

Using the 'if' conditional in JavaScript

In the fourth video, Steve demonstrates how to use 'conditional execution' in JavaScript. This is when the computer carries out a process that depends upon what the user inputs. It's known as the 'if' conditional, as it is similar to if...then statements. This means that **if** the user inputs something, **then** the computer will do something. Steve shows how to use the syntax, and how to define what 'something is'. By the end of this, you will be telling users whether they can do to a disco or not, depending on their age!



Step 1: Creating the file for this activity (video start to 1.03)

Steve starts with a file that already has some HTML5 code in it. You need to create a new file, and make sure you have everything in it that Steve uses in the video.

Watch the video up to 1.30 and then create the code the same as Steve has. The screenshot on the right shows the code,

```

1 <html>
2 <head>
3 <script>
4 </script>
5 </head>
6 <body>
7   How old are you?
8   <input type="text" id="age"/><br>
9   <input type="button" value="Check Age" onclick="checkAge()"/><br>
10  <p id="messageArea"></p>
11 </body>
12 </html>

```

identical to the example in the video. Open up a new file, create the html page, head section, and script tags. Create the body section and then insert the code that asks the user to input their age. Include both input types – text and button. Make sure you include the break tags at the end of each input section. Also create a new paragraph that shows where the area is on the web page where the answer to the sum will appear. Make sure your code looks the same as the screenshot above.



Step 2: Adding the function to the script (video 1.03 – 01.30)

Watch the video up to 1.30 and then add the scripts needed to add the function, and the two variables.

Into the script tag, the function is added and two variables, this time, one for age and the other for the message. The message will depend on the input from the user – this is the 'conditional' part of the JavaScript.

```
1 <html>
2 <head>
3 <script>
4   function checkAge ()
5   {
6     var age;
7     var message;
8
9
10  }
11 </script>
12 </head>
13 <body>
14   How old are you?
15   <input type="text" id="age"/><br>
16   <input type="button" value="Check Age" onclick="checkAge()" /><br>
17   <p id="messageArea"></p>
18 </body>
19 </html>
```

Add this syntax to your code. It should look like the screenshot above.

Step 3: Telling the browser where to find the first variable, the age (Video 01.31 – 02.06)

Now that Steve has told the browser that there are two variables, he needs to tell it where to find them. The next piece of code defines the variables and tells the browser where to find firstly the age variable.

The code uses the form...

age = parseInt(document.getElementById("age").value);

This should be familiar to you as we used the same syntax in the previous activity. To remind you, this tells the browser to find the value for age in the HTML document, by getting the element with the id "age". Steve has also told the browser that it's a number, rather than text, that it needs to find. This is the function of the parseInt at the beginning of this code.

```
1 <html>
2 <head>
3 <script>
4   function checkAge ()
5   {
6     var age;
7     var message;
8
9     age = parseInt(document.getElementById("age").value);
10
11  }
12 </script>
13 </head>
14 <body>
15   How old are you?
16   <input type="text" id="age"/><br>
17   <input type="button" value="Check Age" onclick="checkAge()" /><br>
18   <p id="messageArea"></p>
19 </body>
20 </html>
```

You can see my code in the screenshot above. Make sure yours matches it (and Steve's!).



Step 4: Telling the browser what to do under various conditions (different ages) (Video 2.07 – 4.10)

Steve now introduces the 'if' statement. Firstly, he creates a conditional that says **if** the age is greater than (>) 17, **then** a message is printed that says 'Super! You can go to the disco!'.

Under this he creates two more conditionals, one that states if the age is less than (<) 5, and the other that if the age is equal (==) to 17. In these cases different messages are printed. Note the use of the double equals sign for age being equal to – this is because the single equals sign is used for something else. Steve explains this in the video. Create your code with three conditionals – it should look like the screenshot above.

```
1 <html>
2 <head>
3 <script>
4 function checkAge()
5 {
6   var age;
7   var message;
8
9   age = parseInt(document.getElementById("age").value);
10  if (age > 17)
11    message = "Super! You can go to the disco!";
12  if (age < 5)
13    message = "You're too young to go to school!";
14  if (age == 17)
15    message = "Super! You can learn to drive!";
16
17 </script>
18 </head>
19 <body>
```

Step 5: Telling the browser to print out the message, depending on the age input (video 4.10 to 4.32)

Now Steve tells the browser how to print out the message, depending on the age the user has entered. This uses the syntax that tells the browser to find the message area inside the HTML.

Add this piece of code to your Notepad++ document – it should look like mine on the right.

```
1 <html>
2 <head>
3 <script>
4 function checkAge ()
5 {
6   var age;
7   var message;
8
9   age = parseInt(document.getElementById("age").value);
10  if (age > 17)
11    message = "Super! You can go to the disco!";
12  if (age < 5)
13    message = "You're too young to go to school!";
14  if (age == 17)
15    message = "Super! You can learn to drive!";
16
17  document.getElementById("messageArea").innerHTML = message
18 }
19 </script>
20 </head>
21 <body>
22 How old are you?
23 <input type="text" id="age"/><br>
24 <input type="button" value="Check Age" onclick="checkAge()"/><br>
25 <p id="messageArea"></p>
```

Step 6: Saving and running in Chrome (4.33 to end)

In the final part of the video, Steve saves the code and runs it in Chrome. When different ages are entered, different messages should appear. Take screenshots of your published page when ages 4, 17 and 18 are entered as well as the completed code and insert these into the Student Log.

How old are you?

Super! You can go to the disco!

Steve also mentions playing with other ages. Try entering 150 and -6 – you will see messages that really shouldn't appear! This is something Steve deals with in later videos. You might know already what needs to happen to make sure messages don't come up for ages that can't exist!

If your code isn't publishing correctly, debug it and try again.