

**RAJALAKSHMI ENGINEERING COLLEGE**  
**RAJALAKSHMI NAGAR, THANDALAM – 602 105**



**RAJALAKSHMI**  
**ENGINEERING COLLEGE**

**CS23A34**  
**USER INTERFACE AND DESIGN LAB**

**Laboratory Observation Notebook**

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**Academic Year: 2024-25**

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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 {      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'
}
}
});

```

```

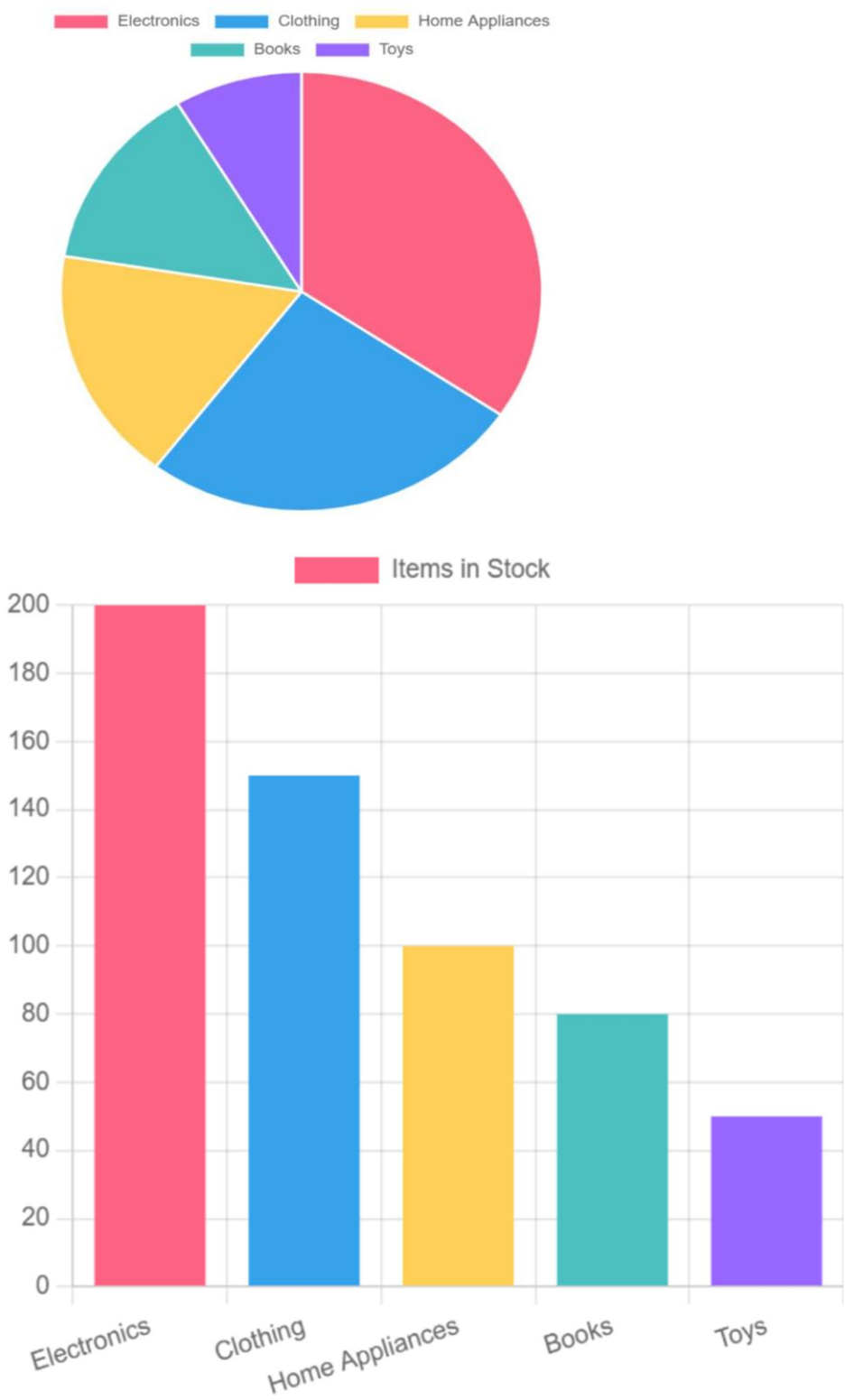
// Creating the Bar Chart const ctxBar =
document.getElementById('barChart').getContext('2d'); const barChart
= new Chart(ctxBar, { type: 'bar', data: inventoryData, options:
{ responsive: true, title: { display: true, text:
'Items in Stock by Category'
}, scales: { yAxes:
[ { ticks: {
beginAtZero: true

```

```
        }  
    }  
}  
}  
);
```

**OUTPUT:**

# Inventory Management System



**RESULT:**

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