External Javascript: externaljs.html and script.js

```
<!doctype html>

<html>

    <head>

        <title>Learning Javascript</title>


        <meta charset="utf-8" />

        <meta http-equiv="Content-type" content="text/html; charset=utf-8" />

        <meta name="viewport" content="width=device-width, initial-scale=1" />


        <style>


            body {

                font-family:Verdana, Geneva, sans-serif;


            }


            #box {

                width:200px;

                height:200px;

                background-color:red;

                display:none;

                position:relative;
```

```
            }

        .bold {

            font-weight:bold;

        }


        </style>


    </head>


    <body>


        <h1>Test your reactions!</h1>


        <p>Click on the boxes and circles as quickly as you can!</p>


        <p class="bold">Your time: <span id="time">0</span>s</p>


        <div id="box"></div>


        <script type="text/javascript" src="scripts.js"></script>


    </body>
</html>
```

script.js

```javascript
function getRandomColor() {

        var letters = '0123456789ABCDEF'.split('');

        var color = '#';

        for (var i = 0; i < 6; i++ ) {

            color += letters[Math.round(Math.random() * 15)];

        }

        return color;

        }



        var clickedTime; var createdTime; var reactionTime;


        function makeBox() {


            var time=Math.random();


            time=time*5000;


            setTimeout(function() {


                if (Math.random()>0.5) {


document.getElementById("box").style.borderRadius="100px";


                } else {
```

```javascript
                document.getElementById("box").style.borderRadius="0";

                    }

                    var top=Math.random();

                    top=top*300;

                    var left=Math.random();

                    left=left*500;

                    document.getElementById("box").style.top=top+"px";

                    document.getElementById("box").style.left=left+"px";

                document.getElementById("box").style.backgroundColor=getRandomColor();

                    document.getElementById("box").style.display="block";

                    createdTime=Date.now();

                }, time);

            }
```

```javascript
document.getElementById("box").onclick=function() {

    clickedTime=Date.now();

    reactionTime=(clickedTime-createdTime)/1000;

    document.getElementById("time").innerHTML=reactionTime;

    this.style.display="none";

    makeBox();
}

makeBox();
```