NAAN MUDHALVAN

MERN STACK POWERED BY MONGODB

NM Team id: Team-5623

Project Report

PROJECT TITLE: ShopEZ E-commerce Application

<u>**TEAM MEMBERS:**</u>

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1. Project Overview

The shopEZ Ecommerce Application is a comprehensive ecommerce solution developed using the MERN stack (MongoDB, Express.js, React.js, and Node.js). The project is designed to enable online businesses to manage products, users, orders, and payment transactions effectively. It is hosted on GitHub under the repository: [shopEZ Ecommerce Application](#).

2. Objectives

- Develop a fully functional ecommerce platform.
- Implement core features such as user authentication, product catalog management, shopping cart, and payment gateway integration.
- Leverage modern development technologies and adhere to best coding practices.

3. Features

User Authentication
- Secure login and signup using JWT-based authentication.
- Role-based access control for admin and user functionalities.

Product Management
- Create, Read, Update, and Delete (CRUD) operations for products.
- Image upload functionality for products.

Shopping Cart
- Add-to-cart and remove-from-cart features.
- Real-time cart updates.

Order Management
- Order placement, tracking, and history.
- Admin controls for managing order statuses.

Responsive Design
- Mobile and desktop-friendly user interface.

4. Installation and Setup

1. Clone the repository:

git clone https://github.com/VISHNUVASANM/NM_MERN_Ecommerce_Application

2.Navigate to the project directory:

cd NM_MERN_Ecommerce_Application

3.Install dependencies for both server and client:

For the server:

cd server

npm install

For the client:

cd ../client

npm install

1. Running the Application

Start the Server

In the terminal, run:

cd server

node index.js

Start the Client

In another terminal, run:

cd client

npm start

This will start the client on http://localhost:3000 (or the specified port).
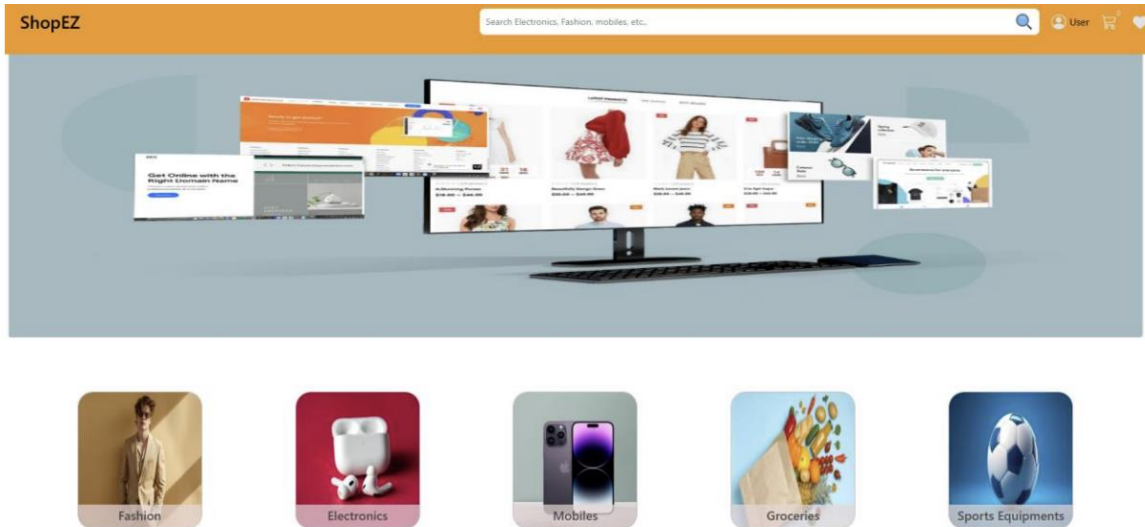
5. Screenshots and Descriptions

Landing Page

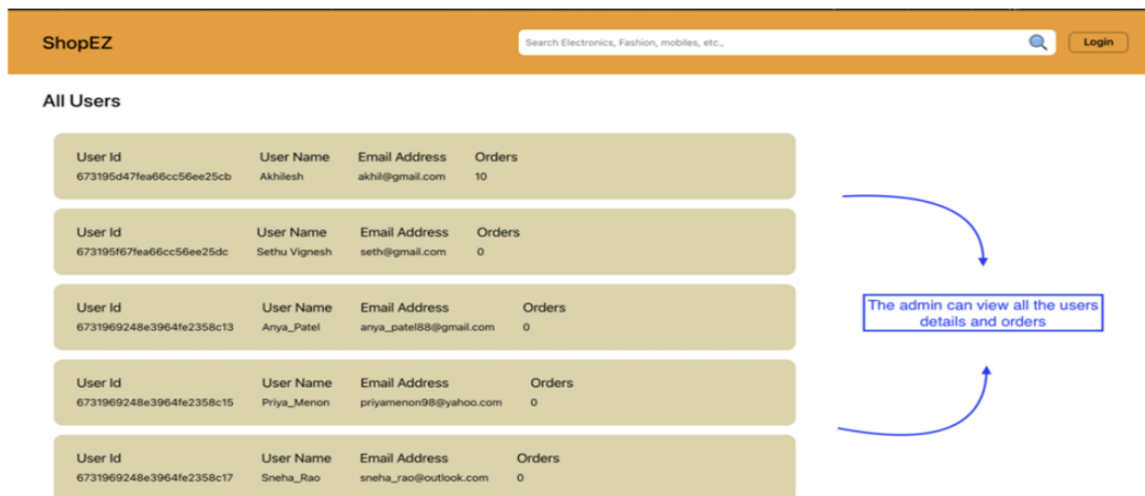A clean and animated minimalistic design showcasing major product categories for easy navigation.

Screenshot:

Admin Access Pages

Dedicated admin interfaces for managing users, products, and orders efficiently.

Screenshot:

New Product

Product name
Volley Ball

Product Description
Buy online at best price

Thumbnail Img url
https://www.amazon.sa/-/en/BBYESE-Volleyball-Waterproof-Beginners-Competition/dp/B09TQFZVTC

Add on img1 url
https://www.google.com/imgres?im

Add on img2 url
https://www.google.com/imgres?im

Add on img3 url
https://www.google.com/imgres?q=

Available Size
☑ S ☑ M ☐ L ☐ XL

Gender
○ Men ○ Women ● Unisex

Category
sports

Price
1000

Discount (in %)
3

Add product

Update Product

Product name
Cricket bat

Product Description
it is used to hit cricket balls

Thumbnail Img url
https://cdnmedia.dsc-cricket.com/media/catalog/product/cache/f6804705d3c9b06dccd038949280b6b0/d/s/dsc-krunch-t

Add on img1 url
data:image/jpeg;base64,/9j/4AAQSk

Add on img2 url

Add on img3 url

Available Size
☑ S ☑ M ☑ L ☑ XL

Gender
○ Men ○ Women ● Unisex

Category
sports

Price
10000

Discount (in %)
10

Update

Add Vendor

Vendor Name
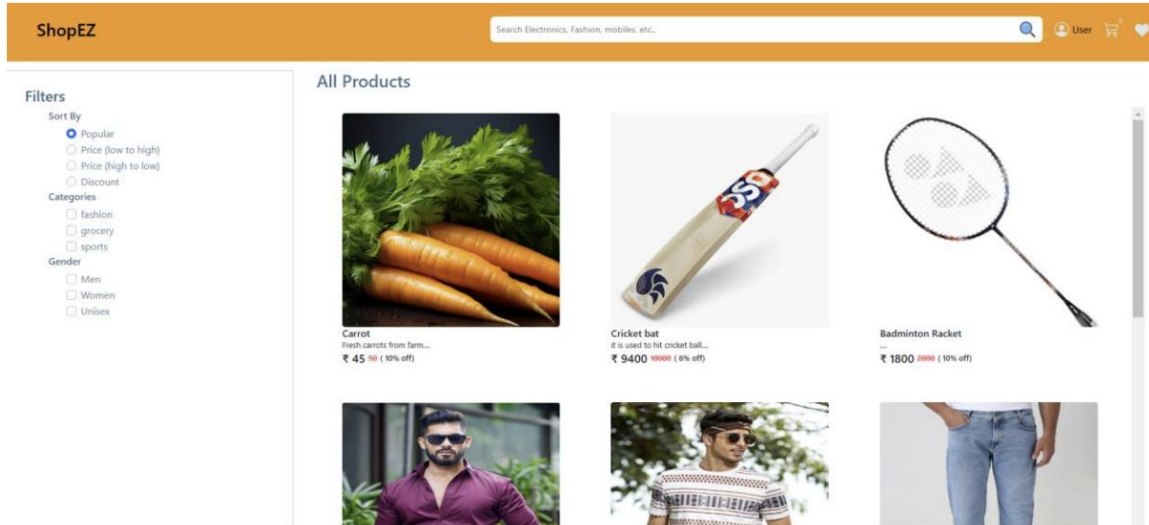Midhun

Email
midhun@gmail.com

Phone
7598277887

Rating (0-5)
3

Add Vendor

Product Listing

Displays a list of products categorized with options to view details or add items to the cart.
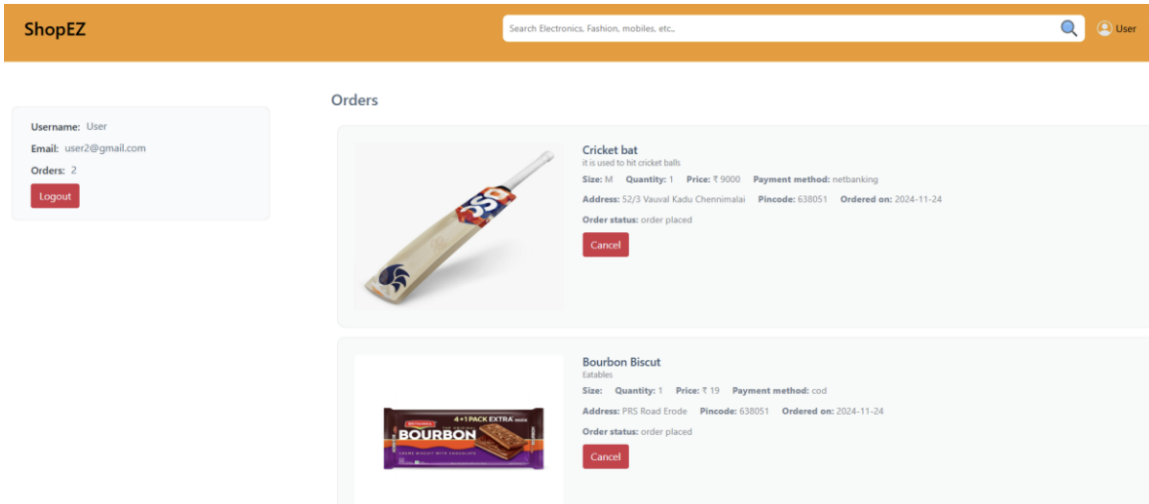
Screenshot:

Order History

A user-friendly interface to track and view past orders, complete with order status.
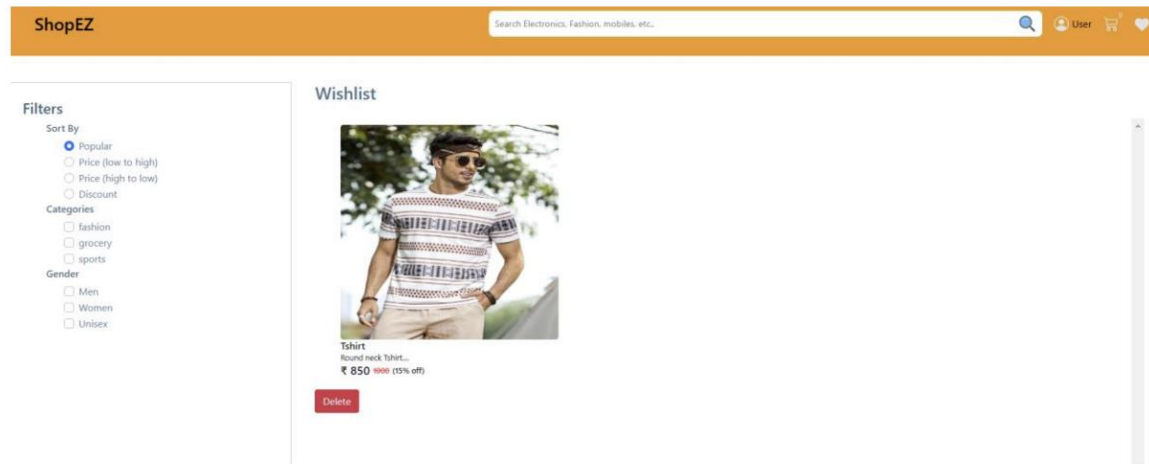
Screenshot:

Customer Wishlist

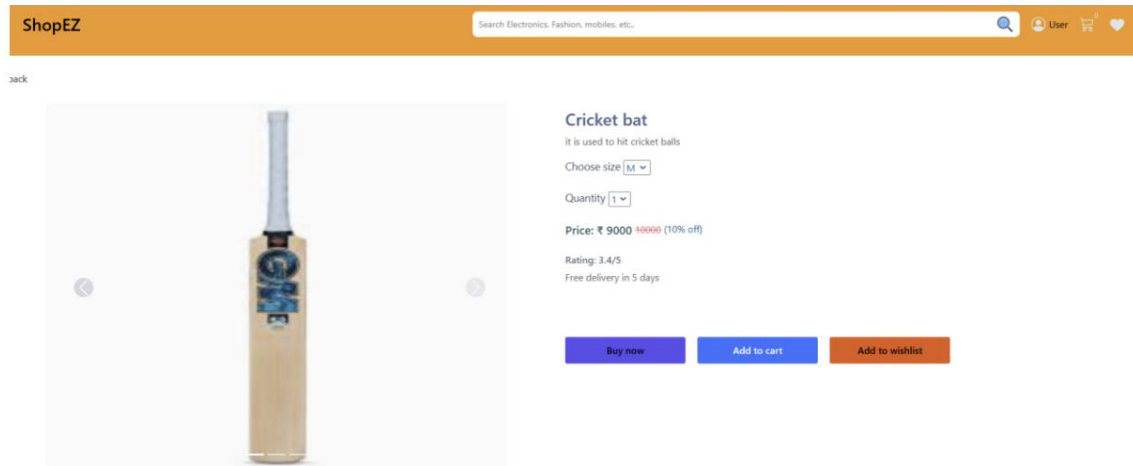Enables users to save products for future purchases, enhancing user experience.

Screenshot:

View Product

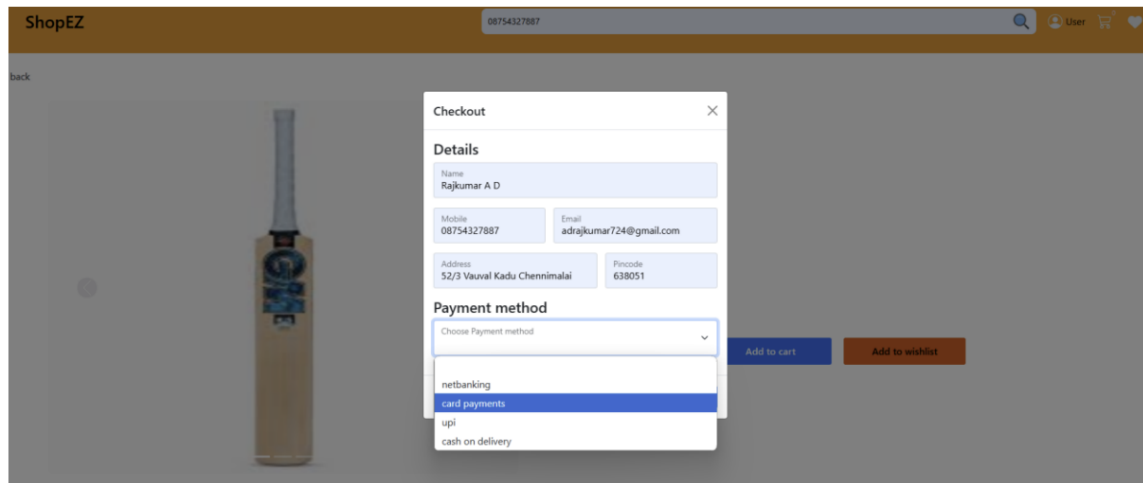Detailed product pages with descriptions, reviews, and options to add to the cart.

Screenshot:

Adding to Cart and Payment

Streamlined process for adding products to the cart and completing secure payments.

Screenshot:

6. Technologies Used

- Frontend: React.js, Redux for state management, Bootstrap/Material-UI for UI components.
- Backend: Node.js with Express.js.
- Database: MongoDB for data storage.

7. Strengths

- Comprehensive feature set covering the essential needs of an ecommerce platform.
- Clean and modular codebase.
- Scalability due to the use of modern frameworks and technologies.
- Responsive design for better user experience.

8. Potential Improvements

- Enhance testing coverage by integrating automated testing frameworks like Jest or Mocha.
- Optimize database queries for better performance with large datasets.
- Implement advanced security measures like rate limiting and two-factor authentication.
- Improve UI/UX with more polished design elements.

9. Conclusion

The shopEZ Ecommerce Application demonstrates a robust and scalable solution for ecommerce needs. It effectively utilizes the MERN stack to deliver a feature-rich and user-friendly experience. With continued improvements and optimizations, the project can be production-ready and cater to diverse business requirements.