PROJECT TITLE

CITYHEALTHCARE

PORTAL

Submitted in partial fulfilment of the requirements of

PG Diploma in Advanced Computing

By

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March 2022

CERTIFICATE

This is to certify that the project entitled "**CityhelthCare Portal**" is a bonafide work of **"Avinash kadam (220343120019), Akshay Shide(220343120008), Narayan Pratap Singh Rawat (220343120064), Pradhyumna Sutar(220343120079),** submitted to C-DAC Pune in partial fulfilment of the requirement for the award of the Post Graduate Diploma in Advanced Computing.

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Declaration

I declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Abstract

Cityhealthcare portal aims at to develop the software that covers all the aspects of management and operations of hospital. So, with the victim and proof of corona pandemic situation we are introducing this project. So, if further in future again pandemic situation like corona comes into human life at that time this software will help the peoples a lot in the procedure of finding facilities. This software enables the health providers to provide the operational health care availability, reduce time consumption and enhance delivery of quality of care.

The main purpose of our project is to make hospital related task easy and saves the time of public while searching health care facilities. This project maintains helps to maintains the details of hospital related queries (like oxygen availability, Bed availability etc.) With this software people can get the information of nearby hospital location wise wherever they are.

Contents

Chapter	Contents	Page No.
1	**INTRODUCTION**	11
	1.1 Description	11
	1.2 Motivation	12
	1.3 Scope of the project	13
2	**SYSTEM ANALYSIS**	14
	2.1 Functional Requirements	14
	2.2 Non Functional Requirements	14
3	**Analyzing Modelling** 3.1 Use-Case Diagrams and description 3.2 Class Diagram 3.3 Activity Diagrams	17 17 18 19
	3.4 Sequence Diagram	22
4	**DESIGN**	25
	4.1 Data Modeling	25
	4.2 Architectural Design	26

	4.3 User Interface Design	**30**
5	**IMPLEMENTATION**	**37**
	5.1 Algorithms	**37**
6	**TESTING**	**38**
	6.1 Test cases	**38**
7	**RESULTS AND CONCLUSION**	**41**

Appendix 42

Acknowledgments 43

List of Figures

Fig. No.	Figure Caption	Page No.
1.1	Use Case diagram	17
1.2	Class diagram	18
1.3.1	Admin Activity diagram	19
1.3.2	Hospital Activity diagram	20
1.3.3	User Activity diagram	21
1.4.1	Admin Sequence diagram	22

1.4.2	Hospital Sequence diagram	23
1.4.3	User Sequence diagram	24
1.5.1	E-R diagram	25
1.5.2.1	Admin Flow diagram	26
1.5.2.2	Hospital Flow diagram	27
1.5.2.3	User Flow diagram	28

List of Tables

Table No.	Table Title	Page No.
I	Table 1.1 Test Cases	38-40

List of Abbreviations

Sr. No.	Abbreviation	Expanded form
I	E-R	Entity Relationship

Chapter 1
Introduction

The project **"CITYHEALTHCARE PORTAL"** includes registration of user , storing theirs details into the system, storing hospital information details into the system and providing user , admin, hospital details interfaces. The application has facilities to store and provide the details of hospital records of the requirements (for e.g.: Oxygen, Bed, Ventilator, Blood Availability in the hospital). It includes the search facility to know the status of each hospital. User can search details by login in the application. The hospital management can be entered by using theirs unique id and password and provide the details to the admin. The entry of data can be Updated by only Admin. Admin can only update and delete the data from database . user can search hospital By location wise in theirs zone. The data are well protected and for personal use and makes the data processing very fast. Cityhealthcare portal is efficient flexible and easy to use and is designed and develop to deliver benefits to the user.

The Cityhealthcare portal application is designed for the peoples during the pandemic condition like Covid19. If there comes again situation like corona, in that situation our portal will help the people to find out the proper hospital details during need according to emergency. The user can find out the details by easily accessing this application. It improves the life expectancy and it provides the good time management during that situation.

1.1 Description

This project **Cityhealthcare portal** aims at to develop the software that covers all the aspects of management and operations of hospital. So, with the victim and proof of corona pandemic situation we are introducing this project. So, if further in future again pandemic situation like corona comes into human life at that time this software will help the peoples a lot in the procedure of finding facilities. This software enables the health providers to provide the operational health care availability, reduce time consumption and enhance delivery of quality of care. The main purpose of our project is to make hospital related task easy and saves the time of public while searching health care facilities. This project maintains helps to maintains the details of hospital related queries (like oxygen availability, Bed availability etc.) With this software people can get the information of nearby

hospital location wise wherever they are. Since Hospitals are associated with the lives of common people and their day-to-day routines so we decided to work on this project.

During pandemic situations like Covid19 peoples are in very dangerous condition like if they want to go in the hospital but they don't knoe the actual condition of hospital. In that condition they get to face many issues like taking admission into hospital and availability of hospital details and they are moving from hospital to hospital, because of that more deaths are occur, many damages has to faces by the public. That all situations occur due to lack of time management. We tried to reduce all above problems by using this application. Now if pandemic situation comes then in that condition people can fine out the details of hospital facilities in emergency by easy access. It can reduce the time and giving proper and early treatment to the patient. By using this we can save many lives during the pandemic.

1.2 Motivation

1 Easy Access to Hospital Data

One of the main advantages of hospital management software is easily available hospital data to the user. It is only a matter of few clicks and all the required information about a hospital, from various departments in the hospital, can be available on the screen.

2 Cost Effective

Well-Implemented clinic management system reduces a lots of time and money during finding the information and its free to access to the public.

3 Improved Efficiency

This app improves efficiency by reducing the time during the emergency. We ca make the proper time management during the emergency situation.

4 Data Security

All the important data and information will store on the server, data can only manipulate by admin only. No one can else modify the data.

5 Improved Patient Care

By using this application we can know the situation aof hospital and give proper treatment to the patient in emergency condition.

1.3 Scope

Cityhealthcare Portal is a web portal which is helpful for the individuals who are in medical emergency, this portal will provide some important necessary features to the user to access or fulfil their medical emergency needs such as booking beds, booking of blood , oxygen availability into the hospital. The purpose of this project is to. Currently, as we know during the Covid-19 pandemic the patients and their had to face many problems to get a proper treatment from the hospitals as there was lack of bed, oxygen, blood availability even the nearest hospitals were full, and the patients have to travel far away from their home . This Cityhealthcare Portal will ease the life and headache of peoples and their relatives to books emergency services as early as possible and reach the nearest best suitable or selected Emergency treatment providing hospitals. However, there will also be an additional benefit for the individual to take necessary steps for curing their loved ones from emergency situations. In this project there will be three roles admin, user and hospital administration. The user will be directly contacting to the hospital administration for booking (as per requirement of their needs such as to choose hospital and select services accordingly) or get information. The hospital administration will accept the user request if they have the availability of needful services which the user require. As per the current situation, the society needs all sort of medical helps in easiest way, because their various kinds of medical issues to the users and they know only some basic information about the hospitals from which they are going to take treatment but in an emergency they are not able to decide, to which hospital they should go and take the treatment so to make this need ease this portal will provide all the basic info to the user about the Doctors and all the facilities provided by the hospital. There will be admin role who will or accept or take the hospital actions such as availability of beds , oxygen etc. The admin will also add Hospital and to update the hospital information about the services which they provide.

Chapter 2

System Analysis

2.1 Functional Requirements

2.1.1 Login for Hospital

- System allows Hospitals to add bed details, add blood details and add oxygen availability details
- System allows Hospitals to view the request and take action over the request i.e.. Accept or Reject the request for beds.

2.1.2 Login for User

- System allows Users to view bed availability at Hospitals and book bed according to their need.
- System allows User to view Blood , Oxygen Availability Details of various hospitals and also can view specialist doctor available and can get ambulance contact details for the hospital.

2.1.3 Login for Admin

- System allows admin to register the hospital for the portal.
- System allows admin to check registered hospitals list.
- System allows admin to check registered users list.

2.2 Non-functional Requirements

2.2.1 Performance Requirements

The system should store all the database records of each user , hospital and admin staff properly and the application should be available for use 24*7 through the server. Also, the application should be user friendly with a proper user interface which makes it easy for the user to understand. All the options should be present in properly accessible places for user convenience.

All login ids and passwords of the Admin, User, Hospital Operator should be protected for privacy using whatever constraints required in the database or the application.

2.2.2 Safety Requirements

All login ids and passwords of the Admin, Doctor, Hospital and User should be protected for privacy using whatever constraints required in the database or the application. The system requires the individual to acknowledge the person making use of the phone. Any adjustments like insert, erase, update, etc. for the data source can be integrated promptly as well as executed only by Admin. The Admin can alter any kind of information in the Hospital Management System.

2.2.3 Security Requirements

Passwords of the Admin, Hospital and User should be protected for privacy using whatever constraints required in the database or the application. Transactions regarding User and Hospital

records should be carried out properly. The system shall protect the data and service from unauthorized access. The system shall also provide authentication and secure transaction.

2.2.4.1 Availability

The system should run on a variety of operating systems that support the JavaScript language. The system should run on a variety of hardware.

2.2.4.2 Accessibility

The software will be accessible to Admin, Hospital and User.

2.2.4.3 Compatibility

The software will be compatible with multiple platforms.

2.2.4.4 Durability

The software will be tested for working with multiple users and records as system has to manage multiple users and records (hospital details).

2.2.4.5 Effectiveness

The software will be made to handle operations effectively. The system should provide good quality and be error free.

2.2.4.6 Maintainability

The system should be easy to maintain. There should be a clear separation between the interface and the business logic code. There should be a clear separation between the data access objects that map the database and the business logic code.

Chapter 3

Analysis Modelling

3.1 Use Case Diagram

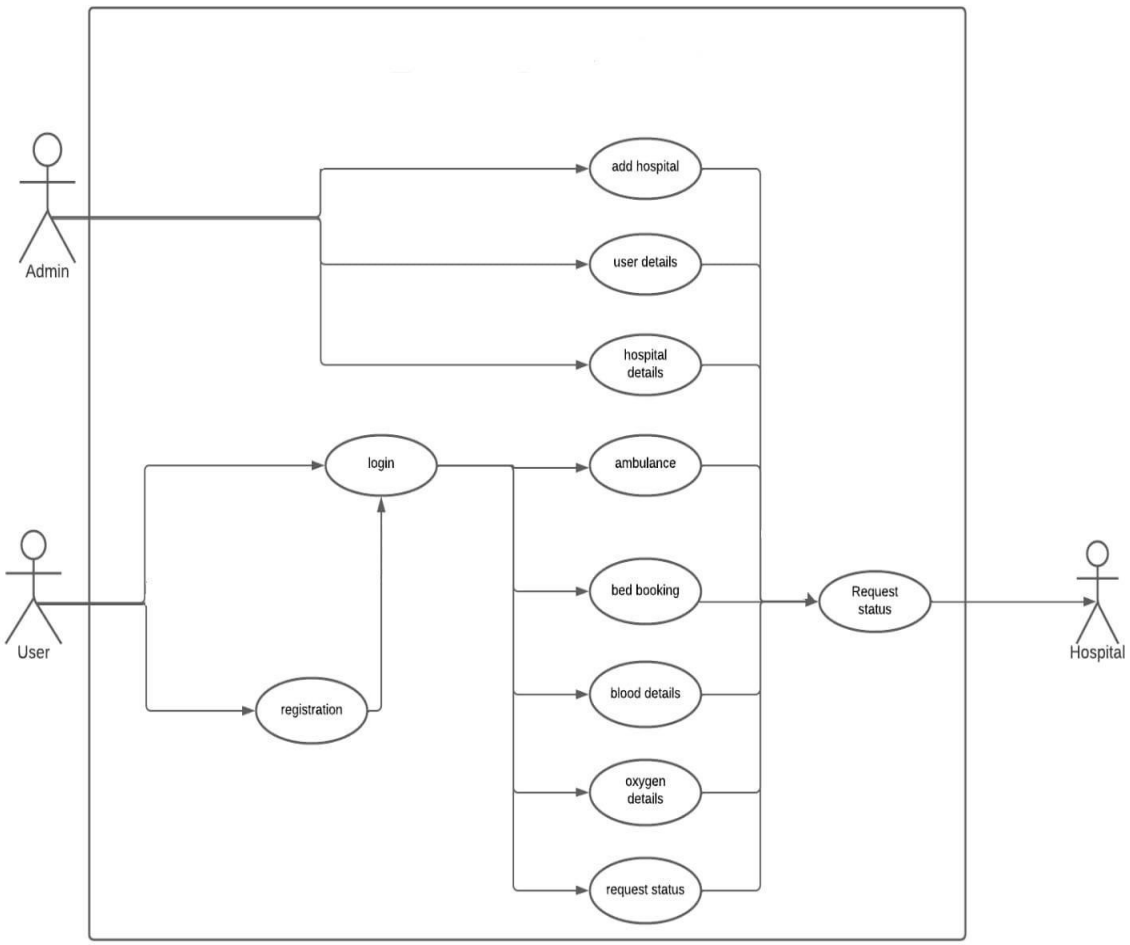


Figure 1.1 Use Case Diagram

3.2 Class Diagram

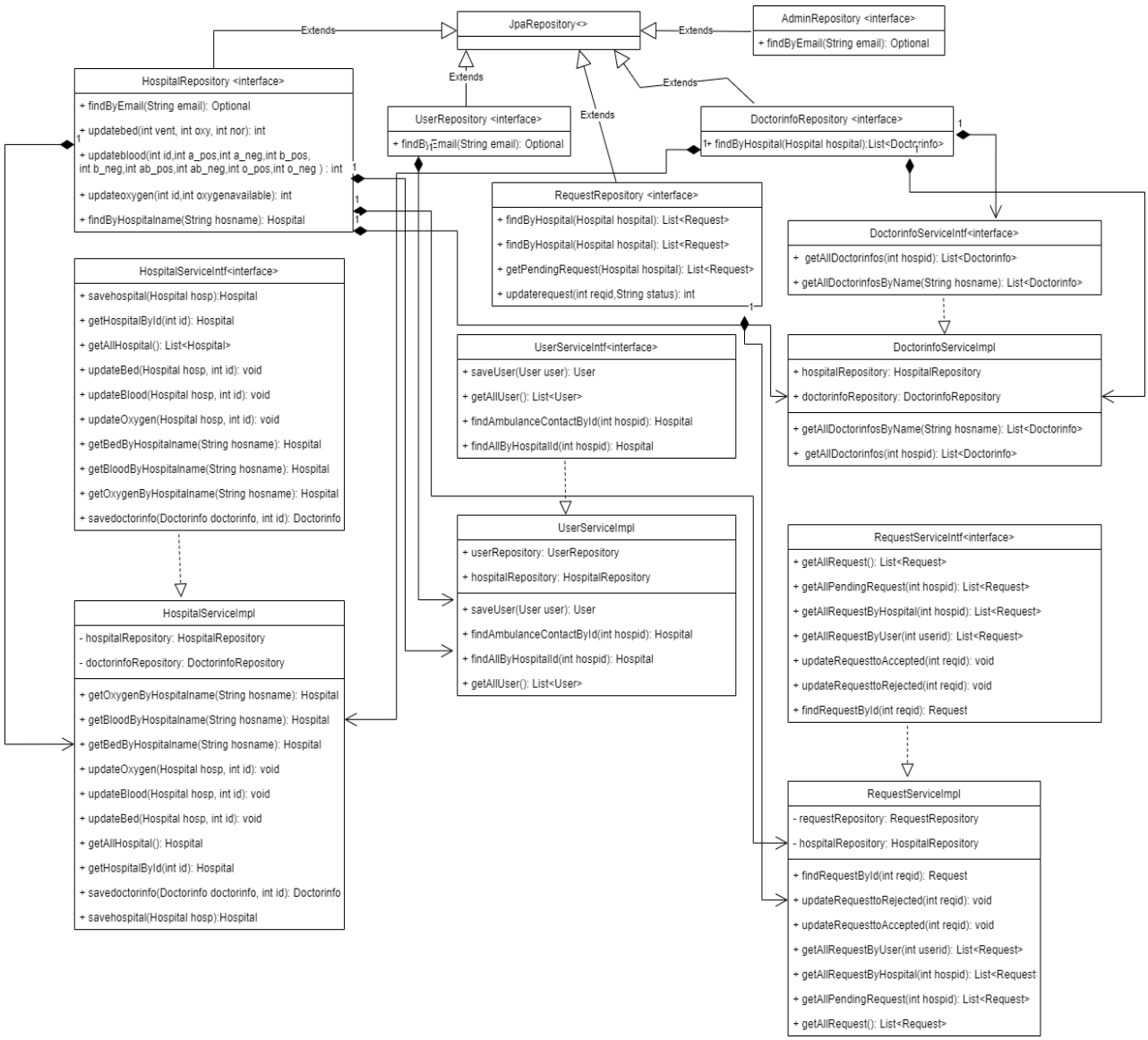


Figure 1.2 Class Diagram

3.3 Activity Diagram

- **Admin**

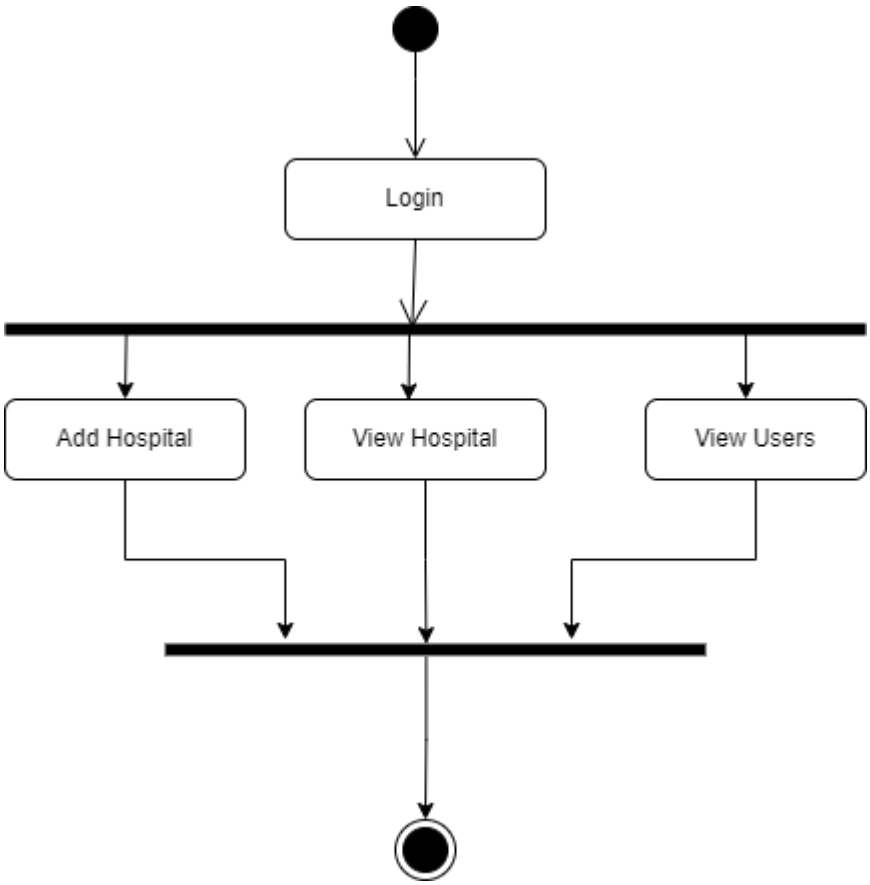


Figure 1.3.1 Admin Activity Diagram

- **Hospital**

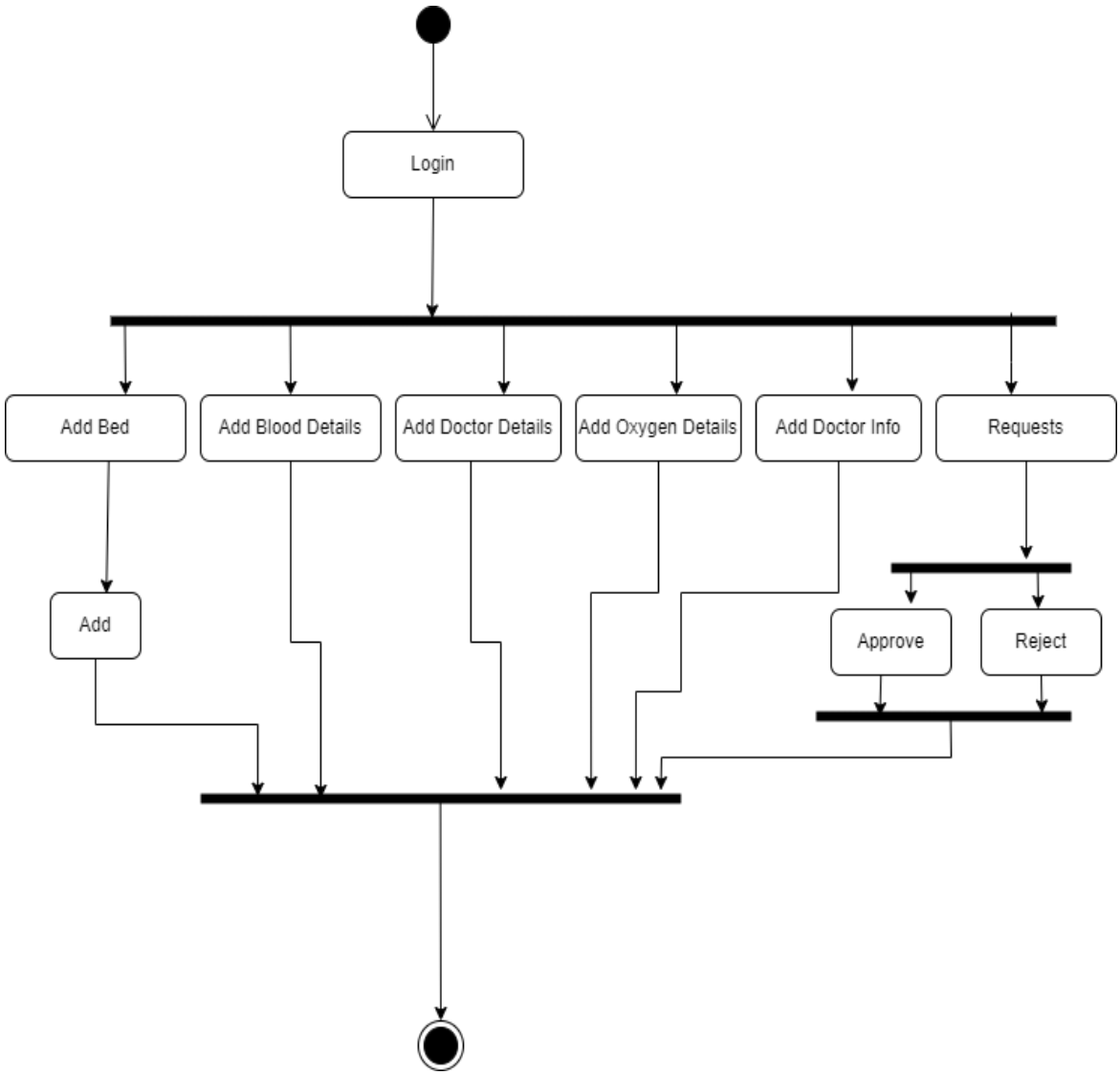


Figure 1.3.2 Hospital Activity Diagram

- **User**

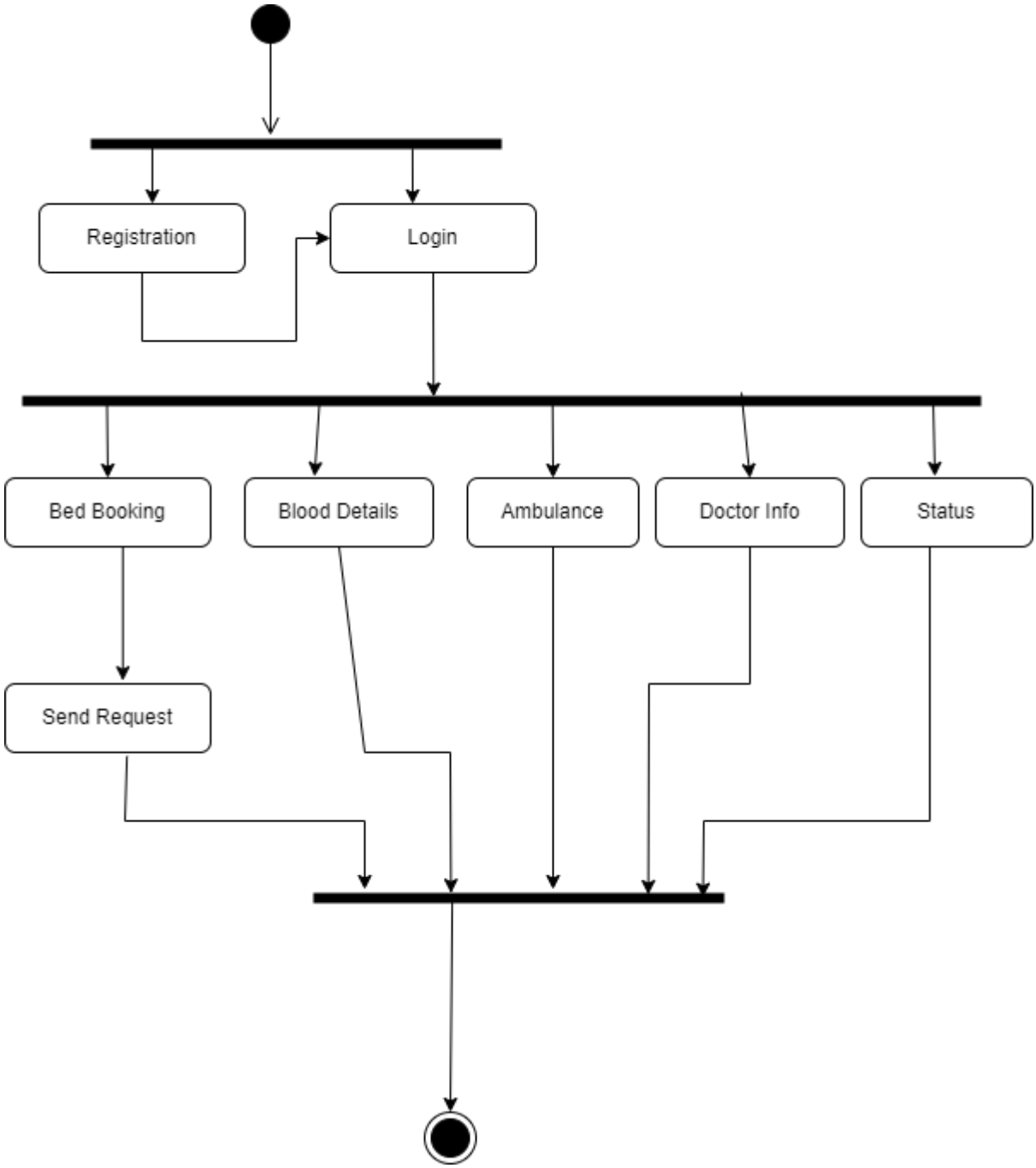


Figure 1.3.3 User Activity Diagram

4.4 Sequence Diagram

- **Admin**

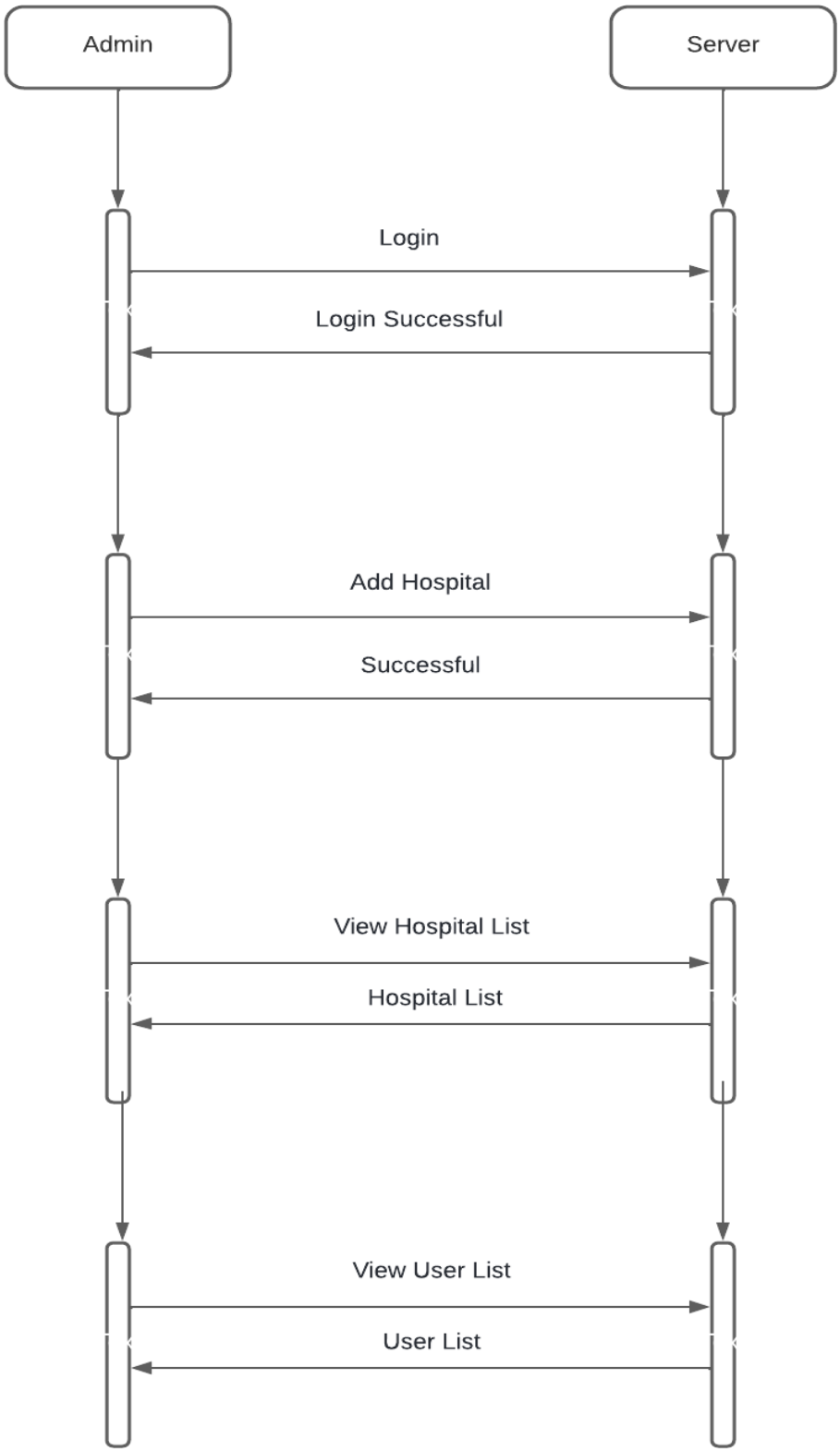


Figure 1.4.1 Admin Sequence Diagram

- **Hospital**

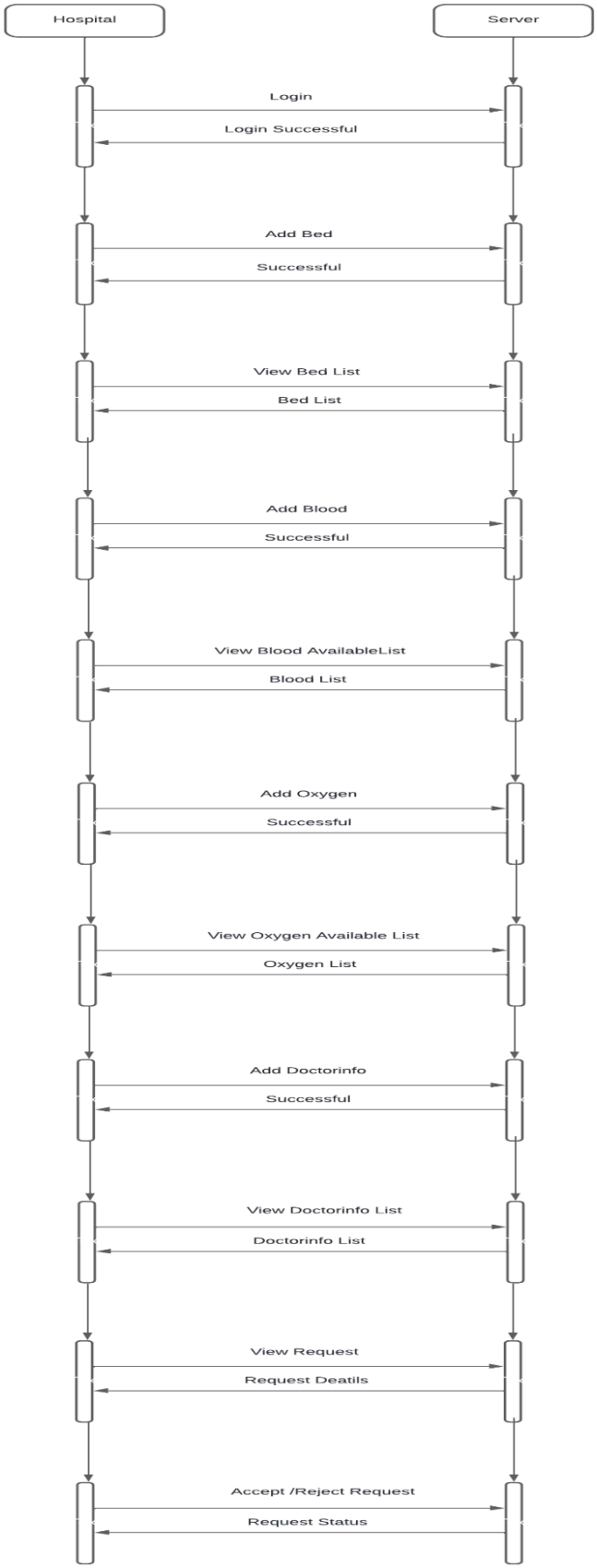


Figure 1.4.2 Hospital Sequence Diagram

- **User**

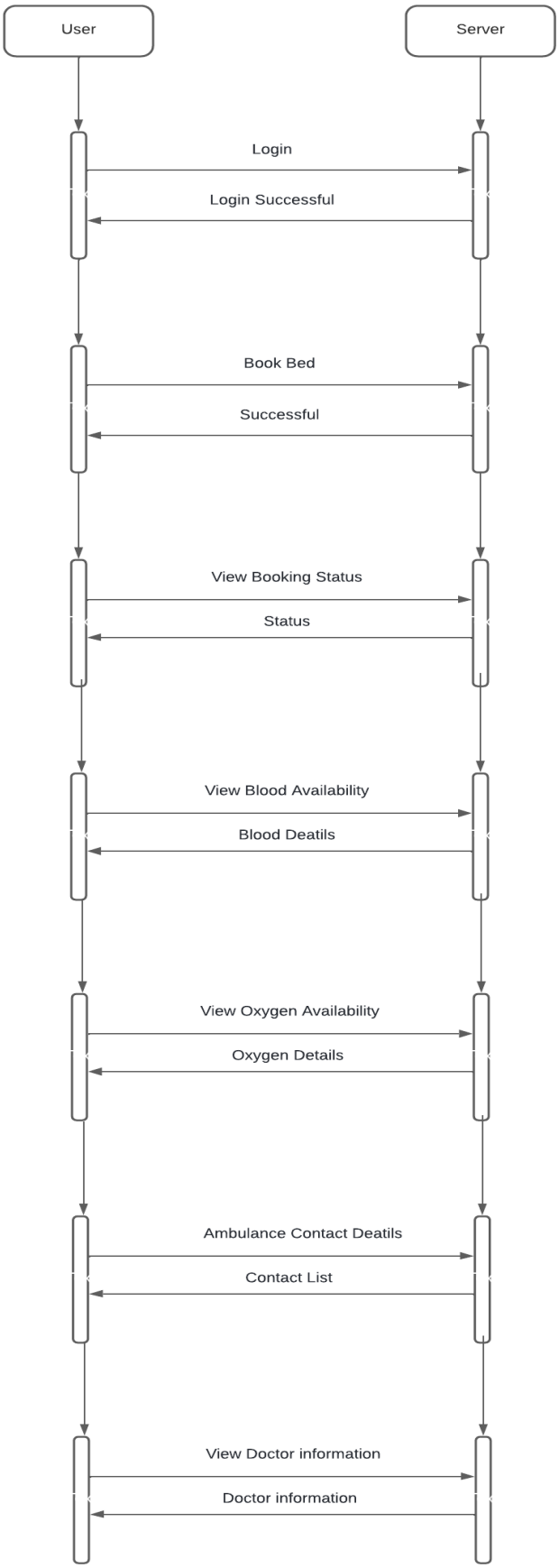


Figure 1.4.3 User Sequence Diagram

Chapter 4

Design

E-R Diagram

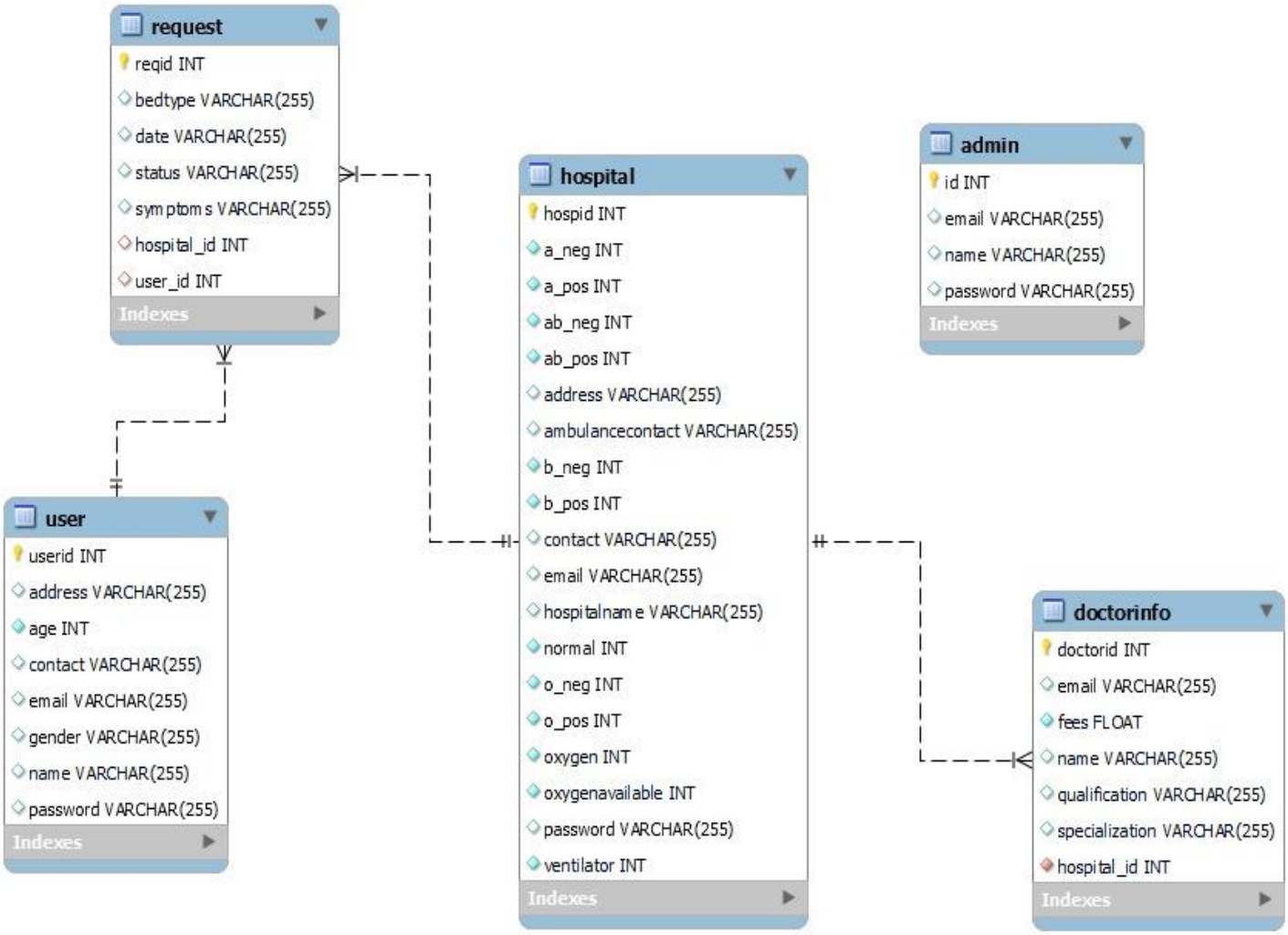


Figure 1.5.1 E-R Diagram

4.1 Architectural Design

- **Admin**

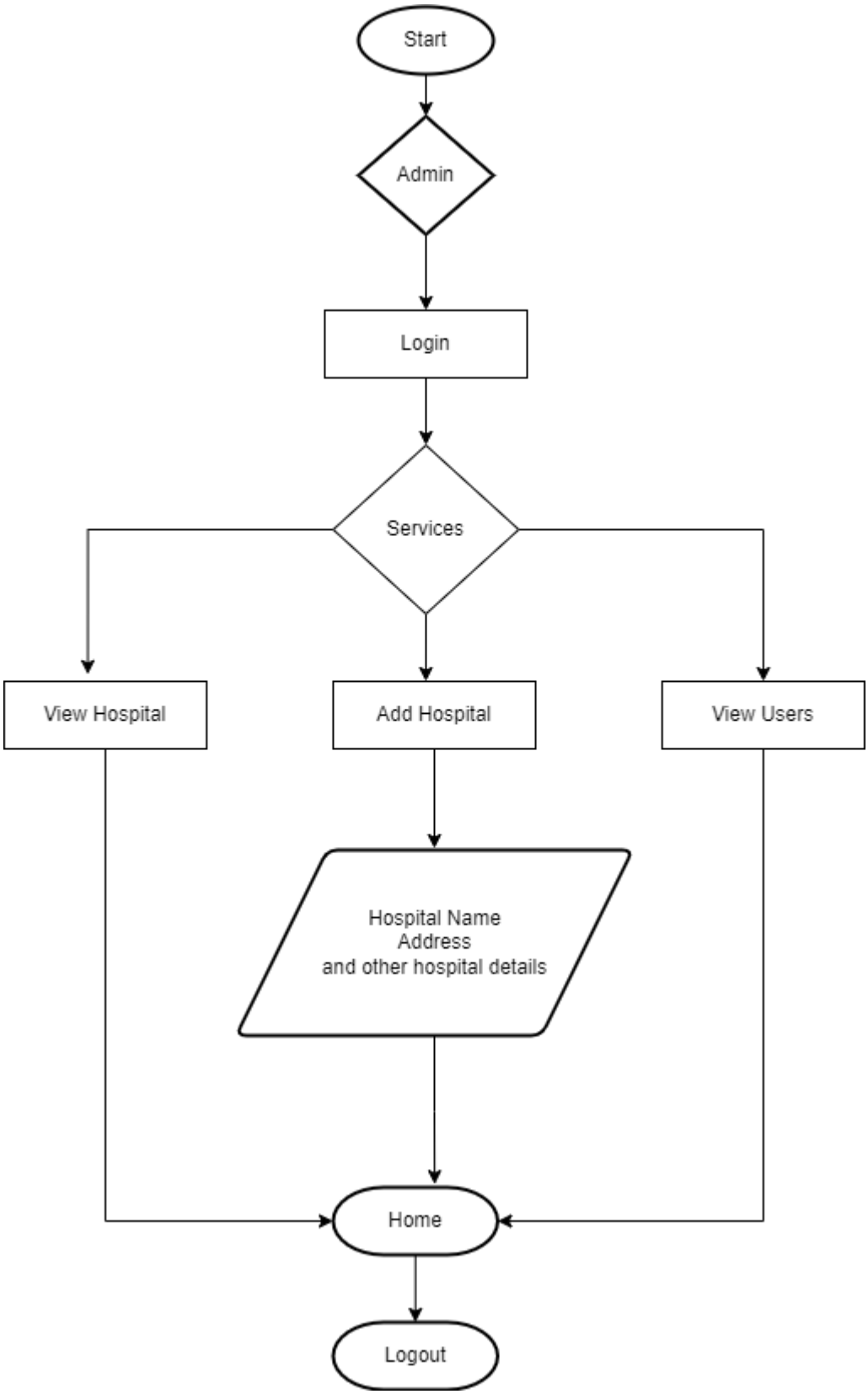


Figure 1.5.2.1 Admin Flow Diagram

- **Hospital**

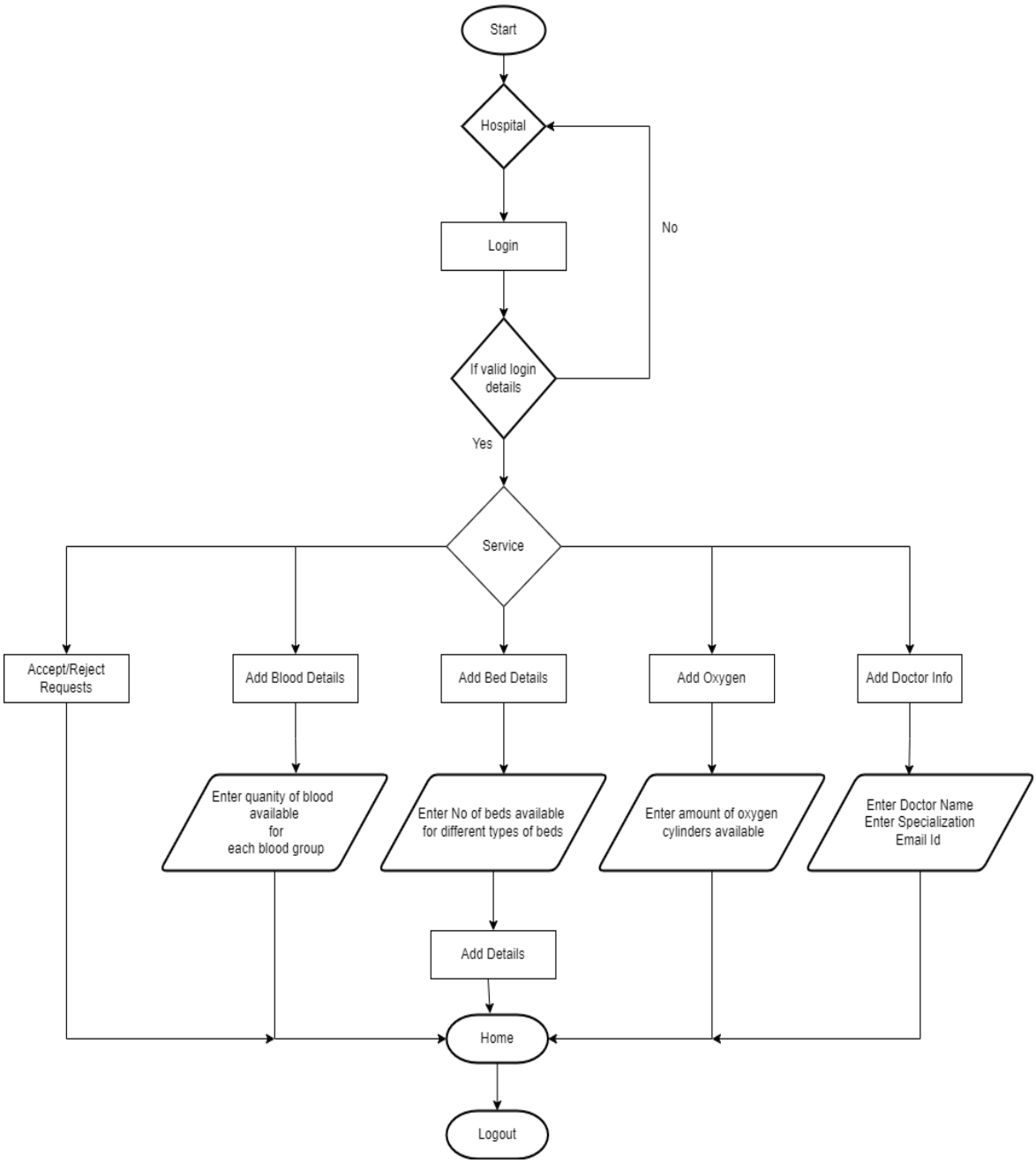


Figure 1.5.2.2 Hospital Flow Diagram

- **User**

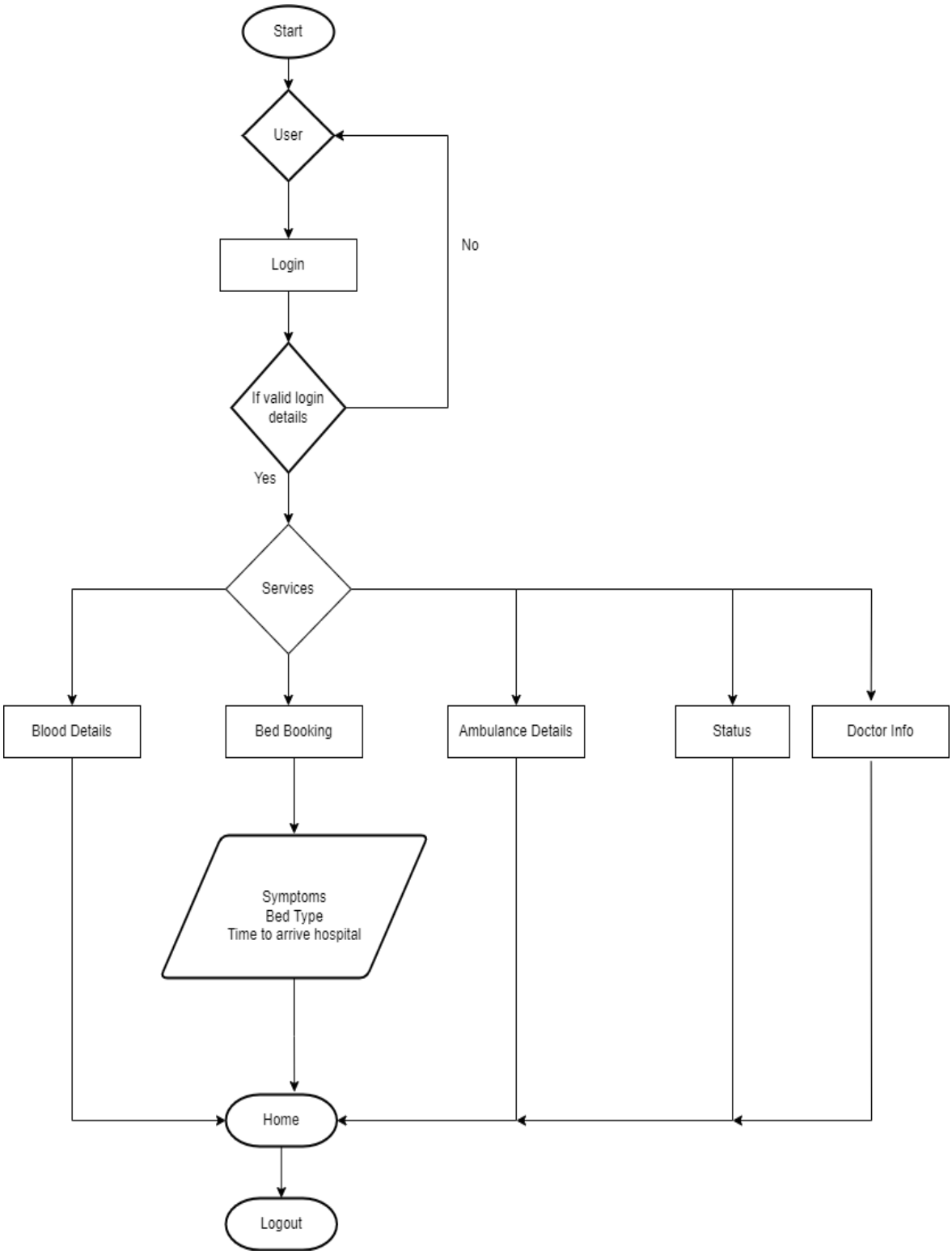
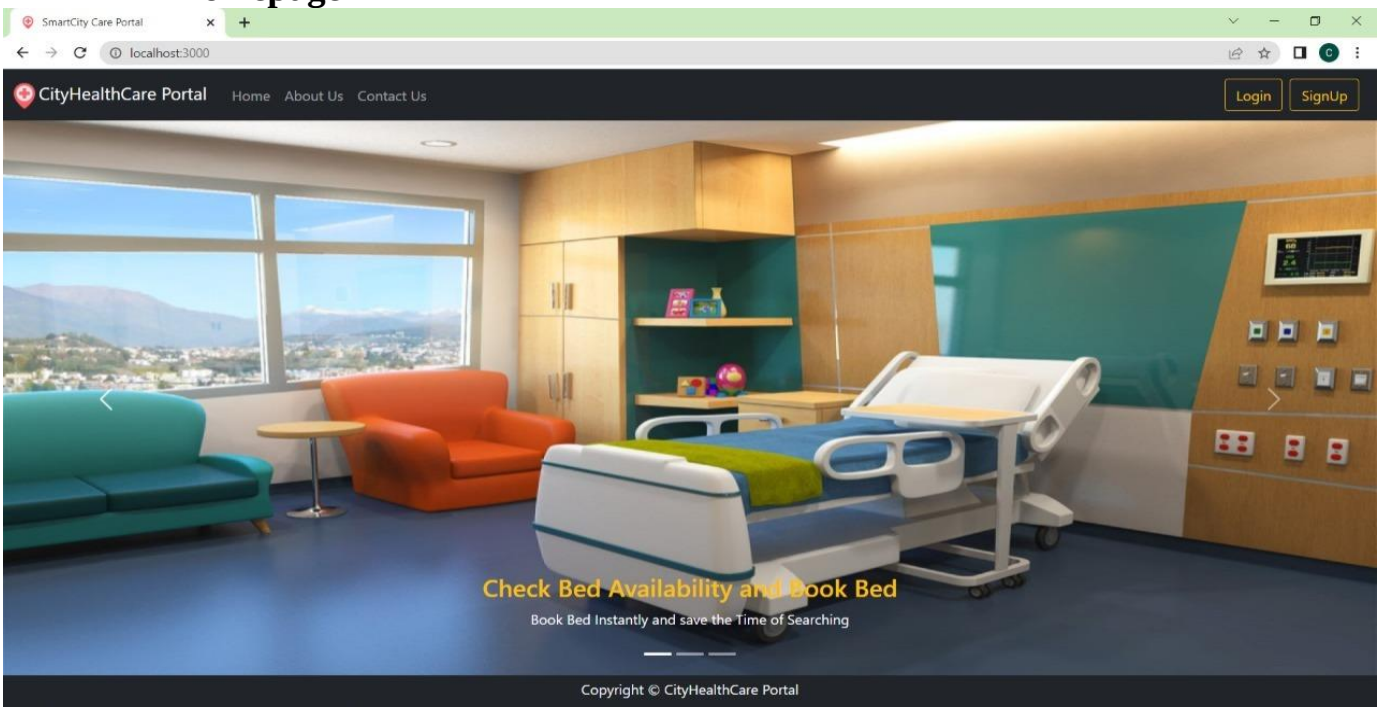


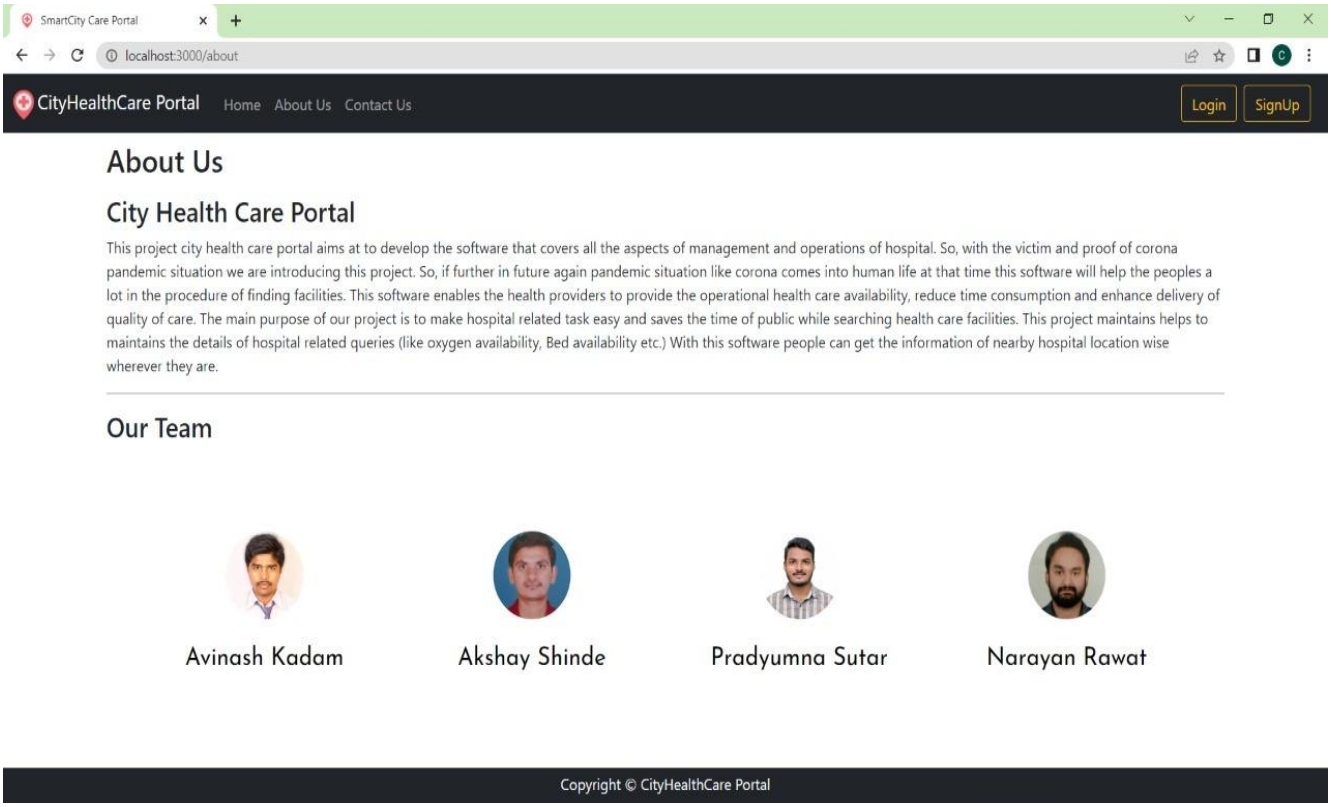
Figure 1.5.2.3 User Flow Diagram

4.2 User Interface Design

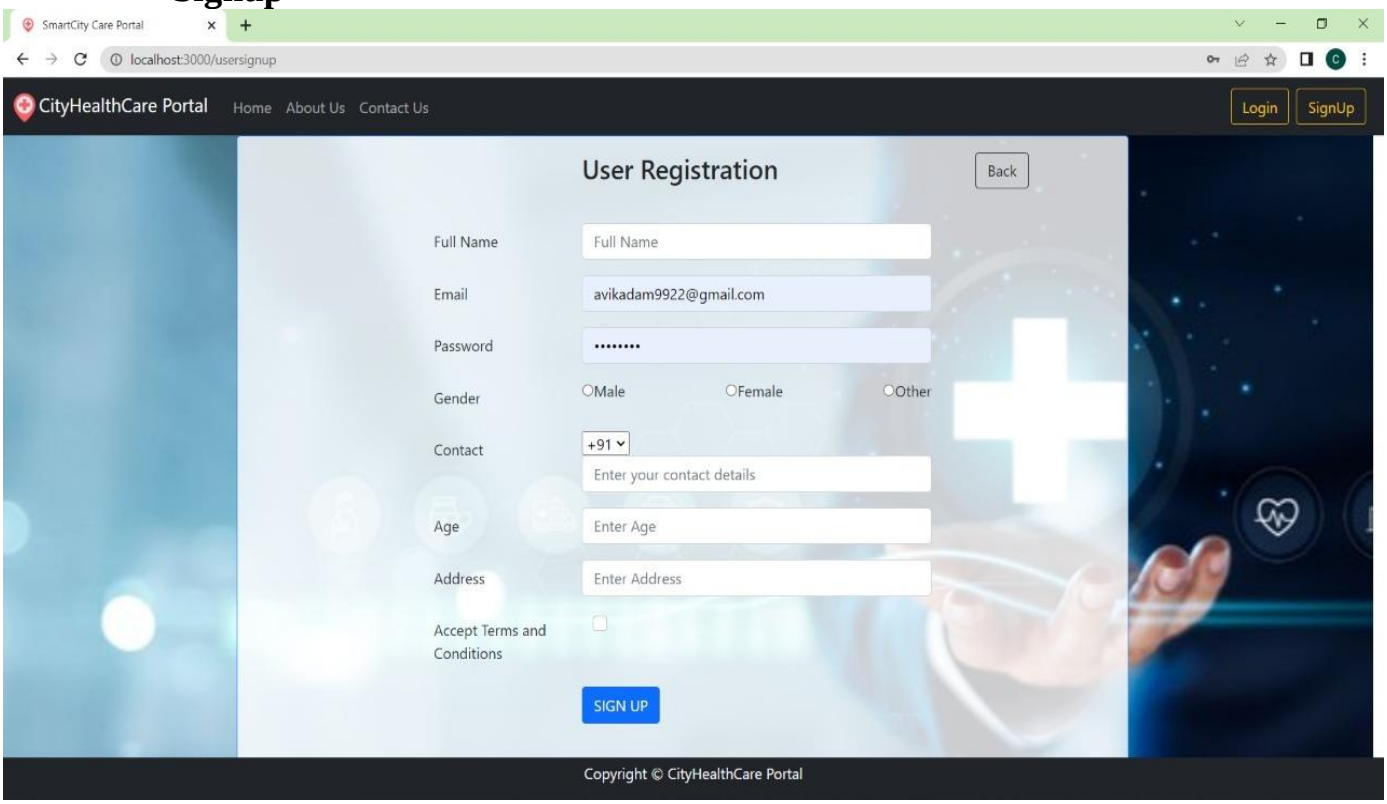
- **Homepage**



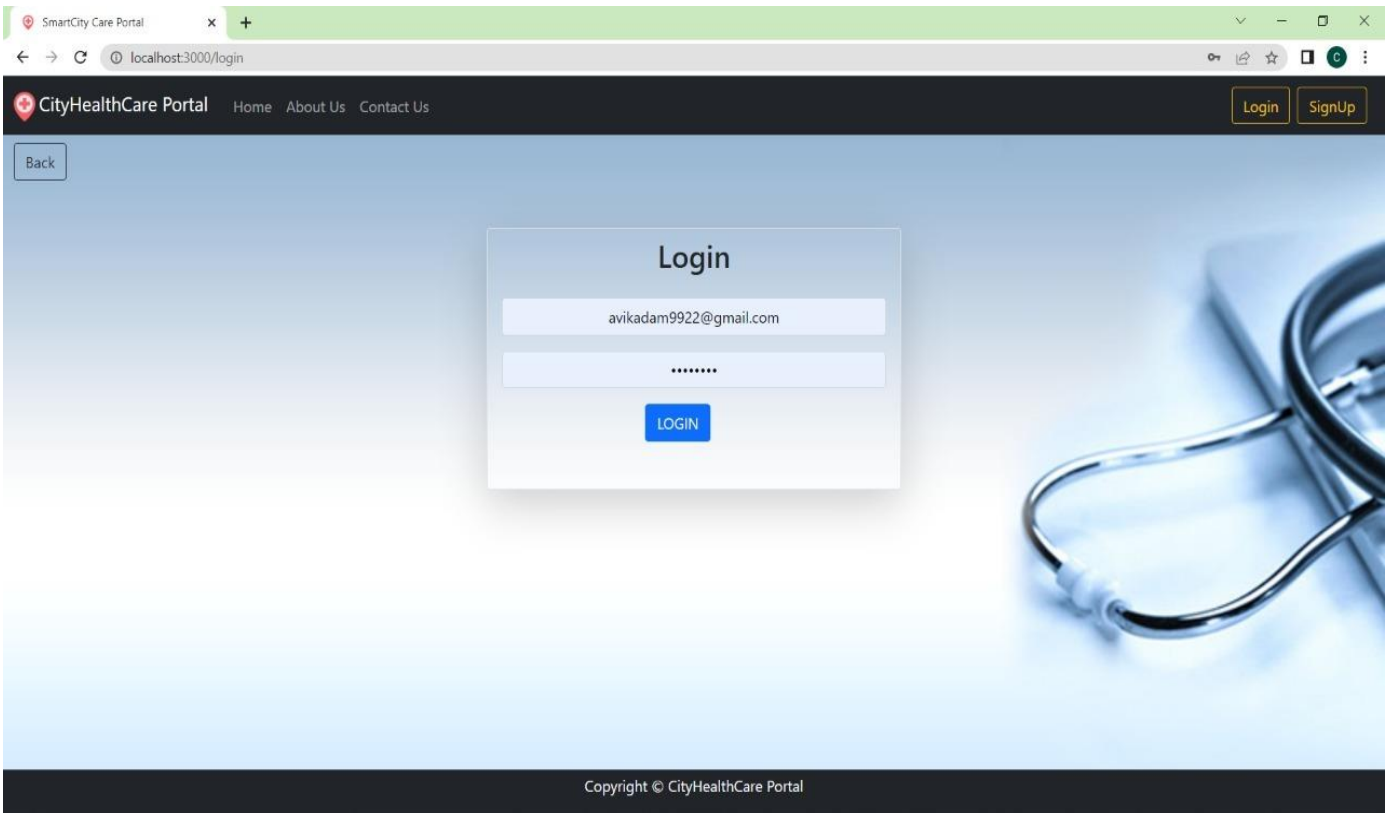
- **About Us**



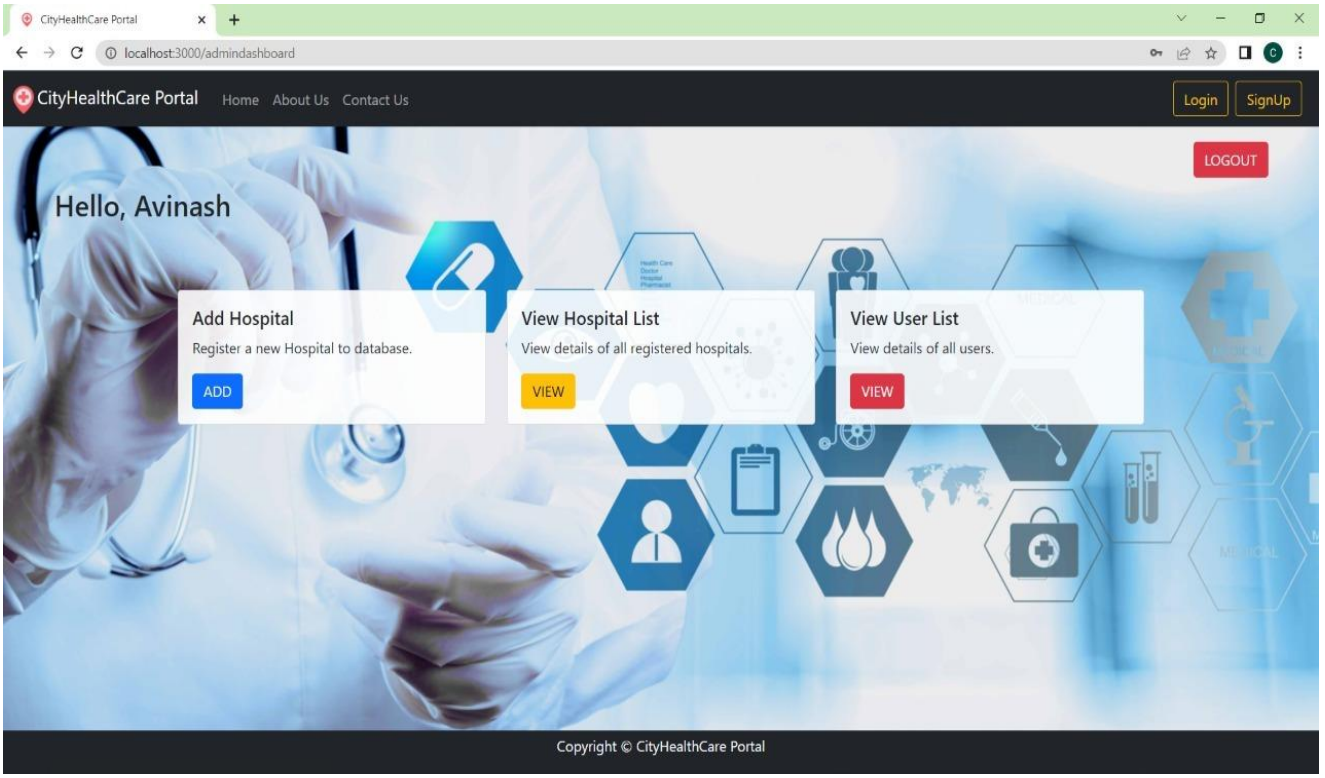
- **Signup**



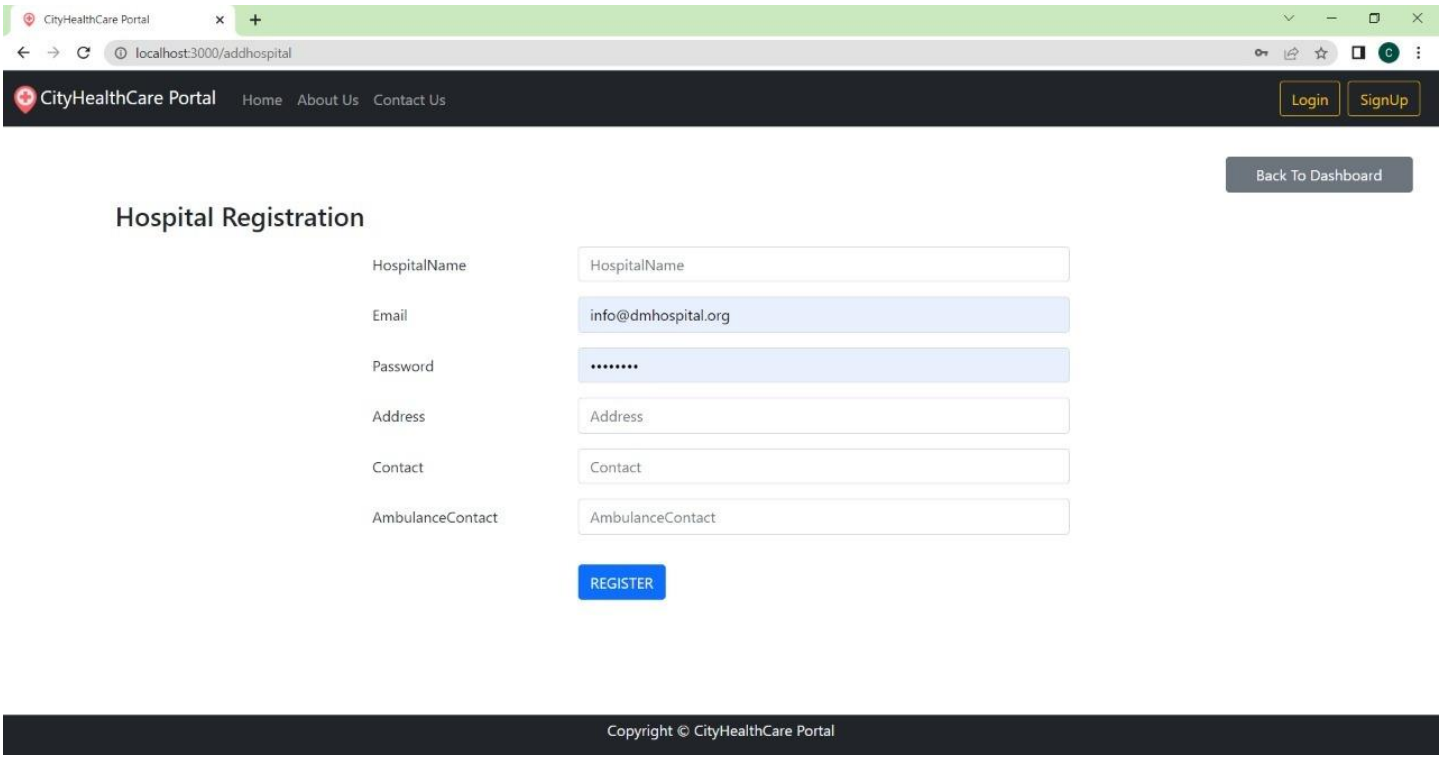
- **Login**



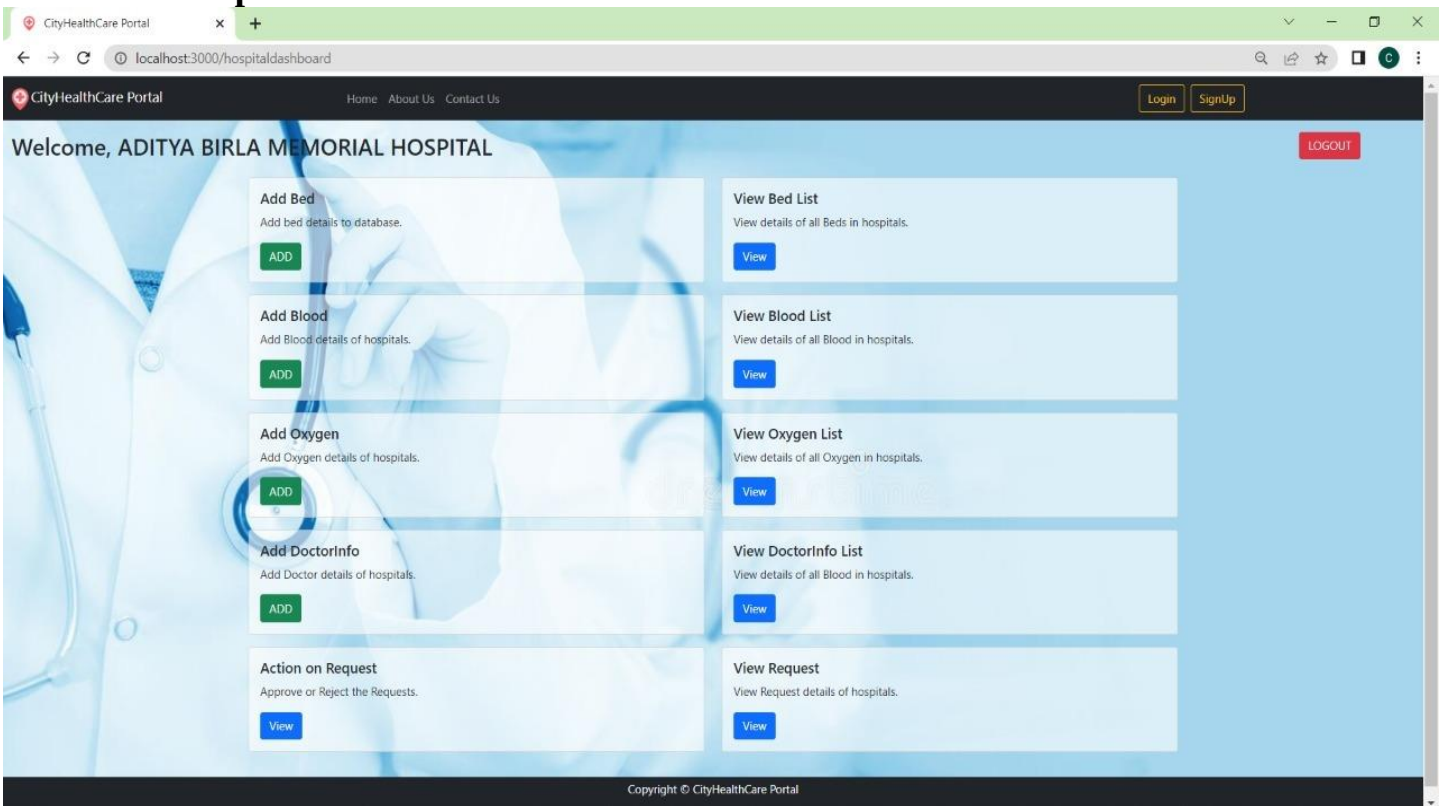
- **Admin Dashboard**



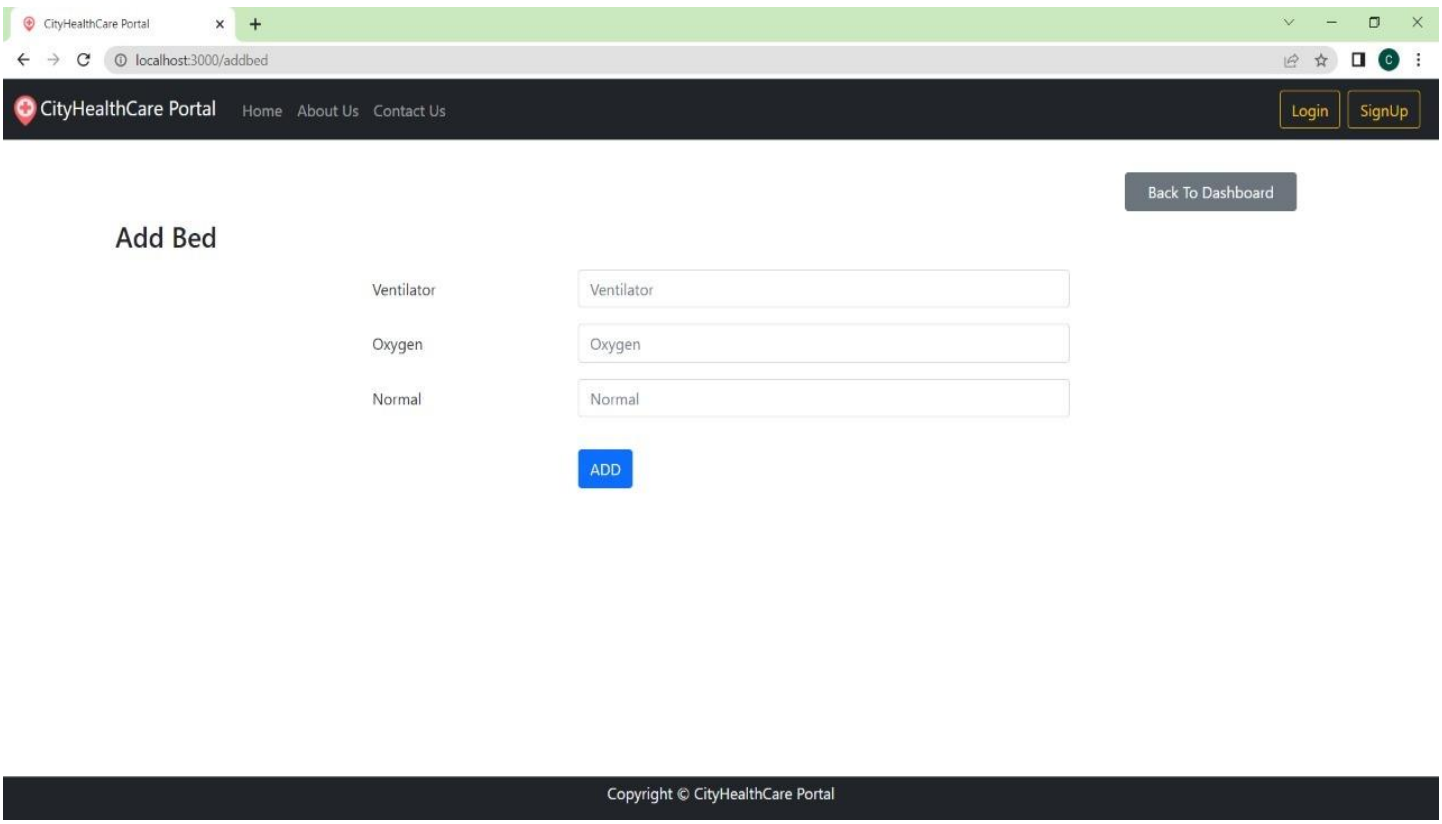
- **Add Hospital**



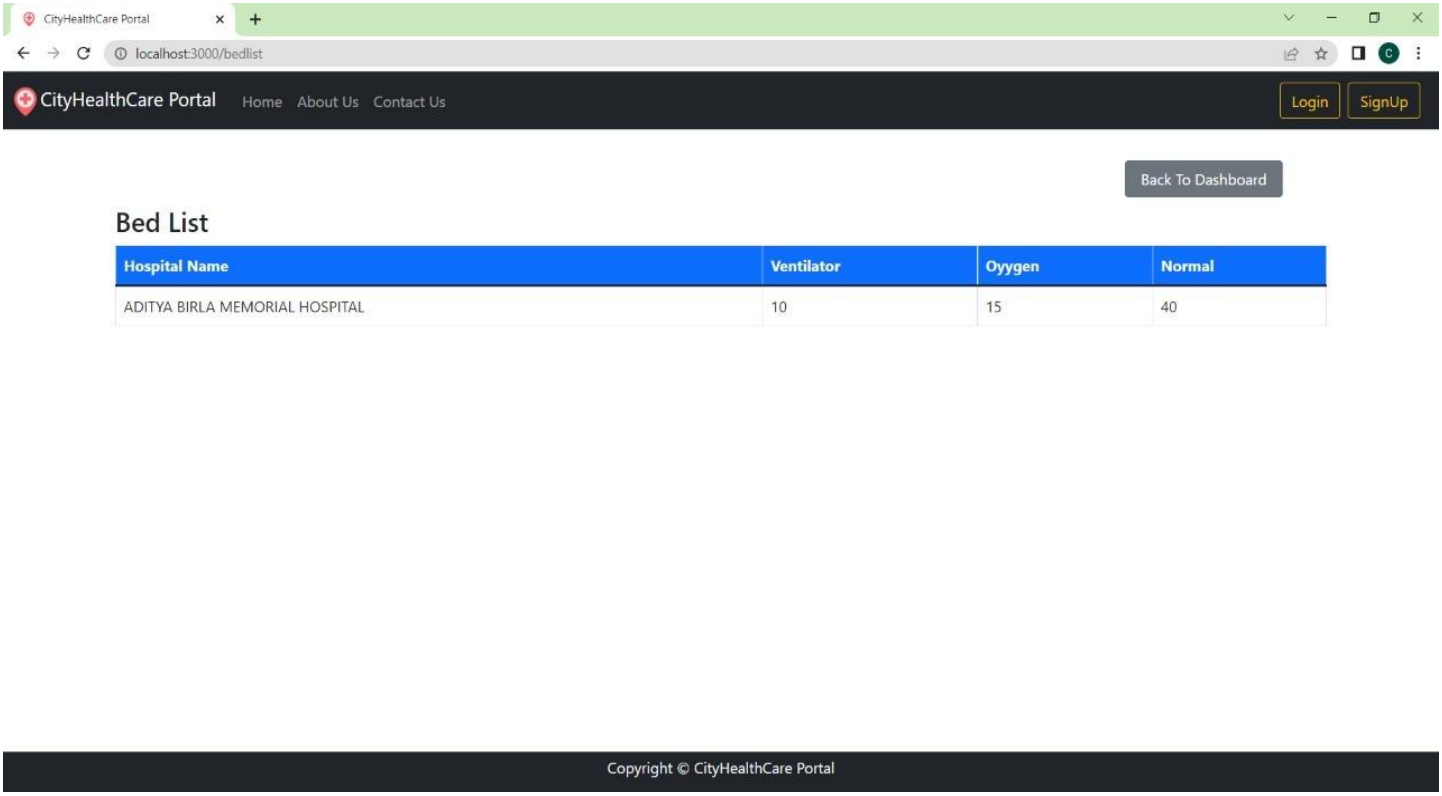
- **Hospital Dashboard**



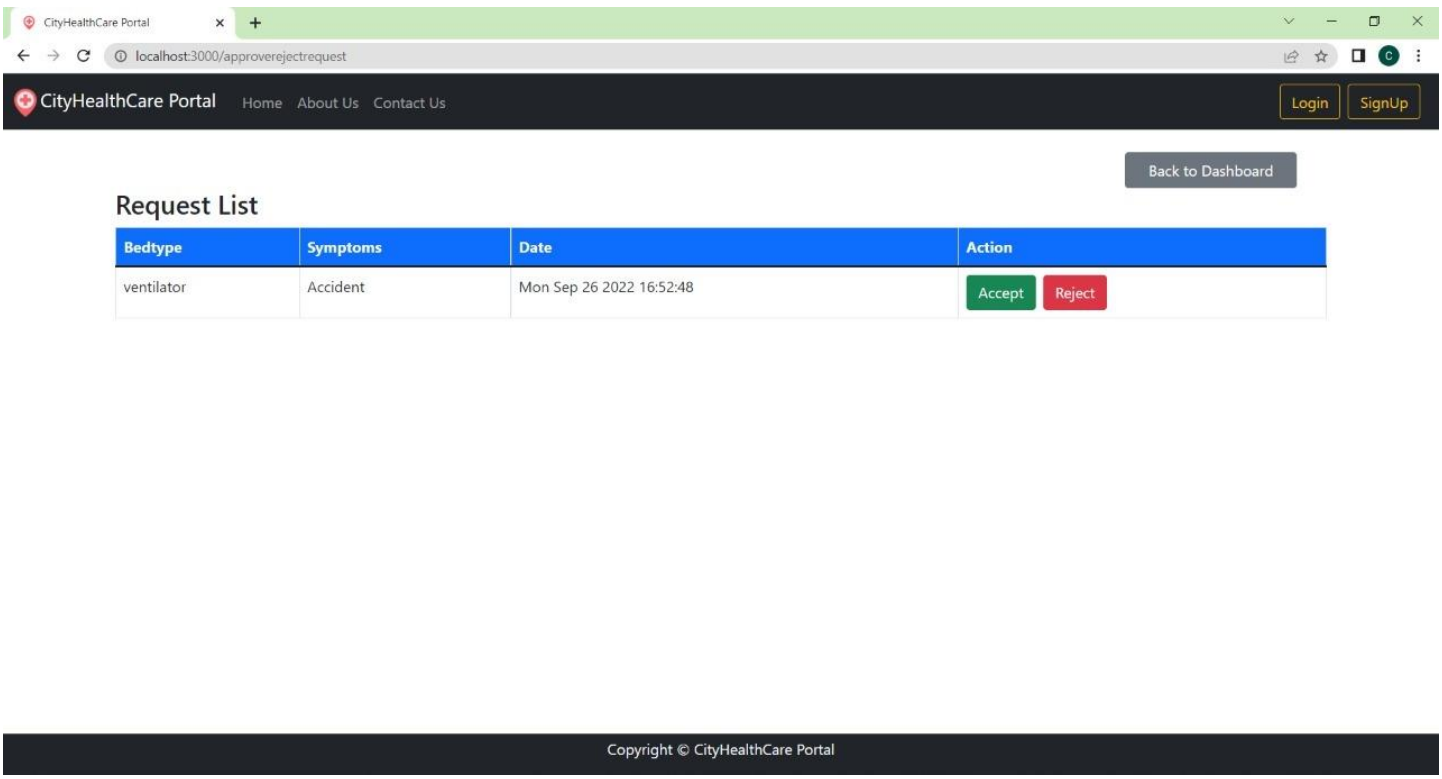
- **Add Bed**



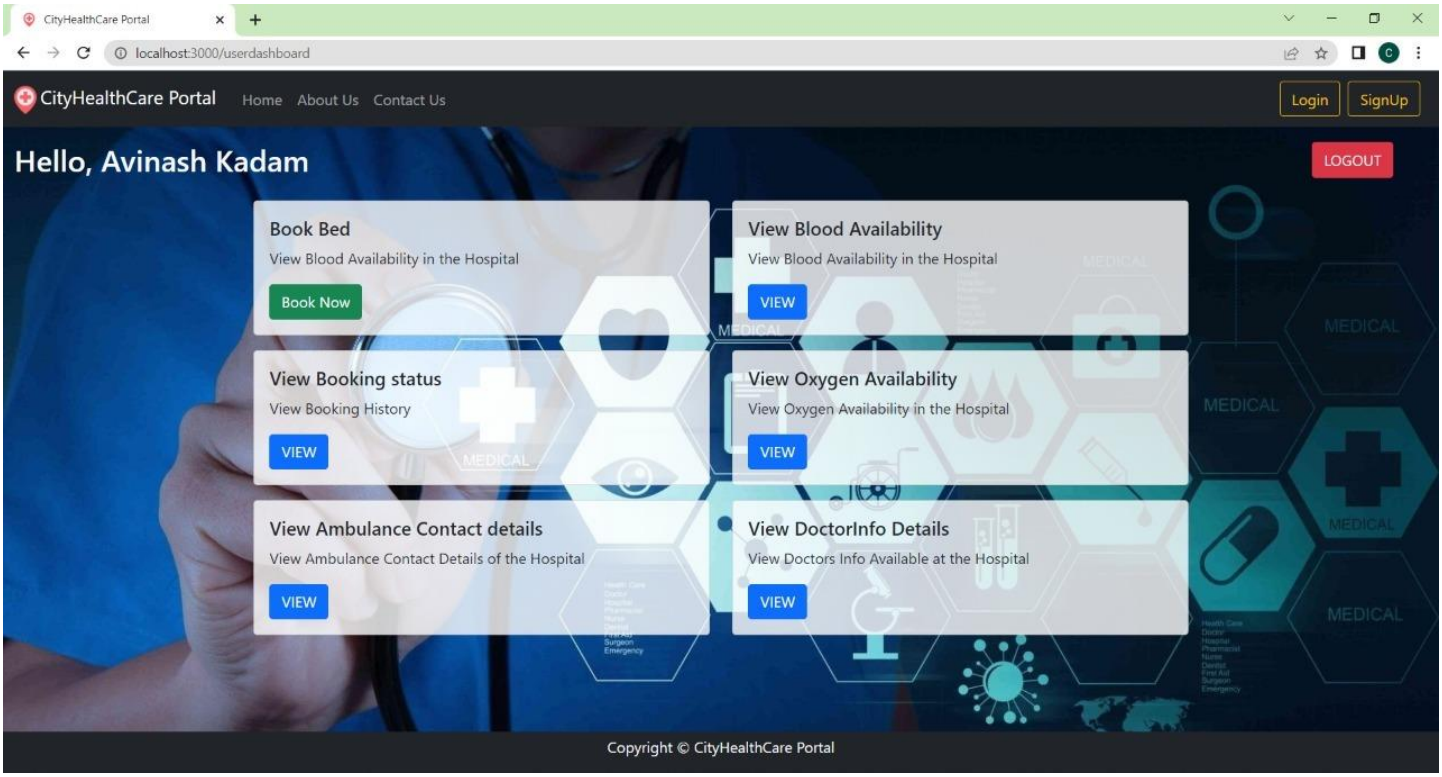
- **View Bed**



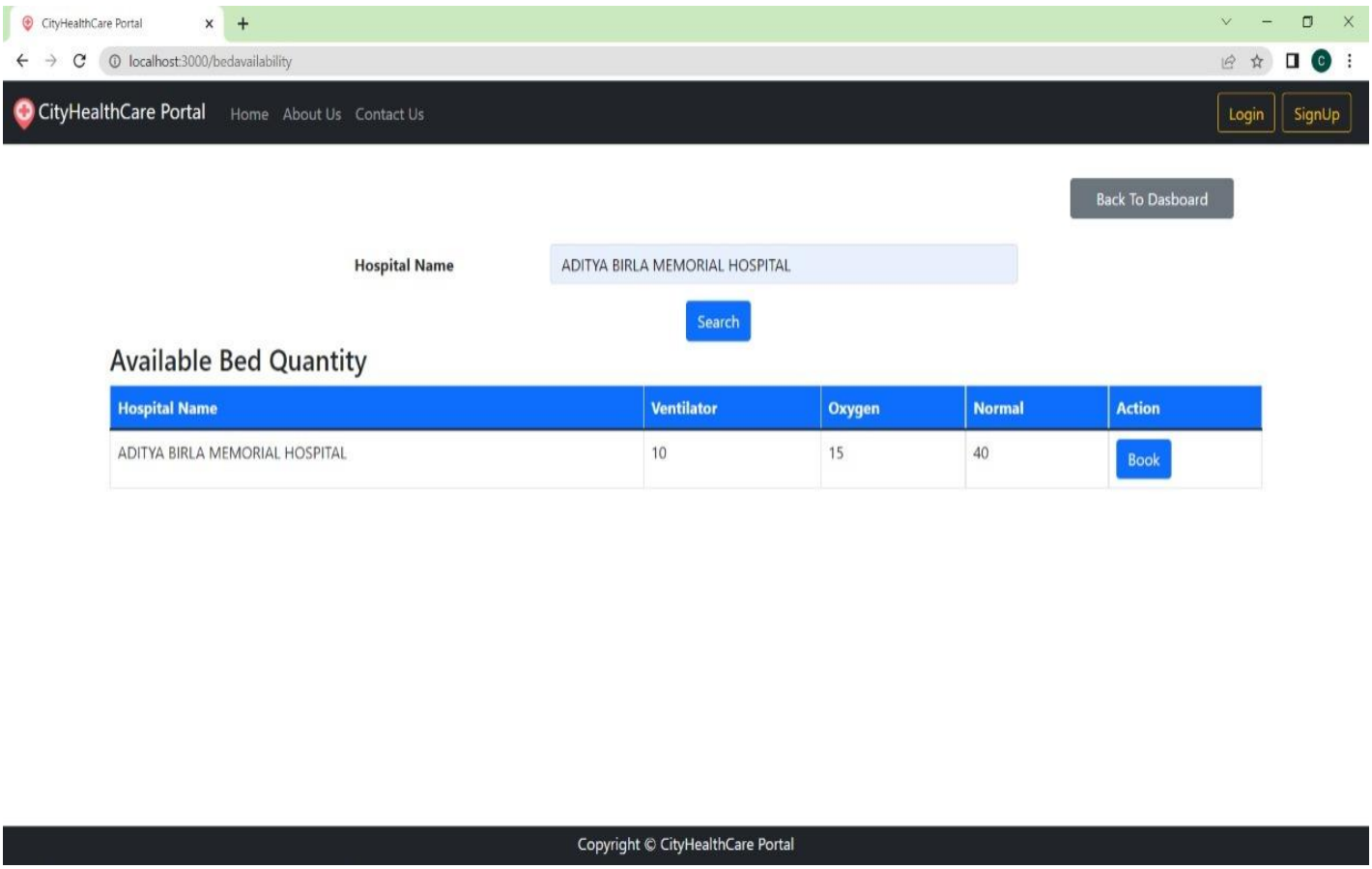
- **Action on Request**



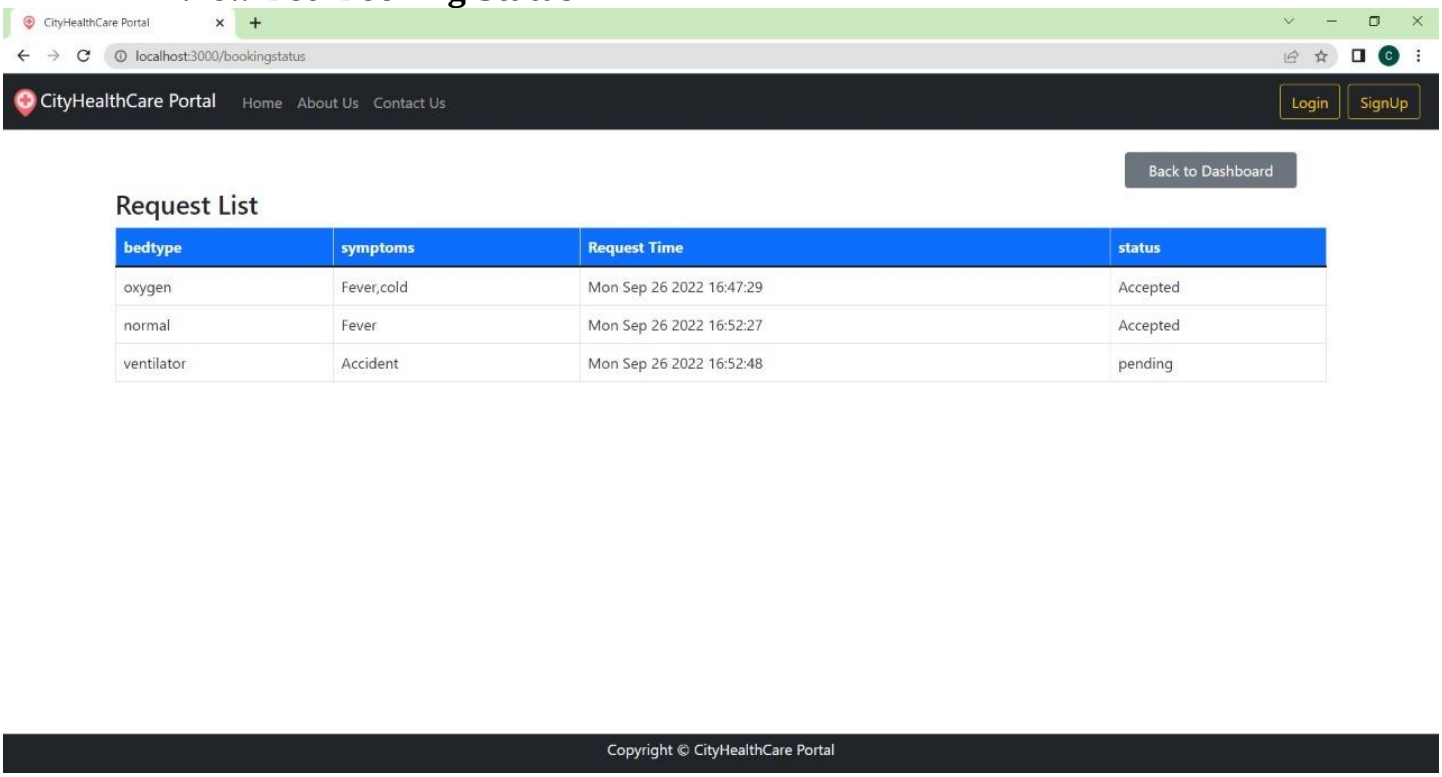
- **User Dashboard**



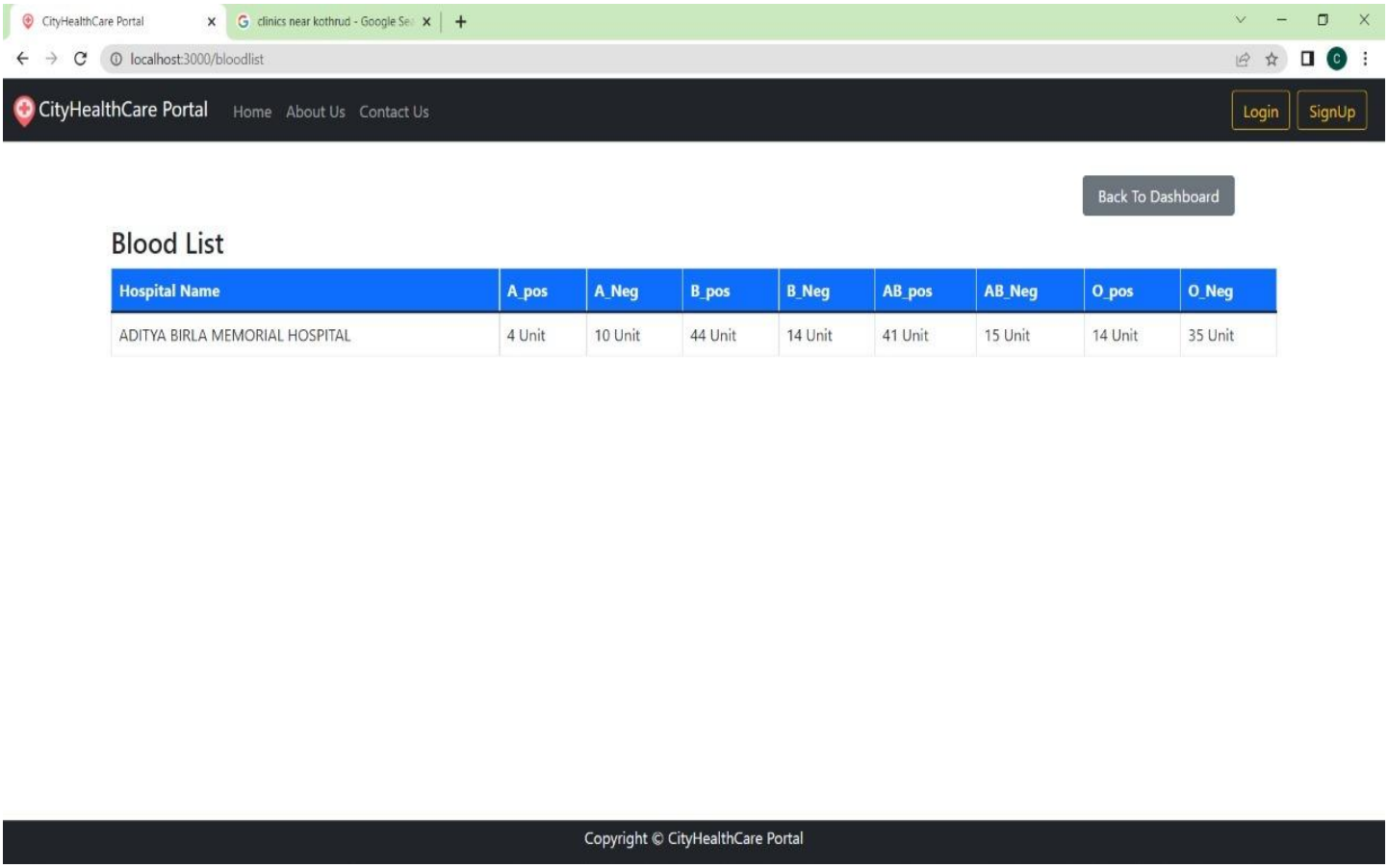
- **Book Bed**



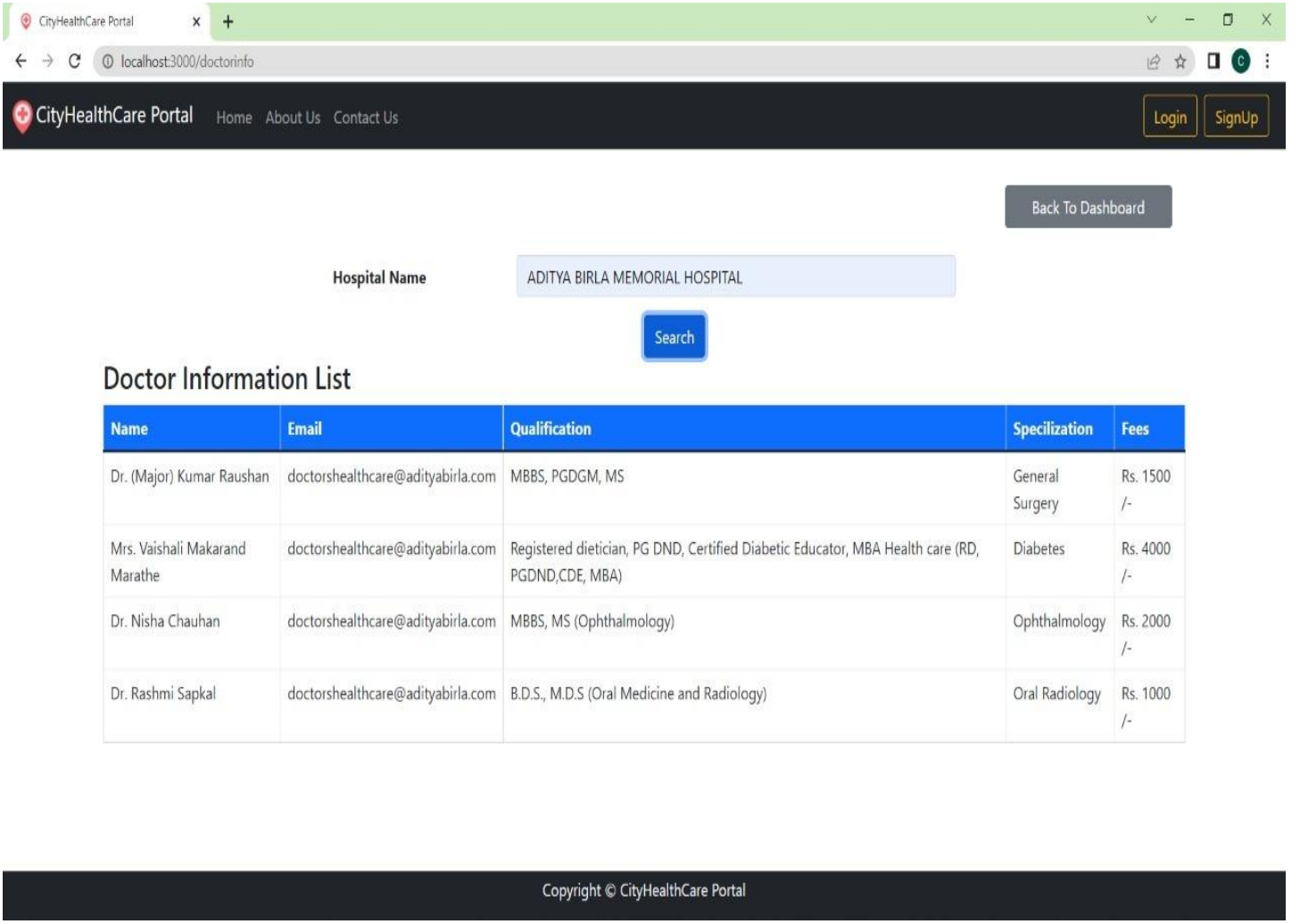
- **View Bed Booking Status**



- **View Blood Details**



- **View Doctor's Info**



Chapter 5
Implementation

5.1 Algorithm of the project

STEP 1: START

STEP 2: OPEN HOME PAGE

STEP 3: DO REGISTRATION

STEP 4: LOGIN INTO SYSTEM

STEP 5: IF USER

THEN DO REGISTRATION AND LOGIN TO USE SERVICE

STEP 6: IF ADMIN

THEN DO LOGIN,

REGISTER THE REQUESTED HOSPITAL TO THE LIST.

STEP 7: IF HOSPITAL

THEN DO ADD BED DETAILS, ADD BLOOD DETAILS, ADD OXYGEN DETAILS, AND THE DOCTOR'S DETAILS PRESENT IN HOSPITAL,

DO CHECK REQUEST DONE BY USER AND ACCEPT OR REJECT IT.

STEP 9: END

Chapter 6
Testing

Table 1.1 Test Cases

Test Id	Item to be Tested	Steps	Input	Actual Output	Expected Output	Pass/ Fail
1	Left all the fields in the form blank. Click on submit button.	User Empty details	Empty	Report Empty field not allowed	Report empty	Pass
2	System check for proper username and password entered by users	System compares the data entered by user and the entered data in database	User Id and Password	View Page	Display page	Pass
		If username and password is valid		Make Connection	Makes connect-ion	Pass

		If username & password is invalid		**Report invalid user id**	**Report error**	**Pass**
3	**System checks whether details of user are entered as per the format**	**System checks the data entered by user is in valid form or not.**				
		If valid	**User entered data**	**Entered in database**	**Entered in database**	**Pass**
		If invalid	**User entered data**	**“Invalid Data” message will be printed**	**“Invalid Data” message will be printed**	**Pass**
4	**Session Management**	**System checks the URL entered by user is in valid formor not.**				

		If valid	**Page URL**	**View Page**	**View Page**	**Pass**
		If invalid	**Page URL**	**Error Page**	**Error Page**	**Pass**

		user is in valid form or not.				
		If valid	**Page URL**	**View Page**	**View Page**	**Pass**
		If invalid	**Page URL**	**Error Page**	**Error Page**	**Pass**

Chapter 7
Result and Conclusion

Taking into account all the mentioned details, we can make the conclusion that the Cityhealthcare portal system is the inevitable part of the lifecycle of the modern medical institution. It automates the operations while having emergency during the pandemic situations. Developing the Cityhealthcare portal software is a great opportunity to create the distinct, efficient, and fast delivering health care model. Implementation of Cityhealthcare portal project helps to store all the kinds of records, provide coordination and user communication. This beneficial decision covers the needs of the user and simplifies their interactions with the hospital.

- Time Saving Application
- Cost Effective and easily manageable
- Data Security
- Maintains Data of user and hospital

Appendix

Appendix 1

HTML: Hypertext Markup Language

CSS: Cascading Style Sheet

Acknowledgements

Presentation inspiration and motivation have always played a key role in the success of any venture. We pay our deep sense of gratitude to Mrs. Ulka joshi, Course Co-ordinator, C-DAC Pune to encourage us to the highest peak and to provide us the opportunity toprepare the project. We are immensely obliged to our colleague for their elevating inspiration, encouraging guidance and kind supervision in the completion of our project. We feel to acknowledge our indebtedness and deep sense of gratitude to our guide Mrs. Harshita Maheshwari, whose valuable guidance and kind supervision given to us.