

## Exercise 16: javascript

### **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

