Week 7

1) Position of element

```
<!DOCTYPE html>
<html>
<head>
<title>
Position
</title>

<script type="text/javascript">

function getPositionXY(element){
var rect = element.getBoundingClientRect();
document.getElementById('button').innerHTML ='X: ' + rect.x + ', ' + 'Y: ' + rect.y
}
</script>
</head>

<body>
<b>Position</b>

    <br><br>
<button id='button1' onclick="getPositionXY(this)">
Button 1
</button>
<button id = 'button1' onclick = "getPositionXY(this)">
        Button 2
    </button>

    <br><br>


<p id='button'></p>

</body>
```

</html>

Position

[Button 1] [Button 2]
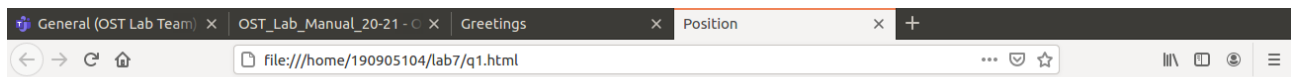
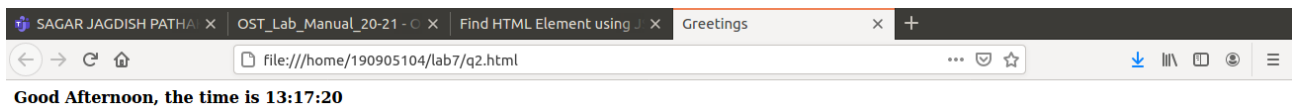X: 8, Y: 46

2) Wish a user

```
<!DOCTYPE html>
<html>
<head>
<title>Greetings</title>
</head>
<body>
<label id="lblGreetings"></label>
</body>
<script>
var myDate = new Date();
var hrs = myDate.getHours();
var greet;
if (hrs < 12)
greet = 'Good Morning';
else if (hrs >= 12 && hrs <= 17)
greet = 'Good Afternoon';
else if (hrs >= 17 && hrs <= 24)greet = 'night';
document.getElementById('lblGreetings').innerHTML =
'<b>' + greet +', the time is '+myDate.getHours()+':'+myDate.getMinutes()
+':'+myDate.getSeconds();
</script>
</html>
```

Good Afternoon, the time is 13:17:20

3) Rain
```
<!DOCTYPE html>
<html>
<head>
<title>
Rain
</title>
</head>
<body onload="rain()">



<script type="text/javascript">
var n = 1;
function rain()
{
    this.rain_len = 5;
    this.rain_ang = Math.PI/3;
    var ctx = myCanvas.getContext('2d');
    var x = Math.random() * 1800;
    var y = Math.random() * 600;
    ctx.strokeStyle = "blue";
    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 == 100)
```
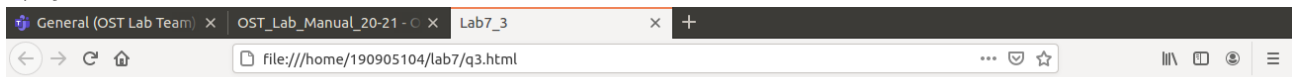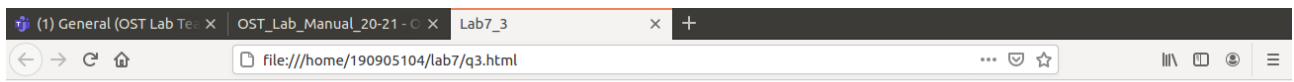
```
        {
            ctx.clearRect(0, 0, 1800, 600);
            n = 1;
        }
    var t = setTimeout(rain, 15);
}


</script>
<canvas id="myCanvas" width="1200" height="600">



</canvas>
</body>
</html>
```

4) Bouncing ball

```
<!DOCTYPE HTML>
<html>

<head>
        <title>
                Bouncing Ball!!
        </title>


        <style>
                h1 {
                        color: green;
                }

                canvas {
                        background-color: #F08080;
                        width: 600px;
                        height: 400px;
                        position: absolute;
                        top: 20%;
                        left: 20%;
                }
        </style>
</head>

<body>
        <center>
```

```html
<h3>Bouncing ball using JavaScript</h3>
<canvas>
</canvas>
        <script>
var canvas = document.querySelector("canvas");

canvas.width = window.innerWidth;
canvas.height = window.innerHeight;

var l = canvas.getContext('2d');

// x and y are the coordinates of the circle
// vx and vy are the respective speeds
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 = 20;

move();

function move() {
        requestAnimationFrame(move);

        // It clears the specified pixels within
        // the given rectangle
        l.clearRect(0, 0, innerWidth, innerHeight);

        // Creating a circle
        l.beginPath();
        l.strokeStyle = "black";
        l.arc(x, y, radius, 0, Math.PI * 2, false);
        l.stroke();

        // Conditions so that the ball bounces
        // from the edges
        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;

}
```
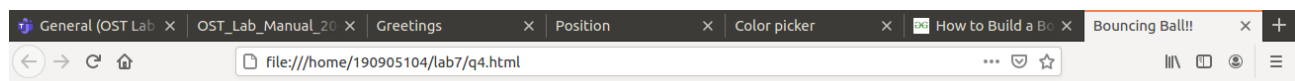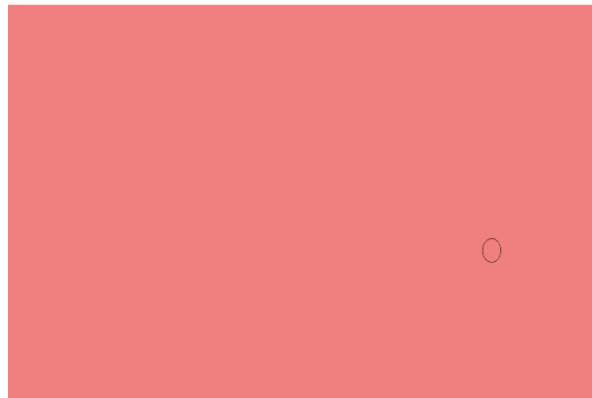
```
</script>
        </center>
</body>

</html>
```


Bouncing ball using JavaScript

5) Color picker

```
<!DOCTYPE html>
<html>
<head>
<title>Color picker</title>
<script>
</script>
</head>
<body>
<p>Choose your colors:</p>
<div>
<input type="color" id="head" name="head"
value="#202020">
<label for="head">Primary</label>
</div>
<div>
<input type="color" id="body" name="body"
value="#c4c4c4">
<label for="body">Secondary</label>
</div>
</body>
```

Choose your colors:

▭ Primary
▭ Secondary

Choose your colors:

▭ Primary
▭ Secondary

⊗ Choose a color

Hue: 0   − +   Red: 32   − +
Saturation: 0   − +   Green: 32   − +
Value: 13   − +   Blue: 32   − +

Color name: #202020

▬   🖉   Cancel   Select