"Gadget Heaven"

1. Introduction

Gadget Heaven is an e-commerce website designed to provide a fully responsive shopping experience for users. It offers a beautiful navigation bar, a dashboard, a categorized product listing, a cart, and a wishlist. Users can browse products, view product details, add items to their cart, and favorite items, with data stored locally. The website includes functionalities such as sorting products by price, purchasing products, and viewing a thank-you message upon purchase.

2. Functional Requirements

2.1 Pages and Navigation

The website will have the following pages:

1. **Home Page**:
    - Contains the navigation bar (navbar), product categories, and a banner.
    - Displays a list of products with category buttons below the banner.
    - Product listing with 'View Details' button, 'Add to Cart' button, and wishlist icon.
    - Fully responsive design for various devices.
2. **Statistics Page**:
    - Displays statistics for the products and user activity (optional details based on the project scope).
3. **Dashboard Page**:
    - Displays the list of products that the user has added to their wishlist and cart.
    - Includes functionality to sort products by price.
    - Includes a "Purchase" button that shows a thank-you message upon clicking and resets the total cost to 0.
4. **About Us Page**:
    - Contains general information about the website and its purpose.

2.2 Categories and Product Listings

The homepage will display the following product categories:

- **All**
- **Smartphone**
- **Laptop**
- **Keyboard**
- **Accessories**
- **Airbuds**

Each product category will filter the product list to show only the relevant items. The products will be displayed with:

- A "View Details" button to show more information about the product.
- An "Add to Cart" button for adding the item to the user's shopping cart.
- A wishlist icon to add the item to the user's favorites.

2.3 Product Details

When a user clicks the "View Details" button, the product details page will be displayed with:

- Full description of the product, including images, specifications, and pricing.
- "Add to Cart" button to add the item to the shopping cart.
- Wishlist icon to add the item to the user's favorites.

2.4 Wishlist and Cart

- **Wishlist**: Items added to the wishlist will be stored in the local storage.
  - Users can view their wishlist on the Dashboard page.
- **Cart**: Items added to the cart will be stored in the local storage.
  - The cart will display the total cost of the products.
  - Users can proceed to purchase from the cart.

2.5 Sorting and Purchase Functionality

- **Sorting by Price**: A button in the Dashboard will allow users to sort products by price in descending order.
- **Purchase Button**: When the "Purchase" button is clicked, the following actions will occur:
  - A thank-you message will be displayed.
  - The total cost will be reset to 0.
  - The user will be redirected back to the Home page using `navigate()`.

2.6 Local Storage

- The website will utilize **local storage** to store the following data:
  - Cart items.
  - Wishlist items.
  - This data will persist even if the user navigates away or refreshes the page.

4. System Architecture

4.1 Frontend

- The frontend will be built using **HTML**, **CSS**, and **JavaScript** to ensure a smooth and responsive user experience.
- The **Navbar** will be created with a combination of HTML and CSS for the layout and responsiveness.
- **Product listings** and **category buttons** will be dynamically generated using JavaScript.
- **Local Storage** will be used to store cart and wishlist data.

4.2 Backend (Optional)

- The website may use **local storage** and **JSON file** to store user preferences, cart items, and wishlist data. If needed, a backend solution could be integrated to handle more complex data storage (e.g., using a database or a cloud service).

3. Non-Functional Requirements

3.1 Design and Usability

- **Responsive Design**: The website must be fully responsive and work across various devices (desktop, tablet, mobile).
- **User-Friendly Navigation**: The website should have an intuitive and easy-to-use navigation system.
- **Fast Load Time**: The website must have a fast load time, ensuring a smooth user experience.

3.2 Performance

- The website should perform efficiently and quickly load product categories, product details, and other pages.
- Sorting functionality should work smoothly without delays.

3.3 Security

- User data such as cart and wishlist items are stored in local storage, and no sensitive personal information is collected, so no additional security measures are necessary.

3.4 Cross-Browser Compatibility

- The website should be compatible with all major browsers (Chrome, Firefox, Safari, Edge).

3.5 Accessibility

- Ensure that the website is accessible to users with disabilities by following the best practices for web accessibility (e.g., appropriate use of semantic HTML, keyboard navigability, etc.).

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4. **About Us Page**:
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5. **Cart Page**:
    - Displays the items added to the cart.
    - Includes the total cost of products in the cart.
    - Allows the user to proceed with purchasing.

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6. Conclusion

This requirement document outlines the key features and functionalities for the **Gadget Heaven** website. The goal is to create a fully responsive, user-friendly platform that allows users to browse products, add them to their cart or wishlist, and make purchases seamlessly. With proper implementation of local storage, sorting functionalities, and a smooth purchase experience, the website will provide a high-quality user experience across all devices.