Health Elevator

A PROJECT REPORT for Mini Project-I (K24MCA18P) Session (2024-25)

Submitted by

Kiran Yadav(202410116100102) Ishita Jindal(202410116100093) Mayank Goyal(202410116100117.)

Submitted in partial fulfilment of the Requirements for the Degree of

MASTER OF COMPUTER APPLICATION

Under the Supervision of Ms. Divya Singhal Assistant Professor



Submitted to

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CERTIFICATE

Certified that Kiran Yadav (202410116100102), Ishita Jindal (202410116100093

),MayankGoyal(202410116100117) has/ have carried out the project work having "Health Elevator" (Mini

Project-I, K24MCA18P) for Master of Computer Application from Dr. A.P.J. Abdul Kalam Technical

University (AKTU) (formerly UPTU), Lucknow under my supervision. The project report embodies original

work, and studies are carried out by the student himself/herself and the contents of the project report do not form

the basis for the award of any other degree to the candidate or to anybody else from this or any other

University/Institution.

Mr. Arpit Dogra

Assistant Professor

Department of Computer Applications KIET Group of Institutions, Ghaziabad

Dr. Arun Kr. Tripathi

Dean

Department of Computer Applications

KIET Group of Institutions, Ghaziabad

Health Elevator Kiran Yadav, Ishita Jindal , Mayank Goyal

2

ABSTRACT

In India, the critical challenge of short-range medicine delivery has long plagued the healthcare landscape, causing undue hardships for patients in need. Enter "Health Elevator," a groundbreaking online platform dedicated to addressing this pressing issue. Our platform not only simplifies the process of obtaining essential medicines but also offers a myriad of valuable features to enhance healthcare accessibility.

Health Elevator is committed to solving the problem of short-range medicine delivery by connecting users with nearby pharmacies, ensuring swift and hassle-free access to vital medications. Through our platform, users can effortlessly order medicines from their nearest stores, streamlining the procurement process for their convenience.

Beyond medicine delivery, Health Elevator leverages technology to offer a range of lifesaving functionalities. Our integrated reminder system helps users stay on top of their medication schedules, promoting better health management.

Health Elevator doesn't stop there. We extend our support to disable people for the schemes an support is provided by the government of various states in India. It also provides the functionality for accessing the information about the daily-use and general medicines.

With Health Elevator, we aim to transform the healthcare experience in India, making it more efficient, accessible, and patient-centric.

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Kiran Yadav(202410116100102)

Ishita Jindal(202410116100093)

Mayank Goyal(202410116100117)

4

TABLE OF CONTENTS

		Page Number
1.	Introduction	6-7
2.	Literature Review	8-9
3.	Project / Research Objective	10-11
4.	Hardware and Software Requirement	12-14
5.	Project Flow/ Research Methodology	15-17
6.	Use Case Diagram	18
7.	E-R Diagram	19
8.	Data Flow Diagram	20-21
9.	Software Architecture	22-44
10	Result/Project outcome	45-46
11	.References/ Bibliography	47

1. Introduction

1.1 INTRODUCTION ABOUT THE APPLICATION-

The aim of Health Elevator is to provide an inclusive and holistic approach to healthcare sector. Health Elevator is more than just a website, it's a lifeline that connects you with a multitude of health-related services and resources, all aimed at enhancing your well-being and convenience. Whether you're seeking **prompt medication deliveries**, **setting up reminders for your medications** or even **exploring the disability schemes**, Health Elevator is your one-stop solution.

To manage the profiling workflow, this website involves several roles: User, Pharmacist and Admin. The module is operated by-

1. Customer

The role of a customer on our Health Elevator website is pivotal, beginning with the registration process where they seek authorization from the admin. Once authorized, customers gain access to a multitude of essential healthcare services: procuring generic medicines from nearby stores and ensuring adherence to medication schedules through personalized reminders. This customer-centric approach aims to streamline healthcare access, ultimately enhancing the overall well-being of our customers.

2. Admin

The Admin on the Health Elevator website holds a critical role in ensuring the platform's functionality and security. They are responsible for authorizing and managing user registrations, verifying user data to maintain authenticity. Admins oversee content, provide user support, and implement robust security measures. They also manage the platform's databases, ensuring the accuracy of medicines, pharmacies. Admins play a pivotal role in maintaining the platform's efficiency, they contribute to Health Elevator's mission by providing a safe, user-friendly, and reliable healthcare resource for all users.

1.3 Motivation

The motivation behind "Health Elevator" stems from the need to address three critical healthcare gaps:

- 1. Limited access to affordable and timely medicine delivery.
- 2. Poor adherence to prescribed medication regimens due to forgetfulness or lack of reminders.
- 3. Lack of awareness about accessible healthcare schemes for differently-abled individuals.

By addressing these gaps, "Health Elevator" aims to enhance healthcare outcomes while reducing costs and inconveniences.

1.4 Key Features

"Health Elevator" offers a range of user-centric features, including:

- 1. User-friendly Interface: Easy navigation for users of all ages and technical abilities.
- 2. **Proximity-based Pharmacy Locator:** Identification of nearby pharmacies for quick medicine availability.
- 3. **Medicine Reminder System:** Customizable reminders sent via WhatsApp to ensure medication adherence.
- 4. **Comprehensive Information Access:** Detailed data on generic medicines and government disability schemes.

2. <u>Literature Review</u>

1. Limited Medicine Accessibility:

- Inadequate access to essential medications within a short range, causing inconvenience and delays for patients.
- Patients often required time-consuming trips to distant pharmacies to obtain prescribed medicines.
- Even the apps/websites like **Appolo 247, PharmEasy** takes many hours to deliver the medicines.

2. Cost-Effective Medicine Access:

Difficulty in accessing affordable medicines from online platforms because of additional delivery fee, resulting in increased healthcare costs for patients. • Limited options for cost-effective healthcare solutions.

3.Medication Adherence Issues:

• Patients struggling with medication adherence due to a lack of reminders and support, impacting treatment effectiveness.

APPLICABILITY -

- The applicability of the Health Elevator website is extensive and can benefit various stakeholders in the healthcare sector:
- **Patients**: Patients can use Health Elevator to conveniently order medicines, access medicine reminders, and access information about schemes and general medicines, improving their overall healthcare experience.
- **Healthcare Community**: The platform fosters a sense of community among users, pharmacists and patients promoting mutual support and collaboration.

2.2 USER'S REQUIREMENTS-

1 Enter your N	ame			
1 word answ	er			
2 Enter your A	ge			
1 word answ	1 word answer			
3 Enter your Lo	B Enter your Location			
1 word answ	1 word answer			
4 What type o	4 What type of website do you pefer?			
Dynamic	User-friendly	Interface-friendly		
5 Do you want	5 Do you want dynamic digital menu display based on availability ?			
Yes	No			
6 Do you want	filters in the menu	driven website?		
Yes	No			
7 Do you face	problems in finding	the nearest pharmacy?		
Yes	No			
8 Do you think	that online platforn	ns like pharmeasy, Apollo take a very long duration of time to deliver medicine?		
Yes	No	Maybe		MC
9 How often d	o you buy medicine	online?		
very often	Sometime	Rarely		
10 Do you have	0 Do you have any knowledge about your local medical store/pharmacy providing delivery services?			
Yes	No	Maybe		

User's Requirement-1

Yes	No	Maybe		
11 Do you	Do you pefer a website that provide you the details of your local medical store/pharmacy that provide delivery services?			
Yes	No	Maybe		
12 Do you	nave any knowledge ab	out the schemes and assistance that government provide to disable people?		
Yes	No	Maybe		
13 How oft	en do you forget to tak	e medicine on time?		
very ofte	en Sometime	Rarely		
14 Do you l	nave a habit of checking	g the medicine description online on any website before consuming it?		
Always	Sometime	Never		

3. Project Objective

This Healthcare System is developed to provide the following services:

2.1.1 Medicine Procurement:

- Facilitate short-range medicine delivery.
- Connect users with authorized pharmacists for medication procurement.
- Enable prescription uploads for swift medication fulfilment.

2.1.2 Medication Management:

- Support medication adherence through personalized reminders.
- Simplify the purchase of generic medicines from nearby stores.

2.1.3 Information access:

- Provides dynamic information about the schemes and support provided by the different state governments of India
- Provides access to user about the information about the daily-use and general medicines.

2.1.4 Overall Healthcare Enhancement:

- Enhance overall healthcare accessibility and efficiency in India
- Connect users with nearby pharmacies and authorized pharmacists.
- Simplify the purchase of generic medicines from local stores.
- To Transform the manual process of buying medicines to an online and computerized system
- To produce the documentation such as Software Requirement specification, Software
- Provide personalized medication reminders.
 - Design Description and Software Development References.

3.2 ADVANTAGES OF THE PROPOSED SYSTEM-

- **Improved Medication Access**: Enables users to easily obtain medicines from nearby pharmacies, enhancing healthcare accessibility.
- **Medication Management**: Helps users stay on top of their treatment with medication reminders, promoting better health outcomes.
- **Generic Medicine Procurement**: Facilitates the purchase of affordable generic medicines from local stores and the information about all the medicines.
- **Efficient Healthcare**: Enhances the overall efficiency of healthcare services in India, reducing the hassle of medicine procurement and donor search.
- **User-Centric**: Puts users at the forefront of healthcare decision-making, ensuring their needs are met effectively.

3.3 SCOPE OF THE SYSTEM-

- Enhancing Medicine Accessibility: Streamlined medicine procurement from nearby pharmacies.
- Medication Management Assistance: Personalized reminders for medication adherence.
- Affordable Generic Medicine Access: Facilitating the purchase of cost-effective generics.
- **Tech-Enabled Healthcare**: Leveraging technology to bridge gaps in traditional healthcare systems, making healthcare more accessible and convenient.

4. Hardware and Software Requirements for Health Elevator

4.1 Hardware Requirements

The hardware requirements for the development and deployment of the Health Elevator platform include specifications for both the development environment and user devices.

4.1.1 Development Environment

- Processor: Intel Core i3 or higher (64-bit architecture)
- RAM: Minimum 8 GB (16 GB recommended for optimal performance)
- Storage: At least 500 GB of available disk space
- Operating System: Windows 10/11, macOS 10.14 or later, or Linux-based distributions
- Graphics: Integrated graphics card (Dedicated GPU optional but recommended for advanced UI testing)
- Networking: High-speed internet connection for collaborative development, testing, and deployment
- Other Peripherals: Keyboard, mouse, monitor, and power backup system

4.1.2 User Devices

- Desktop/Laptop: Windows, macOS, or Linux-compatible systems with a minimum of 4 GB RAM
- Smartphones/Tablets: Android (version 8.0 or later) and iOS (version 12.0 or later) devices
- Internet Access: Broadband or 4G/5G connectivity for seamless usage of the application
- Screen Resolution: Minimum 1280x720 (HD resolution)

4.2 Software Requirements

The software requirements are categorized into development tools, runtime environment, and third-party integrations.

4.2.1 Development Environment

• Frontend Development:

- React.js: Framework for building the user interface
- Bootstrap: CSS framework for responsive and visually appealing designs

• Backend Development:

- o Node.js: JavaScript runtime for server-side development
- Express.js: Web application framework for Node.js

• Database:

- MongoDB: NoSQL database for storing application data
- o Mongoose: ODM (Object Data Modeling) library for managing MongoDB data

Version Control:

- o Git: For source code version management
- GitHub/GitLab/Bitbucket: For collaborative repository hosting

• Development IDEs:

- Visual Studio Code: Lightweight code editor
- MongoDB Compass: GUI for managing MongoDB databases

4.2.2 Runtime Environment

- Operating Systems Supported:
 - o Windows, macOS, Linux for web access
 - o Android (8.0 and above) and iOS (12.0 and above) for mobile devices

• Browsers Supported:

o Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge (latest versions recommended)

4.2.3 Third-Party Services and Libraries

- Twilio API/WhatsApp API: For sending medication reminders
- Google Maps API: For displaying nearest pharmacies

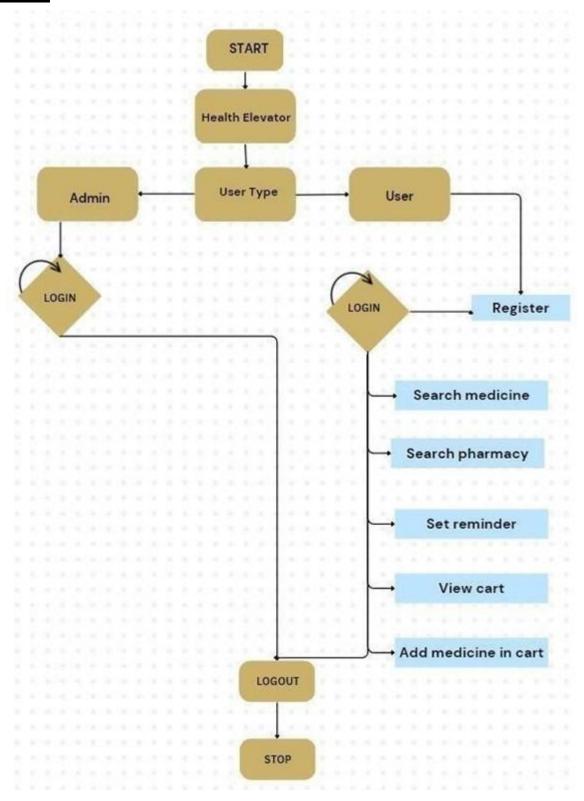
• Authentication:

- o JWT (JSON Web Tokens): For secure user authentication and session management
- o OAuth: For optional third-party login (e.g., Google or Facebook)

• Other Libraries:

o Axios (HTTP requests), Redux (state management), and Moment.js (date/time management)

5. Project flow



5.1.1 Admin Login: - Health Elevator Manager

- Adding and updating medicines list
- Maintenance of over all system
- Updating the disability Schemes (if change in any)

5.1.2 User Login: - Customer

- Add/Update Medicine Reminder
- Order required medicine
- User/Customer can have an access of general information about medicines (like what are the symptoms of the disease when this medicine should be consumed)
- User can access the information about the disability schemes in India
- User can find all the nearest pharmacies in the time of need to contact them for medicine delivery.

5.2 MODULES AND SUB MODULES

5.2.1 REGISTER MODULE \ LOGIN MODULE

The user will be registered or sign in, verified, and log out.

Sub Module:

- SIGN IN/SIGN UP
- LOG OUT

5.2.2 REMINDER MODULE

In the module, User will be able to set and update reminders relating to everyday required medicines. The Reminder will be sent to the user's WhatsApp number. It will benefit the people who oftenly tend to forget their daily medicines. This will elevate the overall health of the user.

5.2.3 DISABILITY SCHEMES MODULE

This module is a dedicated section that provides information about various disability-related schemes and government-provided reservation assistance in India. It aims to benefit people with disabilities by offering details about available schemes and support services to help them navigate and access these resources more easily.

5.2.4 PHARMACY NEAR ME MODULE

In the module, User will be able to locate the nearest Pharmacy to him or her. By getting this access he or she can easily contact the medical stores and buy the general medicines through them. This will result in lesser time required for medicine delivery as compared to other apps which take many hours to deliver the same medicines.

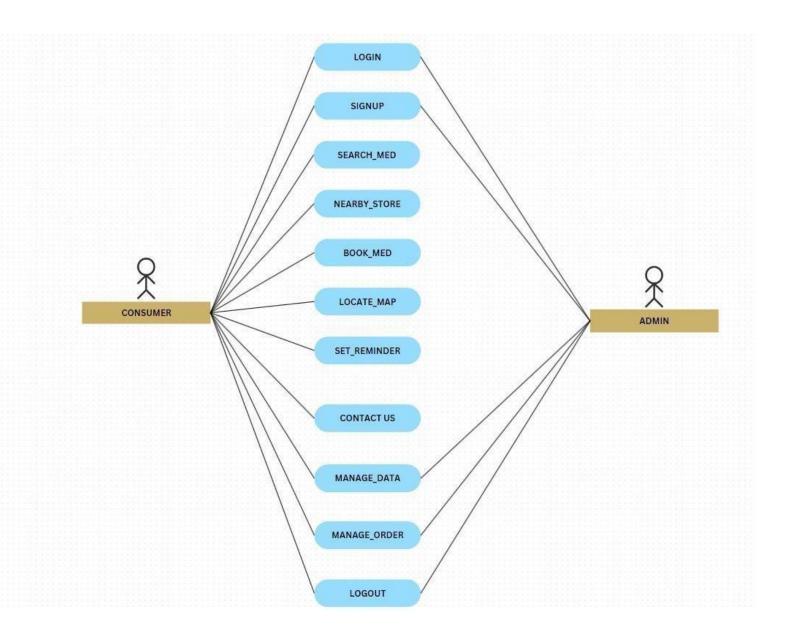
5.2.5 MEDICINE INFORMATION MODULE

This module provides concise information about common medicines, including images, usage guidelines, associated symptoms, side effects, and precautions. It serves as a user-friendly educational resource to help individuals make informed decisions about their healthcare.

5.2.6 ADDING MEDICINE TO CART MODULE

This module enables users to select medicines, check prices, adjust quantities, and place online orders effortlessly, streamlining the medication purchase process on the website

6. <u>Use Case Diagram</u>



7. ER Diagram

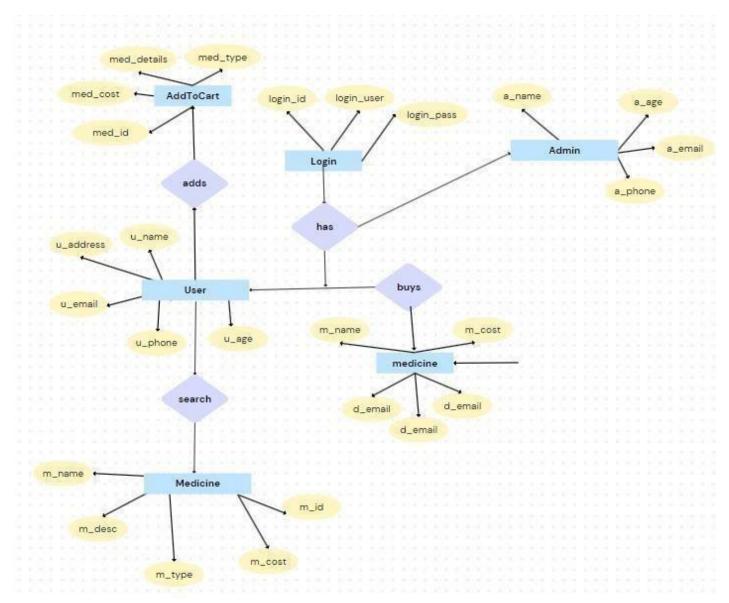


Figure- E R Diagram

8. <u>Data Flow Diagram</u>

LEVEL - 0

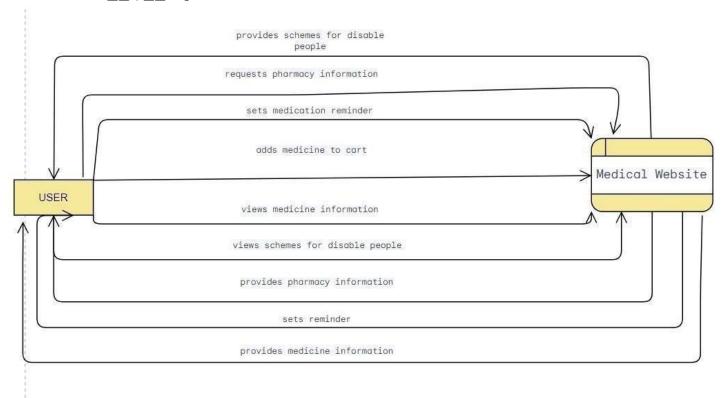


Figure- DFD LEVEL-0

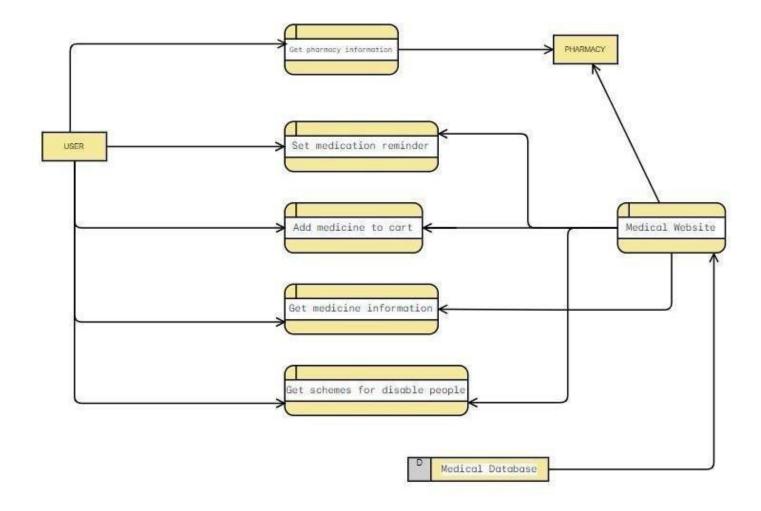


Figure- DFD LEVEL-1

9 <u>Software Architecture</u>

9.1. Login Page-

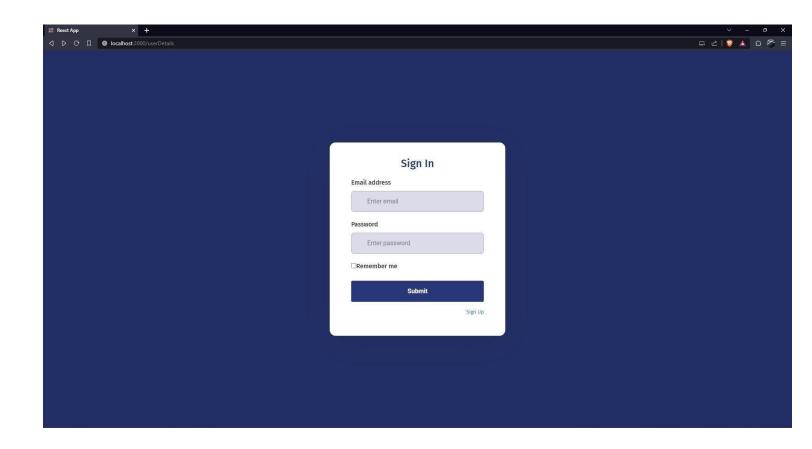


Figure Login Page

9.1.1 Login Form with details-

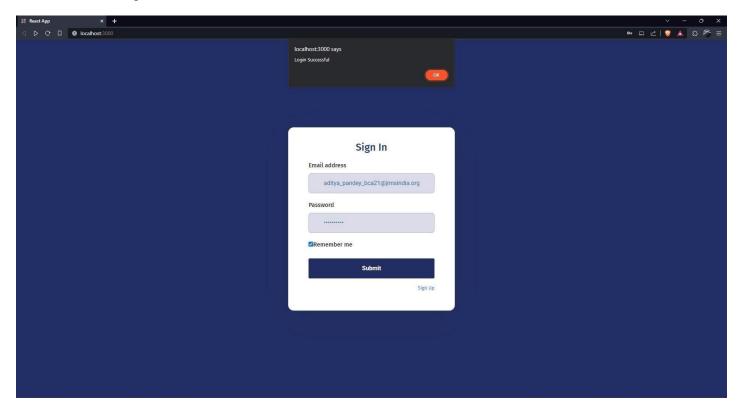


Figure Login form with Details

9.1.2 Login Form Alerts-

9.1.3

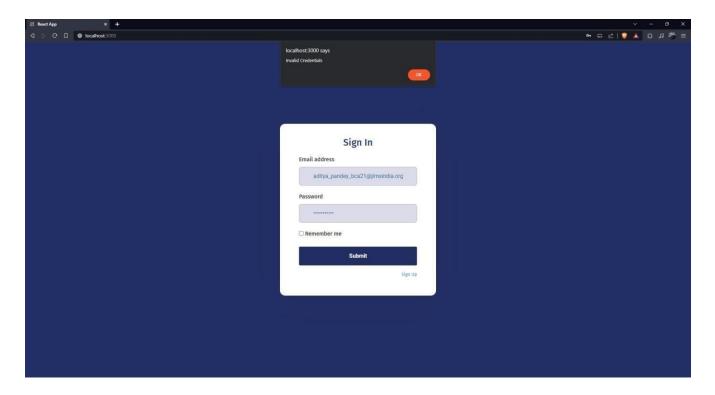


Figure Login Form Alerts

9.2 Registration Page-

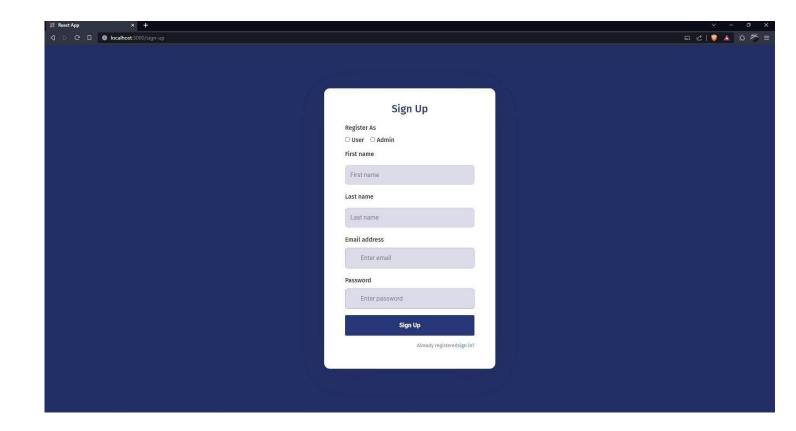
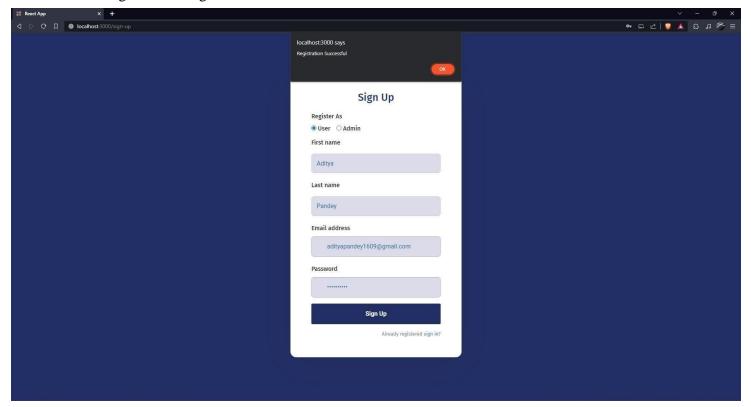


Figure Registration Page

9.2.1 Registration Page with Data-



Registration Page with Data

9.3. Home Page

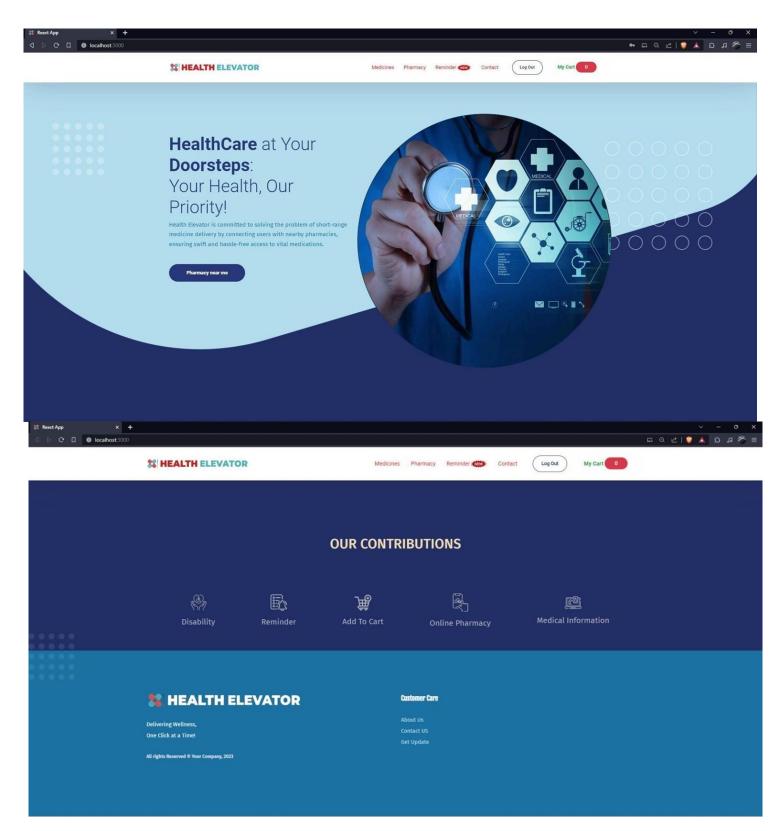


Figure Home Page

9.4 Pharmacy near me -

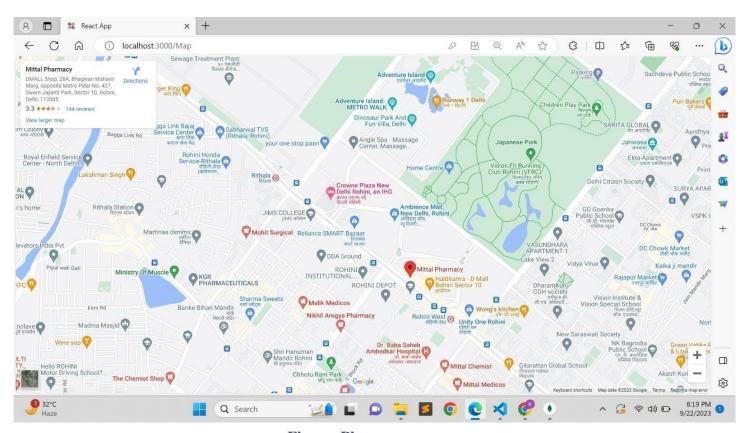


Figure Pharmacy near me

9.5 Setting Medicine Reminder –

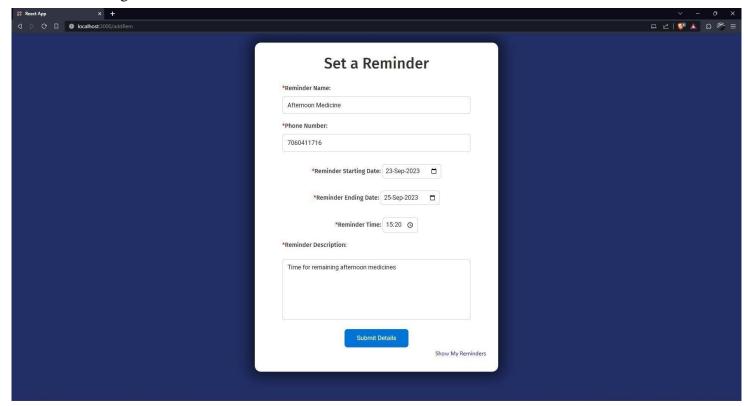


Figure Setting Medicine Reminder

9.6 Reminder Alert

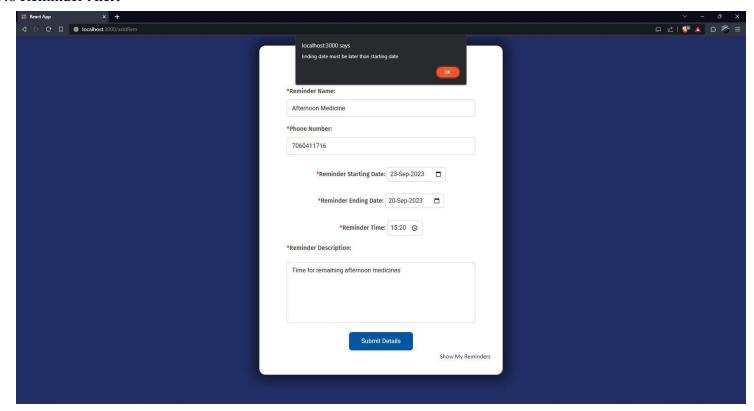


Figure Reminder Alert

9.7 Medicine Reminders entered by user –

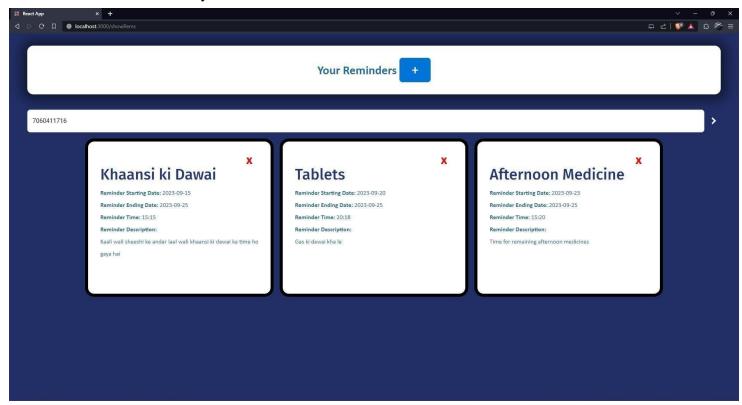


Figure Medicine Reminders Entered by user

9.8 Reminder on WhatsApp

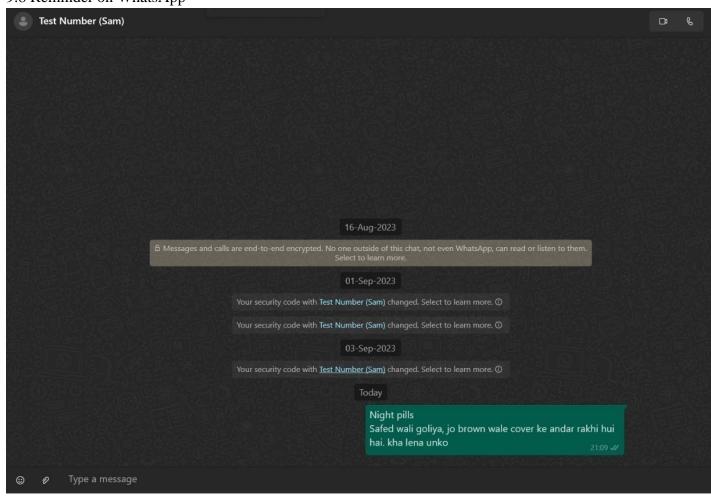


Figure 32 Reminder on WhatsApp

9.9 Add Medicine to cart –

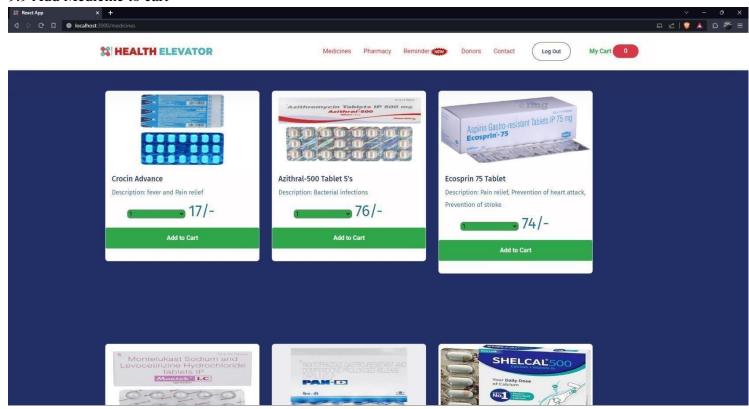


Figure 32 Add medicine to cart

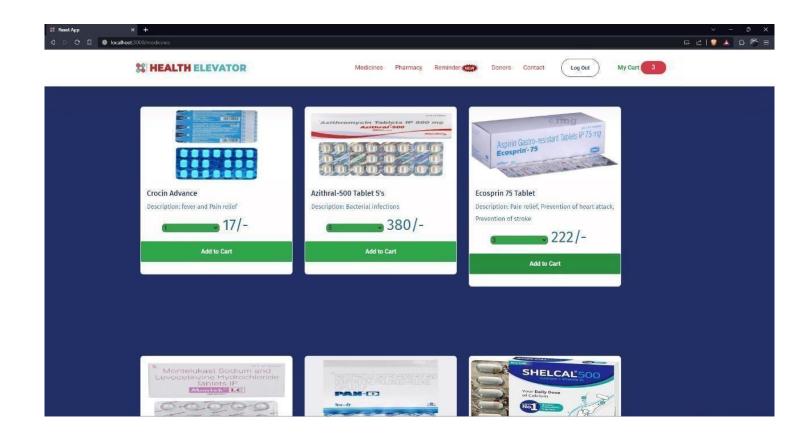


Figure Adding several medicines to cart

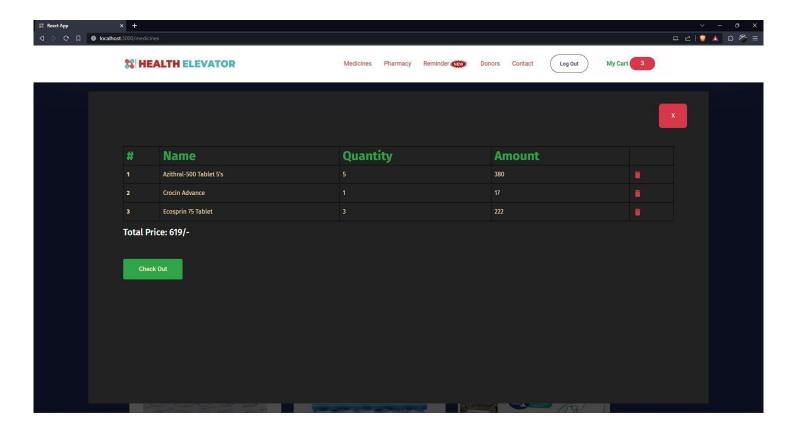


Figure Cart

9.10 Successful Checkout-

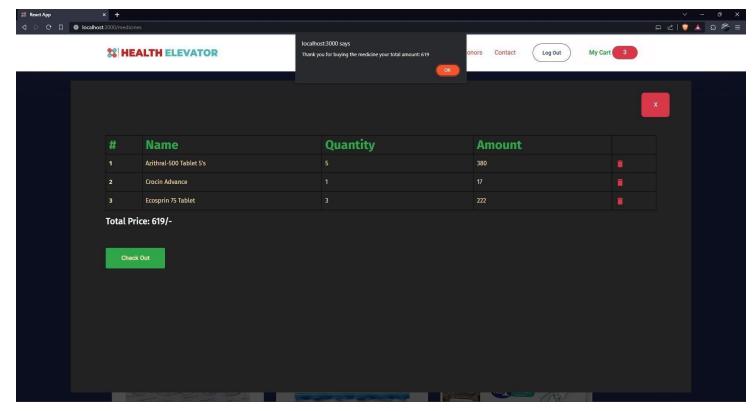
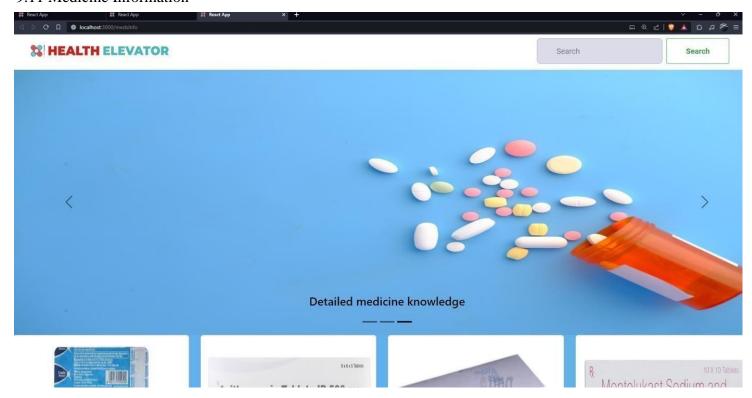


Figure 32 Successful checkout

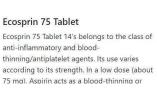
9.11 Medicine Information -















Montek LC Tablet

Montek LC Tablet 10's belongs to a class of drugs called antihistamines or anti-allergics. It treats sneezing, runny nose, and allergic skin conditions due to various allergies and hay fever (seasonal allerav). An allerav is an



Dolo-650 Tablet 15's

Dolo-650 Tablet 15's Dolo-650 Tablet 15's belongs to the group of medicines called analgesics (pain killers), and antipyretics (fever-reducing agents) used to reduce fever and treat mild to moderate pain. Also, it is used to relieve headache, migraine, toothache, period pain, back pain, muscle pain and rheumatic pains. Pain and fever are caused by the activation of pain receptors due to the release of certain natural chemicals in the body like prostaglandin.

Uses of Dolo-650 Tablet 15's

Fever, Pain relief



Solvin Cough Tablet 10's

Solvin Cough Tablet 10's belongs to a class of medication called 'cough and cold preparations' primarily used to treat cough due to runny nose, sneezing, and throat irritation. Coughing (dry or productive) is the body's way of clearing irritants (like allergens, mucus or smoke) from airways and preventing infection. Your doctor will recommend the dose and duration of Solvin Cough Tablet 10's based on your medical condition.

Uses of Solvin Cough Tablet 10's



Paracip-650 Tablet 10's

Paracip-650 Tablet 10's belongs to the group of medicines called analgesics (pain killers), and antipyretics (fever-reducing agents) used to reduce fever and treat mild to moderate pain. Also, it is used to relieve headache, migraine, toothache, period pain, back pain, muscle pain and rheumatic pains

Uses of Paracip-650 Tablet 10's Fever. Pain relief



Combiflam Tablet 20's

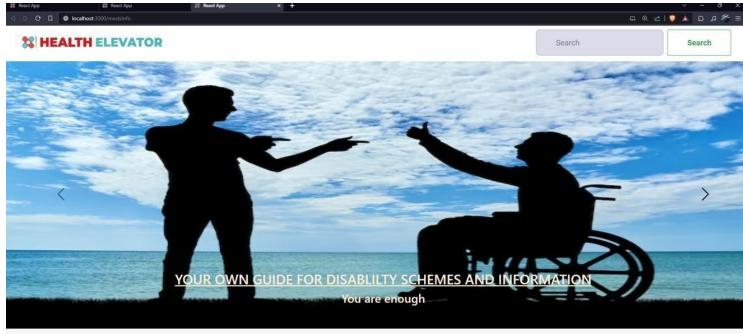
Combiflam Tablet 20's belongs to a class of painkillers called non-steroidal anti-inflammatory drugs (NSAIDs). It relieves symptoms of muscle pain, arthritis pain, dysmenorrhea (painful periods or menstrual cramps), and dental pain and reduces fever. Pain can be temporary (acute) or long-lasting (chronic). Acute pain is for a short time caused by damage to the tissues of the muscle, bone, or other organs

Uses of Combiflam Tablet 20's

Muscle pain, Arthritis pain, Headache, Migraine, Backache: Dental pain. Fever

Figure 36 Medicine Information

9.12 Disability Schemes and support -



Unique Disability ID

About UDID(Unique Disability ID)

Unique Disability ID

About UDID(Unique Disability ID)

The UDID project initiated by Department of Empowerment of Persons with Disabilities aims at building a holistic end-to-end integrated system for Issuance of Universal ID & Disability Certificates for Person with Disabilities with their identification and disability details. It includes -

- Online availability of data of Person with Disabilities across country through a centralized web application
- Online filing and submission of registration application form for disability certificate/ Universal ID card; Offline applications may also be accepted and subsequently digitized by agencies
- Quick Assessment process for calculating the percentage of disability by the hospitals/ Medical Board
- · Non-duplication of PwDs data
- Online renewal and update of information by Person with Disabilities/ on their behalf
- MIS reporting framework
- Effective management including interoperability of the benefits / schemes launched by the Government for PwD
- To take care of additional disabilities in future. Number of disabilities at the moment is seven and shall be subject to increase as per the new Act/ notification which can be up to 19 or more

FAQ's

What is UDID card?

UDID Card or Unique Disability Identity card is an initiative by Government of India with a view of creating a National Database for PwDs, and to issue a Unique Disability Identity Card to each person with disabilities. This aims to encourage transparency, efficiency and ease of delivering the government benefits to the person with disabilities, and to ensure uniformity.

Who can apply for UDID Card and where to apply for UDID card?

Any citizen of India with full/partial disability can apply for UDID card at the websitehttps://www.swavlambancard.gov.in/

What are the documents required for applying for the UDID card?

A coloured photo, Disability Certificate (If already has) and Address Proof.

How many digits/characters are there in the UDID Card?

The UDID card has a total of 18 digits/characters. The first 2 characters represent State Code, next 2 digits for district code, next 1 digit for CMO code, next 2 digits for disability type, next 4 digits for year of birth of PwD, following 6 digits for running number and the last digit for check sum which is involved for security reason.

What is the process of UDID Card generation

- The PwD needs to apply through the portal for a fresh UDID card or for a renewal of UDID card in case of temporary UDID card has been
- The application reached to the notified Chief Medical Officer (CMO) or District Medical Officer (DMO) of the PwD's resident district as the case may

Disability Schemes

State / UTs Name	Disability Type	Scheme Name	Disability Benefits Criteria	Type of Benefits
All State / UTs	Blindness	Travelling Allowance for Attendant or Escort	Special Benefit	Allowances
All State / UTs	Hearing Impairment	Chochlear Implant Surgery under ADIP	40% Disability	Misc Benefits
Chhattisgarh	Locomotor Disability	Age Relaxation for Motorized Tricycle ADIP Scheme	40% Disability	Misc Benefits
Kerala	Intellectual Disability	Niramaya	40% Disability	Financial Assistance
Madhya Pradesh	Blindness	Nishashkt Vivah	60% Disability	Allowances
Puducherry	Acid Attack Victim, Autism Spectrum Disorder, Blindness, Cerebral Palsy, Chronic Neurological Conditions, Hearing Impairment, Hemophilia, Intellectual Disability, Leprosy cured, Locomotor Disability, Low Vision, Mental Illness Multiple Sclerosis, Muscular Dystrophy, Parkinson's Disease, Short Stature/Dwarfism, Sickle Cell Disease, Specific Learning Disabilities, Speech and Language Disability,	FREE SUPPLY OF CLOTHING ITEMS	40% Disability	Financial Assistance

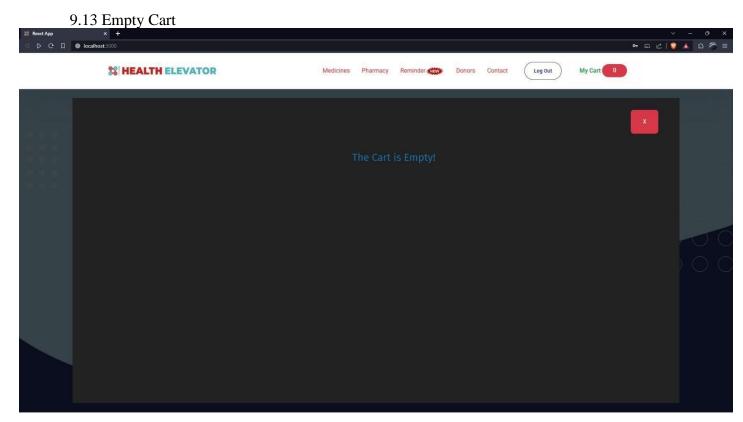


Figure 33 Empty Cart

9.14 Logout Page -

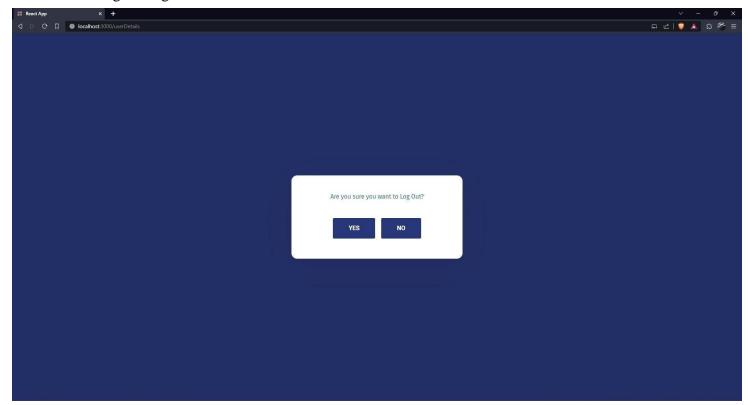


Figure Logout Page

9.15 Medicine Information -

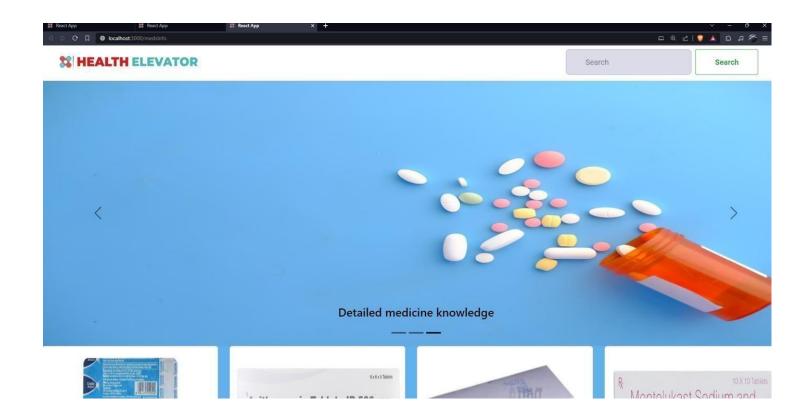


Figure Medicine Information

9.16 Database of Reminder –

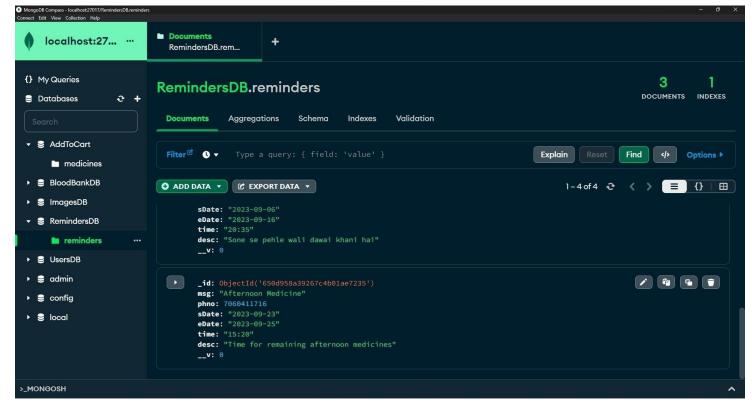


Figure Database-1

10. RESULTS & CONCLUSION

10.1 RESULT

The development of the website has been successfully completed with the results of all the tests being very positive with minute bugs found and fixed. There have been no issues regarding the website and is serving its purposes very efficiently. The website also ensures the optimization of each unit leads to faster overall execution time.

The technical advantages of the website are:

- All Source data at one place.
- Easily Available\ Easy access

Table 6 Result Table

S.NO	MODULES	DESCRIPTION	RUN TIME
1	Register Page	Get yourself registered	1 Sec
2	Login Page	Contains the Login Credentials	2 Sec
3	Home Page	Select different functionalities	2 Sec
4	Reminder Page	Helps the user to set the reminder for daily medicines with description of the med.	3 Sec
5	Disability Schemes Page	Let's the user access the information about government schemes for disable people in India.	1 Sec
6	Nearest pharm acy Map Page	Helps the user to view nearest pharmacies	2 Sec

7	Medicine Information Page	Showcases the information related to daily-use general medicines	1 sec
8	Add to Cart Page	Lets the user add the medicines that he or she wants to buy	3 sec
9	Logout Page	Exit from the app	1 sec

10.2 FUTURE SCOPE

- Blood and Organ donor network
- Live location tracking of the user and providing the nearest pharmacy via the usage of Google Maps(paid)
- User sending prescription through the website directly to the pharmacist.

10.3 CONCLUSION

Health Elevator represents a transformative solution addressing critical healthcare challenges in India. By streamlining short-range medicine delivery and offering a wealth of healthcare functionalities, it aims to enhance accessibility and efficiency in the healthcare sector. Through user-centered features and a commitment to safety, Health Elevator aspires to empower individuals to take control of their healthcare needs. As it continues to grow and innovate, it holds the potential to make a lasting and positive impact on healthcare accessibility and outcomes in India

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These sources provide a mix of theoretical insights and practical tools, supporting the development of the tour and travel system.