Lab 2: Temperature Converter

Here's a quick lab that gives you a bit of practice using some JavaScript operators.

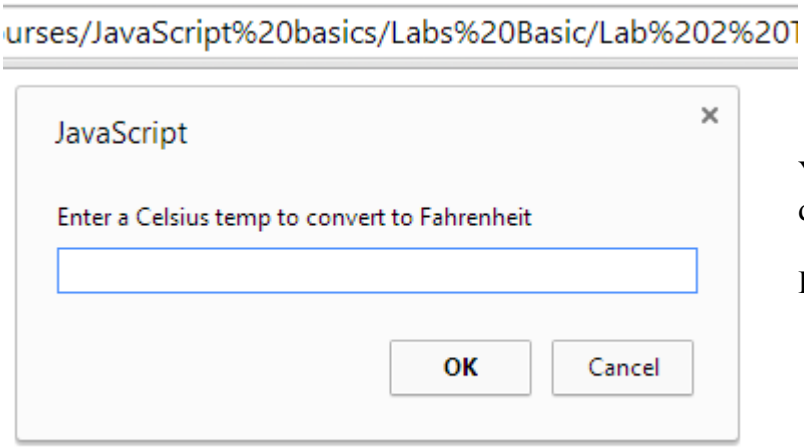
In short, your program will accept a number representing a temperature in Celsius and convert it to Fahrenheit, and accept another number representing a Fahrenheit temperature and convert it to Celsius.

In addition, if the temperature *after conversion* is above the boiling point of water, you'll also print out "It's boiling here"; if the temperature is below the freezing point, you'll also print "It's freezing here"

You'll have a file with some HTML and comments to get you started; that file is *tempconverters.html* in your *lab2* folder.

What you'll see when you are done

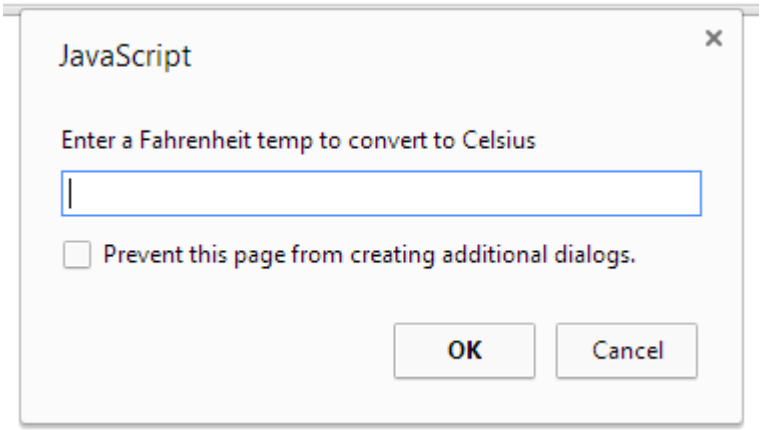
Running the solution *tempconvertersSol.html* (also provided, of course) in Chrome shows the following outputs:

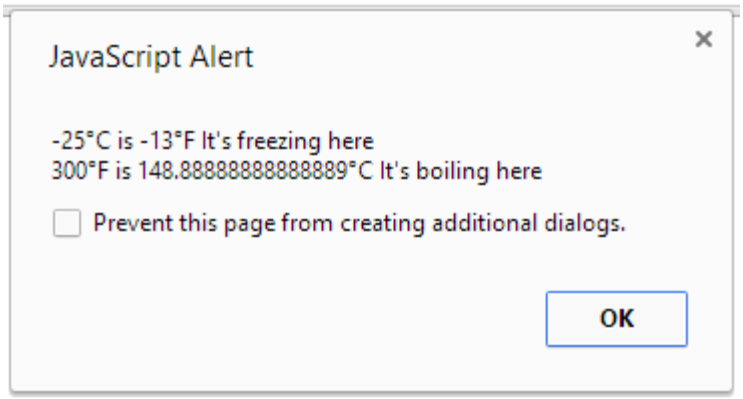


You'll see soon how to get this dialog to display in your program.

Enter -25 and click OK.

Now, enter 300 and click OK .



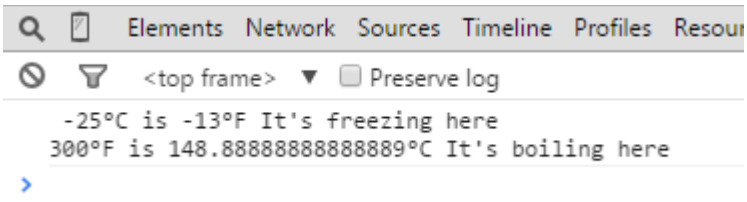


This is just an *alert box* (you'll code this).

Click OK (the alert *blocks execution until you click OK)*

Call up the console (refer to previous lab to see how for the browser you're using)

You'll see the same text as shown in the alert box above.



The provided file *tempconverter.html*

Open the provided file *tempconverter.html* in whatever editor/ide you're using. We'll look at a couple of items already provided for you in this file.

These lines:

```
var degreeSymbol = '\xB0';  // That's the little degree circle
var lineBreak    = '\n'  ;
```

are some constants that you will use in your output. Treat these like any character/string data.

The next statement is the JavaScript *window.prompt* command:

```
var cTemp = prompt("Enter a Celsius temp to convert to Fahrenheit") ;
```

The *prompt* command is part of the *Browser Object Model* previously discussed. We'll cover this command in more detail later. For now, it's an easy way of getting a value into your JavaScript interactively. JavaScript displays the dialog boxes as shown in the previous page and assigns your input to the variable (cTemp, in this case).

The next lines are *comments*. The languaget is my feeble attempt to describe the equations needed to perform the temperature conversions without writing the equations out.

Use *string concatenation* to create the messages shown in the alerts and console.

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For the 'freezing/boiling' phrase, think of using an operator that takes a conditional as an argument and assigns a value if true or false. For the false part, you assign an empty string. In other words, you only append the 'freezing/boiling' message when the condition is true and an empty string when false.

The line:

```
alert(  PUT SOMETHING HERE )
```

displays the text in the dialog showing the conversions and the freezing/boiling stuff (if applicable). The *alert* command is also part of the *Browser Object Model*.

What to do, what to do

Make changes to *tempconverter.html* until you get the outputs above. Get the conversions to work first, then work on the freezing/boiling stuff.