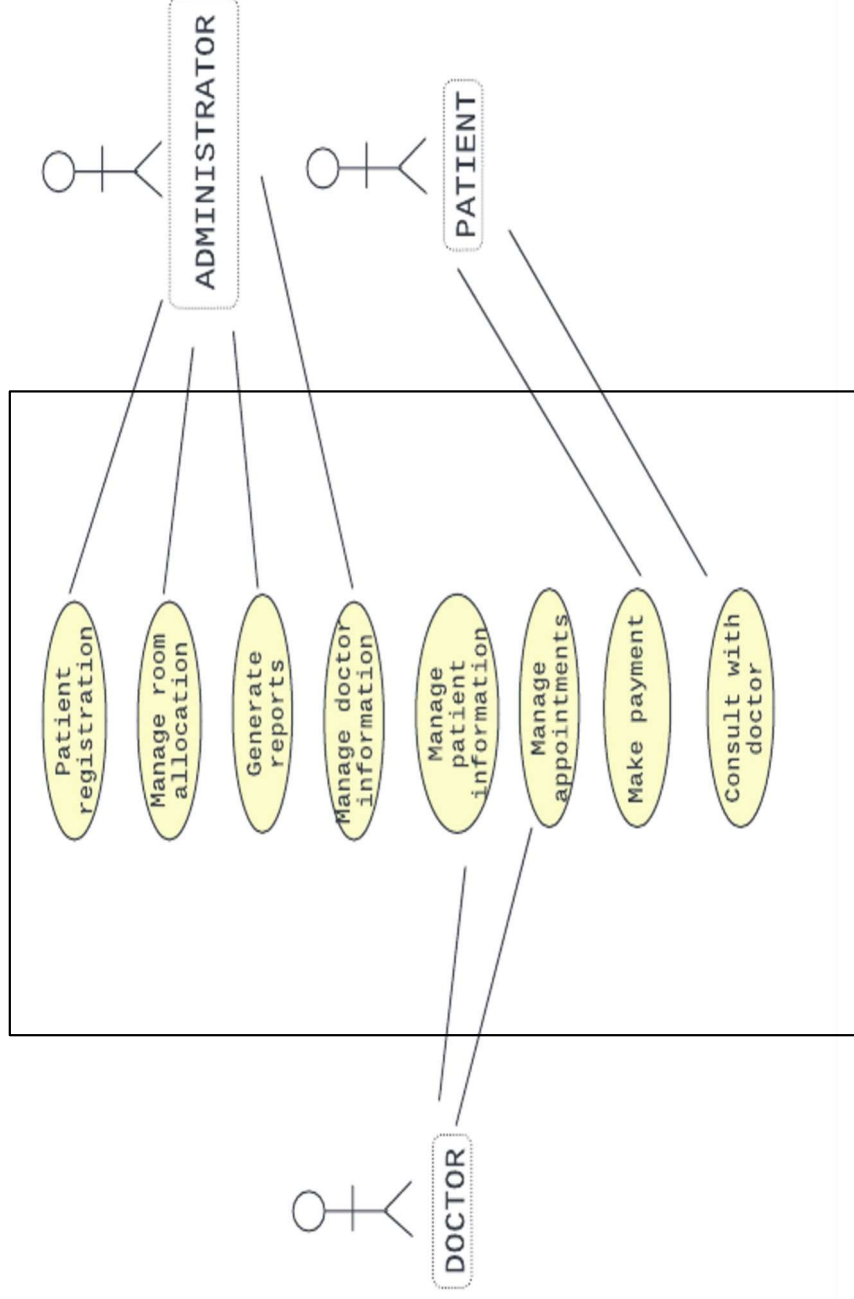# INTRODUCTION

The project Hospital Management System include registration of patients, storing their details into the system, and computerized billing. This comprehensive system encompasses patient registration, data storage, automated billing, and unique identification for each patient. With a focus on enhancing efficiency, the system caters to administrators,doctors and patients providing exclusive data input rights.
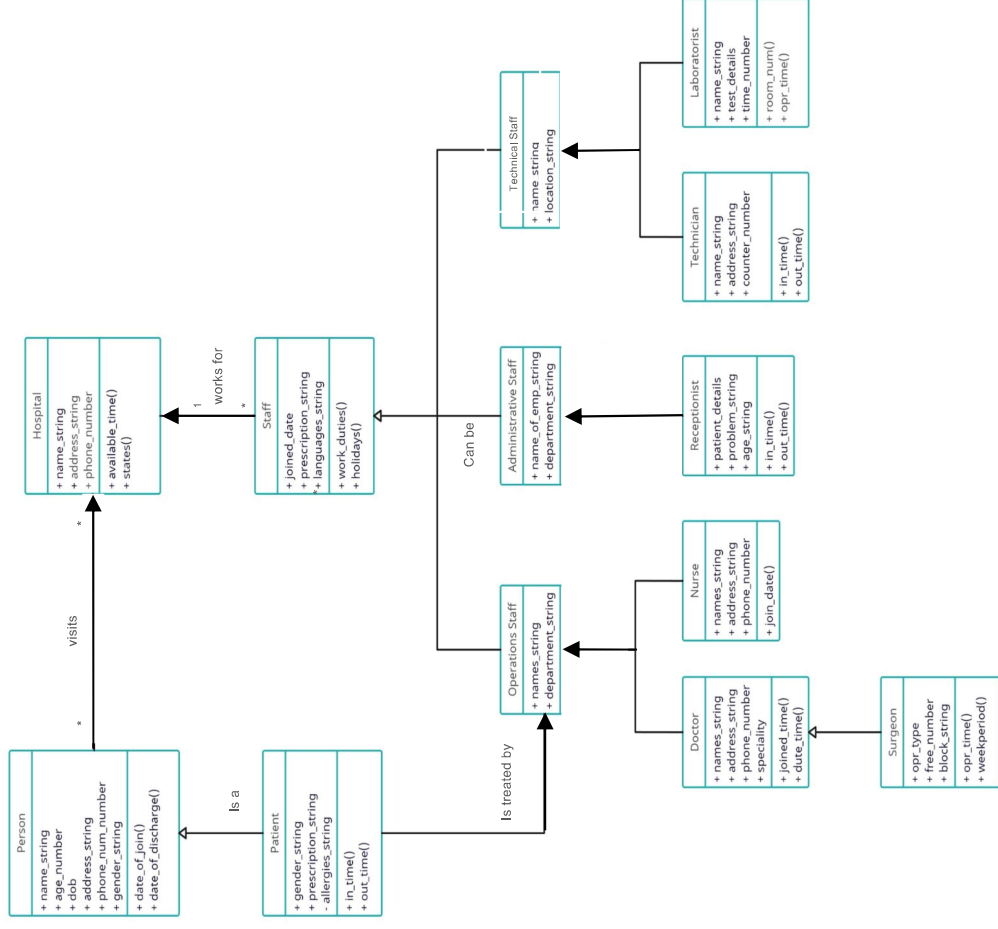
We represented the above system using the following UML diagrams:

- Use Case Diagram
- Class Diagram
- State Diagram
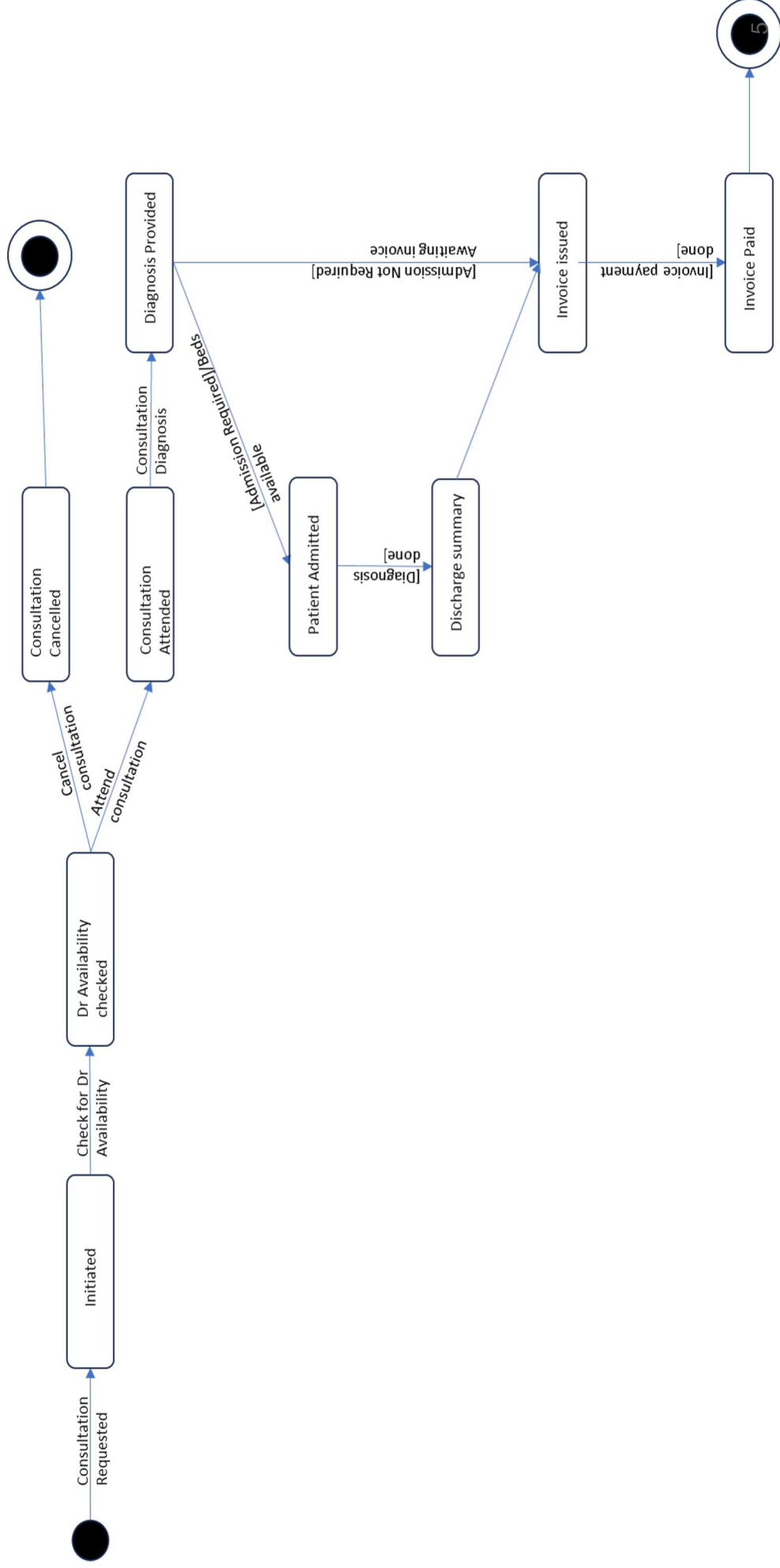- Sequence Diagram
- Deployment Diagram
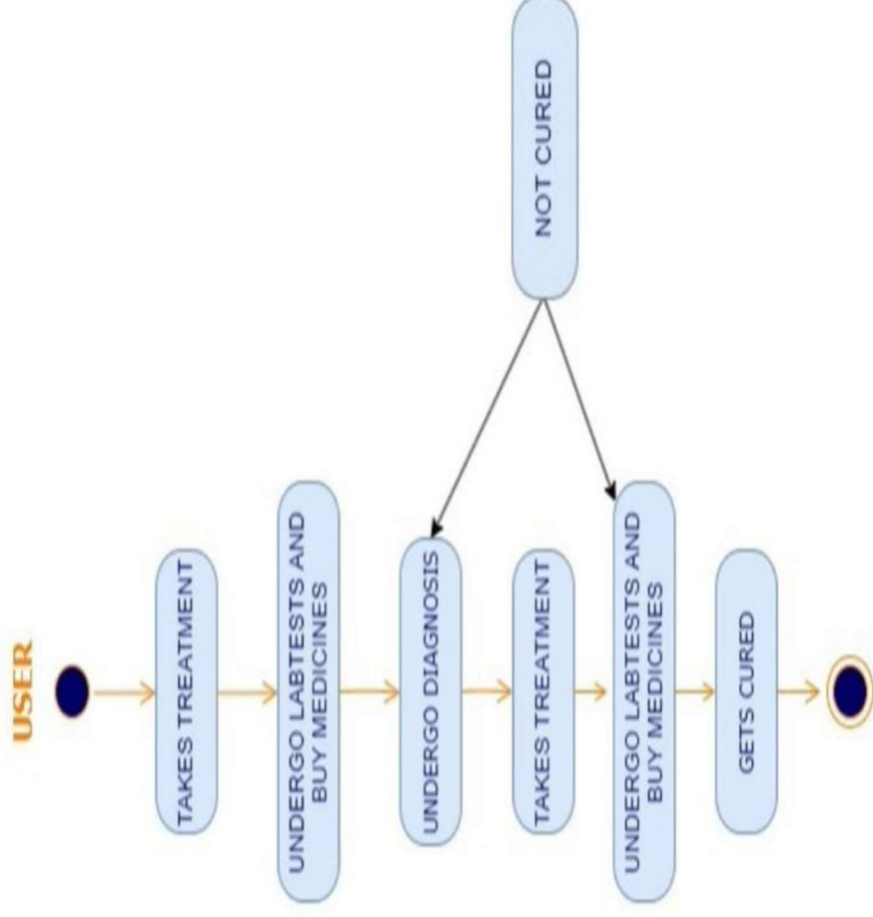
USE CASE DIAGRAM

CLASS DIAGRAM

Person
- + name_string
- + age_number
- + dob
- + address_string
- + phone_num_number
- + gender_string
- + date_of_join()
- + date_of_discharge()

Hospital
- + name_string
- + address_string
- + phone_number
- + available_time()
- + states()

visits * *

1 works for *

Patient
- + gender_string
- + prescription_string
- - allergies_string
- + in_time()
- + out_time()

Is a

Is treated by

Staff
- + joined_date
- + prescription_string
- + languages_string
- + work_duties()
- + holidays()

Can be

Operations Staff
- + names_string
- + department_string

Administrative Staff
- + name_of_emp_string
- + department_string

Technical Staff
- + name_string
- + location_string

Doctor
- + names_string
- + address_string
- + phone_number
- + speciality
- + joined_time()
- + dute_time()

Nurse
- + names_string
- + address_string
- + phone_number
- + join_date()

Receptionist
- + patient_details
- + problem_string
- + age_string
- + in_time()
- + out_time()

Technician
- + name_string
- + address_string
- + counter_number
- + in_time()
- + out_time()

Laboratorist
- + name_string
- + test_details
- + time_number
- + room_num()
- + opr_time()

Surgeon
- + opr_type
- + free_number
- + block_string
- + opr_time()
- + weekperiod()

STATE DIAGRAM

- Consultation Requested → Initiated
- Check for Dr Availability → Dr Availability checked
- Cancel consultation → Consultation Cancelled
- Attend consultation → Consultation Attended
- Consultation Diagnosis → Diagnosis Provided
- [Admission Required][Beds available] → Patient Admitted
- [Admission Not Required] → Invoice issued
- [Diagnosis done] → Discharge summary
- Awaiting invoice → Invoice issued
- Invoice payment → Invoice Paid
- [done] → end

ACTIVITY DIAGRAM

SEQUENCE DIAGRAM

DOCTOR	REGISTRATION	RECEPTION	PATIENT	LABRATORY	PHARMACY	DISCHARGE SUMMARY

1:login()

2:View Appointment()

3:Registration()

4:Send Request()

5:Done any surgeries()

6:Go To Lab()

7:Take Medicines()

8:Patient ok()

9:Send Discharger Summary

10:Discharger Patient

DEPLOYMENT DIAGRAM

Printer

Database Server

Hospital Local Server

Patient

Employee

Rooms

Doctor

Desktop Client