

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'],

```

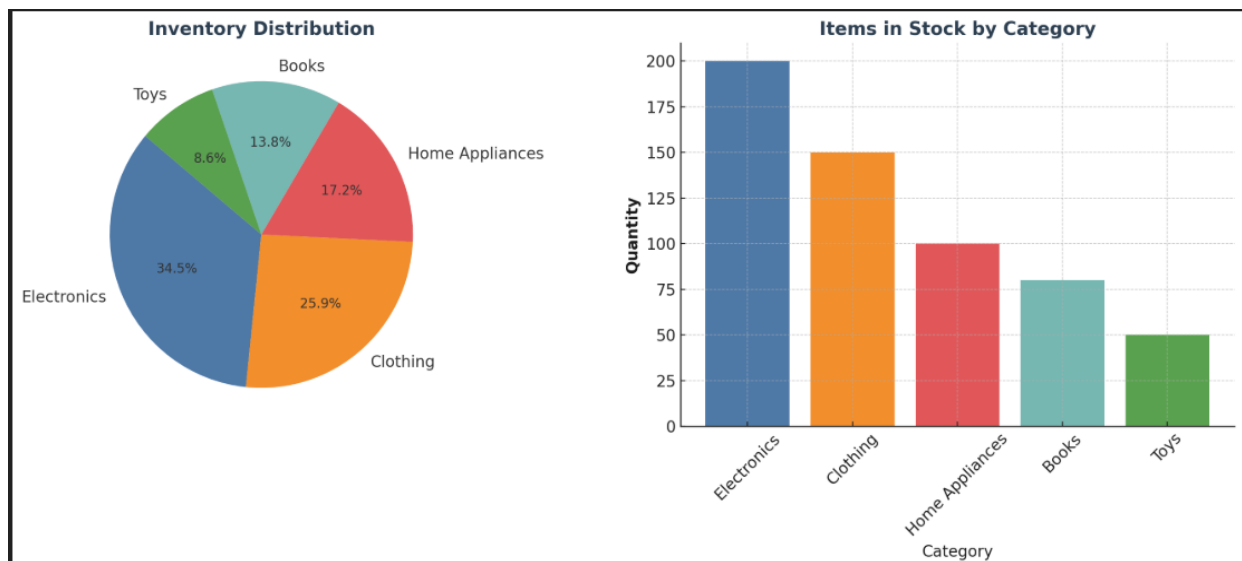
```
datasets: [  
  {  
    label: 'Items in Stock',  
    data: [200, 150, 100, 80, 50],  
    backgroundColor: [  
      '#FF6384',  
      '#36A2EB',  
      '#FFCE56',  
  
      '#4BC0C0',  
      '#9966FF'  
    ],  
  }  
];
```

```
// 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, data visualizations, such as pie charts and bar graphs, for an inventory management system using JavaScript have been executed successfully.