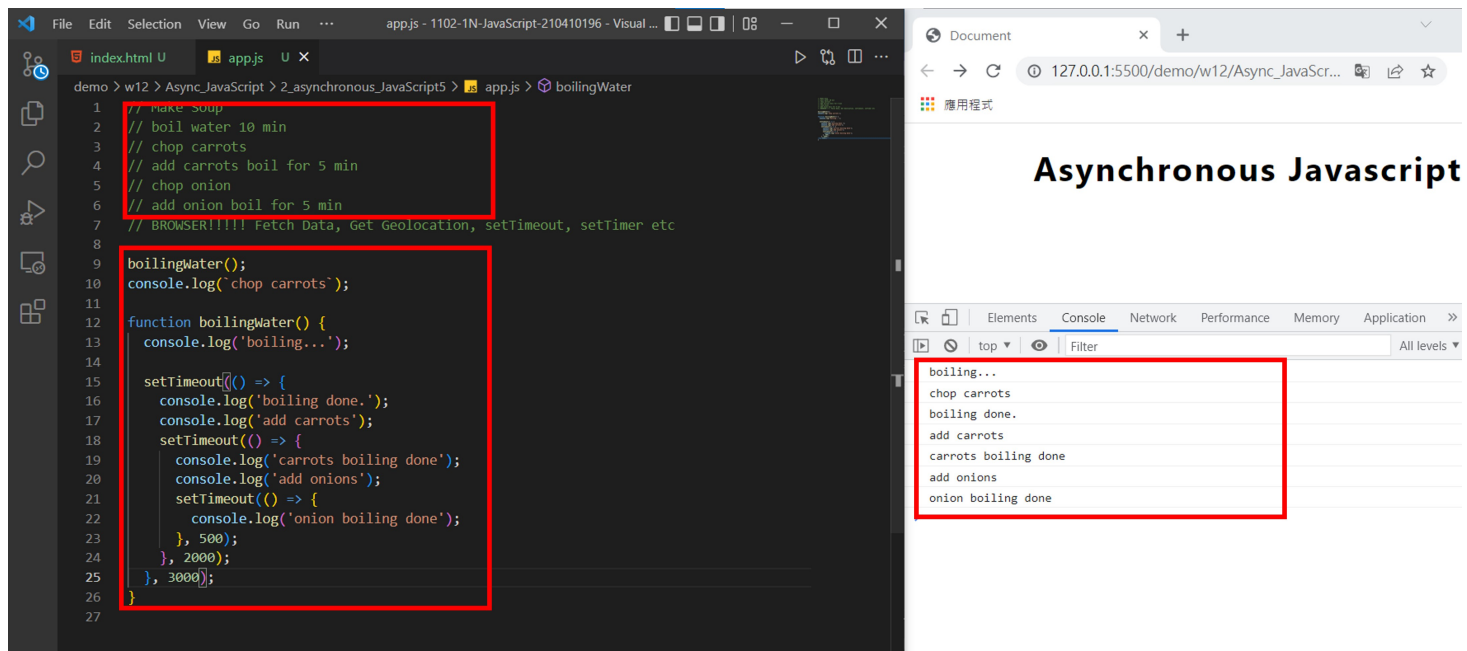
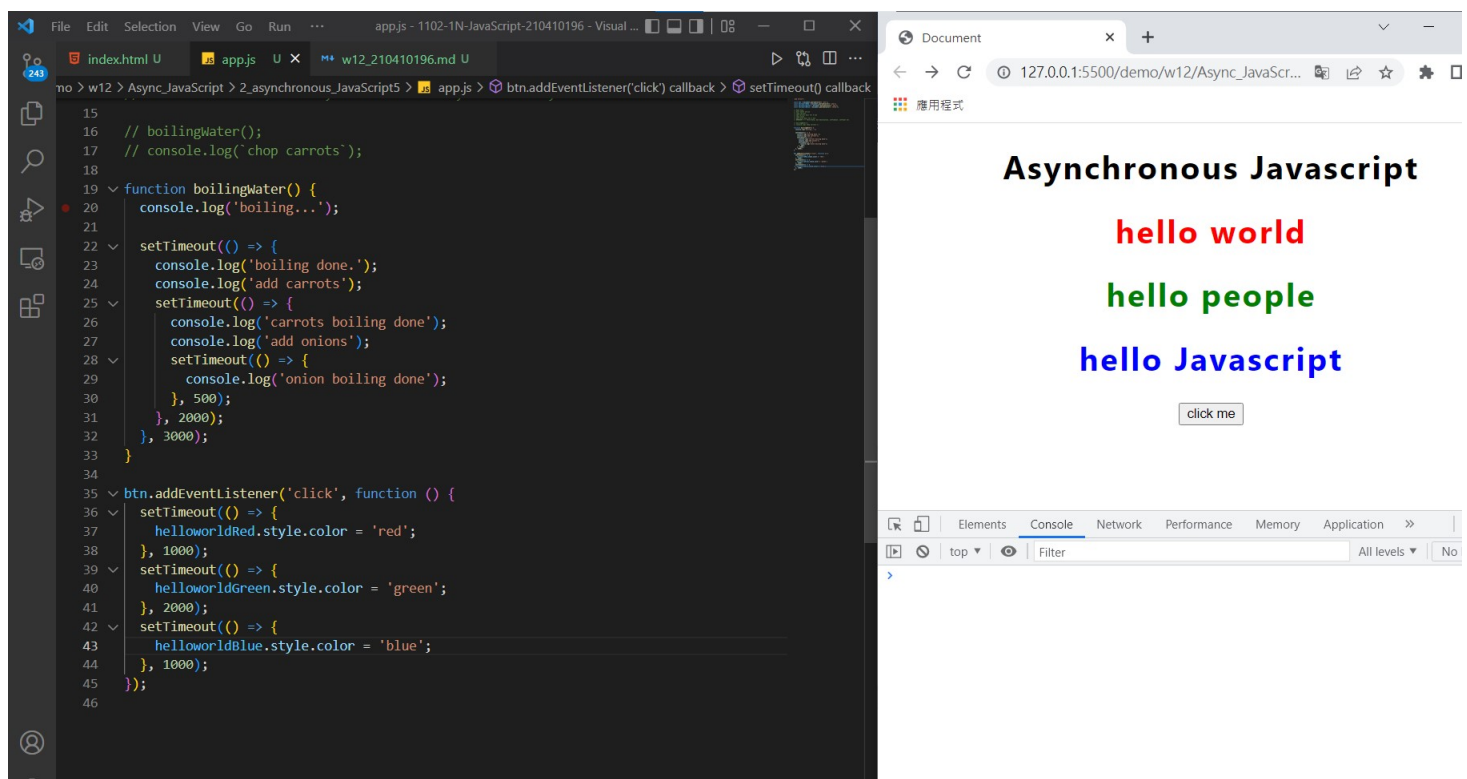


## w12-p1: Making soup demo for Async JavaScript with log info



## w12-p2 DOM call-back function demo -- colors change from red(1s), green (2s), blue(1s)



## w12-p3 use promise addColor(attribute, color, time) to solve-call back hell in w12-p2

```

13 // helloworldGreen.style.color = 'green';
14 // }, 2000);
15 // setTimeout(() => {
16 //   helloworldBlue.style.color = 'blue';
17 // }, 1000);
18 // });
19
20 const changeColor = function (attribute, color, time) {
21   return new Promise(function (resolve, reject) {
22     if (attribute) {
23       setTimeout(() => {
24         const helloworldBtn = attribute;
25         helloworldBtn.style.color = `${color}`;
26
27         resolve(helloworldBtn);
28       }, time * 1000);
29     } else {
30       reject(new Error("There is no such attribut ${attribute}"));
31     }
32   });
33 };
34
35 btn.addEventListener('click', function () {
36   changeColor(helloworldRed, 'red', 1)
37     .then(() => {
38       changeColor(helloworldGreen, 'green', 2);
39     })
40     .then(() => {
41       changeColor(helloworldBlue, 'blue', 1);
42     })
43     .catch(err => console.error(err));
44 });
45

```

應用程式

## Asynchronous Javascript

hello world  
hello people  
hello Javascript

click me

Elements Console Network Performance Memory Application >>

```

<!DOCTYPE html>
<html lang="en">
  <head></head>
  <body>
    <h1>Asynchronous Javascript</h1>
    <h1 class="one" style="color: red;">hello world</h1>
    <h1 class="two" style="color: green;">hello people</h1>
    <h1 class="three" style="color: blue;">hello Javascript</h1>
    <button class="btn">click me</button>
    <script src="./app.js"></script>
    <!-- Code injected by live-server -->
    <script type="text/javascript"></script>
  </body>
</html>

```

```

1 use strict;
2
3 const btn = document.querySelector('.btn');
4 const helloworldRed = document.querySelector('.one');
5 const helloworldGreen = document.querySelector('.two');
6 const helloworldBlue = document.querySelector('.three');
7
8 const changeColor = function (attribute, color, time) {
9   return new Promise(function (resolve, reject) {
10     if (attribute) {
11       setTimeout(() => {
12         attribute.style.color = `${color}`;
13         resolve();
14       }, time * 1000);
15     } else {
16       reject(new Error("There is no such attribut ${attribute}"));
17     }
18   });
19 };
20
21 btn.addEventListener('click', function () {
22   changeColor(helloworldRed, 'red', 1)
23     .then(() => {
24       changeColor(helloworldGreen, 'green', 2);
25     })
26     .then(() => {
27       changeColor(helloworldBlue, 'blue', 1);
28     })
29     .catch(err => console.log(err));
30 });
31

```

127.0.0.1:5500/demo/w12/Async\_JavaScr... 應用程式

## Asynchronous Javascript

hello world  
hello people  
hello Javascript

click me

Elements Console Network Performance Memory >>

```

Uncaught (in promise) Error: there is no such attribut null
    at app.js:16:14
    at new Promise (<anonymous>)
    at changeColor (app.js:9:10)
    at app.js:27:7

```

w12-p4 use async / await for w12-p3

```

3 const btn = document.querySelector('.btn');
4
5 const helloworldRed = document.querySelector('.one');
6 const helloworldGreen = document.querySelector('.two');
7 const helloworldBlue = document.querySelector('.three');
8
9 btn.addEventListener('click', async () => {
10   const result = await displayColor();
11   console.log(result);
12 });
13
14 const displayColor = async () => {
15   try {
16     await changeColor(helloworldRed, 'red', 1);
17     await changeColor(helloworldGreen, 'green', 2);
18     await changeColor(helloworldBlue, 'blue', 1);
19   } catch (err) {
20     console.log(err);
21   }
22 };
23
24 const changeColor = (attribute, color, time) => {
25   return new Promise(function (resolve, reject) {
26     if (attribute) {
27       setTimeout(() => {
28         attribute.style.color = color;
29         resolve();
30       }, time * 1000);
31     } else {
32       reject(new Error("There is no such attribut ${attribute}"));
33     }
34   });
35 };
36

```

## Asynchronous Javascript

hello world

hello people

hello Javascript

Elements

Console

Network

Performance

Memory

Application

»

```

<!DOCTYPE html>
<html lang="en">
  <head>...</head>
  <body>
    <h1>Asynchronous Javascript</h1>
    <h1 class="one" style="color: red;">hello world</h1>
    <h1 class="two" style="color: green;">hello people</h1>
    <h1 class="three" style="color: blue;">hello Javascript</h1>
    <button class="btn">click me</button>
    <script src="app.js"></script>
    <!-- Code injected by live-server -->
    <script type="text/javascript">...</script>
  </body>
</html>

```

```

demo > w12 > Async_Javascript > 6_dom-cb-promise-async-await > app.js > helloworldBlue
3 const btn = document.querySelector('.btn');
4
5 const helloworldRed = document.querySelector('.one');
6 const helloworldGreen = document.querySelector('.two');
7 const helloworldBlue = document.querySelector('.three');
8
9 btn.addEventListener('click', async () => {
10   const result = await displayColor();
11   console.log(result);
12 });
13
14 const displayColor = async () => {
15   try {
16     await changeColor(helloworldRed, 'red', 1);
17     await changeColor(helloworldGreen, 'green', 2);
18     await changeColor(helloworldBlue, 'blue', 1);
19   } catch (err) {
20     console.log(err);
21   }
22 };
23
24 const changeColor = (attribute, color, time) => {
25   return new Promise(function (resolve, reject) {
26     if (attribute) {
27       setTimeout(() => {
28         attribute.style.color = color;
29         resolve();
30       }, time * 1000);
31     } else {
32       reject(new Error("There is no such attribut ${attribute}"));
33     }
34   });
35 };
36

```

## Asynchronous Javascript

hello world

hello people

hello Javascript

Elements

Console

Network

Performance

Memory

Application

»

top

Filter

All levels

No Issues

```

Error: There is no such attribut null
    at app.js:32:14
    at new Promise (<anonymous>)
    at changeColor (app.js:25:10)
    at displayColor (app.js:18:11)
    at async HTMLButtonElement.<anonymous> (app.js:10:18)
    at undefined

```

w12-p5 fetch people.json with 4 data shown on console change name to poople.json will result in error

```
demo1 url: /Async_Javascript/7_fetch_api/7_app.js 7:1:1
1  'use strict';
2
3  const url = 'api/people.json';
4
5  fetch(url)
6    .then(res => res.json())
7    .then(data => console.log(data))
8    .catch(() => console.log(new Error('url error')));
9
```

應用程式

Asynchronous Javascript

hello world

hello people

hello Javascript

click me

Elements Console Network Performance Memory Application >> Filter All levels No Issues

▼ (4) [{...}, {...}, {...}, {...}]

▶ 0: {name: 'john', id: 1}

▶ 1: {name: 'peter', id: 2}

▶ 2: {name: 'anna', id: 3}

▶ 3: {name: 'susan', id: 4}

length: 4

▶ [[Prototype]]: Array(0)

```
1  'use strict';
2
3  const url = 'api/people2.json';
4
5  fetch(url)
6    .then(res => res.json())
7    .then(data => console.log(data))
8    .catch(() => console.log(new Error('url error')));
9
```

應用程式

Asynchronous Javascript

hello world

hello people

hello Javascript

click me

Elements Console Network Performance Memory >> 1 Filter All levels No Issues

▶ GET http://127.0.0.1:5500/demo/w12/Async\_Javascript/7\_fetch\_api/api/people2.json app.js:5

404 (Not Found)

Error: url error

at app.js:8:28