

RAJALAKSHMI ENGINEERING COLLEGE

RAJALAKSHMI NAGAR, THANDALAM – 602 105



RAJALAKSHMI
ENGINEERING COLLEGE

CS23A34
USER INTERFACE AND DESIGN LAB

Laboratory Observation Notebook

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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.

html

```
<!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;
        }
</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.

```

javascript
// 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,    title: {
display: true,        text:
'Inventory Distribution'
    }
}
});

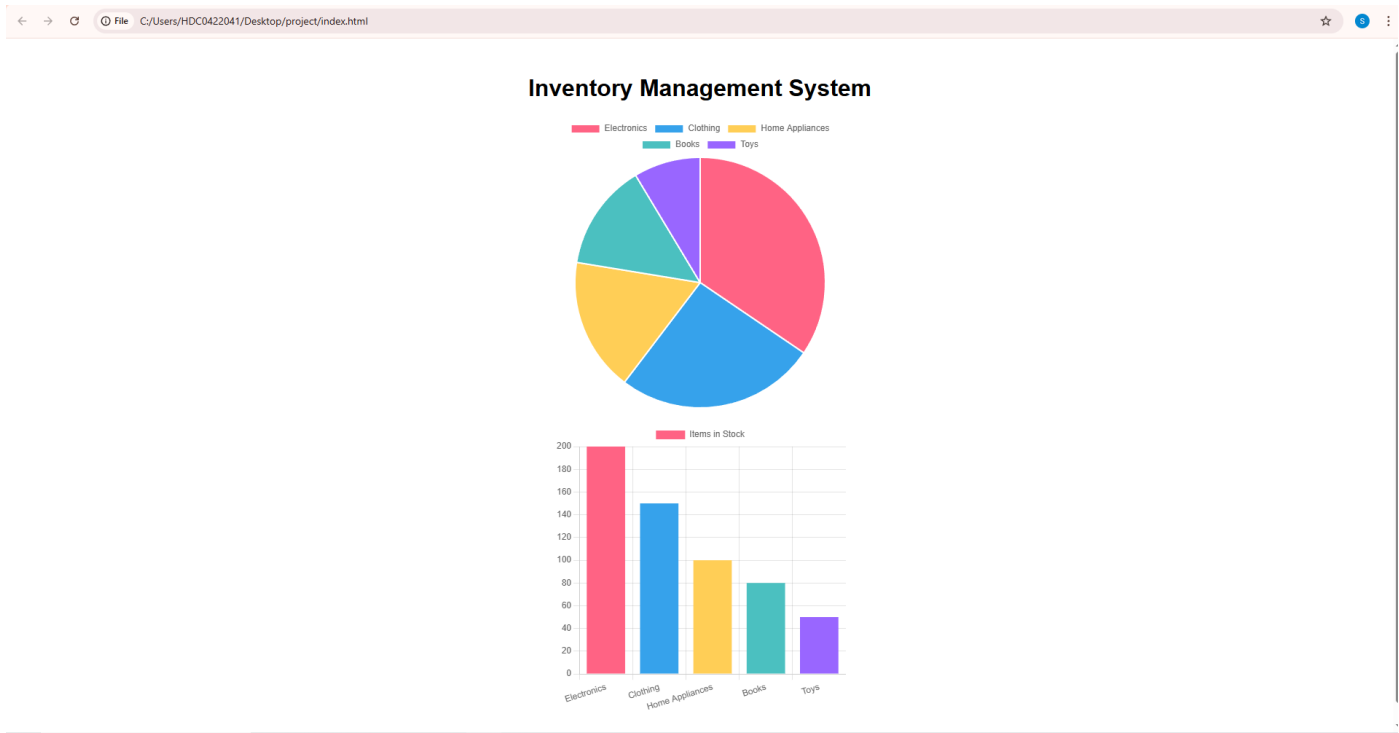
```

```

// Creating the Bar Chart const ctxBar =
document.getElementById('barChart').getContext('2d'); const
barChart = new Chart(ctxBar, {    type: 'bar',    data: inventoryData,
options: {        responsive: true,        title: {            display: true,
                text: 'Items in Stock by Category'
        },        scales: {
yAxes: [{            ticks: {
beginAtZero: true
                }
            }
        ]
    }
});

```

OUTPUT:



RESULT:

Hence we have created data visualizations, such as pie charts and bar graphs, for an inventory management system using JavaScript