DOM – Exercise 1: DOM Warm Up

Assigned: N/A

Due: N/A

Completed: 11/08/22

<https://lms.grandcircus.co/course/view.php?id=231>

<https://docs.google.com/document/d/1-GLizSKRsvpLozC0G80msyOU3IQrmpNL77kE0I7FK7s/preview>

**Task:** Prepare for the DOM by researching and playing with it yourself first.

**Suggested Reading:** ZyBooks chapter 7: "JavaScript in the Browser"

From [javascript.info](https://javascript.info/) Part 2: Browser: Document, Events, Interfaces

* [DOM Tree](https://javascript.info/dom-nodes)
* [Searching: getElement\*, querySelector\*](https://javascript.info/searching-elements-dom)
* [Attributes and properties](https://javascript.info/dom-attributes-and-properties)
* [Modifying the document](https://javascript.info/modifying-document)
* [Styles and classes](https://javascript.info/styles-and-classes)
* [Introduction to browser events](https://javascript.info/introduction-browser-events)

[DOM Cheatsheet](https://github.com/grandcircusco/cheatsheets/blob/master/cheatsheet-dom.md)

Or find your own tutorials, books, etc.

**Coding Task:** You can solve these any way you like. Try to find online examples and tutorials if you need. Even copy-paste their code as long as you can get it working and understand how it works to the best of your ability. And feel free to add any other ideas you have!

**Overview:** Create an HTML page with JavaScript and CSS. Include each of the following on the page.

**Build Specs:**

1. Create a div on the page. Use CSS to give it a background color and size. Use JavaScript to change the background color when the user clicks on the div.
2. Create a paragraph on the page. Add some text to it. Use JavaScript to make it disappear or be removed completely when the user clicks the paragraph.
3. Create a paragraph on the page with the text "Bye". Use CSS to add a border. Use JavaScript so that when the mouse enters the paragraph, the text changes to "Hi". Also add JavaScript so that when the mouse leaves the paragraph, the text changes back to "Bye". (Hint: Use mouseenter and mouseleave events.)
4. Add a digital clock to the page. It will use JavaScript to update the text every second to show the current time including hours, minutes, and seconds. For example: 2:14:22.

**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=1.0">

    <title>DOM Warmup</title>

    <link rel="stylesheet" href="domWarmup.css">

</head>

<body>

    <div class="divHere">DIV Here</div>

    <p class="disappear">Watch me disappear!</p>

    <p class="bye">Bye!</p>

    <p id="digitalClock">Current Time:</p>

    <div class="digitalClock" onload="showTime()"></div>

    <script src="./domWarmup.js"></script>

</body>

</html>

**CSS**

\* {

    padding: 0px;

}

.divHere {

    background-color: black;

    color: white;

    font-size: 25px;

    height: 50px;

    width: 200px;

    border: 1px solid white;

    display: flex;

    align-items: center;

    justify-content: center;

}

.clicked {

    background-color: lightgreen;

    color: black;

    border: 1px solid black;

}

.disappear {

    width: 300px;

    height: 75px;

    font-size: 30px;

    border: 1px solid red;

    display: flex;

    align-items: center;

    justify-content: center;

}

.hidden {

    display: none;

}

.bye {

    background-color: lightblue;

    color: black;

    font-size: 50px;

    height: 100px;

    width: 200px;

    display: flex;

    justify-content: center;

    align-items: center;

}

#digitalClock {

    border: 1px solid black;

    width: 450px;

    height: 60px;

    display: flex;

    align-items: center;

    justify-content: center;

    font-size: 60px;

    margin: 0px;

}

.digitalClock {

    height: 90px;

    width: 450px;

    border: 1px solid black;

    background: black;

    color: white;

    font-size: 60px;

    letter-spacing: 7px;

    text-align: center;

    display: flex;

    align-items: center;

    justify-content: center;

}

**JavaScript**

// Item 1 - DIV background color changes when clicked

const divHere = document.querySelector('.divHere');

divHere.addEventListener('click', () => {

    divHere.classList.add("clicked");

});

// Item 2 - P element disappears

const disappear = document.querySelector('.disappear');

disappear.addEventListener('click', () => {

    disappear.classList.add("hidden");

});

// Item 3 - P element "Bye" changes to "Hi" with mouse over

const byeHi = document.querySelector('.bye');

byeHi.addEventListener('mouseenter', () => {

    byeHi.innerHTML = `<p>Hi!</p>`

});

byeHi.addEventListener('mouseleave', () => {

    byeHi.innerHTML = `<p>Bye!</p>`

});

// Item 4 - Digital Clock with Hours, Minutes, Seconds

function showTime () {

    let date = new Date();

    let h = date.getHours();

    let m = date.getMinutes();

    let s = date.getSeconds();

    let session = "AM";

    if(h === 0){

        h = 12;

    }

    if(h > 12){

        h = h - 12;

        session = "PM"

    }

    h = (h < 10) ? "0" + h : h;

    m = (m < 10) ? "0" + m : m;

    s = (s < 10) ? "0" + s : s;

    let time = h + ":" + m + ":" + s + " " + session;

    document.querySelector('.digitalClock').textContent = time;

    setTimeout(showTime, 1000);

}

showTime();

**Results (before Click / MouseEnter)**

Graphical user interface, text, application

Description automatically generated

**Results (after Click / MouseEnter)**

Diagram

Description automatically generated with medium confidence

**Results (after Click / MouseLeave)**

Graphical user interface, text, application

Description automatically generated