setTimeout:

(5 pts) Due Thurs at Midnight

Contents

Getting Functions to Happen Automatically:

So far the user has had to **click on something** to have something happen.

But javaScript allows some things to happen automatically, and allows them to happen again and again.

This is done using **setTimeout**.

What setTimeout is:

It's a way of making javascript pause, and then make a function happen (without actually having to click on it).

What it looks like:

setTimeout(function(){nameofafunction(par);},3000);

The parts you have control over are the **nameofafunction(par)** and the **3000.**

Nameofafunction(par)

is the name of a function that you want to be called automatically instead of having to click on a button to make the function happen (note that you'll have to click the first time).

3000

The **3000** is the amount of time **javaScript** pauses before calling that function. Remember, computers are insanely fast.

To see how this works, first let's do some prep work. Create the following:

Step 1: To your javaScript add the following 2 functions:

```
function setToRed (par)
{          document.getElementById(par).style.color = "red"
}

function setToBlack (par)
{          document.getElementById(par).style.color = "black"
}
```

Step 2: Now in your html,a paragraph. Give the paragraph a unique id. Make sure the paragraph has some actual text.

Step 3: Add 2 buttons. Make the first button work such that when you click on it, it should call setToRed('id of the paragraph'). Make the second one work such that when you click on it, it should call setToBlack('id of the paragraph')

Step 4: Save all. Load the html into your browser. Click on the red button first. The paragraph's text should turn red. Now click on the black button – the paragraph's text should turn to black.

That's the prep work. Now we're going to add the setTimeout so that we'll click once to get things started, and then setTimeout will take over for us.

Adding setTimeout

Step 5: in the setToRed(par) function, make the last line (the line before the }) be setTimeout as follows:

```
function setToRed(par)
{          document.getElementById(par).style.color = "red"
```

setTimeout(function(){setToBlack(par);}, 2000)
}

Step 6: Save and test.

What should happen now is you should click on the red button. The text will turn red. Then after 2 seconds, ALL ON ITS OWN, the text will turn back to black. That's because setTimeout calls the function setToBlack after 2000 msec.

Step7: Change 2000 to 500 and try this again.

Step 8: Change the 2000 (or, after step 7, the 500) to 8000 and try again.

Each time you change that number, you're changing the amount of time javaScript pauses before calling the function setToBlack. You can make the change slow or fast by changing that number.

You can also make it blink, simply by adding a setTimeout function call to the setToBlack function as follows:

Step 9: Add the setTimeout to the setToBlack function as below:

```
function setToBlack(par)
{        document.getElementById(par).style.color = "black";
         setTimeout(function(){setToRed(par);}, 2000)
}
```

(Make sure you change the setToRed function's setTimeout time delay back to 2000 as well)

Step 10: Save and test by clicking on the "turn to red" button once and then watch it blink (albeit slowly!)

Your Turn:

(5 pts) BlackGreenRed:

To the above, add a third function that turns the text green. Have the setToBlack function wait 1500 milliseconds, and then call the setToGreen function. Have the setToGreen function wait 1500 milliseconds, then call the setToRed function. Have the setToRed function wait 1500 milliseconds and call the setToBlack function.