

RAJALAKSHMI ENGINEERING COLLEGE

RAJALAKSHMI NAGAR, THANDALAM – 602 105



CS23A34 USER INTERFACE AND DESIGN LAB
Laboratory Observation NoteBook

Name : Sriram Umakanthan

Year/Branch/Section : II/CSE/D

Register No. : 230701338

Semester : IV

Academic Year: 2024-25

Ex. No. : 10

Register No. : 230701338

Name : Sriram Umakanthan

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

AIM:

The aim is to create data visualizations, such as pie charts and bar graphs, for an inventory management system using JavaScript.

PROCEDURE:

Step 1: Set Up Your HTML File

First, create an HTML file to hold your canvas for the chart and include Chart.js.

```
<!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;
}
```

```

    canvas {
      margin: 20px auto; display:
      block;
    }
  </style>
</head>
<body>
  <h1>Inventory Management System</h1>
  <canvas id="pieChart" width="400" height="400"></canvas>
  <canvas id="barChart" width="400" height="400"></canvas>

  <script src="https://cdn.jsdelivr.net/npm/chart.js"></script>
  <script src="script.js"></script>
</body>
</html>

```

Step 2: Create the JavaScript File for Charts

Next, create a JavaScript file (script.js) to handle the data visualization logic.

```

// script.js

// Data for the inventory
const inventoryData = { labels: ['Electronics',
'Clothing', 'Home Appliances', 'Books', 'Toys'], datasets: [
  { label: 'Items in Stock', data:
    [200, 150, 100, 80, 50],
    backgroundColor: [
      '#FF6384',
      '#36A2EB',
      '#FFCE56',

```

```

        '#4BC0C0',
        '#9966FF'
    ]
}
]
};

```

```

//    Creating    the    Pie    Chart    const    ctxPie    =
document.getElementById('pieChart').getContext('2d'); const pieChart
= new Chart(ctxPie, {
    type: 'pie',
    data: inventoryData,
    options:      {
    responsive:    true,
    plugins: {
        title: {
            display: true, text: 'Inventory
            Distribution'
        }
    }
    }
});

```

```

// Creating the Bar Chart
const ctxBar = document.getElementById('barChart').getContext('2d'); const
barChart = new Chart(ctxBar, {
    type: 'bar',
    data: inventoryData,
    options:      {

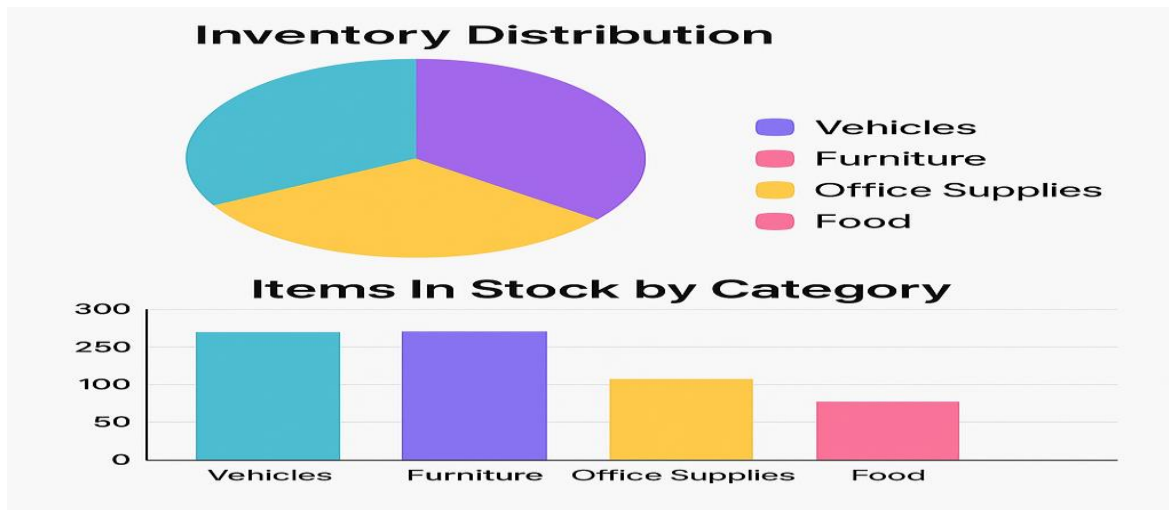
```

```

responsive: true,
plugins: {
  title: {
    display: true,
    text: 'Items in Stock by Category'
  } },
scales: { y: {
  beginAtZero: true
}
}
});

```

OUTPUT:



RESULT:

Data visualizations, such as pie charts and bar graphs, for an inventory management system using JavaScript has been successfully created.