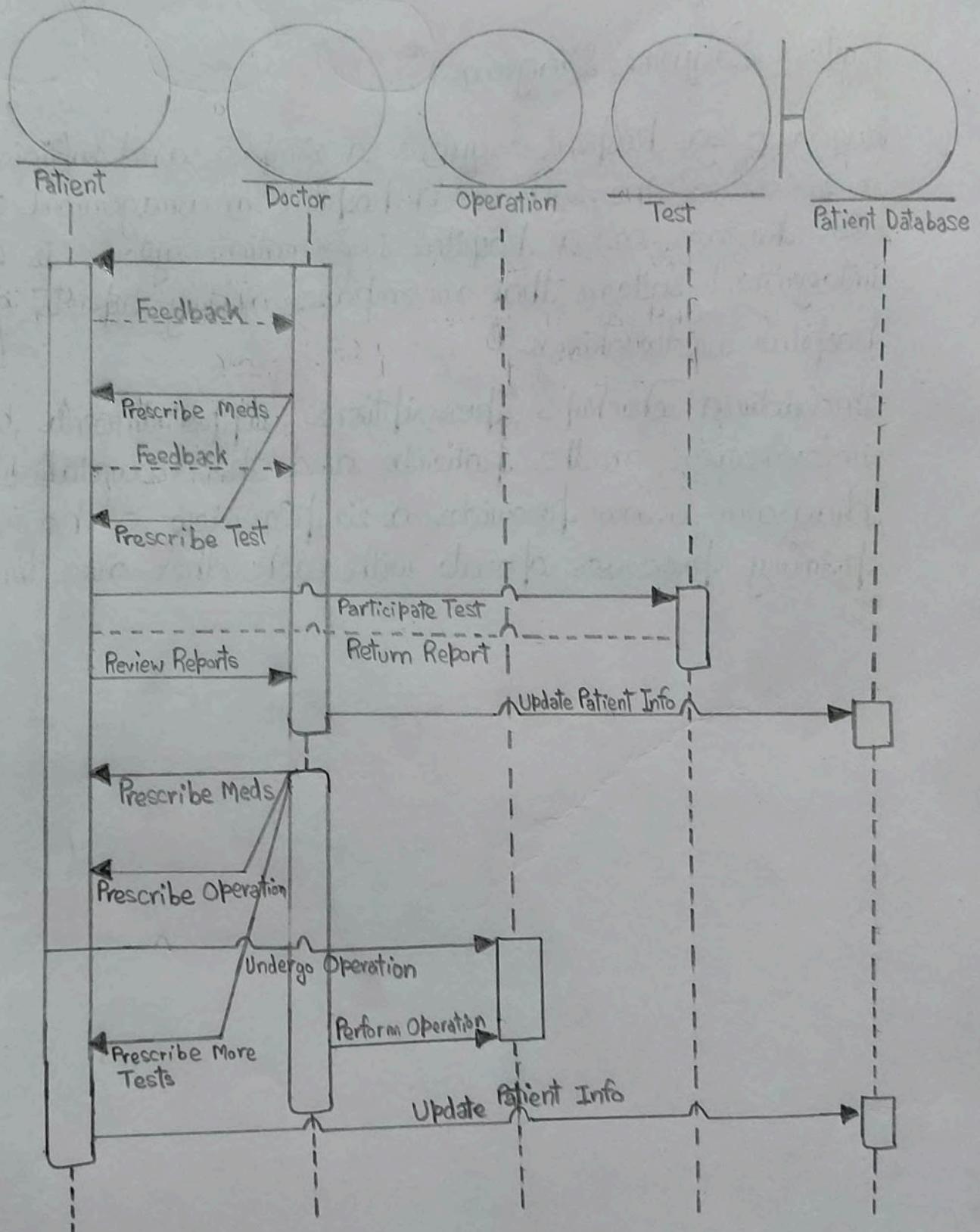
Main Form

Overall System:

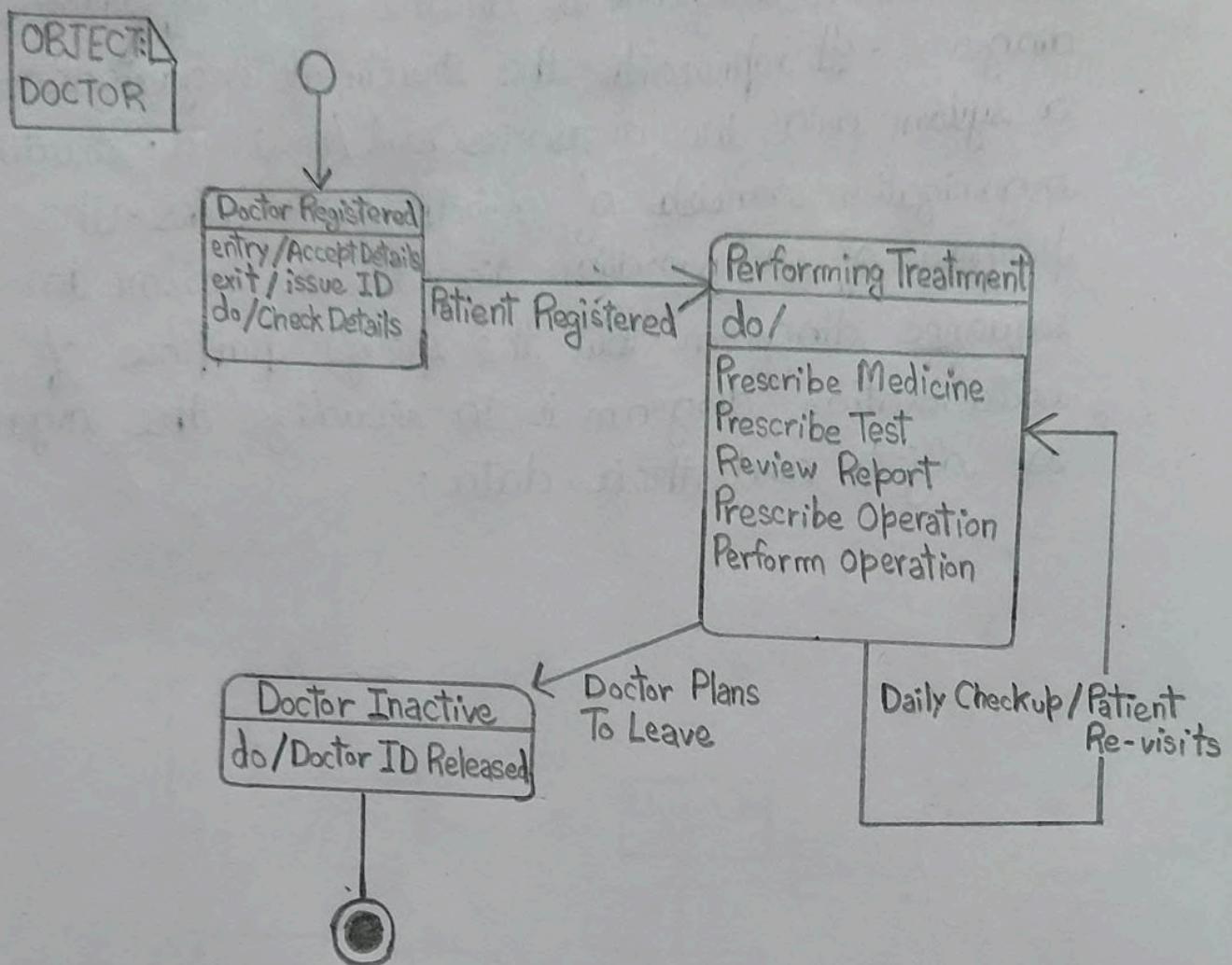
System Sequence Diagram:

Running a hospital requires a simple and sufficient overview of the system. A hospital management system, also known as a hospital information system, is an integrated system that encompasses many aspects of hospital undertakings,

Including checkups, prescriptions, appointments, and information on the patients and their caretakers. The diagram below provides a simple view of how the primary processes operate with each other over time.



System state Diagram:

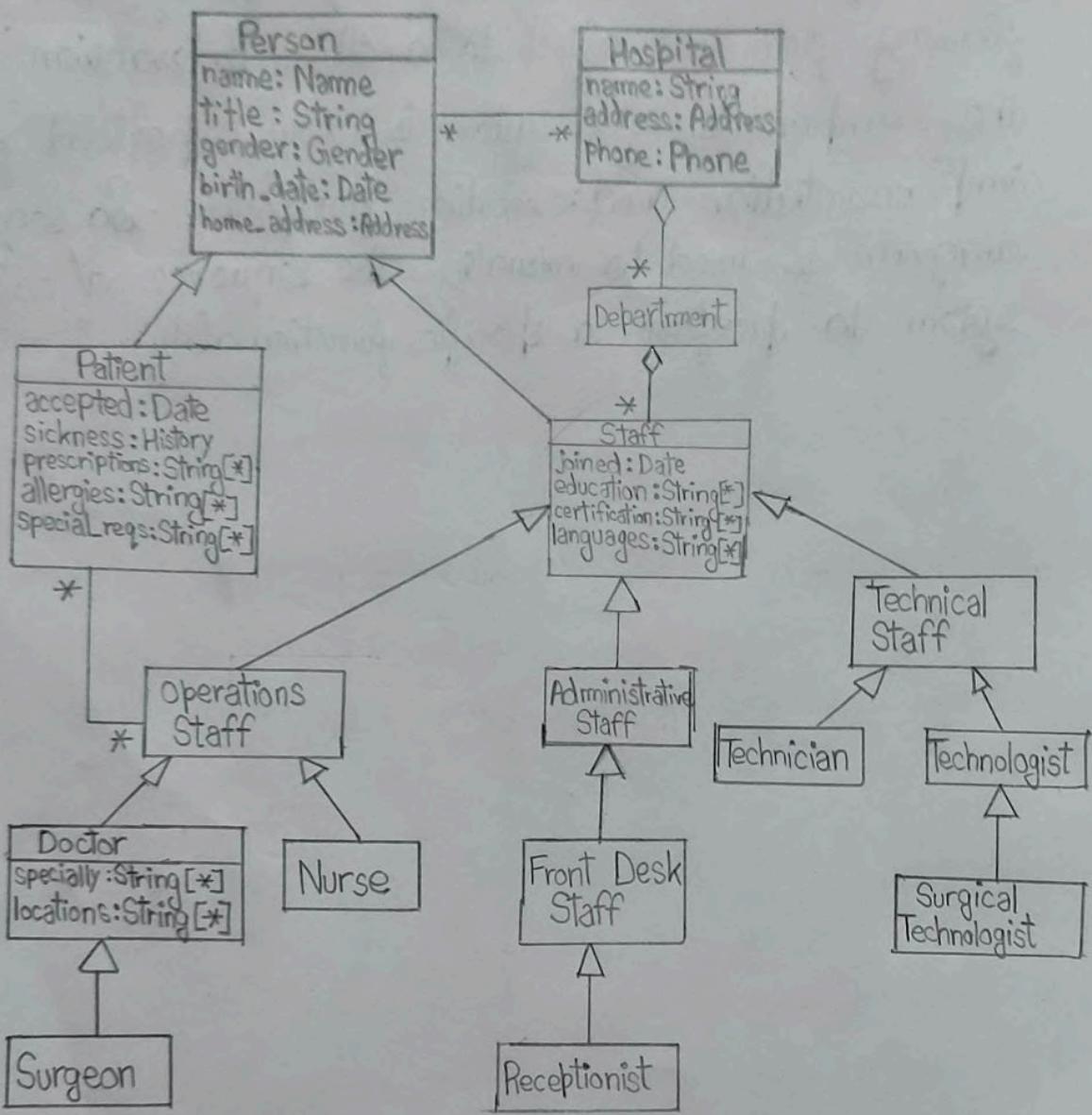


System Collaboration Diagram:

Collaboration diagram is another form of interaction diagram. It represents the structural organization of a system and the messages sent/received. Structural organization consists of objects and links. The purpose of collaboration diagram is similar to sequence diagram. But the specific purpose of collaboration diagram is to visualize the organization of objects and their data.

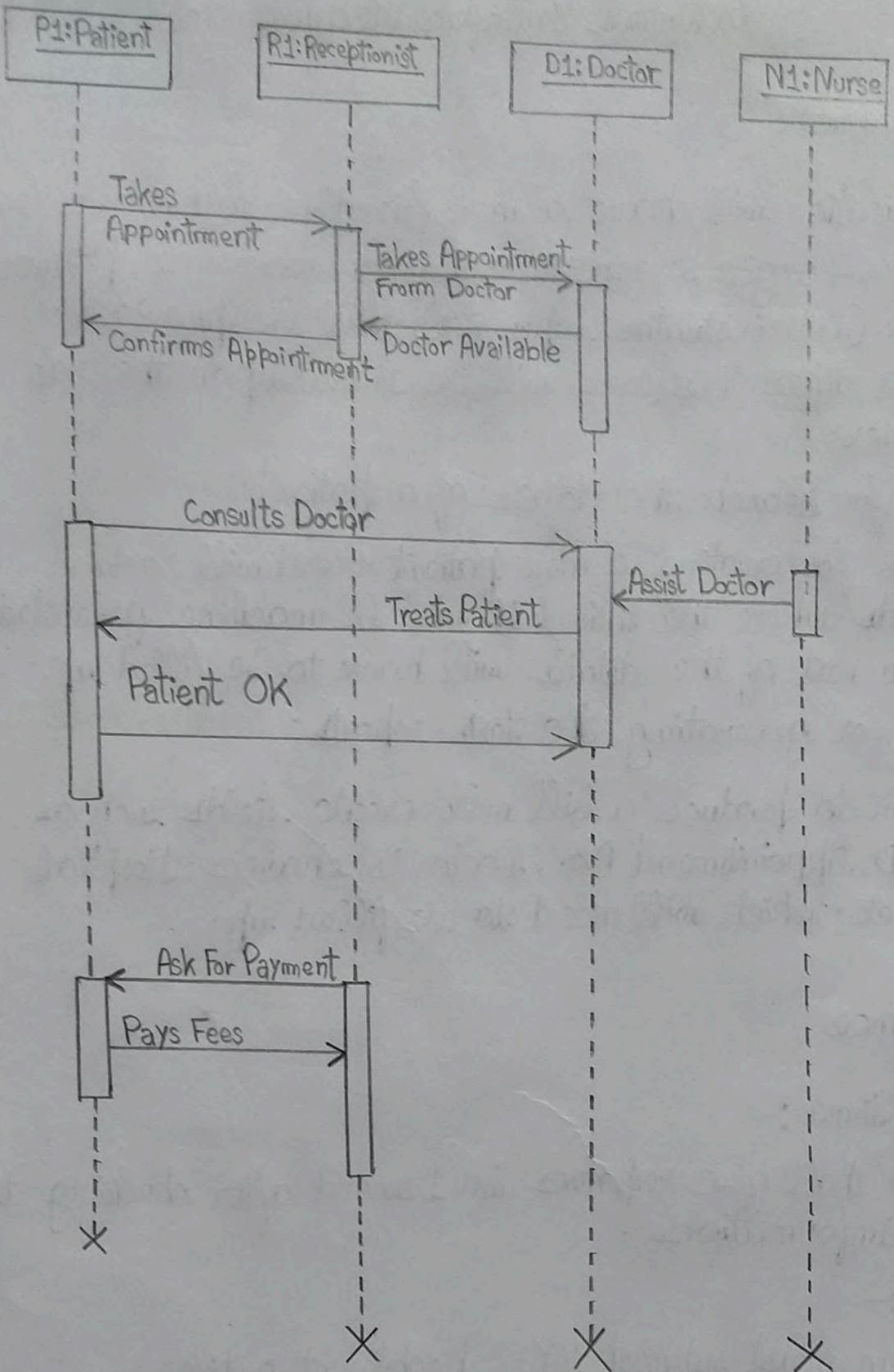
System Conceptual Diagram:

Class Organization



Collaboration sequence diagrams:

A sequence diagram is an interaction diagram. From the name it is clear that the diagrams deals with some sequences, which are the sequence of messages flowing from one object to another. Interaction among the components of a system is very important from implementation and execution perspective. So sequence diagram is used to visualize the sequence of calls in a system to perform a specific functionality.



External Interface Requirements

User interface:

The application will have a user friendly and menu based interface. A login screen for entering username, password and role (Administrator, operator) will be provided. Access to different screens will be based upon the role of the user.

A Form for Search the details of a patient.

The Form for creating a new patient record will contain text fields where the Patient ID will be machine generated and the rest of the details will have to be filled up.

A Form for generating the test reports.

The Form to produce a bill will create fields such as Patient ID, Appointment No., Doctor's charges, Hospital charges etc. which will need to be filled up.

Performance

Response Time :-

The system shall give responses in 1 second after checking the patients informations.

Capacity :-

The system must support 1000 people at a time.

User-interface :-

The user-interface screen shall respond within 5 seconds.

Conformity :-

The systems must conform to the Microsoft Accessibility.

Use Case Diagram for Apollo hospitals :

No matter where you are, the process of getting medical attention can be confusing. Hospital administrators can improve the experience by using diagrams to chart relevant details. For example, the use case diagram for hospital management system (UML) shows how the receptionist, records system and doctor work together to file insurance claims, prescribe tests, schedule patient appointments, and much more. To make a use case diagram in Lucidchart, you can simply drag and drop elements onto the canvas and rearrange as necessary.

Conclusion :

This SRS document is used to give details regarding Hospital Patient Info Management System.