

# Lab 4 – Bootstrap and JavaScript

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## 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 June 04, 2021 – 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)

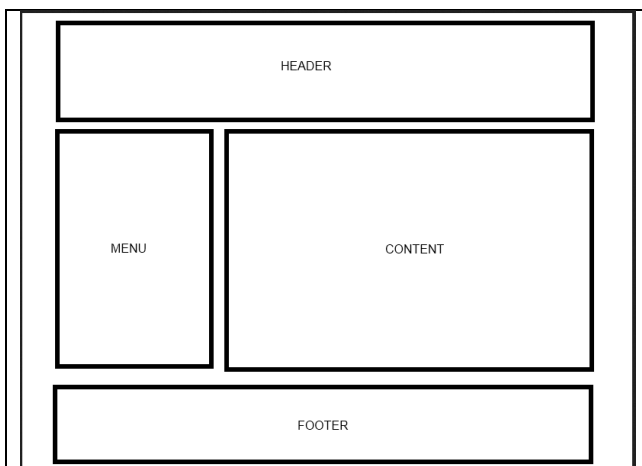
## Summary of Tasks

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 specified Design Template (**Course Content → Extra Materials → Common Look and Feel → Design Template.png**) 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**'.

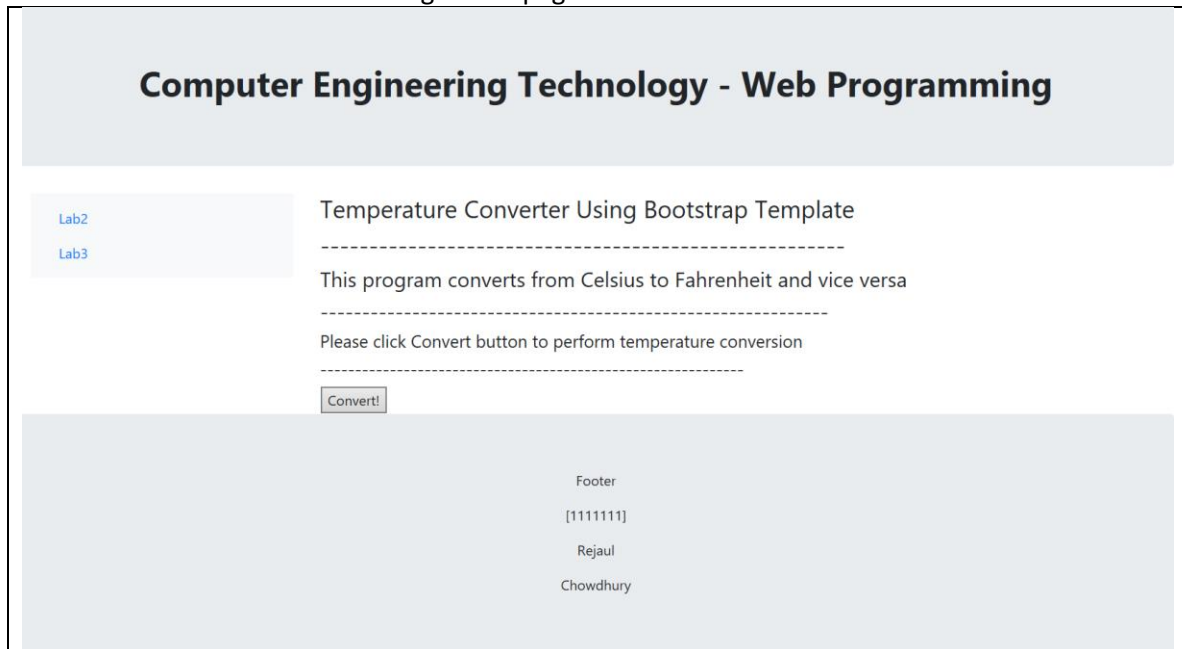
## Task 2

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

Download '*TemperatureConverter.html*' 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.

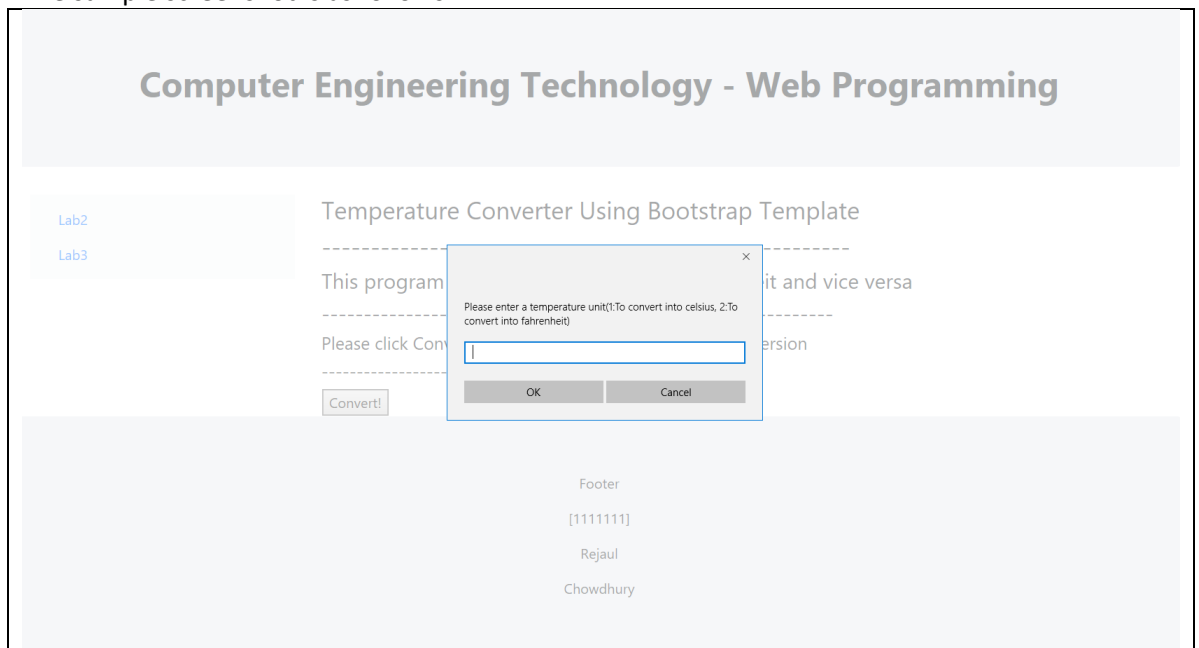


## Sub-task2- Write JavaScript function

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

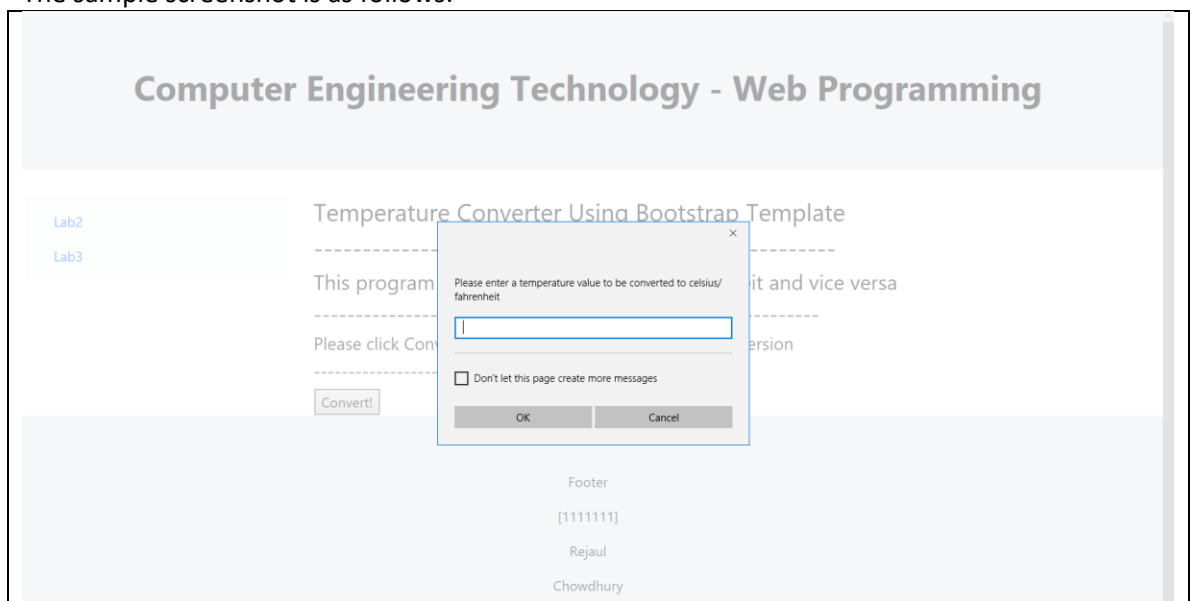
- Displays a prompt asking the user to select the temperature unit to be converted to (i.e., Celsius/Fahrenheit). [hint: you will need to use the prompt() Method].

The sample screenshot is as follows:



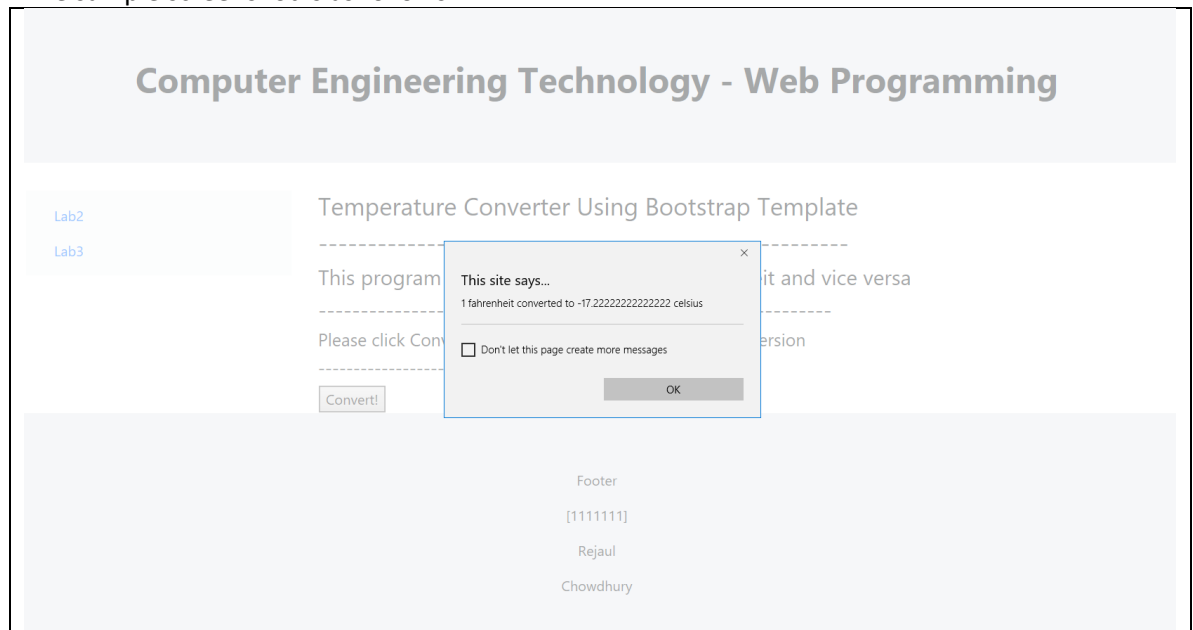
- Displays another prompt asking the user to input the value of the temperature to be converted to Celsius/Fahrenheit.

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](http://rejaulc.sgedu.site/Lab4/index.html)*

where '*[rejaulc.sgedu.site](http://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.