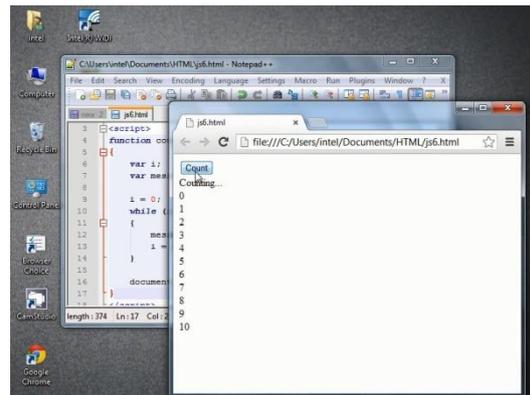


Passing parameters to functions in JavaScript

In this eighth video, Steve demonstrates how to pass parameters – numbers – from a user input into a function. He's going to do this by coding a calculator that takes the inputted numbers and carries out addition, subtraction, multiplication and division with them, using buttons.

Steve starts this video with code he has already prepared. **Rather than expecting you to create this yourself, we have provided a text document in the Resources area.** Download it into Notepad++ and then you can add the extra code that Steve will explain.



Step 1: Explaining the code (video start to 1.55)

Watch the video for 1.55 where Steve explains the code that he has already created. You should have this in your Notepad++ document.

This code is going to generate four buttons that, when clicked, will perform the mathematical functions of adding, subtracting, multiplying and dividing. Make sure you understand the code Steve has produced before moving on.

Step 2: Understanding the function (video 1.56 – 02.35)

Watch the next section of the video, up to 2.35, to go back to the top of the code, where the function is specified. Steve explains how this section of the code describes the function as a calculation, and specifies the variables.

The code also takes information from a text input and turns it into an integer (the parseInt syntax). Make sure you understand this before moving on.

```

1 <html>
2 <head>
3 <script>
4 function calculate(calctype)
5 {
6     var num1;
7     var num2;
8     var result;
9
10    num1 = parseInt(document.getElementById("num1").value);
11    num2 = parseInt(document.getElementById("num2").value);
12
13 }
14
15 </script>
16 </head>
17

```



Step 3: Adding 'if' and 'else' code to the function (video 02.36 – 3.50)

In this next section of video, Steve uses the 'if' and 'else' syntax to specify the calculations that will happen when the buttons are pressed.

Putting 'else' and 'if' together really means, 'or if'. So if button 1 (calctype == 1) is pressed, result is number 1 and number 2 added together. Or if (else if) button 2 is pressed (calctype == 2), number 2 is subtracted from number 1, and so on. Add this code to your Notepad++ document – it should look like Steve's and the screenshot above.

```
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21
var num1;
var num2;
var result;

num1 = parseInt(document.getElementById("num1").value);
num2 = parseInt(document.getElementById("num2").value);

if (calctype == 1)
    result = num1 + num2;
else if (calctype == 2)
    result = num1 - num2;
else if (calctype == 3)
    result = num1 * num2;
else if (calctype == 4)
    result = num1 / num2;
```

Step 4: Adding the text to get the result (Video 03.51 – 04.10)

Another short piece of code is added now to make sure the result is printed by the browser. Add this to your Notepad++, check again that the code is accurate. It should look like the screenshot on the right.

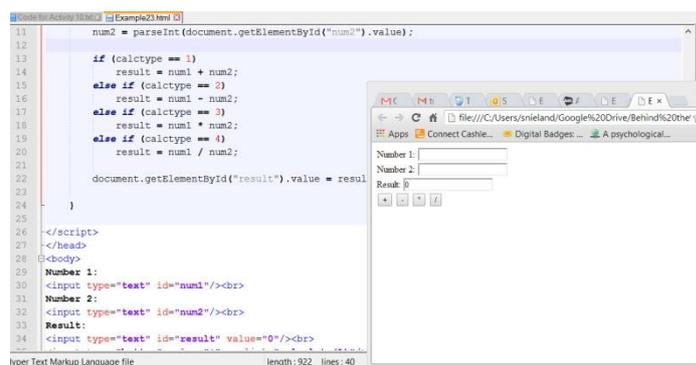
```
11
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27
num2 = parseInt(document.getElementById("num2").value);

if (calctype == 1)
    result = num1 + num2;
else if (calctype == 2)
    result = num1 - num2;
else if (calctype == 3)
    result = num1 * num2;
else if (calctype == 4)
    result = num1 / num2;

document.getElementById("result").value = result;
}
</script>
</head>
```

Step 5: Publishing the page and using the calculator (Video 04.11 – end)

Steve publishes the page in Chrome and runs it. The page has text fields for the numbers and four buttons for the add, subtract, multiply and divide function. Make sure you have saved your code as an HTML file (the downloaded code was a text file), publish it and make sure your published page works as Steve's does. If not, debug your code and try again. Take a screenshot of the code and the published page, with a calculation displayed, and insert these into your Student Log.



Well done, you have just coded your own calculator! To make sure you can do this again, try creating the code from scratch...