

Excercise:10

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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'
        }
    }
});
```

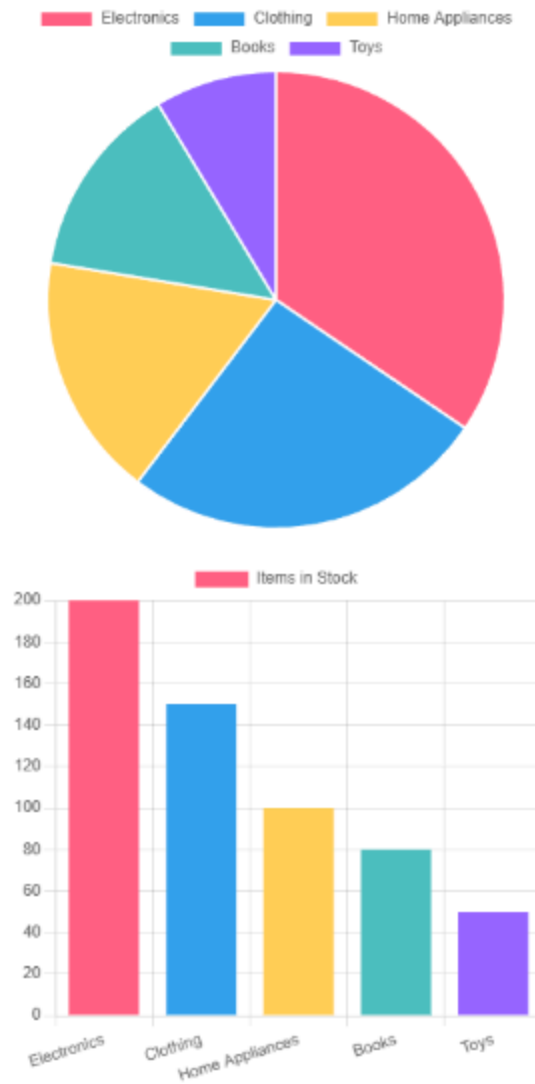
// Creating the Bar Chart

```
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:

Inventory Management System



RESULT:

Hence, the required output is obtained and verified successfully.