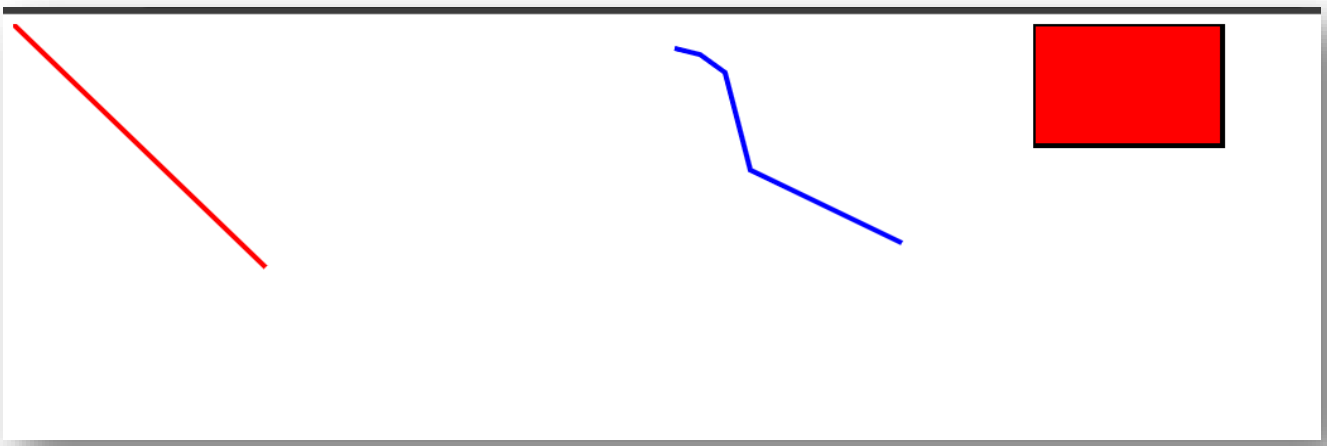
CMA PART-B

1. Write an HTML program to draw line, polyline and rectangle and fill rectangle with red color using SVG.

```
<html>
 <body>
    <svg height="210" width="500">
        <line x1="0" y1="0" x2="200" y2="200" style="stroke:red; stroke-width:4"/>
</svg>
    <svg height="210" width="300">
        <polyline points="20,20 40,25 60,40 80,120 120,140 200,180" style="fill:none;stroke:blue;stroke-width:4"/>
</svg>
    <svg height="210" width="300">
        <rect height="100" width="150"
         style="fill:red;stroke-width:4;stroke:black"/>
</svg>
 </body>
</html>
```

OUTPUT ::

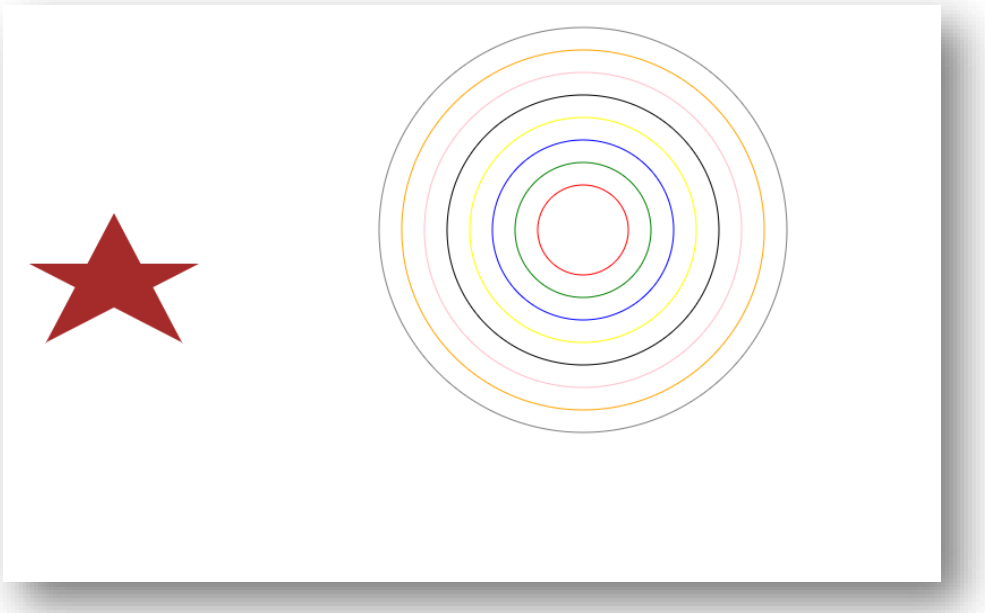


2. Write an HTML program to draw a star and multiple circle and different color using SVG tag.

```
<html>
 <body>
<svg height="220" width="300">
<polygon points="90,5 30,120 165,50 15,50 150,120" fill="brown">
</svg>
<svg height="400" width="400">
        <circle cx="50%" cy="50%" r="10%" fill="none" stroke="red"/>
        <circle cx="50%" cy="50%" r="15%" fill="none" stroke="green"/
```

```
        <circle cx="50%" cy="50%" r="20%" fill="none" stroke="blue"/>
        <circle cx="50%" cy="50%" r="25%" fill="none" stroke="yellow"/>
        <circle cx="50%" cy="50%" r="30%" fill="none" stroke="black"/>
        <circle cx="50%" cy="50%" r="35%" fill="none" stroke="pink"/>
        <circle cx="50%" cy="50%" r="40%" fill="none" stroke="orange"/>
        <circle cx="50%" cy="50%" r="45%" fill="none" stroke="grey"/>
</svg>
  </body>
</html>
```

OUTPUT ::



3. Write an HTML program to create logo with linear gradient properties using SVG.

```
<html>
 <body>
      <svg height="150" width="400">
           <defs>
                <linearGradient id="LG" x1="0%" y1="0%" x2="100%" y2="0%">
                <stop offset="0%" style="stop-color:#ff0;stop-opacity:1"/>
                <stop offset="100%" style="stop-color:#f00;stop-
                opacity:1"/>
</linearGradient>
</defs>
           <ellipse cx="200" cy="70" rx="85" ry="55" fill="url(#LG)"/>
           <text fill="white" font-size="45" x="150" y="86">SVG</text>
</svg>
 </body>
</html>
```

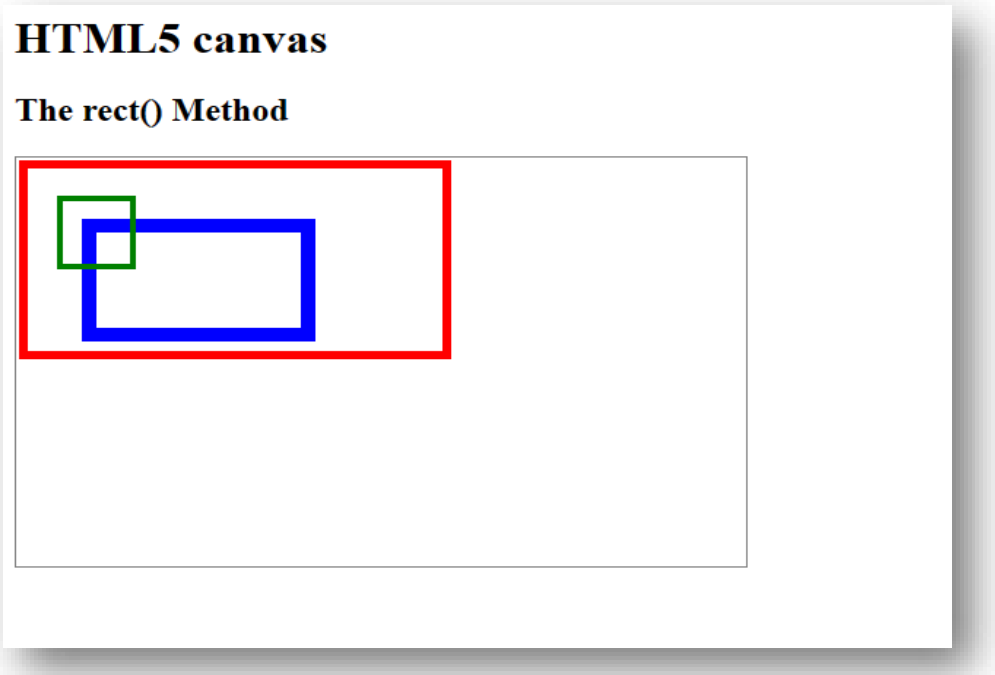
OUTPUT ::

4. Write a program to draw Square and rectangle using canvas tag and JavaScript.

```
<html>
 <body>
      <h1>HTML5 canvas</h1>
      <h2>The rect() Method</h2>

      <canvas height="300" width="500" id="MyCanvas" style="border:1px solid grey;">
      </canvas>

      <script>
           var c = document.getElementById("MyCanvas");
           var ctx = c.getContext("2d");
```

```
            ctx.beginPath();
            ctx.lineWidth = "6";
            ctx.strokeStyle = "red";
            ctx.rect(5,5,290,140);
            ctx.stroke();

            ctx.beginPath();
            ctx.lineWidth = "10";
            ctx.strokeStyle = "blue";
            ctx.rect(50,50,150,80);
            ctx.stroke();

            ctx.beginPath();
            ctx.lineWidth = "4";
            ctx.strokeStyle = "green";
            ctx.rect(30,30,50,50);
            ctx.stroke();
        </script>
  </body>
</html>
```

OUTPUT ::

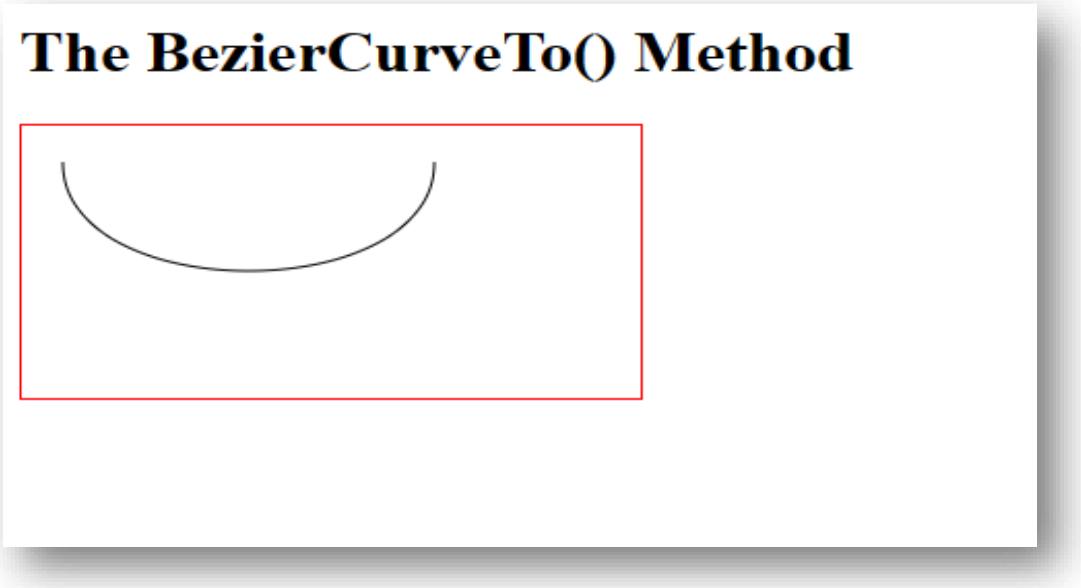


5. Write an HTML program to draw Bezier curve using canvas tag JavaScript.

```
<html>
 <body>
      <h1> The BezierCurveTo() Method</h1>

           <canvas id="MyCanvas" width="300" height="150" style="border:1px
      solid  red">
</canvas>

      <script>
           const c = document.getElementById("MyCanvas");
           const ctx = c.getContext("2d");
```

```
            ctx.beginPath();
            ctx.moveTo(20,20);
            ctx.bezierCurveTo(20,100,200,100,200,20);
            ctx.stroke();
        </script>
  </body>
</html>
```

OUTPUT ::

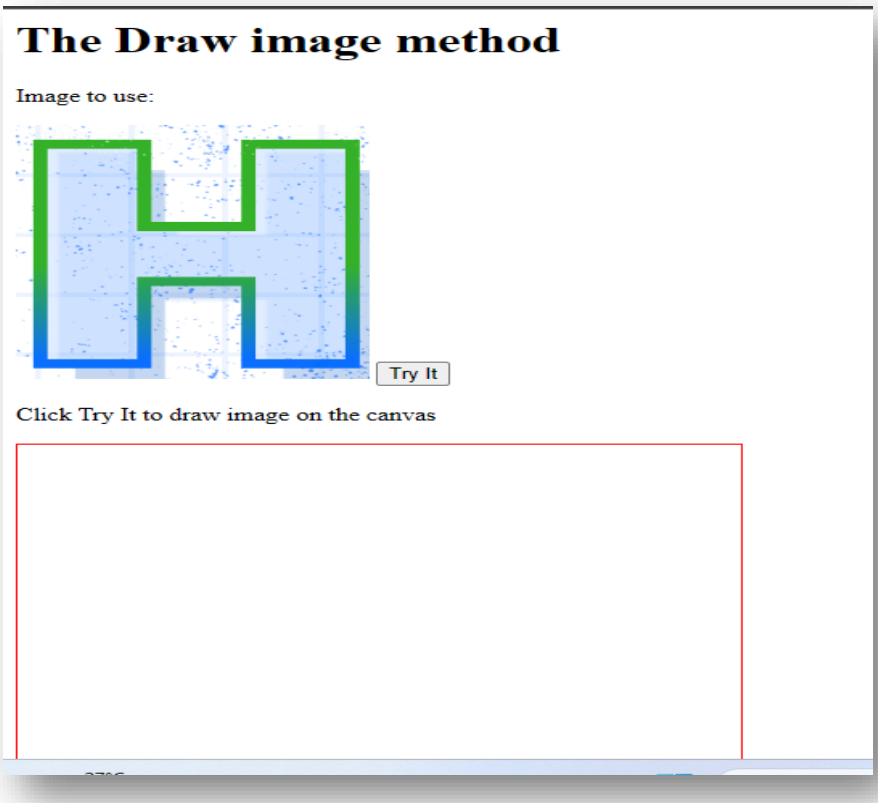


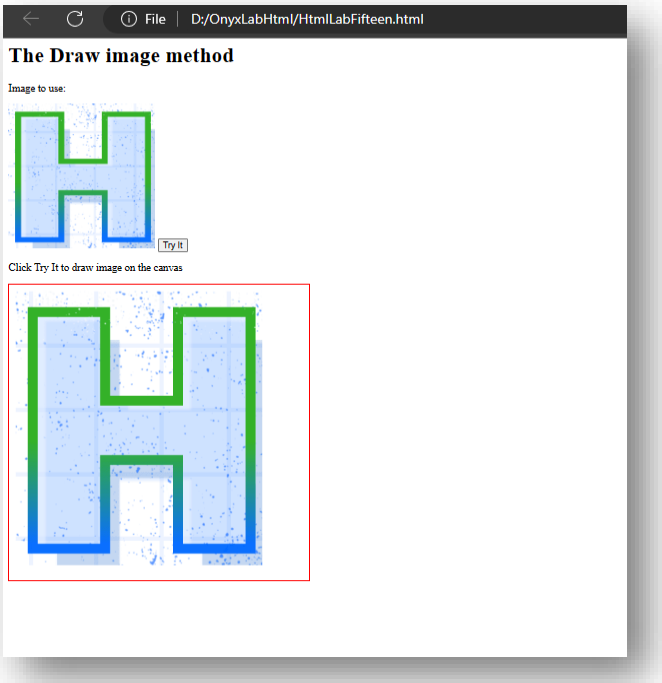
6. Write an HTML program to draw an image in the canvas by using a button.

```
<html>
  <body>
```

```
<h1> The Draw image method</h1>

<p>Image to use:</p>
<img id="img" src="D:\OnyxLabHtml\NewHtmlImage.png" alt="The
        Scream" width="220" height="220">
<button onclick="draw()">Try It</button>

<p>Click Try It to draw image on the canvas</p>
<canvas id="MyCanvas" width="450" height="450" style="border:1px solid
red;"/>
</canvas>

    <script>
        function draw()
        {
            const c = document.getElementById("MyCanvas");
            const ctx = c.getContext("2d");
            const img = document.getElementById("img");
            ctx.drawImage(img,10,10);
        }
    </script>
 </body>
</html>
```

OUTPUT ::


The Draw image method
Image to use:
Try It
Click Try It to draw image on the canvas



7. Write an HTML program to draw a rectangle box using canvas and to change background-color to red, scale of the rectangle to 2 on mouse over (hover) property.

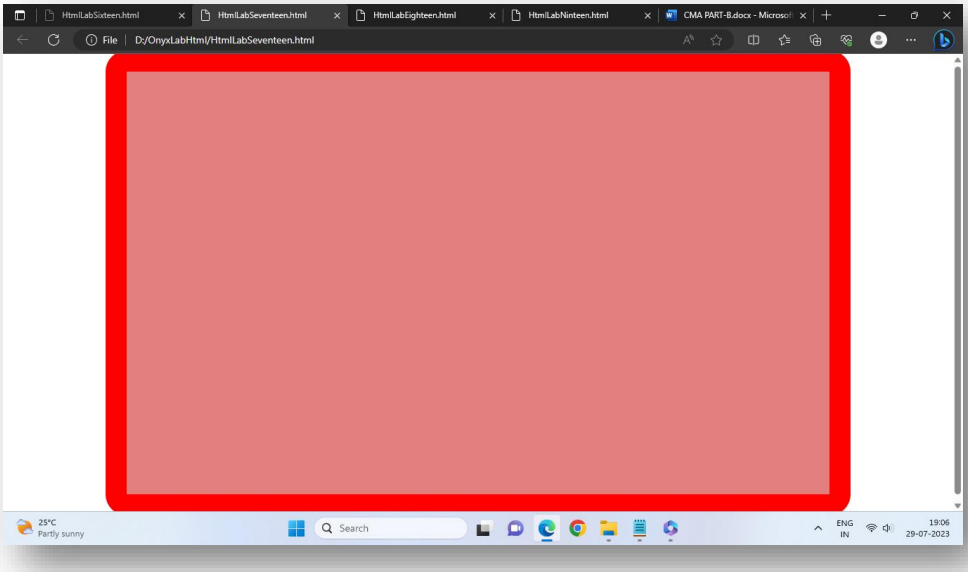
```
<html>
  <head>
      <style>
          body{
              display:flex;
              justify-content:center;
              align-items:center;
          }
          canvas{
```

```
                border:15px solid red;
                border-radius:15px;
                background-color:rgb(200,0,0,0.5);
                transition:all 1s;
            }
            canvas:hover{
                transform:scale(2);
            }
        </style>
    </head>
    <body>
        <canvas id="MyCanvas" width="500" height="300" ></canvas>

        <script>
            var c document.getElementById("MyCanvas");
            var ctx = c.getContext("2d");
            ctx.fillStyle = "White";
            ctx.fillRect(50,50,100,100);
        </script>
    </body>
</html>
```

OUTPUT ::

Before:

After:



8. Write an HTML program to draw a circle using canvas and to apply the rotation animation on loading the page.

<html>

```
<head>
    <style>
        canvas{
            animation: circle-rotate 5s linear infinite;
        }
        @keyframes circle-rotate{
            from{transform:rotate(0deg);}
            to{transform:rotate(360deg);}
        }
    </style>
</head>
<body>
    <canvas height="300" width="500" id="MyCanvas">
    </canvas>

    <script>
        var c = document.getElementById("MyCanvas");
        var ctx = c.getContext("2d");
        var centerX = c.width / 2;
        var centerY = c.height / 2;
        var radius = 50 ;
        ctx.beginPath();
        ctx.arc(centerX, centerY, radius, 0, 2*Math.PI,false);
```

```
            ctx.strokeStyle = "blue";
            ctx.lineWidth =5 ;
            ctx.stroke();
        </script>
  </body>
</html>
```

OUTPUT ::