

Ex 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:

Step 1: Set Up Your HTML File

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

```
<!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;  
display: block;  
    }  
</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.

```
// script.js  
  
// Data for the inventory const inventoryData = {  labels:  
['Electronics', 'Clothing', 'Home Appliances', 'Books', 'Toys'],  
datasets: [  
  {  

```

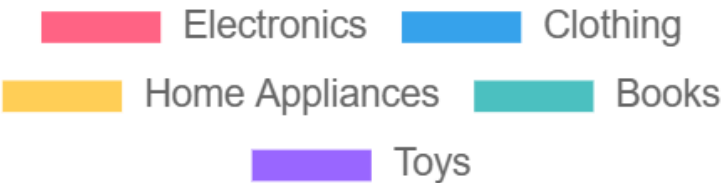
```
    label: 'Items in Stock',  
    data: [200, 150, 100, 80, 50],  
    backgroundColor: [  
        '#FF6384',  
        '#36A2EB',  
        '#FFCE56',  
        '#4BC0C0',  
        '#9966FF'  
    ]  
}  
]  
};
```

```
// Creating the Pie Chart const ctxPie =  
document.getElementById('pieChart').getContext('2d'); const  
pieChart = new Chart(ctxPie, {  
    type: 'pie',  
    data:  
inventoryData,  
    options: {  
responsive: true,  
plugins: {  
    title: {  
display: true,  
        text: 'Inventory Distribution'  
    }  
}  
}
```

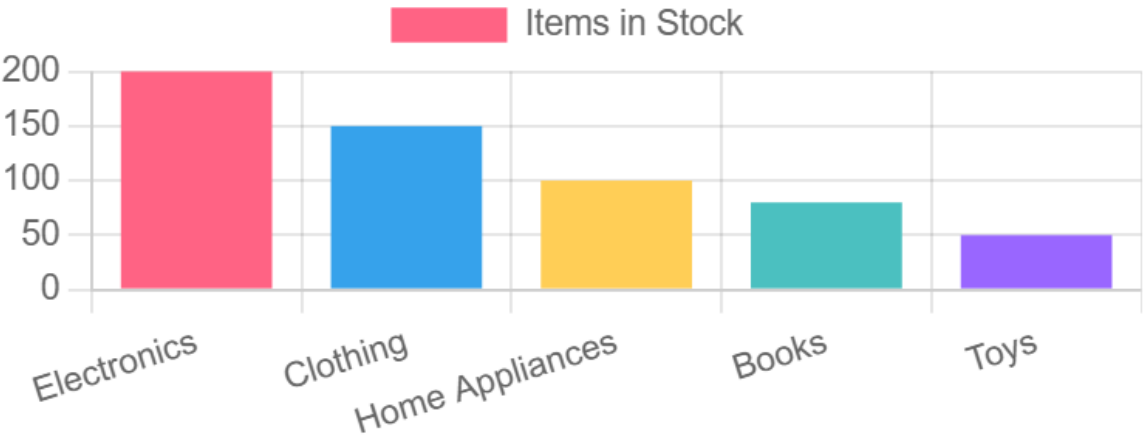
```
});  
// Creating the Bar Chart  
const ctxBar = document.getElementById('barChart').getContext('2d');  
const barChart = new Chart(ctxBar, {  
  type: 'bar',  
  data: inventoryData, options: {  
    responsive: true, plugins: {  
      title: { display: true, text:  
'Items in Stock by Category'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

OUTPUT:

Inventory Distribution



Items in Stock by Category



RESULT:

Data visualizations, such as pie charts and bar graphs, for an inventory management system using JavaScript has been successfully created.