FRONT-END UI/UX MINI PROJECT

PROJECT TITLE: "E-commerce website"

<u>SUBMITTED BY: TEAM MEMBERS:</u>

1 - KUMMITHI VENKATA SUDHARSHAN REDDY

REG NO: 2462105

EMAIL ID: kummithi.venkata@btech.christuniversity.in

2 - AHAON SARKAR.

REG NO: 2462019

EMAIL ID: ahaon.sarkar@btech.christuniversity.in

3 - T .SHANMUKHA PRANAY.

REG NO:2462159.

EMAIL ID: tamatam.shanmukha@btech.christuniversity.in

COURSE: UI/UX Design Fundamentals.

INSTRUCTOR NAME: Narendra Sir.

INSTITUTION: Christ University.

DATE OF SUBMISSION: 26/09/2025

Project Report

1. Title:

E-commerce Website - Ghibli Store

2. Abstract

This project involves the design and development of a fully functional e-commerce website that provides users with an interactive platform to browse, search, and purchase products online. The site is built with HTML5, CSS3, JavaScript, and Bootstrap to ensure responsiveness, user-friendly navigation, and consistent styling across devices. The project also integrates cart functionality, product categorization, and checkout features to simulate real-world e-commerce operations.

The platform aims to create a seamless digital shopping experience with intuitive navigation, fast loading, and secure structure. It can serve as a foundation for further integration with backend systems, databases, and payment gateways.

3. Objectives

1. Build a user-friendly online shopping platform.

- 2. Provide an organized display of products with descriptions and prices.
- 3. Implement cart functionality for adding, removing, and updating items.
- 4. Ensure responsive design for desktop, tablet, and mobile devices.
- 5. Maintain clean, structured, and accessible code.
- 6. Deliver an engaging shopping experience with modern UI/UX principles.
- **7.** Provide a scalable foundation for future backend and payment integrations.

4. Scope of the Project

- Interactive e-commerce front-end for product browsing and purchase.
- Multiple product categories with descriptions, pricing, and images.

- Cart and checkout simulation to mimic real-time shopping.
- Integration of HTML, CSS, JavaScript, and Bootstrap for responsiveness.
- Scalable design that allows for backend extensions (database, payments).
- Accessibility and responsiveness for all major devices.
- Practical demonstration of web development skills and e-commerce concepts.

5. Tools and Technology Used

- HTML5 Structure of web pages.
- CSS3 Styling and layout customization.
- Bootstrap 5 Responsive design and grid system.
- JavaScript (ES6) Interactivity and dynamic behavior.
- jQuery Simplified DOM manipulation.

- FontAwesome Icons for UI enhancement.
- Local Assets Images and resources for faster load times.

6. HTML Structure Overview

- Header & Navbar Brand name and product category navigation.
- Product Listings Grid cards with images, descriptions, and pricing.
- Cart Section Add/remove/update functionality for selected items.
- Checkout Section Simulation of order summary and final purchase.
- Footer Contact info, social links, and copyright.

7. CSS Styling Strategy

- Custom styles applied via external CSS file.
- Bootstrap classes used for grid system and responsiveness.
- Hover and transition effects on product images and buttons.
- Consistent color scheme and typography for branding.
- Media queries to adapt design across devices.

8. JavaScript Strategy

- Functions for cart management (add, remove, update).
- DOM manipulation for dynamic product interactions.
- jQuery used for smooth animations and simplified scripting.
- Event listeners for user actions (e.g., clicking "Add to Cart").
- Modular code for easier debugging and maintainability.

9. Key Features

- 1. Responsive product grid for browsing.
- 2. Add-to-cart functionality with item count updates.
- 3. Real-time cart summary with total calculation.
- 4. Organized categories for easy navigation.
- 5. Interactive UI with hover effects and animations.
- 6. Checkout simulation with order overview.
- 7. Accessibility compliance with semantic HTML.
- 8. Clean and extensible code structure.

10. Challenges and Solutions

Challenges:

 Aligning products consistently across different screen sizes.

- Avoiding broken layouts during responsiveness testing.
- Ensuring smooth cart updates without page reload.
- Keeping the UI consistent across multiple categories.

Solutions:

- Used Bootstrap grid and Flexbox for alignment.
- Applied responsive CSS media queries.
- Implemented JavaScript functions for real-time cart updates.
- Created reusable product card components for consistency.

11. Outcomes

- Fully functional e-commerce front-end prototype.
- Improved understanding of responsive design and cart logic.

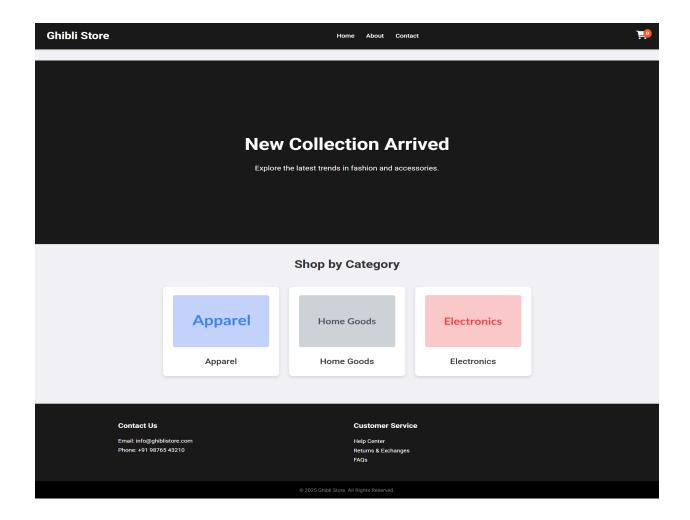
- Clean and reusable codebase.
- Platform ready for backend integration (databases and payments).
- Demonstrates practical knowledge of web technologies and UI/UX design.

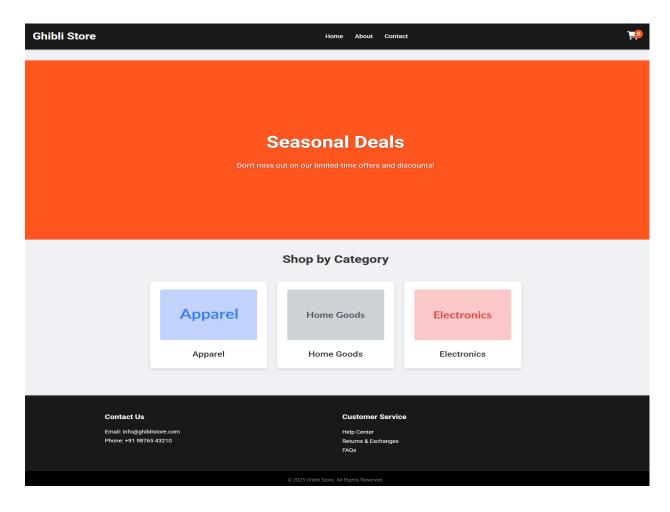
12. Future Enhancements

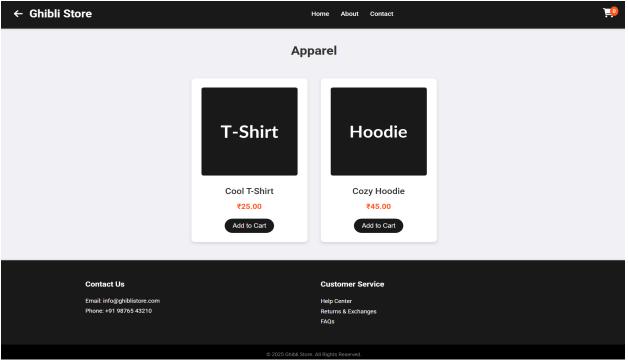
- User authentication (login/signup).
- Payment gateway integration (PayPal, Razorpay, etc.).
- Database connectivity for product and order management.
- Admin dashboard for inventory and order tracking.
- Advanced search and filtering options.
- Customer reviews and ratings.
- Wishlist functionality.

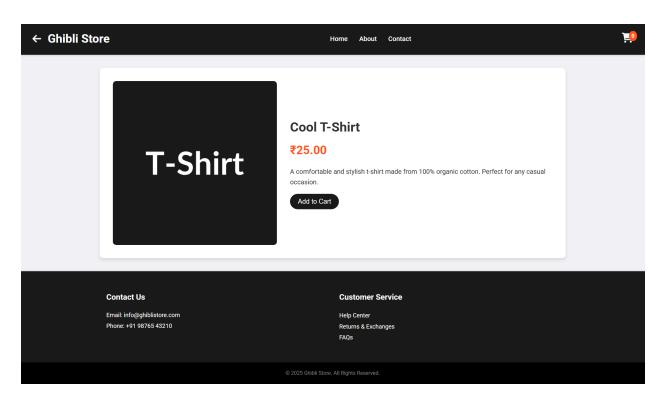
• Dark mode support.

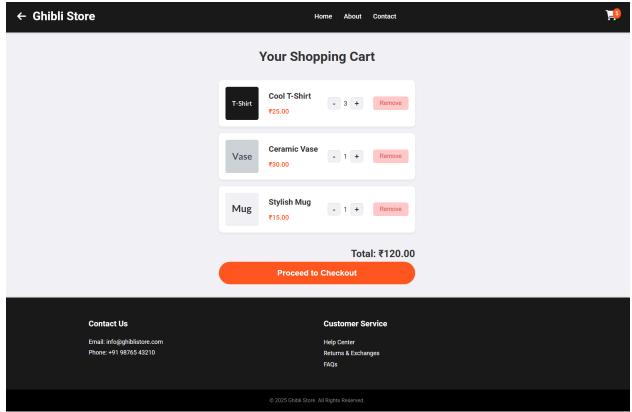
13. Screenshots

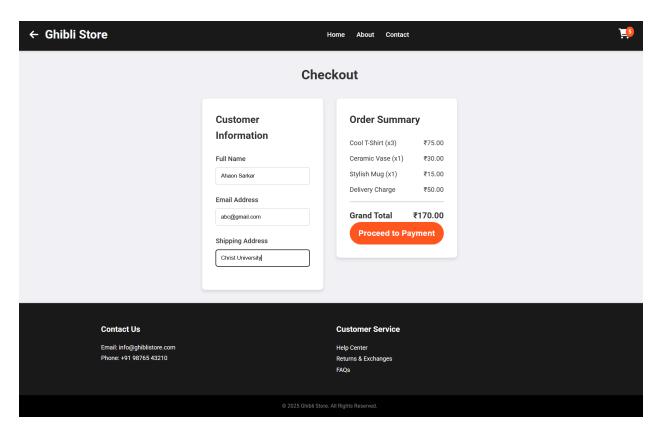


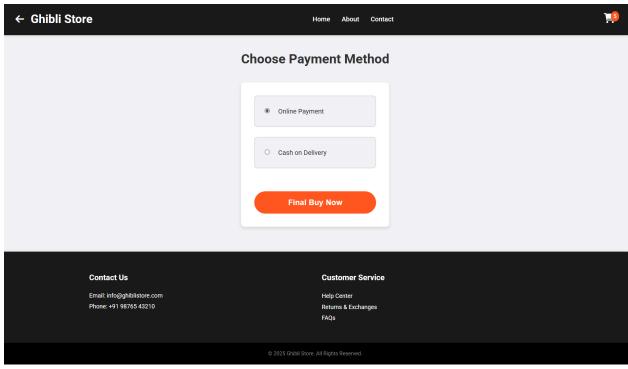


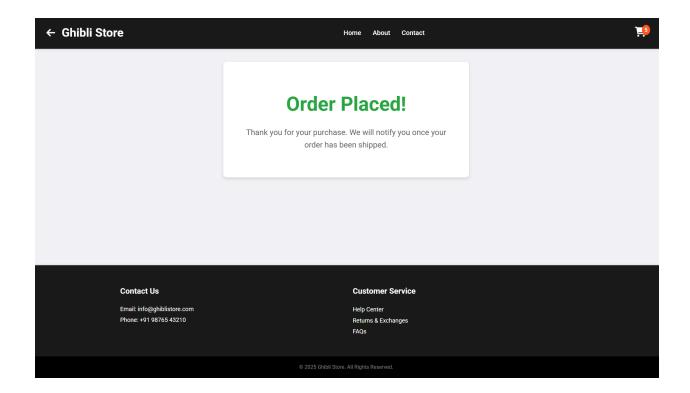












14. Conclusion

The e-commerce website successfully demonstrates the principles of online shopping platforms by combining product browsing, cart functionality, and responsive design. It achieves its objective of creating a user-friendly and visually appealing interface, while also maintaining clean and extensible code. Though it is currently a front-end prototype, the structure provides a strong foundation for integration with backend services and payment systems. With planned enhancements, the platform can be expanded into a fully operational e-commerce solution that meets industry standards.