

**EXP.NO:10**

**DATE:02.05.2025**

## **USER INTERFACE DESIGN**

**Roll no:230701257**

**AIM:**

Create a weather data visualization dashboard using JavaScript and Chart.js

**PROCEDURE:**

### **Step 1: Setup HTML and Styles**

**HTML & CSS:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Inventory Management Visualization</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
      margin: 50px;
      background-color: #f0f4f8;
    }
    canvas {
      margin: 30px auto;
      max-width: 500px;
    }
    h1 {
      color: #333;
    }
  </style>
</head>
<body>
  <h1>Inventory Management System</h1>

  <canvas id="pieChart" width="400" height="400"></canvas>
  <canvas id="barChart" width="400" height="400"></canvas>

  <!-- Chart.js Library -->
  <script src="https://cdn.jsdelivr.net/npm/chart.js"></script>
  <!-- JavaScript Logic -->
  <script src="script.js"></script>
</body>
</html>
```

## Step 2: JavaScript File (weather.js)

```
1 // script.js
2
3 // Inventory categories and stock data
4 const inventoryData = {
5   labels: ['Electronics', 'Clothing', 'Home Appliances', 'Books', 'Toys'],
6   datasets: [{
7     label: 'Items in Stock',
8     data: [200, 150, 100, 80, 50],
9     backgroundColor: [
10      '#FF6384', // Electronics
11      '#36A2EB', // Clothing
12      '#FFCE56', // Home Appliances
13      '#4BC0C0', // Books
14      '#9966FF'  // Toys
15    ]
16  }]
17 };
18
19 // PIE CHART
20 const ctxPie = document.getElementById('pieChart').getContext('2d');
21 const pieChart = new Chart(ctxPie, {
22   type: 'pie',
23   data: inventoryData,
24   options: {
25     responsive: true,
26     plugins: {
27       title: {
28         display: true,
29         text: 'Inventory Distribution'
30       }
31     }
32   }
33 });
34
35 // BAR CHART
36 const ctxBar = document.getElementById('barChart').getContext('2d');
37 const barChart = new Chart(ctxBar, {
38   type: 'bar',
39   data: inventoryData,
40   options: {
41     responsive: true,
42     plugins: {
43       title: {
44         display: true,
45         text: 'Items in Stock by Category'
46       }
47     },
48     scales: {
49       y: {
50         beginAtZero: true
51       }
52     }
53   }
54 });
55
```

Output:

## Inventory Management System

