

# Web Programming Step by Step

## Lab 1: Basic HTML and CSS

*original lab idea and code by Victoria Kirst and Jeff Prouty; revised by Brian Le and Marty Stepp*

The purpose of this lab is to practice writing basic web pages with HTML and CSS and uploading them to the Web.

### Lab 1 Resources

- Lecture slides in Moodle
- Web Programming Step by Step textbook Ch. 2 and Ch. 3 section 3.1
- Solution to this lab, so you can see how your page is supposed to look and work

### Exercises for Lab Day (today):

1. "About Me" page
2. Style Your Page with CSS
3. Validate Your Page
4. Advanced Style Techniques
5. Favorite Movie
6. Decrementing ol
7. Upload Your Page to the Web

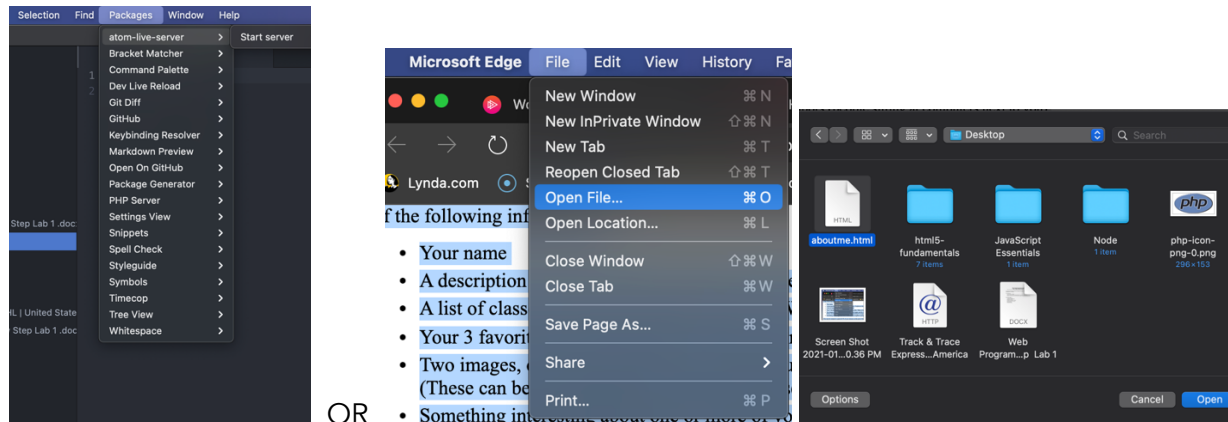
### Exercise 1: About Me Page (roughly 20-25 minutes)

Create a page named aboutme.html that describes you. (If you are using your computer, you can do this using the **Atom** editor.) On your page, include some or all of the following information:

- Your name
- A description of yourself in two sentences or less. Emphasize the most important word(s) by putting them in bold.
- A list of classes you are taking right now at UW.
- Your 3 favorite movies, books, or TV shows, in order. Make at least one link to an interesting site about that tv show/movie/book, such as its [IMDB](#) page.
- Two images, one that represents you when you're happy and the other to represent you when you're sad.  
(These can be any images you like. Consider searching for images on [Google Image Search](#))
- Something interesting about one or more of your neighbors (people sitting at computers next to you)

(You may be tempted to spend all 50 of your minutes on this part of the lab. But try to keep the page somewhat short so that you can attempt some of the other exercises.)

To see your page in the web browser, in Atom click **Packages, atom-live-server, Start server**. Or in your web browser, click **File, Open File...** and browse to your aboutme.html page file to open it.



Write your page using valid XHTML 1.1. Include a link from your page to the W3C XHTML Validator, using the following image and linking to the following site:

- image: <http://www.w3.org/Icons/valid-xhtml11>
- site: <http://validator.w3.org/check/referer>

The next task will be to write a stylesheet for your page, so also include a link to the W3C CSS Validator, using the following image and linking to the following site:

- image: <http://jigsaw.w3.org/css-validator/images/vcss>
- site: <http://jigsaw.w3.org/css-validator/check/referer>

For example, the following About Me page describes textbook coauthor, Victoria Kirst (between, but not including, the thick black lines):

## About Victoria Kirst

My name is Victoria and I am **jolly**, **clumsy**, and **four-eyed**.

## My Classes This Quarter

- CSE 451 - Operating Systems
- CSE 471 - Computer Design and Organization
- PHYS 121 - Physics: Mechanics
- CSE 498 - Research w/ Prof. Luis Ceze

## My Favorite Movies

*(I actually don't watch too many movies, so...here goes!)*

1. The last 30 minutes of Forrest Gump ([IMDB](#))
2. Star Trek Episode V with Zazu ([IMDB](#))
3. Fight Club (not really, but I've seen like 3 movies total so this is my 3rd fave by technicality) ([IMDB](#))

## Exercise 2: Style Your Page with CSS (roughly 15 minutes)

Create a stylesheet named `aboutme-style.css` to improve the appearance of your About Me page. Your stylesheet should do the following without any modification to your HTML code:

- Change the color of at least two elements
- Change the font properties of at least two elements (such as family, size, weight, style).  
Here are some standard fonts you may want to use:  
Arial, Arial Black, Verdana, Trebuchet MS, Georgia, Tahoma, Courier New, Times New Roman
- Change at least one other thing of your choosing (such as background color, text alignment, etc.)

For example, this is Victoria's styled version of her page in Exercise 1 (between, but not including, the thick black lines):

# About Victoria Kirst

My name is Victoria and I am **jolly**, **clumsy**, and **four-eyed**.

## My Classes This Quarter

- CSE 451 - Operating Systems
- CSE 471 - Computer Design and Organization
- PHYS 121 - Physics: Mechanics
- CSE 498 - Research w/ Prof. Luis Ceze

## My Favorite Movies

*(I actually don't watch too many movies, so...here goes!)*

1. The last 30 minutes of Forrest Gump ([IMDB](#))
2. Star Trek Episode V with Zazu ([IMDB](#))
3. Fight Club (not really, but I've seen like 3 movies total so this is my 3rd fave by technicality) ([IMDB](#))

## My Moods



Happy:



Sad:

### Exercise 3: Validate Your Page and CSS (roughly 10 minutes)

Next, validate your HTML and CSS code to make sure they match the strict XHTML 1.1 specifications. To run the validators, do the following:

1. Open <http://validator.w3.org/> (for XHTML) or <http://jigsaw.w3.org/css-validator/> (for CSS)
2. Click Browse in the Validate by File Upload section
3. Locate the local file and click Open
4. Click Check
5. If there are any errors, fix the first one, then repeat steps 1 through 4.

The key thing is to get the green bar saying that your page is valid XHTML. If you see any yellow warnings about being *tentatively* valid, this is okay. Red errors are not okay.

### Exercise 4 (advanced): Advanced Style Techniques

If you manage to complete the first four exercises before lab time is up, edit your stylesheet to also do the following:

- Your hyperlinks should not have an underline by default. When a user hovers over the link, the underline should appear.  
*Hint:* The property you are looking for is a type of CSS pseudo-class.
- Every paragraph should start with a drop-caps that is 1.5 times the size of the normal paragraph font size.  
*Hint:* The property you are looking for is a type of CSS pseudo-element.

These are techniques that we have not covered in class, so you will need to use Google or a CSS reference such as [W3Schools](http://www.w3schools.com) to figure out how to get this done. Once again, you should be able to make these stylistic changes without modifying your HTML.

For example, these are snippets of TA Victoria's updated page, showing links and drop-caps (between, but not including, the thick black lines):

Links: (hover is not shown)

2. Star Trek Episode V with Zazu ([IMDB](#))
3. Fight Club (not really, but I've seen like 3 movies total so this is my 3rd fave by technicality) ([IMDB](#))

Drop-caps:

My name is Victoria and I am jolly, clumsy, and four-eyed.

### Exercise 5 (advanced): Favorite Movie

Choose one of the favorite movies or TV shows you listed and look it up on [imdb.com](http://imdb.com). In your aboutme.html, reproduce some of the content of the IMDB page in a *nested list* under the chosen movie's bullet.

- IMDB contains a lot of information in short topic: → value pairs, such as Genre: Comedy. Information where a word or phrase is associated with some information is a good candidate for an HTML element called a *definition list*.
- Definition lists will not be covered in lecture, though they are mentioned briefly in the textbook in Ch. 2 (slides in Moodle).
- Nested lists have not been covered in lecture yet, though they are mentioned in the textbook in Ch. 2 (slides in Moodle) and in our lecture slides ([slides](#)).
- You may also want to use Google or a reference such as [W3Schools](http://W3Schools) for more information about how to use these HTML structures.

For example, this is Victoria's new Favorite Movies list (between, but not including, the thick black lines):

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#### My Favorite Movies

*(I actually don't watch too many movies, so...here goes!)*

1. The last 30 minutes of Forrest Gump ([IMDB](#))

**Director**

Robert Zemeckis

**Genre**

Comedy / Drama / Romance ([more](#))

**Tagline**

The world will never be the same once you've seen it through the eyes of Forrest Gump.

**Plot Outline**

Forrest Gump, while not intelligent, has accidentally been present at many historic moments, but his true love, Jenny, eludes him. ([more](#))

2. Star Trek Episode V with Zazu ([IMDB](#))

3. Fight Club (not really, but I've seen like 3 movies total so this is my 3rd fave by technicality) ([IMDB](#))

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### Exercise 6 (for extra credit): Decrementing ol

Modify your About Me page to have your Top 3 movies or tv shows list in decreasing order, starting at 3 and counting downward to 1. The format of the list must look exactly the same as the default format of an ordered list, simply in reverse order. The only change you may make to your HTML is to switch the order of your list items, but otherwise all work must be done by CSS. We aren't going to give you any hints at all; you must figure it out on your own, using the web.

**Note: This is very tricky!** Exercise 7 is only meant for those who are already proficient in CSS, and it is in no way something that majors, or non-majors will be expected to do in this course. For example, this is Victoria's decrementing Favorite Movies list (between, but not including, the thick black lines):

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## My Favorite Movies

*(I actually don't watch too many movies, so...here goes!)*

3. Fight Club (not really, but I've seen like 3 movies total so this is my 3rd fave by technicality) ([IMDB](#))
2. Star Trek Episode V with Zazu ([IMDB](#))
1. The last 30 minutes of Forrest Gump ([IMDB](#))

**Director**

Robert Zemeckis

**Genre**

Comedy / Drama / Romance ([more](#))

**Tagline**

The world will never be the same once you've seen it through the eyes of Forrest Gump.

**Plot Outline**

Forrest Gump, while not intelligent, has accidentally been present at many historic moments, but his true love, Jenny, eludes him. ([more](#))



### Exercise 7: Upload Your Page to Moodle (roughly 10 minutes)

~~Follow your instructor's directions for how to upload your page to your student web server. Verify that you did this successfully by viewing your page in the web browser. For this exercise, you will upload your files to Moodle when done. You can test the files in atom-server-live on your own computer. We will get a Synology NAS server up and running next week, I hope.~~

The deliverables to submit are:

- aboutme.html
- main.css