**Exercise 16:**

**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:**

