

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

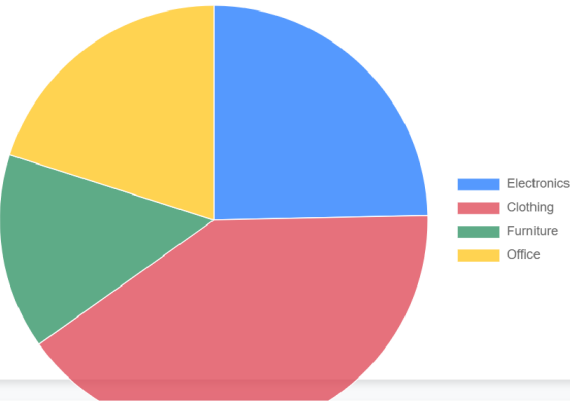
North

Last Week

Update Dashboard

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

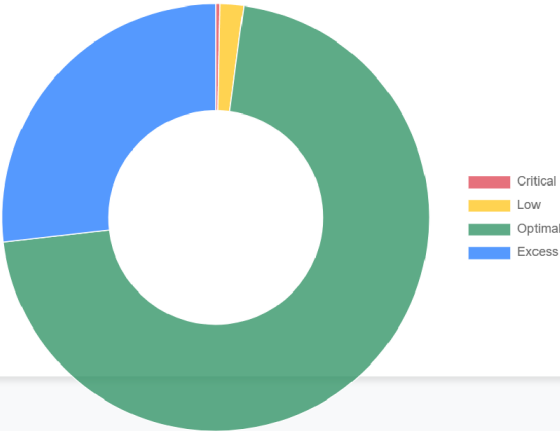
Inventory by Category



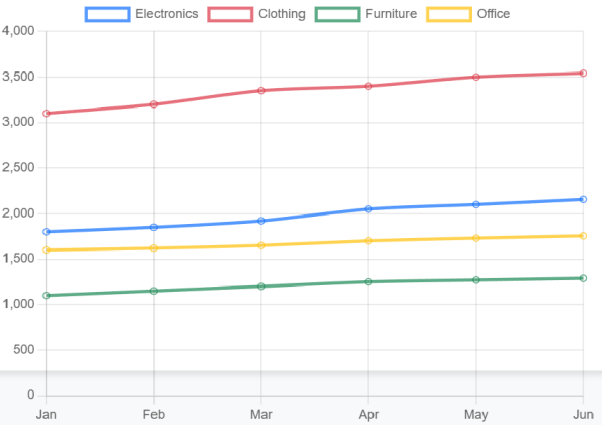
Inventory by Warehouse



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