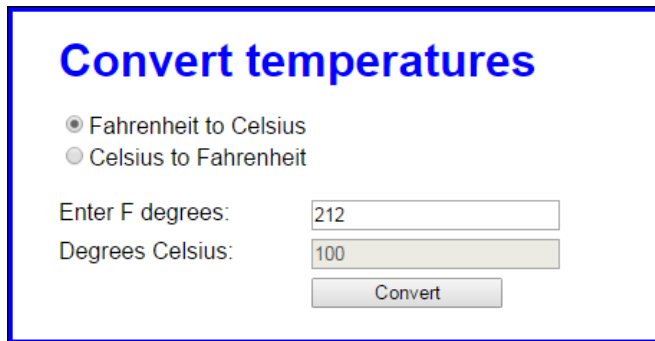


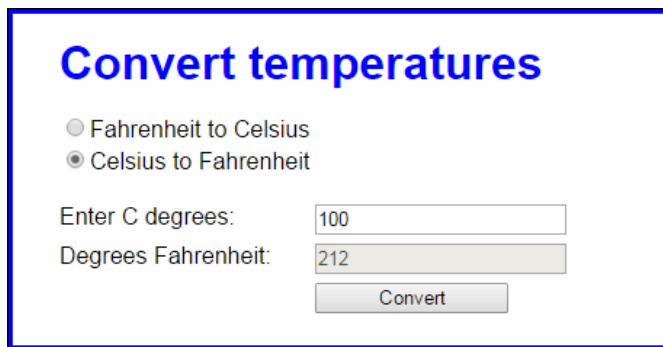
Develop the Temperature Converter

You'll use radio buttons to determine whether the conversion is from Fahrenheit to Celsius or vice versa. You'll also modify the DOM so the labels change when a radio button is clicked. When the application starts, it will look like this:



The screenshot shows a web form titled "Convert temperatures" in blue. It has two radio buttons: "Fahrenheit to Celsius" (selected) and "Celsius to Fahrenheit". Below the radio buttons are two text input fields. The first is labeled "Enter F degrees:" and contains the value "212". The second is labeled "Degrees Celsius:" and contains the value "100". A "Convert" button is at the bottom.

When the user clicks on the second radio button, the labels will change so the interface will look like this:



The screenshot shows the same web form, but the "Celsius to Fahrenheit" radio button is now selected. The labels have changed: "Enter C degrees:" is above the first text input field (containing "100"), and "Degrees Fahrenheit:" is above the second text input field (containing "212"). The "Convert" button remains at the bottom.

1. Open the HTML and JavaScript files in this folder:
`convert_temps`
2. Note that the JavaScript file has some starting JavaScript code, including the `$` function, a `clearTextBoxes()` function, and an `onload` event handler that attaches three event handlers named `convertTemp()`, `toCelsius()`, and `toFahrenheit()`.
3. Code the `toFahrenheit()` function that is executed when the user clicks on the second radio button. It should change the text in the labels for the text boxes so they read as in the second interface above. It should also call the `clearTextBoxes()` function to clear the text boxes.
4. Code the `toCelsius()` function that is executed when the user clicks on the first radio button. It should change the text in the labels for the text boxes so they read as in the first interface above. It should also call the `clearTextBoxes()` function to clear the text boxes.
5. Code the `convertTemp()` function without any data validation. It should calculate the temperature based on which button is checked. To convert

Fahrenheit to Celsius, first subtract 32 from the Fahrenheit temperature, and then multiply that result by 5/9. To convert Celsius to Fahrenheit, first multiply Celsius by 9/5, and then add 32. The result in either case should be rounded to zero decimal places.

6. Add data validation to the `convertTemp()` function. The only test is whether the entry is a valid number. If it isn't, this message should be displayed in a dialog box: "You must enter a valid number for degrees."
7. Add any finishing touches to the application like moving the focus to the first text box whenever that's appropriate.