

**Exercise 10****Date:****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'  
        }  
    }  
});
```

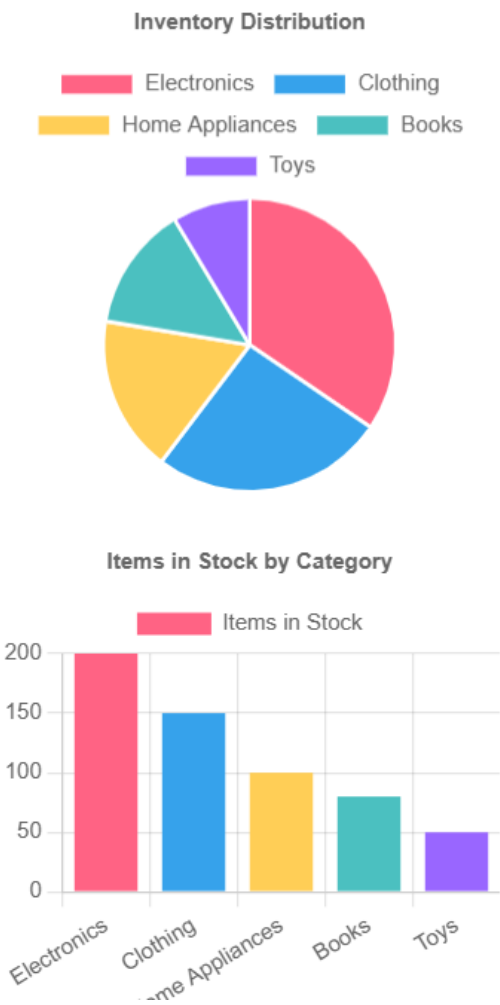
// Creating the Bar Chart

```
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:**

# Inventory Management System



**RESULT:**