Exercise 8: Conditionals

For this exercise, you'll create some JavaScript functions with conditionals.

Start with this code

Create a new file in your text editor and paste in this code, which has two text boxes, three buttons, and a paragraph that can display a result. You should be pretty familiar with this by now.

```
<!DOCTYPE HTML>
<html>
<body>

<p><input type = "text" id="textbox1"></p>

<p><input type = "text" id="textbox2"></p>

<button onclick="login()">Login</button>

<button onclick="compare()">Compare</button>

<button onclick="showDirection()">Direction</button>

<p id="result"></p>

<script>
</script>

</body>
</html>
```

Save this as **conditionals.html**.

Login

Let's create a fake login function. Create a function called **login** that takes no parameters. Note that this will be called when the **Login** button is clicked.

Inside the login function, add this code to say that the login is successful if the username is "admin" and the password is "pass".

```
if (textbox1.value == "admin" && textbox2.value == "pass") {
    result.innerHTML = "Logged in";
}
```

Save and open the html file in the browser. Put in **admin** and **pass** for the two text boxes and click **Login**. Your message should show up.

Now try an incorrect password. The message stays because you didn't tell it to change it. Let's add an else statement so that the if statement looks like this:

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```
if (textbox1.value == "admin" && textbox2.value == "pass") {
    result.innerHTML = "Logged in";
}  else {
    result.innerHTML = "Incorrect username and password";
}
```

Save and refresh the page. Try an incorrect username and password now.

Length comparison

Now add a new function called **compare** with no parameters. This will be called when the **Compare** button is pressed. Inside this function, add code that will set the result paragraph to say, "First is longer" if the number of characters in text box 1 is greater than the number of characters in text box 2. From our previous exercise, we know to get the number of characters in text box 1 like this:

```
textbox1.value.length
```

Save and refresh the page. Put something in text box 1 that's longer than text box 2 and click **Compare**. Your message should show up. However, if you put something shorter in text box 1, then message stays.

Add code so that the message "Second is longer" will appear when text box 2 has more characters than text box 2. Try it out and see if it works.

Have you handled the case where they have the same number of characters? Add in code to display "Same length" when that happens. The best way is with if / else if / else statements.

Open up **JavaScriptAndHTML.html** from Exercise 3. Save it as **Functions3.html**.

Directions

Lastly, you'll learn how to use the switch statement. First, create a function that given an abbreviation for a direction (n, s, e, or w), it will return the full name (North, South, East, or West). If the abbreviation isn't recognizable, it will return "Something".

Create a new function with:

1. Name: directionName
2. Parameters: abbrev

Put the following code in the function. Note that for each case statement, it will return the full direction name value. If none of the cases are matched, then it returns "Something".

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```
switch (abbrev) {
    case "n":
      return "North";
      break;
    case "s":
      return "South";
      break;
    case "e":
      return "East";
      break;
    case "w":
      return "West";
      break;
    default:
      return "Somewhere";
}
```

Next, create a function called **showDirection** with no parameters. This will be called when the **Direction** button is clicked. Inside, have it set the result HTML to be "Go "+ the value of the **directionName** function when passed in the value of **textbox1**. So, when you put "n" in text box 1 and click **Direction**, it will take that value, pass it into the **directionName** function, and get back the direction full name, which is "North". Then it will put "Go North" into the result paragraph.

Try it out with n, s, e, and w. Then try it out with something different that it won't recognize.

Take a Look at How I've Done It

If you get stuck, you can look at my versions of the code:
http://sdkbridge.com/prog1/Exercise8Answers.pdf.