

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. 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
```

```
}
```

```
}]
```

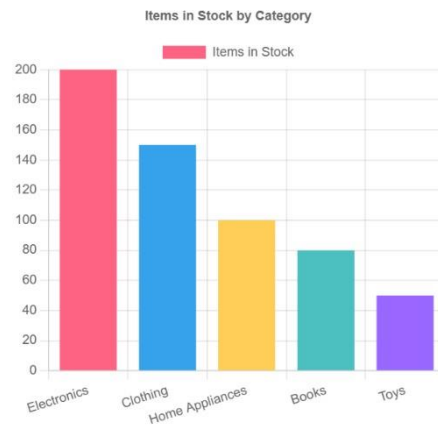
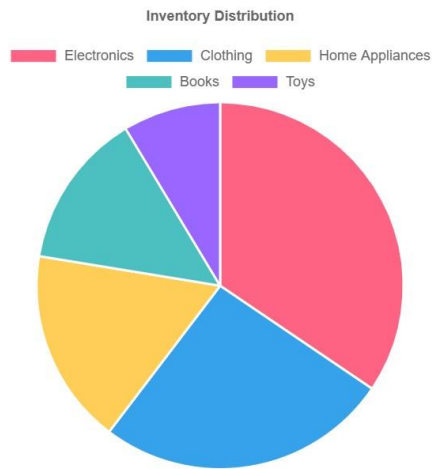
```
}
```

```
}
```

```
});
```

OUTPUT:

Inventory Management System



RESULT:

Hence , to create data visualizations, such as pie charts and bar graphs, for an inventory management system using JavaScript has been done successfully.