<CS105>
<SmallGroupSession>
<script language="JavaScript">function changeMeMe(){
}
</script>

<p onClick="changeMeMe();">I am a paragraph</p>
<script language="JavaScript">function changeMeMe() {
}
</script>

<p onClick="changeMeMe(this);">I am a paragraph</p>
<script language="JavaScript">
function changeMe(target){
}
</script>

<p onClick="changeMeMe(this);">I am a paragraph</p>
function changeMe(target){
    target.innerHTML="You changed me!";
}
</script>

<p onClick="changeMeMe(this);">I am a paragraph</p>
What's That?

I am a paragraph
Technically....
Technically, target is an "object" that represents the paragraph. When we passed "this" to the function, we passed along a lot of information that includes many "methods" and "properties" which we can now access as part of target. We can read and manipulate all kinds of properties about target and the paragraph will change as a result. We can also make it do certain things by invoking built in methods (or functions). Objects are really, really cool and we will learn about them in a few weeks. For now, the good news is that actually
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you don't need to know all this yet
target.innerHTML="You changed me!";
For now

Just think of target as the paragraph

target.innerHTML="You changed me!";
For now

Just think of target as the paragraph

and of target.innerHTML as a variable that contains the HTML inside of the paragraph.

target.innerHTML="You changed me!";
For now

You can read and write the paragraph by using it like any other variable.

target.innerHTML="You changed me!";
<script language="JavaScript">function changeMeMe(target){target.innerHTML="You changed me!";}</script>

<p onClick="changeMeMe(this);">I am a paragraph</p>
Your Turn !
OK, that was fun...

...but can we change anything else?

Like another paragraph maybe?
<button>
  Click Me! Click Me!
</button>
<div>0</div>
<button onClick="">
  Click Me! Click Me!
</button>

<div>0</div>
<button onClick="goUp();">
  Click Me! Click Me!
</button>

<div>0</div>
<script language="JavaScript">
function goUp(){
}
</script>

<button onClick="goUp();">
Click Me! Click Me!
</button>
<div>
0
</div>
function goUp()
{
    var target =
}
</script>

<button onclick="goUp();">Click Me! Click Me!</button>
<div>0</div>
```javascript
function goUp()
{
    var target = document.getElementById();
}
</script>

<button onClick="goUp();">Click Me! Click Me!</button>
<div>0</div>
Technically....
Technically, document is an object that contains the entire web page. You can access and control just about anything through the document object. For example, we can look up any element by its id. Some objects may not have an id, but as we add them to the HTML code, we can assign them one. Once they have an id, they become readily accessible, although due to the way JavaScript works, we have to use a function to actually get to whatever element in the document object we would like to retrieve. That function is called `getElementById`. But again, luckily
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One thing you **must** know!
One thing you **must** know!

**Capitalization matters!!!**
One thing you must know!

Capitalization matters!!!

getElementById();
One thing you **must** know!

**Capitalization matters!!!**

```javascript
getElementById();

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```
<script language="JavaScript">
    function goUp()
    {
        var target = document.getElementById();
    }
</script>

<button onClick="goUp();">
    Click Me! Click Me!
</button>

<div>0</div>
function goUp() {
    var target = document.getElementById("count");
}

<button onclick="goUp();">Click Me! Click Me!</button>
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function goUp()
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    var target=document.getElementById("count");
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</script>

<button onClick="goUp();">Click Me! Click Me!</button>
<div id="count">0</div>
function goUp() {
  var target=document.getElementById("count");
  target.innerHTML=target.innerHTML+1;
}

<button onClick="goUp();">Click Me! Click Me!</button>
<div id="count">0</div>
Nooo!!! That's not right!

What happened there?
<script language="JavaScript">
    function goUp()
    {
        var target=document.getElementById("count");
        target.innerHTML=target.innerHTML+1;
    }
</script>

<button onClick="goUp();">
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</button>

<div id="count">0</div>
<script language="JavaScript">
    function goUp()
    {
        var target=document.getElementById("count");
        target.innerHTML=target.innerHTML+1;
    }
</script>

<button onClick="goUp();">Click Me! Click Me!</button>
<div id="count">0</div>
<script language="JavaScript">
  function goUp(){
    var target=document.getElementById("count");
    target.innerHTML=target.innerHTML+1;
  }
</script>

<button onClick="goUp();">Click Me! Click Me!</button>
<div id="count">0</div>
function goUp(){
    var target=document.getElementById("count");
    var result;
    target.innerHTML=target.innerHTML+1;
}

<script language="JavaScript">function goUp(){
var target=document.getElementById("count");
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target.innerHTML = target.innerHTML + 1;
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</script>

<button onClick="goUp();">Click Me! Click Me!</button>
<div id="count">0</div>
<script language="JavaScript">function goUp(){
var target=document.getElementById("count");
var result = target.innerHTML;
result=parseInt(result);
target.innerHTML= result +1;
}
</script>

<button onClick="goUp();">
Click Me! Click Me!
</button>
<div id="count">0</div>
One powerful statement

result=parseInt(result);
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1. Go and fetch the current content of `result` from memory
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2. Take the string in `result` and interpret it as a decimal number
One powerful statement

`result = parseInt(result);`

1. Go and fetch the current content of `result` from memory
2. Take the string in `result` and interpret it as a decimal number
3. Keep that number in mind
One powerful statement

```javascript
result = parseInt(result);
```

1. Go and fetch the current content of `result` from memory
2. Take the string in `result` and interpret it as a decimal number
3. Keep that number in mind
4. Now retype ("reshape") `result`. It was meant for a string. Make it a variable fit for a number (Technically an Integer).
One powerful statement

```javascript
result = parseInt(result);
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1. Go and fetch the current content of `result` from memory
2. Take the string in `result` and interpret it as a decimal number
3. Keep that number in mind
4. Now retype ("reshape") `result`. It was meant for a string.
   Make it a variable fit for a number (Technically an Integer).
5. Recall the number you got in 3. and assign it to the new `result`.
result=parseInt(result);

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2. Take the string in result and interpret it as a decimal number
3. Keep that number in mind
4. Now retype ("reshape") result. It was meant for a string.
   Make it a variable fit for a number (Technically an Integer).
5. Recall the number you got in 3. and assign it to the new result.
6. Store
<script language="JavaScript">
function goUp(){
    var target=document.getElementById("count");
    var result = target.innerHTML;
    result=parseInt(result);
    target.innerHTML= result + 1;
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}
</script>

<button onClick="goUp();">Count Up!</button>
<button onClick="goDn();">Count Down!</button>
<div id="count">0</div>
<script language="JavaScript">
    function goUp(){
        var target=document.getElementById("count");
        var result = target.innerHTML;
        result=parseInt(result);
        target.innerHTML= result +1;
    }
</script>

<button onClick="goUp();">Count Up!</button>
<button onClick="goDn();">Count Down!</button>
<div id="count">0</div>
<script language="JavaScript">
  function goDn(){
    var target=document.getElementById("count");
    var result = target.innerHTML;
    result=parseInt(result);
    target.innerHTML = result + 1;
  }
</script>

<button onclick="goUp();">Count Up!</button>
<button onclick="goDn();">Count Down!</button>
<div id="count">0</div>
<script language="JavaScript">
    function goDn(){
        var target=document.getElementById("count");
        var result = target.innerHTML;
        result=parseInt(result);
        target.innerHTML= result - 1;
    }
</script>

<button onClick="goUp();">Count Up!</button>
<button onClick="goDn();">Count Down!</button>
<div id="count">0</div>
We did it we did it we did it yeah!! Lo hicimos We did it