

## **Job Simulation: Product List with Filter**

**Project Title:** Implementation of a React Product List with Category Filter

**Role:** Front-End Development Intern

**Technology Stack:** React, JSX, CSS

### **Objective**

To build a dynamic product list UI in React that displays product cards, filters them by category, and uses props, conditional logic, and modular components — all without using a grid layout.

### **Task Overview**

As part of your advanced task, you are required to build a vertically listed product UI that accepts a product array via props, includes category filters, and conditionally renders results based on the selected filter.

### **Task Requirements**

#### **1. Functionality:**

- Display a product list from a parent component using props
- Allow filtering by category (Electronics, Books, Clothing)



- Use `.filter()` to render only products in the selected category
- Display fallback message if no products match
- Each product displays: title, price, category, rating

## 2. User Interface (UI):

- Vertical list of cards (not grid layout)
- Each card includes product details with padding, border
  - Add background colors for category:
    - Electronics: `#FFE5B4`
    - Books: `#E6E6FA`
    - Clothing: `#D0F0C0`
  - Include a header and category filter buttons

## 3. Code Structure:

- `App.jsx` – Holds product data and selected category state
- `FilterMenu.jsx` – Category filter UI (dropdown/buttons)
- `ProductList.jsx` – Maps and filters product list
- `ProductCard.jsx` – Displays individual product details
- Add comments to explain filtering and props flow **Bonus**

## (Optional):

- Add product count for each category
- Highlight products with rating  $> 4$

- Add a reset filter button
- Display "Out of Stock" badge if applicable

## Deliverables

Submit a project folder that includes:

- **App.jsx** – State and data holder
- **FilterMenu.jsx** – Controls for filtering
- **ProductList.jsx** – Displays filtered product list
- **ProductCard.jsx** – Product detail rendering
- **style.css** – Styles for layout and categories

**Note:** Include a 2–3 line comment in **ProductList.jsx** explaining how product filtering works using **.filter()** and how props are passed down.

## Learning Outcomes

- Mastery of **.filter()** and **.map()** in React
- Dynamic data rendering using props
- Conditional UI updates

- Designing clean, responsive list-based layouts





