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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
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',
```

```javascript
          '#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,
```
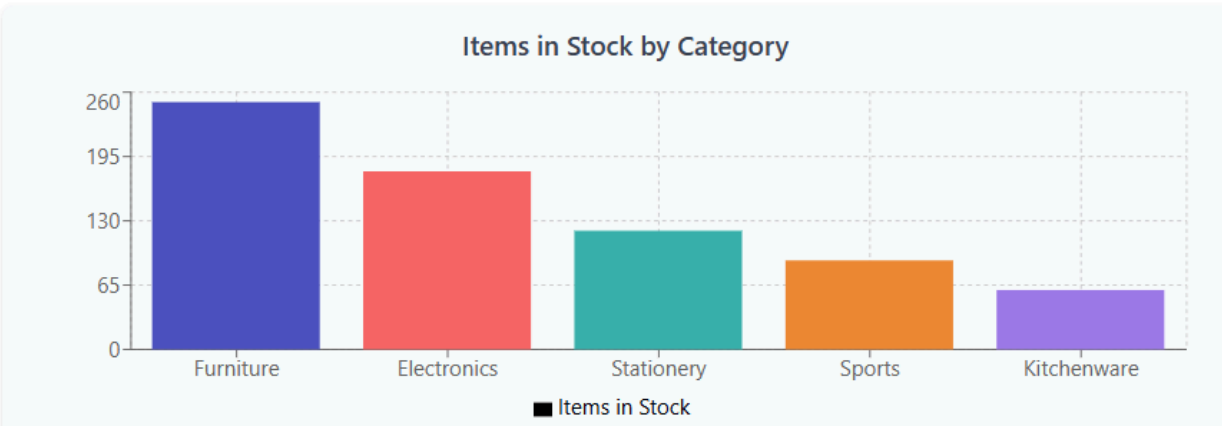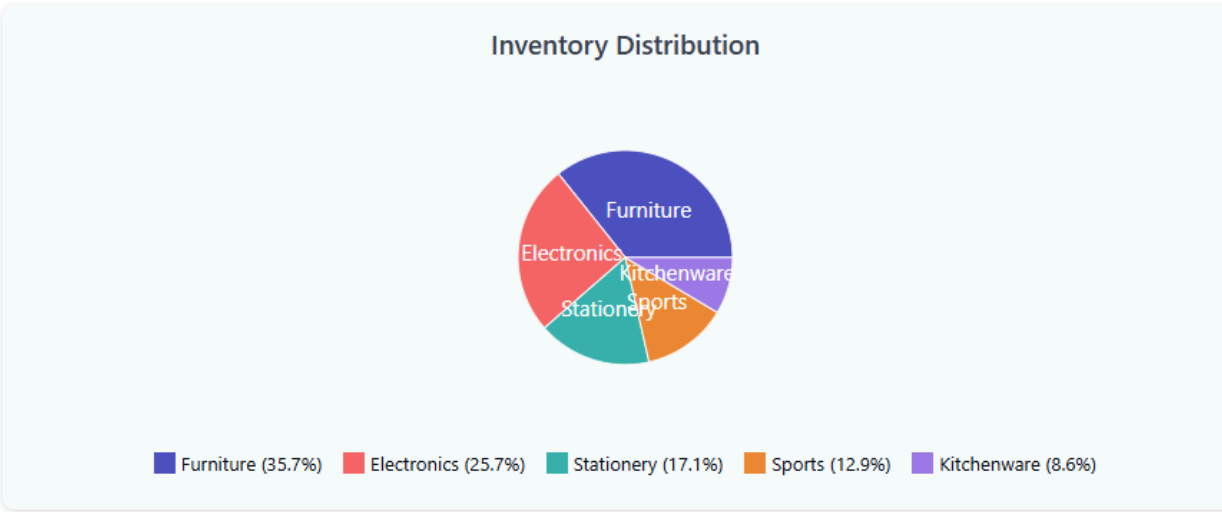
```
        title: {
            display: true,
            text: 'Items in Stock by Category'
        },
        scales: {
            yAxes: [{
                ticks: {
                    beginAtZero: true
                }
            }]
        }
    }
});
```

OUTPUT:

Inventory Management System

Inventory Distribution

Furniture

Electronics

Kitchenware

Sports

Stationery

■ Furniture (35.7%) ■ Electronics (25.7%) ■ Stationery (17.1%) ■ Sports (12.9%) ■ Kitchenware (8.6%)

Items in Stock by Category

260

195

130

65

0

Furniture   Electronics   Stationery   Sports   Kitchenware

■ Items in Stock

RESULT: