



## **Task Title:** Product Listing Page

### **Task Description:**

You are tasked with creating a product listing page using React.js and, optionally, Next.js for routing. The page should display a list of products, allow users to filter and sort the products, and view product details when clicked.

### **Requirements:**

#### **React.js:**

- Create a React component for the product listing page.
- Fetch a list of products from a static JSON file or mock API (you can create a simple JSON file with product data).
- Display the list of products with the following information:
  - Product name
  - Product image
  - Product price
- Include filter options to filter products by category or price range.
- Include sorting options to sort products by price (low to high and high to low).
- Implement a button or link to view more details for each product.

#### **Optional Next.js:**

- If you choose to use Next.js, set up routing to allow users to view individual product details on a separate page.

#### **Styling:**

- Style the product listing page with CSS, CSS-in-JS (e.g., styled-components), or a CSS framework (e.g., Bulma).
- Ensure that the application is responsive and looks good on both desktop and mobile devices.

#### **Product Details:**

- When a user clicks on a product, display a separate page or modal (depending on your choice) with detailed information about the product, including a larger image, description, and price.
- Allow users to close the product details view and return to the product listing page.

#### **Bonus Points:**

- Implement a search bar for users to search for products by name.
- Use Redux or React Context for state management (especially for filtering and sorting).
- Include pagination for the product listing page if there are many products.
- Add unit tests for components, especially those related to filtering and sorting.
- Include a README.md file with instructions on how to run the application locally, and any other relevant details.

This task will assess the candidate's ability to work with React.js, manage state, create a user-friendly interface for displaying data, and optionally demonstrate routing with Next.js. It also provides an opportunity for the candidate to consider filtering, sorting, and product detail views. Good luck with your evaluation!