

Time-based events

Running functions based on time or 'continuously' is not automatic to JavaScript. You must declare these using `setInterval`.

Command

`setInterval(functionname, time in milliseconds)`

Unlike event calls, `setInterval` is done within the `<script>` tags. It takes 2 arguments- the name of the function it will run (without the parenthesis!) and the frequency it should run the program in milliseconds (1000ths of a second). For example, if we have a function called 'foo()' and we want it to run once every second, we could write:

```
setInterval(foo, 1000);
```

If we decide to run function 'bar()' 10 times a second, we could write

```
setInterval(bar, 100);
```

While this can run as a command alone, it can be useful to keep this interval set in a variable:

```
baz = setInterval(bar, 1000);
```

This allows us to make modifications (stop or change the frequency) while the program is running.

Exercise

An animated growing div.

1. Create a div with the id 'grower'. Give it a height of 30px and a width of 0px. Give it a background color too.
2. In your script, initialize a variable called 'width' and set it to 0;

```
width = 0;
```

3. In your script, create a function called 'grow'. It takes no arguments.

```
function grow(){  
  
}
```

4. Inside this function, get the div called 'grower' and store it in a variable called 'growbox'. Increment width, and set growbox's width to width's current value.

```
growbox = document.getElementById('grower');  
width=width+5;  
growbox.style.width = width+"px";
```

5. Outside of the function, setInterval to your grow function, and have it run every 100ms (1/10 second)

```
setInterval(grow, 100);
```

So your HTML should look like this:

```
<div id='grower'></div>
```

And your JavaScript should look like this:

```
width = 0;
function grow(){
    growbox = document.getElementById('grower');
    width=width+5;
    growbox.style.width = width+"px";
}
setInterval(grow, 100);
```

Add 3 more divs that animate in different ways. Post this to your wordpress site with your javascript exercises.