

EX.NO: 10

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Date:21.04.2025

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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';  
}  
}  
});
```

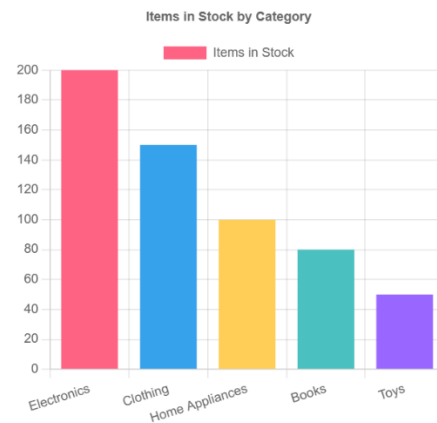
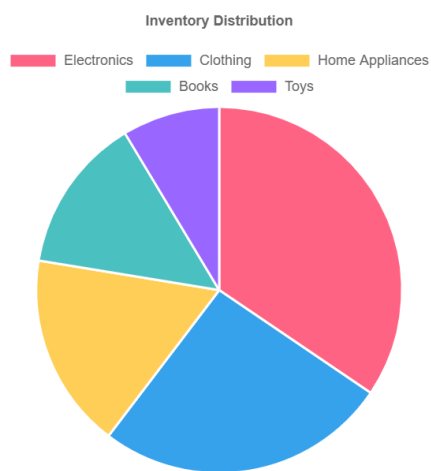
```
// Creating the Bar Chart
```

```
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.