

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 Dashboard

Category

Warehouse

Time Period

All Categories

North

Last Week

Update Dashboard

Total Items

Critical Stock

Low Stock

Optimal Stock

Excess Stock

8,742

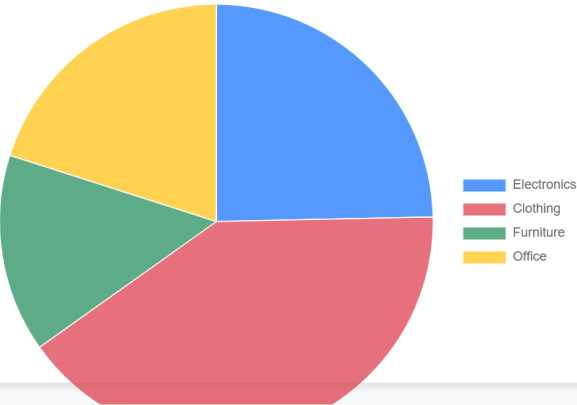
28

156

6,213

2,345

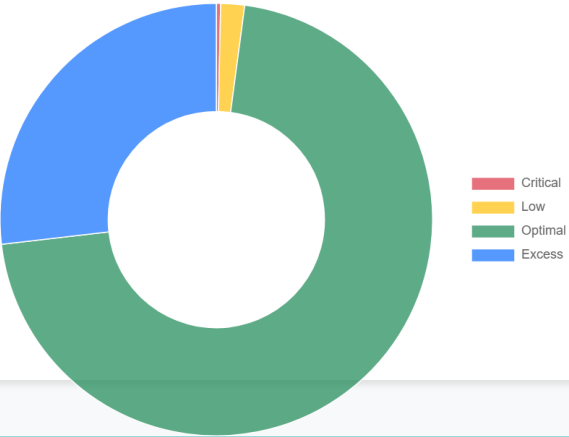
Inventory by Category



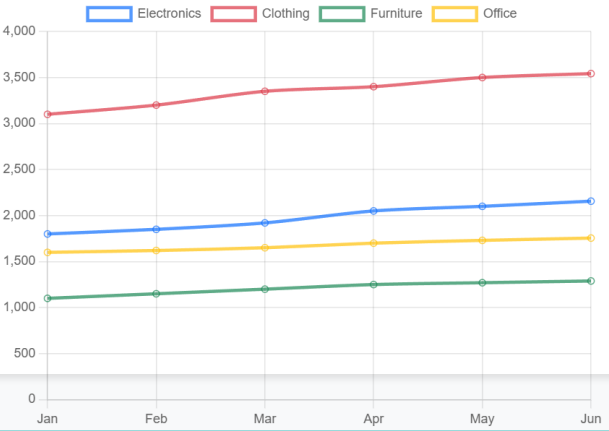
Inventory by Warehouse



Stock Level Status



Inventory Trends



RESULT:

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