# Coding a button with JavaScript

In the third of three Intel and CoderDojo coding projects, you will start to learn to code in the most popular programming language in the world – JavaScript. This is a big leap from coding in HTML5 and CSS, which are the skills you gained when you worked through the previous two projects.

The syntax for JavaScript is more complicated than you have seen so far, so to help you master this skill, we have provided step-by-step guides to creating accurate JavaScript syntax. In this guide, you will code a button to display a message.
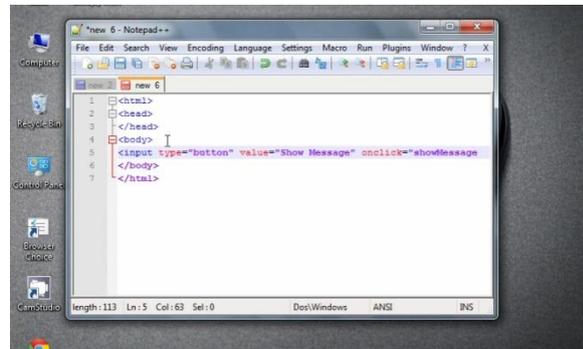

Work with Notepad++ as you work through the video, and refer to this document at the same time. Take your time typing the syntax – it would be a real achievement if you managed to get the button to work first time, without having to debug!

Step 1: Setting up your web page (video start to 01.05)

Step 1 is a great revision activity! In Notepad++, set up the web page using the <html>, <head> and <body> tags. Don't forget the closing tags for these. Your syntax should look like the screenshot on the right.

If it doesn't quite look the same, it may be because you haven't set the language. Click on the Language tab and choose HTML.
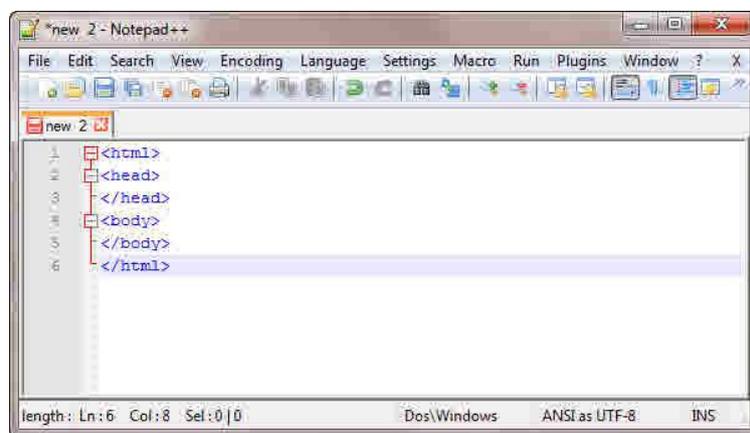
Step 2: Telling the browser that a button is needed (video 01.06 – 02.00)

In this step, you start to introduce some new syntax that you haven't used before. These are the input, value and onclick commands.

You are creating a button, with a value, that when clicked does something – and that something is to display a message.

Make sure your syntax looks like the screenshot on the right. Don't forget the break tag at the end.

```
1  <html>
2  <head>
3  </head>
4  <body>
5  <input type="button" value="Show Message" onclick="showMessage()"/><br>
6  </body>
7  </html>
```

Step 3: Telling the browser where the onclick message will appear (Video 02.01 – 02.25)

In this next step, Steve identifies the area where he wants the browser to display the message that will appear when the button is clicked.

He adds a paragraph tag with an id of 'messageArea'. Add this code to your syntax.

It should look like the screenshot on the right.

```
1  <html>
2  <head>
3  </head>
4  <body>
5  <input type="button" value="Show Message" onclick="showMessage()"/><br>
6  <p id="messageArea"></p>
7  </body>
8  </html>
```

Step 4: Using JavaScript to make the button work (Video 02.26 – 04.12)

Note now that Steve goes into the head section of the page (everything so far has been typed into the body section).

He also uses two new tags – the script tags (<script> and </script>) – which tells the browser that script is going to appear that tells it to do something.

He then types in a **function**– the script name for something that will actually do something – that says 'showMessage'. Inside curly brackets, he types in the code to tell the browser that in the id 'messageArea' inside the HTML, he wants the message 'Writing JavaScript is Easy!" to appear. Your code should look like the screenshot below. Don't forget the two brackets that appear at the end of the function (after showMessage).
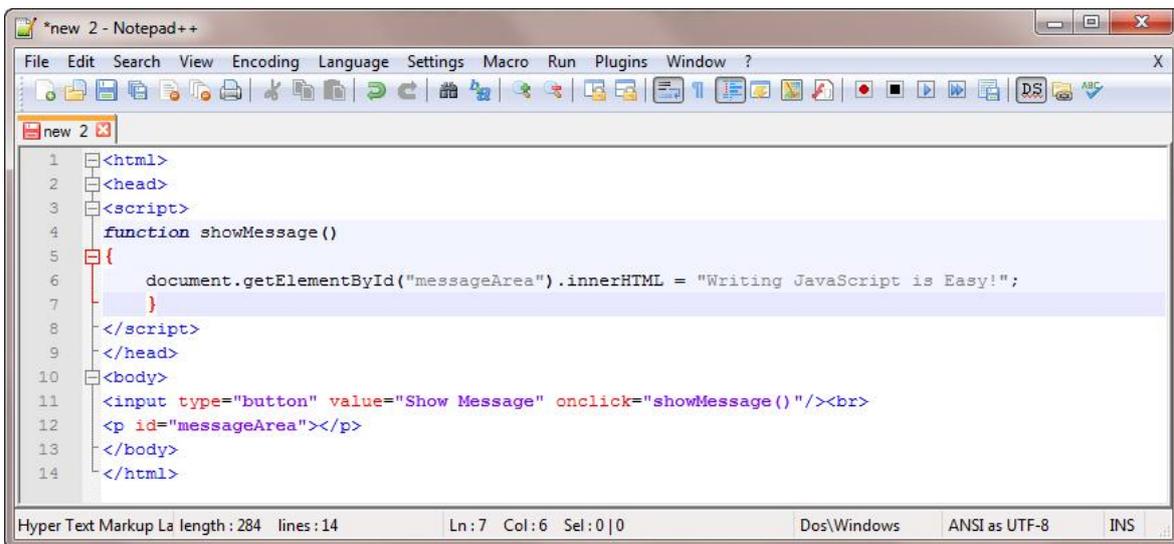
Step 5: Saving and publishing the code (Video 4.13 to end)

Finally, Steve saves his file and publishes it in Chrome to see whether the button actually does work – it should produce the message 'Writing JavaScript is Easy!' when clicked.

Mine did! Hopefully yours did too. If it didn't, debug the code to check what it missing. It's usually a closing tag or a curly bracket.

Well done – now take a screenshot of the code, and of the published page, and insert these into your Student Log so your teacher can see you have completed this task. You're now coding in JavaScript!