

## COMP 9782 Programming Fundamentals

### Lab-1-2 - Working with HTML, CSS and JavaScript. (4% of the course mark)

Name:

Student Number:

This lab is designed to introduce you to the fundamental building blocks of the web: **HTML (HyperText Markup Language)**, **CSS (Cascading Style Sheets)**, and **JavaScript**.

#### Lab objectives:

1. Gain a solid understanding of HTML elements, tags, and document structure.
2. Learn how to style your web pages using CSS, creating visually appealing layouts.
3. Explore the basics of JavaScript to add interactivity and dynamic functionality to your web projects.

#### Lab Prerequisite:

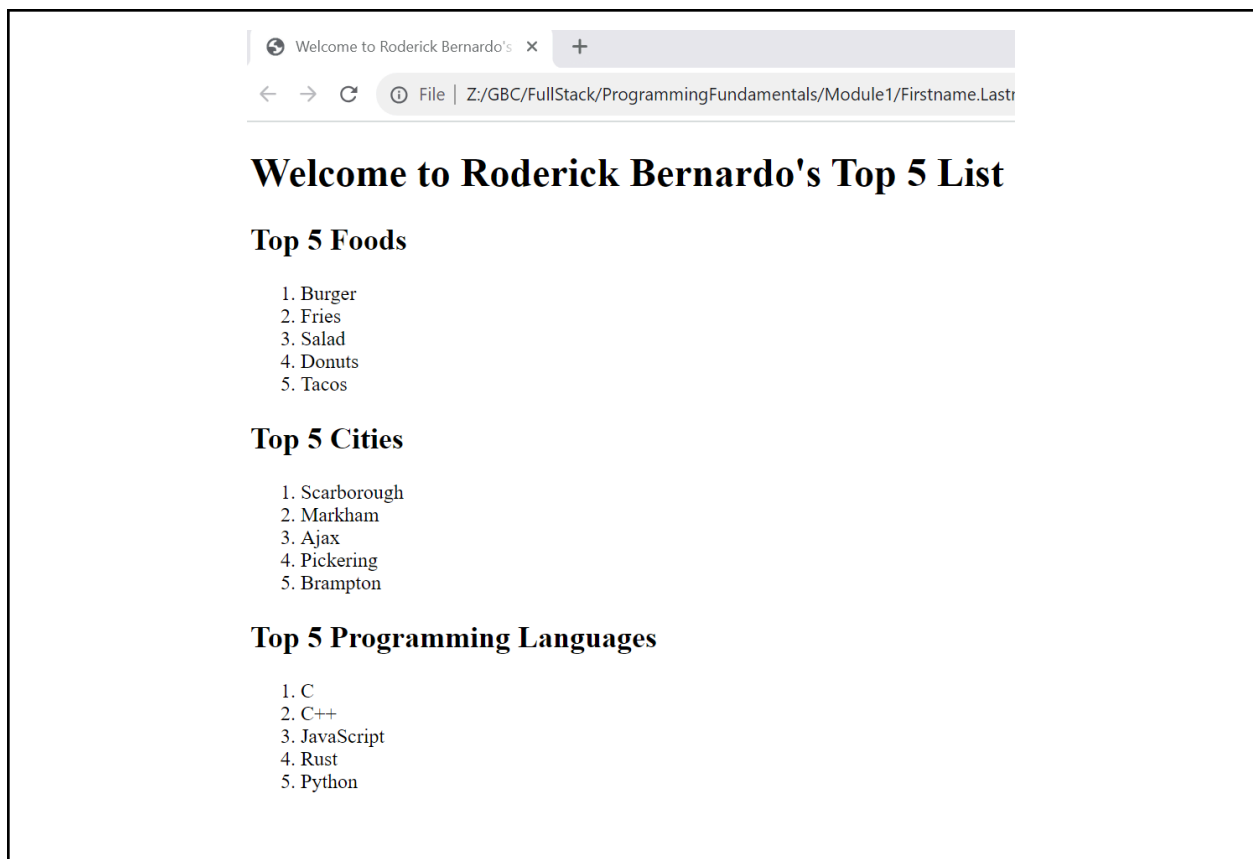
1. **Download** and **extract** the **Lab-1-2.zip** file from **D2L**.
2. **Navigate** to the **directory** where the **files** were **extracted**.
3. **Rename** the **files (HTML, CSS and JavaScript)** and **append** your **first name** and **last name** at the **beginning** of the file.

From	To
<ul style="list-style-type: none"><li>● CSS_Module1.css</li><li>● CSS_Module1.html</li><li>● HTML_Module1.html</li><li>● JavaScript_Module1.js</li></ul>	<ul style="list-style-type: none"><li>● Yourfirstname_YourLastname_CSS_Module1.css</li><li>● Yourfirstname_YourLastname_CSS_Module1.html</li><li>● Yourfirstname_YourLastname_HTML_Module1.html</li><li>● Yourfirstname_YourLastname_JavaScript_Module1.js</li></ul>

Where **Yourfirstname\_YourLastname** is your actual **first name** and **last name**.

## Introduction to HTML lab:

1. Open the renamed **HTML\_Module1.html** file from the **Lab Prerequisite** via **VSCode**.
2. On the top of the file enter your first name and last name to set the **Developer Name** and enter the appropriate description to set the **Purpose**.
3. Set the content of the **description** meta tag.
4. Set the desired text for the **title** tag. This lab is about **Top 5 lists**. Choose the appropriate title for the web page.
5. Set the desired text for the **<h1>** tag. This lab is about **Top 5 lists**. Choose the appropriate text for the **<h1>** tag.
6. A sample template has been provided, you need to create **3 top 5 lists**.
7. Save the **HTML** file changes.
8. View **HTML output** by clicking on the **HTML** file. The **HTML output** should look similar to the **sample HTML output** on the next page.



## Introduction to CSS lab:

1. Open the **renamed CSS\_Module1.html** file from the **Lab Prerequisite** via **VSCode**.
2. On the top of the file enter your first name and last name to set the **Developer Name** and enter the appropriate description to set the **Purpose**.
3. Below the **viewport meta tag**, copy the **description meta tag** from the HTML file used from the previous **Introduction to HTML lab**.
4. Below the copied **description meta tag**, copy the **title meta tag** from the HTML file used from the previous **Introduction to HTML lab**.
5. Update the value of the **stylesheet href attribute** to the **renamed CSS\_Module1.css** from the **Lab Prerequisite**.
6. Copy the **<h1> tag** from **module 1 HTML lab** and set the class to **"centerText"**.
7. There are **3 div tags** provided. Copy the **3 top 5 lists** to the corresponding **div tag**.
8. Save the **HTML** file changes.
9. Open the **renamed CSS\_Module1.css** file from the **Lab Prerequisite** via **VSCode**.
10. On the top of the file enter your first name and last name to set the **Developer Name** and enter the appropriate description to set the **Purpose**.
11. Look for the **body** selector.
  - a. Set the following property:
    - i. **font-family: Arial, Helvetica, sans-serif;**
12. Look for the **.centerText** selector.
  - a. Set the following property:
    - i. **text-align: center;**
13. Look for the **.divBox** selector.
  - a. Set the following properties:
    - i. **width: 50%;**
    - ii. **margin-top: 0;**
    - iii. **margin-bottom: 5px;**
    - iv. **margin-left: auto;**
    - v. **margin-right: auto;**

vi. **padding: 10px;**

14. Look for the **.customBorderBase** selector.

a. Set the following properties:

i. **border-width: 3px;**

ii. **border-radius: 10px;**

iii. **color: white;**

15. Look for the **.customBorder1** selector.

a. Set the following properties:

i. **border-style: solid;**

ii. **border-color: #bf4a40;**

iii. **background-color: #38943e;**

16. Look for the **.customBorder2** selector.

a. Set the following properties:

i. **border-style: dotted;**

ii. **border-color: #bf9440;**

iii. **background-color: #674679;**

17. Look for the **.customBorder3** selector.

a. Set the following properties:

i. **border-style: double;**

ii. **border-color: #4240bf;**

iii. **background-color: #e0760b;**

18. Save the **CSS** file changes.

19. View **HTML output** by clicking on the **renamed CSS\_Module1.html** file from the **Lab**

**Prerequisite**. The **HTML output** should look similar to the **sample HTML output** on the next page.

## Welcome to Roderick Bernardo's Top 5 List

### Top 5 Foods

1. Burger
2. Fries
3. Salad
4. Donuts
5. Tacos

### Top 5 Cities

1. Scarborough
2. Markham
3. Ajax
4. Pickering
5. Brampton

### Top 5 Programming Languages

1. C
2. C++

## Introduction to JavaScript lab:

1. From the previous **Introduction to CSS lab** copy the **HTML** and **CSS** files used and rename it. For example if the file names of the files are: **John\_Smith\_CSS\_Module1.html** and **John\_Smith\_CSS\_Module1.css** then it should be renamed as **John\_Smith\_JavaScript\_Module1.html** and **John\_Smith\_JavaScript\_Module1.css**.
2. Open the **renamed JavaScript\_Module1.html** file from **step 1** via **VSCode**.
3. On the top of the file enter your first name and last name to set the **Developer Name** and enter the appropriate description to set the **Purpose**.
4. Look for the **link stylesheet tag** and update the **href** attribute to the **renamed JavaScript\_Module1.css** from **step 1**.
5. Underneath the **link stylesheet tag**, enter the following.

```
<script defer src=""></script>
```

6. Update the **src** attribute to the renamed **JavaScript\_Module1.js** from the **Lab Prerequisite**.
7. Look for the **first div tag**, add an **id attribute** and set it to **div1**.

**From:** `<div class="divBox customBorderBase customBorder1">`

**To:** `<div id="div1" class="divBox customBorderBase customBorder1">`

8. Look for the **second div tag**, add an **id attribute** and set it to **div2**.

**From:** `<div class="divBox customBorderBase customBorder1">`

**To:** `<div id="div2" class="divBox customBorderBase customBorder1">`

9. Look for the **third div tag**, add an **id attribute** and set it to **div3**.

**From:** `<div class="divBox customBorderBase customBorder1">`

**To:** `<div id="div3" class="divBox customBorderBase customBorder1">`

10. On top of the div with **id="div1"**, enter this code:

```
<div class="divBox">
```

```
<button class="centerElement" id="div1Button">CLOSE</button>
```

```
</div>
```

11. On top of the div with **id="div2"**, , enter this code:

```
<div class="divBox">  
  <button class="centerElement" id="div2Button">CLOSE</button>  
</div>
```

12. On top of the div with **id="div3"**, enter this code:

```
<div class="divBox">  
  <button class="centerElement" id="div3Button">CLOSE</button>  
</div>
```

13. Save the **HTML** file changes.

14. Open the **CSS** file from **step #1**.

15. Right after the **.centerText selector**, enter the following **CSS** declaration.

```
.centerElement {  
  display: block;  
  margin: 0 auto;  
}
```

16. Save the **CSS** file changes.

17. Open the **renamed JavaScript\_Module1.js** file from the **Lab Prerequisite** via **VSCode**.

18. On the top of the file enter your first name and last name to set the **Developer Name**  
and enter the appropriate description to set the **Purpose**.

19. Copy the following **JavaScript** code:

```
document.querySelector("#div1Button").addEventListener("click", (event) => {  
    toggleDiv("div1", event.target.id);  
});  
document.querySelector("#div2Button").addEventListener("click", (event) => {  
    toggleDiv("div2", event.target.id);  
});  
document.querySelector("#div3Button").addEventListener("click", (event) => {  
    toggleDiv("div3", event.target.id);  
});
```

20. Save the **JavaScript** file changes.

21. View **HTML output** by clicking on the **HTML** file from **step 1**. The **HTML output** should look similar to the **sample HTML output** on the next page.



Open state

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CLOSE

### Top 5 Foods

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CLOSE

### Top 5 Cities

1. Scarborough
2. Markham
3. Ajax
4. Pickering
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Close state

## Welcome to Roderick Bernardo's Top 5 List

OPEN

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