# NAAN MUDHALVAN

## MERN STACK POWERED BY MONGODB

**NM Team id: Team-5657**

**PROJECT TITLE: ShopEZ E-commerce Application**

**TEAM MEMBERS:**

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**Project Summary**

The **shopEZ Ecommerce Application** is an end-to-end ecommerce platform built using the MERN stack (MongoDB, Express.js, React.js, and Node.js). Designed to cater to the needs of online businesses, it offers seamless management of products, users, orders, and payment processing. The project repository is hosted on GitHub:  https://github.com/Promodh13/ecommerce.git

**Key Objectives**

The primary goals of the shopEZ Ecommerce Application include:

- **Creating a fully operational ecommerce platform** that provides a rich and intuitive user experience.

- **Incorporating essential features**, such as user authentication, product catalog management, a dynamic shopping cart, and payment gateway integration.

- **Utilizing cutting-edge web technologies** to build a scalable and efficient solution while adhering to industry best practices.

**Core Features**

The application offers a wide range of functionalities to ensure a robust and user-friendly experience:

**Secure User Access**

- Secure login and signup using JWT (JSON Web Token)-based authentication.

- Role-based access control (RBAC) to differentiate functionalities for users and administrators.

**Product Administration**

- Comprehensive CRUD (Create, Read, Update, Delete) operations for product handling.

- Integrated image upload functionality for product visualization.

**Dynamic Shopping Cart**

- Real-time add-to-cart and remove-from-cart features for seamless shopping.

- Immediate updates reflecting cart changes dynamically.

**Efficient Order Handling**

- Streamlined order placement, status tracking, and access to order history.

- Administrative control over order statuses for improved processing.

**Responsive Interface**

- Fully optimized user interface for both mobile and desktop devices, ensuring a smooth experience across all platforms.

**Setup and Installation**

To set up and run the application locally, follow these steps:

**Step 1: Clone the Repository**

git clone https://github.com/Promodh13/ecommerce.git

**Step 2: Navigate to the Project Directory**

cd NM_MERN_Ecommerce_Application

**Step 3: Install Dependencies**

For the server:

cd server

npm install

For the client:

cd ../client

npm install

**Step 4: Run the Application**

- **Start the Server**
  In the terminal, run:

- cd server

- node index.js

- **Start the Client**
  In a separate terminal, run:

- cd client

- npm start

The client will launch on http://localhost:3000 (or your configured port).


**Technology Stack**

- **Frontend**: React.js for building user interfaces, Redux for state management, and Bootstrap/Material-UI for UI components.

- **Backend**: Node.js with Express.js for building the server-side logic.

- **Database**: MongoDB for efficient data storage and management.


**Strengths and Benefits**

- A comprehensive feature set covering all essential functionalities of an ecommerce platform.

- A clean, modular, and well-organized codebase for ease of maintenance.

- Scalability due to the adoption of modern technologies and frameworks.

- A responsive and user-centric design to enhance the user experience on all devices.

**Areas for Improvement**

To further refine the application, the following enhancements are recommended:

- **Expand Test Coverage**: Incorporate automated testing frameworks like Jest or Mocha to ensure code reliability.

- **Optimize Database Performance**: Improve query efficiency to handle larger datasets with minimal performance impact.

- **Enhance Security**: Implement rate limiting, two-factor authentication (2FA), and other measures for improved data protection.

- **UI/UX Upgrades**: Introduce polished design elements to improve the overall aesthetic appeal and user interaction.

**Closing Remarks**

The **shopEZ Ecommerce Application** is a robust ecommerce solution showcasing the potential of the MERN stack. With its rich feature set and intuitive user interface, it is a promising candidate for a production-ready platform. By implementing the proposed improvements, shopEZ can meet a wide range of business requirements effectively.
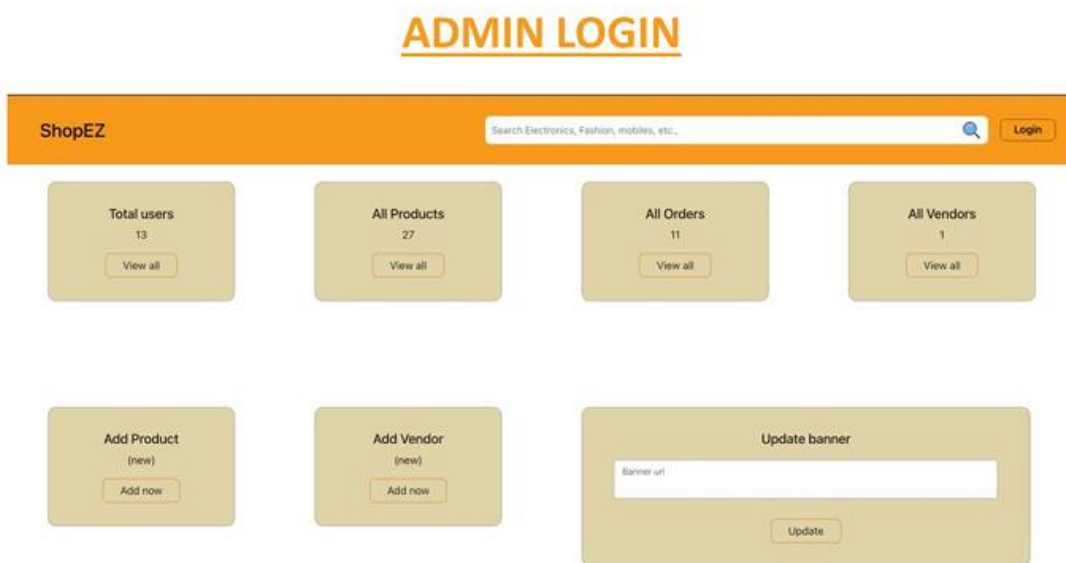
# ADMIN LOGIN

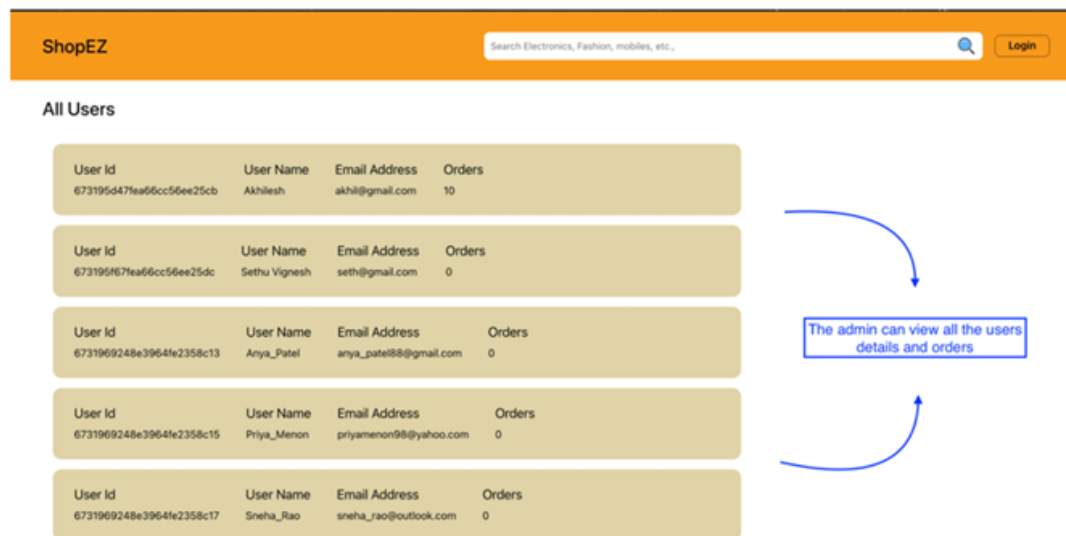**ShopEZ**    Search Electronics, Fashion, mobiles, etc.,    🔍  Login

| Total users | All Products | All Orders | All Vendors |
|---|---|---|---|
| 13 | 27 | 11 | 1 |
| View all | View all | View all | View all |

| Add Product | Add Vendor | Update banner |
|---|---|---|
| (new) | (new) | Banner url |
| Add now | Add now | Update |

Figure: 01 -shopEZ HomePage

**ShopEZ**    Search Electronics, Fashion, mobiles, etc.,    🔍  Login

## All Users

| User Id | User Name | Email Address | Orders |
|---|---|---|---|
| 673195d47fea66cc56ee25cb | Akhilesh | akhil@gmail.com | 10 |

| User Id | User Name | Email Address | Orders |
|---|---|---|---|
| 673195f67fea66cc56ee25dc | Sethu Vignesh | seth@gmail.com | 0 |

| User Id | User Name | Email Address | Orders |
|---|---|---|---|
| 6731969248e3964fe2358c13 | Anya_Patel | anya_patel88@gmail.com | 0 |

| User Id | User Name | Email Address | Orders |
|---|---|---|---|
| 6731969248e3964fe2358c15 | Priya_Menon | priyamenon98@yahoo.com | 0 |

| User Id | User Name | Email Address | Orders |
|---|---|---|---|
| 6731969248e3964fe2358c17 | Sneha_Rao | sneha_rao@outlook.com | 0 |

The admin can view all the users details and orders

Figure :02 -shopEZ All Users
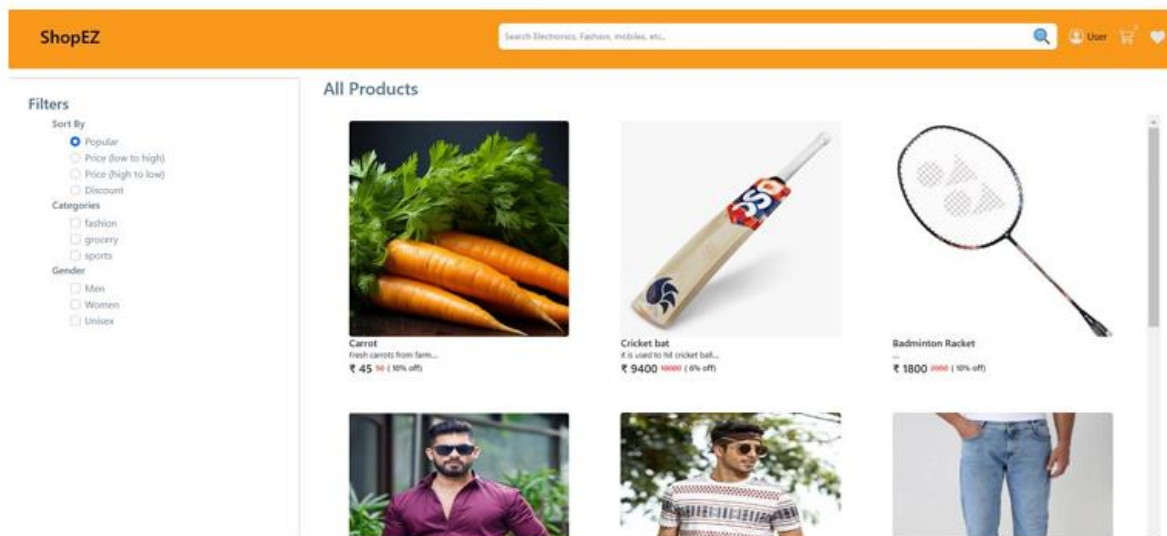
Figure : 03 -shopEZ All Products Page
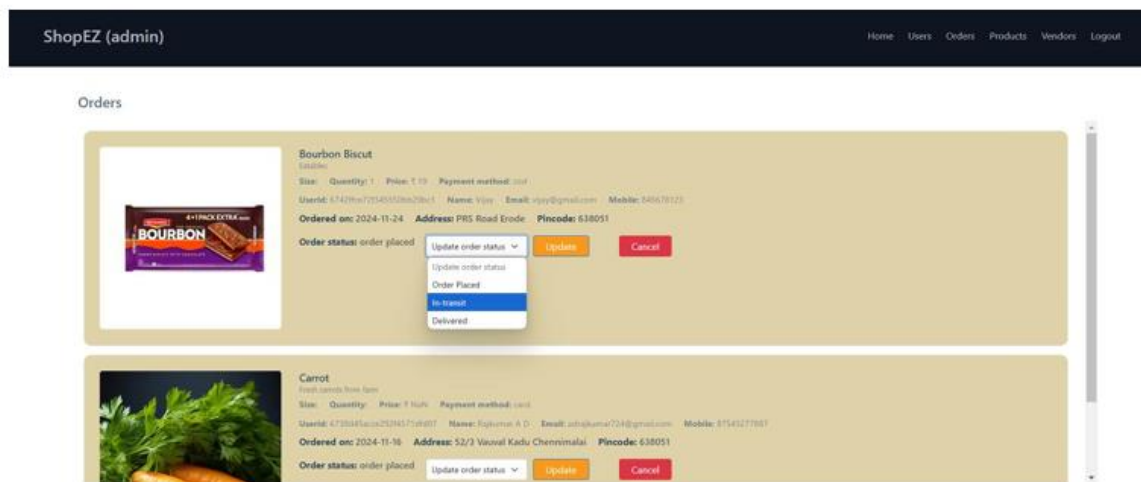


Figure : 04 -shopEZ All Orders

Figure : 05 -shopEZ Adding New Products
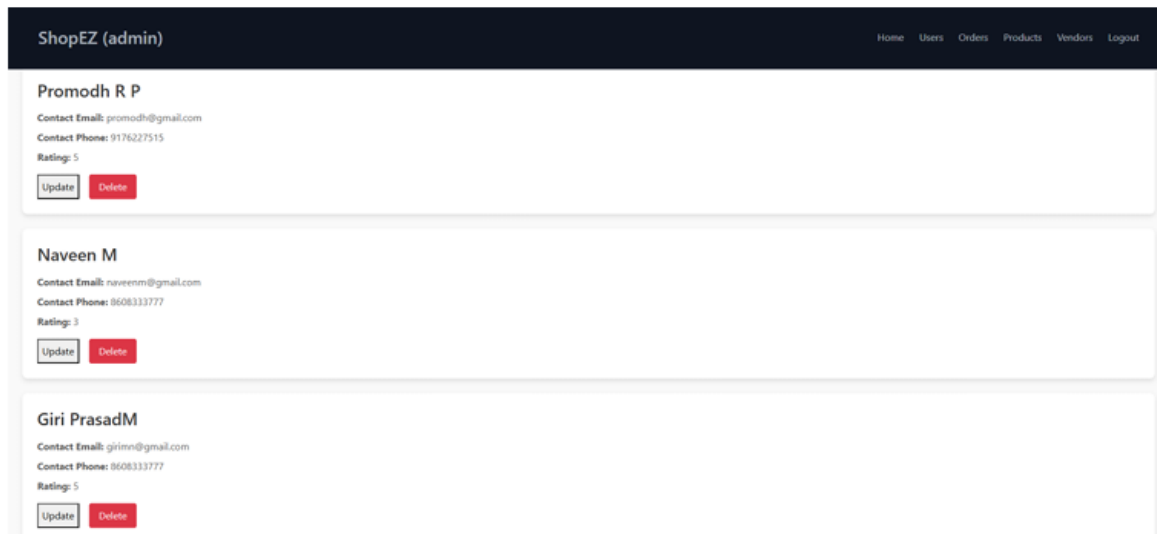


Figure : 06 -shopEZ Updating Products
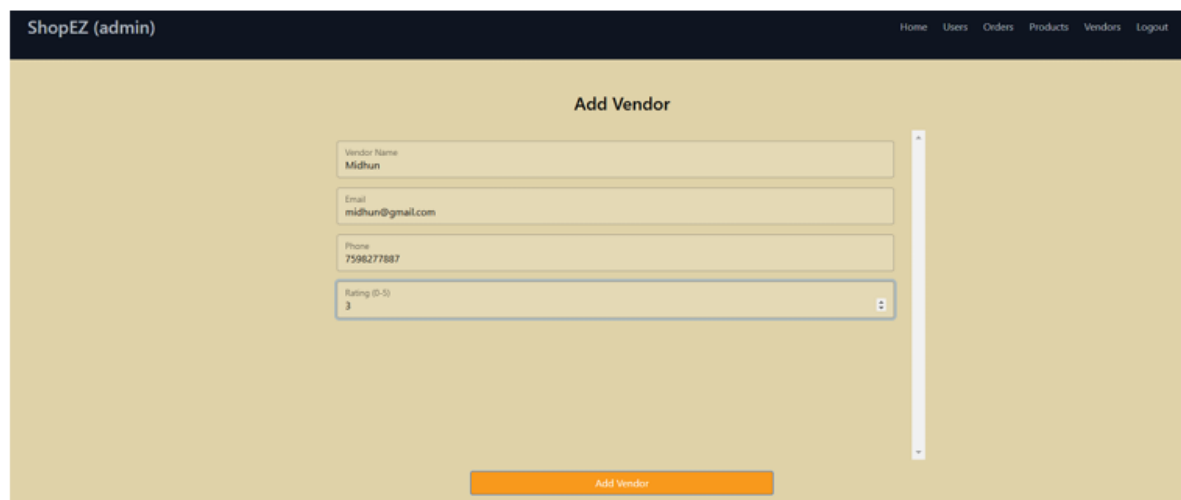
Figure : 07 -shopEZ All Vendors



Figure : 08-shopEZ Adding new Vendor
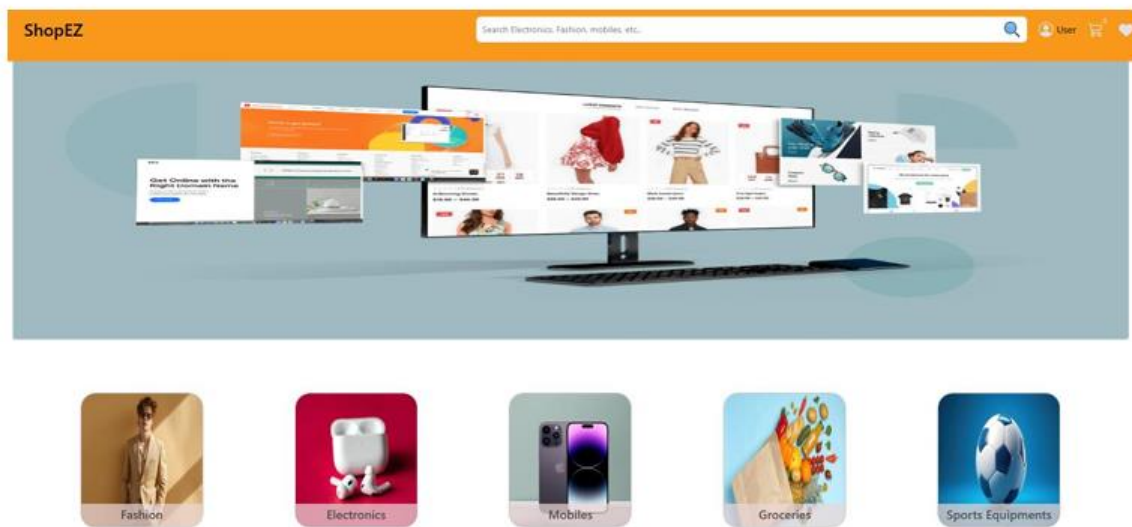
**CUSTOMER LOGIN**



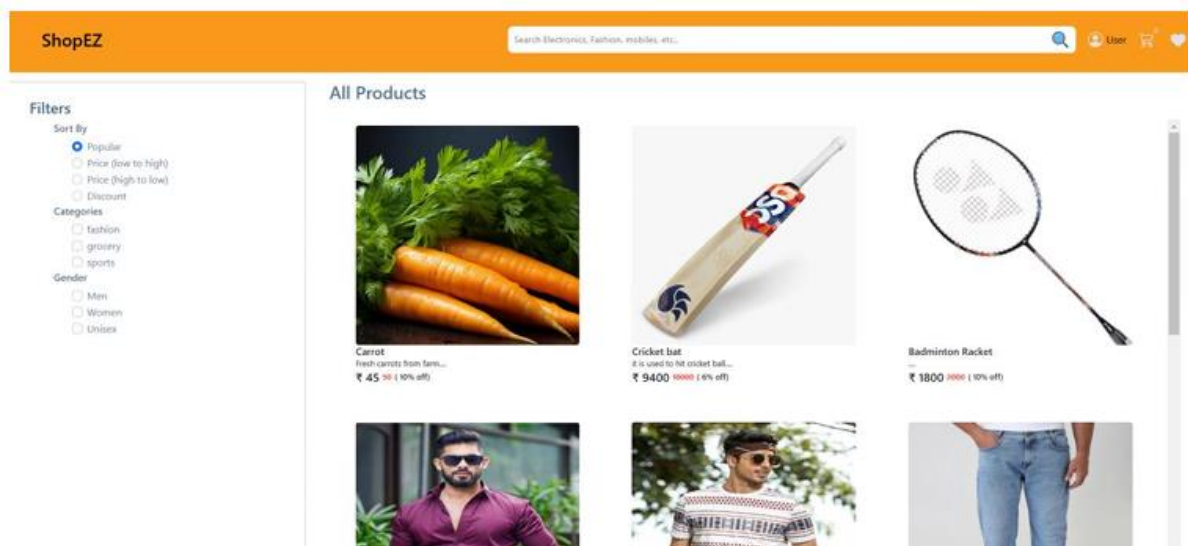Figure : 09 -shopEZ  Home Page



Figure : 10 -shopEZ  Filter Products

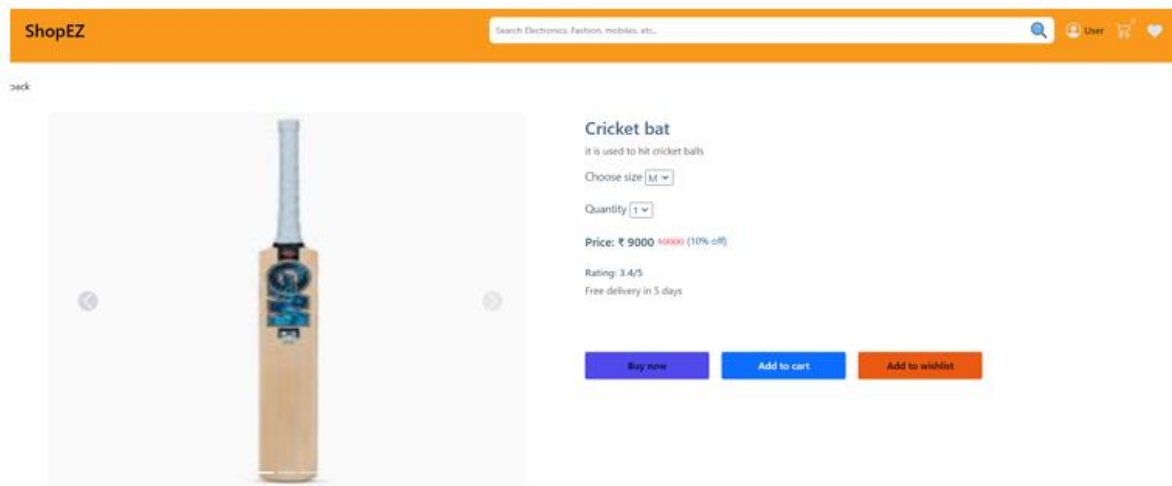Figure : 11 -shopEZ  viewing Product details
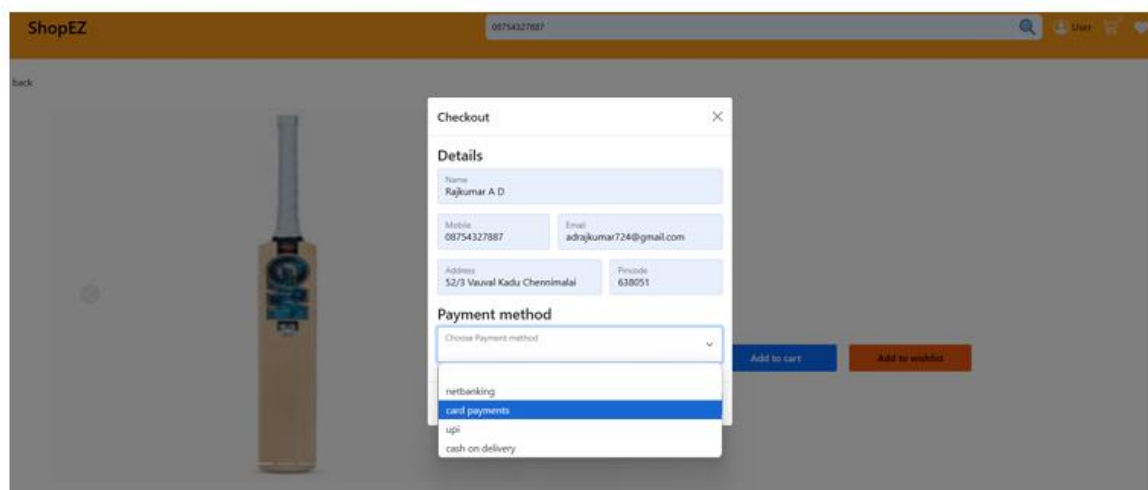


Figure : 12-shopEZ checking out Products

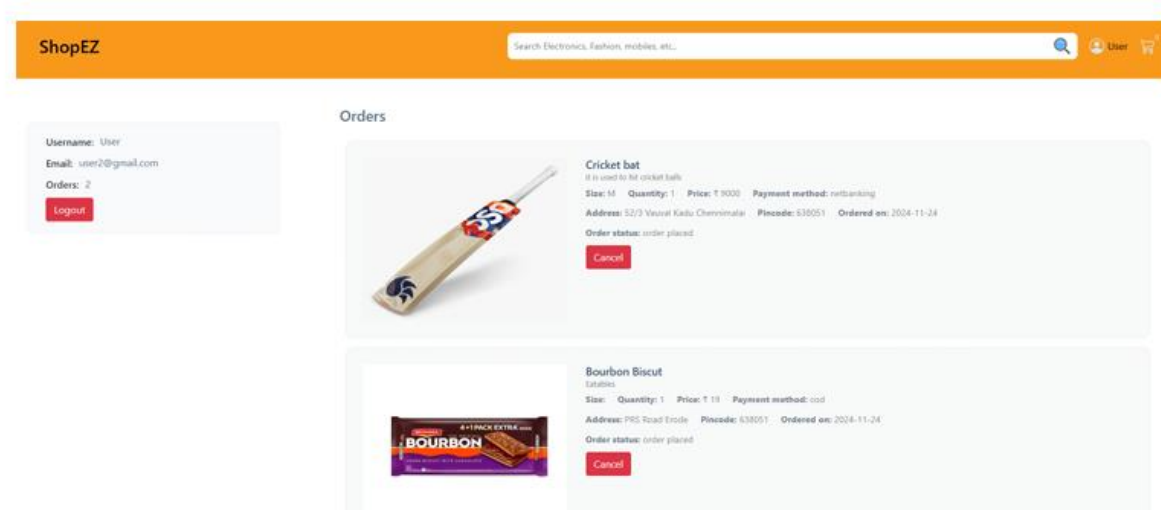Search Electronics, Fashion, mobiles, etc.,

User

Orders

**Username:** User
**Email:** user2@gmail.com
**Orders:** 2

Logout

**Cricket bat**
It is used to hit cricket balls
**Size:** M    **Quantity:** 1    **Price:** ₹ 9000    **Payment method:** netbanking
**Address:** 52/3 Vauval Kadu Chennimalai    **Pincode:** 638051    **Ordered on:** 2024-11-24
**Order status:** order placed

Cancel

**Bourbon Biscut**
Eatables
**Size:**    **Quantity:** 1    **Price:** ₹ 19    **Payment method:** cod
**Address:** PRS Road Erode    **Pincode:** 638051    **Ordered on:** 2024-11-24
**Order status:** order placed

Cancel

Figure : 13-shopEZ customer orders

ShopEZ

Search Electronics, Fashion, mobiles, etc.,

User

**Filters**

**Sort By**
- Popular
- Price (low to high)
- Price (high to low)
- Discount

**Categories**
- fashion
- grocery
- sports

**Gender**
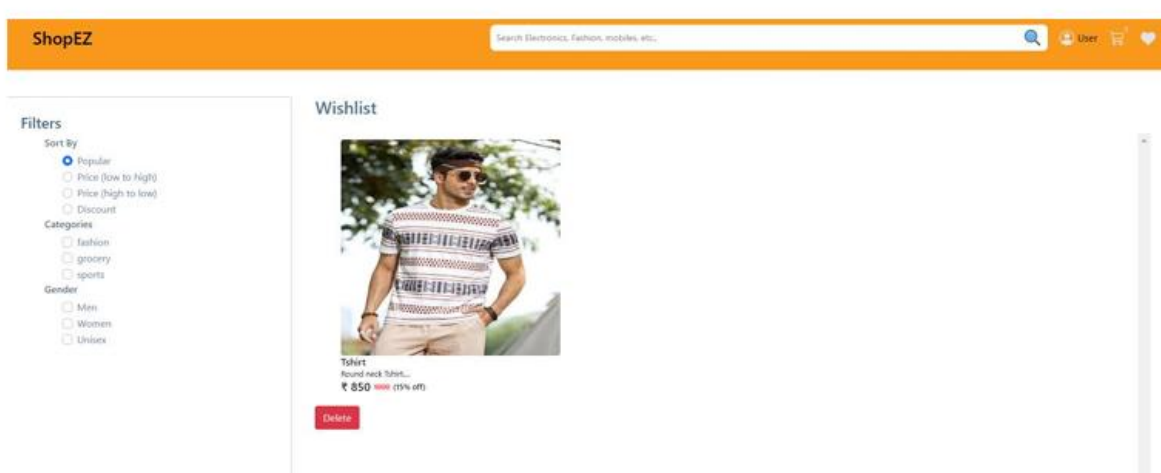- Men
- Women
- Unisex

Wishlist

**Tshirt**
Round neck Tshirt...
₹ 850 ~~1000~~ (15% off)

Delete

Figure : 14-shopEZ Customer wishlist