

**Name: Yokshit Sankhyan UID: 23BIS70152**

## **EXPERIMENT 5 AIM:**

Design and implement a Dynamic Product Filter with Dropdown using JavaScript DOM Manipulation

## **TASK DESCRIPTION:**

Create a web application that allows users to dynamically filter a list of products based on categories using a dropdown menu. The filtering should happen instantly without reloading the page, leveraging JavaScript DOM manipulation.

## **CODE:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Dynamic Product Filter</title>
  <style>    body {      fontfamily:
Arial, sans-serif;      margin: 40px;
backgroundcolor: #f0f2f5;      color:
#333;    }

    .container {      max-width:
500px;      margin: auto;      background:
#fff;      padding: 20px;      border-
radius: 8px;      box-shadow:
0 0 10px rgba(0,0,0,0.1);
}    h2 {      textalign:
center;      color:
#ff6f61;
    }    label {      fontweight:
bold;
    }
```

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```
        select {          padding:
8px;          font-size: 15px;
margin: 10px 0 20px 0;
width: 100%;
borderradius: 5px;
border: 1px solid #ccc;
outline: none;
    }          select:focus {          border-color:
#ff6f61;          box-shadow: 0 0
5px rgba(255,111,97,0.5);          }
ul {          padding: 0;          }
li {          margin: 8px 0;
liststyle: none;          padding:
10px;          background: #f5f5f5;
border-radius: 5px;
transition: 0.3s;
    }          li:hover {
background: #ffefef;
    }
</style>
</head>
<body>
    <div class="container">
        <h2>Product List</h2>
        <label for="filterDropdown">Filter by Category: </label>
        <select id="filterDropdown"></select>
        <ul id="productList"></ul>
    </div>

    <script>          const
products = [
    { name: "Running Shoes", category: "Shoes" },
    { name: "Basketball Shoes", category: "Shoes" },
```

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```
    { name: "Polo Shirt", category: "Shirts" },
    { name: "T-shirt", category: "Shirts" },
    { name: "Smartphone", category: "Gadgets" },
    { name: "Bluetooth Speaker", category: "Gadgets" },
  ];
  const dropdown =
document.getElementById("filterDropdown");
const productList =
= document.getElementById("productList");
const categories =
["All", ...new Set(products.map(p =>
p.category))];
categories.forEach(cat => {
const
option = document.createElement("option");
option.value =
cat;
option.textContent = cat;
dropdown.appendChild(option);
});
function
displayProducts(filteredProducts) {
productList.innerHTML =
productList.innerHTML = "<li>No products found.</li>";
return;
}
filteredProducts.forEach(product => {
const
li = document.createElement("li");
li.textContent =
`${product.name} (${product.category})`;
productList.appendChild(li);
});
}
dropdown.addEventListener("change",
function() {
const selectedCategory =
dropdown.value;
if (selectedCategory ===
"All") {
displayProducts(products);
} else {
const filtered = products.filter(p => p.category ===
selectedCategory);
displayProducts(filtered);
}
});
displayProducts(products);
</script>
</body>
</html>
```

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CODE O/P :

### Dynamic Product Filter

Filter by Category:

All

Headphones  
electronics

Jacket  
clothing

Jeans  
clothing

Laptop  
electronics

Milk Packet  
grocery

Rice Bag  
grocery

Smartphone  
electronics

T-Shirt  
clothing