

Homework 2 – How to Make a Link!

This week you're going to have fun making a web page "hyper". How do I do that, you ask? By creating hyperlinks. Making a document hyper means the same thing as making it interactive. The user clicks on something and something happens. Let's get started! Below is an **example** of what you're going to be doing this week. Please choose a song or poem different than the example I've provided for your Homework 2 assignment. Hyperlinks and the anchor element are discussed in Chapter 2 of your book.

When finished, you will be able to do the following:

1. Click on the Homework 2 link on your course homepage page and go to the Homework 2 assignment.
2. Click on the "Course Page" link on your Homework 2 web page and go back to your course homepage.
3. Click on any link within the Key Word Index area and jump down to an area with the web page.
4. And at the bottom of the page you will add a 'Back to the Top" link that brings you back to the top of the page.
5. Successfully validate the HTML document through the W3C validator.

ITWP1000 - Basic Web Programming This Site is for Educational Purposes Only Your Name Goes Here		Course Homepage
Web Program Homepage		<h2>Key Word Index</h2>
Homework 2	**	Look at this photograph And this is where I grew up And this is where I went to school I wonder if it's too late Oh, oh, oh Every memory of looking out the back door Remember the old arcade We used to listen to the radio Kim's the first girl I kissed Oh, oh, oh Every memory of looking out the back door I miss that town If I could I relive those days Every memory of looking out the back door Look at this photograph
Homework 3	Web Project 1	
Homework 4	Web Project 2	
Homework 5	Web Project 3	
Homework 6	Web Project 4	
Homework 7	**	
HTML5 Validation		<h2>Photograph Lyrics</h2> <p>by Nickelback</p> <p>Look at this photograph Everytime I do it makes me laugh How did our eyes get so red And what the hell is on Joey's head</p>

Section 1.0: Let the fun begin!

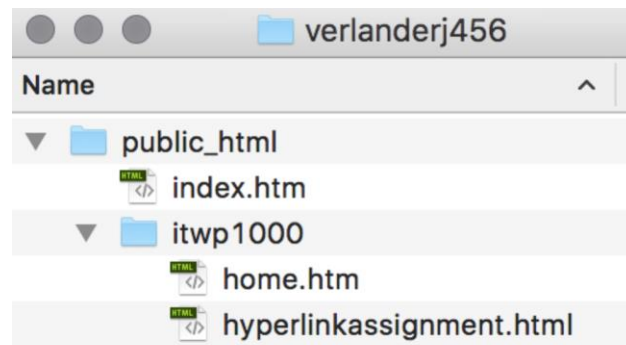
1. If you have a copy of your **home.htm** document (course homepage), you can continue on to Step 2. If not, follow the instructions below:

- a. Open up home.htm by typing your full course homepage URL: i.e.
http://www.host.macombserver.net/~yourusername/itwp1000/home.htm into a web browser.

Remember to replace the word *yourusername* with your actual User ID. If you named the home.htm file using a different name, you need to adjust your file path accordingly.

- b. When your page is visible in a web browser, click on **FILE** then **SAVE AS** and save the file onto your storage drive inside the itwp1000 folder of your User ID folder on your storage device.

For example, if a User ID folder is name verlanderj456 home.htm will be saved into the **itwp1000 folder**. Remember, you want to set up the file structure on your storage drive just like it is on the web server. This will cut down on the confusion when uploading files and it will allow you to test both locally and remotely more accurately.



- c. Save as **home.htm**.
 - d. Or, log into the web server, download home.htm from the itwp1000 folder and save it to your storage device.
2. The next step is to create the **"target"** page.
 - a. For now, create a web page in either Notepad or your favorite text editor called **hyperlinkassignment.html**.
 - b. I want you to get into the habit of including a DOCTYPE with each new web page you create.

Adding the **DOCTYPE** is essential when it comes time to validating web pages to be sure they adhere to the correct standards. Each DOCTYPE has a set of

standards. We are going to use the HTML5 DTD for all the assignments throughout this course.

3. Type the code below into your **HTML** document.

```
<!doctype html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Link Assignment</title>
</head>

<body>

<hr>
<a href="home.htm">Course Homepage</a>
<hr>

</body>
</html>
```

- a. **Save as... hyperlinkassignment.html** placing the file in the **ITWP1000** directory. If you do not have a directory (folder) named ITWP1000 or itwp1000 on your storage device, then create one now. All HTML pages must be stored in the ITWP1000 folder on the web server or they face the demise of being deleted. **The only exception is the default file that is your index.htm file (web program homepage) that is stored at the root level of the public_html folder.**
- b. Preview it within a web browser.

To preview your HTML file in a web browser, launch the browser and go to **File > Open** and browse for the file. Once you find the file, click on it to highlight it and click OK or simply double click on the HTML file and it will automatically open within your default web browser. **Or**, double click on the file and it will

open within the default web browser of the machine you are working on.

- c. When you look at the target page (hyperlinkassignment.html), **Course Homepage** is underlined AND in blue. Once it's clicked one time it then becomes purple and is called a visited link. A visited link simply means you've been there before.
- d. Clicking the link displays your course home page (home.htm).

Explanations are in order:

```
<a href="home.htm">Course Homepage</a>
```

The "a" tag is called an **Anchor Tag** and it has 3 major parts:

Part 1:

- The **href** attribute stands for **hyperlink reference**. When you want to create hyperlinks, the **href** attribute is used in conjunction with the **URL** value.
- The **URL** can be any valid web page anywhere on the web!
- If the web page is in the same exact directory, then just reference the page.
- Since hyperlinkassignment.html and home.htm are both inside the ITWP1000 folder, the relative file path is simply: **home.htm**.

See Chapter 2 about **relative** and **absolute** file paths. I try to use **relative** paths whenever possible and will be using relative pathing in this course.

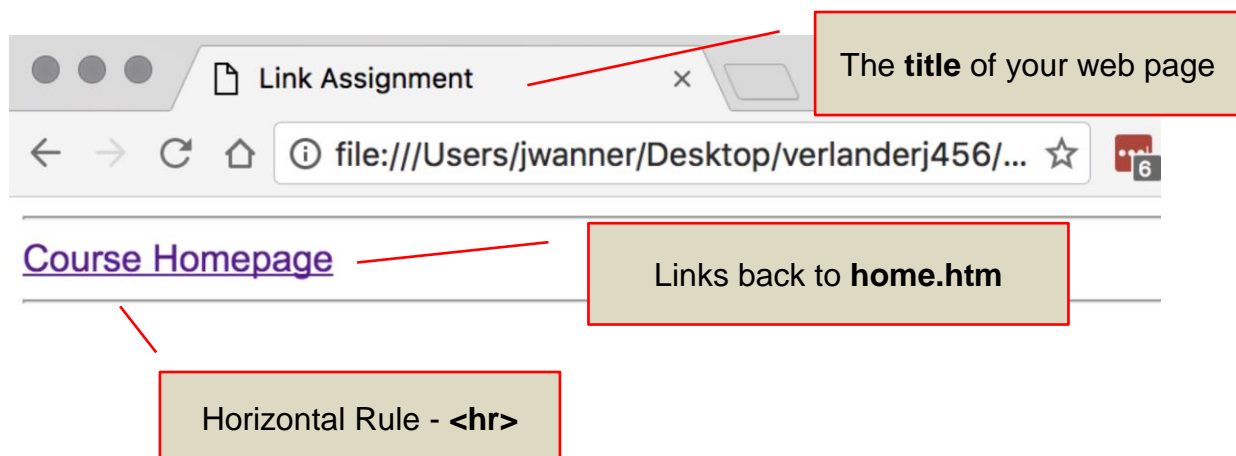
Part 2: Course Homepage

- Whatever is typed here will show up on the page as a link, that is underlined and typically in blue. The text that resides within the anchor container tag is what the user can click on.

Part 3:

- Simply is the closing anchor tag. (Forget this and your whole page text will be one giant hyperlink!)

At this point your web page should look similar to the screen shot below. Please note that different browser may produce a slightly different layout.



Section 1.1: Updating your course homepage (home.htm)

1. Open your course homepage (home.htm) in your editor and link the **Homework 2** assignment from your course homepage.
2. Locate the words **Homework 2**.

Leaving the rest of the code intact, place the following code just in front of and just behind **Homework 2** creating a hyperlink to your Homework 2 assignment:

```
<a href="hyperlinkassignment.html">Homework 2</a>
```

Reviewing the hyperlink above, you are "saying" that the file titled hyperlinkassignment.html is located within the itwp1000 folder where home.htm resides. This is a relative path to hyperlinkassignment.html.

3. Test your work!
 - a. **home.htm** links to **hyperlinkassignment.html**.
 - b. **hyperlinkassignment.html** should have the **Course Homepage** link and go back to **home.htm**.
 - c. Enter your User ID and Password and log into the web server.
 - d. Upload your course homepage (home.htm) and hyperlinkassignment.html to the **ITWP1000** folder.
 - e. From a separate browser window, enter your course homepage URL and verify that the page links are active.

Section 1.2: Targets & Anchors

Once **targets** are identified, they can be referenced using the **<a>** (anchor) tag.

1. To create a **target** within a page, use the following syntax:

```
<a id="targetname"></a>
```

- a. Note the use of the **id** attribute rather than the **href** attribute of a standard anchor tag. This is what makes it a spot within a page that you can link to.
 - b. The **targetname** is used in a regular anchor tag to indicate which target on the page we will point to.
 - c. The **targetname** value can be named whatever you want it to be but there are a few rules. Those are pointed out in Section 1:5 below.
2. Let's create an **anchor** and **target** for **hyperlinkassignment.html**. When you're done, you should have a hyperlink at the bottom of your html page that when clicked, will take the user back to the top of the page.
 3. Type the following code into your hyperlinkassignment.html document and place it within a paragraph tag (<p></p>) right before the closing body tag (</body>). Note that

the id of the anchor we're creating is TopOfPage but you can name it whatever you choose as long as the anchor and target ids match.

<p>Top of Page</p>

Make absolutely sure that the correct id of the actual target follows it. Misspellings will surely cause a disaster.

4. Now let's create the target that goes along with the anchor we just created.
5. Directly beneath the opening body tag (<body>) type the following:

6. Review the code below for **Anchor tags** and **Targets**. Your source code within your HTML document should look like this:

```
<!doctype html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Link Assignment</title>
</head>

<body>
<a id="TopOfPage"></a>
<hr>
<a href="home.htm">Course Homepage</a>
<hr>

<p><a href="#TopOfPage">Top of Page</a></p>

</body>
</html>
```

7. **Save your work.**

Section 1.3: Adding a Poem or Song Lyrics

Now it's time to add some content your web page.

1. Using your favorite search engine, locate either a long poem (with at least 7-10 stanzas) or a long song (with at least 7-10 verses). *The verses and stanzas should*

contain at least 3-5 lines of text. **You cannot use my example.**

2. Copy either the poem or song of your choice and paste the contents into your HTML document between the area shown below:

```
<!doctype html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Link Assignment</title>
</head>

<body>
<a id="TopOfPage"></a>
<hr>
<a href="home.htm">Course Homepage</a>
<hr>

(insert your poem or song here)

<p><a href="#TopOfPage">Top of Page</a></p>

</body>
</html>
```

3. Save your work.

Section 1.4: Formatting your Poem or Song

Using the instructions and example below, format your poem or song.

1. You will have to insert **
** (line break) tags at the end of each line and place **<p></p>** (paragraph tags) around stanzas or verses. See the code below as an example. Note that a **
** is not needed after the last line in each stanza or verse. The **</p>** adds that extra space.
2. Also, notice how I used a **heading 2** tag (**<h2>**) around the title of the song or poem. The heading tag bolds the text inside the container and increases the font size. A **heading tag** also adds some white space below the text.
3. I italicized the artist name of the song I chose by using the italic container tag **<i></i>**. You can do this or not, it's up to you.

Here is a portion of my example for formatting your poem or song (you must use a different song than mine if you are using a song):

<h2>Photograph Lyrics</h2>

<i>by Nickelback</i>

<p>

Look at this photograph

Everytime I do it makes me laugh

How did our eyes get so red

And what the hell is on Joey's head

</p>

<p>

And this is where I grew up

I think the present owner fixed it up

I never knew we'd ever went without

The second floor is hard for sneaking out

</p>

Some suggestions:

- Might I suggest Longfellow as a poet?
- Hiawatha is the name of a rather long poem.
- Or, The Raven by Edgar Allen Poe.

Section 1.5: Adding Targets to your Poem or Song

1. Using the example below, insert **page targets** at the beginning of each stanza or song verse. **Remember, you need at least 7 stanzas or verses with the entire poem or song totaling a minimum of 20 lines in length.**
 - a. **You can name them whatever you like** but there are some rules:
 - The name must be enclosed in quotations.
 - The name must be lowercase letters.
 - You can use numerals but the name cannot begin with a numeral.
 - You cannot use spaces within the name. If need be, use and underscore such as: t_1.

Here is an example for adding in page targets. Note the use of the anchor tag within the first line of each verse (or stanza).


```
<p>
<a id="t1"></a>Look at this photograph<br>
Everytime I do it makes me laugh<br>
How did our eyes get so red<br>
And what the hell is on Joey's head
</p>

<p>
<a id="t2"></a>And this is where I grew up<br>
I think the present owner fixed it up<br>
I never knew we'd ever went without<br>
The second floor is hard for sneaking out
</p>
```

Section 1.6: Creating the Keyword Index

1. Go to the top of your HTML document and insert the following Key Word Index code after the `<hr>` tag following the **Course Homepage** link. This creates the index section where we will insert the actual internal page links:

```
<h1 style="text-align:center;">Key Word Index</h1>
```

The above code creates the screen shot below and centers the words in page:

Key Word Index

Your code following the opening `<body>` tag should now look like this:

```
<a id="TopOfPage"></a>
<a href="home.htm">Course Homepage</a>
<hr>
<h1 style="text-align:center;">Key Word Index</h1>
<hr>
```

In a web browser it looks like this:

[Course Homepage](#)

Key Word Index

2. Go to the **Key Word Index** section within your HTML document and insert standard **anchor tags** and keywords in the Index Section directly below the code you just typed in the above step using the following example: **(Be sure to do this task for each stanza or verse.)**

Here is a shorten example of how the index section should look. Each link is the first line of each song verse. Remember, the anchor href value must match the target name exactly and don't forget the hash symbol # in front of the target name.

```
<a href="#t1">Look at this photograph</a><br>
<a href="#t2">And this is where I grew up</a><br>
<a href="#t3">And this is where I went to school</a><br>
```

Use the portion of the code below as a point of reference:

```
<body>
<a id="TopOfPage"></a>
<a href="home.htm">Course Homepage</a>
<hr>
<h1 style="text-align:center;">Key Word Index</h1>
<hr>

<a href="#t1">Look at this photograph</a><br>
<a href="#t2">And this is where I grew up</a><br>
<a href="#t3">And this is where I went to school</a><br>
```

3. Save and test frequently!
 - You should be able to click on the links in the key word index and immediately jump down the page to a particular stanza or verse. Please note that you may have to adjust your browser window to see the "page jump". If your window is too large, you will not see the effect.

- The **Top of Page** link at the bottom of your page should take you back to the top of the page when clicked.
 - The **Course Homepage** link at the top of your page should take you back to your course homepage (home.htm).
 - You should be able to click on the **Homework 2** link on your course homepage and go directly to your Link Assignment web page.
4. Following the last line break within the Key Word Index section, place another **horizontal rule** tag (<hr >).

NOTE: The target name and href of the anchor **MUST** match precisely! If your anchor is #t1 and the target name is T1, it will not work correctly.

The **Key Word Index** should look something like this (your links will read differently). Please note that is only a portion of the Key Word Index, the words "Key Word Index" are centered within the page.

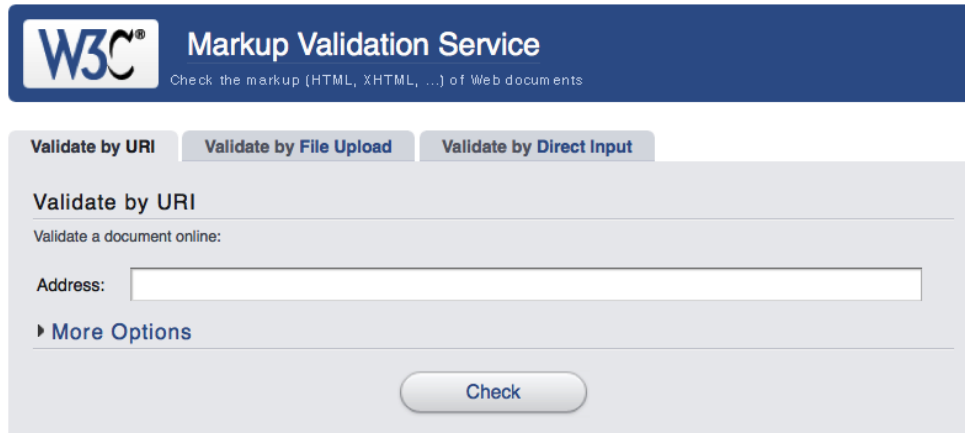
Key Word Index

[Look at this photograph](#)
[And this is where I grew up](#)
[And this is where I went to school](#)
[I wonder if it's too late](#)
[Oh, oh, oh](#)
[Every memory of looking out the back door](#)
[Remember the old arcade](#)
[We used to listen to the radio](#)
[Kim's the first girl I kissed](#)
[Oh, oh, oh](#)
[Every memory of looking out the back door](#)
[I miss that town](#)
[If I could I relive those days](#)
[Every memory of looking out the back door](#)
[Look at this photograph](#)

Section 1.7: Validating your Work (hyperlinkassignment.html)

Please complete the steps below for hyperlinkassignment.html. Once it passes validation, you will be adding a line of code for the validation link to the HTML document before the closing </body> tag. The code is included at the end of this section.

1. Open up a new browser window and type the following URL: <http://validator.w3.org/>.
2. You should be taken to the W3C Markup Validation Service website.



3. You'll notice three different ways that a web page can be validated; by URI, File Upload or Direct Input. In order to validate by URI, the file that you're validating must be uploaded to the web server. URI stands for **Uniform Resource Identifier, which** is similar to a URL. A URI can point to any resource file anywhere not just on the Internet (Chapter 1).
4. In the **Address** field type the complete URL to this assignment. This will work **only** if your document has been uploaded to the web server. Use the File Upload or Direct Input option if your work has not been uploaded to the web server.

For example:

<http://www.host.macombsserver.net/~verlanderj456/itwp1000/hyperlinkassignment.html>

5. Click the Check button.
6. If your page has successfully passed validation which means all the tags are correctly used and formatted and all the HTML structural tags are used appropriately, then you should see something like this across the top of the page:

Document checking completed. No errors or warnings to show.

Used the HTML parser.

Total execution time 259 milliseconds.

7. If it does NOT pass validation you will see the **Error indicator:**

Error

8. If it does NOT pass, a list of errors including the line number and brief description of the error will be displayed. This step requires researching the error, correcting the HTML document and revalidating the source code until passes validation.

If it passes validation, include the line of code below before the closing body tag (**</body>**) of your HTML document.

```
<p>  
  <a href="http://validator.w3.org/check?uri=referer" title="HTML 5 Validation">HTML5 Validation</a>  
</p>
```

NOTE: Please note that the above code will create a text hyperlink that reads "HTML5 Validation". Clicking on the link will display the validation page from the W3C (you must access the file via the assignment URL. Testing locally will not work). With past DTDs a validation logo is displayed, currently a validation logo icon is not available for HTML5 so we are using a hyperlink to indicate validation. Please note that it's recommended to recheck validation once the file has been uploaded to the web server after you have included the above code. Simply type in the complete URL to the web page and click on the validation link that you included.

NOTE: You may have to Google the meanings of the some of the error codes you receive. Read the description of the code carefully to correct your error(s) if you have any. Post any obscure errors to the **Help Forum** so your classmates can help out. Please do not email me with validation issues, I want them posted to the forum so everyone can participate – that's where the learning takes place. The process can sometimes take longer than development so please plan for it.

Section 1.8: Getting Credit & Uploading

After you have completed all the requirements for this assignment and you have entered all the targets and links...and your page works, you need to upload the HTML document to the web server if you have not already done so.

- Be sure that you upload **hyperlinkassignment.html** to the **ITWP1000** folder.
 - Be sure to upload **home.htm** to your itwp1000 folder again, since you have updated it to link to **hyperlinkassignment.html**.
 - Remember that home.htm will always be located within the itwp1000 folder of your account folder on the web server and you will be updating each week to link to your completed assignments.
1. Log in to the Canvas classroom.
 - a. Click on the **Modules** link within the side navigation bar.
 - b. Click on **Module 2** and locate the **Module 2 – Homework 2** link.
 - c. In the comments area let me know you are finished and your assignment is ready for grading, "my work is ready for grading" will do just fine.
 - d. **Supply me with your course homepage URL.**
 - e. Please note that you will not be attaching your completed assignment to the drop box assignment area but rather uploading it to the web server where I will access it. It is not necessary to attach any files. **The file attachment has been disabled for this assignment drop box since you will be uploading your work to the student web server.**
 - f. Once you have submitted notification and your work has been graded, you cannot resubmit for a better grade, the original grade remains as is.

Please be sure to test the links to your work. Test access to your assignment from your course homepage to be sure everything is correctly hyperlinked and in working order. If I cannot access your work, I cannot grade it. The result will be a zero for the assignment.

Please review the Weekly Schedule for other required assignment(s) due this week.

*Grades will be assigned within the limits of the grading policy. Points listed within the Value column of the rubric below are the maximum number of points you can receive if your work is 100% correct. Incorrect work may receive zero through the maximum point value range listed within the Value column. **Late work is not accepted. The appropriate assignment submission area(s) will be closed at the time of assignment's due date. Email attachments of any assigned submitted work will not be accepted.***

Please review the course Late Policy with the Syllabus (First Day Handout).

*The poem or song you choose must contain at least **7 stanzas or verses** with the entire poem or song totaling **20 or more lines of text in length** and the **Key Word Index** must contain at least **7 or more hyperlinks** (one for each stanza or verse). You cannot use the song used in the example shown above.*

Homework 2 Grading Rubric

Criterion	Value
Created html document including the HTML5 DOCTYPE declaration. Syntax must be correct.	2.5
Inclusion of all instructed web page elements. This includes all horizontal rules, headings, Key Word Index and "back to top" and homepage links. Syntax must be correct.	5
Correctly used HTML tags including the three basic structural container tags (html, head & body). Syntax must be correct.	5
Correctly functioning anchor and target tags. At least 7 stanzas or verses with the entire poem or song totaling 20 or more lines of text) and at least 7 or more hyperlinks within the Key Word Index. Syntax must be correct.	15
Correctly hyperlinked back to your student homepage. Syntax must be correct.	2.5
Successfully validated HTML document and included validation code. This includes the HTML5 link to the validated page on the W3C site as stated in the assignment instructions. The link must be present within the footer of your Web page and it must display the W3C validation web page indicating successful validation of your document.	5
TOTAL POSSIBLE POINTS	35