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OST Lab 7 (Session 4)

Q1)

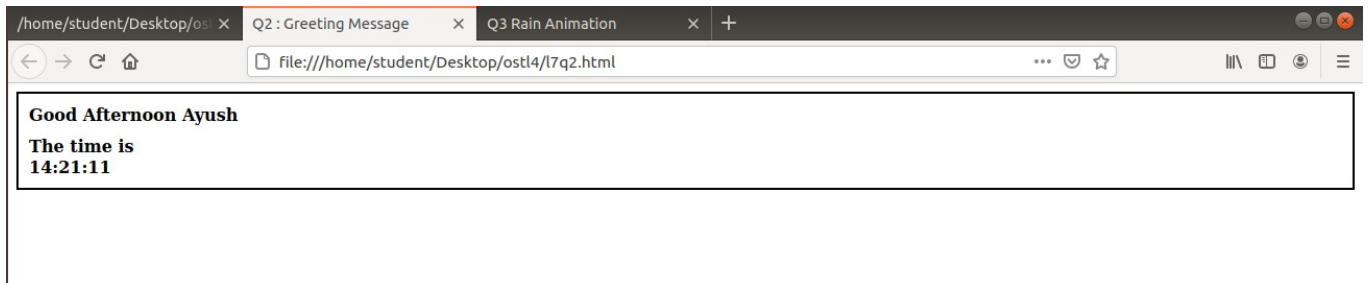
```
<!DOCTYPE html>
<html>
<head>
  <style>
    #test {
      top: 100px;
      margin: 10px;
      padding: 10px;
      width: 300px;
      position: relative;
      border: 5px solid black
    }
  </style>
</head>

<body>
  <div id="test">
    <p>Click the button to get offsetTop for the test div.</p>
    <p><button onclick="myFunction()">Try it</button></p>
    <p>offsetTop is: <span id="demo"></span></p>
  </div>
  <script>function myFunction() {
    var testDiv = document.getElementById("test");
    document.getElementById("demo").innerHTML = testDiv.offsetTop;
  }
</script>
</body>
</html>
```



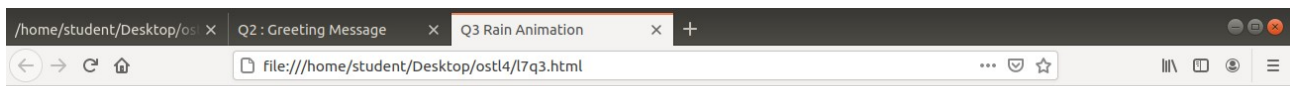
Q2)

```
<!DOCTYPE html>
<html>
<head>
  <title>Q2 : Greeting Message</title>
  <style>
    *{
      box-sizing: border-box;
    }
    #hello{
      border:2px solid #000;
    }
    div#Heading{
      font-weight: bold;
      text-align: left;
      font-size: 1rem;
      margin:10px;
    }
    #text{
      font-weight: bold;
      text-align: left;
      font-size: 1rem;
      margin:10px;
    }
    #clock{
      font-size: 1em;
    }
  </style>
</head>
<body>
  <div id="hello"></div>
</body>
<script>
  var myDate = new Date();
  var hrs = myDate.getHours();
  var Greetings;
  if (hrs < 12)
    Greetings = 'Good Morning Ayush';
  else if (hrs >= 12 && hrs <= 16)
    Greetings = 'Good Afternoon Ayush';
  else if (hrs >= 16 && hrs <= 24)
    Greetings = 'Good Evening Ayush';
  document.getElementById('hello').innerHTML = '<div id="Heading">' + Greetings + '</div><div
id = "text"> The time is <div id = "clock">'+myDate.getHours()+':' +myDate.getMinutes()
+':' +myDate.getSeconds() + '</div></div>';
</script>
</html>
```



Q3)

```
<!DOCTYPE html>
<html>
<head>
  <title>Q3 Rain Animation</title>
</head>
<body onload="rain()">
  <script type="text/javascript">
    var n = 1;
    function rain() {
      this.rain_len = 15;
      this.rain_ang = Math.PI/2.8;
      var ctx = myCanvas.getContext('2d');
      var x = Math.random() * 1000;
      var y = Math.random() * 500;
      ctx.strokeStyle = "#0000FF";
      ctx.beginPath();
      ctx.moveTo(x,y);
      ctx.lineTo(x-Math.cos(this.rain_ang)*this.rain_len,y-Math.sin(this.rain_ang)*this.rain_len);
      ctx.stroke();
      n = n + 1;
      if (n == 50) {
        ctx.clearRect(0, 0, 1000, 500);
        n = 1;
      }
      var t = setTimeout(rain, 3);
    }
  </script>
  <canvas id="myCanvas" width="1000" height="500"></canvas>
</body>
</html>
```



Q4)

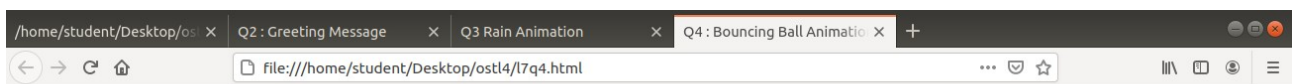
```
<!DOCTYPE HTML>
<html>
<head>
  <title>Q4 : Bouncing Ball Animation</title>
  <style>
    canvas {
      background-color: #FFFF00;
      width: 600px;
      height: 400px;
    }
  </style>
</head>
<body>

<h2>Ball Bouncing off the edges using JS and CSS</h2>
<canvas></canvas>
<script>
var canvas = document.querySelector("canvas");
canvas.width = window.innerWidth;
canvas.height = window.innerHeight;
var l = canvas.getContext('2d');
var x = Math.floor(Math.random() * innerWidth);
var y = Math.floor(Math.random() * innerHeight);
var vx = Math.floor(Math.random() * 2);
var vy = Math.floor(Math.random() * 4);
var radius = 30;
move();
function move() {
```

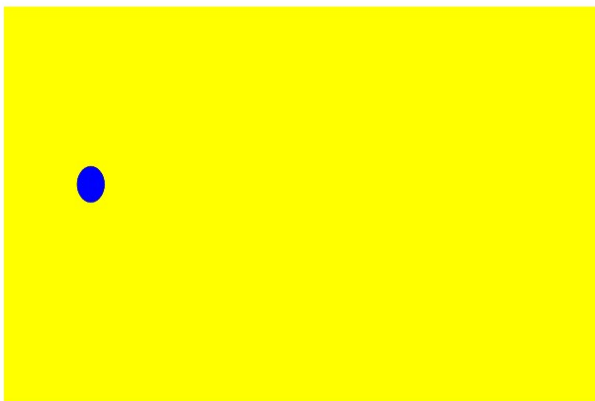
```

requestAnimationFrame(move);
l.clearRect(0, 0, innerWidth, innerHeight);
l.beginPath();
l.strokeStyle = "black";
l.arc(x, y, radius, 0, Math.PI * 2, false);
l.stroke();
l.fillStyle="blue";
l.fill();
if (radius + x > innerWidth)
    vx = 0 -vx;
if (x -radius < 0)
    vx = 0 -vx;
if (y + radius > innerHeight)
    vy = 0 -vy;
if (y -radius < 0)
    vy = 0 -vy;
x = x + vx;
y = y + vy;
}
</script>
</body>
</html>

```



Ball Bouncing off the edges using JS and CSS



Q5)

```

<!DOCTYPE html>
<html>
<head>
<title>Q5 : Pick a color</title>
</head>
<body>

```

```
<h3>Choose your icecream smoothie's colors:</h3>
<div><input type="color" id="ice" name="ice"value="#e66465"><label for="ice">Ice
Cream</label></div>
<div><input type="color" id="milk" name="milk"value="#f6b73c"><label
for="milk">Milk</label></div>
</body>
</html>
```

