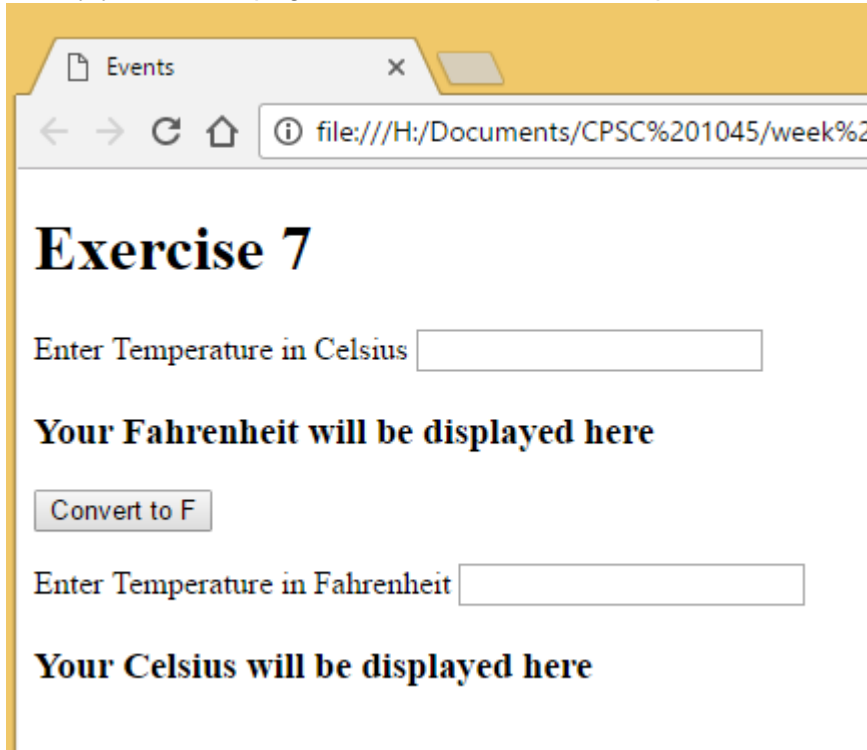


CPSC 1045: Exercise 7 [15 marks]

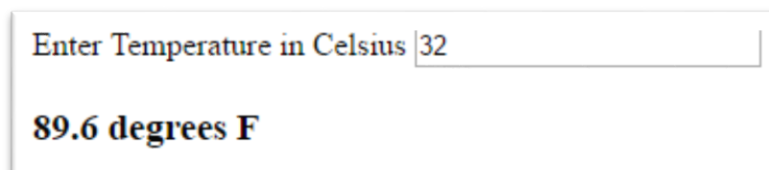
Complete this exercise individually. Please follow the instructions **carefully** and complete all of the steps.

1. Create a new HTML web page called ex7.html and a new JavaScript file called ex7.js. Your HTML file should contain all of the basic tags required to pass validation.
2. Modify your HTML page to be identical to the one pictured below:



The screenshot shows a web browser window with a single tab titled 'Events'. The address bar displays the file path: file:///H:/Documents/CPSC%201045/week%202/. The page content includes a large heading 'Exercise 7', a text input field labeled 'Enter Temperature in Celsius', a bold text prompt 'Your Fahrenheit will be displayed here', a button labeled 'Convert to F', another text input field labeled 'Enter Temperature in Fahrenheit', and a bold text prompt 'Your Celsius will be displayed here'.

3. The formula relating Celsius and Fahrenheit is $F = C * 9 / 5 + 32$ or $C = (F - 32) * 5 / 9$. Write the JavaScript so that this HTML page has the following behavior:
 - a) The user types a temperature in Celsius into the Celsius text field. When the Convert to F button is **clicked**, the temperature in Fahrenheit is displayed in the h3 and replaces the words "Your Fahrenheit... here".



This screenshot shows the state of the web page after the 'Convert to F' button has been clicked. The 'Enter Temperature in Celsius' input field now contains the value '32'. Below it, the text '89.6 degrees F' is displayed in a large, bold font, indicating that the Celsius value has been converted to Fahrenheit.

- b) The user should enter a temperature in Fahrenheit into the Fahrenheit text field. As *the user types numbers* into this text field, the Celsius temperature should be

calculated and appear in the “Your Celsius... here” h3. You must use a keyup event to complete this exercise.

Enter Temperature in Fahrenheit

-13.8888888888889 degrees C

Enter Temperature in Fahrenheit

23.8888888888889 degrees C

- c) Ensure that if the user enters text other than numbers into your text fields, you display an error message.

Exercise 7

Enter Temperature in Celsius

Not a number

Enter Temperature in Fahrenheit

Not a number

4. When you have completed the exercise, demonstrate to the instructor or lab assistant that you have completed all of the steps and that all of your functions work correctly.