TIMER EVENTS

PROF. DAVID ROSSITER

AFTER THIS PRESENTATION

- You'll know how to use timer events

WE WILL LOOK AT

setTimeout	setInterval
clearTimeout	clearInterval

TIMERS

- Timers are very useful for dynamic web page behaviour

- Set a timer like this:

```
var the_timer;
the_timer=setTimeout(do_something, 1000);
```

- do_something() will be executed 1 second later

- The value 1000 is in milliseconds, so 1000=1 second

```
<html><head><script>
  var wait_duration;
  function set_things_up() {
    wait_duration = prompt("How long do you " +
                           "want to sleep?");
    setTimeout(show_wake_up_message, wait_duration );
  }
  function show_wake_up_message() {
    alert("WAKE UP! WAKE UP! WAKE UP!!");
  }
</script></head>
  <body onload="set_things_up()">
    <h1>Alarm clock example</h1>
  </body>
</html>
```

TIMER EXAMPLE - MOVING AN IMAGE

```html
<html><head><script>
  var the_timer, x_position = 0, the_image;
  function set_timer() {
    the_image=document.getElementById("stones_image");
    x_position=x_position+1;
    the_image.style.left=x_position;
    the_timer = setTimeout(set_timer, 50);
  }
</script></head>
<body onload="set_timer()">
    <img src="stones.png" id="stones_image"
      style="position:absolute; left:0">
</body></html>
```

STOPPING A TIMER

- If a timer is started like this:

```
var the_timer;
the_timer=setTimeout(do_something, 1000);
```

- Then stop it like this:

```
clearTimeout(the_timer);
```

```
<html><head><script>
  var the_timer, x_position = 0, the_image;
  function set_timer() {
    the_image = document.getElementById("stones_img");
    x_position = x_position + 1;
    the_image.style.left = x_position;
    the_timer = setTimeout(set_timer, 50); }
</script></head>
<body onload="set_timer()">
  <img src="stones.png" id="stones_img"
      style="position:absolute; left:0">
  <button onclick="clearTimeout(the_timer)">
      Stop!</button>
</body></html>
```

SETINTERVAL

- `setInterval()` repeatedly does something

- Start it like this:

```
var the_timer;
the_timer=setInterval(do_something, 2000);
```

- `do_something()` will be executed every 2 seconds

- To stop it:

```
clearInterval(the_timer);
```

```
<html><head><script>
  var the_timer, x_position = 0, the_image;
  function do_timer(){
    the_image = document.getElementById("stones_img");
    x_position = x_position + 1;
    the_image.style.left = x_position;
  }
</script></head>
  <body onload="the_timer=setInterval(do_timer, 50)">
    <img src="stones.png" id="stones_img"
      style="position:absolute; left:0">
    <button onclick="clearInterval(the_timer)">
        Stop!</button>
</body></html>
```