



Experiment 2

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Branch: CSE

Semester: 5th

Subject Name: Full Stack- I

UID: 23BCS10187

Section/Group: KRG_2_B

Date of Performance: 18/8/2025

Subject Code: 23CSP-339

1. Aim: To implement a dynamic product filtering system that updates displayed items based on user dropdown selection using JavaScript and DOM manipulation.

2. Objective:

- Create a product dataset
- Build filter dropdown UI
- Implement filter logic using `Array.prototype.filter()`
- Dynamically update the DOM
- Add visual feedback (e.g., filtered results)

3. Code:

HTML:

```
<select id="filter">
  <option value="all">All Products</option>
  <option value="electronics">Electronics</option>
  <option value="clothing">Clothing</option>
</select>
```

```
<div id="products-container"></div>
```

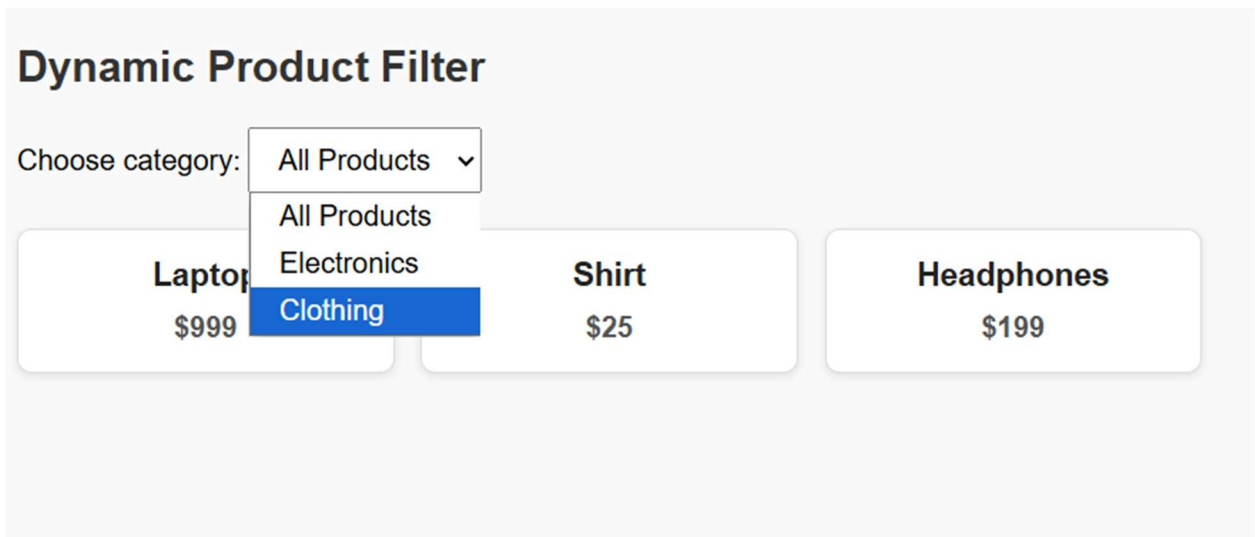
JavaScript:

```
const products = [
  { name: "Laptop", category: "electronics", price: 999 },
  { name: "Shirt", category: "clothing", price: 25 },
  { name: "Headphones", category: "electronics", price: 199 }
];
```

```
document.getElementById('filter').addEventListener('change', (e) => {  
  const selected = e.target.value;  
  const filtered = selected === 'all' ? products : products.filter(p => p.category ===  
selected);  
  renderProducts(filtered);  
});  
  
function renderProducts(products) {  
  const container = document.getElementById('products-container');  
  container.innerHTML = products.map(p => `  
    <div class="product">  
      <h3>${p.name}</h3>  
      <p>${p.price}</p>  
    </div>  
  `).join("");  
}
```

4. Output:

5.





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6. Learning Outcomes:

- a) Learned how to select and manipulate DOM elements dynamically.
- b) Gained experience in using event listeners to handle user interactions.
- c) Practiced applying array methods like `filter()`, `map()`, and `join()` to process data.
- d) Learned to render and update UI content in real time without page reload.
- e) Understood real-world use of filtering techniques in e-commerce websites.