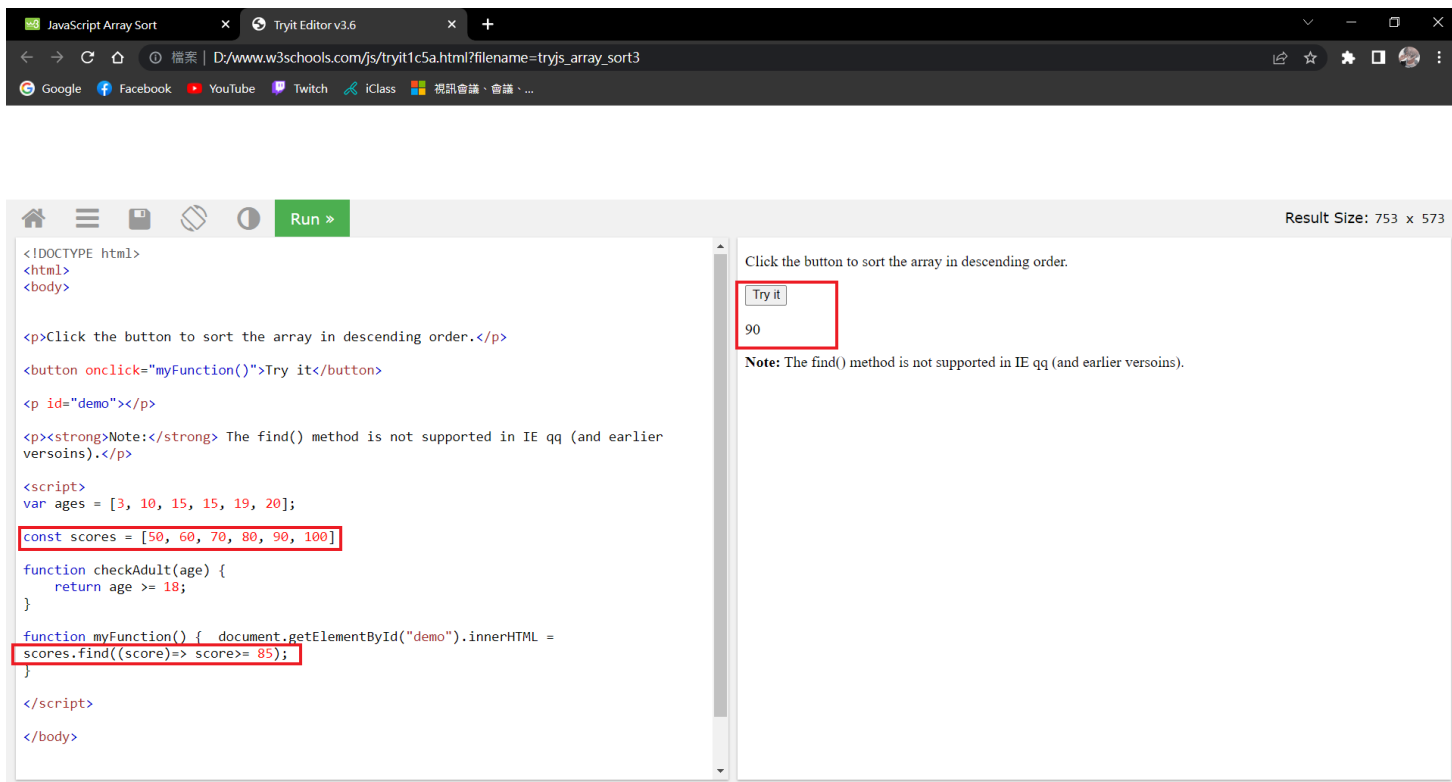


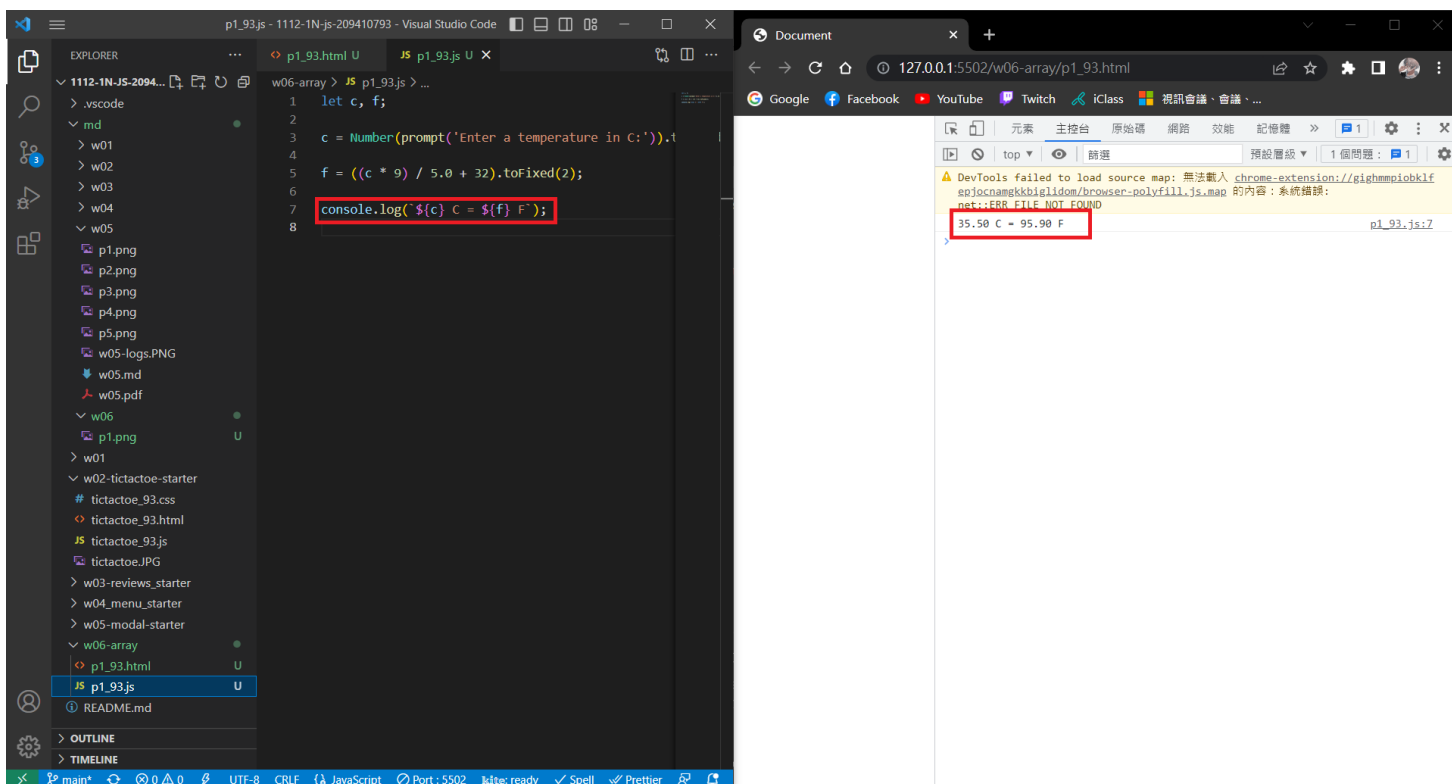
## W06-P1: Run w3school scores.find();



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## W06-P2: temperature convert from C to F



e4682d18

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

The image shows a development environment with Visual Studio Code on the left and a web browser on the right. The VS Code editor displays a file named `p2_93.js` with the following code:

```
1 import { students, sdata } from './data_93.js';
2
3 // for sdata
4
5 console.log('sdata original', sdata);
6
7 sdata.sort( function(a,b){return b-a});
8 console.log('sdata sorted', sdata);
9 console.log(`The highest score: ${sdata[0]}`);
10 console.log(`The lowest score: ${sdata[sdata.length-1]}`);
11
12 // for students
13
14 console.log('students', students);
15
16 const students2 = students.map((student) => {
17   // student.role = 'student';
18   return {...student, role: 'student'};
19 });
20
21 console.log('students2 original', students2);
22
23 students2.sort(function(a,b){return a.score - b.score });
24 console.log('students2 sorted', students2);
25
26 console.log(`The lowest score: ${students2[0].score}`);
27 console.log(`The highest score: ${students2[students2.length-1].score}`);
28
29
30
```

The web browser (P2\_93) shows the execution results in the console. The output is as follows:

```
Live reload enabled.
sdata original Array(6)
sdata sorted Array(6)
The highest score: 100
The lowest score: 20
students Array(5)
  0: {id: 1, name: 'peter', score: 80}
  1: {id: 2, name: 'john', score: 90}
  2: {id: 3, name: 'david', score: 50}
  3: {id: 4, name: 'amy', score: 30}
  4: {id: 5, name: 'andy', score: 60}
  length: 5
  [[Prototype]]: Array(0)
students2 original Array(5)
students2 sorted Array(5)
  0: {id: 4, name: 'amy', score: 30, role: 'student'}
  1: {id: 3, name: 'david', score: 50, role: 'student'}
  2: {id: 5, name: 'andy', score: 60, role: 'student'}
  3: {id: 1, name: 'peter', score: 80, role: 'student'}
  4: {id: 2, name: 'john', score: 90, role: 'student'}
  length: 5
  [[Prototype]]: Array(0)
The lowest score: 30
The highest score: [object Object]
```

The browser also shows a DevTools error message: "DevTools failed to load source map: 無法載入 chrome-extension://gighmiplokkif/epjocnamgkbbglidom/browser=polyfill.js.map 的內容: 系統錯誤: net::ERR\_FILE\_NOT\_FOUND".

12129458

Jun206 Thu Mar 23 21:11:48 2023 +0800 W06-P3: import students and sdata array and do sorting, 1

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

The screenshot shows the implementation of W06-P4 in Visual Studio Code and its execution results in a web browser.

**Visual Studio Code (Left):** The code file `w06-array > p2_93 > JS p2_93.js` contains the following logic:

```
15 console.log('students', students);
16
17 const students2 = students.map((student) => {
18   // student.role = 'student';
19   return {...student, role: 'student'};
20 });
21 console.log('students2 original', students2);
22
23 students2.sort(function(a,b){return a.score - b.score});
24 console.log('students2 sorted', students2);
25
26 console.log(`The lowest score: ${students2[0].score}`);
27 console.log(`The highest score: ${students2[students2.length-1].score}`);
28
29
30 console.log('students', students);
31 const averageStudents = students.reduce((total, student, index) => {
32   console.log('index total', index, total);
33   return total + student.score;
34 },0)/ students.length;
35 console.log('average', averageStudents);
36
37 console.log('sdata sorted', sdata);
38 const averageSdata = sdata.reduce((total, sdata, index) => {
39   console.log('index total', index, total);
40   return total + sdata;
41 },0)/ sdata.length;
42 console.log('averageSdata', averageSdata);
```

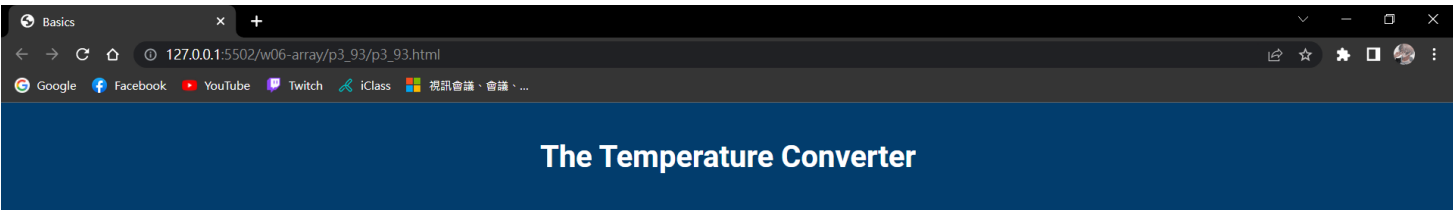
**Web Browser (Right):** The browser shows the execution results of the code. The console output is as follows:

```
net::ERR_FILE_NOT_FOUND
sdata original ▶ (6) [90, 100, 60, 40, 20, 80] p2_93.js:5
sdata sorted ▶ (6) [100, 90, 80, 60, 40, 20] p2_93.js:8
The highest score: 100 p2_93.js:9
The lowest score: 20 p2_93.js:10
students ▶ (5) [{"-"}, {"-"}, {"-"}, {"-"}, {"-"}] p2_93.js:15
students2 original ▶ (5) [{"-"}, {"-"}, {"-"}, {"-"}, {"-"}] p2_93.js:21
students2 sorted ▶ (5) [{"-"}, {"-"}, {"-"}, {"-"}, {"-"}] p2_93.js:24
The lowest score: 30 p2_93.js:26
The highest score: 90 p2_93.js:27
students ▶ (5) [{"-"}, {"-"}, {"-"}, {"-"}, {"-"}] p2_93.js:30
  ▶ 0: {id: 1, name: 'peter', score: 80}
  ▶ 1: {id: 2, name: 'john', score: 90}
  ▶ 2: {id: 3, name: 'david', score: 50}
  ▶ 3: {id: 4, name: 'amy', score: 30}
  ▶ 4: {id: 5, name: 'andy', score: 60}
  .length: 5
  ▶ [[Prototype]]: Array(0)
index total 0 0 p2_93.js:32
index total 1 80 p2_93.js:32
index total 2 170 p2_93.js:32
index total 3 220 p2_93.js:32
index total 4 250 p2_93.js:32
average 50 p2_93.js:35
sdata sorted ▶ (6) [100, 90, 80, 60, 40, 20] p2_93.js:37
index total 0 0 p2_93.js:39
index total 1 100 p2_93.js:39
index total 2 190 p2_93.js:39
index total 3 270 p2_93.js:39
index total 4 330 p2_93.js:39
index total 5 370 p2_93.js:39
averageSdata 61.66666666666667 p2_93.js:42
```

d9d21c69 Jun206 Thu Mar 23 21:21:31 2023 +0800 W06-P4:  
compute the average of students and sdata array

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

The screenshot shows a web interface for a temperature converter. The title is "The Temperature Converter". The interface has a text input field containing the number "36". Below the input field are two buttons labeled "C" and "F". Below the buttons is a display area showing the conversion result: "36.00 C = 96.80 F".



d845cfd1      Jun206   Thu Mar 23 21:47:20 2023 +0800   W06-P5: Temperature convert C2F(), F2C() using Web interf

W06-logs

```
User@E201-02 MINGW64 /d/1112-1N-js-209410793 (main)
$ git log --pretty=format:"%h%x09%an%x09%ad%x09%s" --after="2023-3-22"
d845cfd1      Jun206   Thu Mar 23 21:47:20 2023 +0800   W06-P5: Temperature convert C2F(), F2C() using Web interface
049129de      Jun206   Thu Mar 23 21:40:20 2023 +0800   W06-P5: Temperature convert C2F(), F2C() using Web interface
d9d21c69      Jun206   Thu Mar 23 21:21:31 2023 +0800   W06-P4: compute the average of students and sdata array
12129458      Jun206   Thu Mar 23 21:11:48 2023 +0800   W06-P3: import students and sdata array and do sorting, find the highest and lowest score
41631c8e      Jun206   Thu Mar 23 20:38:16 2023 +0800   W06-P3: import students and sdata array and do sorting, find the highest and lowest score
e4682d18      Jun206   Thu Mar 23 19:39:32 2023 +0800   W06-P2: temperature convert from C to F
e658cb25      Jun206   Thu Mar 23 19:34:46 2023 +0800   W06-P1: Run w3school scores.find()
```

d845cfd1      Jun206   Thu Mar 23 21:47:20 2023 +0800   W06-P5: Temperature convert C2F(), F2C() using Web interf

049129de      Jun206   Thu Mar 23 21:40:20 2023 +0800   W06-P5: Temperature convert C2F(), F2C() using Web interf

d9d21c69      Jun206   Thu Mar 23 21:21:31 2023 +0800   W06-P4: compute the average of students and sdata array

12129458      Jun206   Thu Mar 23 21:11:48 2023 +0800   W06-P3: import students and sdata array and do sorting, f

41631c8e      Jun206   Thu Mar 23 20:38:16 2023 +0800   W06-P3: import students and sdata array and do sorting, f

e4682d18      Jun206   Thu Mar 23 19:39:32 2023 +0800   W06-P2: temperature convert from C to F

e658cb25      Jun206   Thu Mar 23 19:34:46 2023 +0800   W06-P1: Run w3school scores.find()