EXP.NO:10

DATE:03.05.2025

USER INTERFACE DESIGN

Roll no:230701234

AIM: Create a data visualization (e.g., pie charts, bar graphs) for an inventory management system using javascript

PROCEDURE:

Step 1: Setting HTML with Styles form

Step 2: Create the JavaScript File for Charts

Step 1: Setting HTML form 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 Dashboard</title>

  <!-- Google Fonts for better typography -->
  <link
href="https://fonts.googleapis.com/css2?family=Roboto:wght@400;700&display=swap"
rel="stylesheet">
```

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

  <style>     body {       margin: 0;
padding: 0;       background-color:
#f0f2f5;       font-family: 'Roboto',
sans-serif;       display: flex;
flex-direction: column;       align-
items: center;       min-height: 100vh;
    }

    header {       background-
color: #4CAF50;       width:
100%;       padding: 20px 0;
color: white;       text-align:
center;       font-size: 2rem;
font-weight: bold;       letter-
spacing: 1px;
    }

    main {       margin-top:
30px;       display: flex;
flex-wrap: wrap;
justify-content: center;
gap: 40px;       padding:
20px;       width: 100%;
max-width: 1200px;
    }

    .chart-container {       background: white;
padding: 20px;       border-radius: 12px;
box-shadow: 0 4px 12px rgba(0, 0, 0, 0.1);
```

```
      width: 500px;
    }

    canvas {       width: 100%
!important;       height: auto
!important;
    }
    .highlight {   color: #ff0000; /*
Bright golden color */   font-weight: bold;
  font-size: 1.2em; /* Slightly bigger */
}

  </style>
</head>
<body>

    <header>
        Inventory Management Dashboard By <span
class="highlight">230701246</span>
      </header>



      <main>
        <div class="chart-container">
          <canvas id="pieChart"></canvas>
        </div>
        <div class="chart-container" style="height: 500px;">
            <canvas id="barChart"></canvas>
          </div>

      </main>



<script src="ui10.js"></script>

</body>
</html>
```

Step 2: Create the JavaScript File for Charts

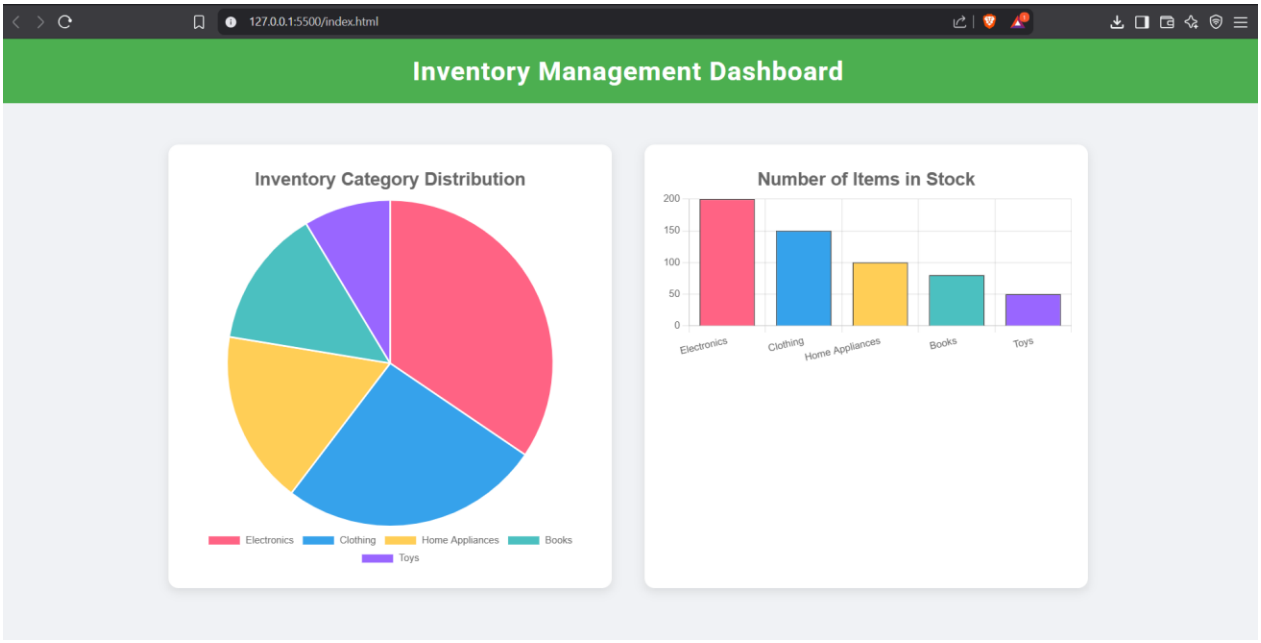
```
const inventoryLabels = ['Electronics', 'Clothing', 'Home Appliances', 'Books',
'Toys']; const inventoryValues = [200, 150, 100,
80, 50];
const inventoryColors = ['#FF6384', '#36A2EB', '#FFCE56', '#4BC0C0', '#9966FF'];

// Pie Chart - Inventory Distribution const pieCtx =
document.getElementById('pieChart').getContext('2d'); new
Chart(pieCtx, {   type: 'pie',   data: {     labels: inventoryLabels,
datasets: [{       data: inventoryValues,       backgroundColor:
inventoryColors,       borderColor: '#ffffff',       borderWidth: 2
    }]   },   options: {     responsive: true,
plugins: {       title: {         display: true,
text: 'Inventory Category Distribution',
font: {           size: 22
        }       },
legend: {
position: 'bottom'
      }
    }
  }
});

// Bar Chart - Items in Stock const barCtx =
document.getElementById('barChart').getContext('2d'); new
Chart(barCtx, {   type: 'bar',   data: {     labels: inventoryLabels,
datasets: [{       label: 'Items in Stock',       data:
inventoryValues,
```

```
      backgroundColor: inventoryColors,
borderColor: '#333',       borderWidth:
1
    }]   },   options: {     responsive:
true,     plugins: {       title: {
display: true,         text: 'Number of
Items in Stock',         font: {
size: 22
        }       },
legend: {
display: false
      }     },     scales: {
y: {         beginAtZero:
true,         ticks: {
stepSize: 50
        }
      }
    }
  }
});
```

OUTPUT:


127.0.0.1:5500/index.html
Inventory Management Dashboard
Inventory Category Distribution
Electronics
Clothing
Home Appliances
Books
Toys
Number of Items in Stock
200
150
100
50
0
Electronics
Clothing
Home Appliances
Books
Toys