Phát triển ứng dụng web

Javascript
part 3

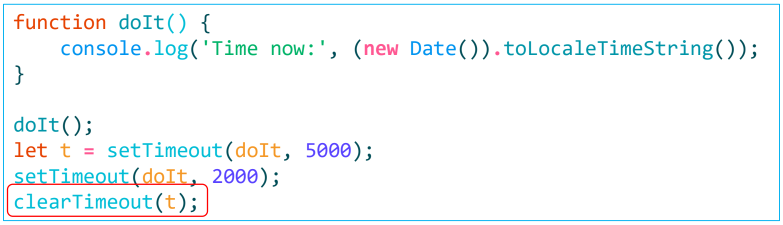
Nội dung

- Timer
- Asynchronous
- AJAX
- Bootstrap

Nội dung

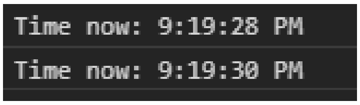
- **Timer**
- Asynchronous
- AJAX
- Bootstrap

Timer - setTimeout



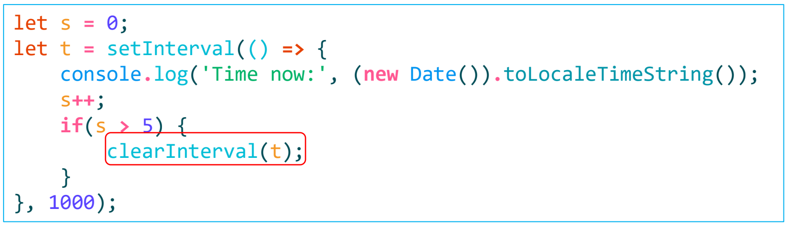
```
function doIt() {
    console.log('Time now:', (new Date()).toLocaleTimeString());
}

doIt();
let t = setTimeout(doIt, 5000);
setTimeout(doIt, 2000);
clearTimeout(t);
```

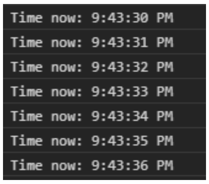


```
Time now: 9:19:28 PM
Time now: 9:19:30 PM
```

Timer - setInterval



```
let s = 0;
let t = setInterval(() => {
    console.log('Time now:', (new Date()).toLocaleTimeString());
    s++;
    if(s > 5) {
        clearInterval(t);
    }
}, 1000);
```



```
Time now: 9:43:30 PM
Time now: 9:43:31 PM
Time now: 9:43:32 PM
Time now: 9:43:33 PM
Time now: 9:43:34 PM
Time now: 9:43:35 PM
Time now: 9:43:36 PM
```

Nội dung

- *Timer*
- **Asynchronous**
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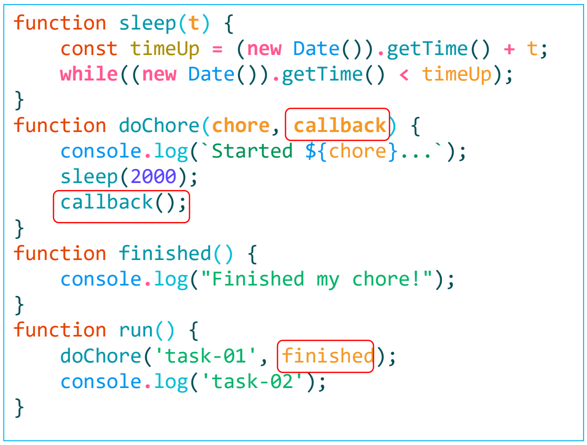
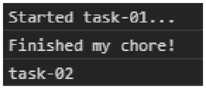
Asynchronous - Callback

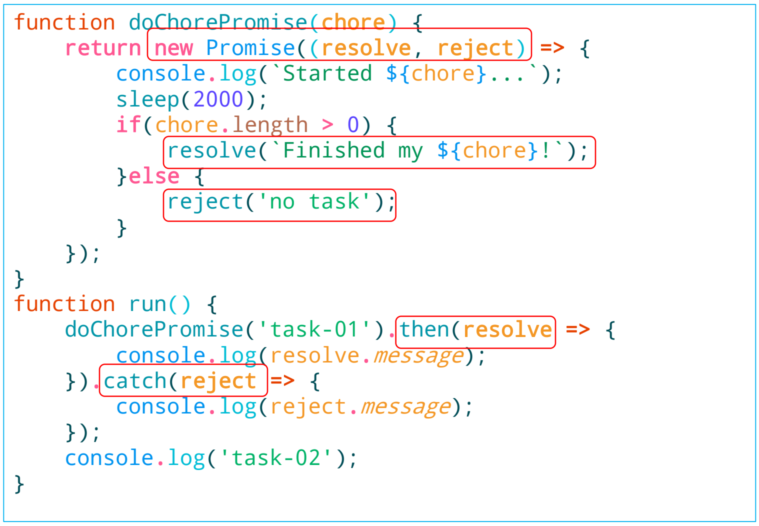


```
function sleep(t) {
    const timeUp = (new Date()).getTime() + t;
    while((new Date()).getTime() < timeUp);
}
function doChore(chore, callback) {
    console.log(`Started ${chore}...`);
    sleep(2000);
    callback();
}
function finished() {
    console.log("Finished my chore!");
}
function run() {
    doChore('task-01', finished);
    console.log('task-02');
}
```



```
Started task-01...
Finished my chore!
task-02
```

Asynchronous - Promise



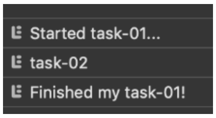
```
function doChorePromise(chore) {
    return new Promise((resolve, reject) => {
        console.log(`Started ${chore}...`);
        sleep(2000);
        if(chore.length > 0) {
            resolve(`Finished my ${chore}!`);
        }else {
            reject('no task');
        }
    });
}
function run() {
    doChorePromise('task-01').then(resolve => {
        console.log(resolve.message);
    }).catch(reject => {
        console.log(reject.message);
    });
    console.log('task-02');
}
```

Asynchronous - Async

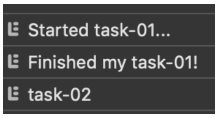
```
async function doChoreAsync(chore) {
    console.log(`Started ${chore}...`);
    sleep(2000);
    if (chore.length > 0) {
        return `Finished my ${chore}!`;
    } else {
        throw new Error('no task');
    }
}
function run() {
    doChoreAsync('task-01').then(resolve => {
        console.log(resolve);
    }).catch(error => {
        console.log(error);
    });
    console.log('task-02');
}
```

Asynchronous - Await

```
async function run() {
    let rs = await doChoreAsync('task-01').then(resolve => {
        console.log(resolve);
    }).catch(error => {
        console.log(reject);
    });
    console.log('task-02');
}
```



```
Started task-01...
task-02
Finished my task-01!
```



```
Started task-01...
Finished my task-01!
task-02
```

Nội dung

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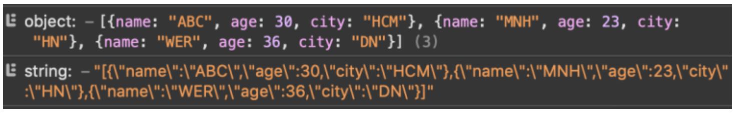
AJAX - JSON

```
const jsData = `[{ "name":"ABC", "age":30, "city":"HCM"},
                 { "name":"MNH", "age":23, "city":"HN"},
                 { "name":"WER", "age":36, "city":"DN"}
                ]`;
const ds = JSON.parse(jsData);
console.log('object: ', ds);
const str = JSON.stringify(ds);
console.log('string: ', str);
```



```
object: – [{name: "ABC", age: 30, city: "HCM"}, {name: "MNH", age: 23, city:
  "HN"}, {name: "WER", age: 36, city: "DN"}] (3)
string: – "[{\"name\":\"ABC\",\"age\":30,\"city\":\"HCM\"},{\"name\":\"MNH\",\"age\":23,\"city\"
:\"HN\"},{\"name\":\"WER\",\"age\":36,\"city\":\"DN\"}]"
```

AJAX - XMLHttpRequest

```
const xhr = new XMLHttpRequest();

xhr.onload = function() {
    if (this.status >= 200 && this.status < 300) {
        $('#content').html(this.responseText);
        let obj = JSON.parse(this.responseText);
        console.log(obj);
    }
};

xhr.onerror = function () {
    console.log(new Error({
        status: this.status,
        statusText: this.statusText
    }));
};

xhr.open("GET", "http://localhost:3000", true);
xhr.send();
```

AJAX - fetch

```
fetch('http://localhost:3000').then(response => {
    response.text().then(str => {
        $('#content').html(str);
        const obj = JSON.parse(str);
        console.log(obj);
    });
});
```

↕

```
const response = await fetch('http://localhost:3000');
const str = await response.text();
$('#content').html(str);
const obj = JSON.parse(str);
console.log(obj);
```

Nội dung

- *Timer*
- *Asynchronous*
- *AJAX*
- **Bootstrap**

Bootstrap

- Grid
  - row
  - col
- Content
  - table
- Component

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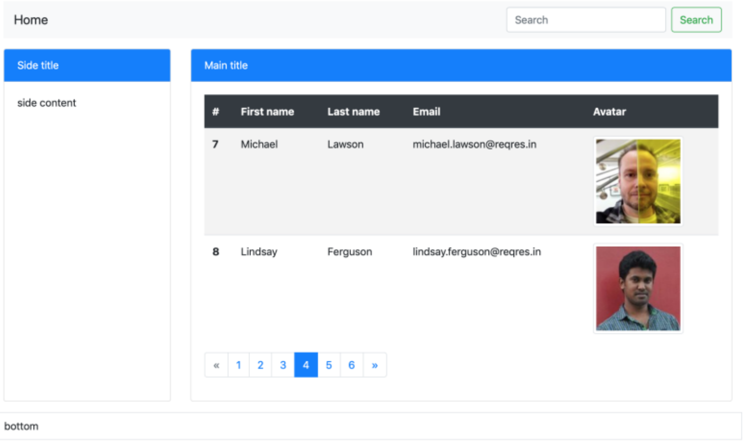
- **Bài tập**

Bài tập

- Với dữ liệu lấy được từ address: ‘https://reqres.in’ xây dựng trang HTML sử dụng ajax trình bày dữ liệu như hình dưới



Home Search Search

Side title

side content

Main title

#	First name	Last name	Email	Avatar
7	Michael	Lawson	michael.lawson@reqres.in	
8	Lindsay	Ferguson	lindsay.ferguson@reqres.in	

bottom