RAJALAKSHMI ENGINEERING COLLEGE

RAJALAKSHMI NAGAR, THANDALAM – 602 105

RAJALAKSHMI
ENGINEERING COLLEGE

CS23A34
USER INTERFACE AND DESIGN LAB

Laboratory Observation Notebook

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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

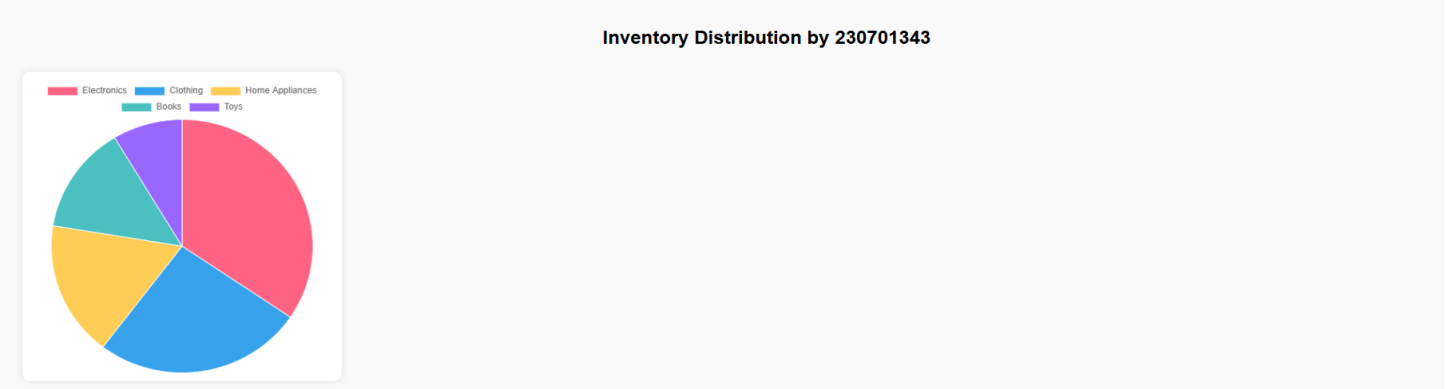
Next, create a JavaScript file (script.js) to handle the data visualization logic.

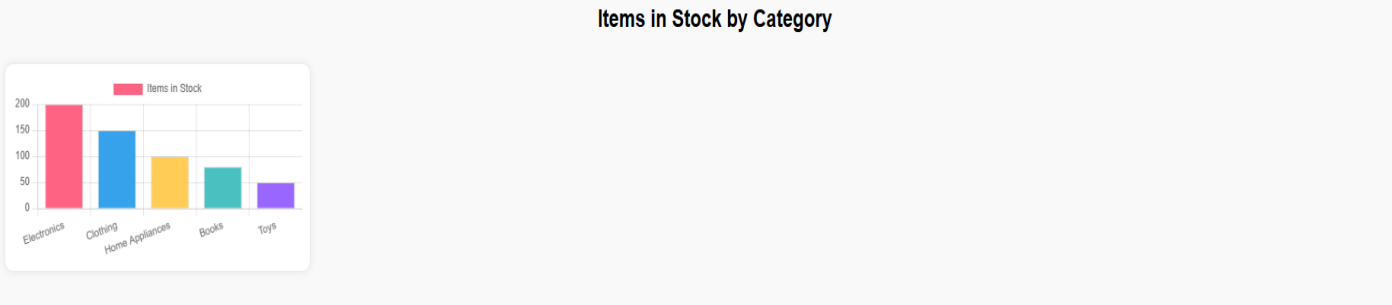
javascript

```
// 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:





RESULT:

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