

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

        }

      }]

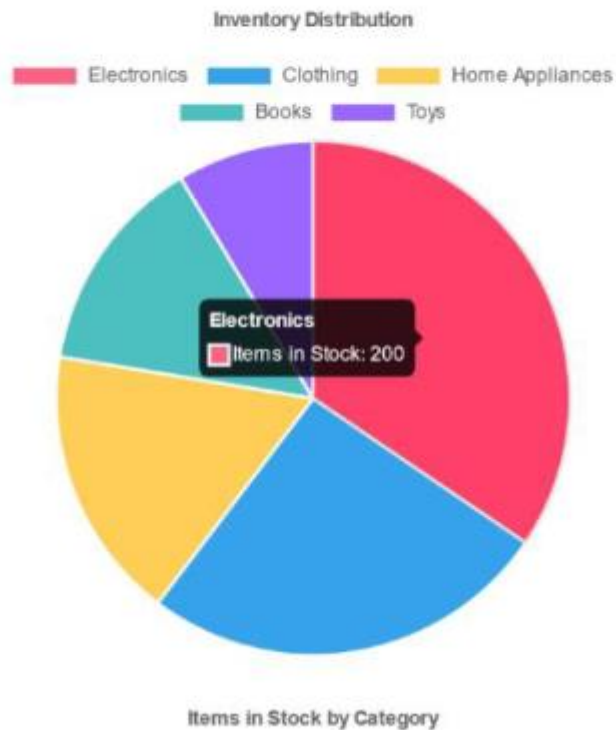
    }

  }

});
```

OUTPUT:

Inventory Management System



RESULT:

Successfully created data visualizations (Pie and Bar charts) using Chart.js to represent the stock levels in different inventory categories for an inventory management system.