

**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: '&#39;Items in Stock&#39;,
data: [200, 150, 100, 80, 50],
backgroundColor: [
&#39;#FF6384&#39;,
&#39;#36A2EB&#39;,
&#39;#FFCE56&#39;,

&#39;#4BC0C0&#39;,
&#39;#9966FF&#39;
],
}
]
};

```

```
// Creating the Pie Chart
```

```

const ctxPie =
document.getElementById('&#39;pieChart&#39;').getContext('&#39;2d&#39;');
const pieChart = new Chart(ctxPie, {
type: '&#39;pie&#39;,
data: inventoryData,
options: {
responsive: true,
title: {

```

```
display: true,  
text: 'Inventory Distribution';  
}  
}  
});
```

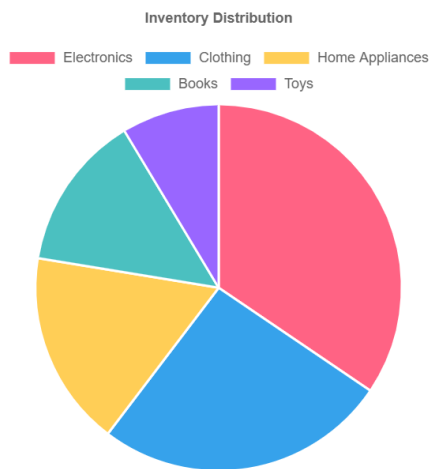
```
// Creating the Bar Chart
```

```
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.