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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: [
    {
```

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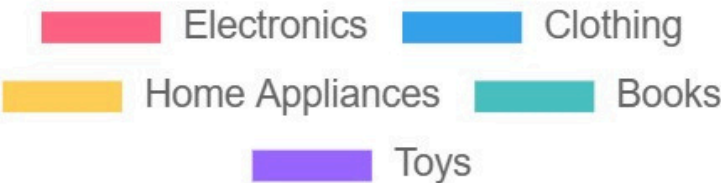
```
});
// Creating the Bar Chart
const ctxBar = document.getElementById('barChart').getContext('2d');
const barChart = new Chart(ctxBar, {
  type: 'bar',
  data: inventoryData, options: {
responsive: true,    plugins: {
title: {        display: true,        text:
'Items in Stock by Category'
}
},
 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

OUTPUT:

Inventory Distribution

Electronics **Clothing** **Home Appliances** **Books** **Toys**

Items in Stock by Category

Items in Stock

Category	Items in Stock
Electronics	200
Clothing	150
Home Appliances	100
Books	80
Toys	50

RESULT:

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