



**INSTITUTE FOR ADVANCED
COMPUTING AND SOFTWARE
DEVELOPMENT (IACSD), AKURDI,
PUNE**

Documentation On

Ask Your Doctor

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Abstract

The Ask Your Doctor Web Application is a user-centric and admin-empowering solution designed to simplify the process of Booking doctor appointment. This platform grants customers easy access to a variety of doctor specialisation, ensuring a personalized clinic visit experience through authentication and customization. The application's interface is user-friendly and intuitive, catering to both new and returning customers.

Administrators are equipped with a dedicated admin portal, allowing them to oversee orders, manage inventory, and gain insights into customer behavior. This data-driven approach enhances decision-making and refines product offerings. In essence, the Ask Your Doctor Application fosters a seamless experience journey for patients and streamlines operations for the appointment.

ACKNOWLEDGEMENT

The project “**Ask Your Doctor**” is a great learning experience for us and we are submitting our work to Institute of Advanced Computing and Software Development (IACSD), Pune.

We are glad to mention name of *Ms. Manjiry* for her valuable guidance on this project. Her guidance and support helped us to overcome various obstacles and intricacies during the course of project work.

We are highly grateful to Mr. Rohit Puranik (Centre Coordinator, IACSD), Pune, for his guidance and support whenever necessary during our course Diploma in *Advance Computing (PG-DAC)* through IACSD, Pune.

From:

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1. Introduction of Project:

As much as we like to travel or move to new places either for the purpose of study or work we are constantly worried about one thing, what if I get sick. Where will I find a good doctor? Who will take care of me? In this web application we tried to provide a one stop solution to all these problems.

This web application provides the facility to book appointments online with specialists in user's locality. A user can look for a doctor based on his specialties and location, and then pick a time slot and book the appointment. The aim of our project is to bridge the gap between a patient and a doctor.

Ask Your Doctor is an error free, secure, reliable and fast web application. It will allow people to travel or move to new cities without worrying about their health. Anyone can consult with a doctor anytime anywhere. All it needs is a web browser and internet connection.

This project is inspired from post pandemic events when demands for medical attention were more than medical services provided. Our aim is to provide ease of consultation with a doctor and getting required treatment, along with that saving time of both doctors and patients.

One important point is that we do not provide home visit feature yet but we significantly reduce time of booking an appointment so you no longer have to wait in long queue.

2. Product Overview and Summary

Purpose:

The purpose of our Project “Ask Your Doctor” is to automate the process of getting medical treatment and health checkup in a way that saves both time and effort. It manages all the information of patient and doctors. The project is developed at administrative end and thus only the administrator is guaranteed to have access to everything. The purpose of this project is to create a web application that reduces the manual efforts of looking for a doctor and booking appointments.

Scope:

Ask Your Doctor is a web application that can be used by anyone anywhere whenever they fell sick and are in need of medical treatment or just wants to get a routine checkup. This service is also a boon for those young doctors who just started their practice.

The application provides a user-friendly interface to search for doctors of different specializations in the user’s proximity.

Overview:

Section 3.0, the Overall Description, provides an overview of the components and the relationship between them. Section 4.0 provides the Specific Requirements of the product. In the subsection (4.1) of which the various functional requirements and various interface respectively are discussed. Section 5.0 describes Database Design details.

Feasibility Study:

It is important to analyze whether it is feasible to develop a project or not and that can it be completed in given time or not.

Before developing and implementing a system we have to make sure that the system is feasible in the following ways:

1. **Technical Feasibility**
2. **Operational Feasibility**
3. **Economical Feasibility**

- **Technical Feasibility:**

In this type of feasibility study, the system analyst has to check whether it is possible or not to develop the requested system with availability of manpower, software, hardware, etc.

- **Operational Feasibility:**

In this type of feasibility study the operation implementation of the system is considered. Checking is done regarding whether it is feasible for the user department to use the framework. Thus, the proposed system is said to be operationally feasible only if the clients are able to understand the system clearly and correctly and can use the system with ease.

- **Economical Feasibility:**

In this type of feasibility study, the benefits of the system to the organization are considered by taking into consideration the cost-benefit analysis. The minimal requirement for this is a computer and an internet connection, which is available to everyone nowadays. Also, with the basic understanding user can use this system, thus reducing the training cost to the organization.

3. Overall Description:

Product Features

The main feature of this system is that the users can book an appointment from doctors nearby. This is beneficial for both patient and doctor as it saves their precious time & efforts. Users can also look for blood donors.

Technologies

BACK END

J2EE
Spring-boot

DATABASE

MYSQL

FRONT END

React JS
Bootstrap

User Classes

There are three types of user to this system:

- 1) **Admin:** Admin can add or remove both doctors and blood donors; additionally admin can remove patients as well. He/she also maintains the overall system.
- 2) **Patient:** Patients can pick a time slot of their convenience and book appointments with doctors nearby. Patients can view their appointment history as well.
- 3) **Doctor:** Doctor can receive appointment details of patient. Doctors can create appointment time slots as per their convenience. A doctor can also cancel his/her appointment with a patient in case of emergency.

General Constraints

The “Ask Your Doctor” application should run on all desktop computers having a web browser with stable internet connection.

4. REQUIREMENTS

4.1 FUNCTIONAL REQUIREMENTS

4.1.1 User Registration and Authentication:

Users should be able to create accounts with their personal information.

Secure authentication mechanisms should be implemented to ensure privacy and security of user data.

4.1.2 User Profile Management:

Users should be able to create and manage their profiles, which may include personal information, medical history, and emergency contacts.

4.1.3 Doctor Availability:

The admin should be able to provide up-to-date information about doctor availability, including their schedules and contact details.

4.1.4 Appointment Booking:

Users should be able to schedule appointments with available doctors, specifying the date and time for the consultation.

Admin must be able to view the information of all booked appointments.

4.1.5 Urgent Call Handling:

Users should have the option to indicate whether the call is for an urgent medical situation that requires immediate attention.

4.1.6 Notification and Alerts:

Users should receive alerts confirming their appointment and reminding them of the scheduled time.

4.1.7 System Availability and Reliability:

The system should be available and reliable 24/7 to accommodate urgent medical needs.

4.1.8 Appointment Cancellation and Rescheduling:

Users should have the ability to cancel or reschedule appointments within a defined timeframe.

4.1.9 History and Records:

The admin should maintain a history of appointments, medical notes, and prescriptions for both patients and doctors.

4.2 NON-FUNCTIONAL REQUIREMENTS

4.2.1 Usability: The system should have an intuitive and user-friendly interface to facilitate easy navigation and use by individuals of varying technical expertise. It should be accessible on different devices and screen sizes.

4.2.2 Performance: The system should have low latency during communication between users and doctors to ensure real-time interactions without significant delays.

4.2.3 Reliability: The system should be highly available and reliable, ensuring that users can schedule appointments and consult with doctors whenever needed.

4.2.4 Security and Privacy: User data and medical information should be securely stored and transmitted to protect patient privacy and comply with medical data regulations

4.2.5 Compatibility: The system should be compatible with a variety of web browsers and devices to ensure a consistent experience for users.

4.2.6 Response Time: The system should provide quick responses to user interactions, such as appointment scheduling, doctor availability, and confirmation.

4.2.7 Maintenance and Upgrades: Regular maintenance and updates should be performed to keep the system up-to-date, secure, and functioning optimally.

5.Design:

Database Design

The following table structures depict the database design.

Table 1: Patient

Key Type/ Constraint	Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
PK	id	bigint		0
	first_name	varchar	30	1
	last_name	varchar	30	1
UK	email	varchar	30	1
	mobile_number	varchar	10	0
	password	varchar	30	0
UK	username	varchar	30	1
	dob	date		1
	gender	varchar	20	1
	area	varchar	50	1
	city	varchar	30	1
	state	varchar	30	1

Table 2: Admin

Key Type/ Constraint	Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
PK	id	bigint		0
	email	varchar	20	0
	name	varchar	20	0
	password	varchar	20	0

Table 3: Doctor

Key Type/ Constraint	Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
PK	id	bigint		0
	first_name	varchar	30	1
	last_name	varchar	30	1
	password	varchar	30	0
UK	username	boolean	30	1
	dob	date		1
	gender	varchar	20	1
	mobile_number	varchar	10	0
	area	varchar	50	1
	city	varchar	30	1
	state	varchar	30	1
	fees	int		1
	languages	varchar	30	1
	qualification	varchar	30	1
	specialization	varchar	30	1
UK	email	varchar	30	1
	began_practice	date		1
	time_slot_id	bigint		1

Table 4: Appointment

Key Type/ Constraint	Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
PK	id	bigint		0
	appointment_time	datetime	6	1
	appointment_type	varchar	255	1
FK	doctor_id	bigint		0
FK	patient_id	bigint		0

Table 5: Doctor Timetable

Key Type/ Constraint	Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
PK	id	bigint		0
	break_time	time		1
	Start_time	Time		1
	End_time	Time		1
	Start_date	Date		1
	End_date	Date		1
	Slot_duration	int		0

Table 6: Blood Donor

Key Type/ Constraint	Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
PK	id	bigint		0
	name	varchar	30	1
	email	varchar	30	1
	contact_number	varchar	10	1
	city	varchar	30	1
	state	varchar	30	1
	blood_group	varchar	255	1
	units_of_blood	int		1

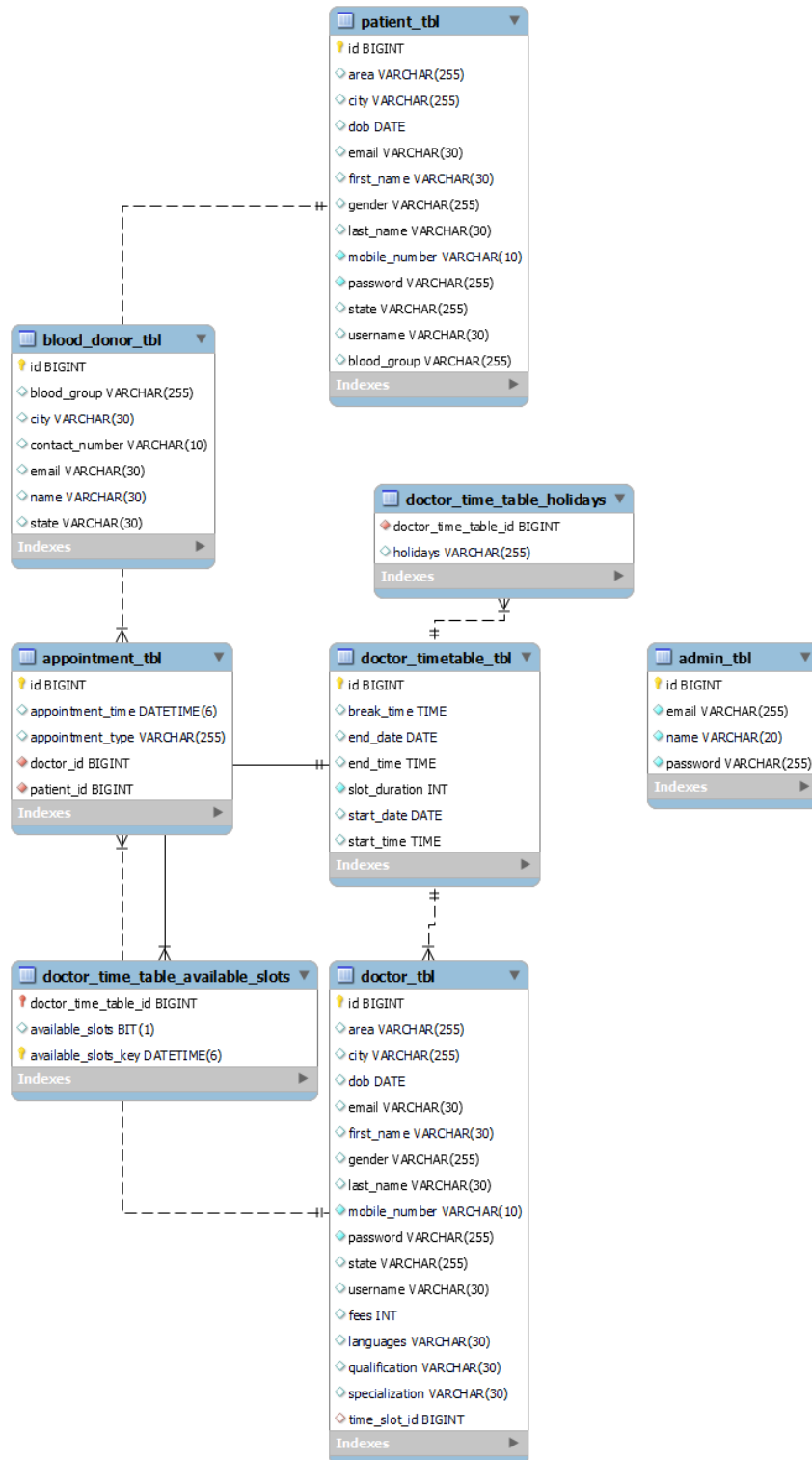
Table 7: Doctor Time Table Available Slots

Key Type/ Constraint	Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
PK	doctor_time_table_id	bigint		0
	Available_slots	bit	1	1
CPK	available_slots_key	datetime	6	0

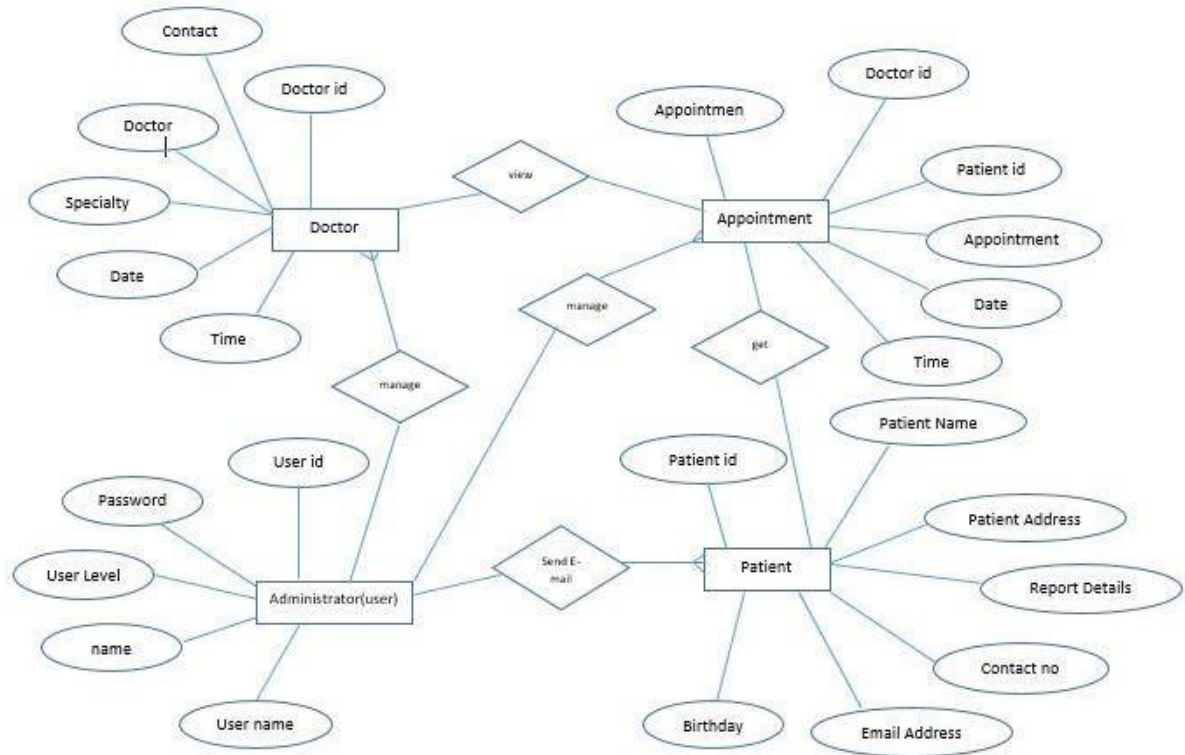
Table 8: Doctor Time Table Holiday

Key Type/ Constraint	Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
FK	doctor_time_table_id	bigint		0
	holidays	varchar	255	1

5.2 ER Diagram

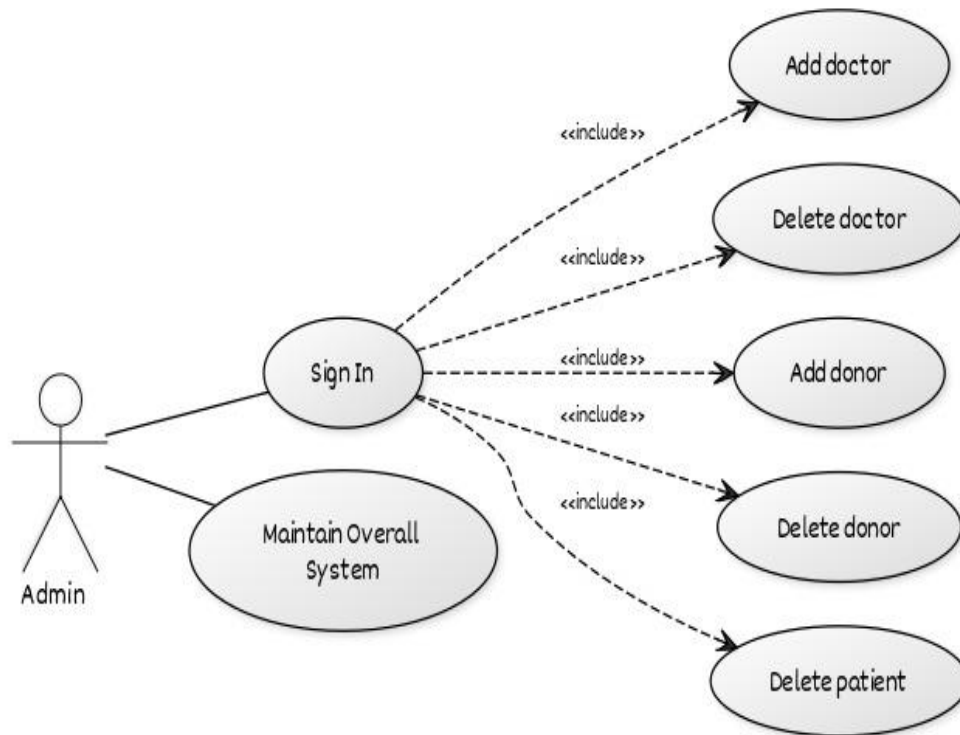


ER-DIGRAM



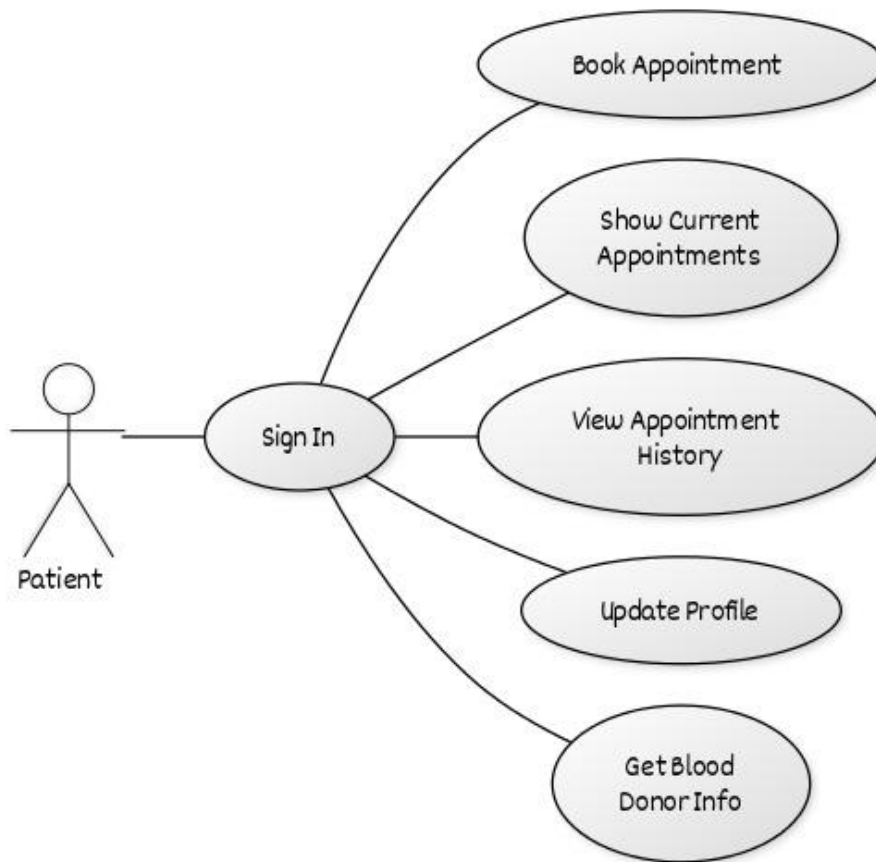
USE-CASE DIAGRAMS

ADMIN



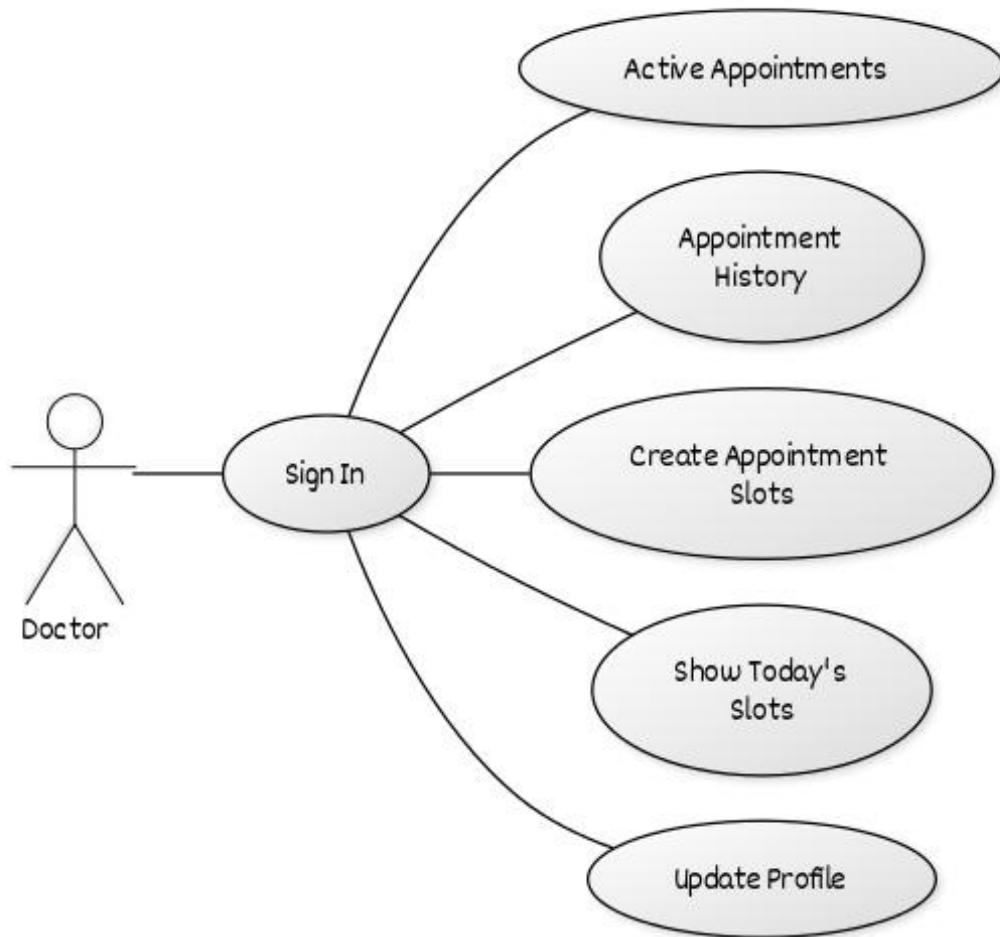
CREATED WITH YUML

PATIENT



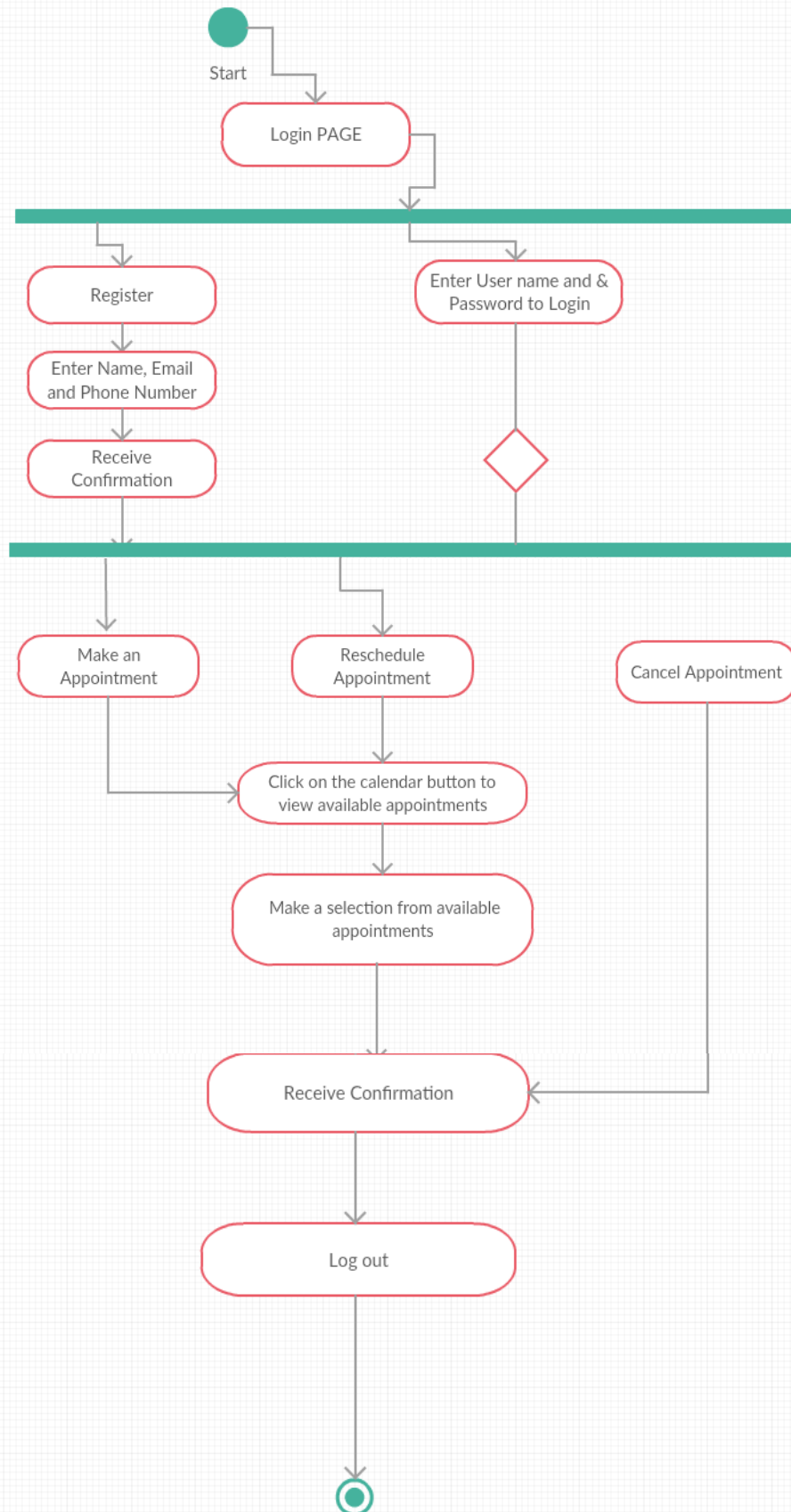
CREATED WITH YUML

DOCTOR



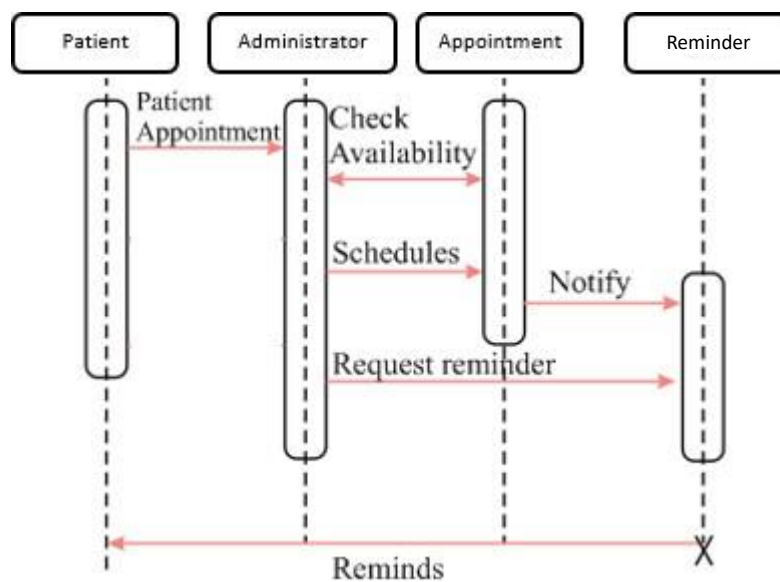
CREATED WITH YUML

ACTIVITY DIAGRAM

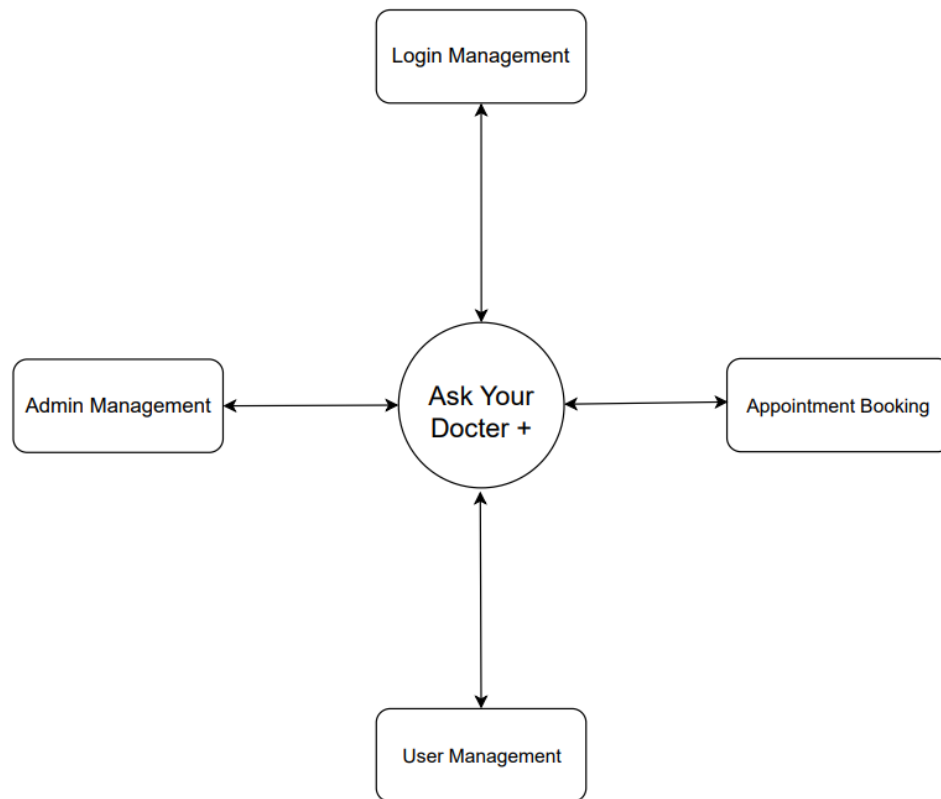


SEQUENCE DIAGRAM

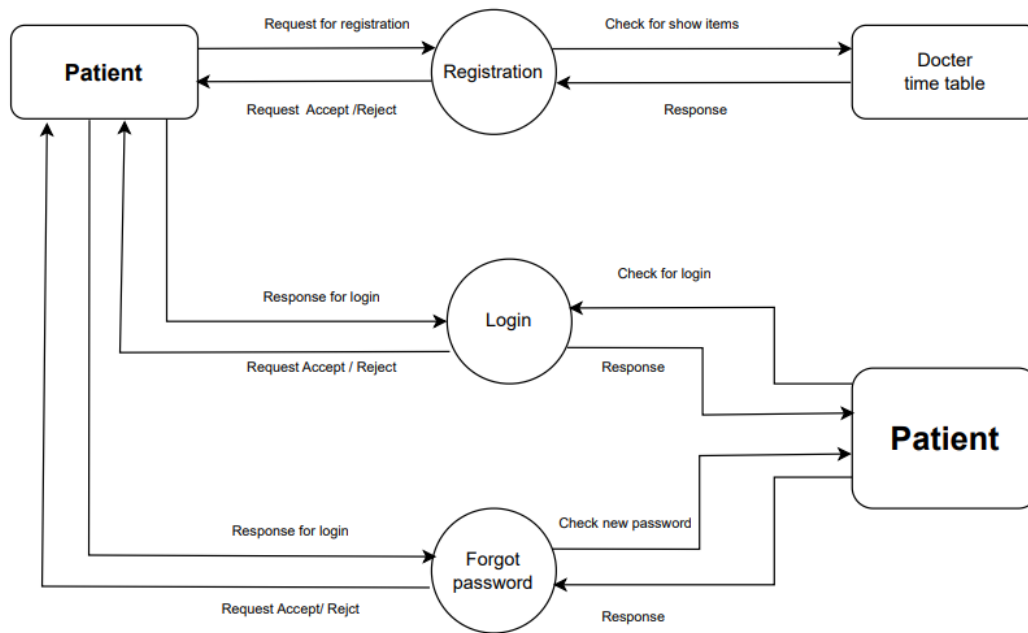
Sequence Diagram is defined as a dynamic model for a use case which is used for showing the interaction between classes for particular time period. This diagram includes message, time.



DFD DIAGRAMS



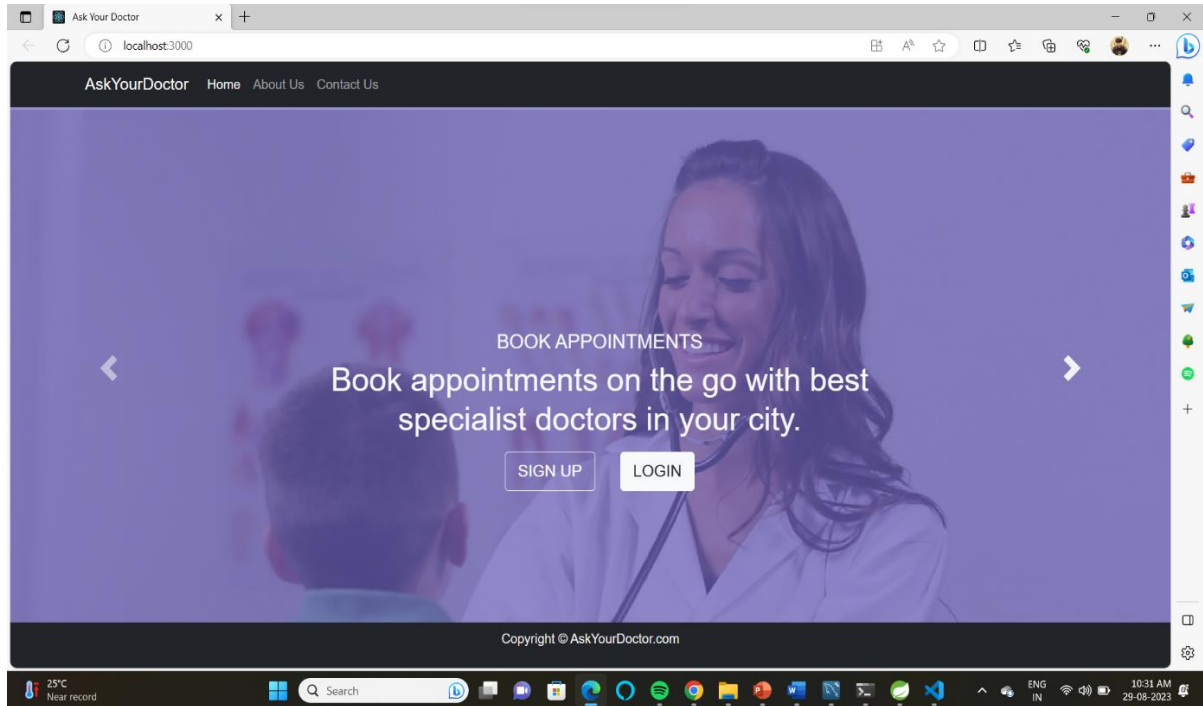
Zero Level Flow Diagram



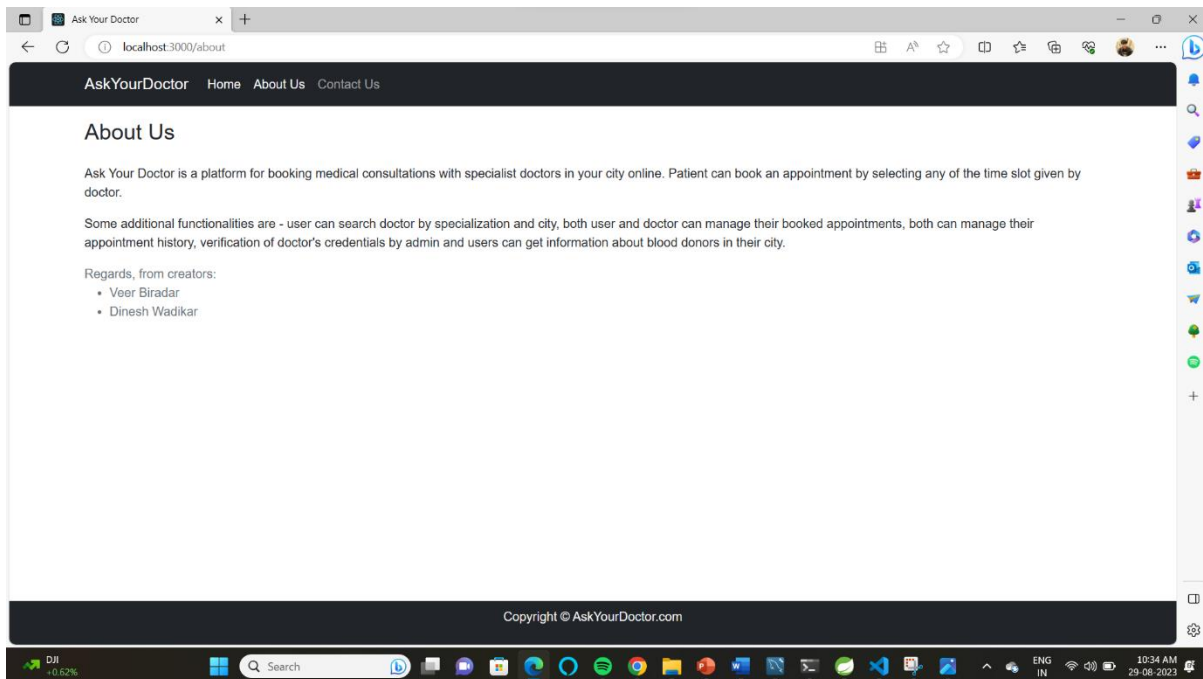
2nd Level DFD for Patient

6. Interface:

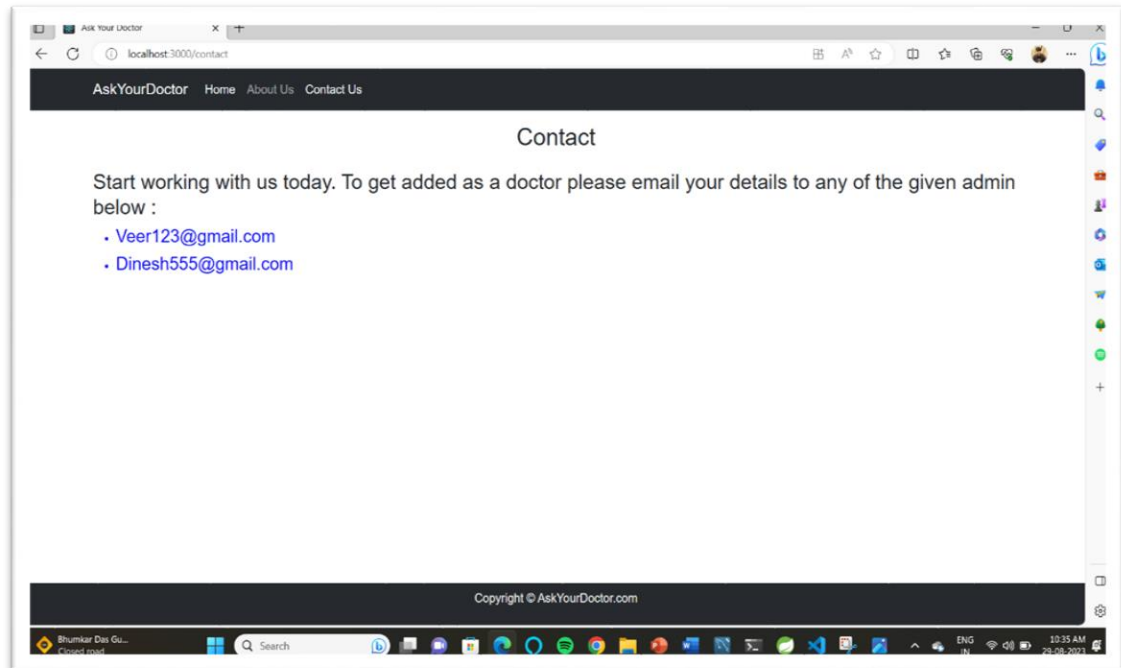
1. Home Page



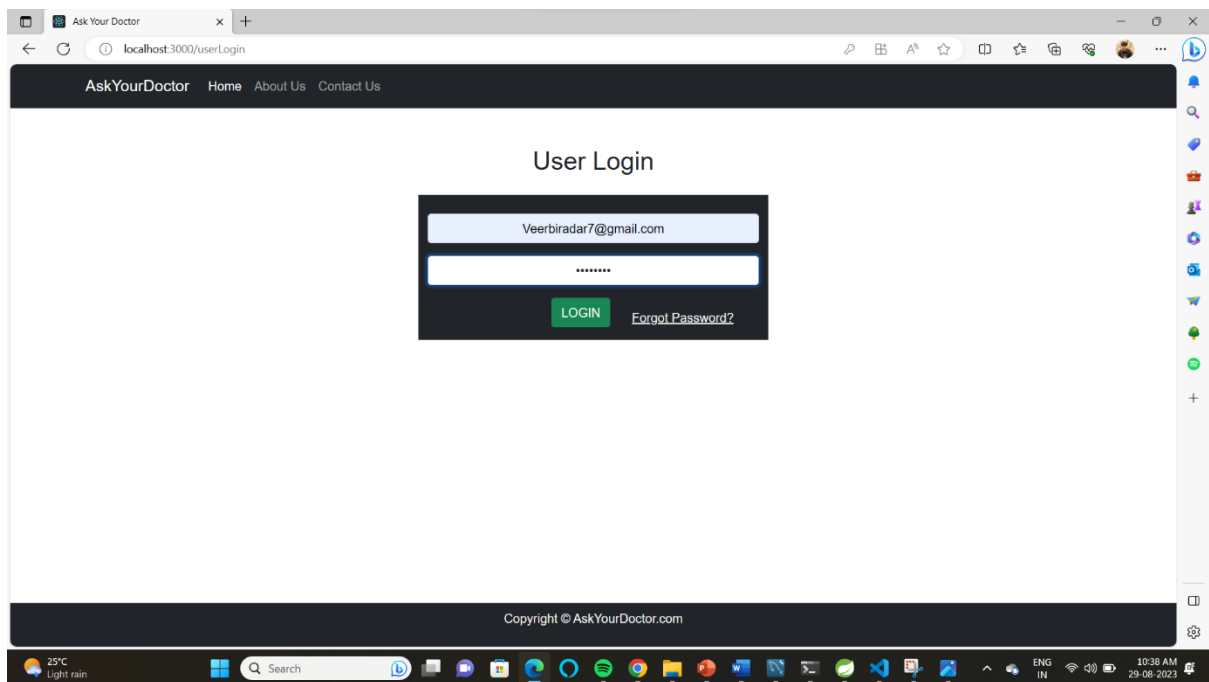
2. About Us



3. Contact Us



4. Log In



5. Forget Password

AskYourDoctor Home About Us Contact Us

Forgot Password?

Veerbiradar7@gmail.com

Submit

Copyright © AskYourDoctor.com

6. Reset Password

AskYourDoctor Home About Us Contact Us

Enter Token

2006

SUBMIT

Copyright © AskYourDoctor.com

7. Registration Page

User Registration [GO BACK](#)

Username: sham123

First Name: sham

Last Name: girhe

Email: sham@gmail.com

Date of Birth: 01-10-1999

Password:

Gender: ☒ Male ☐ Female ☐ Other

Blood Group: B+

Mobile: 01234567890

Area: akurdi

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First Name: sham

Last Name: girhe

Email: sham@gmail.com

Date of Birth: 01-10-1999

Password:

Gender: ☒ Male ☐ Female ☐ Other

Blood Group: B+

Mobile: 01234567890

Area: akurdi

City: pune

State: maharashtra

[SIGN UP](#)

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8. Admin Page

AskYourDoctor Home About Us Contact Us

Hello, Dinesh [LOGOUT](#)

Add New Doctor
Register a new doctor to database.

[ADD](#)

View Doctor List
View details of all registered doctors.

[VIEW](#)

Add New Donor
Add a new blood donor to database.

[ADD](#)

View Donor List
View details of all registered donors.

[VIEW](#)

View Patient List
View details of all patients.

[VIEW](#)

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9. Admin - Doctor List

AskYourDoctor Home About Us Contact Us

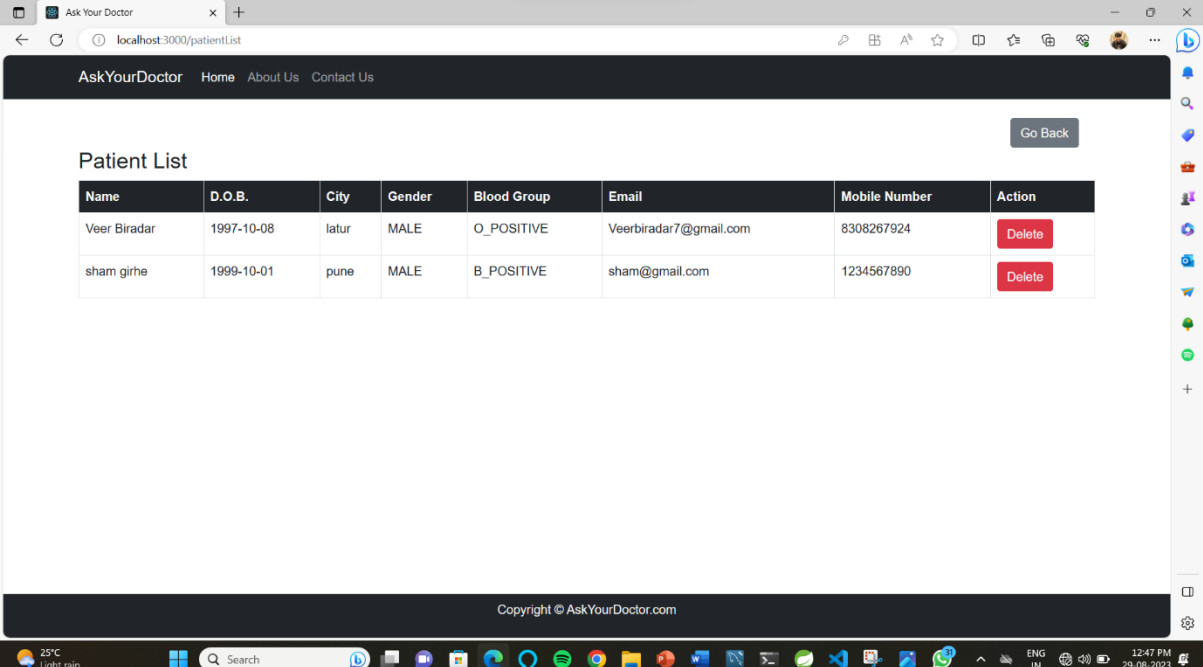
[Go Back](#)

Doctor List

Name	Qualification	Specialization	City	Consultation Fee	Email	Mobile Number	Action
Rohan Sarode	MBBS	Physician	pune	700	rohan@gmail.com	9854754472	Delete
Aniket Mahajan	BDS	Dentist	mumbai	500	aniket@gmail.com	8575554455	Delete
Prachi Mishra	MD	Dermatologist	Mumbai	750	prachi@gmail.com	9855755587	Delete
Rohit Biradar	MS	Psychiatrist	pune	850	rohit@gmail.com	7845858858	Delete
Ronak Gandhi	MBBS	Gynecologist	latur	1000	Ronak@gamil.com	8878788858	Delete
Vaishnavi Patil	MS	Ophthalmologist	latur	1000	vaishnavi@gmail.com	7848885221	Delete

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10.Admin - Patient List

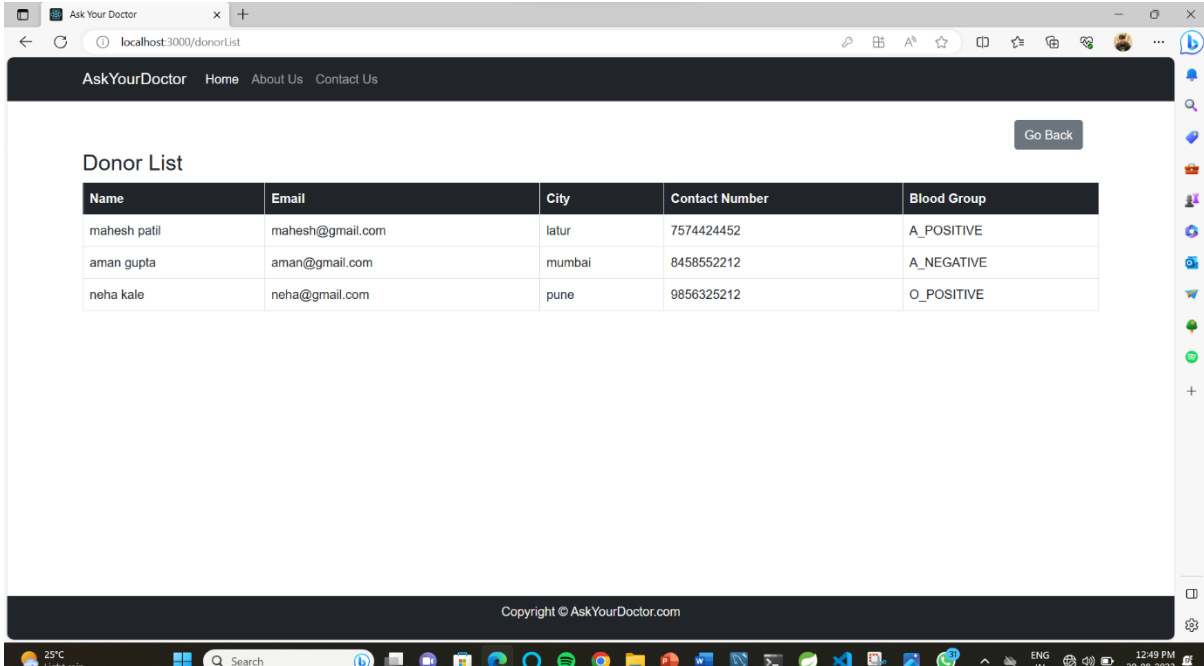


The screenshot shows a web browser window with the URL `localhost:3000/patientList`. The page has a dark header with the text "AskYourDoctor" and navigation links "Home", "About Us", and "Contact Us". Below the header, there is a "Go Back" button. The main content area is titled "Patient List" and contains a table with the following data:

Name	D.O.B.	City	Gender	Blood Group	Email	Mobile Number	Action
Veer Biradar	1997-10-08	latur	MALE	O_POSITIVE	Veerbiradar7@gmail.com	8308267924	Delete
sham girhe	1999-10-01	pune	MALE	B_POSITIVE	sham@gmail.com	1234567890	Delete

At the bottom of the page, there is a footer with the text "Copyright © AskYourDoctor.com". The browser's taskbar at the bottom shows the system clock as 12:47 PM on 29-08-2023, with a temperature of 25°C and light rain.

11. Admin - Donor List

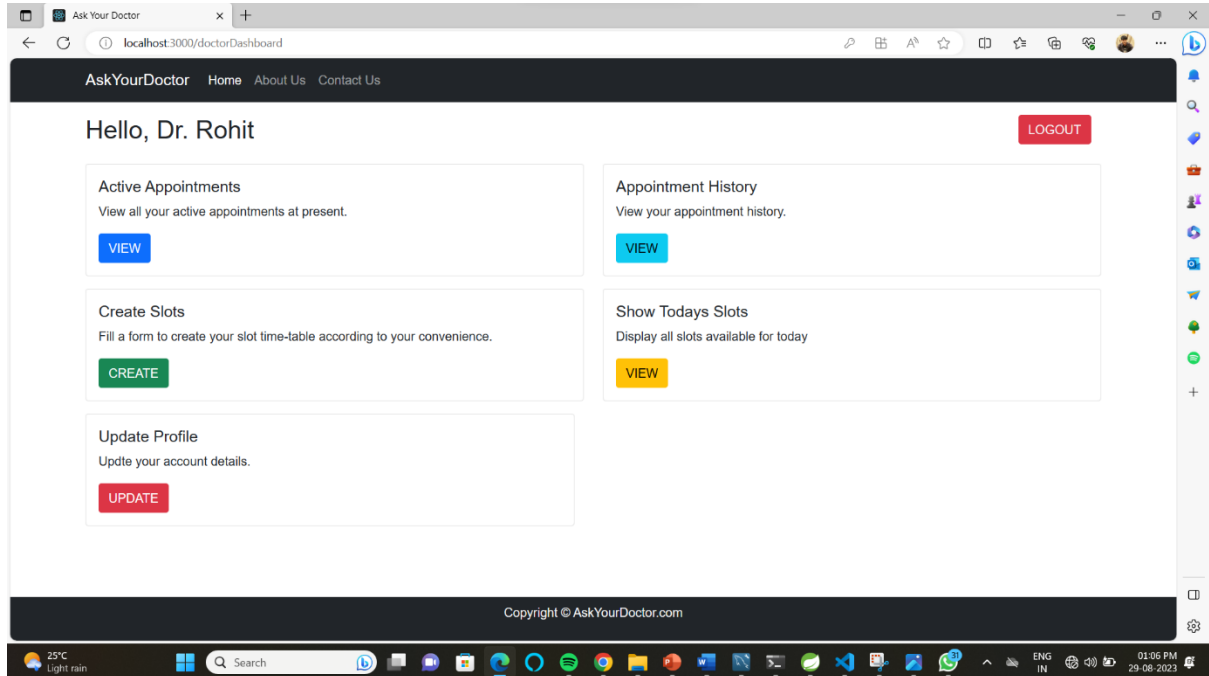


The screenshot shows a web browser window with the URL `localhost:3000/donorList`. The page has a dark header with the text "AskYourDoctor" and navigation links "Home", "About Us", and "Contact Us". Below the header, there is a "Go Back" button. The main content area is titled "Donor List" and contains a table with the following data:

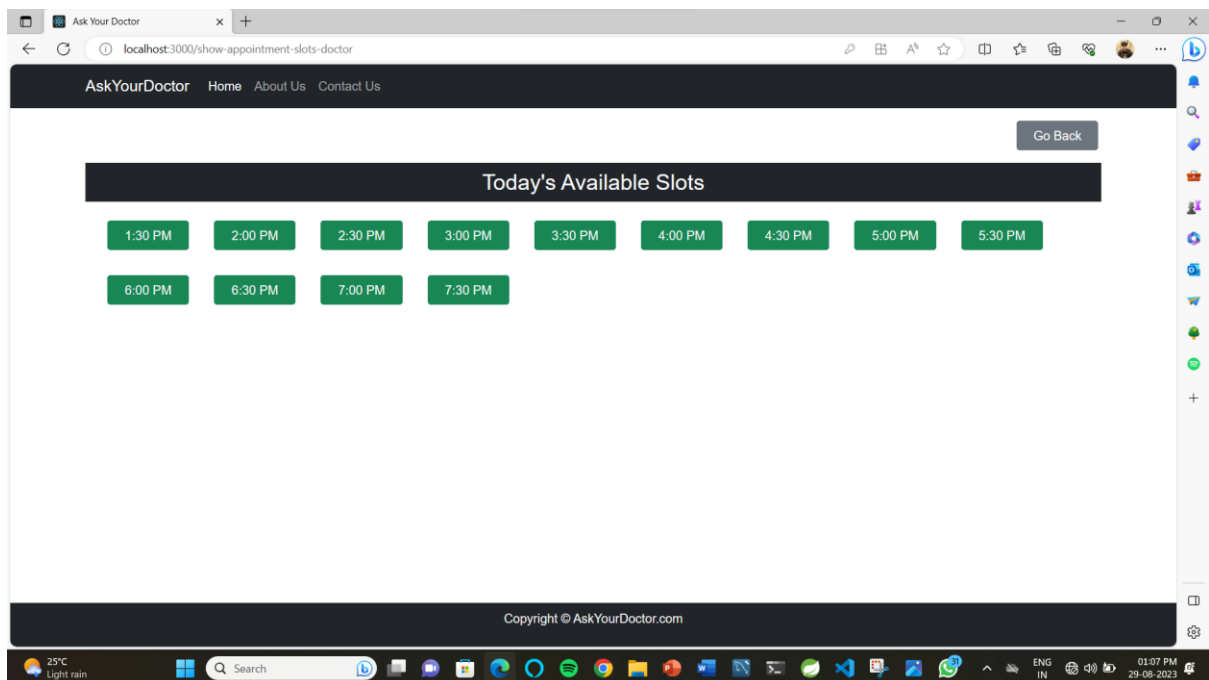
Name	Email	City	Contact Number	Blood Group
maresh patil	maresh@gmail.com	latur	7574424452	A_POSITIVE
aman gupta	aman@gmail.com	mumbai	8458552212	A_NEGATIVE
neha kale	neha@gmail.com	pune	9856325212	O_POSITIVE

At the bottom of the page, there is a footer with the text "Copyright © AskYourDoctor.com". The browser's taskbar at the bottom shows the system clock as 12:49 PM on 29-08-2023, with a temperature of 25°C and light rain.

12. Doctor Page



13. Doctor Available Slots



14.Doctor Active Appointment

AskYourDoctor Home About Us Contact Us

Go Back

Your Active Appointments

S. No.	Date	Time	Appointment Type	Action
1	29 August,2023	2:30 PM	CLINIC_VISIT	Patient Details Cancel

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15.Doctor - Patient Details

AskYourDoctor Home About Us Contact Us

Go Back

Patient Details

FirstName :	Veer
LastName :	Biradar
Mobile No :	8308267924
Date Of Birth :	1997-10-08
Gender :	MALE
BloodGroup :	O_POSITIVE
Email :	Veerbiradar7@gmail.com
State :	MH
Area :	udgir
City :	latur

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16. Doctor – Create Appointment Slot

The screenshot shows a web browser window with the URL `localhost:3000/create-appointment-slots`. The page title is "Create Your Slots" and it includes a "GO BACK" button in the top right corner. The form contains the following fields:

- Start Date:** 30-08-2023
- End Date:** 30-08-2023
- Start Time:** 11:00 AM
- End Time:** 06:00 PM
- Slot Duration(minutes):** 30
- Break Time:** 02:00 PM
- Holidays:** A list of days with checkboxes: Sunday (checked), Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday (checked).

The footer of the page displays "Copyright © AskYourDoctor.com". The browser's taskbar at the bottom shows the system time as 01:43 PM on 29-08-2023.

17. Patient Page

The screenshot shows a web browser window with the URL `localhost:3000/patientDashboard`. The page title is "Hello, Veer" and it includes a "LOGOUT" button in the top right corner. The dashboard is divided into several sections:

- Book Appointment:** "Book appointments with best doctors in city." with a blue "Book" button.
- View Appointment History:** "Click to view your till date appointment history." with a blue "View" button.
- Get Blood Donor Info:** "Click to view details of available blood donors." with a yellow "View" button.
- Show Current Appointment:** "View your current appointment." with a yellow "View" button.
- Update Profile:** "Edit your account details." with a green "Update" button.

The footer of the page displays "Copyright © AskYourDoctor.com". The browser's taskbar at the bottom shows the system time as 01:45 PM on 29-08-2023.

18. Patient – Available Doctors

The screenshot shows a web browser window with the URL `localhost:3000/doctor-list-patient`. The page has a dark header with the text 'AskYourDoctor' and navigation links 'Home', 'About Us', and 'Contact Us'. A 'Go Back' button is in the top right. The main content area is titled 'Available Physicians in Pune' and contains a table with the following data:

Name	Qualification	Consultation Fee	Email	Mobile Number	Area	Action
Dr. Rohan Sarode	MBBS	700	rohan@gmail.com	9854754472	baner	Book Appointment

The footer of the page displays 'Copyright © AskYourDoctor.com'. The Windows taskbar at the bottom shows the date as 29-08-2023 and the time as 01:46 PM.

19. Patient – Book Appointment

The screenshot shows a web browser window with the URL `localhost:3000/book-slot-for-patient`. The page has a dark header with the text 'AskYourDoctor' and navigation links 'Home', 'About Us', and 'Contact Us'. A 'Back To Dashboard' button is in the top right. The main content area is titled 'Confirm Appointment' and contains a table with the following data:

Patient Name	Doctor Name	Area	Consultation Fee	Specialization	Time	Action
Veer	Dr. Rohan Sarode	baner, pune	700	Physician	3:00 PM	Confirm

The footer of the page displays 'Copyright © AskYourDoctor.com'. The Windows taskbar at the bottom shows the date as 29-08-2023 and the time as 01:52 PM.

20. Patient – Active Appointment

AskYourDoctor Home About Us Contact Us

Go Back

Your Active Appointments

S. No.	Date	Time	Appointment Type	Action
1	29 August, 2023	2:30 PM	CLINIC_VISIT	Doctor Details Cancel

Copyright © AskYourDoctor.com

21. Update Profile

Update Profile

GO BACK

Username: veer123

First Name: Veer

Last Name: Biradar

Email: Veerbiradar7@gmail.com

Date of Birth: 08-10-1997

Blood Group: O+

Mobile: 8308267924

Area: udgir

City: latur

State: MH

UPDATE

Copyright © AskYourDoctor.com

22. Blood Donor Info

The screenshot shows a web browser window with the URL `localhost:3000/get-donors-by-city-and-blood-group`. The page has a dark header with the text 'AskYourDoctor' and navigation links 'Home', 'About Us', and 'Contact Us'. The main content area is titled 'Blood Donor Information' and includes a 'GO BACK' button. Below the title, there are input fields for 'City' (containing 'latur') and 'Blood Group' (a dropdown menu showing 'A+'). A blue 'Submit' button is positioned below these fields. At the bottom of the form area, there is a table with the following data:

Name	Email	Contact Number	Blood Group
maresh patil	maresh@gmail.com	7574424452	A_POSITIVE

The footer of the page contains the text 'Copyright © AskYourDoctor.com'. The browser's taskbar at the bottom shows various application icons and the system clock indicating 01:55 PM on 29-08-2023.

7. TEST REPORT

The report of the testing is given here under.

Project Name: - Ask Your Doctor

Sr. No	Test Case Title	Description	Expected Outcome	Error Message	Result
1	Login Page-Admin	If User email=Admin email, Password= Admin Password	If Validated allow for Admin Home Page If not redirect to same page	Username and password required	Passed
2	Login Page – User	If User email=User email, Password= User Password	If Validated allow for User Home Page If not redirect to same page	Username and password required	Passed
3	Register Page-User	Input all registration details	If proper details are entered then verification mail is sent	Error in input field constraint/ verification email failed	Passed
4	Home page Displayed	Homepage display.	Home Page Displayed	No Error	Passed
5	Appointment Booking	Search doctors after successful login.	Doctor info shown	No Error	Passed
6	Appointment History	List of previous appointments	List of previously booked appointments	No Error	passed
7	Create slot for doctor	Appointment slots creation for doctor	Slots created	No Error	Passed
8	Update profile	Change profile details	Profile updated	Not updated	Passed
9	Log out	User / Admin can logout by using Logout link	Back to login	No Error	Passed

CONCLUSION

the "Ask Your Doctor" project aims to empower patients by promoting open communication with healthcare providers. Through accessible resources, it encourages informed discussions during appointments to enhance medical understanding and collaboration. This initiative underscores the value of patient-provider teamwork in achieving accurate diagnoses, treatment adherence, and overall satisfaction. It complements professional medical advice, striving to create a balanced approach to healthcare that considers expertise and individual preferences, ultimately leading to improved patient outcomes and stronger relationships.

8. SOFTWARE DEVELOPMENT METHODOLOGY:

Scrum Agile methodology was used.

9. FUTURE SCOPE:

1. We will be providing Payment Gateway so user can pay online.
2. We will Increase its deployment in all major cities.
3. Lab test feature will be added.
4. Feedback form will be added.
5. Home Visit facility will be added.

10. REFERENCES:

<https://www.wikipedia.com>,
<http://www.youtube.com> ,
<https://www.google.com>,
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