

Web Design

You will create a single web page and later a multi-page web site on a flash drive. You can also store your materials on one or more computers and perhaps eventually on a web server where it will be publicly visible. But keep track of the flash drive, which you'll eventually turn in to your teacher.

The basic steps we will go through will be on a series of handouts and will extend over several classes. The checklist of items to turn in for the 2nd term also gives a brief overview of what will need to be done, but starting with this handout, you will get more detail.

Web Design Part 1

1. Make a storyboard (a basic layout plan) for a web page including a title, headings, paragraphs, and at least two lists (for example, favorite books or favorite hobbies).
2. Make an initial web page including the content from your storyboard. If you envisioned some complicated layout features, simplify it for now. Create your web page by using Notepad (generally available in the "Accessories" folder from "All Programs" on the Start Menu of Windows computers. Make your web page look exactly like this but with your own document title and your own document content:

```
<!DOCTYPE html>
<html>
<head>
<title>Title of the document</title>
</head>

<body>
The content of the document.....
</body>

</html>
```

That is, type exactly what you see above, but change the part between <title> and </title>, and change the part between <body> and </body>. Note that the title is something that will appear in the upper bar of the browser window, not in the main part of the page; you might want to repeat this title or some version of it as the first thing in the body of your page.

(The style used above for the DOCTYPE declaration (first line) is to fit the new HTML standard referred to as "HTML 5". Some browsers may not yet support all features of HTML 5, but this is probably the best framework for you to be thinking about, and everything else we put in our pages in this class should be basic enough to work in any browser.)

You may notice that different "elements" in the page are enclosed by matching tags at the beginning and the end, the first *without* a slash and the second *with*. Do not use < or > except for tags. Also, sections may be contained inside one another (such as the head and the body being contained within the html, and the title within the head), but a section won't overlap another except when it is completely contained or containing.

3. Save your web page in an a file on your flash drive using the "File" pulldown menu in Notepad. **Use an appropriate name ending in ".html" and containing *no* spaces.** (I always recommend on Windows machines to uncheck the box for "Hide extensions for known file types" that you will

find in Windows Explorer by starting from “My Computer” and going to “Tools” and then “Folder Options” and then “View”. This will make it easier for you to be sure of the full name of each of your files.) You may have to hit a button to “browse folders” and then go to “My Computer” and then to an entry with a label like “USB Disk (E:)”.

You can now view this page in a browser. It’s ok if you leave Notepad open, but you’ll want to minimize it to get it out of the way while you find the file you just saved to (e.g., going from “My Computer” on the Start menu to “USB Disk (E:)). When you find the .html file you have saved, you can right-click on it and use “Open With” to open with a browser such as Internet Explorer, Mozilla Firefox, or Google Chrome. You should find all your content in a big mush (except the title in the upper bar of the browser), so we’ll proceed to improve that.

4. Go back into your page in Notepad and add additional HTML tags that will improve the formatting. Specifically, each heading should be surrounded by tags that look like `<h1>` and `</h1>` (or `<h2>`, and `</h2>`, etc. for smaller and smaller subordinate headings). Notice how there is a tag at the beginning that does not contain a slash and then a corresponding tag at the end that does contain a slash. Next, do the same thing for each paragraph in your page but with the tags `<p>` and `</p>`. (Browsers will generally let you get away without the closing tag on paragraphs, but it is better to be in the habit of always pairing these tags.) Note that there are no numbers in the `<p>` and `</p>` tags, and you can use the same tag as many times as you want. Meanwhile, the headers get smaller and smaller as you go from `h1`, to `h2`, . . . , to `h6`. But you can have as many headers as you wish that are of type `h1`, as many as you want of type `h2`, etc.

Now open the file with your web browser again, or if your web browser is still running, just go there and refresh the page. Hopefully the page will look nicer now, but your lists will probably still look pretty ugly.

5. Experiment with adding the tags `
`, which creates a line break, and `<hr />`, which creates a horizontal rule (line). These tags do not come in pairs; browsers will generally allow you to omit the space and slash, but it is best form to include them. Use these tags to neaten up your lists. (There are also other tags that can be used for lists; we’ll see that later.)
6. Include at least two hyperlinks in your web page. (This is the name for things that you click on in the web browser to go to another page.) Since you only have one web page of your own right now, you will need to make these hyperlinks go to other existing pages on the web. The form for a hyperlink is basically to surround the text that appears in the link with the tags `<a>` and `` (“a” for “anchor”). But the opening tag will need to also include what is referred to as an attribute; specifically you must specify a value for the `href` attribute that indicates what web page to go to when the link is clicked. Thus the opening tag will look like this: `` where you will need to replace “URL” with the appropriate web address (uniform resource locator). The URL is what you would type in the top of your browser to visit a chosen web page, for example something like `http://google.com`. Open your web page in your browser, and make sure the links work as desired. A full example of something you might type for a hyperlink and surrounding text is this:

```
I love <a href="http://www.cityofchicago.org">the city of Chicago</a>, even its winters.
```

When you do this, the text displayed in your page will be “I love the city of Chicago, even its winters.”, but the words “city of Chicago” will be displayed in a special way (e.g., different color and underlined), and clicking on it will take you to the page at `http://www.cityofchicago.org`.