

W06-P1: Run w3school scores.find()

The screenshot shows a web browser window with a dark-themed code editor on the left and a light-themed output area on the right. The code editor contains the following HTML and JavaScript code:

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

<p>Click the button to check get the value of the first element in the array
that has a value of 18 or more.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<p><strong>Note:</strong> The find() method is not supported in IE 11 (and
earlier versions).</p>

<script>
var ages = [3, 10, 18, 20];
const scores = [50,60,70,80,90,100];

function checkAdult(age) {
  return age >= 18;
}

function myFunction() {
  document.getElementById("demo").innerHTML =
    scores.find(score => score > 85);
}
</script>

</body>

<!-- Mirrored from www.w3schools.com/jsref/tryit.asp?filename=tryjsref_find
by HTTrack Website Copier/3.x [XR&CO'2014], Mon, 27 Jan 2020 03:01:26 GMT -->
</html>
```

The output area on the right displays the following text:

Click the button to check get the value of the first element in the array that has a value of 18 or more.

90

Note: The find() method is not supported in IE 11 (and earlier versions).

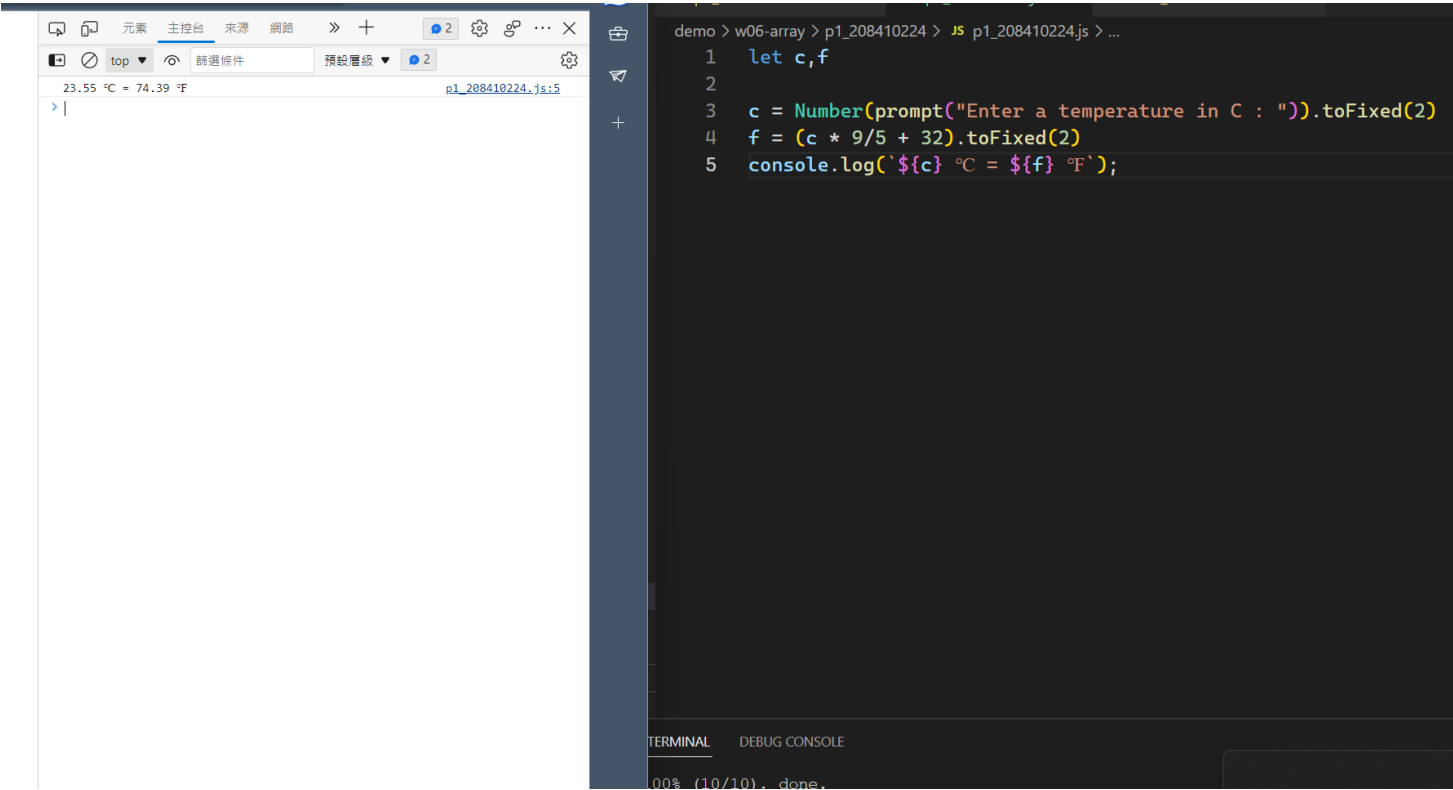
Result Size: 656 x 672

50f571a changiojen1

Thu Mar 23 19:05:08 2023 +0800

Run w3school scores.find()

W06-P2: temperature convert from C to F



W06-P3: import students and sdata array and do sorting, find the highest and lowest score

students

(5) [(-), (-), (-), (-), (-)]

0: {id: 1, name: 'john', score: 56}

1: {id: 2, name: 'jack', score: 88}

2: {id: 3, name: 'andy', score: 64}

3: {id: 4, name: 'cindy', score: 48}

4: {id: 5, name: 'leo', score: 75}

length: 5

[[Prototype]]: Array(0)

sdata

(6) [90, 100, 60, 40, 20, 80]

[[Prototype]]: Array(0)

sdata

(6) [20, 40, 60, 80, 90, 100]

[[Prototype]]: Array(0)

The highest score: 20

[[Prototype]]: Array(0)

The lowest score: 100

[[Prototype]]: Array(0)

students2 original

(5) [(-), (-), (-), (-), (-)]

0: {id: 4, name: 'cindy', score: 48, role: 'student'}

1: {id: 1, name: 'john', score: 56, role: 'student'}

2: {id: 3, name: 'andy', score: 64, role: 'student'}

3: {id: 5, name: 'leo', score: 75, role: 'student'}

4: {id: 2, name: 'jack', score: 88, role: 'student'}

length: 5

[[Prototype]]: Array(0)

students2 sorted

(5) [(-), (-), (-), (-), (-)]

0: {id: 4, name: 'cindy', score: 48, role: 'student'}

1: {id: 1, name: 'john', score: 56, role: 'student'}

2: {id: 3, name: 'andy', score: 64, role: 'student'}

3: {id: 5, name: 'leo', score: 75, role: 'student'}

4: {id: 2, name: 'jack', score: 88, role: 'student'}

length: 5

[[Prototype]]: Array(0)

The highest score: 48

[[Prototype]]: Array(0)

The lowest score: 88

[[Prototype]]: Array(0)

demo > w06-array > p2_208410224 > js p2_208410224.js > ...

1 import { students, sdata } from './data_208410224.js'

2

3 console.log("students",students);

4 console.log("sdata",sdata);

5

6 sdata.sort((a,b) => a-b)

7 console.log("sdata",sdata);

8 console.log(`The highest score: \${sdata[0]}`);

9 console.log(`The lowest score: \${sdata[sdata.length-1]}`);

10

11 const students2 = students.map((student) => {

12 return {...student,role:'student'}

13 })

14 console.log("students2 original",students2);

15 students2.sort((a,b) => a.score - b.score)

16 console.log("students2 sorted",students2);

17 console.log(`The highest score: \${students2[0].score}`);

18 console.log(`The lowest score: \${students2[students2.length-1].score}`)

19

TERMINAL

DEBUG CONSOLE

(12/12), 76.12 KiB | 19.03 MiB/s, done.

used 0 (delta 0), pack-reused 0

as: 100% (3/3), completed with 3 local objects.

changiojen1/1112-1N-js-demo-208410224

main -> main

ProgramPractice/web/1112-1N-js-demo-208410224 (main)

mat:"%h%09%an%09%ad%09%" --after="2023-3-22"

Thu Mar 23 19:32:27 2023 +0800 W06-P2: temperature convert from C to F

Thu Mar 23 19:05:08 2023 +0800 Run w3school scores.find()

ProgramPractice/web/1112-1N-js-demo-208410224 (main)

W06-P4: compute the average of students and sdata array

The screenshot shows a web browser with a JavaScript application. The left sidebar displays the console output, and the right pane shows the source code. A red circle highlights the 'students2 sorted' output in the console and the corresponding 'reduce' functions in the code.

Console Output (Left Sidebar):

```
students ▶ (5) [(-), (-), (-), (-), (-)] p2_208410224.js:13
sdata ▶ (6) [90, 100, 60, 40, 20, 80] p2_208410224.js:14
sdata ▶ (6) [20, 40, 60, 80, 90, 100] p2_208410224.js:17
The highest score: 20 p2_208410224.js:18
The lowest score: 100 p2_208410224.js:19
students2 original ▶ (5) [(-), (-), (-), (-), (-)] p2_208410224.js:14
students2 sorted ▶ (5) [(-), (-), (-), (-), (-)] p2_208410224.js:16
  ▶ 0: {id: 4, name: 'cindy', score: 48, role: 'student'}
  ▶ 1: {id: 1, name: 'john', score: 56, role: 'student'}
  ▶ 2: {id: 3, name: 'andy', score: 64, role: 'student'}
  ▶ 3: {id: 5, name: 'leo', score: 75, role: 'student'}
  ▶ 4: {id: 2, name: 'jack', score: 88, role: 'student'}
  length: 5
  [[Prototype]]: Array(0)
The highest score: 48 p2_208410224.js:17
The lowest score: 88 p2_208410224.js:18
index total 0 0 p2_208410224.js:21
index total 1 56 p2_208410224.js:21
index total 2 144 p2_208410224.js:21
index total 3 208 p2_208410224.js:21
index total 4 256 p2_208410224.js:21
student average 66.2 p2_208410224.js:24
index total 1 20 p2_208410224.js:27
index total 2 60 p2_208410224.js:27
index total 3 120 p2_208410224.js:27
index total 4 200 p2_208410224.js:27
index total 5 290 p2_208410224.js:27
sdata average 65 p2_208410224.js:29
```

Source Code (Right Pane):

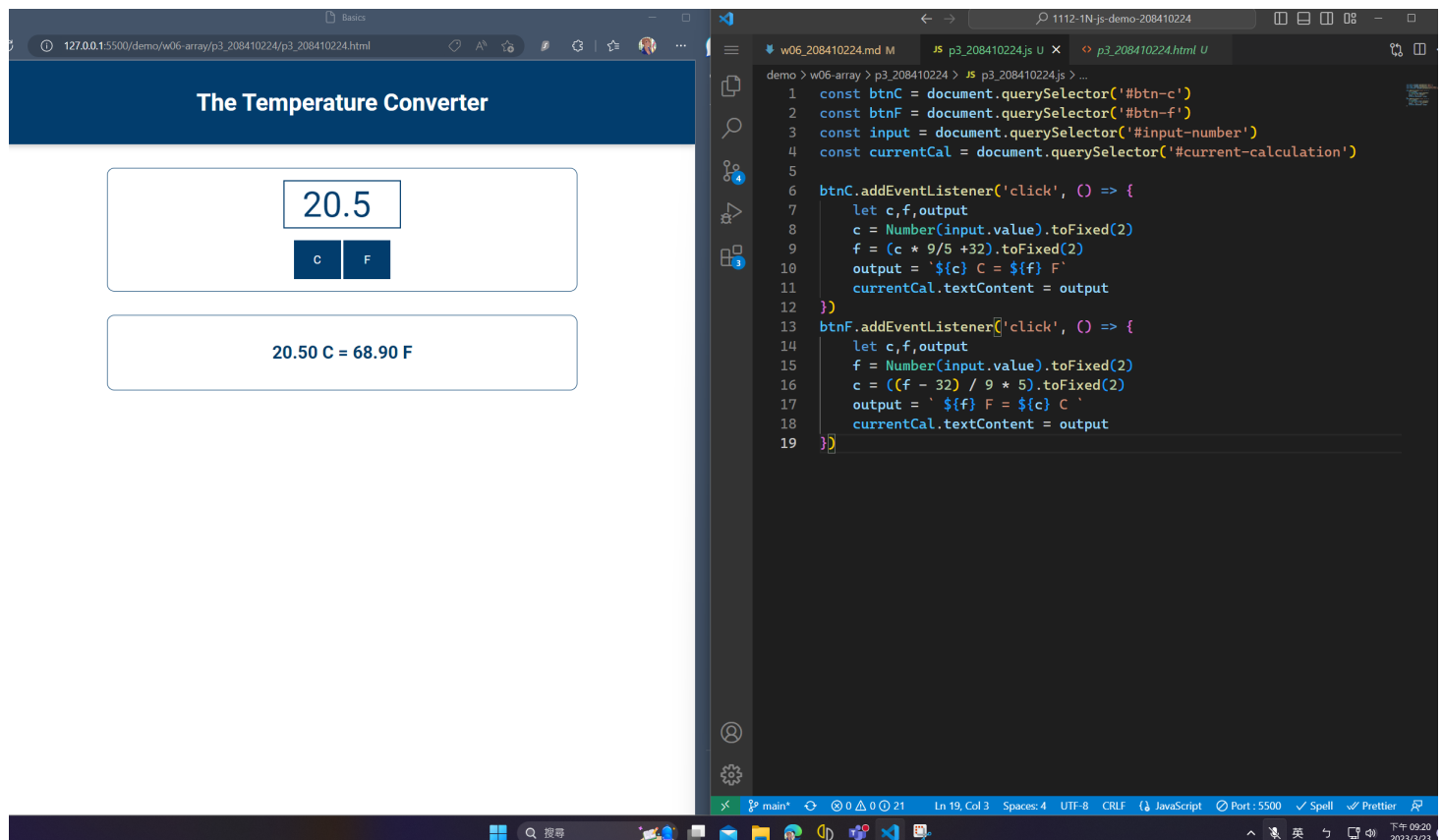
```
demo > w06-array > p2_208410224 > JS p2_208410224.js > ...
1 import { students, sdata } from './data_208410224.js'
2
3 console.log("students",students);
4 console.log("sdata",sdata);
5
6 sdata.sort((a,b) => a-b)
7 console.log("sdata",sdata);
8 console.log("The highest score: ${sdata[0]}");
9 console.log("The lowest score: ${sdata[sdata.length-1]}");
10
11 const students2 = students.map((student) => {
12   return {...student,role:'student'}
13 })
14 console.log("students2 original",students2);
15 students2.sort((a,b) => a.score - b.score)
16 console.log("students2 sorted",students2);
17 console.log("The highest score: ${students2[0].score}");
18 console.log("The lowest score: ${students2[students2.length-1].score}");
19
20 const averageStudents = students.reduce((total, student, index) => {
21   console.log('index total', index, total);
22   return total + student.score
23 }, 0)/students.length
24 console.log('student average', averageStudents);
25
26 const averageSdata = sdata.reduce((total, score, index) => {
27   console.log('index total', index, total);
28   return total + score
29 })/sdata.length
30 console.log('sdata average', averageSdata);
```

c8eefc3 changiojen1

Thu Mar 23 20:58:54 2023 +0800 W06-P4: compute the average of students and sdata array

W06-P5: Temperature convert C2F(), F2C() using Web interface

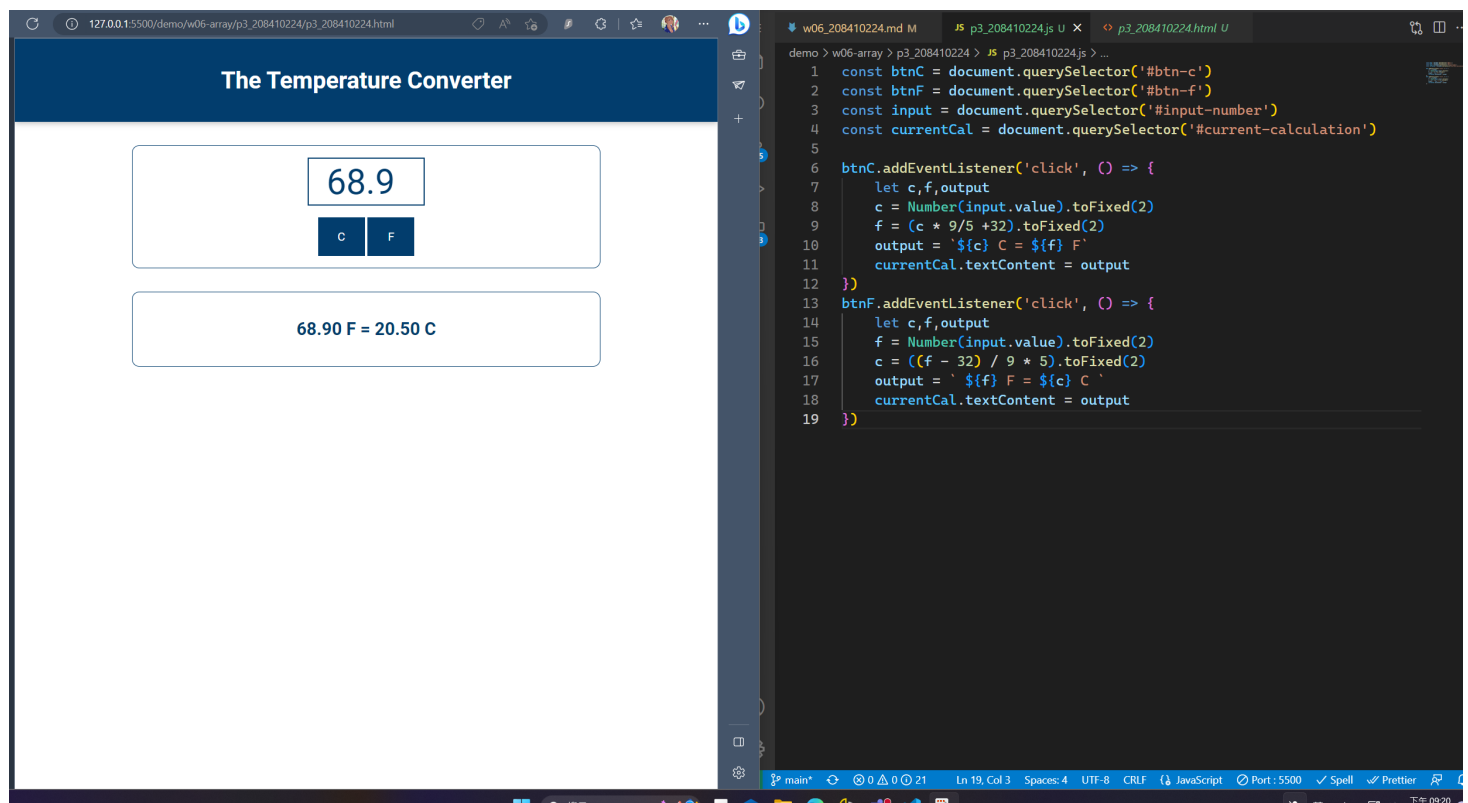
C2F



The screenshot displays a web browser on the left and a code editor on the right. The browser shows a web page titled "The Temperature Converter". It features a text input field containing the value "20.5". Below the input field are two buttons labeled "C" and "F". The output area below the buttons displays the conversion result: "20.50 C = 68.90 F". The code editor on the right shows the JavaScript code for the converter. It defines event listeners for the "C" and "F" buttons. The "C" button listener calculates the Fahrenheit value from the Celsius input, and the "F" button listener calculates the Celsius value from the Fahrenheit input. Both calculations use the standard conversion formulas and format the output to two decimal places.

```
1 const btnC = document.querySelector('#btn-c')
2 const btnF = document.querySelector('#btn-f')
3 const input = document.querySelector('#input-number')
4 const currentCal = document.querySelector('#current-calculation')
5
6 btnC.addEventListener('click', () => {
7   let c,f,output
8   c = Number(input.value).toFixed(2)
9   f = (c * 9/5 +32).toFixed(2)
10  output = `${c} C = ${f} F`
11  currentCal.textContent = output
12 })
13 btnF.addEventListener('click', () => {
14   let c,f,output
15   f = Number(input.value).toFixed(2)
16   c = ((f - 32) / 9 * 5).toFixed(2)
17   output = `${f} F = ${c} C`
18   currentCal.textContent = output
19 })
```

F2C



The screenshot displays a web browser on the left and a code editor on the right. The browser shows the same "The Temperature Converter" web page. In this instance, the text input field contains the value "68.9". The "C" and "F" buttons are still present. The output area now displays the conversion result: "68.90 F = 20.50 C". The code editor on the right shows the same JavaScript code as in the C2F section, but the focus is on the "F" button listener, which performs the Fahrenheit to Celsius conversion.

```
1 const btnC = document.querySelector('#btn-c')
2 const btnF = document.querySelector('#btn-f')
3 const input = document.querySelector('#input-number')
4 const currentCal = document.querySelector('#current-calculation')
5
6 btnC.addEventListener('click', () => {
7   let c,f,output
8   c = Number(input.value).toFixed(2)
9   f = (c * 9/5 +32).toFixed(2)
10  output = `${c} C = ${f} F`
11  currentCal.textContent = output
12 })
13 btnF.addEventListener('click', () => {
14   let c,f,output
15   f = Number(input.value).toFixed(2)
16   c = ((f - 32) / 9 * 5).toFixed(2)
17   output = `${f} F = ${c} C`
18   currentCal.textContent = output
19 })
```

cde0f3c changiojen1 Thu Mar 23 21:23:19 2023 +0800 W06-P5: Temperature convert C2F(), F2C() using Web interf

W06-logs

```
PROBLEMS 22 OUTPUT TERMINAL DEBUG CONSOLE
To https://github.com/changiojen1/1112-1N-js-demo-208410224
c8eefc3..cde0f3c main -> main

funfu@KaKu MINGW64 /e/ProgramPractice/web/1112-1N-js-demo-208410224 (main)
$ git log --pretty=format:"%h%x09%an%x09%ad%x09%s" --after="2023-3-22"
cde0f3c changiojen1 Thu Mar 23 21:23:19 2023 +0800 W06-P5: Temperature convert C2F(), F2C() using Web interface
c8eefc3 changiojen1 Thu Mar 23 20:58:54 2023 +0800 W06-P4: compute the average of students and sdata array
1218143 changiojen1 Thu Mar 23 20:25:05 2023 +0800 W06-P3: import students and sdata array and do sorting, find the highest and lowest score
e385f8d changiojen1 Thu Mar 23 19:32:27 2023 +0800 W06-P2: temperature convert from C to F
50f571a changiojen1 Thu Mar 23 19:05:08 2023 +0800 Run w3school scores.find()

funfu@KaKu MINGW64 /e/ProgramPractice/web/1112-1N-js-demo-208410224 (main)
$
```

```
$ git log --pretty=format:"%h%x09%an%x09%ad%x09%s" --after="2023-3-22"
cde0f3c changiojen1 Thu Mar 23 21:23:19 2023 +0800 W06-P5: Temperature convert C2F(), F2C() using Web interf
c8eefc3 changiojen1 Thu Mar 23 20:58:54 2023 +0800 W06-P4: compute the average of students and sdata array
1218143 changiojen1 Thu Mar 23 20:25:05 2023 +0800 W06-P3: import students and sdata array and do sorting, f
e385f8d changiojen1 Thu Mar 23 19:32:27 2023 +0800 W06-P2: temperature convert from C to F
50f571a changiojen1 Thu Mar 23 19:05:08 2023 +0800 Run w3school scores.find()
```