RAJALAKSHMI ENGINEERING COLLEGE
RAJALAKSHMI NAGAR, THANDALAM – 602 105

CS23A34 **USER INTERFACE AND DESIGN LAB**
Laboratory Observation Notebook

Name : SIVA SANTHOSH R
Year/Branch/Section : II/CSE/F
Register No. : 230701318 **Semester :** IV
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Register No.: 230701318   **Name: SIVA SANTHOSH R**

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 {        fontfamily:
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 Dashboard

Category
All Categories

Warehouse
North

Time Period
Last Week

Update Dashboard

Total Items	Critical Stock	Low Stock	Optimal Stock	Excess Stock
8,742	28	156	6,213	2,345

Inventory by Category

- Electronics
- Clothing
- Furniture
- Office
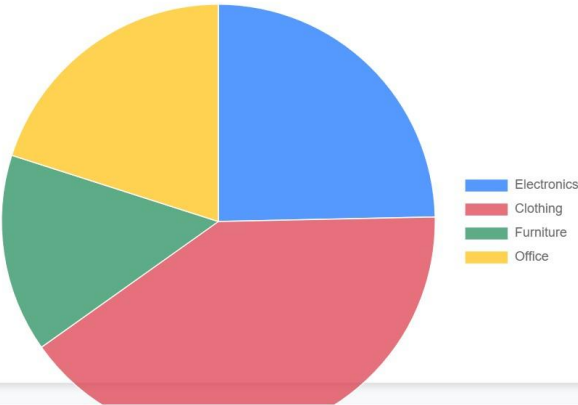
Inventory by Warehouse

Items in Stock

Stock Level Status

- Critical
- Low
- Optimal
- Excess

Inventory Trends

Electronics   Clothing   Furniture   Office

Jan   Feb   Mar   Apr   May   Jun
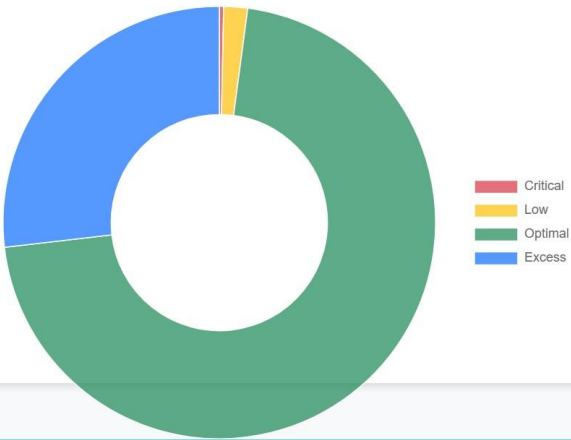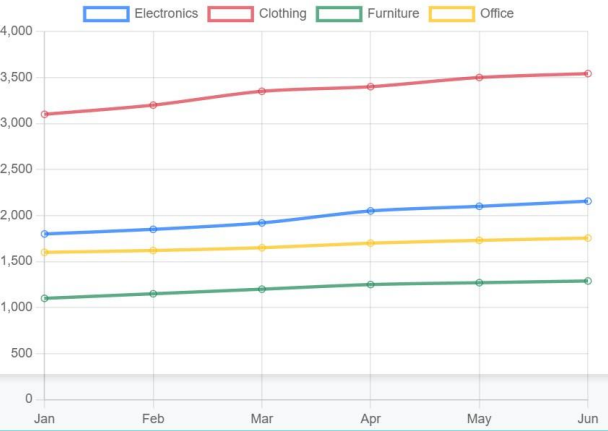
RESULT:

Hence we have created data visualizations, such as pie charts and bar graphs, for an inventory management system using JavaScript