THE COMPLETE WEB
DEVELOPMENT
COURSE

STEP BY STEP
WITH
NO STEP SKIPPED

Stopwatch

SOURCE CODE

DEVELOPMENT ISLAND
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```html
<!--index.html-->
<!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">
    <!-- The above 3 meta tags *must* come first in the
head; any other head content must come *after* these tags
-->
    <title>Stopwatch App</title>

    <!-- Bootstrap -->
    <link href="css/bootstrap.min.css" rel="stylesheet">
    <link href="styling.css" rel="stylesheet">
    <link
href='https://fonts.googleapis.com/css?family=Vollkorn'
rel='stylesheet' type='text/css'>

  </head>
  <body>

      <!--Title-->
      <div class="container-fluid">
          <div id="header">Stopwatch</div>
```

```html
        <!--Lap Time-->
        <div id="lap"><span id="lapminute">00</span>:<span
id="lapsecond">00</span>:<span
id="lapcentisecond">00</span></div>

        <!--Time-->
        <div id="time"><span id="timeminute">00</span>:<span
id="timesecond">00</span>:<span
id="timecentisecond">00</span></div>

        <!--Controls-->
        <div id="controlsContainer" class="row">
            <div class="col-xs-2 col-xs-offset-4">
                <div id="startButton" class="control">
                    Start
                </div>
                <div id="stopButton" class="control">
                    Stop
                </div>
                <div id="resumeButton" class="control">
                    Resume
                </div>
            </div>
            <div class="col-xs-2">
                <div id="lapButton" class="control">
                    Lap
                </div>
                <div id="resetButton" class="control">
                    Reset
                </div>
            </div>
        </div>

        <!--Laps-->
        <div id="laps"></div>

    </div>

    <!-- jQuery (necessary for Bootstrap's JavaScript
plugins) -->
```

```html
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.3/j
query.min.js"></script>
    <!-- Include all compiled plugins (below), or include
individual files as needed -->
    <script src="js/bootstrap.min.js"></script>
    <script src="stopwatch.js"></script>
  </body>
</html>
```

```css
/*styling.css*/
body {
    background: url(images/tree.jpg) center center fixed;
    background-size: cover;
    color: #fff;
}

/*title*/
#header{
    text-align: center;
    font-size: 7vw;
}

/*Lap*/
#lap{
    text-align: right;
    font-size: 4vw;
}

/*Time*/
#time{
    text-align: center;
    font-size: 10vw;
}

/*Buttons*/
#controlsContainer{
    margin-bottom: 100px;
}
```

```css
.control{
    color: white;
    background-color: #d7A04e;
    height: 10vw;
    width: 10vw;
    border-radius: 100%;
    text-align: center;
    padding: 20% 0;
    font-size: 2.5vw;
    cursor: pointer;
}

.control:active{
    background-color: #fff;
    color: #d7A04e;
}

/*laps*/
#laps{
    max-height: 270px;
    overflow-y: scroll;
}

.lap{
    height: 50px;
    border-bottom: 1px solid white;
    margin: 15px;
}

.laptimetitle{
    font-size: 1.5em;
    float: left;
}

.laptime{
    font-size: 2em;
    float: right;
}
```

```javascript
//stopwatch.js
$(function(){
```

```javascript
//variables
var mode = 0;//App mode
var timeCounter = 0;//time counter
var lapCounter = 0;//lap counter
var action;//variable for setInterval
var lapNumber = 0;//Number of Laps

//minutes,seconds,centiseconds for time and lap
var timeMinutes, timeSeconds, timeCentiseconds,
lapMinutes, lapSeconds, lapCentiseconds;

//On App load show start and lap buttons
hideshowButtons("#startButton","#lapButton");
//click on startButton
$("#startButton").click(function(){
    //mode on
    mode = 1;
    //show stop and lap buttons
    hideshowButtons("#stopButton","#lapButton");
    //start counter
    startAction();
});


//click on stopButton
$("#stopButton").click(function(){
    //show resume and reset buttons
    hideshowButtons("#resumeButton","#resetButton");
    //stop counter
    clearInterval(action);
});

//click on resumeButton
$("#resumeButton").click(function(){
    //show stop and lap buttons
    hideshowButtons("#stopButton","#lapButton");
    //start counter
    startAction();
});

//click on resetButton
$("#resetButton").click(function(){
```

```javascript
    //reload the page
    location.reload();
});

//click on lapButton
$("#lapButton").click(function(){
    //if mode is ON
    if(mode){
        //stop action
        clearInterval(action);
        //resetLap and print lap details
        lapCounter = 0;
        addLap();
        //start action
        startAction();
    }
});


//functions
//hideshowButtons function shows two buttons
function hideshowButtons(x,y){
    $(".control").hide();
    $(x).show();
    $(y).show();
}

//start the counter
function startAction(){
    action = setInterval(function(){
        timeCounter++;
        if(timeCounter == 100*60*100){
            timeCounter = 0;
        }
        lapCounter++;
        if(lapCounter == 100*60*100){
            lapCounter = 0;
        }
        updateTime();
    },10);
}
```

```javascript
//updateTime: converts counters to min,sec,centisec
function updateTime(){
    //1min=60*100centiseconds=6000centiseconds
    timeMinutes = Math.floor(timeCounter/6000);
    //1sec=100centiseconds
    timeSeconds = Math.floor((timeCounter%6000)/100);
    timeCentiseconds = (timeCounter%6000)%100;
    $("#timeminute").text(format(timeMinutes));
    $("#timesecond").text(format(timeSeconds));

$("#timecentisecond").text(format(timeCentiseconds));

    //1min=60*100centiseconds=6000centiseconds
    lapMinutes = Math.floor(lapCounter/6000);
    //1sec=100centiseconds
    lapSeconds = Math.floor((lapCounter%6000)/100);
    lapCentiseconds = (lapCounter%6000)%100;
    $("#lapminute").text(format(lapMinutes));
    $("#lapsecond").text(format(lapSeconds));

$("#lapcentisecond").text(format(lapCentiseconds));
}

//format numbers
function format(number){
    if(number<10){
        return '0'+number;
    }else{
        return number;
    }
}

//addLap function: print lap details inside the lap
box
function addLap(){
    lapNumber++;
        var myLapDetails =
            '<div class="lap">'+
                '<div class="laptimetitle">'+
                    'Lap'+ lapNumber +
                '</div>'+
                '<div class="laptime">'+
```

```
                             '<span>'+ format(lapMinutes)
+'</span>'+
                          ':<span>'+ format(lapSeconds)
+'</span>'+
                          ':<span>'+ format(lapCentiseconds)
+'</span>'+
                   '</div>'+
            '</div>';
        $(myLapDetails).prependTo("#laps");
    }
});
```