

EXP-2:

Build a Dynamic Product Filter with Dropdown using JavaScript DOM Manipulation:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8" />
<meta name="viewport" content="width=device-width, initial-scale=1" />
<title>Dynamic Product Filter with Dropdown</title>
<style>
  body {
    font-family: Arial, sans-serif;
    background: #f4f4f4;
    padding: 20px;
    max-width: 600px;
    margin: auto;
  }

  h2 {
    text-align: center;
    color: #333;
    margin-bottom: 20px;
  }

  select {
    width: 100%;
    padding: 10px;
    font-size: 16px;
    border-radius: 5px;
    border: 1px solid #ccc;
    margin-bottom: 20px;
    cursor: pointer;
  }

  .product-list {
    list-style: none;
    padding: 0;
  }
```

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.product-item {
  background: white;
  padding: 15px;
  margin-bottom: 10px;
  border-radius: 8px;
  box-shadow: 0 2px 5px rgba(0,0,0,0.1);
  transition: background-color 0.3s ease;
}

.product-item:hover {
  background-color: #e6f7ff;
}

.product-name {
  font-weight: bold;
  font-size: 18px;
  margin-bottom: 5px;
}

.product-category {
  font-size: 14px;
  color: #666;
}
</style>
</head>
<body>

<h2>Dynamic Product Filter</h2>

<select id="categoryFilter">
  <option value="all">All Categories</option>
</select>

<ul id="productList" class="product-list"></ul>

<script>
  // Sample product data
  const products = [
    { id: 1, name: "Wireless Mouse", category: "Electronics" },
    { id: 2, name: "Bluetooth Headphones", category: "Electronics" },
  ]

```

```

    { id: 3, name: "Coffee Mug", category: "Kitchen" },
    { id: 4, name: "Desk Lamp", category: "Furniture" },
    { id: 5, name: "Gaming Chair", category: "Furniture" },
    { id: 6, name: "Stainless Steel Knife Set", category: "Kitchen" },
    { id: 7, name: "Smartphone", category: "Electronics" },
    { id: 8, name: "Cookbook", category: "Books" },
    { id: 9, name: "Office Desk", category: "Furniture" },
    { id: 10, name: "Novel - Fiction", category: "Books" }
  ];

  // DOM elements
  const categoryFilter = document.getElementById('categoryFilter');
  const productList = document.getElementById('productList');

  // Function to get unique categories from products and populate dropdown
  function populateCategories() {
    const categories = Array.from(new Set(products.map(p => p.category)));
    categories.forEach(category => {
      const option = document.createElement('option');
      option.value = category;
      option.textContent = category;
      categoryFilter.appendChild(option);
    });
  }

  // Function to display products based on selected category
  function displayProducts(category) {
    productList.innerHTML = ""; // Clear existing products

    const filteredProducts = category === 'all'
      ? products
      : products.filter(p => p.category === category);

    if(filteredProducts.length === 0) {
      productList.innerHTML = '<li>No products found in this category.</li>';
      return;
    }

    filteredProducts.forEach(product => {
      const li = document.createElement('li');

```

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li.className = 'product-item';

const name = document.createElement('div');
name.className = 'product-name';
name.textContent = product.name;

const cat = document.createElement('div');
cat.className = 'product-category';
cat.textContent = `Category: ${product.category}`;

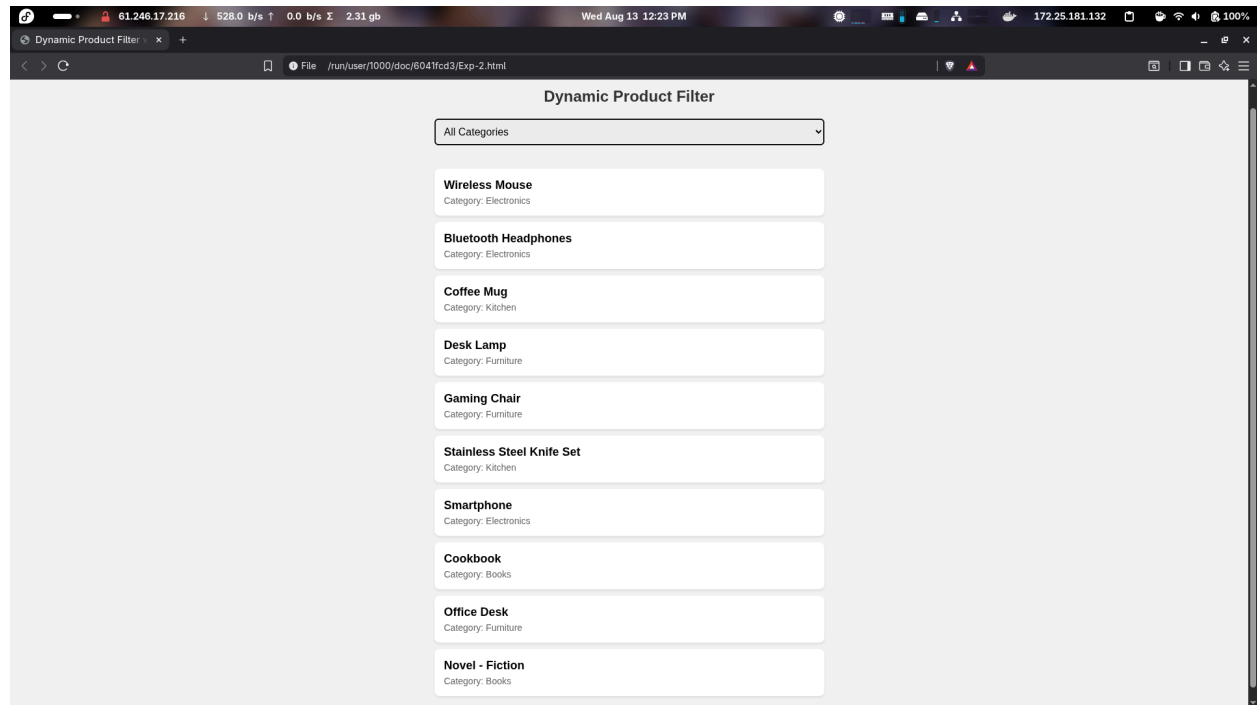
li.appendChild(name);
li.appendChild(cat);
productList.appendChild(li);
});
}

// Event listener for dropdown change
categoryFilter.addEventListener('change', (event) => {
  displayProducts(event.target.value);
});

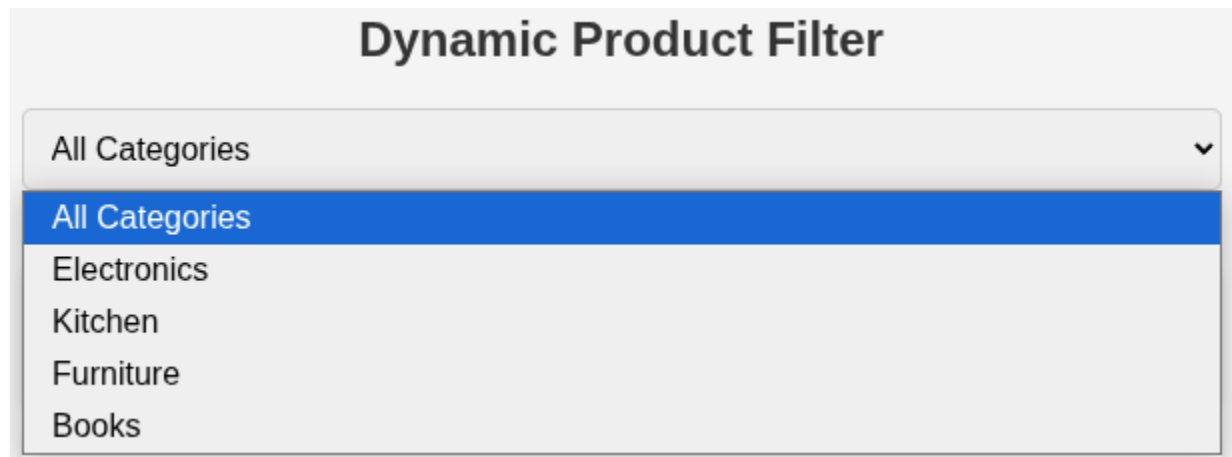
// Initial setup
populateCategories();
displayProducts('all');
</script>
</body>
</html>
```

Task-2:

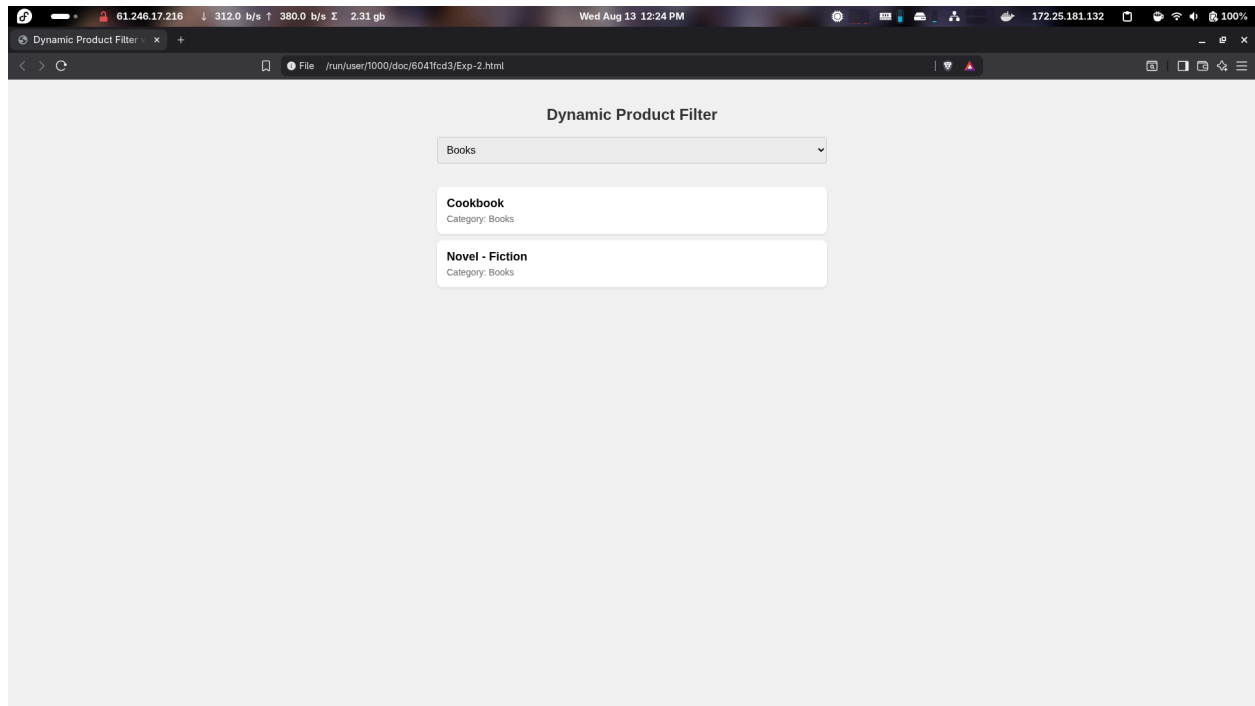
Basic Interface:



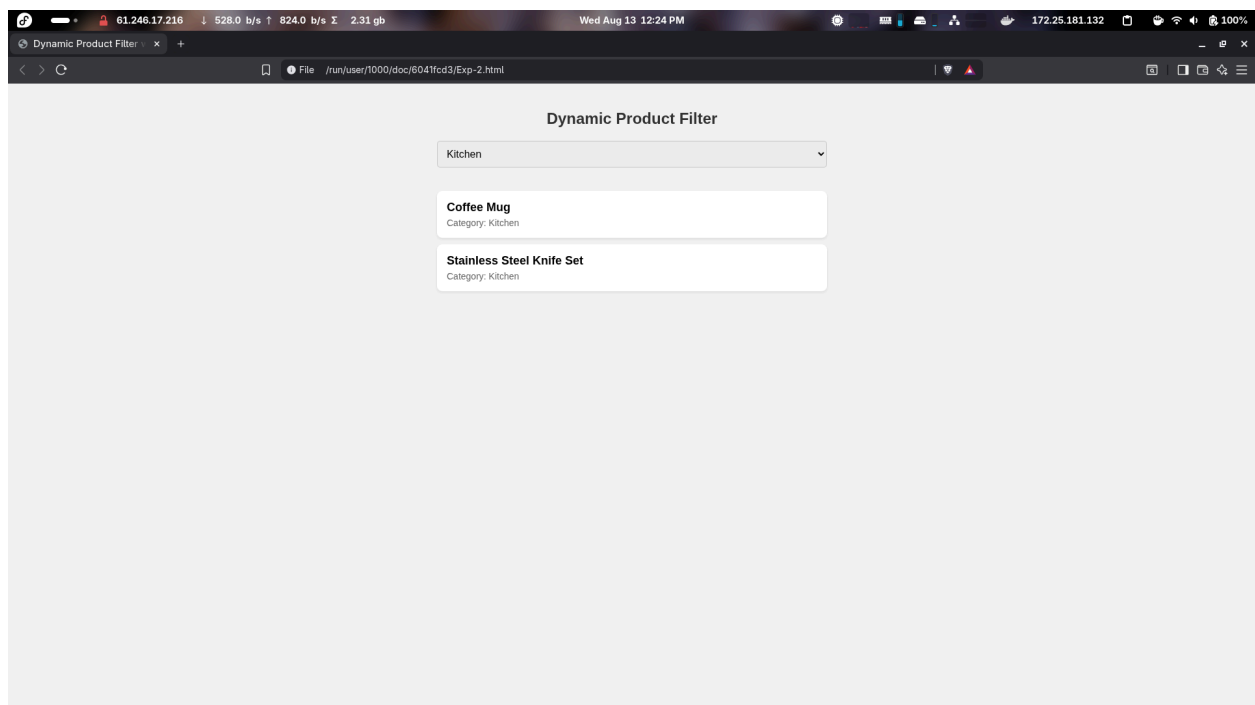
Drop-Down Filter Box:



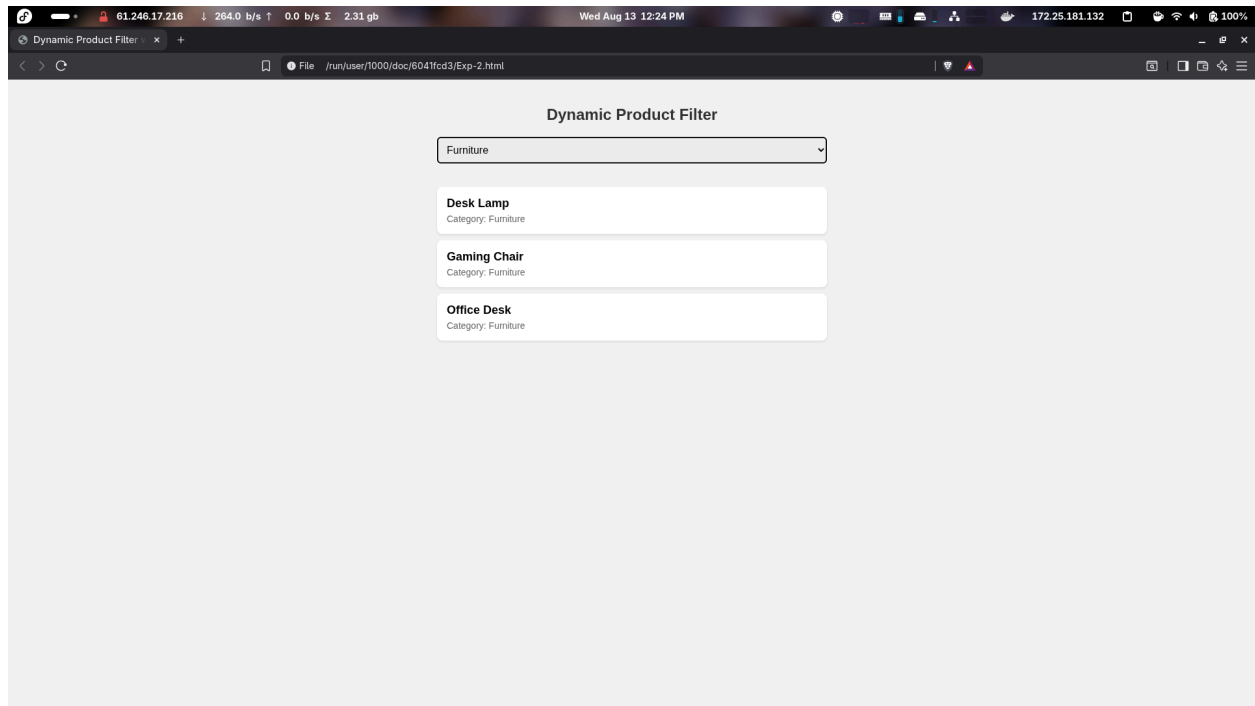
Electronics Filter:



Kitchen Filter:



Furniture Filter:



Books Filter:

