A. If I had more time, here are some improvements I would consider:

1. Enhanced Styling:

- Implement a more polished and visually appealing design using a comprehensive CSS framework.

- Add animations and transitions for a smoother user experience.

2. Advanced Authentication:

- Implement a more robust authentication flow with features like password recovery, email verification, etc.

- Integrate user authentication with a backend server for better security.

3. Product Filtering and Sorting:

- Add options to filter and sort products based on categories, prices, or other relevant attributes.

- Implement a search functionality for a better user experience.

4. Responsive Design:

- Ensure the application is fully responsive to work seamlessly on various devices and screen sizes.

5. Testing:

- Increase test coverage for critical components and functionalities to ensure reliability.

6. Backend Integration:

- Integrate the frontend with a backend server for handling user authentication, storing user data, and managing products.

7. Optimizations:

- Optimize API calls to improve application performance.

- Implement caching strategies for frequently accessed data.

B.functionalities you can consider adding to enhance your eCommerce application:

User Profile:

Create a user profile page where users can view and edit their personal information.

Display order history and track current orders.

Product Details Page:

Implement a detailed product page with additional information such as reviews, specifications, and related products.

Allow users to leave reviews and ratings for products.

Wishlist:

Introduce a wishlist feature where users can add products they are interested in but might not be ready to purchase.

Notification System:

Implement a notification system to inform users about order updates, promotions, or new product arrivals.

Pagination or Infinite Scroll:

Add pagination or infinite scroll to handle a large number of products on the product page.

Localization:

Make the application multilingual by implementing localization for different languages.

User Feedback:

Include a feedback or survey form to gather user feedback on the application's usability and features.

Admin Panel:

Develop an admin panel for managing products, users, and orders.

Allow administrators to perform CRUD operations on products and user accounts.

Advanced Search:

Enhance the search functionality with filters, sorting options, and advanced search parameters.

Payment Integration:

Integrate a payment gateway for real transactions. This could include options like credit card payments, PayPal, or other popular payment methods.