

Experiment 5

Dynamic Product Filter with Dropdown using JavaScript DOM Manipulation Code

1. HTML-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Dynamic Product Filter</title>
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link
href="https://fonts.googleapis.com/css2?family=Poppins:wght@400;600&dis
play=swap" rel="stylesheet">
  <link rel="stylesheet" href="style.css">
</head>
<body>

  <div class="filter-container">
    <h1>Our Collection</h1>
    <p>Filter products by category</p>
    <select id="categoryFilter">
      <option value="all">All Categories</option>
      <option value="electronics">Electronics</option>
      <option value="apparel">Apparel</option>
      <option value="kitchen">Kitchen</option>
    </select>
  </div>

  <div id="productGrid" class="product-grid">
    <div class="product-item" data-category="electronics">
      <h3>Laptop</h3>
      <span class="category-tag">Electronics</span>
      <p class="price">$1200</p>
    </div>
    <div class="product-item" data-category="apparel">
      <h3>T-Shirt</h3>
      <span class="category-tag">Apparel</span>
      <p class="price">$25</p>
    </div>
    <div class="product-item" data-category="kitchen">
      <h3>Blender</h3>
      <span class="category-tag">Kitchen</span>
      <p class="price">$80</p>
    </div>
  </div>
```

```

<div class="product-item" data-category="electronics">
  <h3>Headphones</h3>
  <span class="category-tag">Electronics</span>
  <p class="price">$150</p>
</div>

<div class="product-item" data-category="apparel">
  <h3>Jeans</h3>
  <span class="category-tag">Apparel</span>
  <p class="price">$70</p>
</div>
<div class="product-item" data-category="kitchen">
  <h3>Coffee Maker</h3>
  <span class="category-tag">Kitchen</span>
  <p class="price">$110</p>
</div>
</div>

<script src="script.js"></script>
</body>
</html>

```

2. CSS

```

/* Define color variables and global styles */
:root {
  --primary-color: #6a11cb;
  --secondary-color: #2575fc;
  --background-color: #121212;
  --surface-color: #1e1e1e;
  --text-color: #e0e0e0;
  --border-color: #333;
}

body {
  font-family: 'Poppins', sans-serif;
  background-color: var(--background-color);
  color: var(--text-color);
  margin: 0;
  padding: 40px 20px;
}

/* Filter Section Styling */

```

```
.filter-container {  
  text-align: center;  
  margin-bottom: 40px;  
}
```

```
.filter-container h1 {  
  font-size: 2.5rem;  
  margin-bottom: 8px;  
  background: linear-gradient(90deg, var(--primary-color), var(--secondary-color));  
  -webkit-background-clip: text;  
  -webkit-text-fill-color: transparent;  
}
```

```
.filter-container p {  
  color: #aaa;
```

```
  margin-top: 0;  
}
```

```
select {  
  padding: 12px 20px;  
  font-size: 1rem;  
  border-radius: 8px;  
  border: 1px solid var(--border-color);  
  background-color: var(--surface-color);  
  color: var(--text-color);  
  cursor: pointer;  
}
```

```
/* Product Grid and Item Styling */
```

```
.product-grid {  
  display: grid;  
  grid-template-columns: repeat(auto-fill, minmax(220px, 1fr));  
  gap: 25px;  
  max-width: 1000px;  
  margin: 0 auto;  
}
```

```
.product-item {  
  background-color: var(--surface-color);  
  border: 1px solid var(--border-color);  
  border-radius: 12px;  
  padding: 25px;  
  text-align: center;
```

```
    box-shadow: 0 4px 15px rgba(0, 0, 0, 0.2);
    transition: transform 0.3s ease, box-shadow 0.3s ease;
}
```

```
.product-item:hover {
    transform: translateY(-10px);
    box-shadow: 0 8px 25px rgba(0, 0, 0, 0.4);
}
```

```
.product-item h3 {
    margin: 0 0 10px 0;
    font-size: 1.25rem;
}
```

```
.product-item .category-tag {
    display: inline-block;
    background-color: rgba(255, 255, 255, 0.05);
    color: #ccc;
    padding: 5px 12px;
    border-radius: 20px;
    font-size: 0.8rem;
    margin-bottom: 15px;
}
```

```
.product-item .price {
    font-size: 1.5rem;
    font-weight: 600;

    margin: 0;
    color: #fff;
}
```

```
/* The class to hide items */
.product-item.hide {
    display: none;
}
```

3. Javascript

```
document.addEventListener('DOMContentLoaded', () => {  
  // 1. Get references to the DOM elements  
  const categoryFilter = document.getElementById('categoryFilter');  
  const productItems = document.querySelectorAll('.product-item');  
  
  // 2. Add an event listener to the dropdown  
  categoryFilter.addEventListener('change', () => {  
    // 3. Get the selected category value  
    const selectedCategory = categoryFilter.value;  
  
    // 4. Loop through all product items to show or hide them  
    productItems.forEach(item => {  
      // Get the category of the current item from its data-category  
      // attribute  
      const itemCategory = item.dataset.category;  
  
      // Check if the item should be visible  
      if (selectedCategory === 'all' || selectedCategory === itemCategory) {  
        // Show the item by removing the 'hide' class  
        item.classList.remove('hide');  
      } else {  
        // Hide the item by adding the 'hide' class  
        item.classList.add('hide');  
      }  
    });  
  });  
});
```

OUTPUT of experiment 5

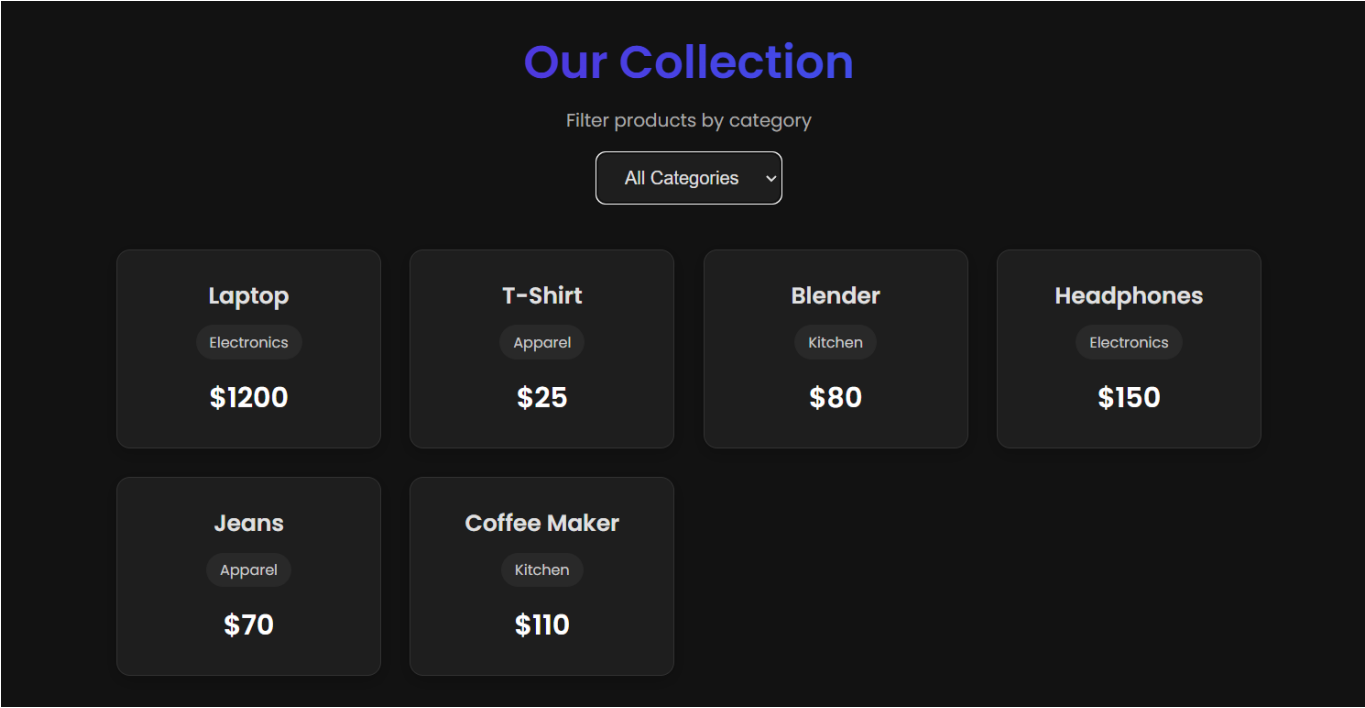


Figure 1 experiment 5 output

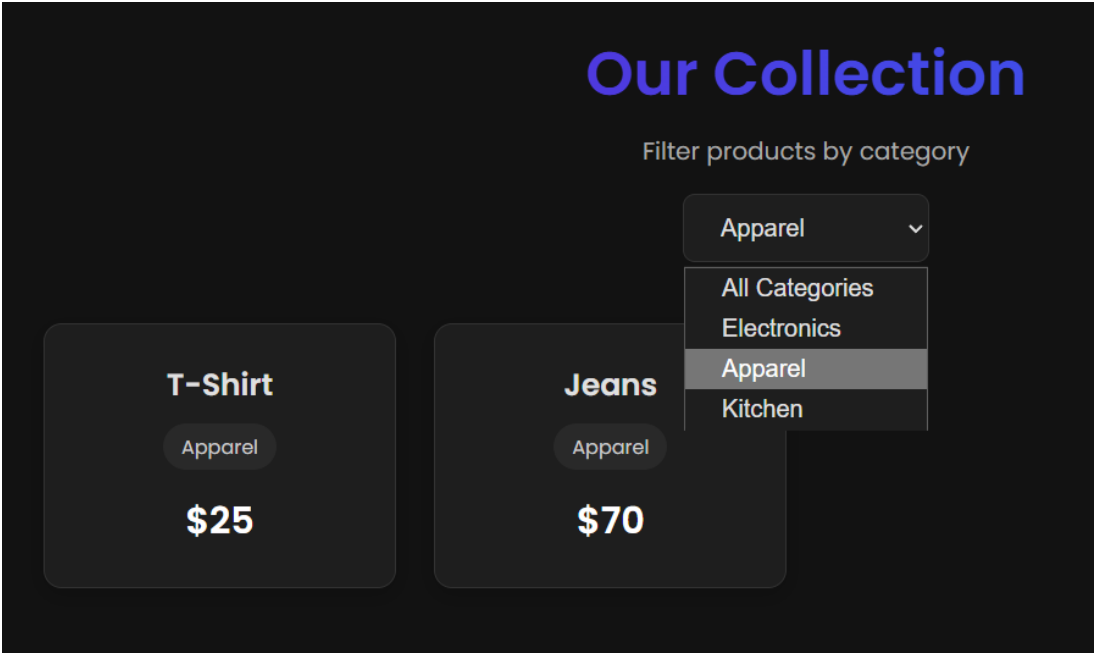


Figure 2 ouput all categories

