A PROJECT REPORT ON

MEDICARE TRACK Medicine Ordering App

SUBMITTED IN PARTIALFULFILLMENT OF DIPLOMA IN ADVANCED COMPUTING (PG-DAC)



UNDER THE GUIDANCE OF Mr. Pratik Dhole

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AT

ADVANCED COMPUTING TRAINING SCHOOL, CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING PUNE

ACKNOWLEDGEMENT

The project "Medicare-Track" was a great learning experience for us and we are submitting this work to Advanced Computing Training School (C-DAC ACTS, Pune).

We are very glad to mention the name of Mr. Pratik Dhole for his valuable guidance to work on this project.

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From:

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ABSTRACT

Medicines are one of the most important factors that are necessary to take care of person's health. The traditional system does not provide sufficient medicines in medical shops. Sometimes the user faces the insufficiency of medicines, leading to various difficulty. During the period of illness, user faces the difficulty to reach medical shop.

The main aim of developing this application is to supply the medicines all over the country by just a single click and to reduce the time consumption. Online pharmacy is a web-based application.

The user can post requirement for medicine. The User can purchase medicine online. Medicine is provided at your doorstep by the nearest associate store. The prescription is mandatory for ordering medicine. As per the prescription, the user can search medicine and useful information.

This application provides information for daily consumption of medicine. This application provides user login to the customer. And admin can also get the all-expired medicines information and he can see all orders information of clients and even modify it.

The proposed system most helpful in any critical situations and provide medicines without any restrictions through online platform. This system is most helpful in pandemic situations like, covid.

INTRODUCTION

Medicare-Track is an e-pharmacy that operates through the internet, providing pharmaceuticals and medicines and delivering them to clients' homes. As we can see, travelling out when we're sick to acquire prescriptions, or in circumstances where one medical store doesn't have all the meds we need, forcing us to search for another medical store, is a huge burden that takes time and energy.

So, this application aims to reduce this, making things easy and convenient with the use of internet. Shopping of medicines and other medical products online is a good deal because it saves time, money, fuel and lots of other problems including traffic jam, natural disasters etc.

Online medical shopping web application is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing web sites providing functionality for performing online medicine shopping over the web. It is reasonable to say that the process of shopping on the web is becoming commonplace.

This web application is to reduce hardships faced by the existing system, also offers low-cost ownership. Moreover, this system is designed by the particular need of the all users to carry out operations in a smooth and effective manner.

As many cases are seen where illegal selling of drugs is being reported, so to reduce this admin will supervise each of the order placed and ensure that the prescription will be properly analyzed by the doctor then only customer will be able to receive order, in addition all the medicines will be verified and certified by the pharmacist before delivery.

PROJECT OVERVIEW AND SUMMARY

1. PURPOSE

Our project, "Medicare-Track" is a web-based online E-Pharmacy portal which aims to provide admin with functionalities to manage medicines in the inventory. And provides the facilities to users to purchase it at the comfort of their home.

2. SCOPE

It provides the user catalogue of different products available for purchase in the store. In order to facilitate online purchase, a shopping cart is provided to the user. User can login to the site, add medicines to the cart, place order, cancel order, etc. This project also provides an easy access to Administrators to add medicines, update stock, view orders, modify orders, etc.

It's assumed that the organization that implements it will be using third-party platform for delivery and payment of the medicine. Also, an API which can easily be integrated in our application can be created in future if needed. Medeasyin is a portal for both the seller and the buyer of the medicine.

3. OVERVIEW: TECHNOLOGIES USED

FRONT END

HTML, CSS, Bootstrap, JavaScript, React-JS

BACK END

Spring MVC, Spring Boot, Spring Data JPA, Spring Security, Spring ORM

DATABASE MANAGEMENT SYSTEM MySQL

4. FEATURES PROVIDED:-

FOR USERS:

- Register Users can register themselves to buy medicines by providing basic details.
- Login Successfully registered users can log in Using Email And Password provided during registration
- View Products:-Customer can view all Products
- Add To Cart: -Customer Can Add Product to cart
- View Cart : Customer can view Products in Cart
- Update Quantity in Cart :- Customer can Increase or Decrease quantity in the cart
- View My Orders :- Customer can view his all Orders placed
- Place Order: -Customer can Place Order of the Medicines
- Cancel Order: Customer can cancel Placed Orders
- Logout After utilizing the portal, students can Logout of the portal.

FOR ADMINS:

- Register :- User can register as a Admin
- Login & Logout :-Admin can Login And Logout into there respective Accounts
- Add Category :- Admin can add Medicine Category
- Add Product : Admin can add product in a particular Category
- View all Orders:- Admin can view Orders from all Customers
- Update Order Status :- Admin can update status of Orders placed by customers
- Update Product :- Admin can update Name, Stock etc. of a Products
- View All Users:- Admin can view all Users Registered

FEASIBILITY STUDY

Feasibility is the determination of whether a project is worth undertaking or not. Before actually recommending the new system, it is important to investigate if it is feasible to develop it. Before developing and implementing a system, we have to make sure that the system is feasible in the following ways:

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 the available manpower, software, hardware, etc. This project makes use of cross-platform software and solutions like Java, and hence can run on any operating system. JavaScript, used in front-end, is swift and versatile framework when it comes to delivering the requested page. Also, as JavaScript ispopular, it is easy to learn it and utilizing it as front end technology. The combination of Spring Boot, Spring Data JPA and Spring Security for backend make for a fast, easy to set-up and reliable system to interact with the database, asthey are secure and transactional in nature. Since the sensitive data of customers and admins need to be stored in a robust and secure database, MySQL database management system was chosen as it is an industry standard.

OPERATIONAL FEASIBILITY

In this type of feasibility study, the operation of the system is considered. An analysis is performed on whether it is feasible for the customer department to use the application. Thus, the proposed system is said to be operationally feasible only if clients are able to understand the system clearly and correctly, and can use it with ease.

In the design of this project, we always kept user experience in mind. We made an effort to have a good user interface with consistent theme and good design to keep the users interested and engaged. In our project, the use of universally known icons and instructions that are easy to understand makes sure that the user will not need any special technical know-how to use the application. We made sure that the informationavailable throughout the application is arranged in a logically coherent and consistent manner, guaranteeing that the users will have a smooth and effortless experience and even enjoy using the application.

ECONOMIC 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. All the software and technologies used in our project free, open-source, and widely available, with each of the technologies having an extensive community support. This makes "Medicare-Track" an economically feasible solution to implement it.

REQUIREMENTS FULFILLED

FUNCTIONAL REQUIREMENTS

Following are the functional requirements fulfilled by our project:

- Users can register themselves by providing Basic Details
- Users Can View Medicines, Add Medicines to Cart, Place Order
- User can view all his Orders placed recently or previously
- Users can cancel Orders
- Admin can add category, add Medicines.
- Admin can update existing Medicines
- Admin can view all Users, can update all orders status

NON-FUNCTIONAL REQUIREMENTS

Following are the non-functional requirements fulfilled by our project:

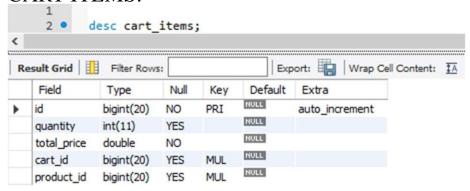
- Since the application uses lightweight and established software components that are also cross-platform, it is remarkably performant and has good support for every operating system.
- The use of ReactJS for front end and Spring Boot, Spring Data JPA and Spring Security for back end delivers quick response times to admins and Customers.
- Card-style UI and well-known icons and symbols used throughout the application provides a consistent theme and user-friendly interface that anyone can grasp easily, even without a technical background.

PROJECT DESIGN

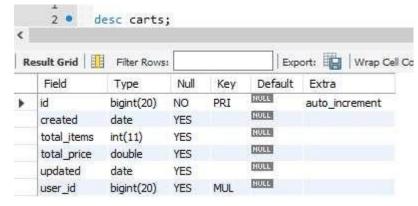
DATA MODEL

The following tables depict the database design used for "CDAC APP" application: Tables for Registration and Login

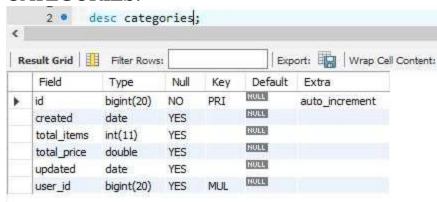
CART ITEMS:



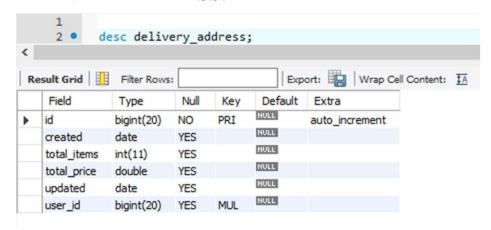
CARTS:



CATEGORIES:



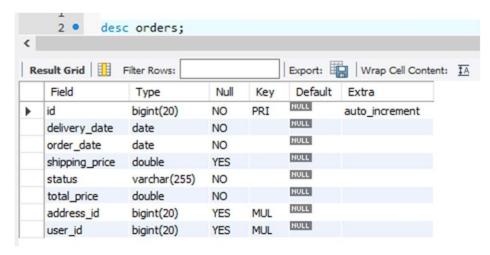
DELIVERY ADDRESS:



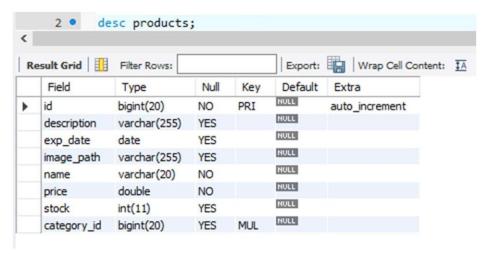
ORDER DETAILS:



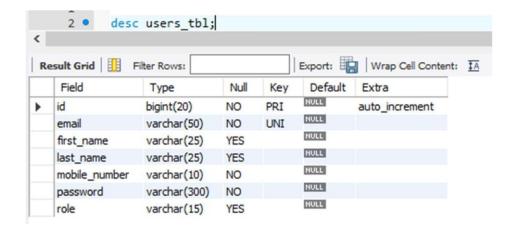
ORDERS:



PRODUCTS:



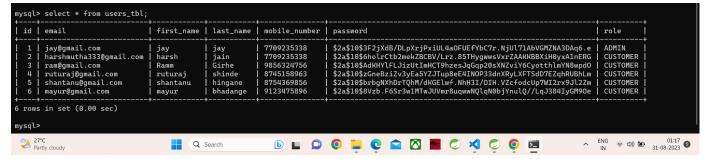
USERS TABLE:



Data flow in database:

```
mysql> use medicare;
Database changed
mysql> show tables;
+------+
| Tables_in_medicare |
+------+
| cart_items |
| carts |
| categories |
| delivery_address |
| order_details |
| orders |
| products |
| users_tbl |
+------+
8 rows in set (0.01 sec)
```

Users in user table:



Cart table getting updated after product added in cart:

```
mysql> select * from cart_items;
                  total_price | cart_id | product_id
      quantity
  16
               2
                           1120
                                         1
                                                       2
               2
                                         1
                                                       1
  19
                             30
  23
               4
                                         3
                                                       1
                             60
3 rows in set (0.00 sec)
```

Products added to order table:

```
mysql> select * from orders;
       delivery_date |
                        order_date
                                      shipping_price
                                                        status
                                                                    total_price
                                                                                   address_id
                                                                                                 user_id
       2023-08-31
                        2023-08-29
                                                   40
                                                        DELIVERED
                                                                             430
                                                                                             1
                                                                                                        2
                                                                                             2
                                                                                                        2
   2
       2024-12-12
                        2023-08-29
                                                   40
                                                        PLACED
                                                                            1340
   3
       2024-12-12
                        2023-08-29
                                                   40
                                                        CANCELED
                                                                             430
                                                                                             3
       2024-12-12
                        2023-08-30
                                                   40
                                                        PLACED
4 rows in set (0.00 sec)
```

Cart updated after order placed and address table:

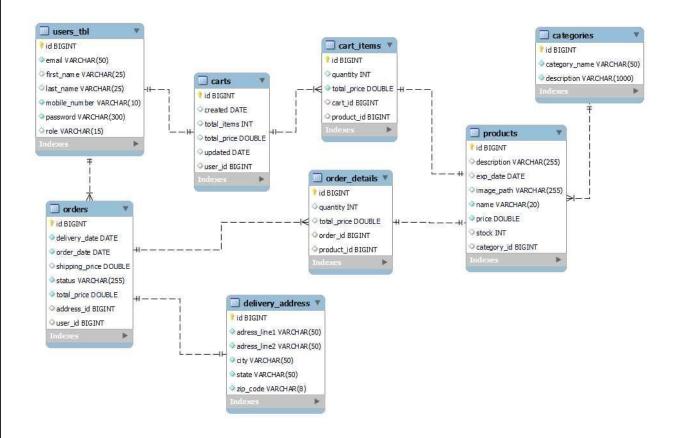
```
mysql> select * from delivery_address;
       adress_line1
                       adress_line2
                                       citv
                                                             zip_code
      shantiniketan
                       a4-1103
                                              maharashtra
                                                             425201
                                       pune
       shantiniketan
                       a4-1103
                                               maharashtra
                                                             425201
                                       pune
      shantiniketan
                       a4-1103
                                               maharashtra
                                                             425201
                                       pune
      shantiniketan
                                                             425201
                       a4-1103
                                       pune
                                               maharashtra
 rows in set (0.00 sec)
```

Products Table:



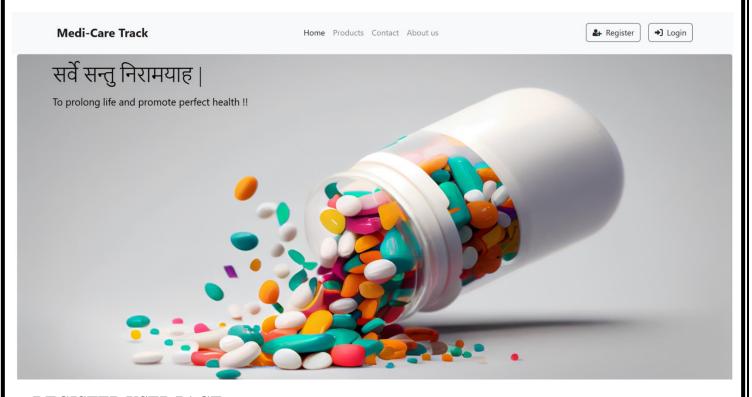
USE FLOW DIAGRAM: Register Medicare-Track Flow Diagram Sign In Add Categor Update Quantity In Cancel Orders cart Sort Meds By Category Add Medicine Update Medicine Details Opdate Orde Status Get All Users Admin Customer View All Medicnes View Orders View All Place Order Add To Cart Orders View Cart LogOut

ER-DIAGRAM:

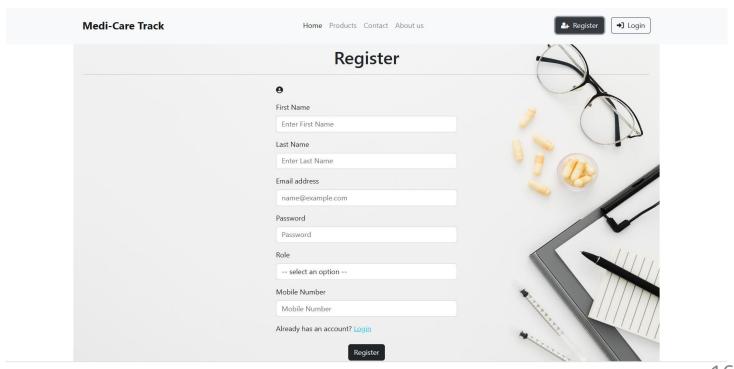


PROJECT SCREENSHOTS

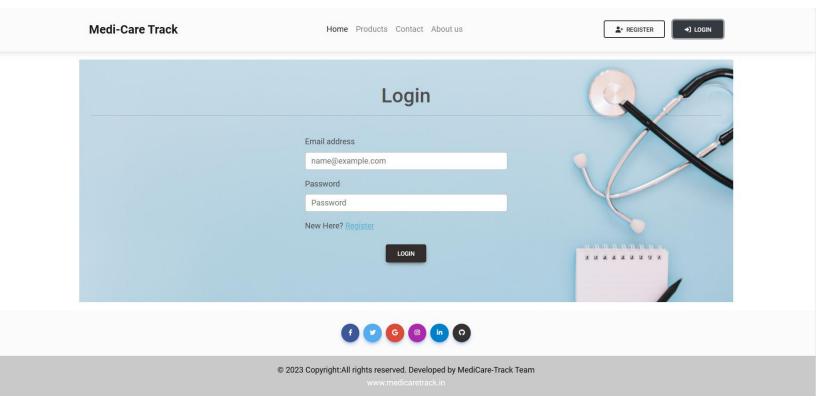
HOME PAGE:



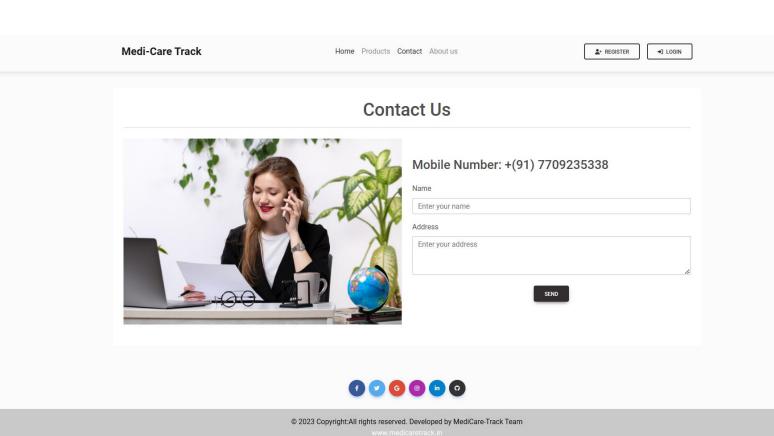
REGISTER USER PAGE:



LOGIN PAGE:



CONTACT US:



ABOUT US:

Medi-Care Track

Home Products Contact About us

2+ REGISTER

→) LOGIN

About Us

Online Medicaretrack.in It is a Online Pharmacy, ayurvedic store, Health Store - Its a one stop shop that offers effective Medical products, healthcare solutions to all those individuals who are health enthusiasts. Providing over 20,000 health and ayurvedic herbal medicines online at the lowest guaranteed price - with the highest pharmaceutical standards. We offer premium and the largest range of original health and fitness products across various categories and leading brands. We dedicate this portal to all those people who are keen to purchase healthcare products online.

The aim is to supply cheaper products to everybody who has access to the internet and deliver those products to their door. Through harnessing the power of the internet and supplying you directly, this website will save up to 75% off the cost of many well known products found in your local Medical Shop. We aim at covering various healthcare categories comprehensively which include – Diabetes, Nutrition, Sports and fitness, Body Building, Beauty care and Personel Care Produts, Mother and Baby Care and Health Devices. We enjoy comprehensive understanding of the shopper's needs and make our best efforts to cater them with an extensive choice of both Indian and globalbrands

online medical store offers a variety of key services including ayurvedic herbal pharmacy and over-the-counter medicines, vitamins and health supplements, family planning, ayurvedic herbal beauty cosmetic products, ayurvedic herbal medicine ,toiletries, electrical items and baby care products. The service is supervised by fully qualified pharmacists who are available to discuss symptoms and issues about medical problems in a confidential environment through email and oversee all medicinal purchases.

So, make a move and Happy Shopping !!!!















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ADMIN FLOW:

AFTER ADMIN LOGIN HOME PAGE:



Latest Products





DOLO 650MG TABLET contains Paracetamol which

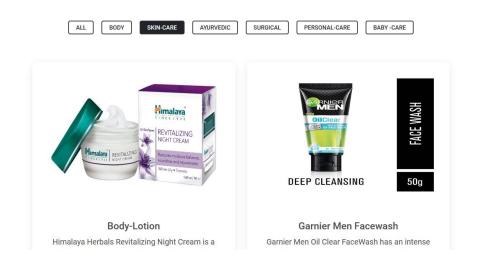




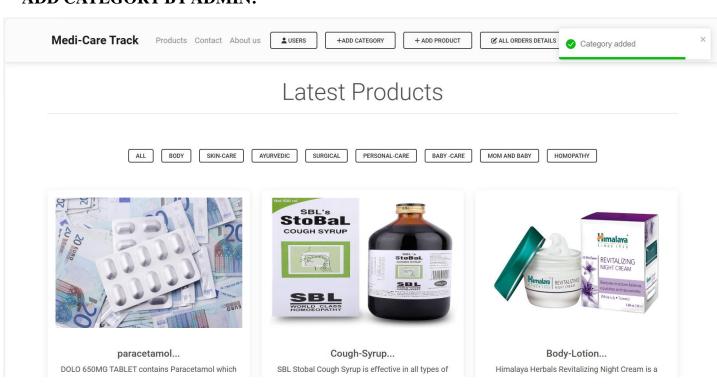
PRODUCTS SORTED BY CATEGORY (SKIN CARE CATEGORY):



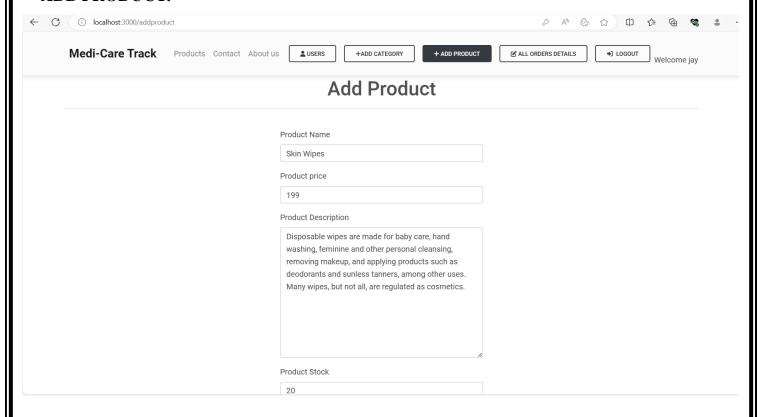
Latest Products

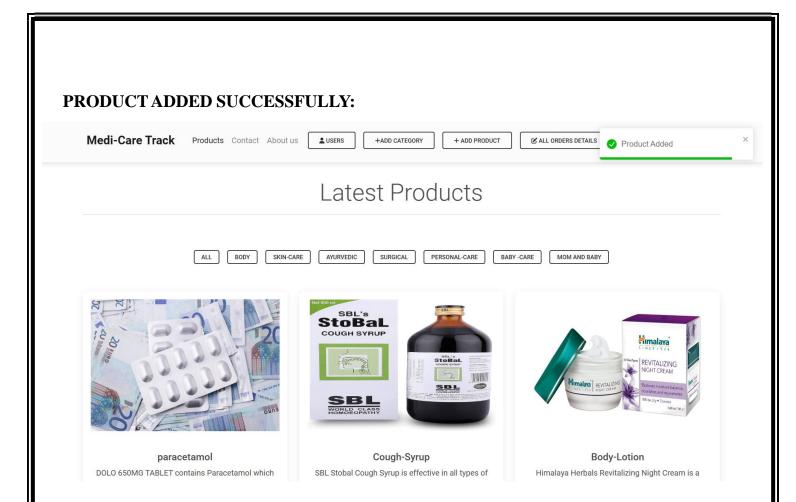


ADD CATEGORY BY ADMIN:

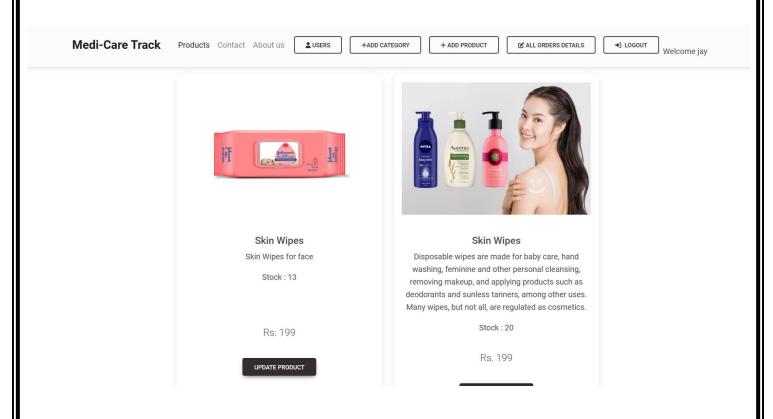


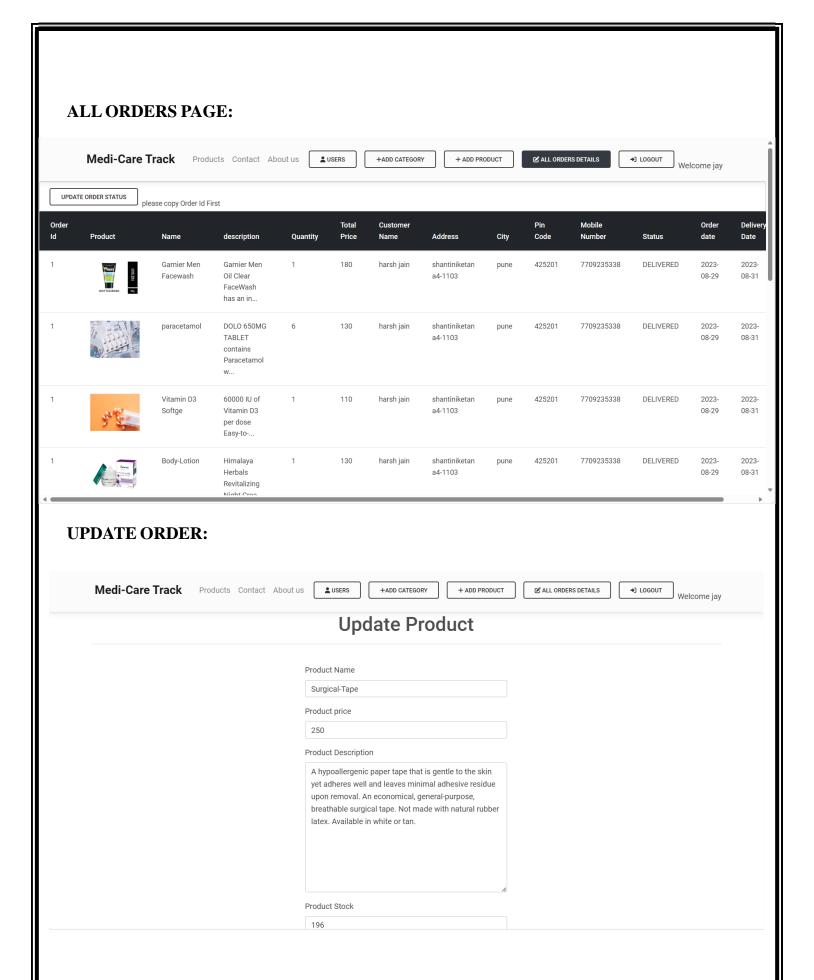
ADD PRODUCT:

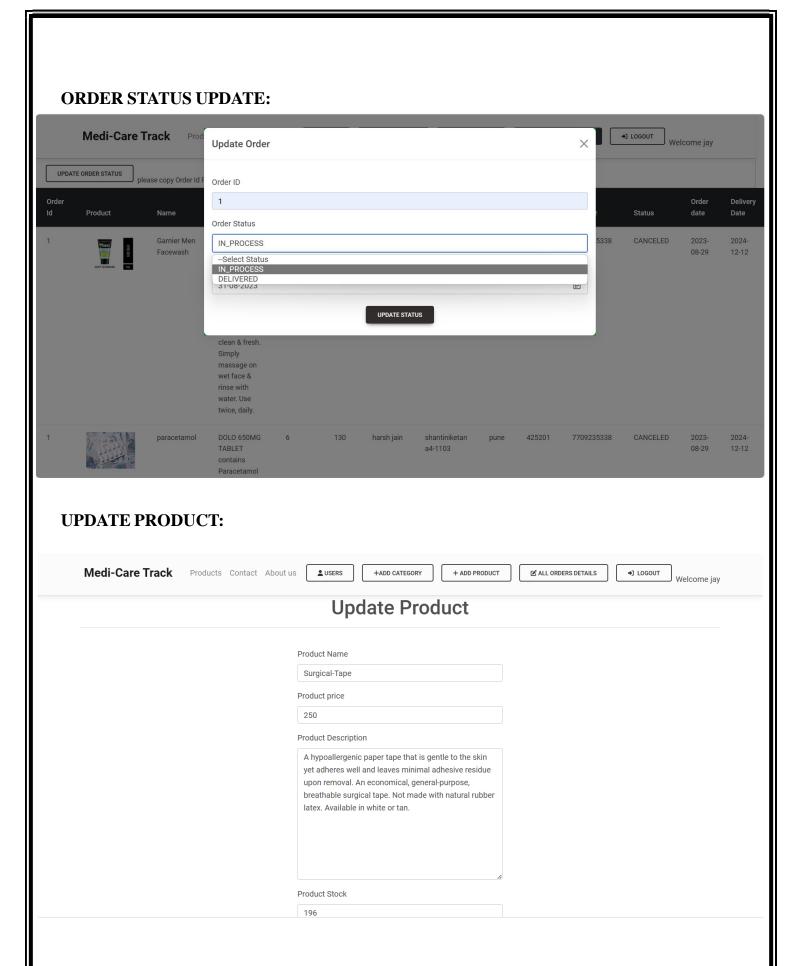


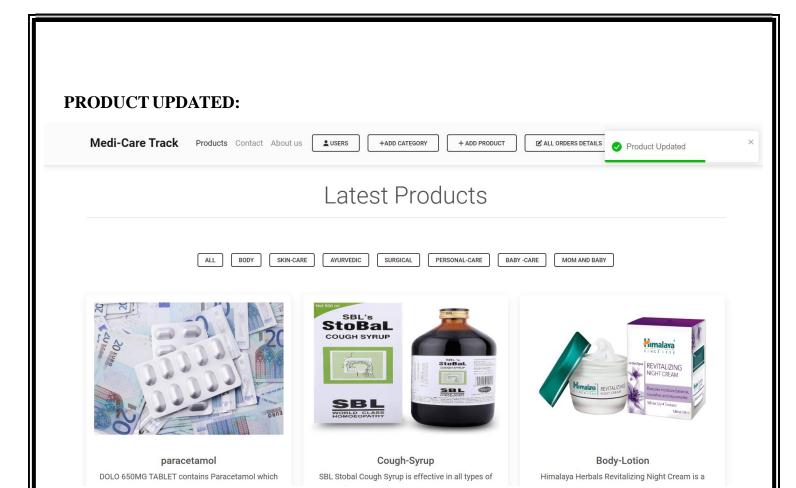


NEWLY ADDED PRODUCT IN SKIN CATEGORY:

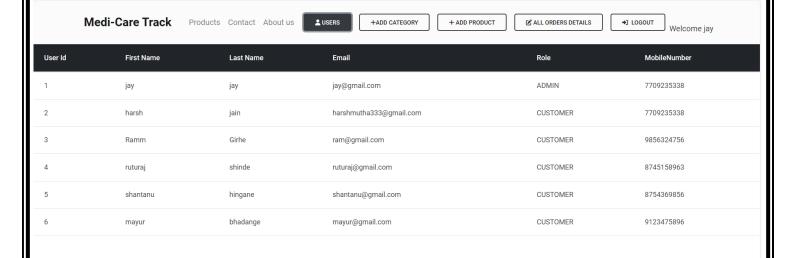


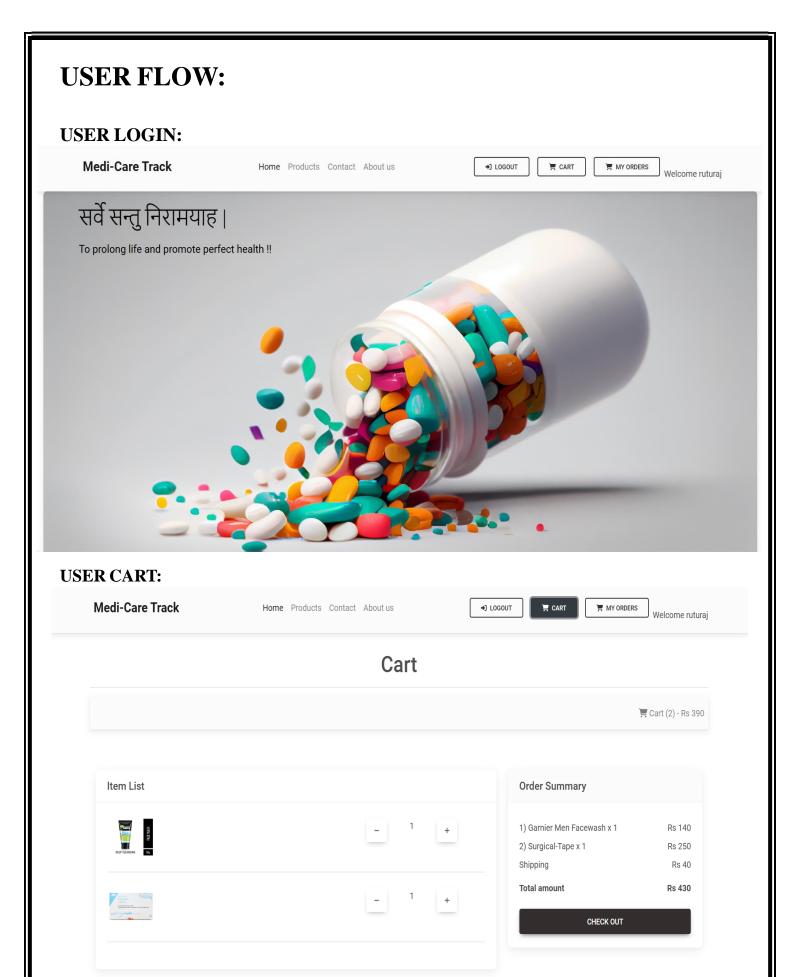


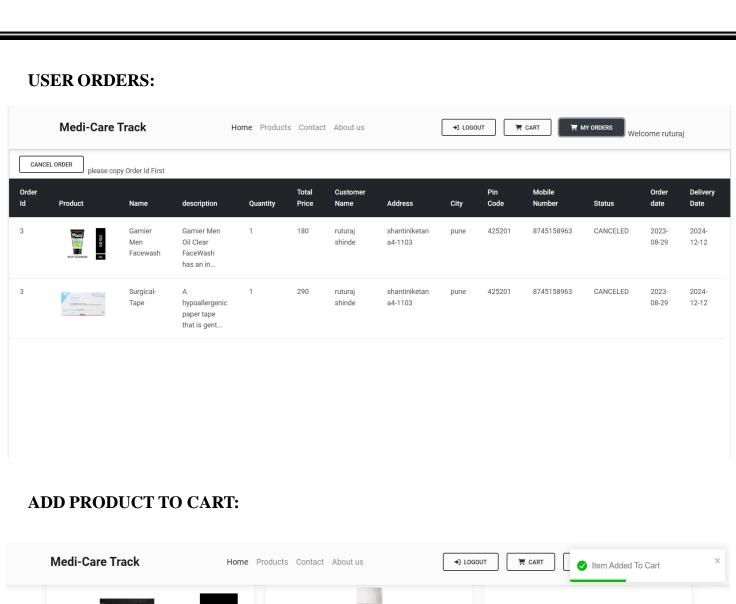


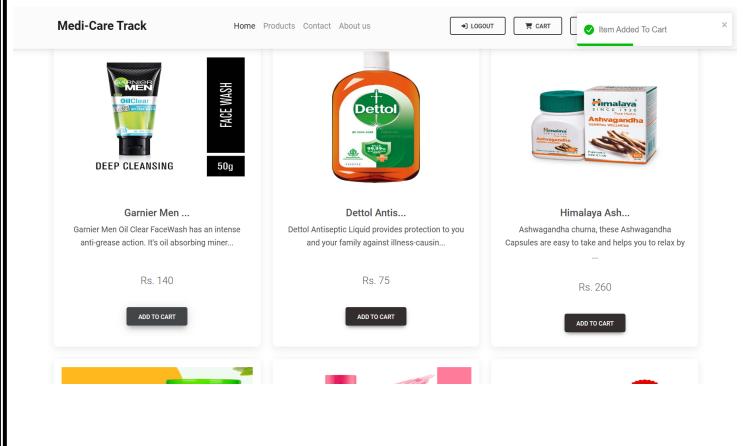


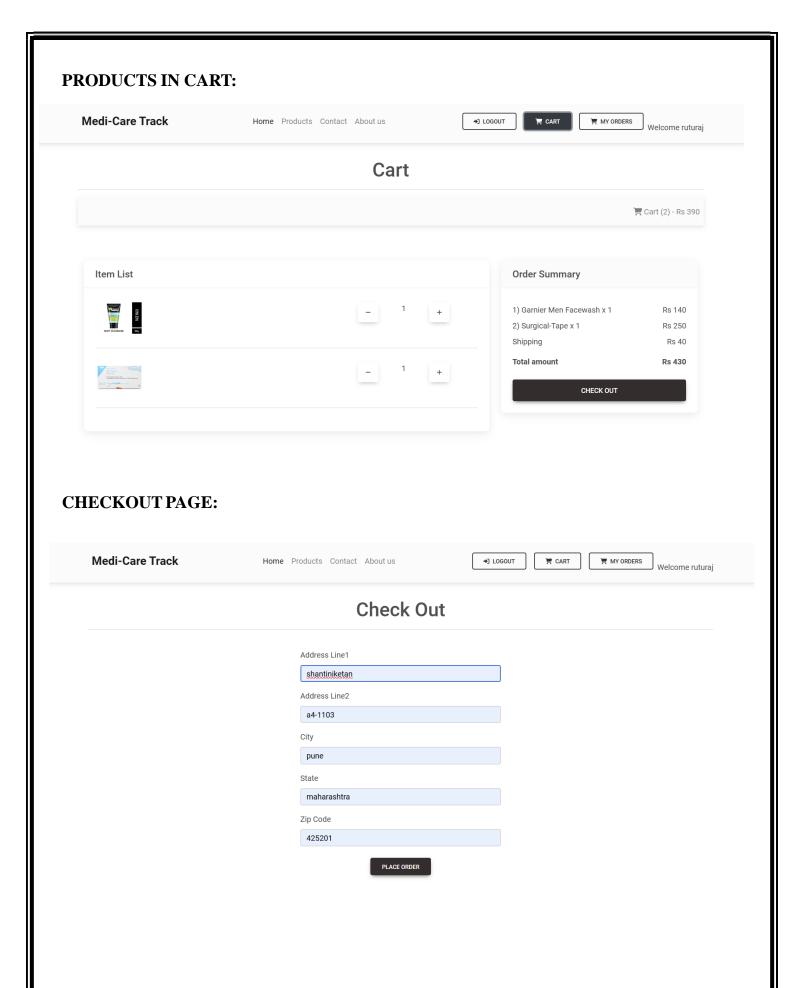
ALL USERS LIST ON ADMIN PAGE:







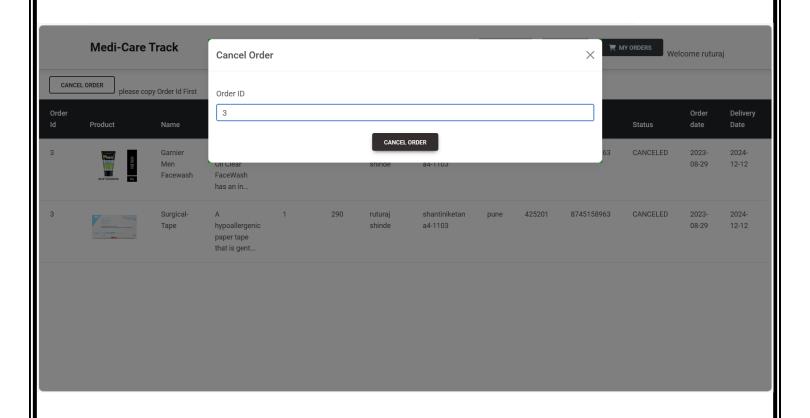


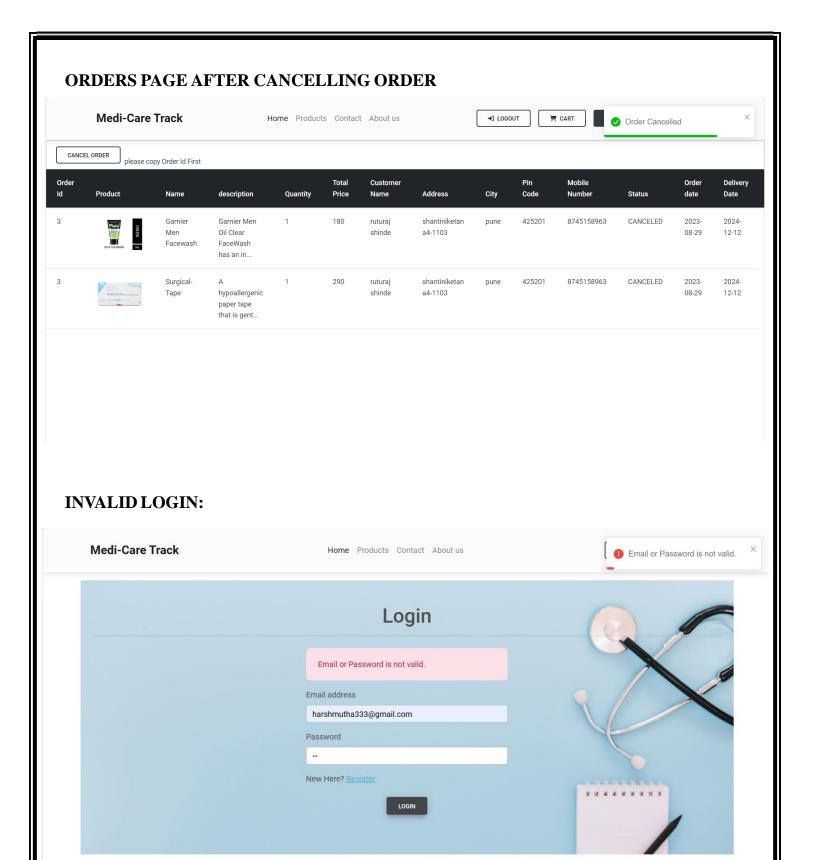


UPDATED MY ORDERS: Medi-Care Track →) LOGOUT CART MY ORDERS Home Products Contact About us Welcome ruturaj CANCEL ORDER please copy Order Id First Order Order Delivery Total Customer Pin Id Product Name description Price Name Address City Code Number Status date Quantity Date 180 shantiniketan 8745158963 CANCELED 2023-Garnier Garnier Men ruturaj 425201 2024pune a4-1103 12-12 Men Oil Clear shinde 08-29 Facewash FaceWash has an in... Surgical-290 ruturaj shantiniketan 425201 8745158963 CANCELED 2023-2024hypoallergenic shinde a4-1103 08-29 12-12

CANCEL ORDER:

paper tape that is gent...





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TESTING
One of the main purposes of testing is to validate and verify that the system works as intended. No program or system design is perfect. However, if we implement the system without proper testing, then it may cause problems and lead to a bad user experience.
Testing and checking outcomes of each test gives us the best chance to detect and correct errors before the system is implemented in a production environment.
In the course of our project, we made an effort to manually test each component. In all cases, we obtained the desired results as demonstrated below.

CUSTOMER FEATURES TEST

#	Description	Outcome	Result
1.	Register as customer	Customers can register successfully.	Passed
2.	Login as Customer	Customer can login successfully	Passed
3.	View All Medicines	Customer can view all the medicines successfully	Passed
4.	Add product to cart	Customer can add products to cart successfully	Passed
5.	View medicines according to category	Customer can filter medicines based on category successfully	Passed
6.	Customer can view medicines in their cart	Customer can view medicines in their cart successfully.	Passed
7.	Customer can place order	Customer can place order successfully	Passed
8.	Customer can view all his orders	Customer can view all the orders successfully.	Passed
9.	Customer can cancel their orders	Customer can cancel their orders successfully.	Passed
10.	Customer can add or remove quantity in the product number in cart	Customer can edit the quantity of product in cart successfully.	Passed

ADMIN FEATURES TEST

#	Description	Outcome	Result
1.	Register user as admin	Saved user in database with role as admin	Passed
2.	Login as Admin	Fetched authenticated user details saved indatabase.	Passed
3.	Admin can add category for medicine	Category added to database successfully	Passed
4.	Admin can add medicine	Medicine added to database successfully	Passed
5.	Admin can update Medicine	Medicine details are updated and added to database successfully.	Passed
6.	Admin can update order status to in-process and delivered	Order status is updated by admin successfully	Passed
7.	Admin can see all registered users	Admin can see all the registered users successfully	Passed
8.	Logout	Admin can logout successfully	Passed

CONCLUSION

"Medicare-Track" is an online medical store, was developed by our project team to provide a platform for regular customers to buy medicines. We tried using the latest technologies that are cross-platform and robust. Each and every software we used was open-source in nature, which keeps the cost of production at a minimum.

We were also meticulous about the user experience aspect of our application so that navigating our website is an easy and seamless experience.

In conclusion, "Medicare-Track" as a platform would be beneficial for customers to buy medicines from the comfort of their home. We are confident that the numerous features and visually appealing look of the platform willmake the online medical store effective for all the users and admins. This store can be scaled on higher side to add more features to it.

FUTURE SCOPE

Using whatever we have learnt over the duration of this course, we tried to make our project as user-friendly and gave it as many features as possible in the limited timeallotted for the project work. That said, there are certainly more features that can be added to our application. Some of those are mentioned below:

- Admin functionalities can be improved for larger scale.
- More number of medicines can be added in the app.
- If a user forgets password, OTP can be sent to his/her registered mobilenumber and registered Email Id to reset password.
- CAPTCHA can be added to login page.
- Delivery management can be implemented
- Prescriptions and Doctor consultation management can be added

9. REFERENCES

Following is the list of websites we referred during the course of our project:

https://getbootstrap.com/docs/5.1/getting-started/introduction/

https://www.baeldung.com/ https://www.w3schools.com/

https://docs.spring.io/spring- data/jpa/docs/current/reference

https://javaee.github.io/javaee-spec/javadocs/

https://javadoc.io/doc/org.springframework.data/spring-data-jpa/latest/index.html