

CHAPTER 1

PYTHON *to* JS

PART 1

WHAT IS JAVASCRIPT ?



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15 MIN



Open **/exercice1** and run the HTML

Q1 - What does the script is doing ?

Q2 - Remove the script –run – what's happen ?

Q3 - When we run the index.html ? before ? after ? on click ?

Q4 – Change the script to write THE BEST on the second paragraph

Q5 – Disable JavaScript on Chrome :

https://www.tutorialspoint.com/javascript/javascript_enabling.html

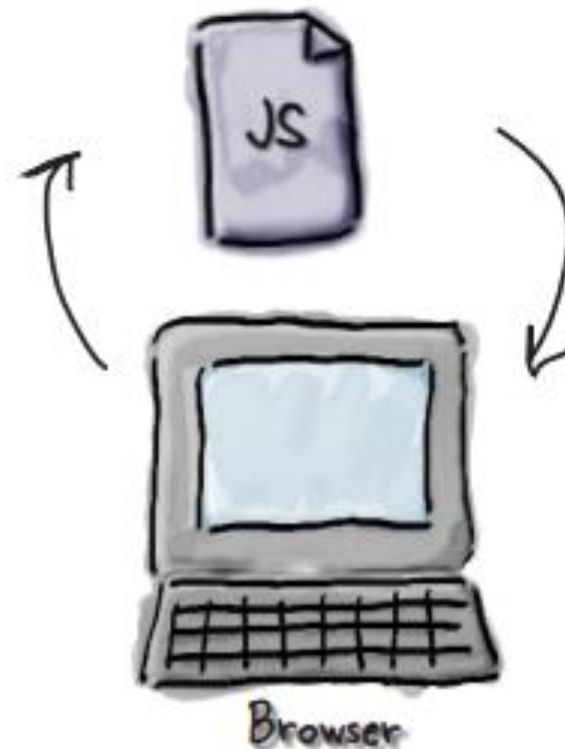
What 's happen ?



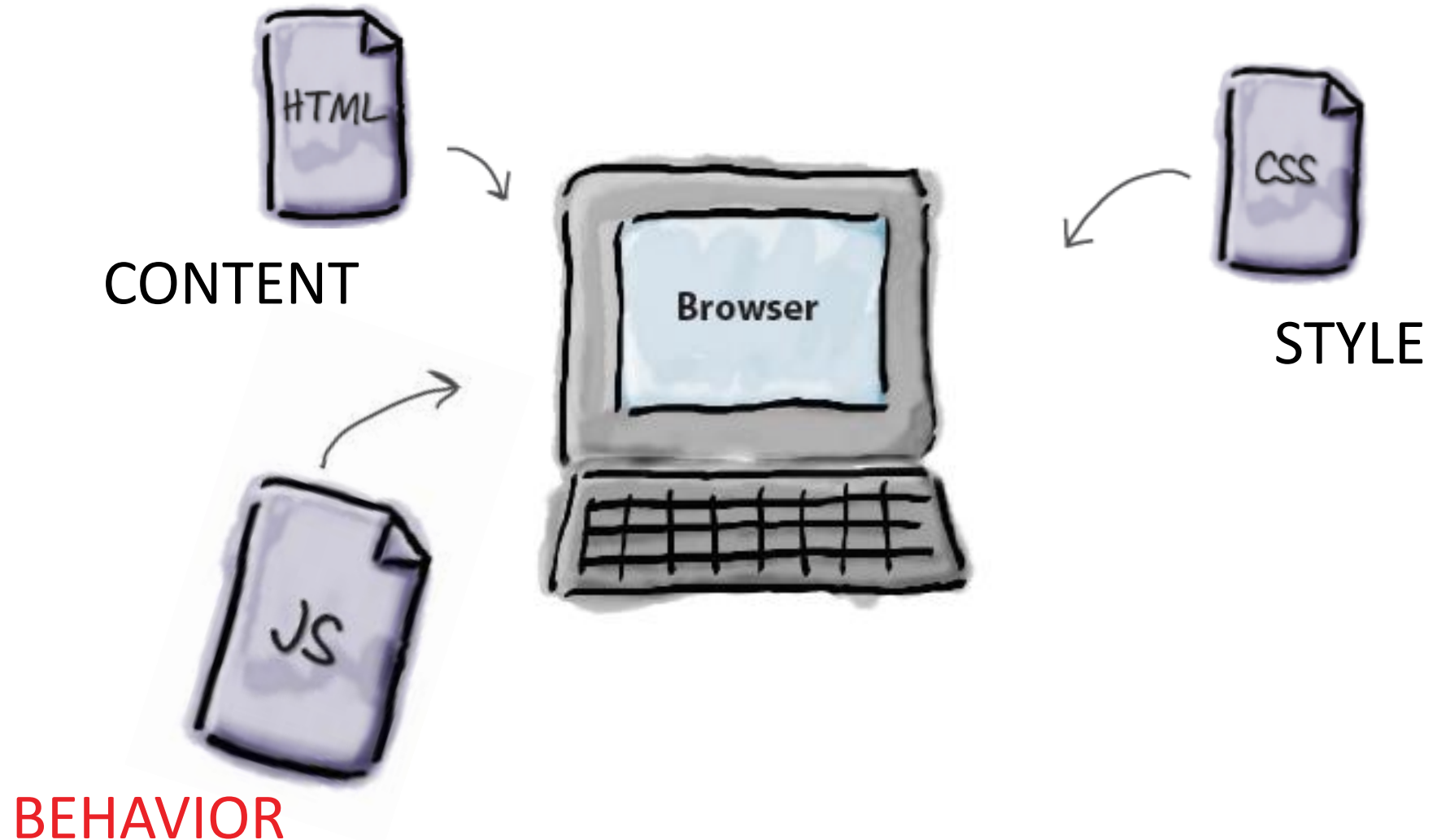
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JS is the language understood by **browsers**

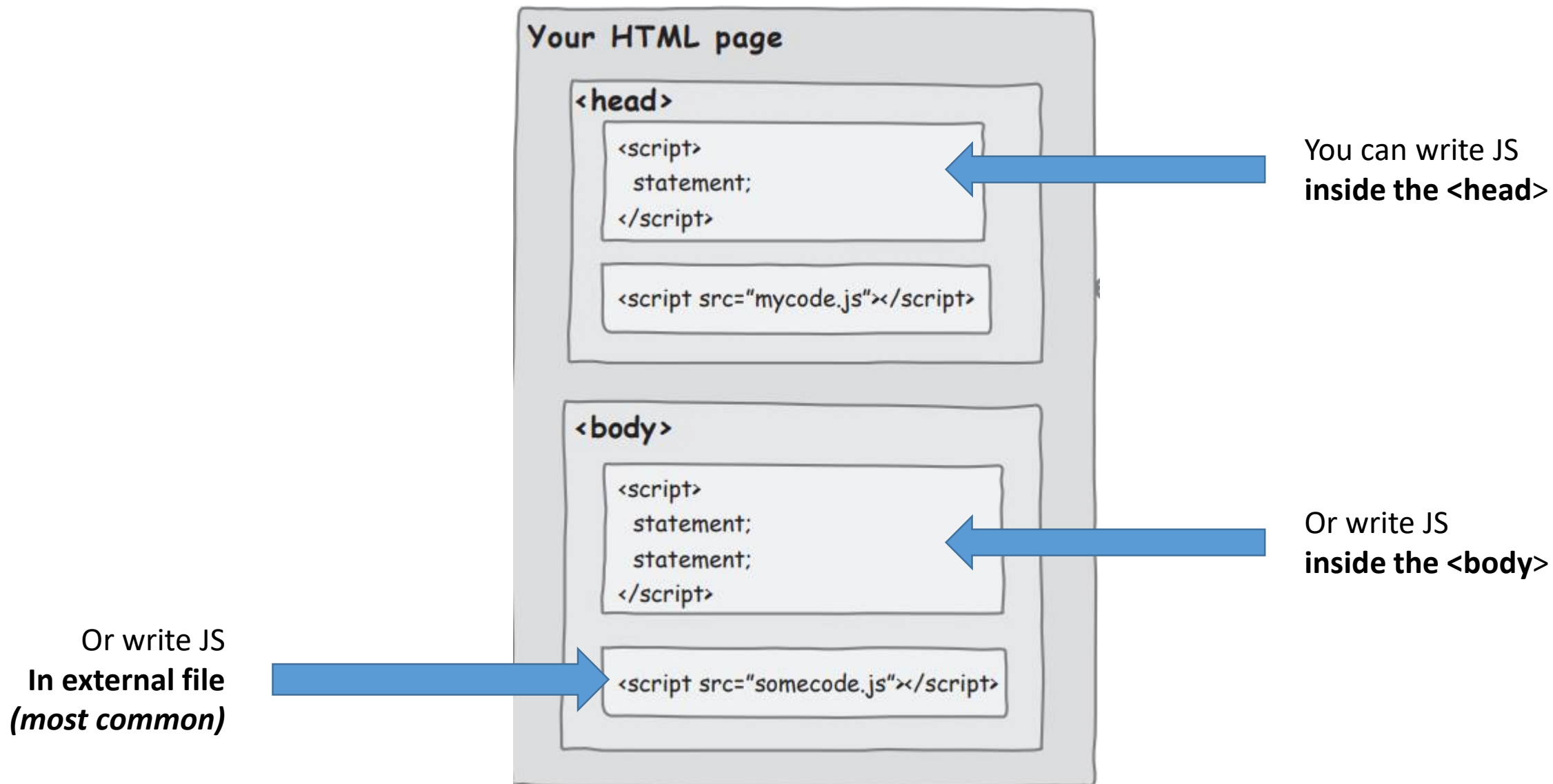
```
<html>
<head>
<title>Icecream</title>
<script>
  var x = 49;
</script>
<body>
<h1>Icecream Flavors</h1>
<h2><em>49 flavors</em></h2>
<p>All your favorite
flavors!</p>
</body>
</html>
```

Writing**1****Loading****2****Executing****3**

JS bring **the behavior** to your web application



Like CSS : **many places** to write your JS code





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Open **/exercice2** and run the HTML

What Can JavaScript Do?

JavaScript can change HTML attribute values.

In this case JavaScript changes the value of the src (source) attribute of an image.



Turn off the light

Turn on the light

Q1 - Look at the code and find the way to turn on the light when we click on button ON

Note: you have 2 images...

External JS advantages

- ✓ It **separates** HTML and code
- ✓ It makes HTML and JavaScript **easier to read** and maintain
- ✓ Cached JavaScript files **can speed up page loads**



yourFile.**js**



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Open **/exercice3**

Q1 - Read following page https://www.w3schools.com/js/js_output.asp

Understand how to :

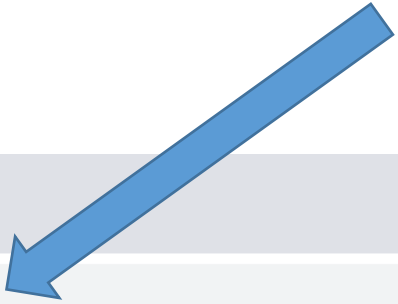
- Write something in the console
- Write something in the HTML document
- Display an alert

Q2 - Edit the script to :

- Write something in the console
- Write something in the HTML document
- Display an alert

CORRECTION / DEMO

Can you access to the Console ?



Console Demo

https://torch-calf.glitch.me

Hello, Console!

Elements

Console

Sources

Network

>>

1

top

Filter

All levels

Loading! (index):9

Hello, World! (index):11

Assertion failed: h2 not found! (index):12

(index):27

(index)	first	last
0	"René"	"Magritte"
1	"Chaim"	"Soutine"
2	"Henri"	"Matisse"

Array(3)

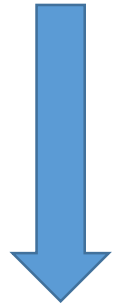
Hello, Console! (index):30

> |

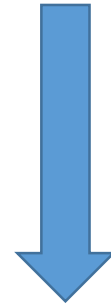


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How to DEBUG ?



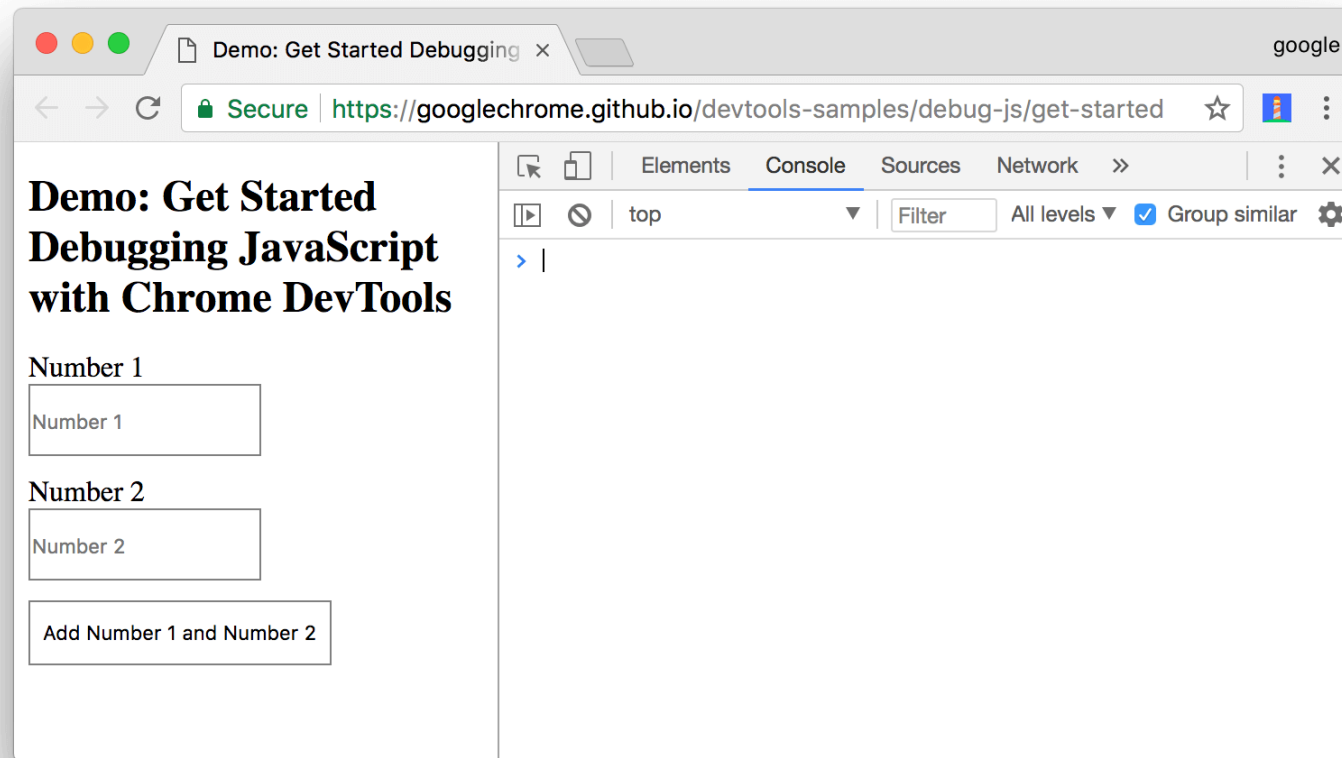
Using VS code



Using CHROME

More info : <https://developers.google.com/web/tools/chrome-devtools/javascript>

Open DevTools by pressing **Control+Shift+I**



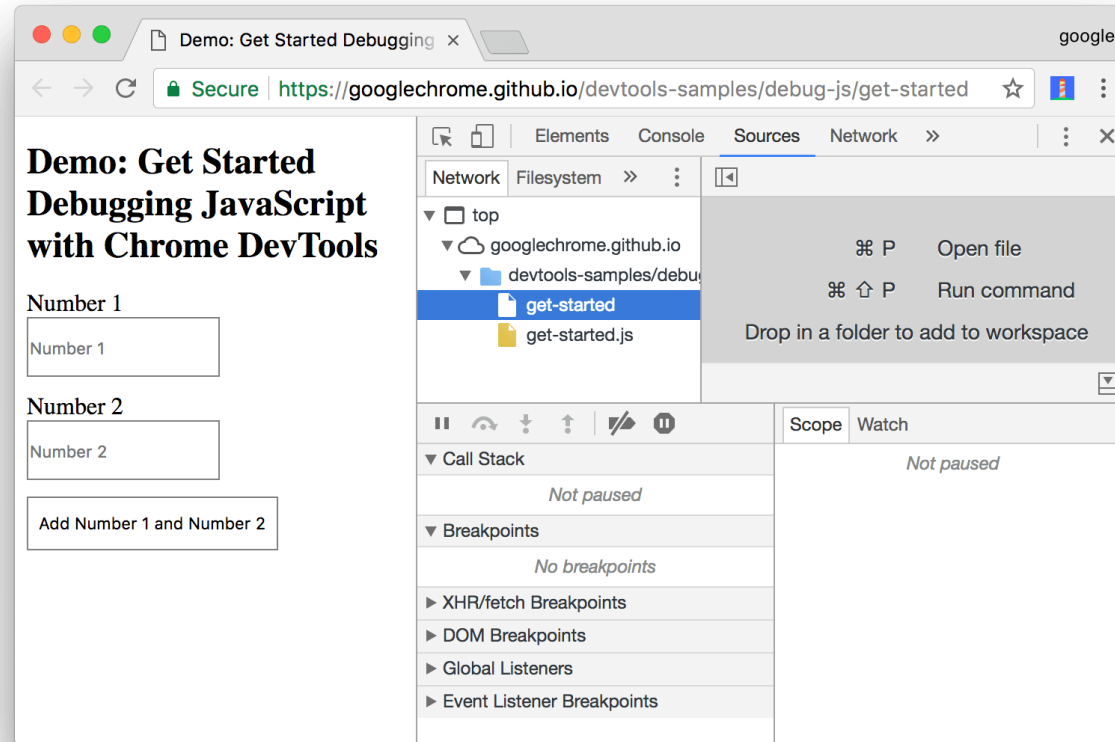


You can execute directly JS code in the chrome console !!!

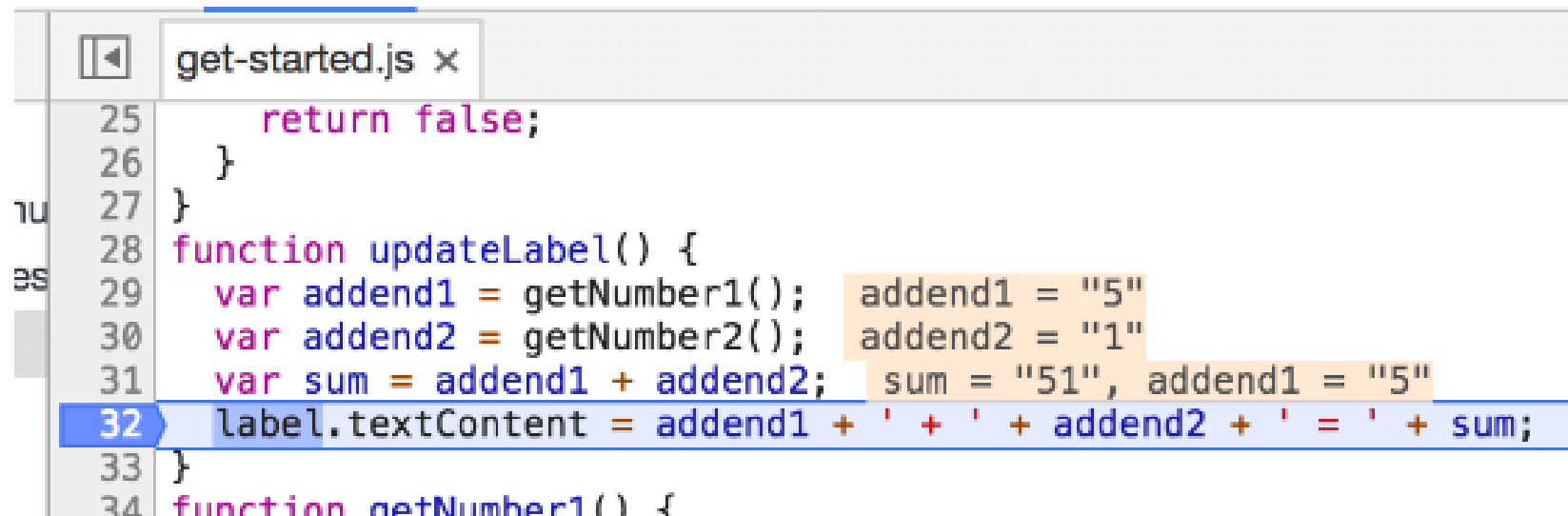
```
> 5+15
< 20

> for (var i=0; i<10; i++) {
    console.log(i)
  }
0 VM200:2
1 VM200:2
2 VM200:2
3 VM200:2
4 VM200:2
5 VM200:2
6 VM200:2
7 VM200:2
8 VM200:2
9 VM200:2
< undefined
>
```

Click the **Sources** tab.



Add a **breakpoint** : click on the line you want the **code to stop**

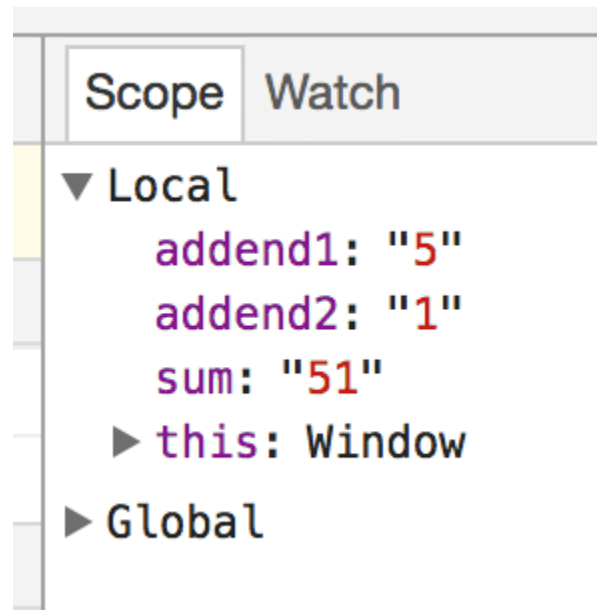


```
25     return false;
26 }
27 }
28 function updateLabel() {
29     var addend1 = getNumber1(); addend1 = "5"
30     var addend2 = getNumber2(); addend2 = "1"
31     var sum = addend1 + addend2; sum = "51", addend1 = "5"
32     label.textContent = addend1 + ' + ' + addend2 + ' = ' + sum;
33 }
34 function getNumber1() {
```

Use the debug navigation to go step by step or exit the debug mode



Check the variable of your code





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Open /exercice4

1 – Execute the HTML in the browser

2– Add a break point **at line 14**



```
file:///
G:/Drive%20p
  temperatur
  cold.png

2 <html lang="en">
3 <head>
4   <meta charset="UTF-8" />
5   <title>SUNNY OR COLD ?</title>
6 </head>
7
8 <body>
9   <img id="fan" src="" width="1000" />
10
11 <script>
12   var temperature = prompt("What is the Temperature ?");
13
14   if (temperature <= 0) {
15     document.getElementById("fan").src = "cold.png";
16   } else if (temperature < 40) {
17     document.getElementById("fan").src = "nice.gif";
18   } else {
19     document.getElementById("fan").src = "sunny.png";
20   }
21 </script>
22 </body>
```

3– Go step by step in the IF / ELSE IF / ELSE condition

Try this for different temperatures

Now you're ready to **code**

Let's begin.