GetElementByID Lab

Changing other elements on a web page:

So far you've changed the document's (i.e., web page's) image. You've changed the images by using the image's id. You can change other elements in the document by giving them *unique ids* and then changing them in javascript.

Start by creating a basic web page from your web page template.

Add some content to the page. Make sure the content includes a header tag, and give the header an id. I named mine "headofpage", so my web page looks like this (note that I gave all my page elements unique ids!!):

Now javascript allows you to manipulate the different elements in the web page by getting the elements through their **id**. Then you can get at the stuff between the tags identified by the id. In other words, with:

<h1 id = "headofpage">Your Choice! </h1>

The *inner HTML* is the text between the <h1...> and the </h1> specifically, or whatever is between an opening and a closing tag in general.

In general, innerHTML is what is between the opening tag and the closing tag. So in the following code:

The innerHTML is:

```
Your Choice!
This is the first paragraph on the page
This is another paragraph. <a href = "http://www.amazon.com" id = "firstlink"> link </a>
```

Now, to change the innerHTML, you'd use the **id** of the element you're trying to change. So to change the text of the h1 tag above, in your javascript you'd use:

```
document.getElementById("headofpage").innerHTML = "New Header"
```

So to write a function that will change the text of any id, you'd write:

```
function ChangeText(par)
{ document.getElementById(par).innerHTML = "The New Text is this"
}
```

And to call the function, you'd add onClick (or onMouseOver) to the html element:

```
<h1 id = "headofpage" onClick = "ChangeText('headofpage')">
Your Choice! </h1>
```

Put it all together, and you'd get:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-US" xml:lang="en-US" xmlns="http://www.w3.org/1999/xhtml">
   <head>
       <title>Our first javascript!</title>
       <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
       <script type = "text/javascript">
          function ChangeText(par)
             document.getElementById(par).innerHTML = "Your New Text"
          {
          }
       </script>
   </head>
   <body>
       <h1 id = "headofpage" onClick = "ChangeText('headofpage')">
         Your Choice! </h1>
       The paragraph that will change 
   </body>
</html>
```

Your Turn 1: Create a web page with a number of different elements (headers, paragraphs, etc.). Add a function that changes each element to new text. Then make different elements call the function using either onClick (as above), or onMouseOver, or both.

Different text:

As the page stands now, every time you click (or roll over) an element, it changes to the same text. Chances are, depending on the element, you'd want the text to change to something different.

We are already sending into the function the unique id of the element we want changed. The unique id goes into the par parameter. Inside the function, you can use an if statement to check if the par holds a particular id, and, if so, change the text accordingly.

In English, you'd say, "if the par holds 'headofpage', change the text of the document element associated with 'headofpage' to 'New Header Text'. Otherwise if the par holds 'firsttext', change the text of the document element associated with 'firsttext' to 'New Paragraph Text'.

In Javascript, you'd write the same thing as:

```
function ChangeText(par)
{
    if (par == "headofpage")
    {
        document.getElementById(par).innerHTML = "New Header Text"
    }
    else if (par == "firsttext")
    {
        document.getElementById(par).innerHTML = "New Paragraph Text"
    }
}
```

Your Turn 2: Change the function in your web page so that it prints different text depending on what id is passed into the function ChangeText. Add a third and fourth element to your web page (with its own unique id). Now modify the function so that it has another condition for the elements you just added (e.g., different text for the third and the fourth element).

Changing text depending on action:

What if you have two (or three, or four, etc) images on your web page, and you want different **text** to appear, based on which **image** the user clicks on?

No problem! First, modify your web page so that there are at least two images on the page and a text element you want to change. (I'm going to put it all in a table, so the whole thing will line up and look nice):

```
<
<img src = "kittysit.jpg" width = "500" height = "363"
alt = "kitty pic" id = "pic1" />
== "363"
alt = "kitty pic" id = "pic2" />
 New Text Goes Here
```

Now, say in English what you want this web page to do:

In English: When you click on the first image, you want the javascript function to change the text associated with the id "para1" to "You picked the first picture!". When you click on the second picture, you want the javascript function to change the text associates with the id "para1" to "You picked the second picture!".

That means we need to include onClick events for both images. When you call the function, you'll need to include both:

- the id of the image you clicked on AND
- the id of the element you want to change ("para1").

So your table should now look something like this:

```
<img src = "kittysit.jpg" width = "500" height = "363"</pre>
         alt = "kitty pic" id = "pic1"
        onClick="TextForPic('para1', 'pic1')"/>
    <img src = "kittysleeping.jpg" width = "500" height = "363"</pre>
         alt = "kitty pic" id = "pic2"
         onClick="TextForPic('para1', 'pic2')"/>
     New Text Goes Here
```

Now write the function TextForPic(par1, par2).

In English, what should happen is: If par2 holds "pic1", change the text associated with the id in par1 to "You picked the first picture!". Otherwise if par2 holds "pic2", change the text associated with the id in par1 to "You picked the second picture!"

In JavaScript, this is written as:

Put it all together and you get:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-US" xml:lang="en-US" xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <title>Our first javascript!</title>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
        <script type = "text/javascript">
           function TextForPic(par1, par2)
           {
              if (par2 == "pic1")
                 document.getElementById(par1).innerHTML = "You picked the first picture!"
              {
              }
              else if (par2 == "pic2")
                 document.getElementById(par1).innerHTML = "You picked the second picture!"
              {
              }
           }
        </script>
```

```
</head>
   <bodv>
     <img src = "kittysit.jpg" width = "500" height = "363"
               alt = "kitty pic" id = "pic1"
               onClick="TextForPic('para1', 'pic1')"/>
         <img src = "kittysleeping.jpg" width = "500" height = "363"</pre>
               alt = "kitty pic" id = "pic2"
               onClick="TextForPic('para1', 'pic2')"/>
          New Text Goes Here
         </body>
</html>
```

Your Turn 3: Create a web page with three or more images and some text. Write a function such that when you click on a picture, the text changes to reflect which image you clicked on.

New Text and New Pictures:

What if when you clicked on a picture, you wanted the text to change and for two new pictures to pop up? (Think of sites where you choose which of two pictures is cuter (lamer/scarier/cooler/prettier) by clicking on the image of your choice. After you've clicked, you get two new pictures to choose between).

In English: what should happen is: If par2 holds "pic1", change the text associated with the id in par1 to "You picked the first picture!". Otherwise if par2 holds "pic2", change the text associated with the id in par1 to "You picked the second picture!" Then change the image with the id "pic1"'s src to something new, and change the image with the id "pic2"'s src to some new image.

In JavaScript, you'd have to change the function just a bit so that it would include assigning a new **src** to each of the images. So now your function would look something like this:

You'd also have to modify your onClick function calls so that TextAndPic (the new name of the function) is now called.

Once you've done that, when you click on either picture, the TextAndPic function is called. Depending on which picture you picked, you'll get either "You picked the first picture!" or "You picked the second picture!" in the paragraph with the id "para1". Now, two new pictures will also pop up in your web page.

Your Turn 4: Modify your web page so that when you click on an image, two new pictures pop up. Now modify the page so that if you click on the first image, the text "You picked the first picture!" and the second picture changes. If you click on the second image, the text "You picked the first picture!" and the first picture changes (You'll need another parameter).

To Turn In:

Your Turns 1-4