

Experiment-5

Title

Dynamic Product List with Category Filter

Objective

To design and implement a dynamic product management system using HTML and JavaScript where users can add products and filter them by category.

Task Description

Create a web application that allows users to:

- Enter product details such as **ID, Name, Price, and Category**.
- Add products dynamically to a product table.
- Populate a dropdown list with product categories.
- Filter products displayed in the table based on the selected category

Code:

```
exp5(23BIS70053).html > html > head > script > addproductlist
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8">
5    <meta name="viewport" content="width=device-width, initial-scale=1.0">
6    <script>
7      let products = [];
8      let categories = new Set();
9
10     function addproductlist() {
11       let id = document.getElementById('productid').value;
12       let name = document.getElementById('productname').value;
13       let price = document.getElementById('productprice').value;
14       let category = document.getElementById('productcategory').value;
15
16       if (!id || !name || !price || !category) {
17         alert("Please fill all fields!");
18         return;
19       }
20
21       let product = { id, name, price, category };
22       products.push(product);
23
24       if (!categories.has(category)) {
25         categories.add(category);
26         let option = document.createElement('option');
27         option.value = category;
28         option.text = category;
29         document.getElementById("categorydropdown").appendChild(option);
30       }
31
32       displayproducts(products);
33
34       document.getElementById('productid').value = "";
35       document.getElementById('productname').value = "";
36       document.getElementById('productprice').value = "";
37       document.getElementById('productcategory').value = "";
38     }
39
40     function displayproducts(list) {
41       const tbody = document.getElementById("producttablebody");
42       tbody.innerHTML = "";
43       list.forEach(p => {
44         let row = "<tr>";
45         row += "<td>${p.id}</td>";
46         row += "<td>${p.name}</td>";
47         row += "<td>${p.price}</td>";
48         row += "<td>${p.category}</td>";
49         row += "</tr>";
50         tbody.innerHTML += row;
51       });
52     }
53   }
54 }
```

```

exp5(23BIS70053).html > html > head > script > addproduct
<html lang="en">
<head>
<script>
function displayProducts(list) {
  list.forEach(p => {
    <td>${p.price}</td>
    <td>${p.category}</td>
  </tr>;
  tbody.innerHTML += row;
  });
}

function filterbycategory() {
  let selected = document.getElementById('categoryDropdown').value;
  if (selected === "all") {
    displayProducts(products);
  } else {
    let filtered = products.filter(p => p.category === selected);
    displayProducts(filtered);
  }
}
</script>

<title>Product Lists</title>
</head>
<body>
<h3>Product Input Fields</h3>
<input type="number" id="productid" placeholder="Enter Product ID"><br>
<input type="text" id="productname" placeholder="Enter Product Name"><br>
<input type="number" id="productprice" placeholder="Enter Product Price"><br>
<input type="text" id="productcategory" placeholder="Enter Product Category"><br>

<input type="button" value="Add Product" onclick="addproductList()"><br><br>

<label for="categoryDropdown"><b>Filter By Category</b></label><br>
<select id="categoryDropdown" onchange="filterbycategory()">
  <option value="all">--- All Categories ---</option>
</select>
<br><br>

<table id="productTable">
  <thead>
    <tr>
      <th>ID</th>
      <th>Name</th>
      <th>Price($)</th>
      <th>Category</th>
    </tr>
  </thead>
  <tbody id="producttablebody"></tbody>
</table>
</body>
</html>

```

Output:

Product Input Fields

e1
ds1
21
w1
Add Product

Filter By Category

--- All Categories ---	▼
------------------------	---

ID Name Price(\$) Category			
1	ww	22	12
12	12	21	21

Product Input Fields

e1
ds1
21
w1
Add Product

Filter By Category

12	▼
----	---

ID Name Price(\$) Category

1	ww	22	12
---	----	----	----