



JavaScript: Timers and intervals

Web, Mobile and Security
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Agenda

- Adding recurring tasks to a web application
- Timers
- Intervals
- Arrow functions
- Cheat sheet



Purpose of timers and intervals

- Adding recurring tasks to your web applications
- Some examples:
 - Animated clock
 - Performing a fetch every x seconds
 - ...
- Supported by all major browsers

setTimeout

- Executes a **function once** after a specific number of **milliseconds** (here: 3000)

```
"use strict";

document.addEventListener("DOMContentLoaded", init);

function init() {
  document.querySelector("button").addEventListener("click", setTimer);
}

function setTimer() {
  window.setTimeout(sayHello, 3000);
}

function sayHello() {
  console.log("Hello!");
}
```

setInterval

- Executes a **function every x milliseconds**
- Returns an **ID** you can use to **clear the interval** (unless you want it to run forever...)

```
let cnt = 0;
let i = null;

document.addEventListener("DOMContentLoaded", init);

function init() {
  document.querySelector("button").addEventListener("click", setCounter);
}

function setCounter() {
  i = window.setInterval(count, 1000);
}

function count() {
  cnt++;

  document.querySelector("ul").innerHTML += `<li>${cnt} - Hello world</li>`;

  if (cnt ≥ 10) {
    window.clearInterval(i);
  }
}
```

Arrow functions

- You can use arrow functions to make your code “lighter”

```
window.setTimeout(() => { console.log("hello1") }, 3000);  
  
| | | | | // or  
  
window.setTimeout(function() { console.log("hello2") }, 3000);  
  
| | | | | // or  
  
window.setTimeout(sayHello, 3000);  
  
function sayHello() {  
    console.log("hello3");  
}
```

Cheat sheet

- Execute a function **once** after a given number of **milliseconds**
- Execute a function **x** times every given number of **milliseconds**

```
window.setTimeout(sayHello, 5000);  
  
function sayHello() {  
    console.log("hello!");  
}
```

```
let cnt = 0;  
let i = 0;  
  
i = window.setInterval(count, 1000);  
  
function count() {  
    cnt++;  
    console.log(cnt);  
  
    if (cnt ≥ 10) {  
        window.clearInterval(i);  
    }  
}
```



Questions?

