# **Experiment 5- Full Stack Development**

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### **Objective**

Build a web-based product list that can dynamically filter and display items based on the user's selection from a dropdown menu. This task helps you understand how to use JavaScript to manipulate the DOM, handle events, and update visible elements in real time.

## **Task Description**

Create a web page that displays a list of products (for example, shoes, shirts, or gadgets). Above the product list, include a dropdown menu with filter options such as "All", "Category 1", "Category 2", etc. When the user selects an option from the dropdown, the product list should update immediately to show only the items that match the selected category. If "All" is selected, all products should be displayed. The filtering and display changes must happen dynamically using JavaScript without reloading the page.

### Input

```
IDOCTYPE html
<html lang="en":
      <meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
      <n/><nput type="number" id="productid" placeholder="Enter Product ID"><br/>input type="number" id="productname" placeholder="Enter Product Name"><br/>input type="number" id="productrame" 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="text" id="productcategory" placeholder="Enter Product Category"><br/>input type="text" id="productcategory"
      <input type="button" value="Add Product" onclick="addproductlist()"><br><br>
      Name
                            Price($)
                            Category
       let categories = new Set();
      function addproductlist(){
    let id = document.getElementById('productid').value;
             let name = document.getElementById('productname').value;
let price = document.getElementById('productprice').value;
let category = document.getElementById('productcategory').value;
             if(!id || !name || !price || !category){
   alert("Please fill all fields!");
             let product = { id, name, price, category };
products.push(product);
             if (!categories.has(category)) {
   categories.add(category);
   let option = document.createElement('option');
                    option.value = category;
option.text = category;
document.getElementById('categoryDropdown').appendChild(option);
```

displayproducts(products);

document.getElementById('productid').value="";
document.getElementById('productname').value="";
document.getElementById('productprice').value="";
document.getElementById('productcategory').value="";

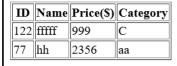
## **Output**



Enter Product Name
Enter Product Price
Enter Product Category

Add Product

## Filter By Category --- All Categories --- >



#### Filter By Category



ID	Name	Price(\$)	Category
122	fffff	999	C