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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

JAVA FULL STACK ST02 PROJECT

EAZY CART

Connecting Buyers and Sellers Beyond Borders

PROJECT STUDENT

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JF-ST02

AGENDA

- Abstract
- Existing System
- Proposed System
- Advantages
- Disadvantages
- Hardware Requirements
- Software Requirements
- Modules
- Module Description
- Sample Output (Screenshot)
- Conclusion

ABSTRACT

- EazyCart is a **full-featured e-commerce platform** designed to provide users with a seamless online shopping experience for a wide range of categories such as **dresses, groceries, mobiles, utensils, sports items, and cosmetics**.
- The system allows customers to **create accounts, log in securely**, browse products, **add them to the cart**, and manage their purchases easily. Vendors can list their products with details such as name, price, and category.
- Built using **HTML, CSS, JavaScript (React concepts)** for the frontend and **Node.js, Express.js, and MongoDB** for the backend, the system demonstrates a **complete full-stack implementation**.
- The goal of EazyCart is to simplify shopping through a **user-friendly, responsive, and scalable web application** that promotes **digital convenience** and enhances the **modern retail experience**.

EXISTING SYSTEM

- Users currently depend on **visiting stores physically** to buy items.
- There is **no unified platform** to compare prices or availability.
- **Limited accessibility—**especially for people in remote areas.
- Vendors need to **rely on offline sales**, limiting business growth.
- Managing product data and inventory is **manual and time-consuming**.

PROPOSED SYSTEM

- Users can **register/login**, browse products by **category**, and **add them to a shopping cart**.
- Products are organized into multiple sections: **Clothing, Grocery, Mobiles, Utensils, Sports, and Cosmetics**.
- A **search and filter system** helps customers find items by name, price, or category.
- Vendors can manage products using CRUD operations (Add, Update, Delete).
- The system ensures **secure authentication** using **bcrypt hashing**.
- Fully **responsive design** supports both desktop and mobile devices.

ADVANTAGES

- Single platform for multiple products like dress, grocery, mobiles, and more.
- User-friendly and responsive design for all devices.
- Secure login using bcrypt password encryption.
- Easy product search with filters and categories.
- Time-saving and scalable system for future expansion.
- Builds transparency and trust between users and vendors.

DISADVANTAGES

- No **online payment system** integrated yet (checkout is basic).
- No **delivery logistics —** customers must collect items.
- Uses **localStorage** for session/cart handling → not as secure as JWT-based tokens.
- Entire system requires **internet connectivity** to function.
- Being a prototype, **scalability for large-scale use** still needs work.

HARDWARE REQUIREMENTS

Component		Specification
Processor	-	Intel i3 or higher
RAM	-	Minimum 4 GB
Storage	-	10 GB free space
Client Device	-	Smartphone or PC
Network	-	Active Internet Connection

SOFTWARE REQUIREMENTS

- **Frontend:** HTML, CSS, JavaScript, React concepts
- **Backend:** Node.js with Express.js
- **Database:** MongoDB for storing vendor and user data
- **Libraries:** bcryptjs, mongoose, cors, dotenv
- **OS Support:** Windows, Linux, or MacOS
- **Browsers Supported:** Chrome, Firefox, Edge

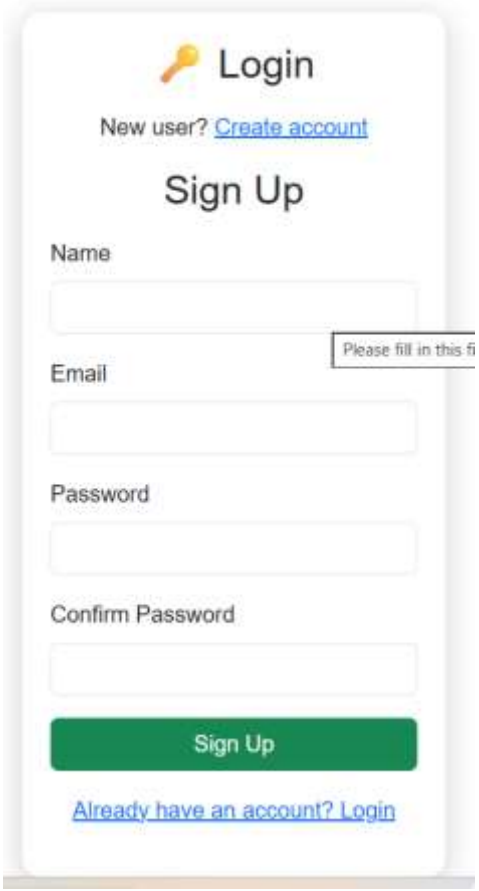
MODULES

- **User Module** – Registration, login, product browsing, and cart management.
- **Vendor Module** – Product management (Add, Edit, Delete).
- **Product Module** – Categorized product display (Dress, Grocery, etc.).
- **Cart Module** – Add/remove items, calculate total, checkout simulation.
- **Authentication Module** – Secure login using encrypted passwords.
- **Admin Module** – View, manage users and vendors (optional).

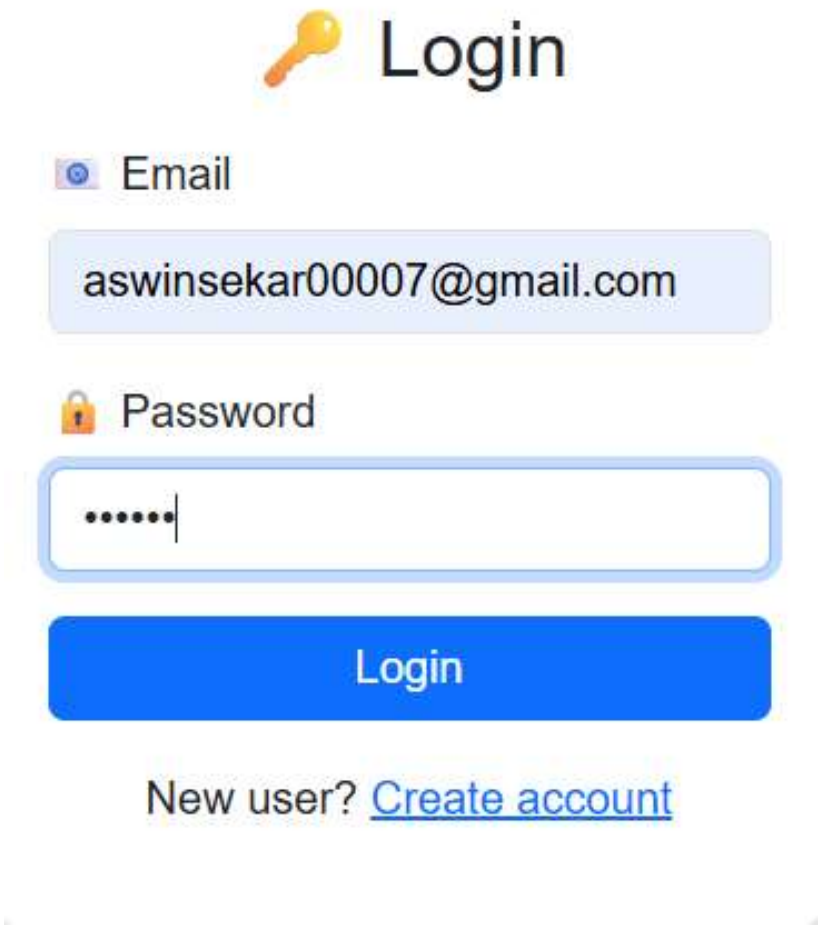
MODULE DESCRIPTION

- **1. User Module**
  Users can create accounts, log in, and browse products by category. They can add items to their cart and view total cost.
- **2. Vendor Module**
  Vendors can register and upload product details such as name, price, and category. They can also update or delete products.
- **3. Product Module**
  Displays all items under respective categories (Dresses, Grocery, Mobiles, etc.) and allows sorting and filtering.
- **4. Cart Module**
  Manages items added by users, calculates the total amount, and simulates the checkout process.
- **5. Authentication Module**
  Ensures secure login and registration using **bcrypt hashing** for password encryption.
- **6. Admin Module (Future Enhancement)**
  Allows administrators to monitor vendors, users, and sales data.

SCREENSHOTS



SCREENSHOTS



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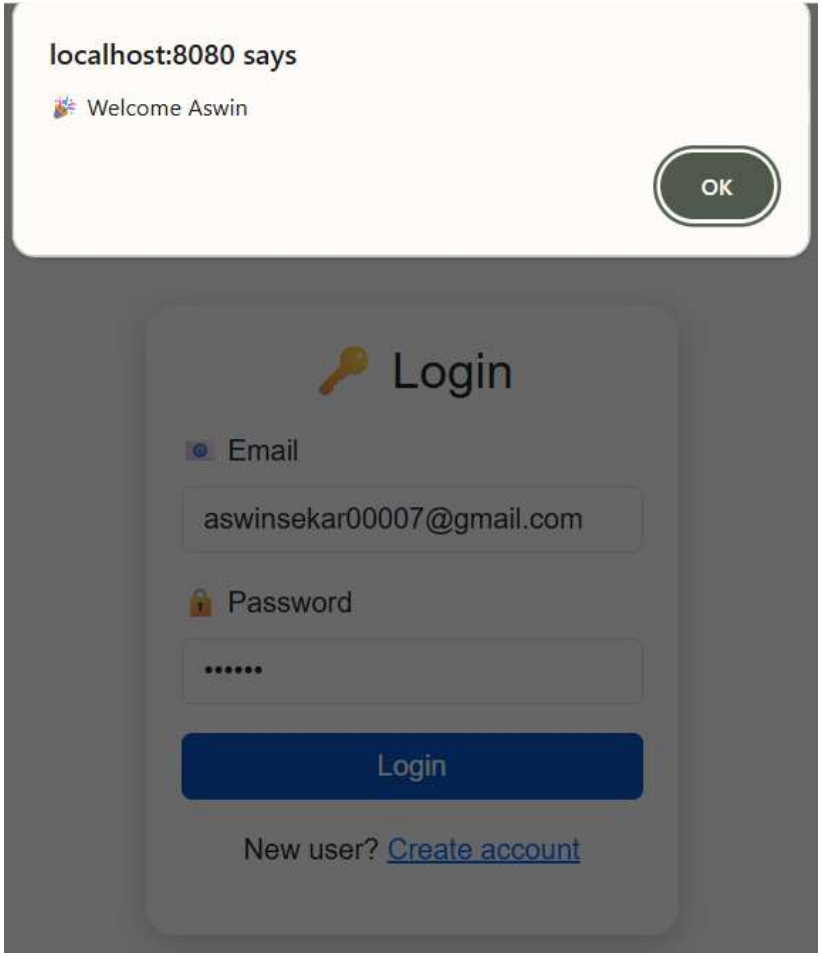

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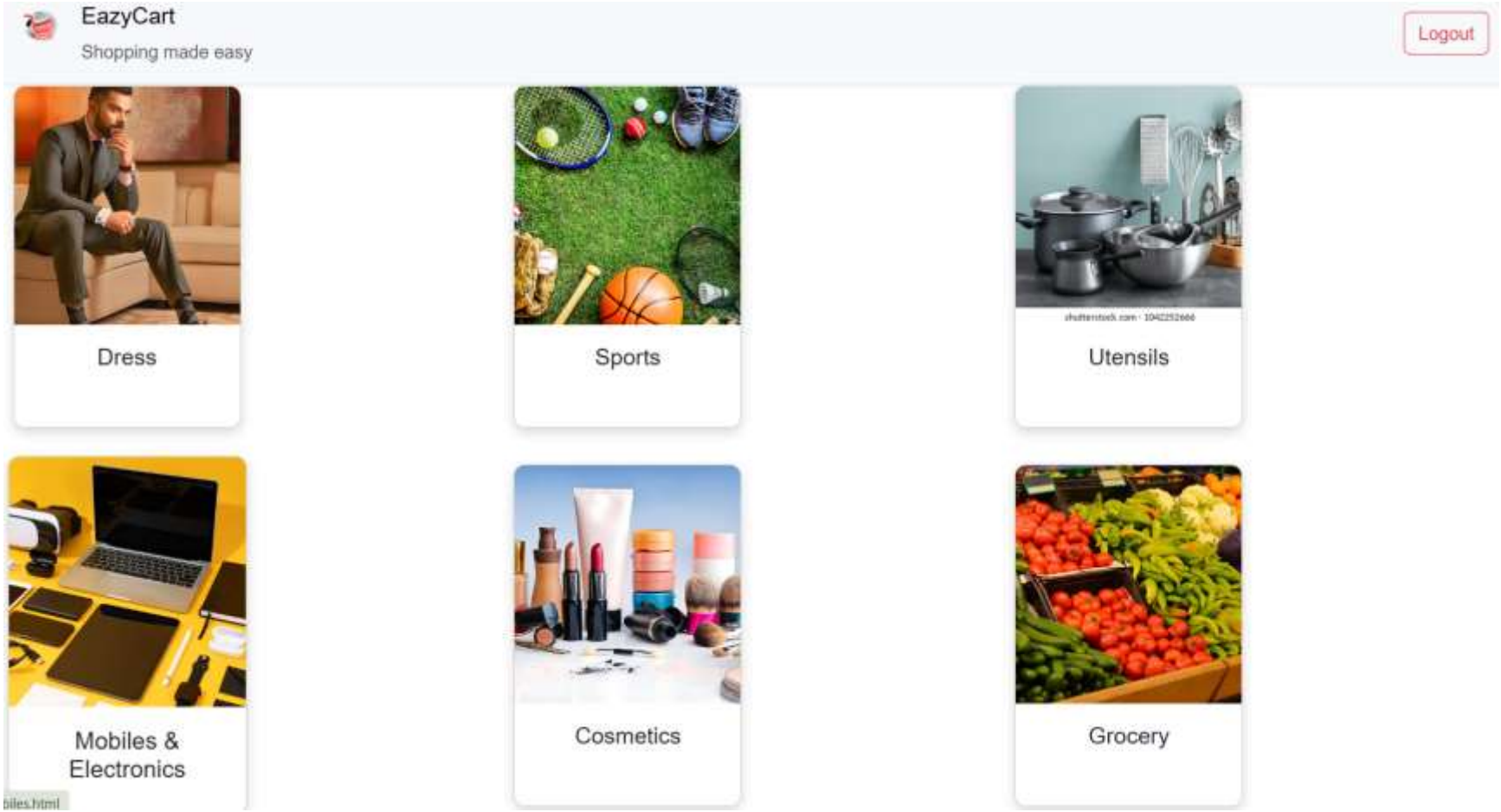

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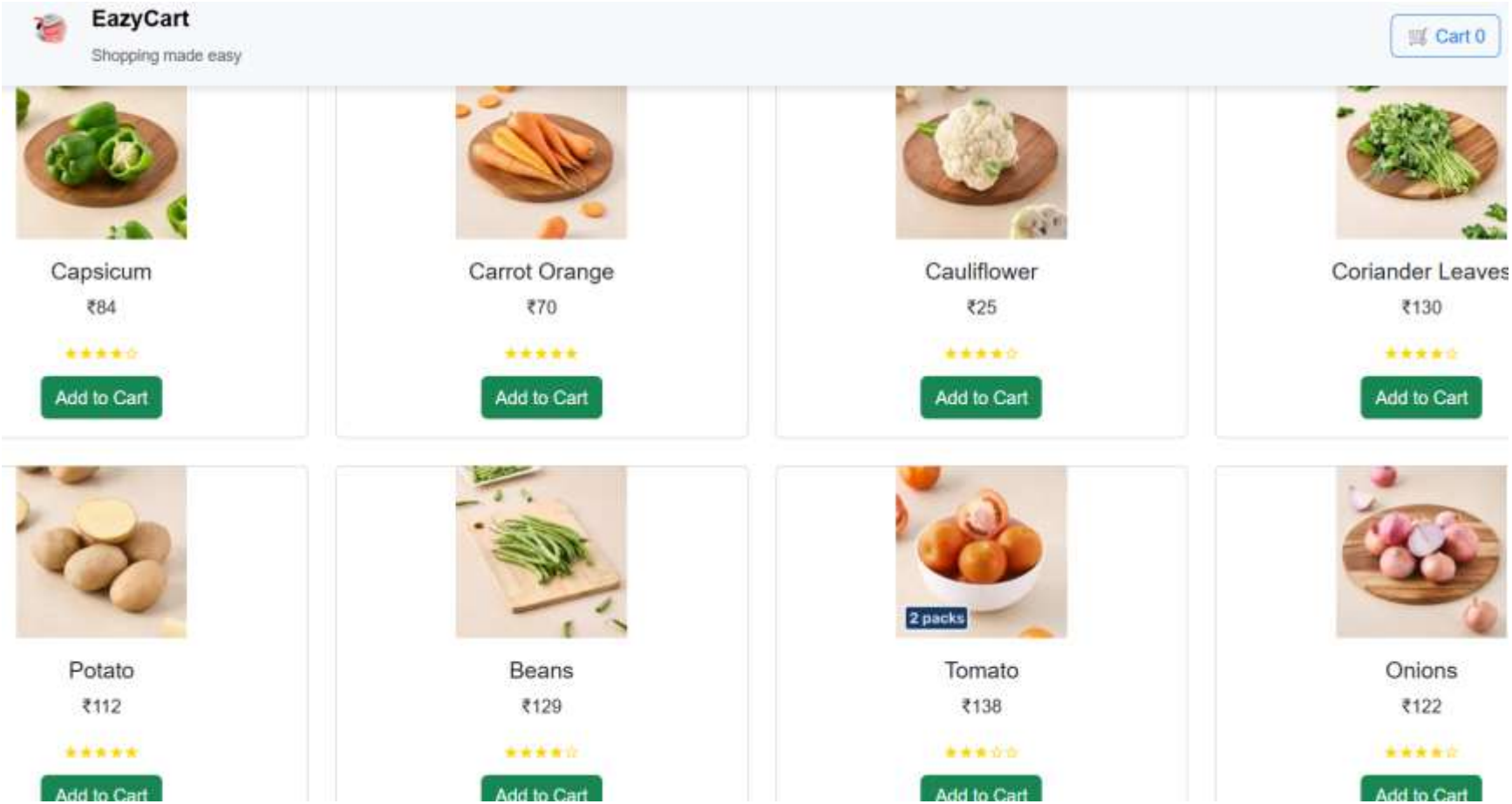

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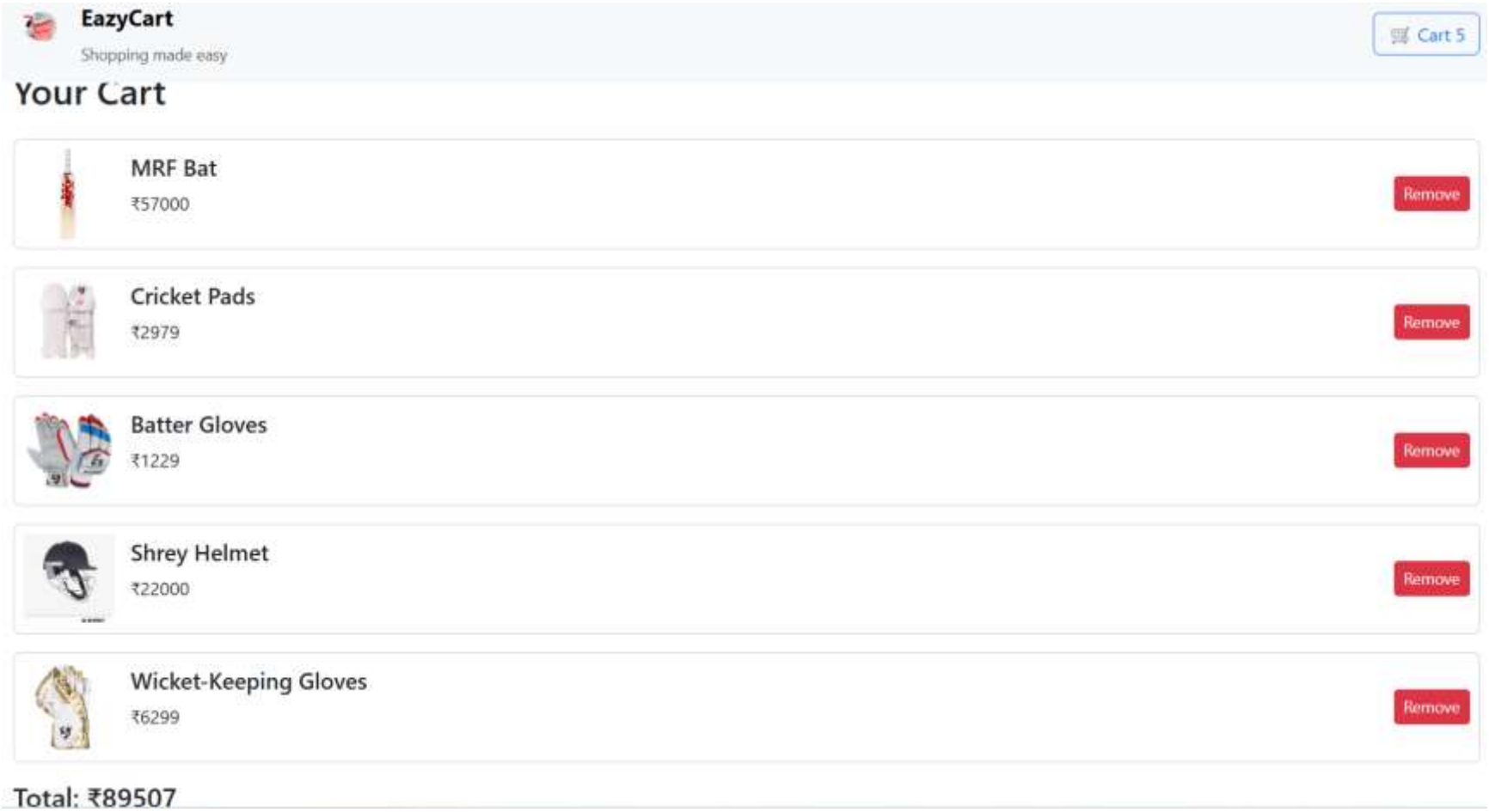

CONCLUSION

- EazyCart is a user-friendly e-commerce website that allows customers to browse and purchase products such as dresses, groceries, mobiles, utensils, sports items, and cosmetics from one centralized platform. The system provides essential features like account creation, secure login, product browsing, and cart management, offering a smooth shopping experience.
- Developed using **HTML, CSS, JavaScript, Node.js, Express, and MongoDB**, it demonstrates a complete full-stack implementation. Even without online payment or delivery modules, the project effectively showcases the core functionalities of an e-commerce system — including user interaction, data management, and responsive design.
- EazyCart proves how technology can simplify shopping and promote digital accessibility, while also laying a solid foundation for future upgrades such as payment integration and delivery management.