

GreenMart

1. Project Overview:

GreenMart is an online e-commerce platform for grocery products. Users can create an account, browse products, add them to their cart and wishlist, and proceed with checkout. Users can authenticate via email and password, making the shopping experience personalized. The platform is designed to be responsive, user-friendly, and optimized for fast performance.

2. Technology Used:

- **Frontend:** HTML, TS, Angular 18.
- **Styling:** CSS, Bootstrap.
- **API:** JSON Server.
- **Version Control:** GitHub.
- **Tools:** Visual Studio Code.

3. Project Design:

3.1 Pages

1. Authentication (login + register): Users can log in or register an account
2. Account: Displays user profile information, order history, and options to update personal details.
3. Home: Top features categories, and top-rated products.
4. Shop: Filters products by categories, search for a product.
5. Product: Displays product details, pricing, and options to add to cart.
6. Cart: Lists items in the cart, allowing users to update quantities or remove items.
7. Wishlist: Shows a list of products that users have saved for later purchase.
8. Checkout: Allows users to provide shipping details and choose payment methods.
9. Order: Displays a summary of the user's order with payment and shipping details.

3.2 Visual Elements

- Color: Green (#86BC42) and white (#FFFFFF) as primary colors, with gray accents for UI elements.
- Typography: Use of sans-serif fonts like **Roboto** and **Roboto Slab** for a modern look.
- Icons: Simple icons for cart, Account, and product categories (from **font awesome** and **Bootstrap icons**).

4. Development Report:

4.1 Components

1. Auth Component: Manages user authentication (login, register, logout).
2. Account Component: Displays user information, including their name, email, and order history.
3. Home Component: Displays featured products and categories.
4. Shop Component: Handles displaying filtered product lists.
5. Product Details Component: Shows detailed information on each product.
6. Wishlist Component: Allows users to add/remove items from their wishlist and view saved products.
7. Cart Component: Manages the cart items and interactions.
8. Checkout Component: Handles the checkout process, including forms for user information and order summary.
9. Order Details Component:

4.2 Services

- Api-data Service: Handles fetching products and categories from the JSON server API.
- Cart Service: Manages the cart operations like adding, removing, and updating items.
- Wishlist Service: Manages the wishlist operations like adding and removing items.
- Orders Service: Sends orders to the API and fetches user orders.

4.3 API Endpoints (JSON Server)

- GET /products: Fetch available grocery products.
- GET /categories: Fetch all categories.
- GET /wishlist: Fetch wishlist products.

- POST / wishlist: Add a product to the wishlist.
- DELETE / wishlist: Remove a specific product from the wishlist
- POST /cart: Add products to the cart.
- GET /cart: Fetch cart products.
- PUT /cart: Update product quantity in the cart.
- DELETE /cart{id}: Remove a specific product from the cart.
- POST / order: Add an order to the orders.
- GET / order: Fetch all orders.
- DELETE / cart: Clear all products from cart after checkout process.

4.4 Project Timeline

- Week 1: Choose design, collect data.
- Week 2: Setup the environment of the product.
- Week 3: UI and integration auth, account, homepage, shop and product details.
- Week 4: UI and Integration cart and wishlist functionality, order management and checkout process.

5. Visualization

user Flow Diagram: Diagram showing the user's journey from browsing products to completing a purchase. It includes the following steps:

1. Sign up or login -> Redirect to account page -> View account, updates details, or checks order history.
2. Browse homepage -> Browse shop -> Select product -> View product details.
3. Add to wishlist (for later) -> View wishlist -> Add or remove products
4. Add to cart -> View cart -> update or remove products -> Proceed to checkout.
5. Enter shipping details -> Confirm order -> View order details.