Lab 4 – Bootstrap and JavaScript

Purpose

- Implement a Web Design Template (Header, Footer, and Menu) using Bootstrap 4
- Implement a web page using JavaScript
- Upload your website to a Web server

Due Date

- This lab must be handed in:
  Friday May 31, 2024 – before midnight

Assessment

- This Lab is worth 2% of your total course mark.

Assigned Readings

- ➢ **Lecture Slides** posted on Brightspace:
  - Module 1 -> Part 4
  - Module 2

- ➢ The following chapters of **Fundamentals of Web Development** will be useful in completing this exercise:
  - Chapter 5
  - Chapter 6

Lab Supplies

To complete this lab you will require the following lab supplies:
- Textbook: **Fundamentals of Web Development**
- Code Samples (**BootstrapSamplePage.zip**)
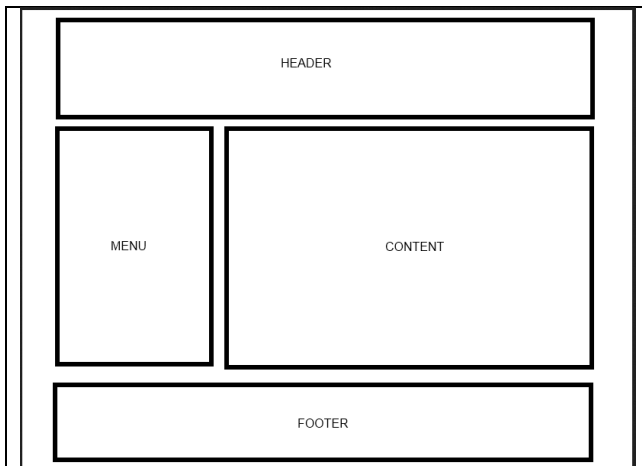- Notepad++ (or other text editor, or IDE)

Summary of Tasks
1. Implement a Web Design Template using Bootstrap 4
2. Create a web page for temperature conversion using JavaScript
3. Upload your website to a webserver
4. View your webpage using a web browser
5. Submit Lab Link on Brightspace

Task 1

Before getting started with the following tasks review the 'Common Look and Feel' examples provided on Brightspace (under: Course Content → Extra Materials). Using the knowledge gained in these examples, create a 'Common Look and Feel' to be used on every page of your website.

You must implement the following Design Template using **Bootstrap 4**:

The web design template must have the following elements: Header, Footer, and Menu.

- Header
  - Program Name and Course Name
- Menu
  - Links to both Lab 2 and Lab 3.
- Footer
  - Student Number, First Name, Last Name, Email Address

Create a web page named '*index.html*' that implements the specified 'Design Template' for Lab 4. The title of the web page will be 'Bootstrap and JavaScript'.
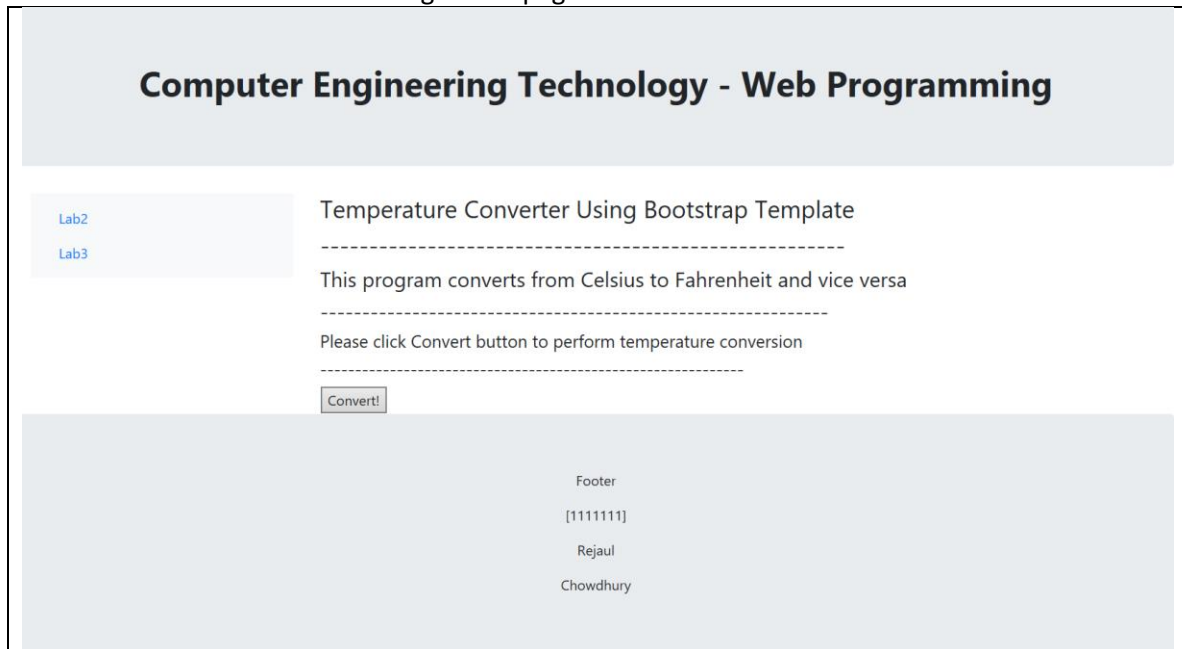
Task 2

Sub-task1- Merge *index.html* and *TemperatureConverter.html*

Download '*TemperatureConverter.htm*l' template file from Brightspace (Course Content ->
Labs-> Lab4 -> TemperatureTemplate.zip) and save it to your computer.

Merge *TemperatureConverter.html* into *index.html* such that the Content Area of *index.html*
should have the contents of *TemperatureConverter.html.*

Here is the screenshot of the merged webpage.

Computer Engineering Technology - Web Programming

Lab2
Lab3

Temperature Converter Using Bootstrap Template

This program converts from Celsius to Fahrenheit and vice versa
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Please click Convert button to perform temperature conversion
----
Convert!

Footer
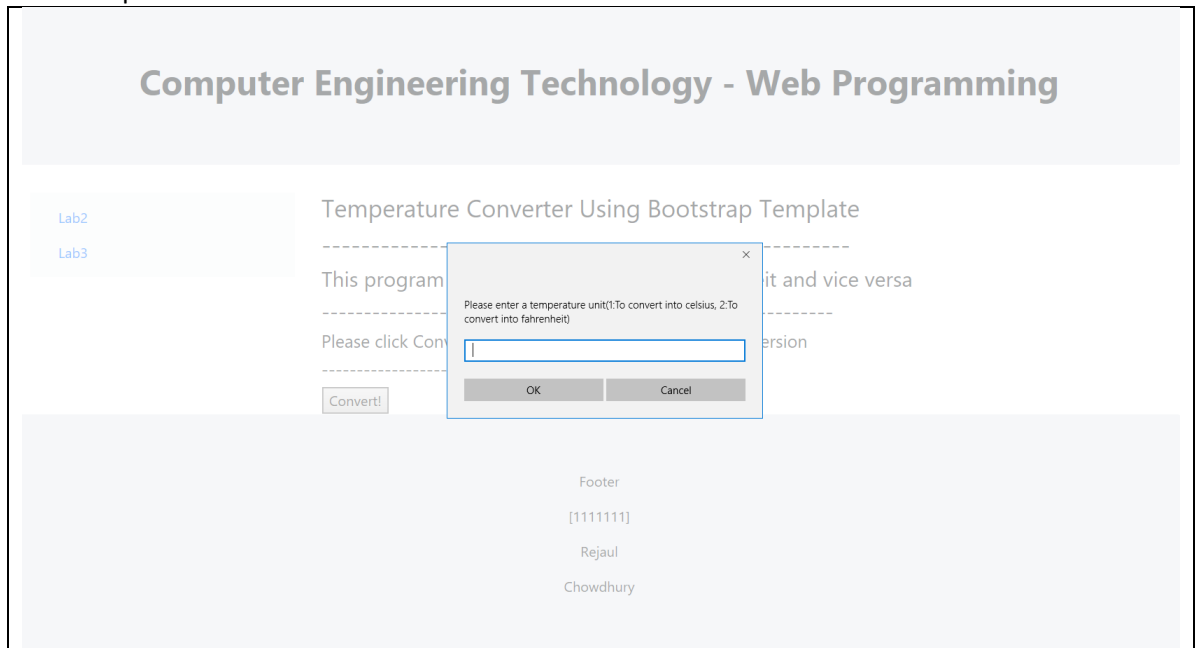
[1111111]

Rejaul

Chowdhury

Sub-task2- Write JavaScript function

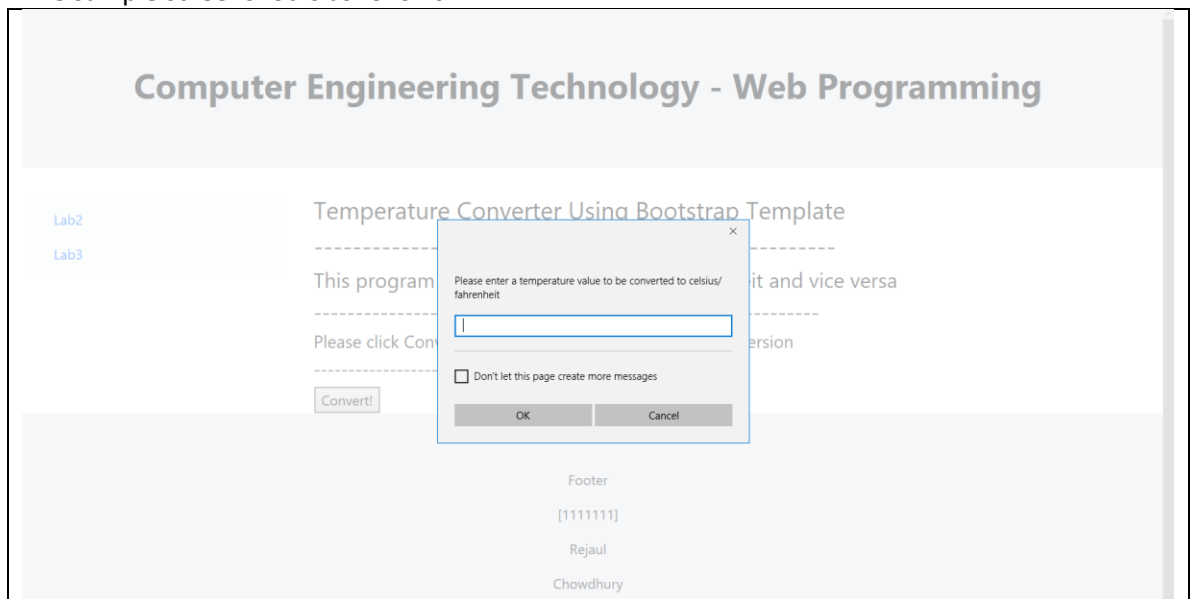You need to write a JavaScript function inside the template file that

- Displays a prompt asking the user to select the temperature unit to be converted to (i.e., Celsius/Fahrenheit). [hint: you will need to use the prompt() Method].

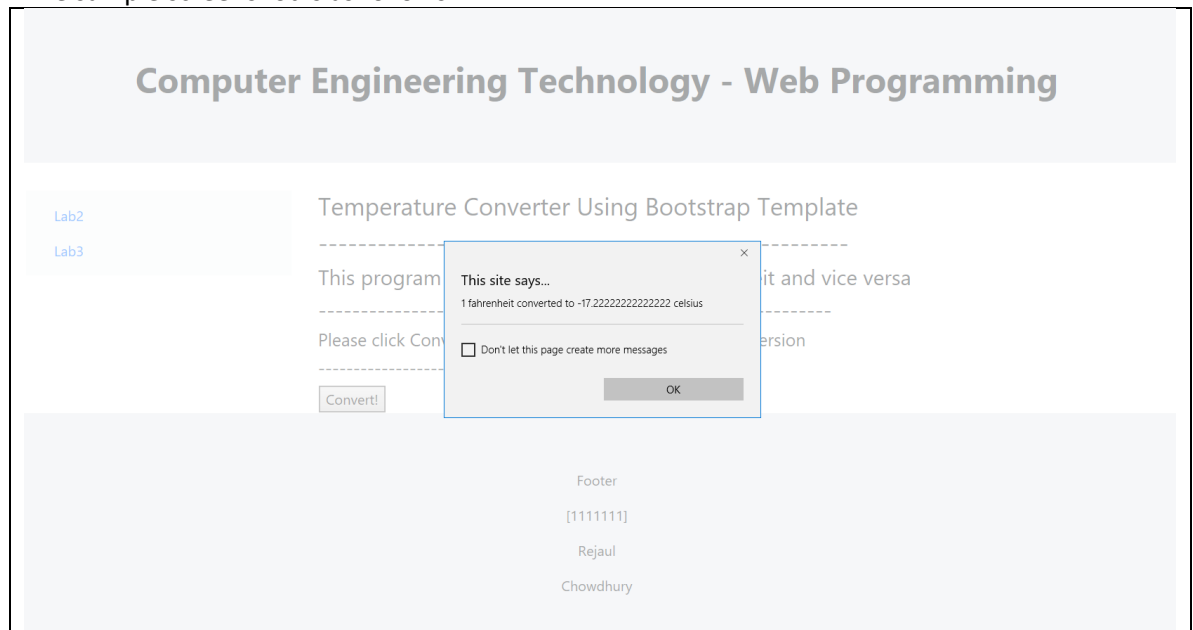 The sample screenshot is as follows:

- Displays another prompt asking the user to input the value of the temperature to be converted to Celsius/Fahrenheit.

  The sample screenshot is as follows:

- The temperature value entered should be validated to ensure it is a number.

- Then, the appropriate formula should be applied to the value to convert the temperature to the selected temperature unit (i.e., From Celsius to Fahrenheit or vice versa).

- Finally, an alert should be displayed indicating the original temperature that the user entered and the converted temperature [hint: you will need to use the alert() Method to display your answer variable].

The sample screenshot is as follows:

- The function should be called when the appropriate button (i.e., **Convert!**) is pressed.

Task 3

Create Lab 4 submission folder '**Lab4**' and copy **index.html** into this folder**.**

Task 4

Upload your website for Lab 4 into a Web Hosting Server by uploading '**Lab4**' folder inside the 'public_html' directory of 'SiteGround' Web Hosting domain using DashBoard.

The 'File Upload' instruction is posted on Brightspace (**Course Contents -> Module 1 -> Part 2 -> SiteGround_FileUpload_Instruction.docx**).

Task 5

View your website for Lab 4 using a web browser. Open a web browser and navigate to the following web address:

http://your_web-hosting_domain_name/Lab4/<filename>

For example, the sample URL for Lab 4 on an arbitrary web hosting domain is:

rejaulc.sgedu.site/Lab4/index.html

    where '*rejaulc.sgedu.site*' is the name of an arbitrary web hosting domain, '*Lab4*' is the submission folder for Lab 4, '*index.html*' contains the source code for Lab 4.

Task 6

Once you have confirmed that your webpage is available online, you are ready to hand in your lab.

Create a word document (Lab4.doc) in which write the following Information:

- Student Number
- First Name
- Last Name
- The URL, or hyperlink, for Lab 4

To hand in your lab go to Brightspace and navigate to Course Content → Labs and click on 'Lab 4 – Bootstrap and JavaScript' link.

Upload the word document (Lab4.doc) on Brightspace.

IMPORTANT NOTE:
If the URL, or hyperlink, does not direct the professor to the lab you will receive a ZERO for the lab assignment.