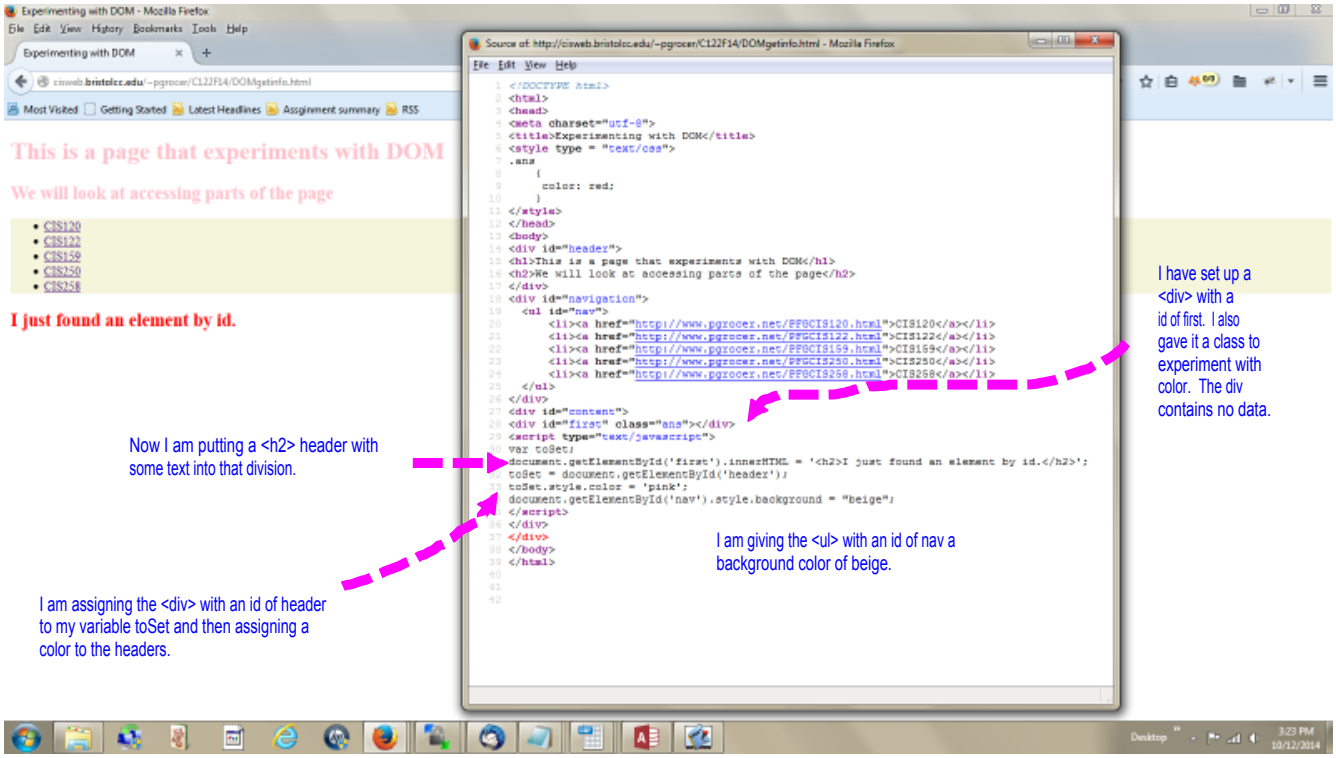
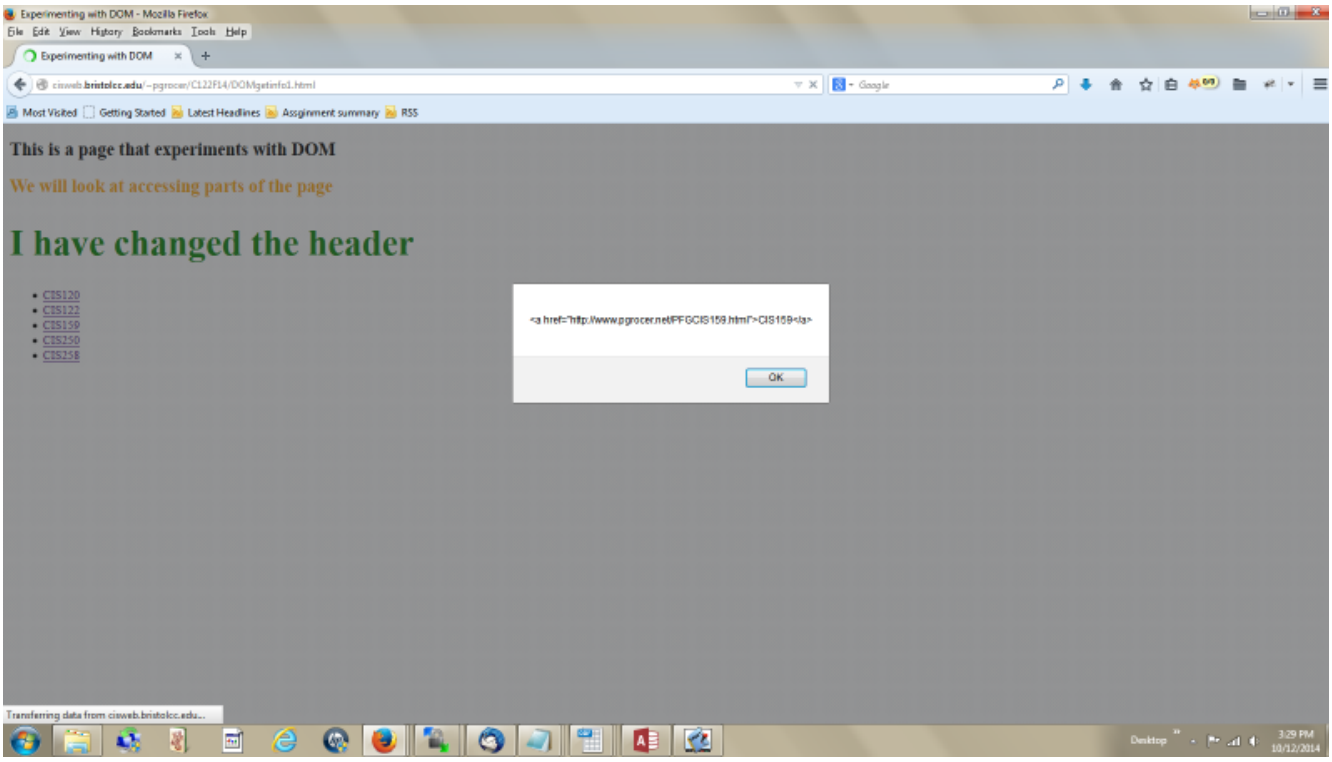
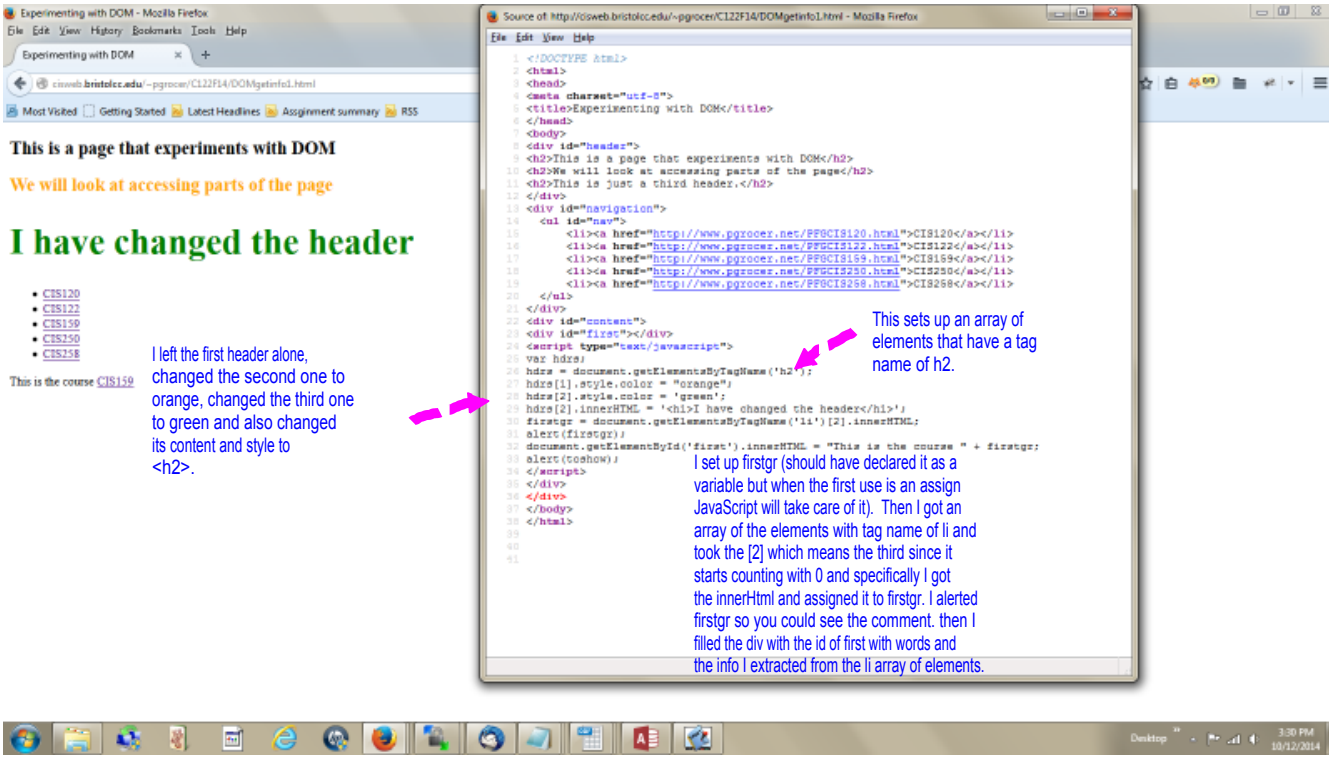
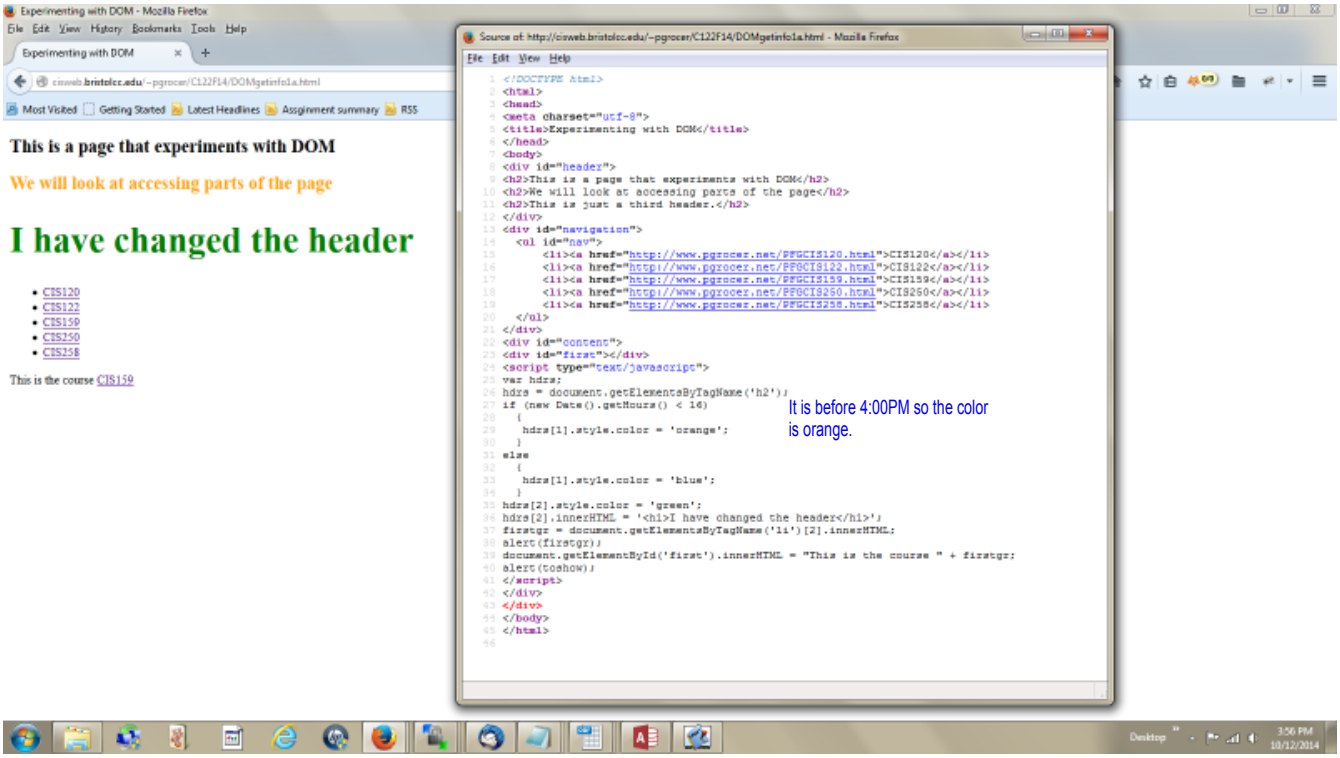
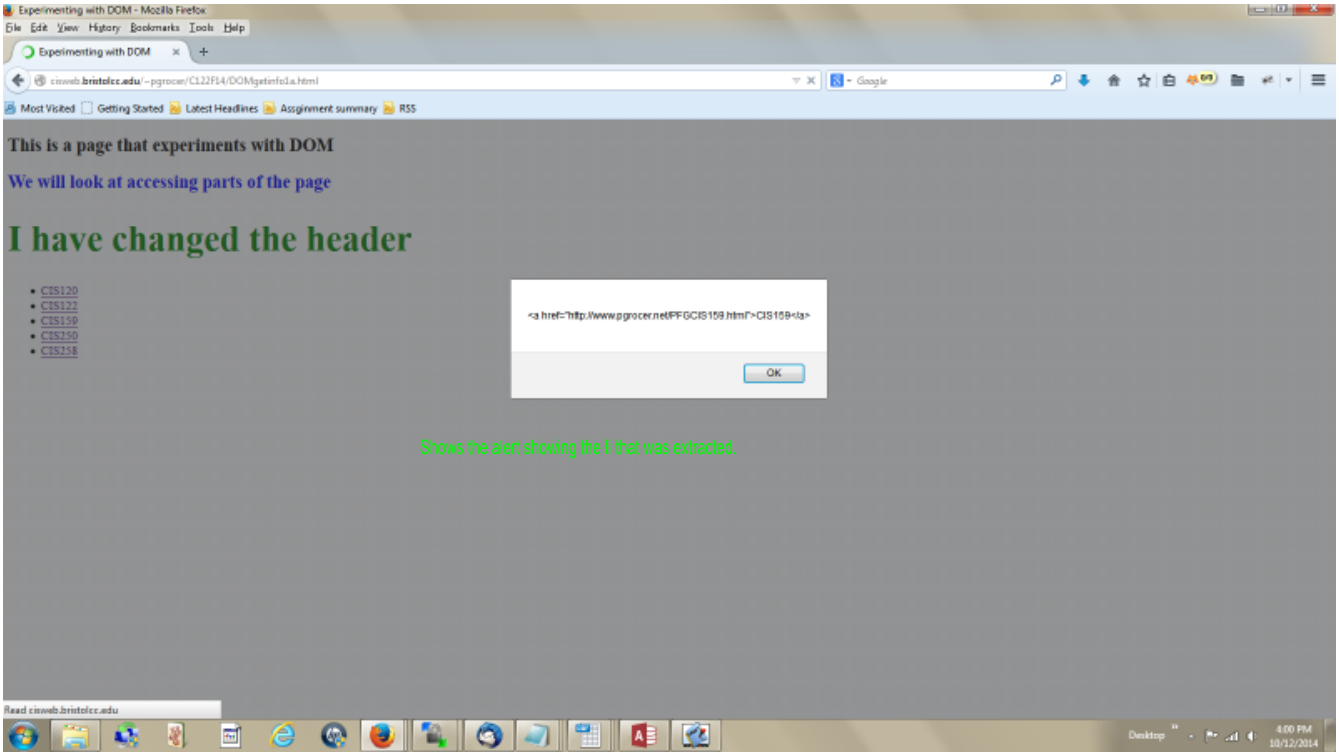
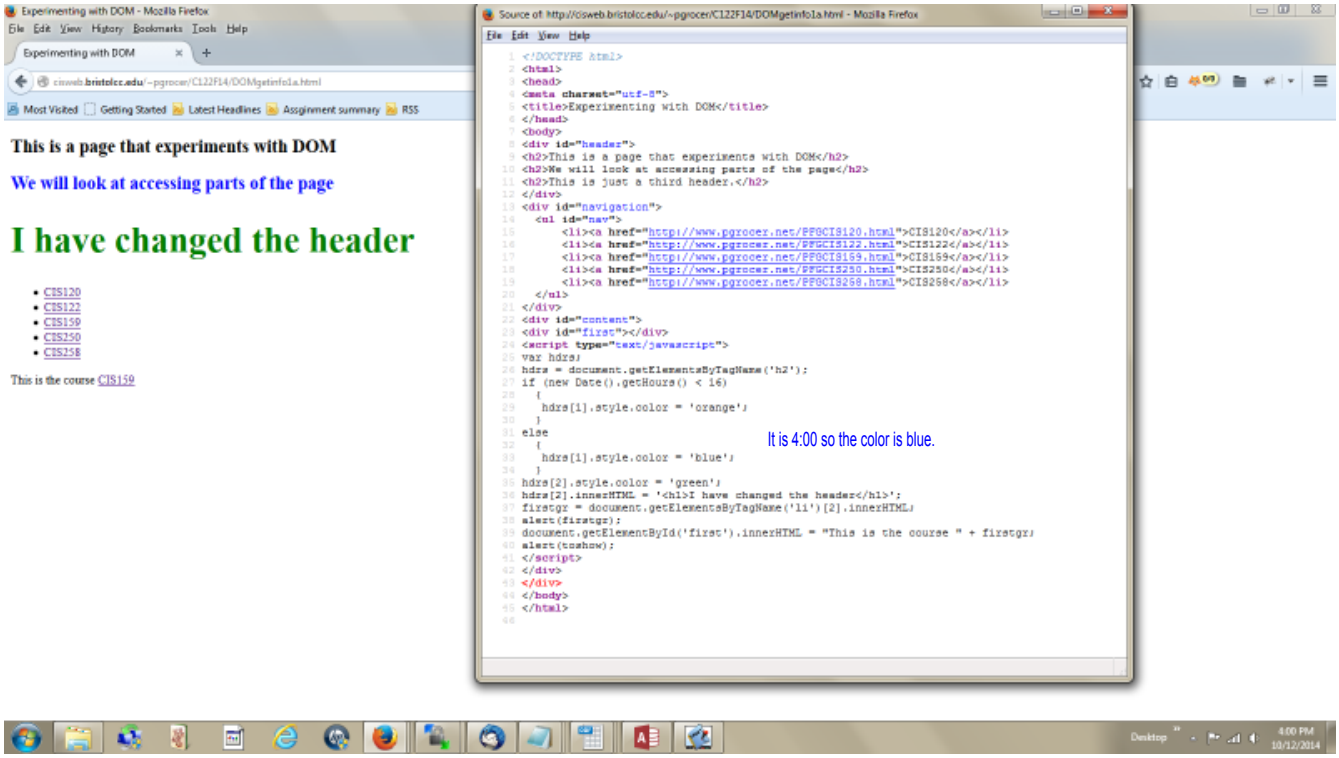

Experimenting with DOM - Mozilla Firefox
This is a page that experiments with DOM
We will look at accessing parts of the page
CIS120
CIS122
CIS159
CIS250
CIS258
I just found an element by id.
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo.html - Mozilla Firefox
Now I am putting a <h2> header with some text into that division.
I am assigning the with an id of header to my variable toSet and then assigning a color to the headers.
I am giving the <ul> with an id of nav a background color of beige.
I have set up a with a id of first. I also gave it a class to experiment with color. The div contains no data.

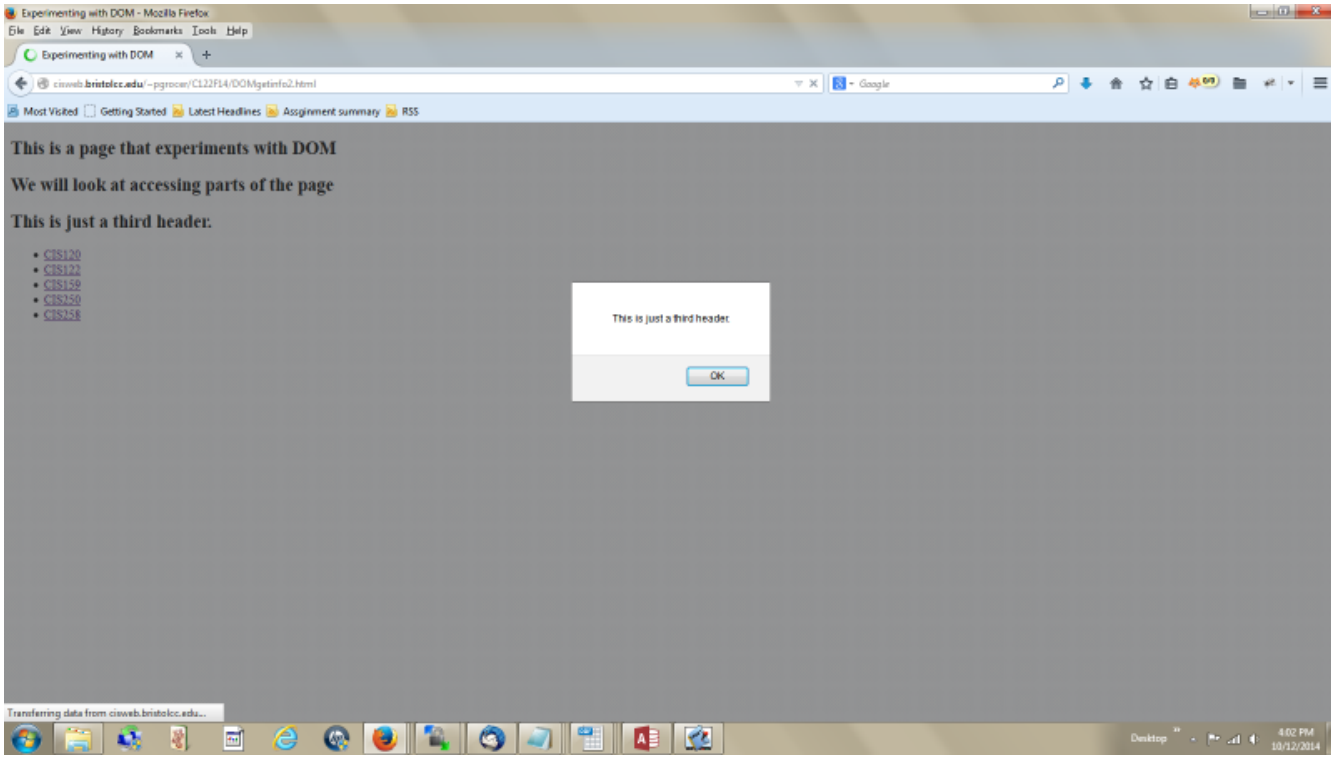

Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
I have changed the header
CIS120
CIS122
CIS159
CIS250
CIS258
CIS159
OK
Transferring data from cisweb.bristolcc.edu...

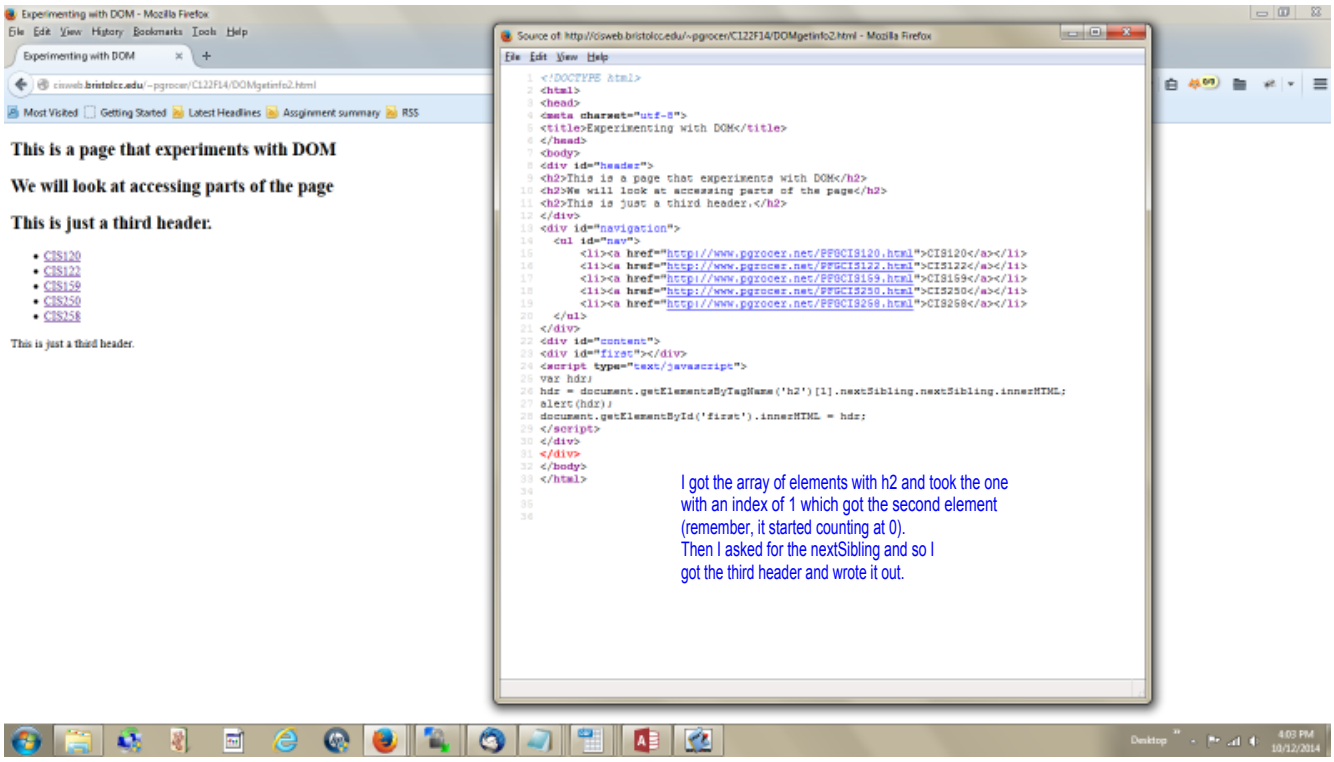

Experimenting with DOM - Mozilla Firefox
This is a page that experiments with DOM
We will look at accessing parts of the page
I have changed the header
CIS120
CIS122
CIS159
CIS250
CIS258
This is the course CIS159
I left the first header alone, changed the second one to orange, changed the third one to green and also changed its content and style to <h2>.
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo1.html - Mozilla Firefox
This sets up an array of elements that have a tag name of h2.
I set up firstgr (should have declared it as a variable but when the first use is an assign JavaScript will take care of it). Then I got an array of the elements with tag name of li and took the [2] which means the third since it starts counting with 0 and specifically I got the innerHtml and assigned it to firstgr. I alerted firstgr so you could see the comment. then I filled the div with the id of first with words and the info I extracted from the li array of elements.

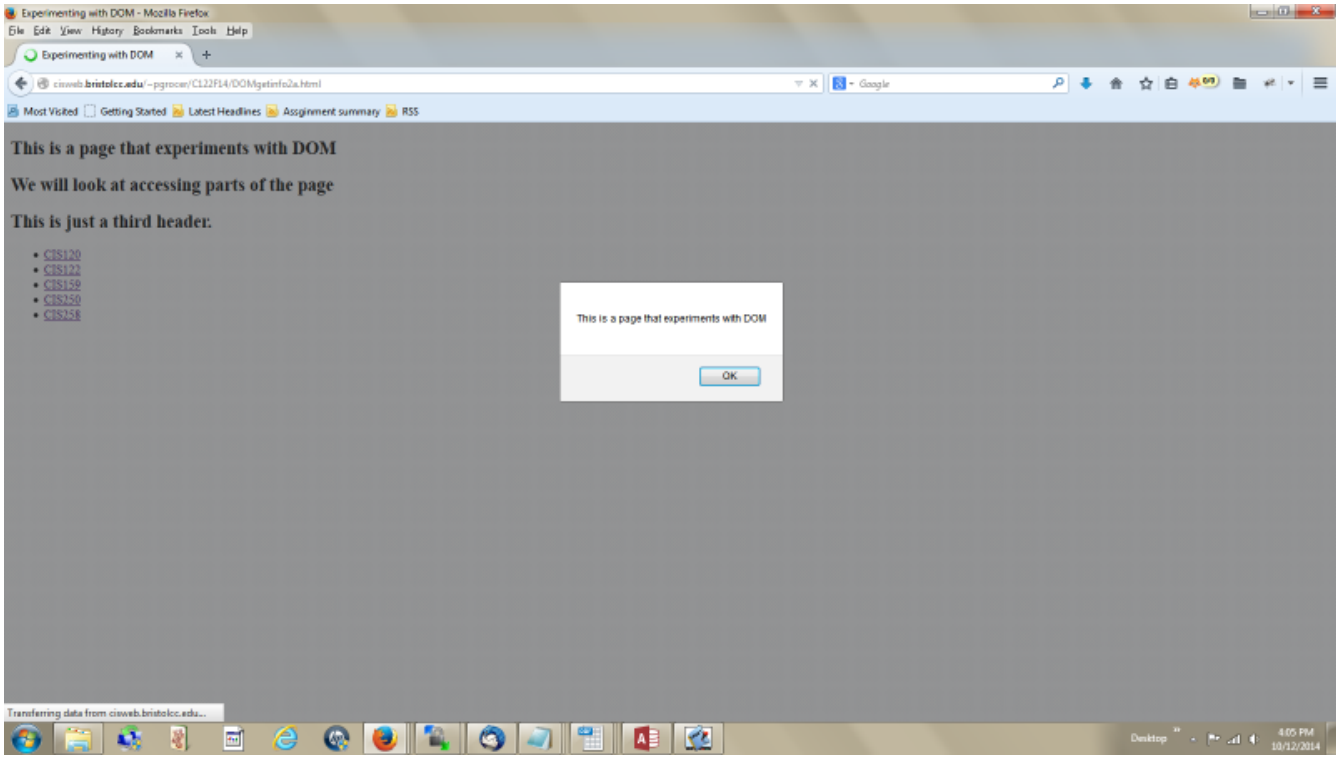

Experimenting with DOM - Mozilla Firefox
This is a page that experiments with DOM
We will look at accessing parts of the page
I have changed the header
CIS120
CIS122
CIS159
CIS250
CIS258
This is the course CIS159
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo1a.html - Mozilla Firefox
It is before 4:00PM so the color is orange.

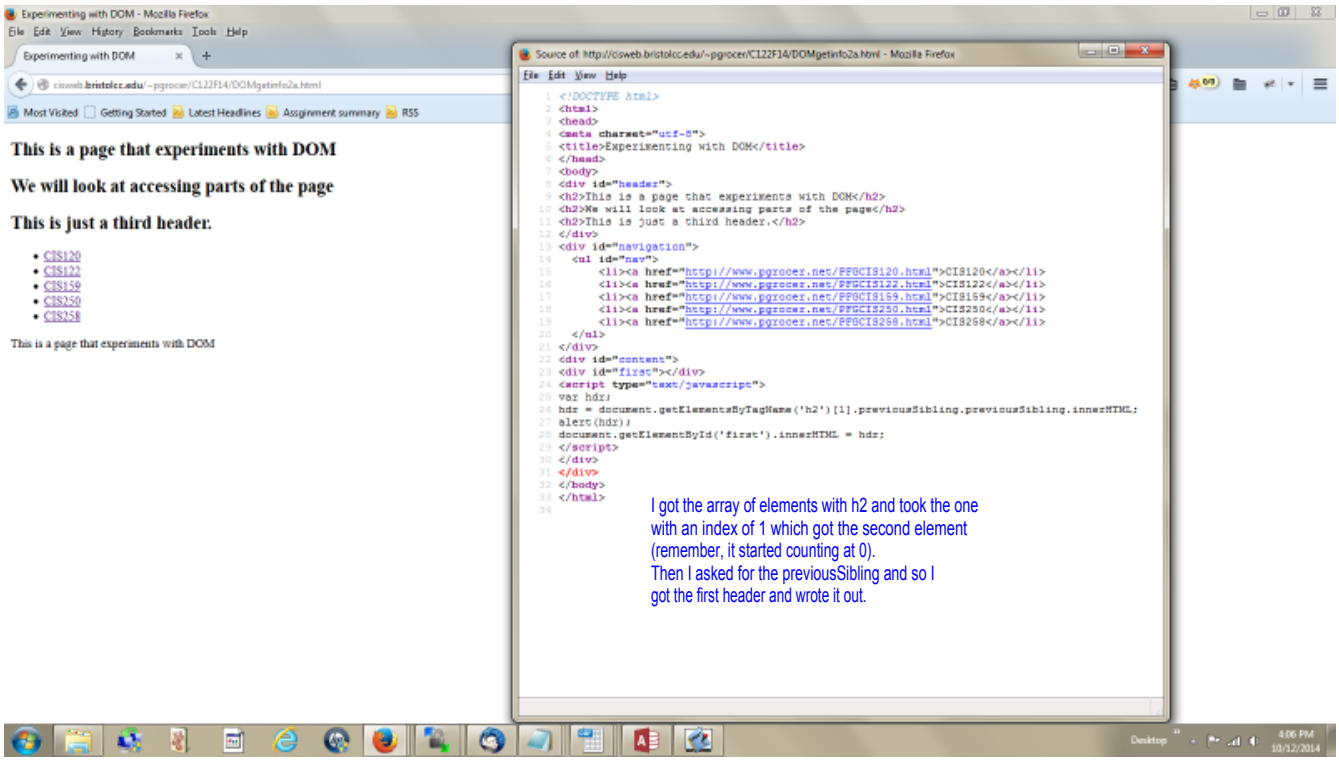

Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
I have changed the header
CIS120
CIS122
CIS159
CIS250
CIS258
CIS159
OK
Shows the alert showing the li that was extracted.
Read cisweb.bristolcc.edu


Experimenting with DOM - Mozilla Firefox
This is a page that experiments with DOM
We will look at accessing parts of the page
I have changed the header
CIS120
CIS122
CIS159
CIS250
CIS258
This is the course CIS159
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo1a.html - Mozilla Firefox
It is 4:00 so the color is blue.


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
This is just a third header.
OK
Transferring data from ciswebbristolcc.edu...


Experimenting with DOM - Mozilla Firefox
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
This is just a third header.
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo2.html - Mozilla Firefox
I got the array of elements with h2 and took the one with an index of 1 which got the second element (remember, it started counting at 0).
Then I asked for the nextSibling and so I got the third header and wrote it out.


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
This is a page that experiments with DOM
OK
Transferring data from cisweb.bristolcc.edu...

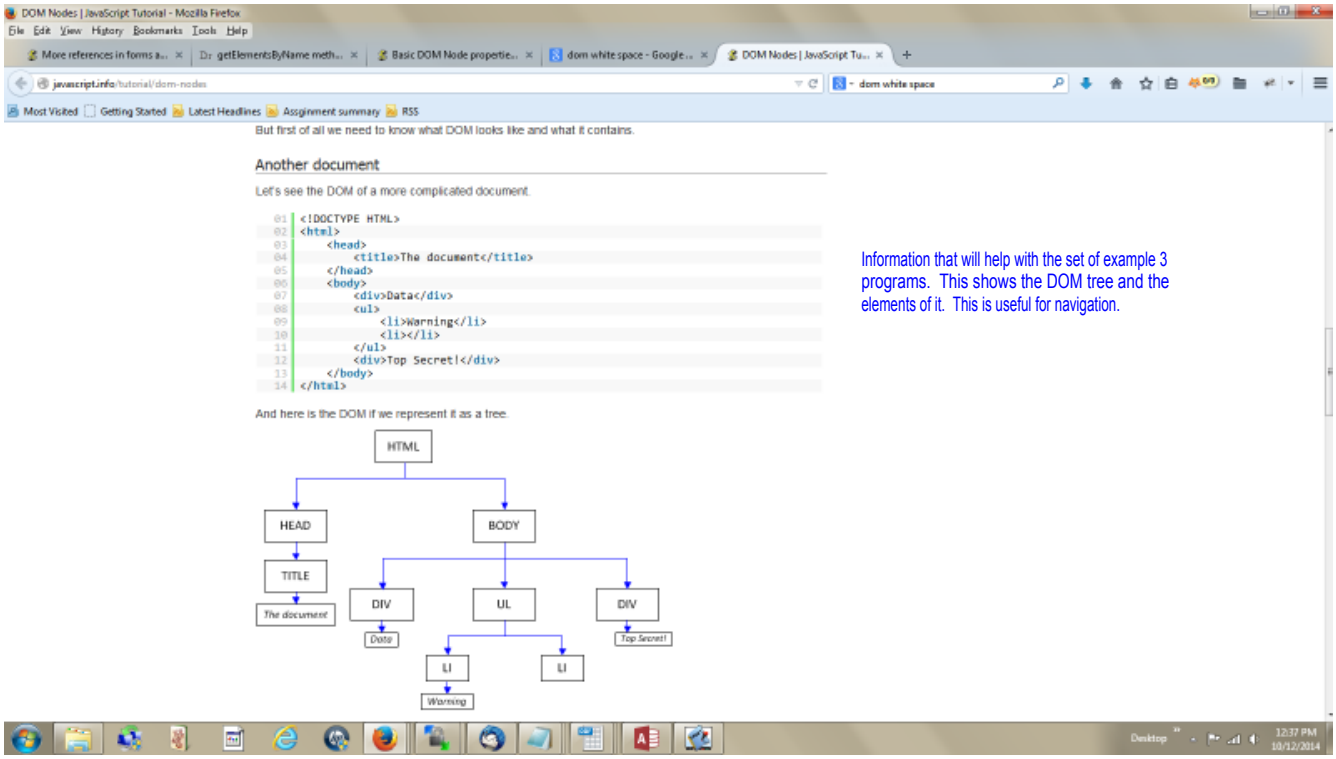

Experimenting with DOM - Mozilla Firefox
Experimenting with DOM
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
This is a page that experiments with DOM
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo2a.html - Mozilla Firefox
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Experimenting with DOM</title>
</head>
<body>

<h2>This is a page that experiments with DOM</h2>
<h2>We will look at accessing parts of the page</h2>
<h2>This is just a third header.</h2>

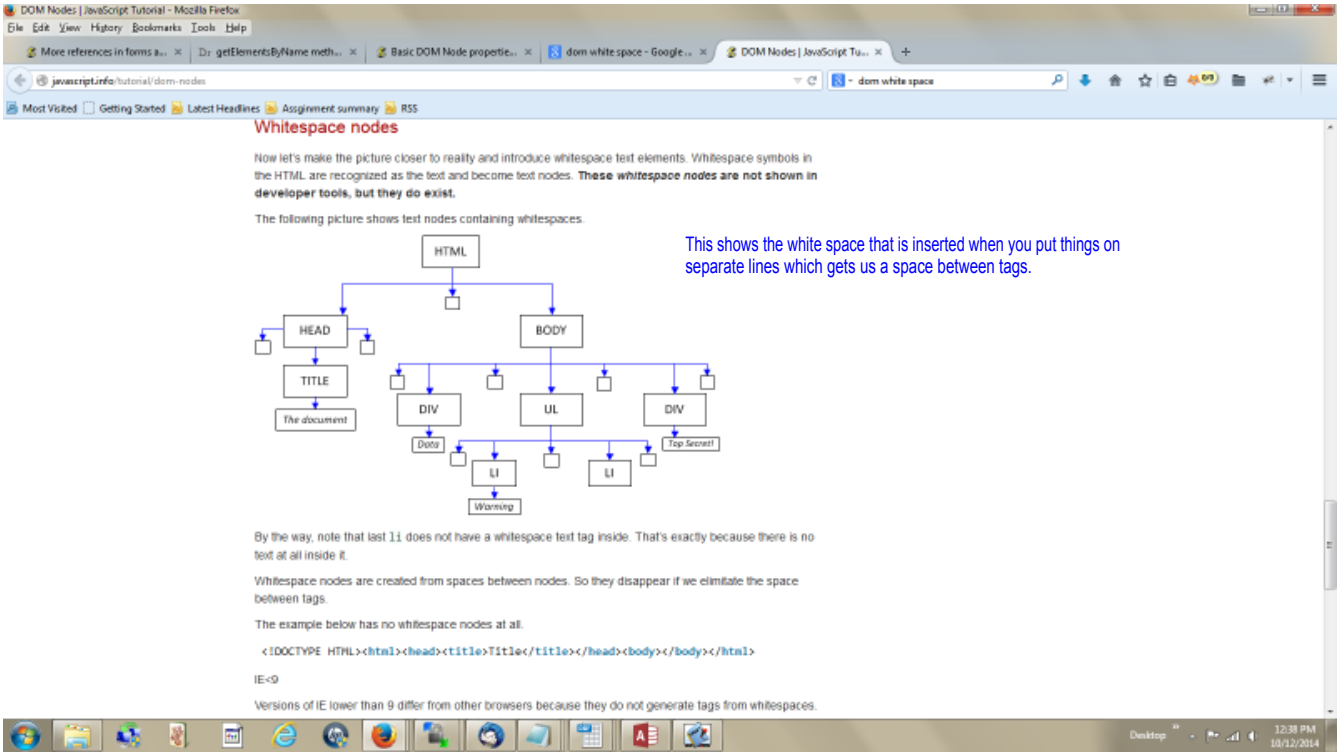
<ul id="nav">
CIS120
CIS122
CIS159
CIS250
CIS258

<script type="text/javascript">
var hdr;
hdr = document.getElementsByTagName('h2')[1].previousSibling.previousSibling.innerHTML;
alert(hdr);
document.getElementById('first').innerHTML = hdr;
</script>

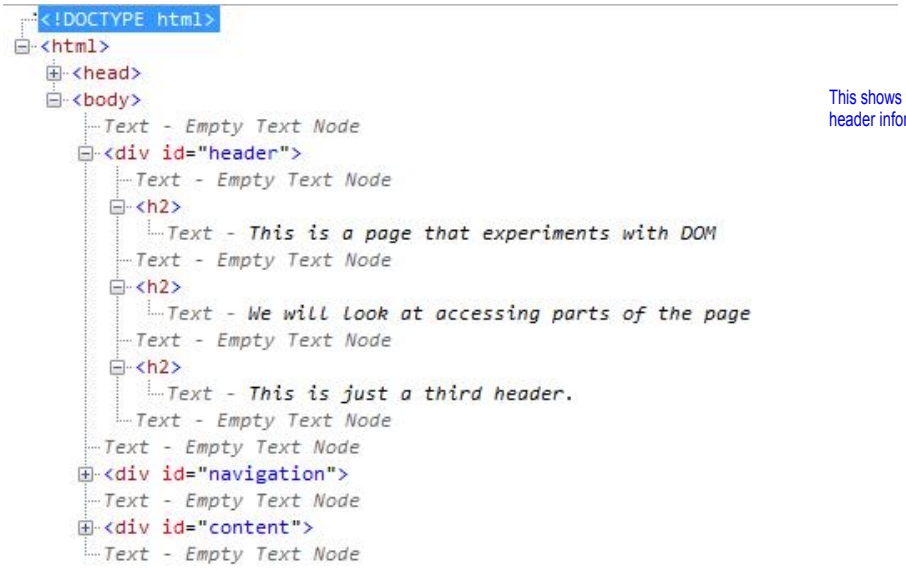
</body>
</html>
I got the array of elements with h2 and took the one with an index of 1 which got the second element (remember, it started counting at 0).
Then I asked for the previousSibling and so I got the first header and wrote it out.



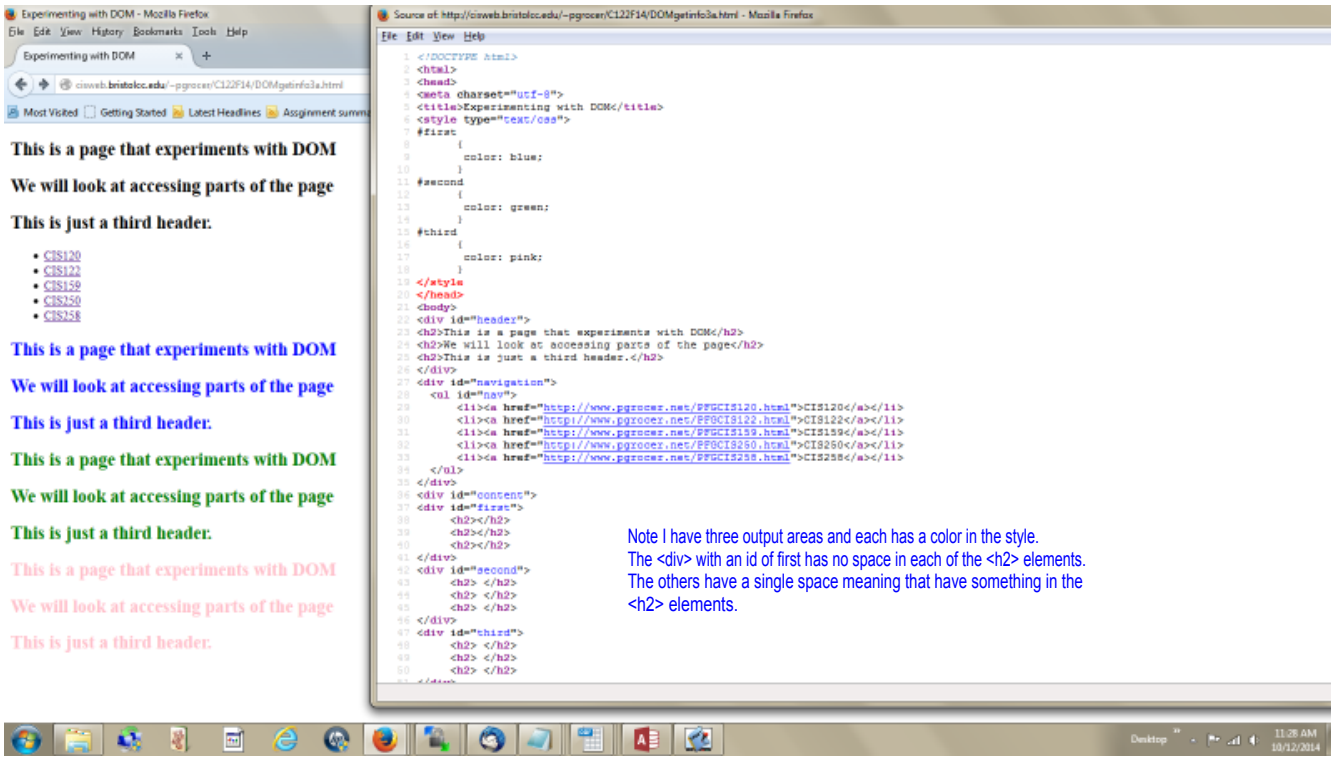
Information that will help with the set of example 3 programs. This shows the DOM tree and the elements of it. This is useful for navigation.



This shows the white space that is inserted when you put things on separate lines which gets us a space between tags.



This shows the white space and the text with the header information.


Experimenting with DOM - Mozilla Firefox
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo3a.html - Mozilla Firefox
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Experimenting with DOM</title>
<style type="text/css">
#first
{
color: blue;
}
#second
{
color: green;
}
#third
{
color: pink;
}
</style>
</head>
<body>

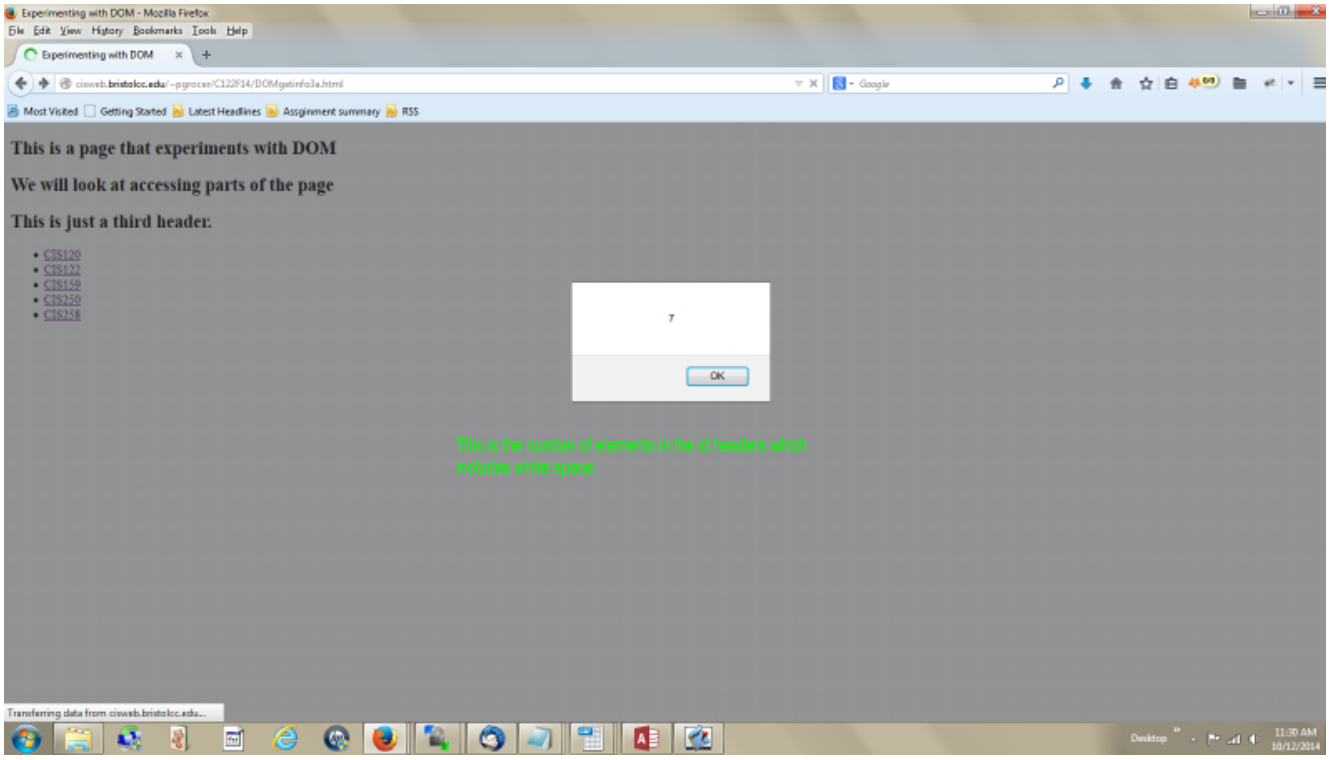
<h2>This is a page that experiments with DOM</h2>
<h2>We will look at accessing parts of the page</h2>
<h2>This is just a third header.</h2>

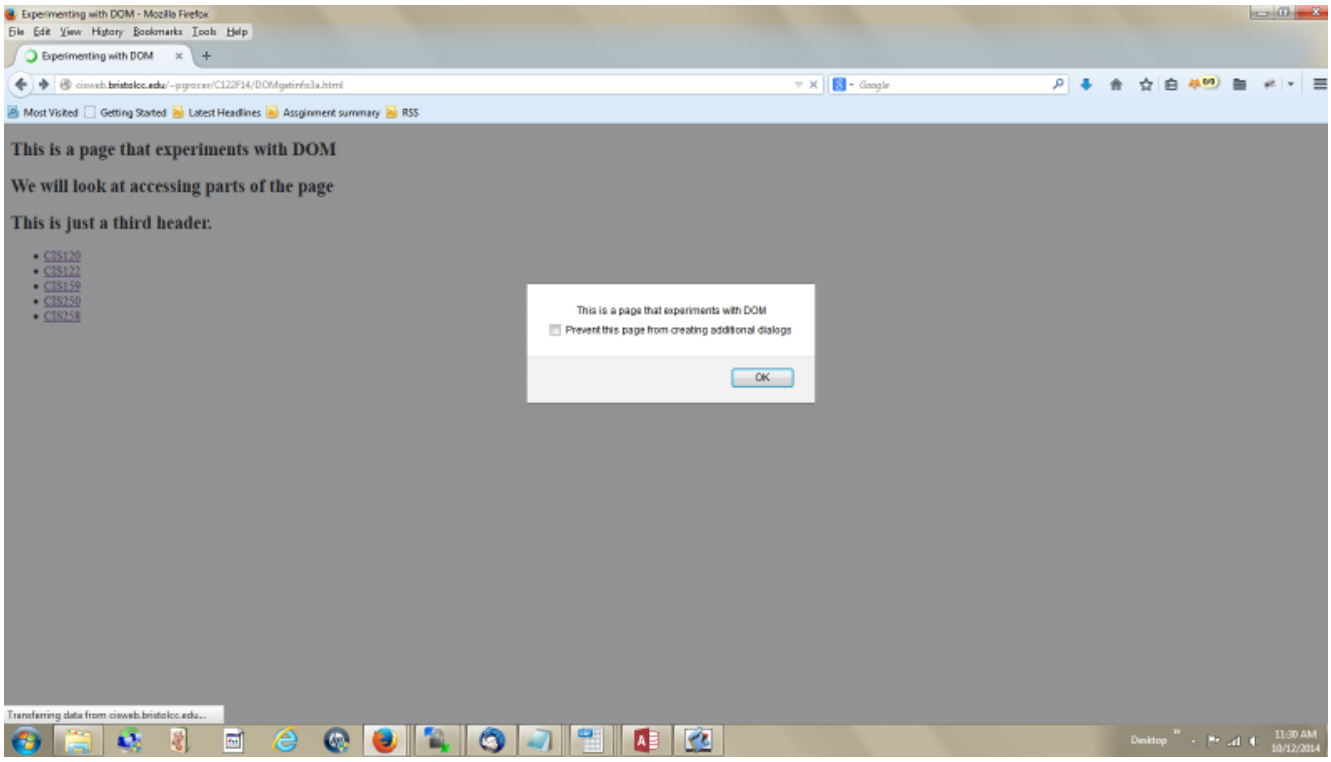
<ul id="nav">
CIS120
CIS122
CIS159
CIS250
CIS258

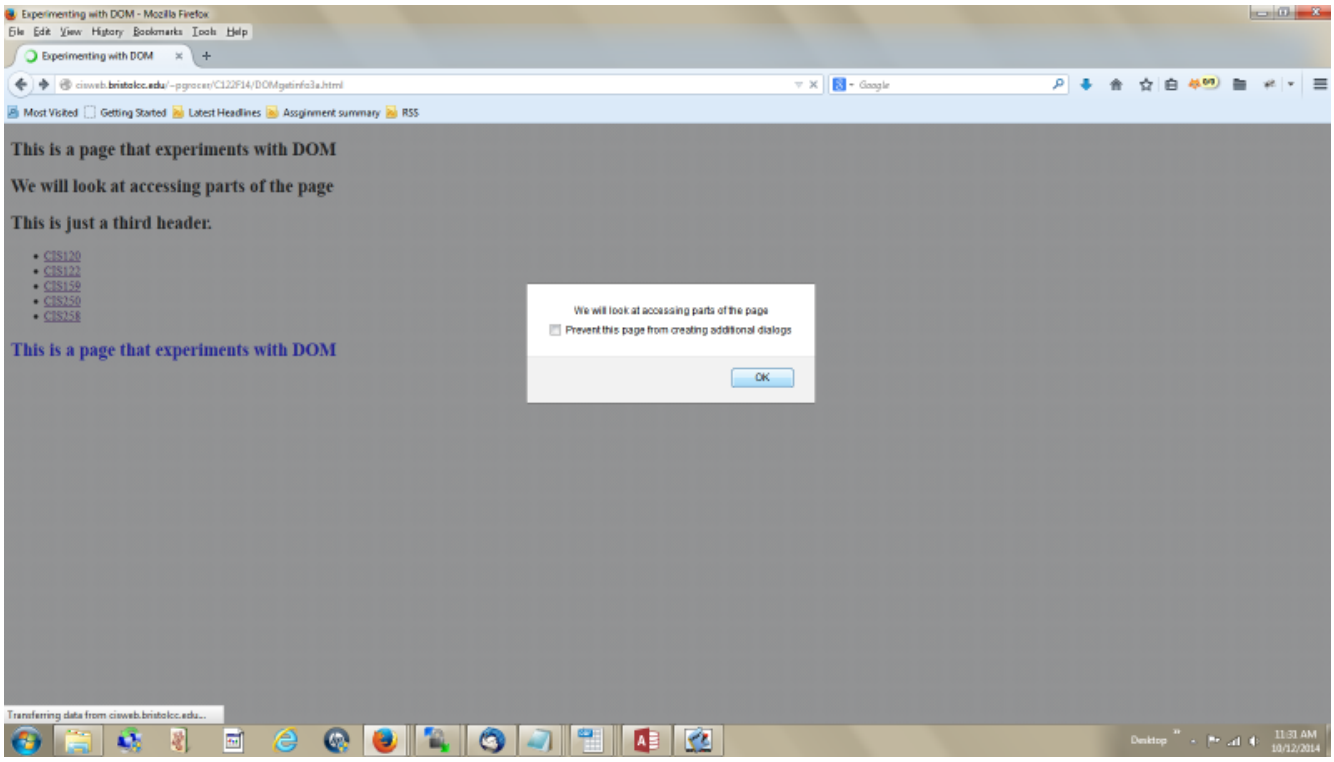
<h2></h2>
<h2></h2>
<h2></h2>

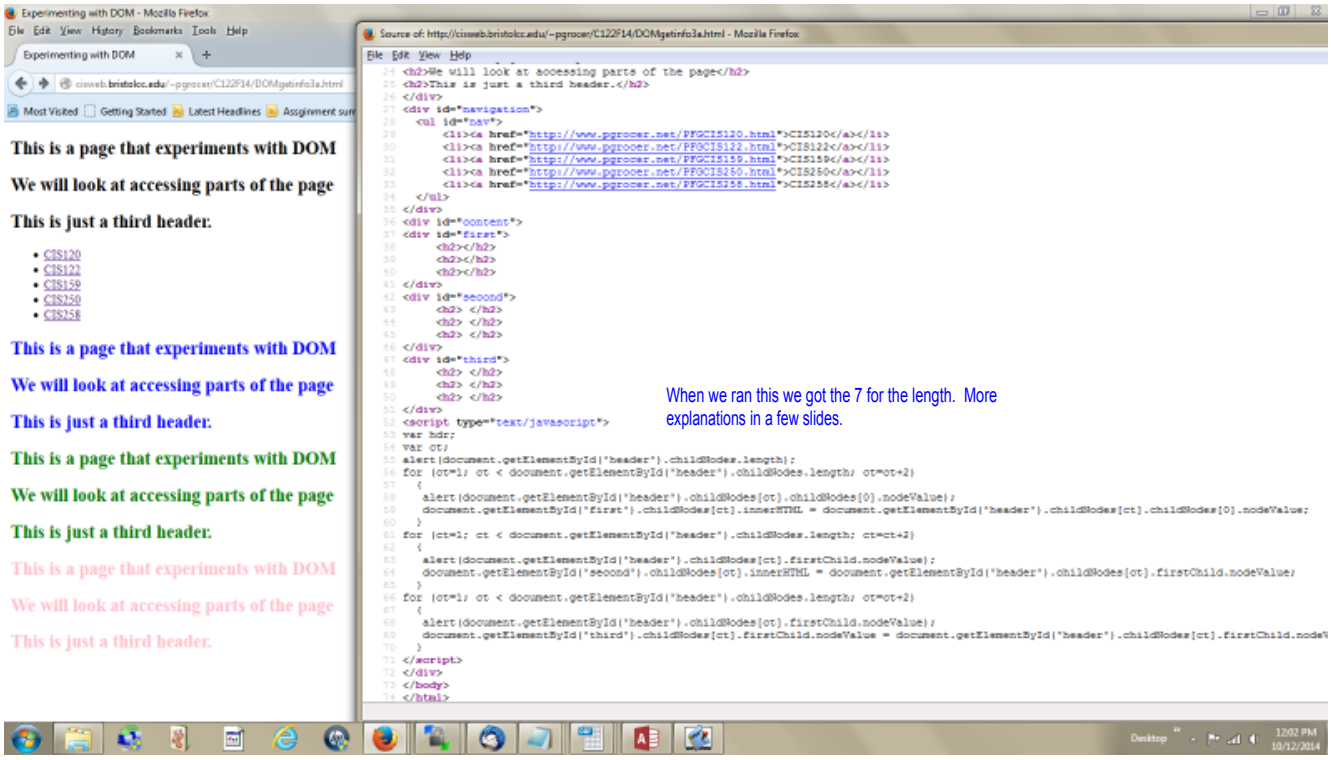
<h2> </h2>
<h2> </h2>
<h2> </h2>

<h2> </h2>
<h2> </h2>
<h2> </h2>
Note I have three output areas and each has a color in the style.
The with an id of first has no space in each of the <h2> elements.
The others have a single space meaning that have something in the
<h2> elements.


Experimenting with DOM - Mozilla Firefox
Experimenting with DOM
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
7
OK
This is the number of elements in the id headers which includes white space.


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS150
CIS250
CIS258
This is a page that experiments with DOM
Prevent this page from creating additional dialogs
OK
Transferring data from ciswebbristolcc.edu...


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
This is a page that experiments with DOM
We will look at accessing parts of the page
Prevent this page from creating additional dialogs
OK
Transferring data from cisweb.bristolcc.edu...


Experimenting with DOM - Mozilla Firefox
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo3a.html - Mozilla Firefox
When we ran this we got the 7 for the length. More explanations in a few slides.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Experimenting with DOM</title>
<style type="text/css">
#first
      {
       color: blue;
      }
#second
      {
       color: green;
      }
#third
      {
       color: pink;
      }
</style
</head>
<body>
<div id="header">
<h2>This is a page that experiments with DOM</h2>
<h2>We will look at accessing parts of the page</h2>
<h2>This is just a third header.</h2>
</div>
<div id="navigation">
  <ul id="nav">
      <li><a href="http://www.pgrocer.net/PFGCIS120.html">CIS120</a></li>
      <li><a href="http://www.pgrocer.net/PFGCIS122.html">CIS122</a></li>
      <li><a href="http://www.pgrocer.net/PFGCIS159.html">CIS159</a></li>
      <li><a href="http://www.pgrocer.net/PFGCIS250.html">CIS250</a></li>
      <li><a href="http://www.pgrocer.net/PFGCIS258.html">CIS258</a></li>
  </ul>
</div>
<div id="content">
<div id="first">
     <h2></h2>
     <h2></h2>
     <h2></h2>
</div>
<div id="second">
     <h2> </h2>
     <h2> </h2>
     <h2> </h2>
</div>
<div id="third">
     <h2> </h2>
     <h2> </h2>
     <h2> </h2>
</div>
<script type="text/javascript">
var hdr;
var ct;
alert(document.getElementById('header').childNodes.length);
for (ct=1; ct < document.getElementById('header').childNodes.length; ct=ct+2)
  {
   alert(document.getElementById('header').childNodes[ct].childNodes[0].nodeValue)
   document.getElementById('first').childNodes[ct].innerHTML = document.getElementById('header').childNodes[ct].childNodes[0].nodeValue
  }
for (ct=1; ct < document.getElementById('header').childNodes.length; ct=ct+2)
  {
   alert(document.getElementById('header').childNodes[ct].firstChild.nodeValue)
   document.getElementById('second').childNodes[ct].innerHTML = document.getElementById('header').childNodes[ct].firstChild.nodeValue
  }
for (ct=1; ct < document.getElementById('header').childNodes.length; ct=ct+2)
  {
   alert(document.getElementById('header').childNodes[ct].firstChild.nodeValue)
   document.getElementById('third').childNodes[ct].firstChild.nodeValue = document.getElementById('header').childNodes[ct].firstChild.nodeValue
  }
</script>
</div>
</body>
</html>
```

```
<div id="first">
     <h2></h2>
     <h2></h2>
     <h2></h2>
</div>
<div id="second">
     <h2> </h2>
     <h2> </h2>
     <h2> </h2>
</div>
<div id="third">
     <h2> </h2>
     <h2> </h2>
     <h2> </h2>
</div>
<script type="text/javascript">
var hdr;
var ct;
alert(document.getElementById('header').childNodes.length);
for (ct=1; ct < document.getElementById('header').childNodes.length; ct=ct+2)
  {
   alert(document.getElementById('header').childNodes[ct].childNodes[0].nodeValue);
   document.getElementById('first').childNodes[ct].innerHTML = document.getElementById('header').childNodes[ct].childNodes;
[0].nodeValue
  }
for (ct=1; ct < document.getElementById('header').childNodes.length; ct=ct+2)
  {
   alert(document.getElementById('header').childNodes[ct].firstChild.nodeValue);
   document.getElementById('second').childNodes[ct].innerHTML = document.getElementById('header').childNodes;
[ct].firstChild.nodeValue
  }
for (ct=1; ct < document.getElementById('header').childNodes.length; ct=ct+2)
  {
   alert(document.getElementById('header').childNodes[ct].firstChild.nodeValue);
  document.getElementById('third').childNodes[ct].firstChild.nodeValue = document.getElementById('header').childNodes[ct].firstChild.nodeValue;
  }
</script>
```

The first alert gets me the number of childNodes in header. Header has 3 <h2> headers under it and it also has white space so it has: white space, text, white space, text, white space, text, white space so it returns 7.

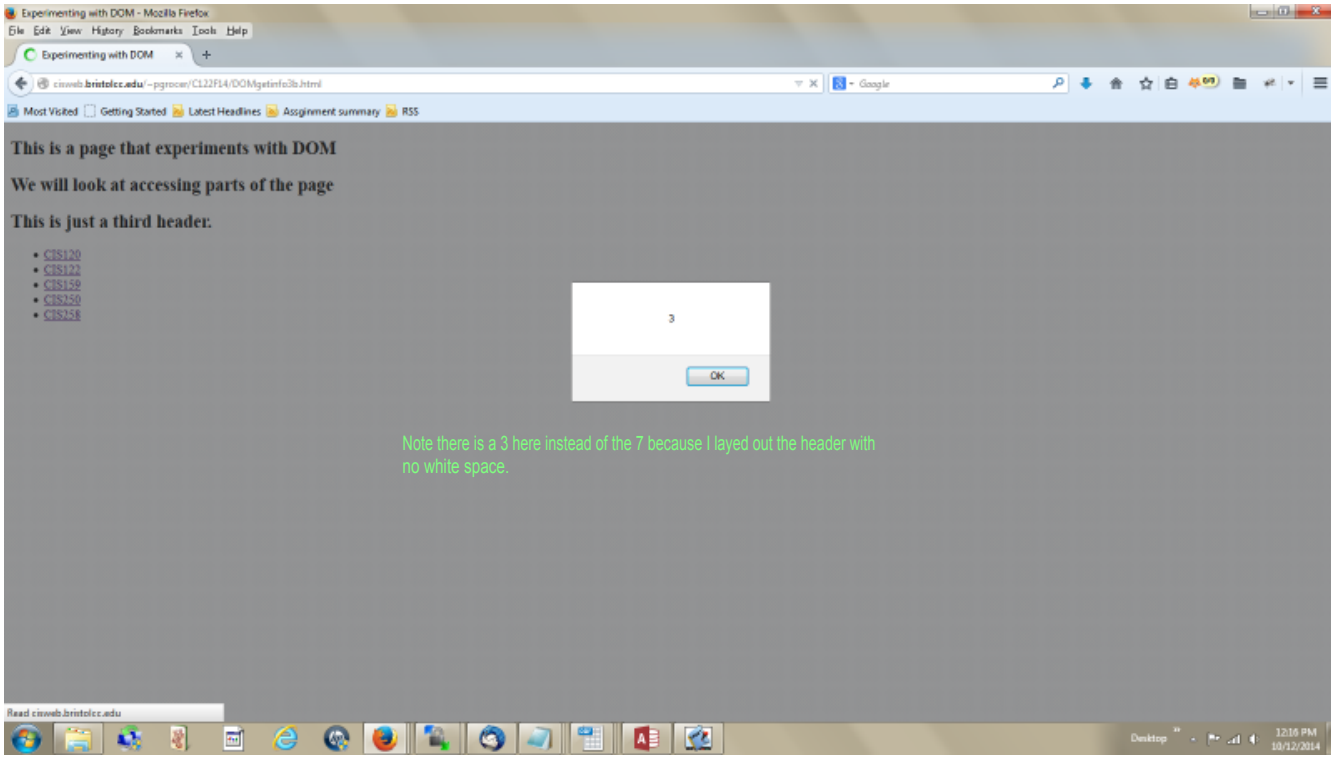
So, this means that when I went to start the loop, I realized I only wanted the text so instead of starting at 0, I started at 1 and instead of adding 1 to each pass, I added 2. The loop continued while ct was less than the length of 7. So I got the 1, 3, 5 and when it hit 7 I ended. Note that because of the white space, the text is in locations 1, 3, 5

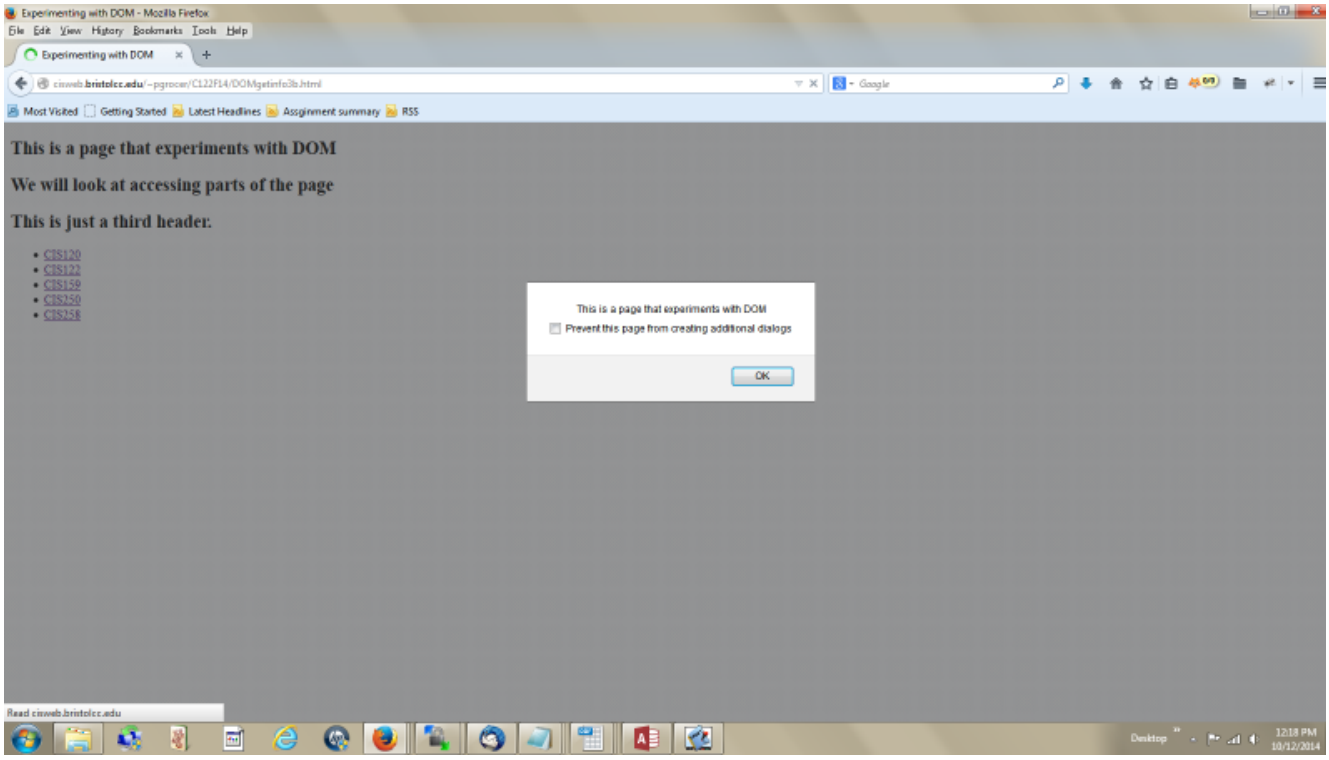
I will explain the alert and the line that displays on the next slide.

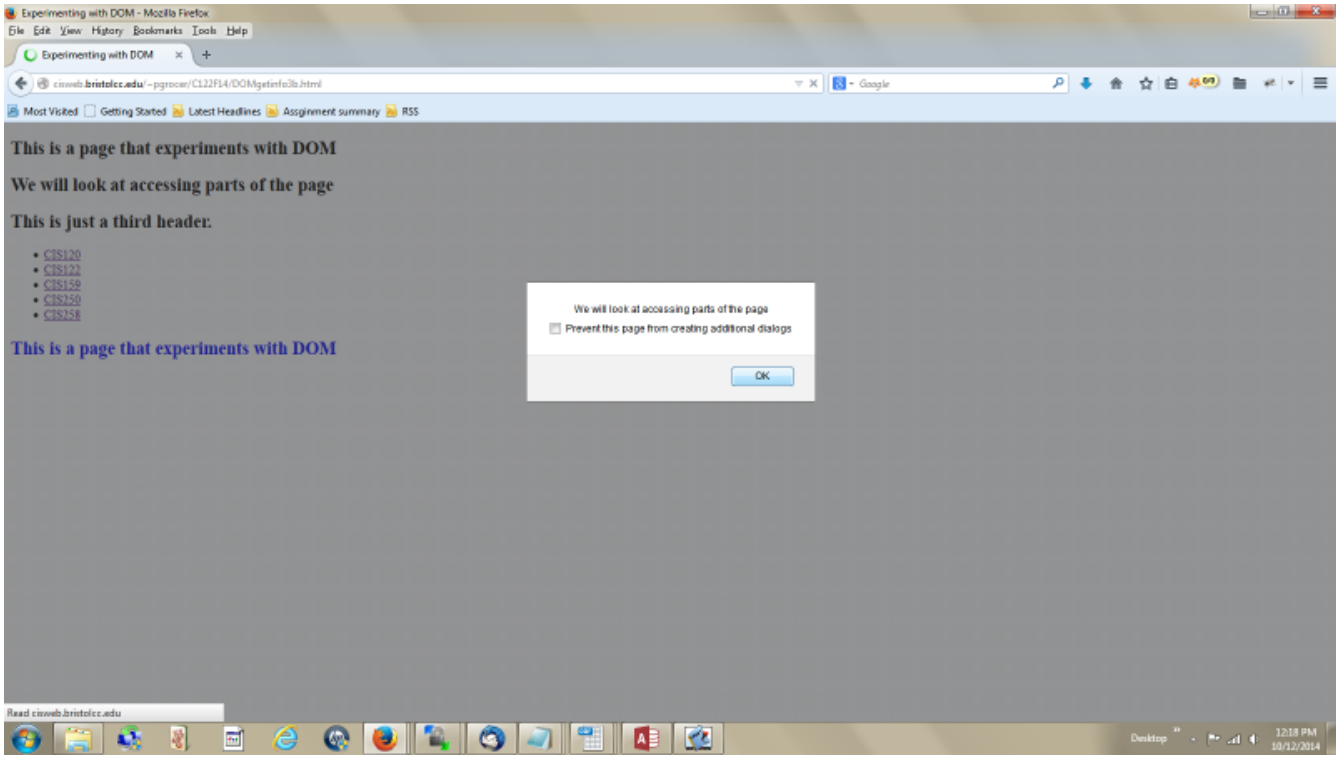
I am taking the collection of childNodes of the div id=header element and the children of that element is a collection of text nodes and header elements. To get to the header elements you offset by 2. The header elements have text content so they have a text childNode so I can access that text childNode in two ways. One by getting the collection of the headers childNodes (in this case there will be only one element in the collection or by using the firstChild method.

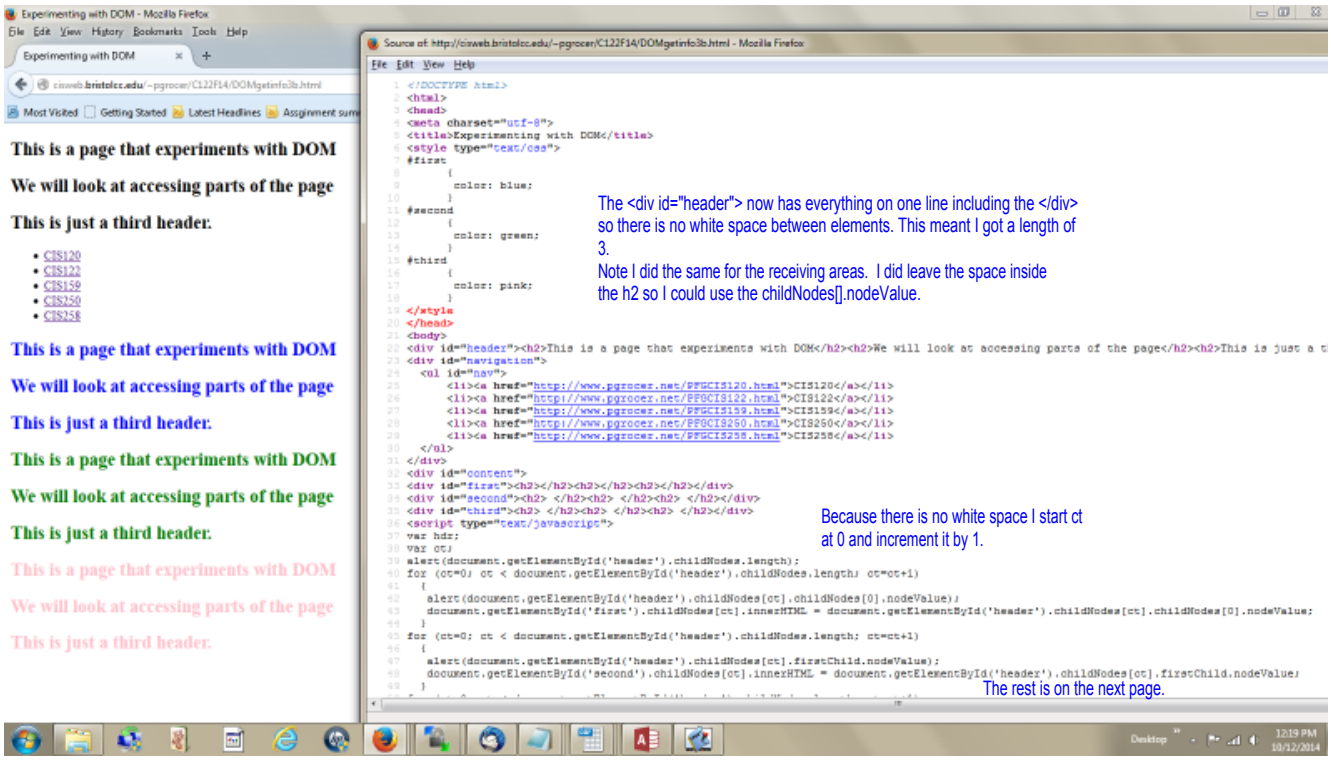
To put the information onto the page I used two approaches: innerHTML and firstChild.nodeValue. You can use the firstChild.nodeValue if there is already an existing child text node (note that in first there is no existing and in second and third there is an existing which is a space). If there is not an existing child text node then you have to use the innerHTML method which will either replace an existing an innerHTML value or create an innerHTML. innerHTML is everything between the opening and closing tag of the element.

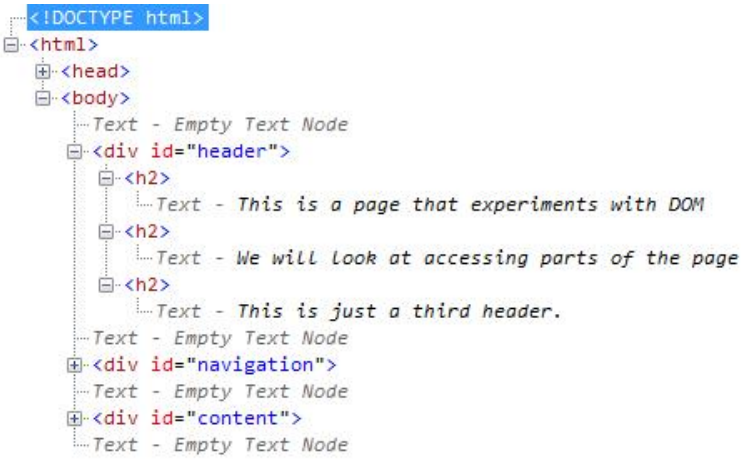
```
<div id="first">
      <h2></h2>
      <h2></h2>
      <h2></h2>
</div>
<div id="second">
      <h2> </h2>
      <h2> </h2>
      <h2> </h2>
</div>
<div id="third">
      <h2> </h2>
      <h2> </h2>
      <h2> </h2>
</div>
<script type="text/javascript">
var hdr;
var ct;
alert(document.getElementById('header').childNodes.length);
for (ct=1; ct < document.getElementById('header').childNodes.length; ct=ct+2)
  {
   alert(document.getElementById('header').childNodes[ct].childNodes[0].nodeValue);
   document.getElementById('first').childNodes[ct].innerHTML = document.getElementById('header').childNodes[ct].childNodes;
[0].nodeValue
  }
for (ct=1; ct < document.getElementById('header').childNodes.length; ct=ct+2)
  {
   alert(document.getElementById('header').childNodes[ct].firstChild.nodeValue);
   document.getElementById('second').childNodes[ct].innerHTML = document.getElementById('header').childNodes;
[ct].firstChild.nodeValue
  }
for (ct=1; ct < document.getElementById('header').childNodes.length; ct=ct+2)
  {
   alert(document.getElementById('header').childNodes[ct].firstChild.nodeValue);
  document.getElementById('third').childNodes[ct].firstChild.nodeValue = document.getElementById('header').childNodes[ct].firstChild.nodeValue;
  }
</script>
```


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS150
CIS250
CIS258
3
OK
Note there is a 3 here instead of the 7 because I layed out the header with no white space.

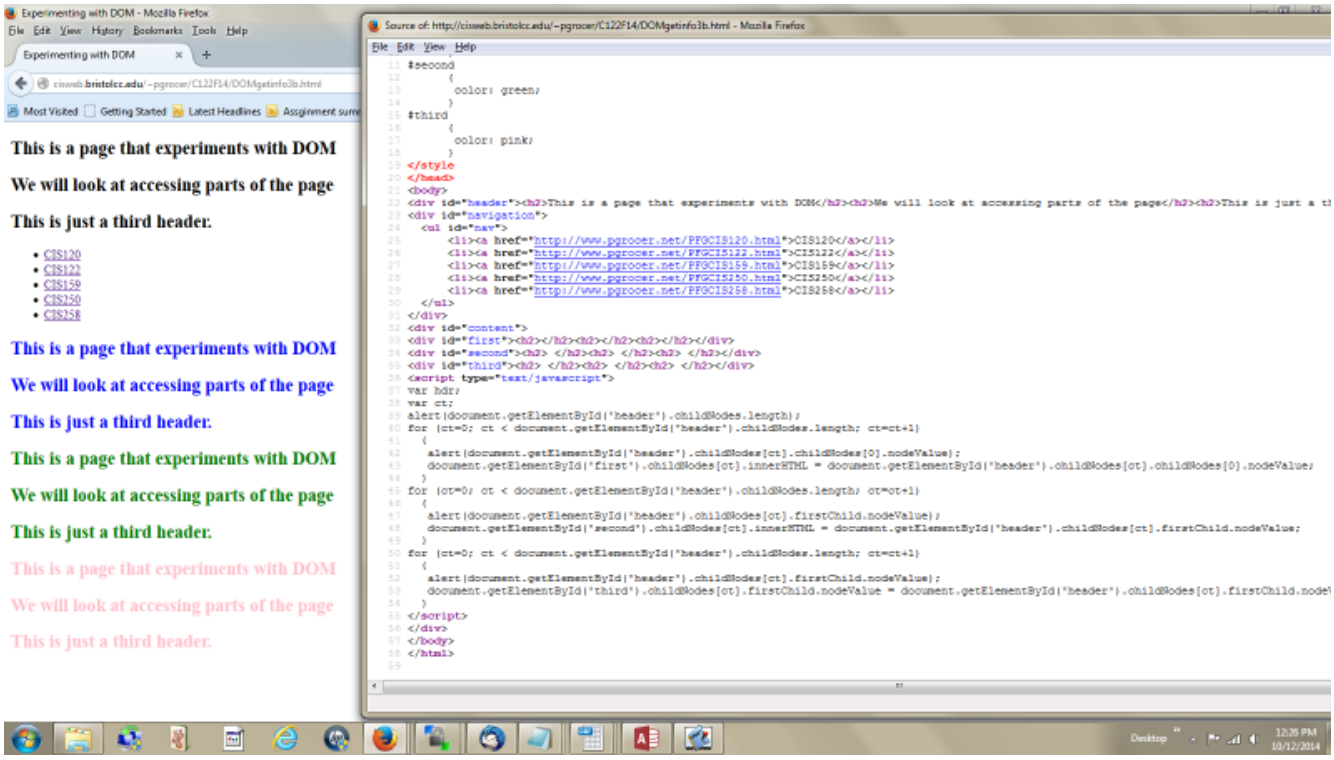

Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS150
CIS250
CIS258
This is a page that experiments with DOM
Prevent this page from creating additional dialogs
OK


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header:
CIS120
CIS122
CIS159
CIS250
CIS258
This is a page that experiments with DOM
We will look at accessing parts of the page
Prevent this page from creating additional dialogs
OK


Experimenting with DOM - Mozilla Firefox
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo3b.html - Mozilla Firefox
The now has everything on one line including the so there is no white space between elements. This meant I got a length of 3.
Note I did the same for the receiving areas. I did leave the space inside the h2 so I could use the childNodes[].nodeValue.
Because there is no white space I start ct at 0 and increment it by 1.
The rest is on the next page.



When I layed them all out on one line with no white space between this is what I get.


Experimenting with DOM - Mozilla Firefox
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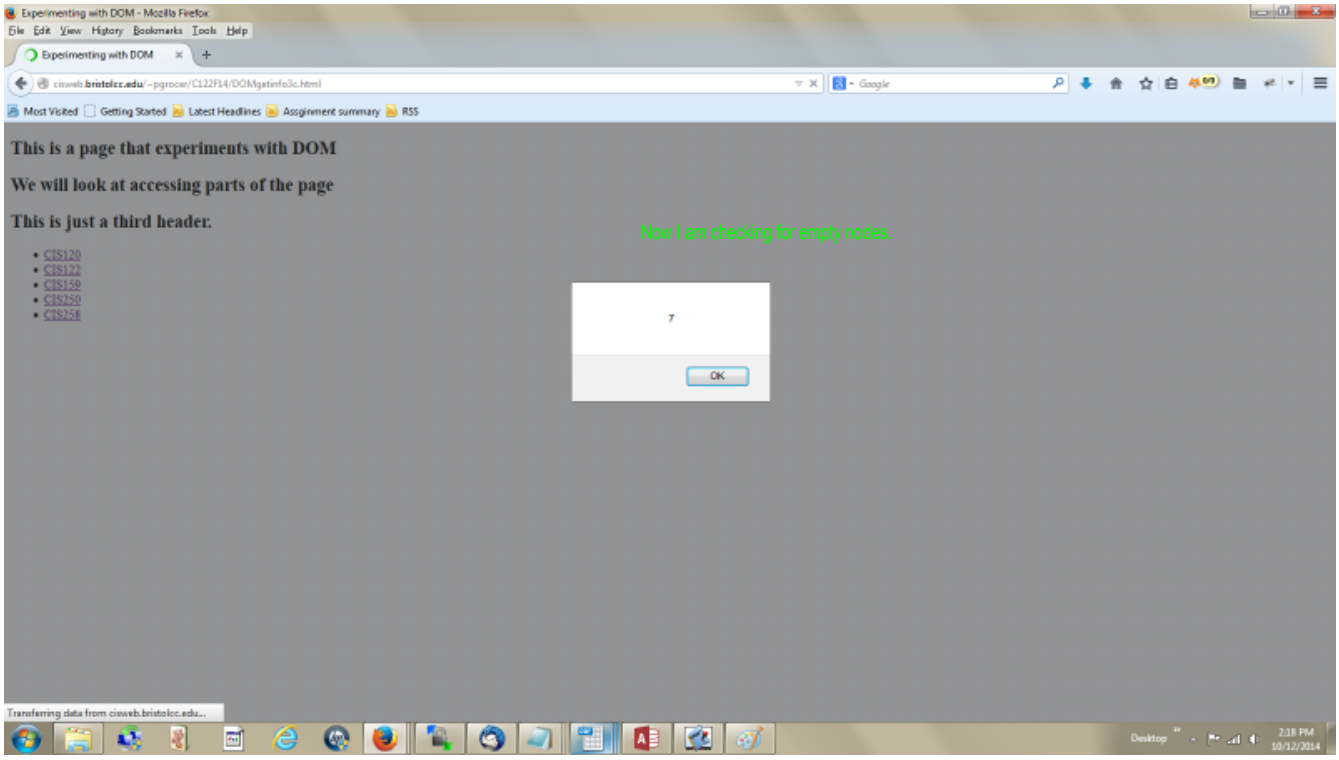
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo3b.html - Mozilla Firefox


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header:
CIS120
CIS122
CIS159
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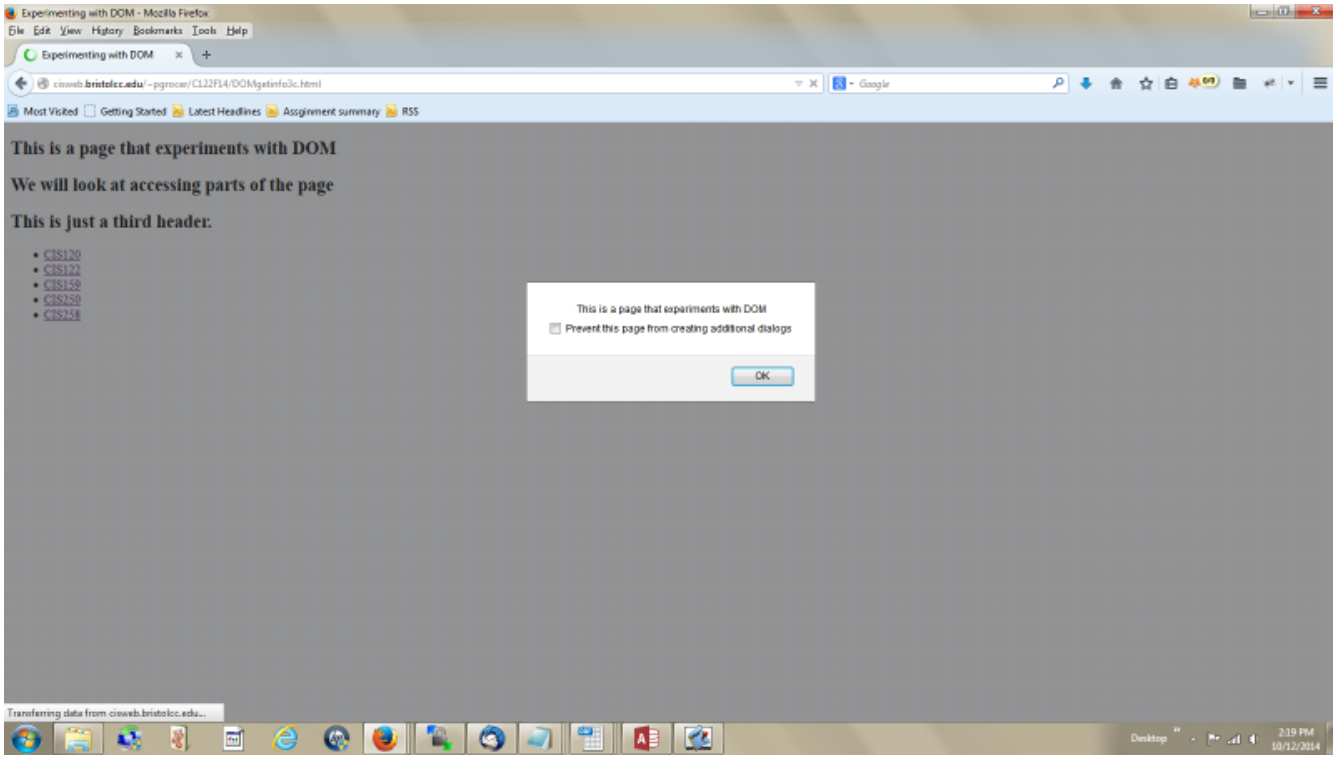
CIS258
Now I am checking for empty nodes.
7
OK
Transferring data from cisweb.bristolcc.edu...


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
Most Visited Getting Started Latest Headlines Assignment summary RSS
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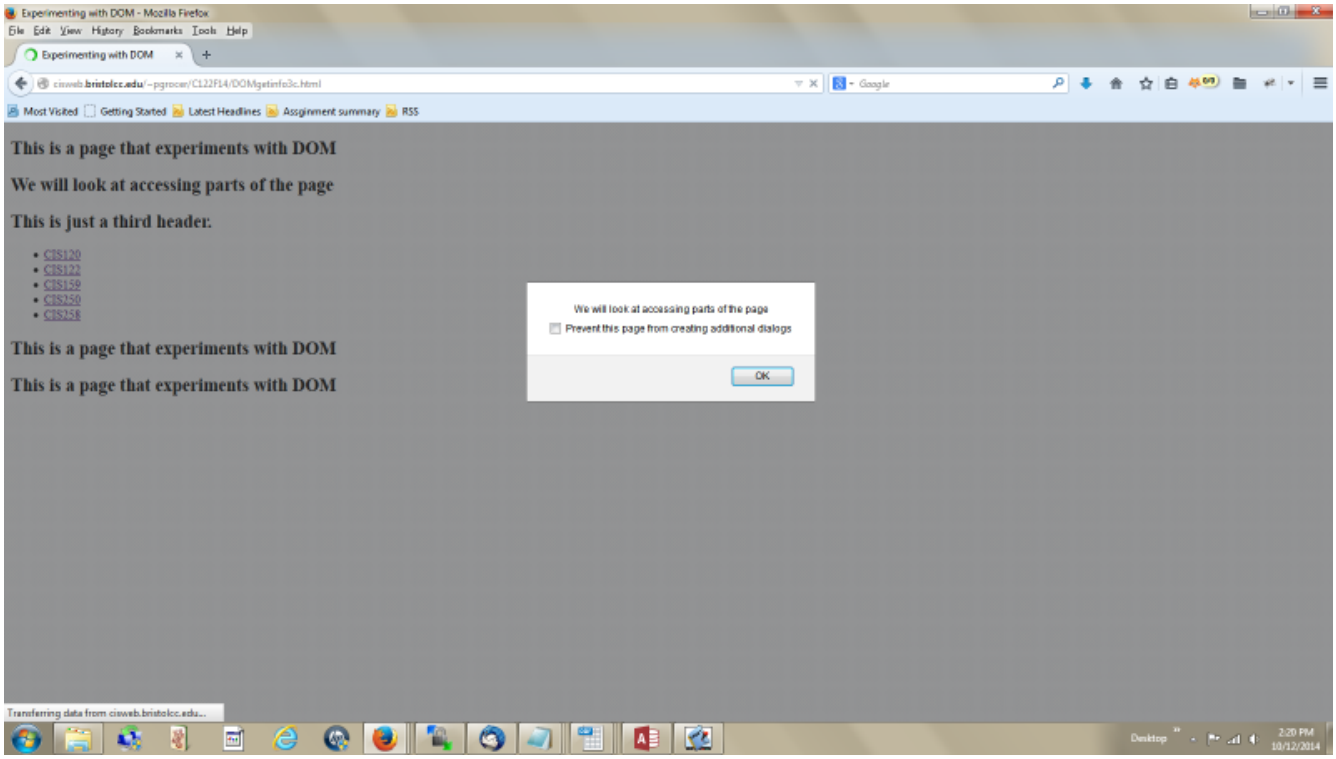
CIS120
CIS122
CIS159
CIS250
CIS258
This is a page that experiments with DOM
Prevent this page from creating additional dialogs
OK
Transferring data from cisweb.bristolcc.edu...


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
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This is a page that experiments with DOM
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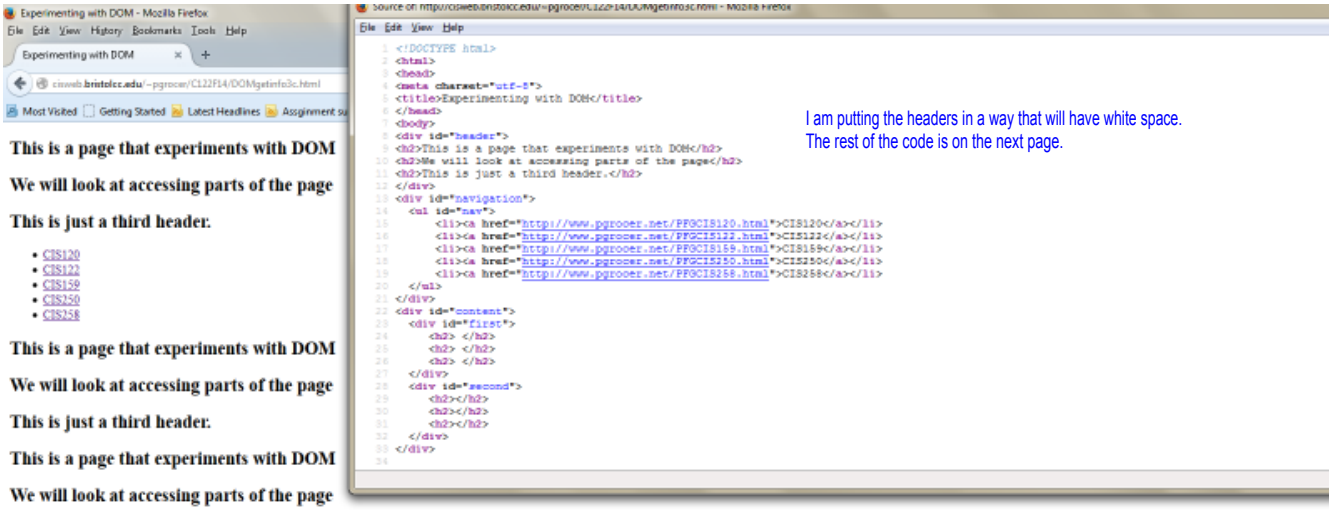
We will look at accessing parts of the page
Prevent this page from creating additional dialogs
OK


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Experimenting with DOM
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This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
File Edit View Help
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Experimenting with DOM</title>
</head>
<body>

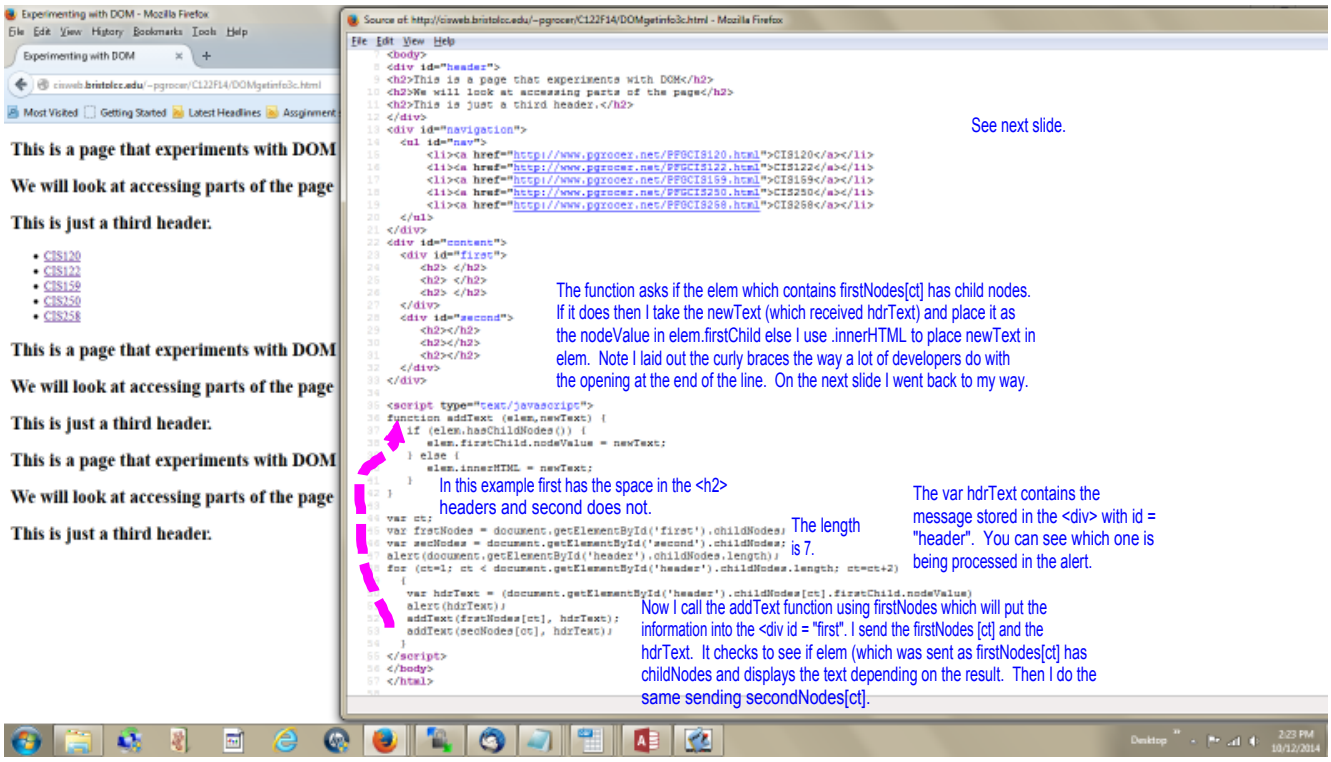
<h2>This is a page that experiments with DOM</h2>
<h2>We will look at accessing parts of the page</h2>
<h2>This is just a third header.</h2>

<ul id="nav">
CIS120
CIS122
CIS159
CIS250
CIS258

<h2> </h2>
<h2> </h2>
<h2> </h2>

<h2></h2>
<h2></h2>
<h2></h2>

I am putting the headers in a way that will have white space.
The rest of the code is on the next page.


Experimenting with DOM - Mozilla Firefox
This is a page that experiments with DOM
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CIS120
CIS122
CIS159
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CIS258
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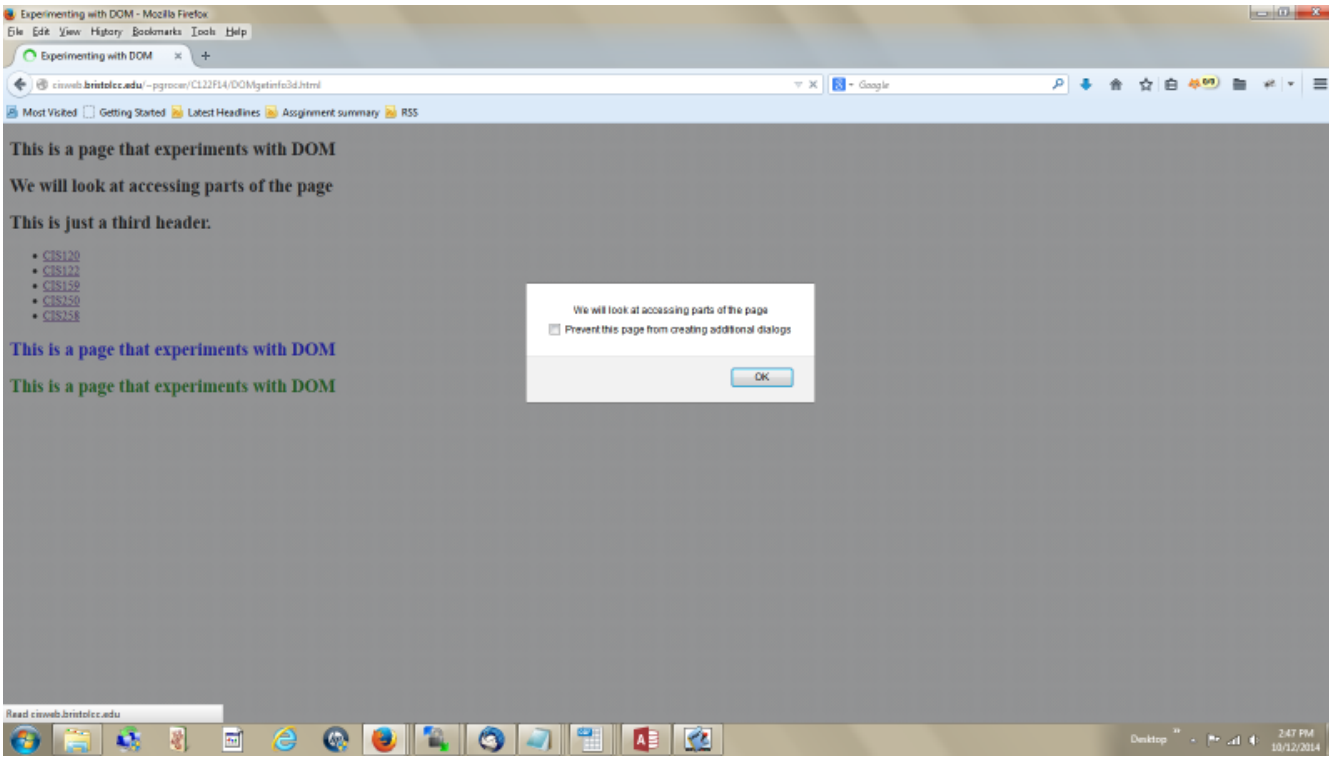
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo3c.html - Mozilla Firefox
See next slide.
The function asks if the elem which contains firstNodes[ct] has child nodes. If it does then I take the newText (which received hdrText) and place it as the nodeValue in elem.firstChild else I use .innerHTML to place newText in elem. Note I laid out the curly braces the way a lot of developers do with the opening at the end of the line. On the next slide I went back to my way.
In this example first has the space in the <h2> headers and second does not.
The length is 7.
The var hdrText contains the message stored in the with id = "header". You can see which one is being processed in the alert.
Now I call the addText function using firstNodes which will put the information into the <div id = "first". I send the firstNodes [ct] and the hdrText. It checks to see if elem (which was sent as firstNodes[ct] has childNodes and displays the text depending on the result. Then I do the same sending secondNodes[ct].


Experimenting with DOM - Mozilla Firefox
File Edit View History Bookmarks Tools Help
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Most Visited Getting Started Latest Headlines Assignment summary RSS
This is a page that experiments with DOM
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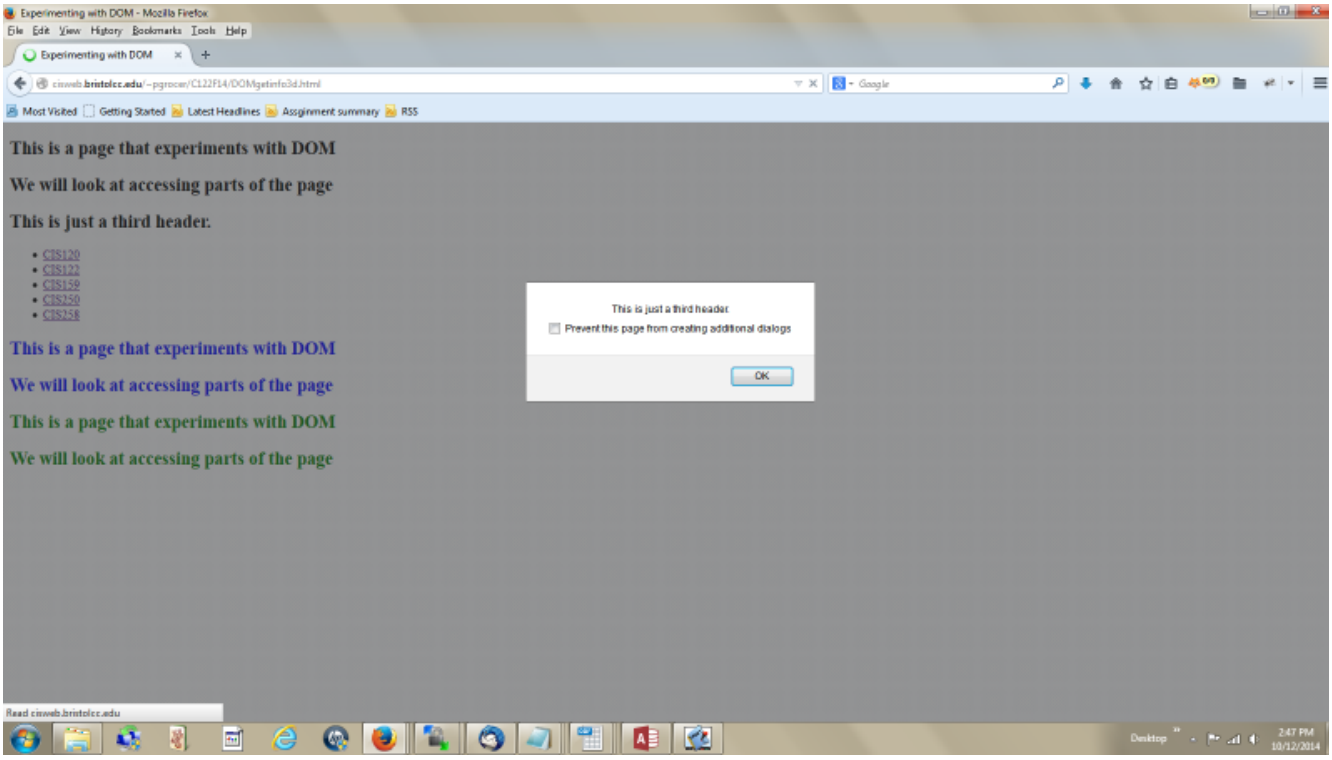
CIS120
CIS122
CIS159
CIS250
CIS258
This is a page that experiments with DOM
This is a page that experiments with DOM
We will look at accessing parts of the page
Prevent this page from creating additional dialogs
OK


Experimenting with DOM - Mozilla Firefox
Experimenting with DOM
Most Visited
Getting Started
Latest Headlines
Assignment summary
RSS
This is a page that experiments with DOM
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CIS120
CIS122
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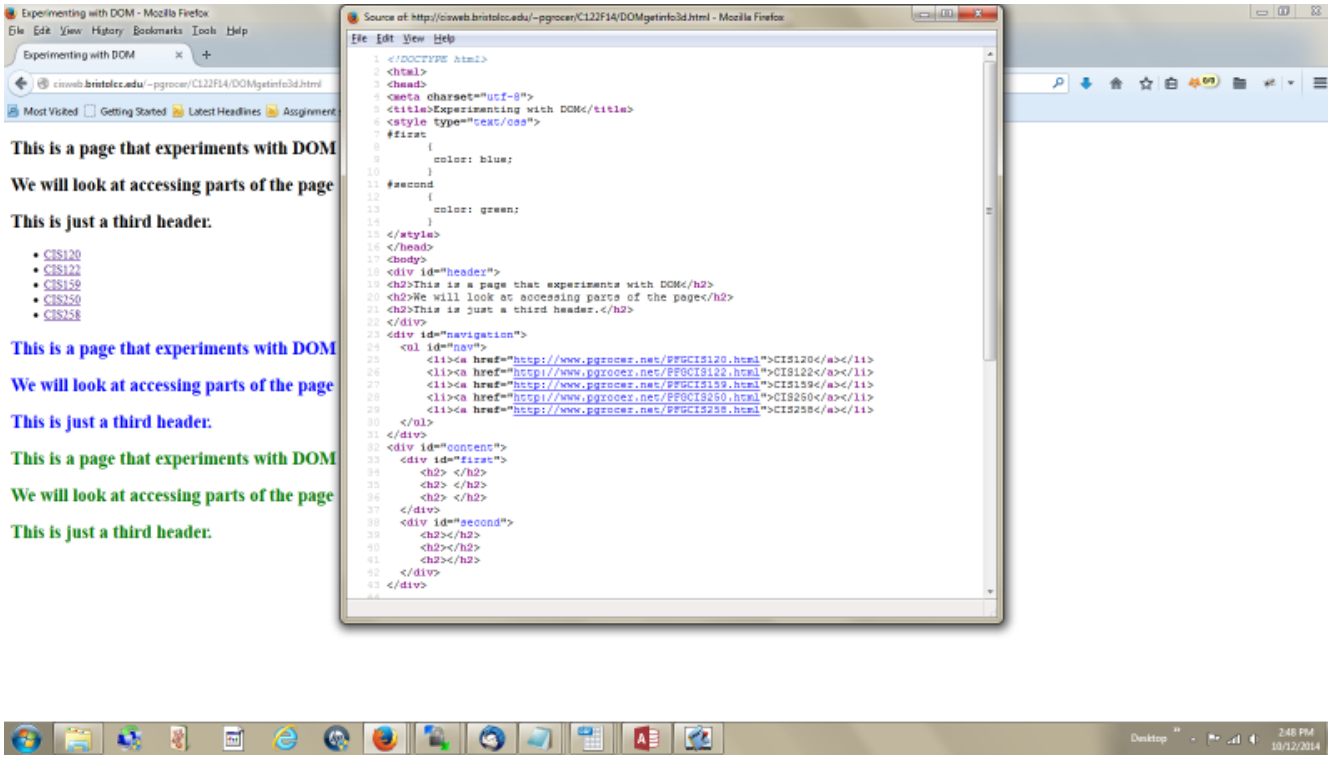
We will look at accessing parts of the page
This is just a third header.
Prevent this page from creating additional dialogs
OK


Experimenting with DOM - Mozilla Firefox
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We will look at accessing parts of the page
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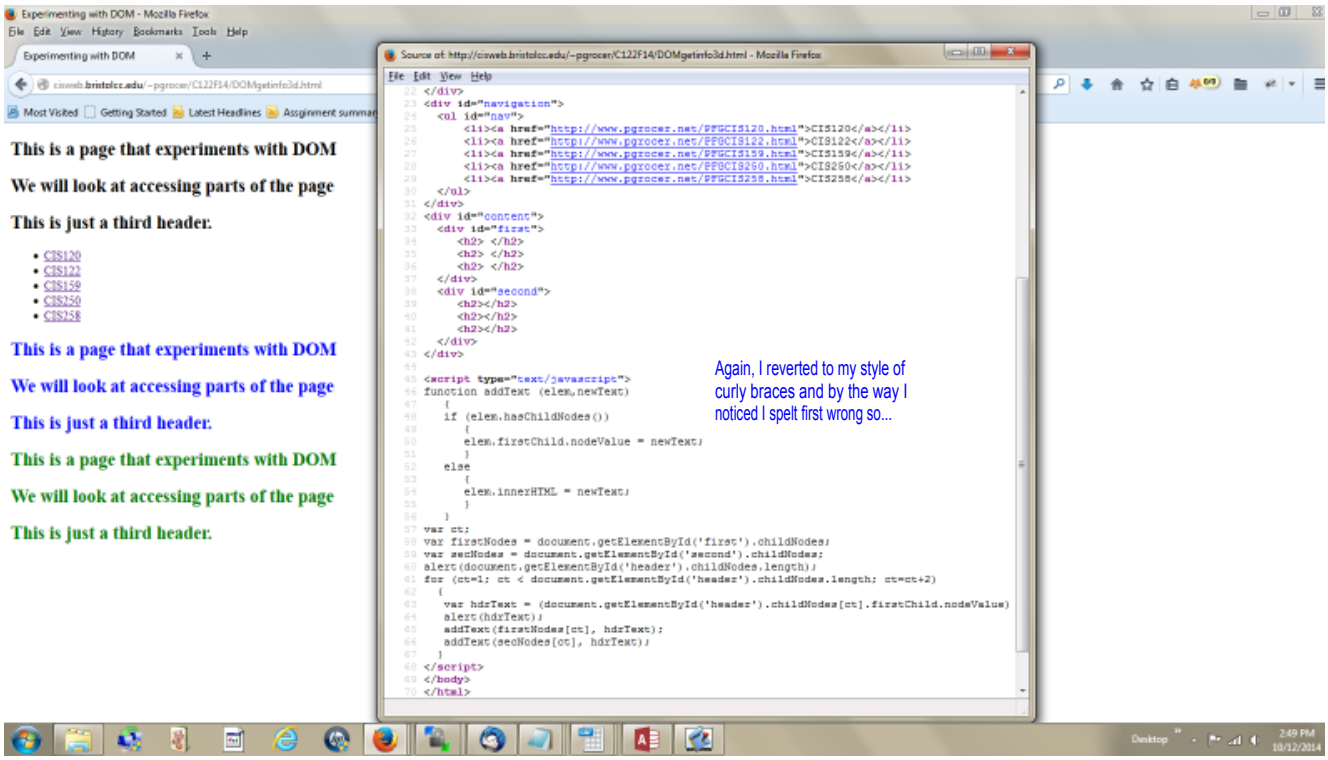
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo3d.html - Mozilla Firefox
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Experimenting with DOM</title>
<style type="text/css">
#first
{
color: blue;
}
#second
{
color: green;
}
</style>
</head>
<body>

<h2>This is a page that experiments with DOM</h2>
<h2>We will look at accessing parts of the page</h2>
<h2>This is just a third header.</h2>

<ol id="nav">
CIS120
CIS122
CIS159
CIS250
CIS258

<h2> </h2>
<h2> </h2>
<h2> </h2>

<h2></h2>
<h2></h2>
<h2></h2>


Experimenting with DOM - Mozilla Firefox
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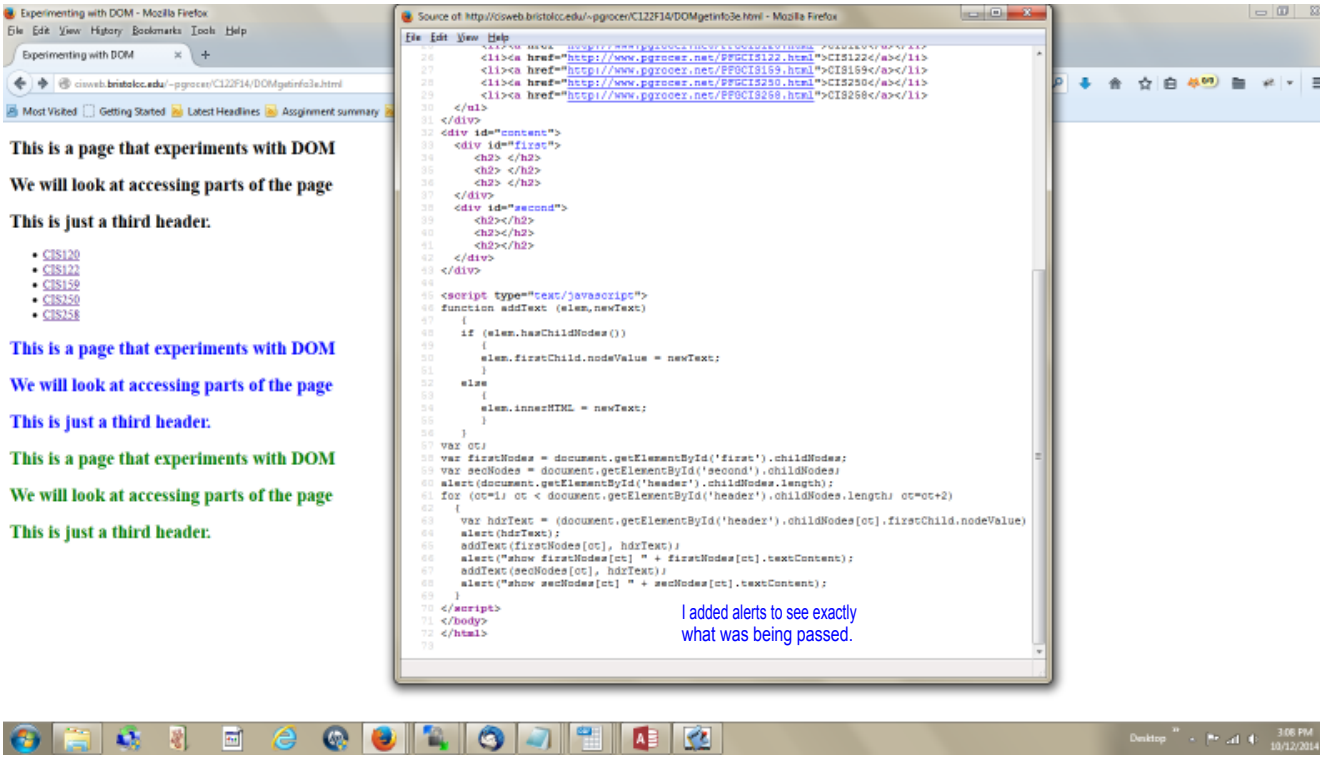
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo3d.html - Mozilla Firefox
Again, I reverted to my style of curly braces and by the way I noticed I spelt first wrong so...


Experimenting with DOM - Mozilla Firefox
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This is just a third header.
CIS120
CIS122
CIS159
CIS250
CIS258
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
This is a page that experiments with DOM
We will look at accessing parts of the page
This is just a third header.
Source of: http://cisweb.bristolcc.edu/~pgrocer/C122F14/DOMgetinfo3e.html - Mozilla Firefox
I added alerts to see exactly what was being passed.