Dynamic Product Filter with Dropdown using JavaScript DOM Manipulation

Objective

Build a web-based product list that can dynamically filter and display items based on the user's selection from a dropdown menu. This task helps you understand how to use JavaScript to manipulate the DOM, handle events, and update visible elements in real time.

Task Description

Create a web page that displays a list of products (for example, shoes, shirts, or gadgets). Above the product list, include a dropdown menu with filter options such as 'All', 'Category 1', 'Category 2', etc. When the user selects an option from the dropdown, the product list should update immediately to show only the items that match the selected category. If 'All' is selected, all products should be displayed. The filtering and display changes must happen dynamically using JavaScript without reloading the page.

Output

<> index.html

<> index.html > ...

```html
2    <html lang="en">
3    <head>
7      <style>
75
76      .product:hover {
77        background: #007bff;
78        color: #fff;
79        transform: translateY(-2px);
80        box-shadow: 0 4px 12px rgba(0,0,0,0.1);
81      }
82
83      .fade {
84        animation: fadeIn 0.4s ease;
85      }
86
87      @keyframes fadeIn {
88        from { opacity: 0; transform: translateY(5px); }
89        to { opacity: 1; transform: translateY(0); }
90      }
91    </style>
92  </head>
93  <body>
94    <div class="container">
95      <h2>Product List</h2>
96      <div class="filter">
97        <label for="category">Filter by Category:</lab
98        <select id="category">
99          <option value="All">All</option>
100         <option value="Clothing">Clothing</option>
101         <option value="Electronics">Electronics</opt
102         <option value="Books">Books</option>
103       </select>
```

Simple Browser

https://iq5f0a-8080.bytexl.dev

Product List

Filter by Category: Clothing

T-Shirt

Jeans

Focus Lock

Layout: US

Simple Browser

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Product List

Filter by Category: Electronics

Headphones

Smartphone

Focus Lock

Layout: US