

Exercise 10

Date:

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

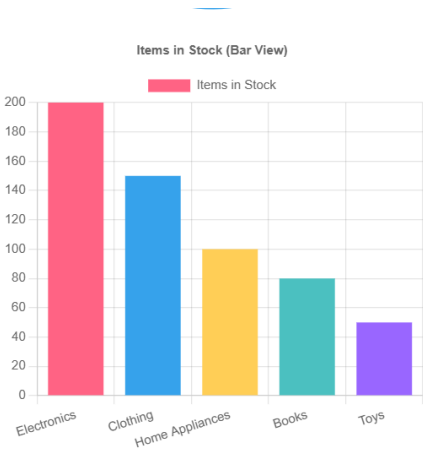
}

}]

}

}

});



Inventory Management System

