

Project Task: Basic E-Commerce Website (Static, Json Data Source)

Overview

The candidates are required to build a basic e-commerce website using React 18 that includes features such as product listings, categorization, product search, and a guest checkout flow. This project will test understanding of React Hooks, Tailwind CSS, form management, state management, routing, and SEO, while ensuring that the candidate can work with static data efficiently.

Technical Requirements

1. React 18 with functional components and hooks.
2. Tailwind CSS for styling.
3. React Router for routing.
4. React Hook Form for handling forms.
5. State management
6. SEO (Meta and OG-Tags)
7. Mobile-First Approach

Features

1. Product Listing Page
 - Display all products from the provided JSON file.
 - Include a category filter that lets users filter products by category.
 - Each product card should display the product image, name, price, and a "Add to Cart" button.
 - Add a client-side search, preferably fuzzy search
2. Product Detail Page
 - When a user clicks on a product, display a detailed page with more information.
 - This page should include a larger image, description, price, and an "Add to Cart" button. Create a random image pool and fetch image at random or use any image provider.
3. Cart
 - Allow user to view their cart with selected products.
 - Users should be able to change the quantity or remove items from the cart.
 - All this information should be locally stored.
4. Checkout Page
 - Create a form for users to enter their shipping details.
 - Display a summary of the items they are purchasing along with the total price.
 - Include a "Place Order" button which, when clicked, shows a confirmation message but does not actually process an order.
5. Routing
 - Implement clean URLs and ensure the application handles routing effectively without broken links.
6. SEO Optimization

- Use React Helmet to manage the document head, ensuring each page has appropriate meta tags for SEO, such as unique titles and descriptions.
7. Mobile-first approach that also offers downloading app if user is from mobile device. You can use any arbitrary app link for demonstration.

Data

- Provided is a JSON file with an array of products. Each product should have an `id`, `name`, `category`, `description`, `price`, and `image URL`.

Deliverables

- Source code pushed to a GitHub repository.
- A README file with instructions on setting up and running the project.
- Documentation of their code and decisions, especially regarding state management and form handling.

JSON

```
{
  "products": [
    {
      "id": "1",
      "name": "Wireless Bluetooth Headphones",
      "category": "Electronics",
      "description": "High-quality wireless headphones with noise cancellation and 12-hour battery life.",
      "price": 99.99,
      "image": "https://example.com/images/product1.jpg"
    },
    {
      "id": "2",
      "name": "Organic Green Tea",
      "category": "Groceries",
      "description": "A soothing blend of organic green tea leaves from the mountains of Himachal.",
      "price": 15.50,
      "image": "https://example.com/images/product2.jpg"
    },
    {
      "id": "3",
      "name": "Ergonomic Office Chair",
      "category": "Furniture",
      "description": "Comfortable ergonomic office chair with lumbar support and breathable mesh back.",
      "price": 250.00,
      "image": "https://example.com/images/product3.jpg"
    },
    {
      "id": "4",
      "name": "Classic Wooden Rolling Pin",
      "category": "Kitchenware",
      "description": "Traditional wooden rolling pin ideal for baking and pasta making.",
      "price": 20.75,
```

```

    "image": "https://example.com/images/product4.jpg"
  },
  {
    "id": "5",
    "name": "Gaming Mouse",
    "category": "Electronics",
    "description": "High precision gaming mouse with customizable RGB lighting and 16000 DPI sensor.",
    "price": 59.99,
    "image": "https://example.com/images/product5.jpg"
  },
  {
    "id": "6",
    "name": "Yoga Mat",
    "category": "Fitness",
    "description": "Eco-friendly, non-slip yoga mat perfect for all types of yoga and pilates.",
    "price": 35.00,
    "image": "https://example.com/images/product6.jpg"
  },
  {
    "id": "7",
    "name": "Stainless Steel Water Bottle",
    "category": "Fitness",
    "description": "Durable stainless steel water bottle, keeps liquids cold or hot for up to 12 hours.",
    "price": 25.00,
    "image": "https://example.com/images/product7.jpg"
  },
  {
    "id": "8",
    "name": "Smart TV 4K",
    "category": "Electronics",
    "description": "Ultra HD Smart TV with high dynamic range and smart home compatibility.",
    "price": 1200.00,
    "image": "https://example.com/images/product8.jpg"
  },
  {
    "id": "9",
    "name": "Bluetooth Speaker",
    "category": "Electronics",
    "description": "Portable Bluetooth speaker with excellent sound quality and long battery life.",
    "price": 45.99,
    "image": "https://example.com/images/product9.jpg"
  },
  {
    "id": "10",
    "name": "Electric Kettle",
    "category": "Kitchenware",
    "description": "Fast boiling electric kettle with auto shut-off and boil dry protection.",
    "price": 29.99,
    "image": "https://example.com/images/product10.jpg"
  },
  // More products up to 50 items
]
}

```