

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 {    fontfamily:
```

```
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
}
}
}
});

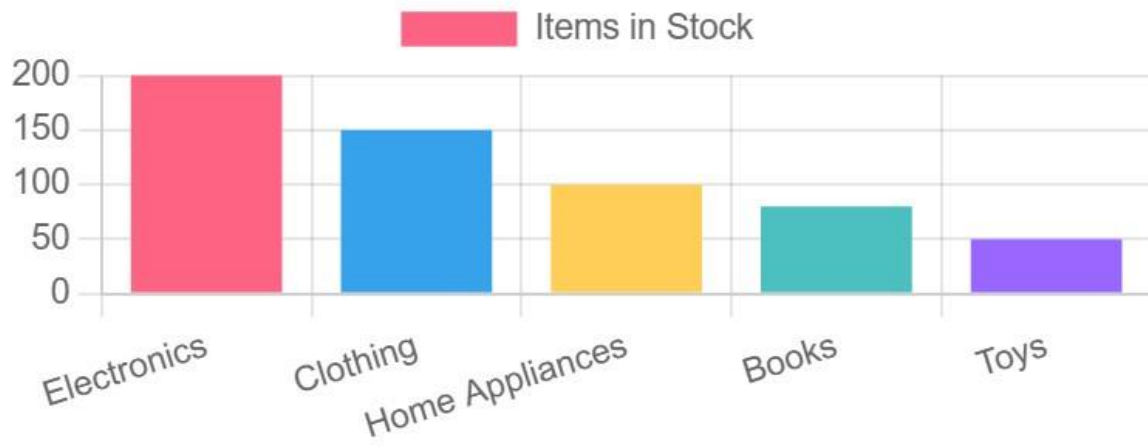
```

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.