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**Division: A**

**Mern Batch: 1**

**Q) Write a program that demonstrates the following charts Pie Chart, Doughnut Chart, Funnel Chart, Pyramid Chart and Time-series Chart.**

**CODE:**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <script>

        window.onload = function () {

            //Pie chart

            var chart = new CanvasJS.Chart("chartContainer", {

            exportEnabled: true,

            animationEnabled: true,

            theme: "dark2",

            title:{

                text: "Most Used Tech Stacks"

            },

            legend:{

                cursor: "pointer",

                itemclick: explodePie

            },

            data: [{

                type: "pie",

                showInLegend: true,

                toolTipContent: "{name}: <strong>{y}%</strong>",

                indexLabel: "{name} - {y}%",

                dataPoints: [

                    { y: 25, name: "MERN", exploded: true },

                    { y: 15, name: "MEAN" },

                    { y: 30, name: "Django", color: "#39ff14"},

                    { y: 15, name: "JavaSprint" },

                    { y: 7.5, name: "C++" },

                    { y: 7.5, name: "Jquery" }

                ]

            }]

        });

        chart.render();

        //Doughnut chart

        var chart2=new CanvasJS.Chart("chartContainer2", {

            theme: "dark2",

            exportFileName: "Doughnut Chart",

            exportEnabled: true,

            animationEnabled: true,

            title:{

                text: "Sectors in Indian stock market"

            },

            legend:{

                cursor: "pointer"

            },

            data: [{

                type: "doughnut",

                innerRadius: 90,

                showInLegend: true,

                toolTipContent: "<b>{name}</b>: ${y} (#percent%)",

                indexLabel: "{name} - #percent%",

                dataPoints: [

                    { y: 100, name: "Agriculture" },

                    { y: 80, name: "Education" },

                    { y: 90, name: "Finance" },

                    { y: 70, name: "Trade" },

                    { y: 10, name: "Hospitality" },

                    { y: 10, name: "Production"},

                ]

            }]

        });

        chart2.render();

        //Funnel chart

        var chart3=new CanvasJS.Chart("chartContainer3", {

            animationEnabled: true,

            theme: "dark1",

            title:{

                text: "TechStack Overview"

            },

            data: [{

                type: "funnel",

                indexLabel: "{label} - {y}",

                toolTipContent: "<b>{label}</b>: {y}",

                neckWidth: 10,

                neckHeight: 0,

                valueRepresents: "area",

                dataPoints: [

                    { y: 100, label: "C" },

                    { y: 85, label: "Java" },

                    { y: 80, label: "Python" },

                    { y: 65, label: "Django" },

                    { y: 55, label: "MERN" },

                    { y: 30, label: "MEAN" }

                ]

            }]

        });

        chart3.render();

        //Pyramid chart

        var chart4=new CanvasJS.Chart("chartContainer4", {

            animationEnabled: true,

            exportEnabled: true,

            theme: "dark2",

            title:{

                text: "Economic Distribution in India"

            },

            data: [{

                type: "pyramid",

                yValueFormatString: "#\"%\"",

                indexLabelFontColor: "#39ff14",

                indexLabelFontSize: 16,

                indexLabel: "{label} - {y}",

                dataPoints: [

                    { y: 75, label: "Poor", color: "violet"},

                    { y: 50, label: "Lower Middle Class", color: "indigo"},

                    { y: 40, label: "Middle Class", color: "blue" },

                    { y: 37, label: "Upper Middle Class", color: "green" },

                    { y: 20, label: "Rich", color: "yellow" }

                ]

            }]

        });

        chart4.render();

        //Time-Series chart

        var chart5=new CanvasJS.Chart("chartContainer5",{

            animationEnabled: true,

            theme: "dark2",

            title:{

                text: "Reliance (RIL Industries)"

            },

            axisX:{

                title: "Price",

                gridThickness: 2

            },

            axisY: {

                title: "Time"

            },

            data: [

            {

                type: "line",

                color: "#39ff14",

                toolTipContent: "<b>{x}</b>: {y}",

                dataPoints: [

                    {x: new Date(Date.UTC(2021, 09, 14,4,15) ), y: 15 },

                    {x: new Date(Date.UTC(2021, 09, 14,4,30) ), y: 20 },

                    {x: new Date(Date.UTC(2021, 09, 14,4,45) ), y: 14 },

                    {x: new Date(Date.UTC(2021, 09, 14,4,60) ), y: 13 },

                    {x: new Date(Date.UTC(2021, 09, 14,5,15) ), y: 12 },

                    {x: new Date(Date.UTC(2021, 09, 14,5,30) ), y: 10 },

                    {x: new Date(Date.UTC(2021, 09, 14,5,45) ), y: 9 },

                    {x: new Date(Date.UTC(2021, 09, 14,5,60) ), y: 15 },

                    {x: new Date(Date.UTC(2021, 09, 14,6,15) ), y: 22 },

                    {x: new Date(Date.UTC(2021, 09, 14,6,30) ), y: 25 },

                    {x: new Date(Date.UTC(2021, 09, 14,6,45) ), y: 28 },

                    {x: new Date(Date.UTC(2021, 09, 14,6,60) ), y: 30 },

                    {x: new Date(Date.UTC(2021, 09, 14,7,15) ), y: 25 },

                    {x: new Date(Date.UTC(2021, 09, 14,7,30) ), y: 23 },

                    {x: new Date(Date.UTC(2021, 09, 14,7,45) ), y: 21 },

                    {x: new Date(Date.UTC(2021, 09, 14,7,60) ), y: 19 },

                    {x: new Date(Date.UTC(2021, 09, 14,8,15) ), y: 18 },

                    {x: new Date(Date.UTC(2021, 09, 14,8,30) ), y: 15 },

                    {x: new Date(Date.UTC(2021, 09, 14,8,45) ), y: 13 },

                    {x: new Date(Date.UTC(2021, 09, 14,8,60) ), y: 8 },

                    {x: new Date(Date.UTC(2021, 09, 14,9,15) ), y: 15 },

                    {x: new Date(Date.UTC(2021, 09, 14,9,30) ), y: 17 },

                    {x: new Date(Date.UTC(2021, 09, 14,9,45) ), y: 20 },

                    {x: new Date(Date.UTC(2021, 09, 14,9,60) ), y: 25 },

                ]

            }

            ]

        });

        chart5.render();

        function explodePie (e) {

            // for(var i=0;i<7;i++)

            // {

            //     e.dataSeries.dataPoints[i].exploded = false;

            // }

            if(typeof (e.dataSeries.dataPoints[e.dataPointIndex].exploded) === "undefined" || !e.dataSeries.dataPoints[e.dataPointIndex].exploded) {

                e.dataSeries.dataPoints[e.dataPointIndex].exploded = true;

            } else {

            e.dataSeries.dataPoints[e.dataPointIndex].exploded = false;

        }

        chart.render();

    }}

    </script>

</head>

<body>

    <h1>Pie Chart: </h1>

    <div id="chartContainer" style="height: 370px; width: 100%;"></div>

    <h1>Doughnut Chart: </h1>

    <div id="chartContainer2" style="height: 370px; width: 100%"></div>

    <h1>Funnel Chart: </h1>

    <div id="chartContainer3" style="height: 370px; width: 100%"></div>

    <h1>Pyramid Chart: </h1>

    <div id="chartContainer4" style="height: 370px; width: 100%"></div>

    <h1>Time Series Chart: </h1>

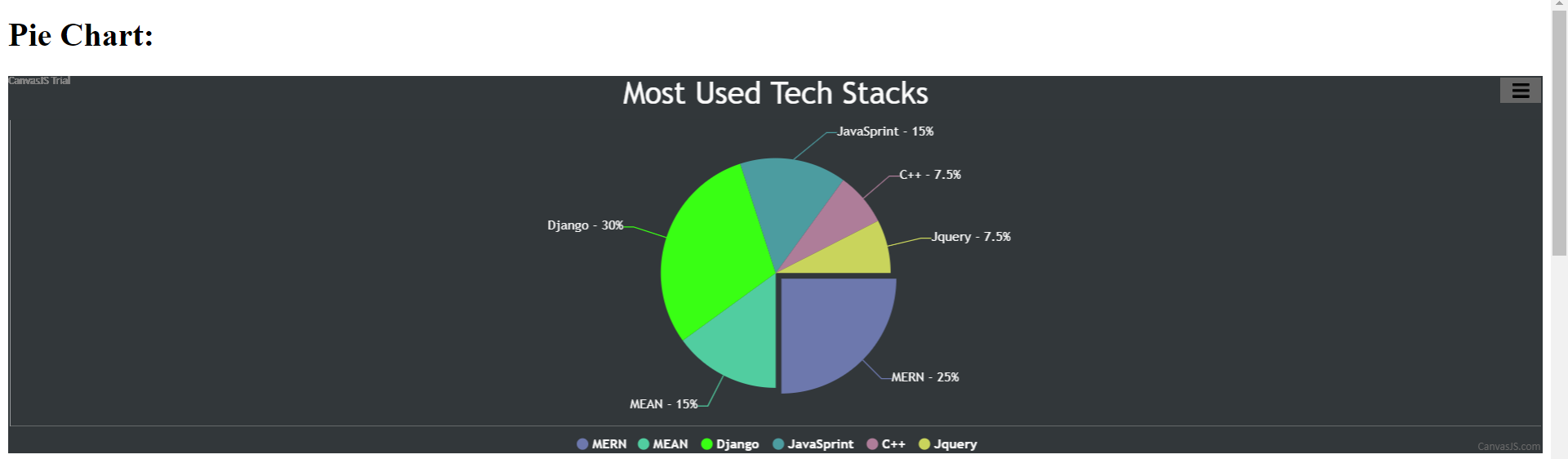
    <div id="chartContainer5" style="height: 370px; width: 100%"></div>

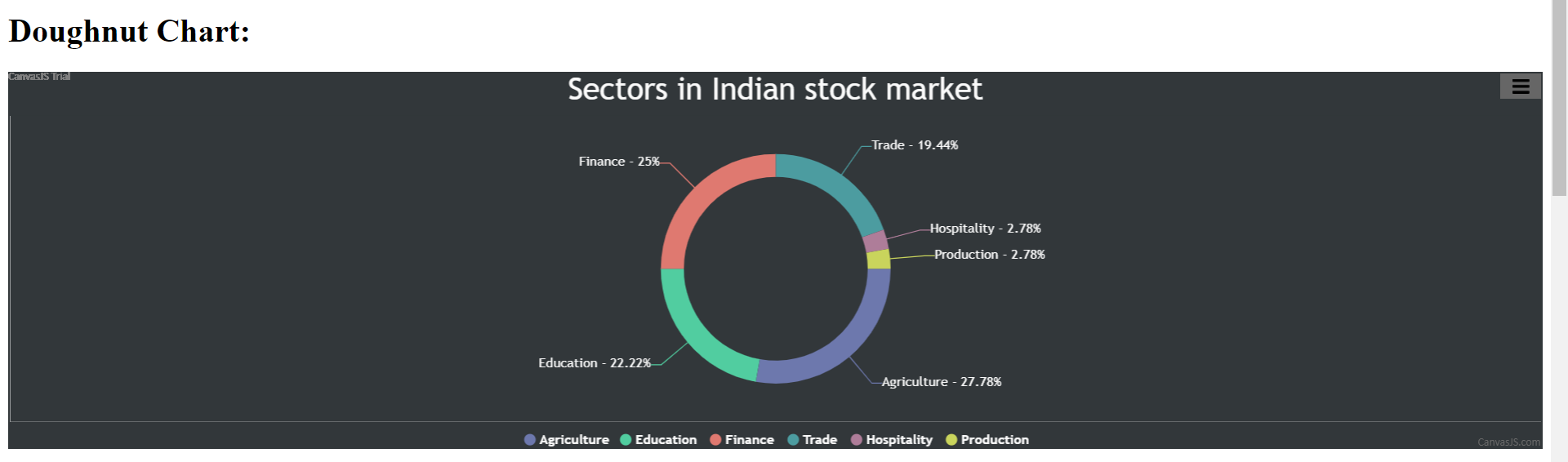
    <script src="https://canvasjs.com/assets/script/canvasjs.min.js"></script>

</body>

</html>

**OUTPUT:**

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