

**Exercise no 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:**

#### **Step1: Set Up Your HTML File**

First, create HTML file to hold your canvas for the chart and include Chart.js.

```
<!DOCTYPEhtml>
<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;
    }
  </style>
</head>
<body>
```

```

    canvas{
        margin:20px auto;
        display: block;
    }
</style>
</head>
<body>
    <h1>InventoryManagementSystem</h1>
    <canvasid="pieChart"width="400"height="400"></canvas>
    <canvasid="barChart"width="400"height="400"></canvas>

    <script src="https://cdn.jsdelivr.net/npm/chart.js"></script>
    <scriptsrc="script.js"></script>
</body>
</html>

```

## Step2: Create theJavaScript File For Charts

Next,create a JavaScriptfile(script.js)to handle the datavisualization logic.

```

//script.js

//Datafortheinventory
const inventoryData= {
    labels:['Electronics','Clothing','HomeAppliances','Books','Toys'],
    datasets: [
        {
            label:'ItemsinStock',
            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,
        plugins: {
            title: {
                display:true,
                text:'InventoryDistribution'
            }
        }
    }
});
```

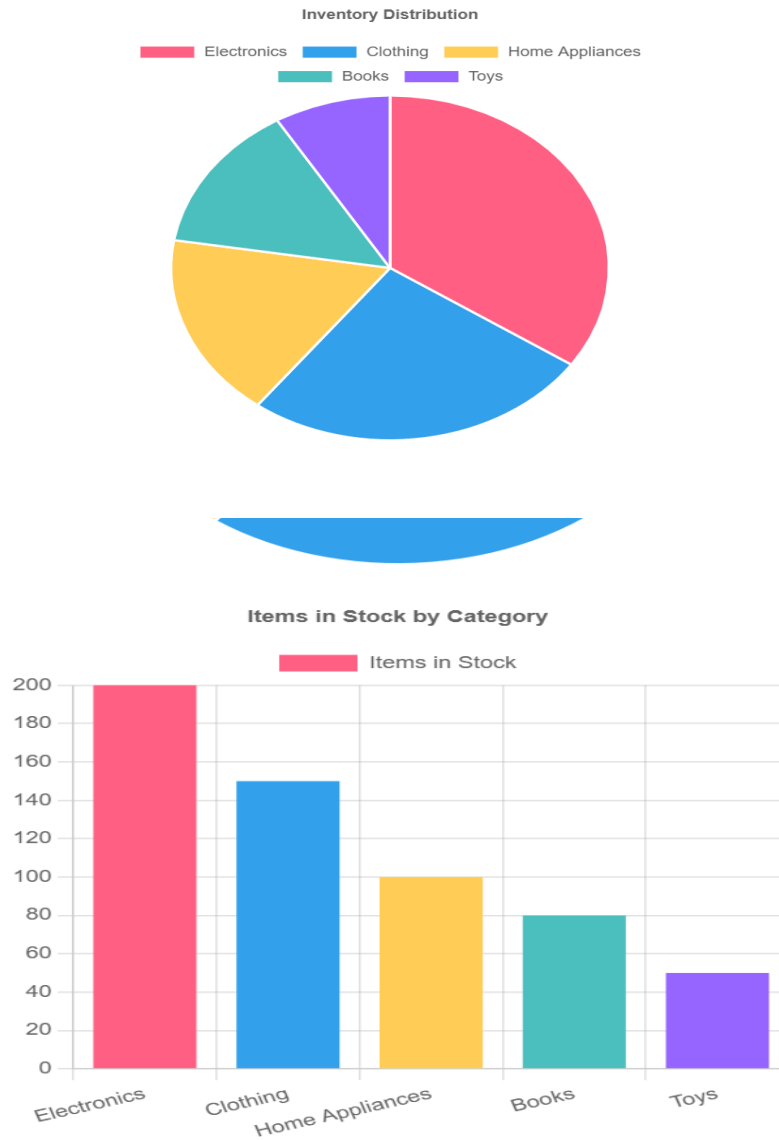
// Creating BarChart

```
const ctxBar=document.getElementById('barChart').getContext('2d'); const
barChart = new Chart(ctxBar, {
  type:'bar',
  data:inventoryData,
  options: {
    responsive: true,
    plugins: {
      title: {
        display:true,
        text:'Items in Stock by Category'
      }
    },
    scales:{
      y: {
        beginAtZero:true
      }
    }
  }
});
```

## OUTPUT:

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### Inventory Management System



## RESULT:

Data Visualizations, such as pie charts and bar graphs, for inventory management systems using JavaScript have been successfully created.