
COMD 2451 Web Design I

— Week 3: Introduction to HTML —

Instructor: Jay Van Buren

Special thanks to Noreen Whysel for use of this slideshow

Reminder: Important Links

You can find all homework assignments, presentation decks and readings at the Openlab:<https://openlab.citytech.cuny.edu/web-1-spring-2022-van-buren/blog/>

After class, please upload your HTML file to your own website, and then link to it from the Week 3 homework post on the class website on openlab

Email me with any questions: JVanBuren@citytech.cuny.edu

Opportunities

Membit & CityTech partnership

Week 2 Review

Last week we learned	You should know...
How to configure a website	DNS, Nameservers, Web Host, Domain Host
Tools we will use in class	Text Editor (TextEdit, Notepad), Brackets,
How to upload files via FTP or web host's File Manager	File Transfer Protocol - Filezilla
Ideation and Design Discovery Tools	Sketching, Lists, Mind Map, Affinity Mapping, Mood Board
Basic HTML	Anchor tags and image tags

Week 3

This week we will learn

- More HTML
 - Elements and Attributes
 - HEAD, META Tags, Title
 - Common formatting elements
- XHTML and good coding form
- LAB: w3schools.com

Handout: HTML Cheatsheet

<https://web.stanford.edu/group/csp/cs21/htmlcheatsheet.pdf>

What is HTML?

HTML W3C Specification

- HTML is HyperText Markup Language
 - A Markup Language is Structural and Semantic
 - A Programming Language is Functional
 - <https://www.w3.org/standards/webdesign/htmlcss>
 - <https://www.w3.org/TR/html52/>
- Resources for Learning HTML:
 - Reading: Learning Web Design, Chapter 4:
<http://bit.ly/COMD2451-Whysel-Wk3-Robbins>
 - Learn HTML:
<https://www.w3schools.com/html/default.asp>

HTML W3C Specification



spec·i·fi·ca·tion

/,spesəfē'kāSH(ə)n/

noun

an act of describing or identifying something precisely or of stating a precise requirement.

"give a full specification of the job advertised"

synonyms: statement, stating, naming, identification, definition, defining, describing, description, setting out, setting down, framing, itemizing, designation, designating, detailing, listing, spelling out, enumeration, enumerating, particularizing, cataloguing, citing, instancing;
[More](#)

- a detailed description of the design and materials used to make something.

synonyms: instructions, stipulations, requirements, conditions, provisions, restrictions, provisos, guidelines, parameters, order; [More](#)

- a standard of workmanship, materials, etc., required to be met in a piece of work.
"everything was built to a higher specification"

Cheat Sheets

Stanford HTML Cheat Sheets describes what each element does:

<https://web.stanford.edu/group/csp/cs21/htmlcheatsheet.pdf>

W3C provides a Cheat Sheet where you can enter an element or attribute to see what it does:

<https://www.w3.org/2009/cheatsheet/>

Elements and Attributes

Elements

An **element**, serves as a container for markup. Most elements are composed of two tags, an “**open**” tag and a “**close**” tag.

```
<html> ... document contents ... </html>
```

Elements without a closing tag must be closed with a forward slash. Some common elements that only have an open tag:

`
` - line break

`<hr />` - horizontal rule

`` - image

Elements

The element applies only to the content between the open and close tags.

The following sentence contains two elements, a Paragraph element `<p>` and a Bold element ``.

```
<p>The team leader is <b>Jerry</b>. He is the project manager.</p>
```

Renders as:

The team leader is **Jerry**. He is the project manager.

Attributes

Most elements have one or more attributes that describe the element.

Attributes are written as name-value pairs inside the angle brackets of the opening tag.

```
<p width="500px"> ... paragraph text ... </p>
```

```
<a href="http://www.example.com">Example</a>
```

```

```

Major Elements

<html>

The <html> tag indicates that the document is written in HyperText Markup Language.

```
<html> ... some content ... </html>
```

The <HTML> element requires a closing tag.

<head>

The <head> element contains other elements that have instructions for the browser or client server.

```
<head> ... some content ... </head>
```

The <head> element requires a closing tag.

Common elements in <head> are:

<title>

<meta>

<script>

<style>

<link>

<title>

The <title> element contains a string that will be used as a title in the browser window or tab. It is also used by search engines to indicate the title of the page. Be sure it is descriptive.

```
<title>Page Title</title>
```

```
<title>My Portfolio</title>
```

```
<title>Noreen Whysel: Portfolio</title>
```

MyPortfolio - Login Page

<https://myportfolio.umm.edu/MyChart> ▾

Communicate with your doctor Get answers to your medical questions from the comfort of your own home; Access your test results No more waiting for a phone call or letter – view your results and your doctor's comments within days

MyPortfolio | University of Maryland Medical Center

<https://www.umms.org/ummc/patient-portal> ▾

Jan 01, 2014 · The MyPortfolio Patient Portal at UMMC is a convenient and secure health-management tool you can use anywhere you have access to the Internet. With the MyPortfolio Patient portal, you can track your visit history, view lab and radiology results, review your discharge instructions, and much more to come in the future. It's free, secure, and easy to use

MyPortfolio Log In

<https://myportfolio.emscorporate.com>

Username: Password:

<meta>

The <META> element contains instructions for the browser or client server.

```
<meta name="description" content="describe the content of the web page." />
```

MyPortfolio - Login Page

<https://myportfolio.umm.edu/MyChart> ▾

Communicate with your doctor Get answers to your medical questions from the comfort of your own home; Access your test results No more waiting for a phone call or letter – view your results and your doctor's comments within days

MyPortfolio | University of Maryland Medical Center

<https://www.umms.org/ummc/patient-portal> ▾

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<meta> -More meta

The <meta> element has attributes for many metadata fields.

```
<meta charset="utf-8" />

<meta name="description" content="describe the web page content." />

<meta name="keywords" content="web design, portfolio, photography" />

<meta name="author" content="Noreen Whysel" />

<meta name="viewport" content="width=device-width, initial-scale=1.0">

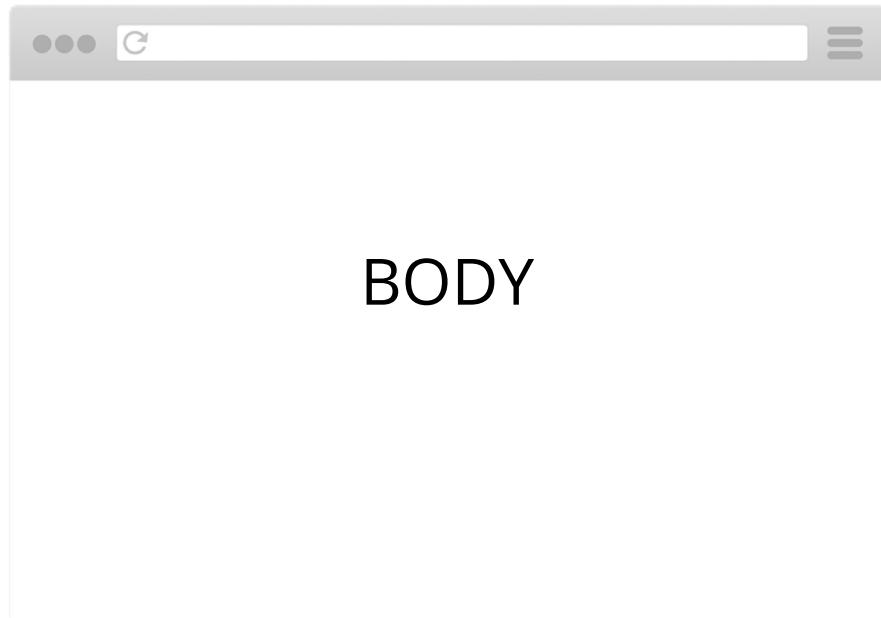
<meta name="google-site-verification"
content="+nxGUDJ4QpAZ5l9Bsjdi102tLVC21AIh5d1N123908vVuFHs34=" />
```

<body>

The <body> element contains all of the content that is rendered in the browser.

```
<body> ... some content ... </body>
```

The <body> element requires a closing tag: </body>



Block and Inline Elements

There are two kinds of text elements in HTML.

Block Elements are treated like a stand-alone block of content and create a new line.

`<p>` and `` are examples of **block** elements.

Inline Elements occur within a block and do not create a new line.

`` and `<hr>` are examples of **inline** elements.

Block and Inline Element Examples

Block Element `<p>`:

```
<p>Please be patient.</p><p>We  
will begin shortly.</p>
```

Please be patient.
We will begin shortly.

Inline Element ``:

The team leader is `Jerry`.

The team leader is **Jerry**.

Headings <h1> <h2> <h3> <h4> <h5> <h6>

The heading elements identify six hierarchical levels of headings within the body of a page.

<h1>Heading</h1>

Heading

<h2>Heading</h2>

Heading

<h3>Heading</h3>

Heading

<h4>Heading</h4>

Heading

<h5>Heading</h5>

Heading

<h6>Heading</h6>

Heading

Paragraph

The `<p>` element creates a paragraph block.

`<p>`In 2010, a study by Maibach found that 54% agreed that global warming is happening. But by 2017 a full 90% agreed that climate crisis is happening, and 80% indicated it was human-caused.`</p>`

`<p>`“There’s been an enormous shift,” he said.`</p>`

In 2010, a study by Maibach found that 54% agreed that global warming is happening. But by 2017 a full 90% agreed that climate crisis is happening, and 80% indicated it was human-caused.

“There’s been an enormous shift,” he said.

Bold and Italic

The `` and `<i>` elements add these styles to the content.

`Bold`

Bold

`<i>Italic</i>`

Italic

The following elements apply **semantic structure** to an *Italic* style:

``

Important information

``

Emphasis, or indicating subtle change of meaning

`<cite>`

Referring to a citation of a source

Superscript and Subscript

The `<sup>` and `<sub>` elements add superscript and subscript styles.

```
<p>Today is the 19<sup>th</sup> of February.</p>
```

Today is the 19th of February.

```
<p>The amount of CO<sub>2</sub> in the atmosphere is growing.</p>
```

The amount of CO₂ in the atmosphere is growing.

Line Breaks and Horizontal Rules

The `
` element adds a line break and `<hr>` adds a horizontal rule.

```
<p>Fish Tacos<br>Three wahoo tacos served in warm corn tortillas with  
tomatoes and lettuce.</p>
```

Fish Tacos

Three wahoo tacos served in warm corn tortillas with tomatoes and lettuce.

```
<p>Menu Items<hr>Lunch<hr>Dinner</p>
```

Menu Items

Lunch

Dinner

Quotations

The `<blockquote>` and `<q>` elements are used to indicate a quotation.

```
<p>Confucius says:<blockquote>Wheresoever you go,  
go with all your heart.</blockquote></p>
```

Confucius says:

Wheresoever you go, go with all your heart.

```
<p>A.A. Milne said, <q>Some people talk to animals. Not many listen though.  
That's the problem.</q></p>
```

A.A. Milne said, “Some people talk to animals. Not many listen though. That’s the problem.”

Lists

Unordered list

```
<ul>
<li>Item 1</li>
<li>Item 2</li>
<li>Item 3</li>
</ul>
```

- Item 1
- Item 2
- Item 3

Ordered list

```
<ol>
<li>Item 1</li>
<li>Item 2</li>
<li>Item 3</li>
</ol>
```

1. Item 1
2. Item 2
3. Item 3

Definition list

```
<dl>
<dt><dd>Item 1</dd></dt>
<dt><dd>Item 2</dd></dt>
</dl>
```

Item 1

Item 1 Definition

Item 2

Item 2 Definition

Tables

```
<table>

  <tr> /* Row One */
    <td>Cell 1, Row 1</td>
    <td>Cell 2, Row 1</td>
    <td>Cell 3, Row 1</td>
  </tr>

  <tr> /* Row Two */
    <td>Cell 1, Row 2</td>
    <td>Cell 2, Row 2</td>
    <td>Cell 3, Row 2</td>
  </tr>

</table>
```

| | | |
|---------------|---------------|---------------|
| Cell 1, Row 1 | Cell 2, Row 1 | Cell 3, Row 1 |
| Cell 1, Row 2 | Cell 2, Row 2 | Cell 3, Row 2 |

Links

Links are made with an `<a>` tag. **A** stands for **Anchor**. It anchors a part of the page to another document or file. You can link to other HTML pages or to other kinds of documents.

`<a>` elements always have attributes.

```
<a href="http://somepage.com">Some Page</a>
```

Some Page

```
<a href="#part-of-a-page">Some Part of this Page</a>
```

```
<a name="part-of-a-page"></a>
```

XHTML and good coding form

Minimum HTML to Render in a Browser

Required markup to render in all browsers:

```
<html>
  <head>
  </head>
  <body>
    < Some content >
  </body>
</html>
```

In **HTML5**, all tags must be lower case.

HTML5 does not require `<html>`, `<head>` or `<body>` elements:

```
<title>Page Title</title>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>
<p>This example is entirely valid
in HTML5.</p>
```

But we recommend using these structural tags so your markup doesn't break in older browsers.

Basic and Strict XHTML

The following is the minimal markup required for **Strict XHTML**:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"  
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">  
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">  
  <head>  
    <title>My page title</title>  
  </head>  
  <body>  
    ... some page content ...  
  </body>  
</html>
```

Formatting Advice

To make your markup readable to humans:

- **Separate** sections of your markup with line breaks
- **Indent** to show hierarchy and
- Use **Comments** to explain your markup.

```
<html>
```

```
<head>
```

```
 <title>My page title</title>
```

```
/* This is a comment. */
```

```
</head>
```

```
<body>
```

```
 <p>... some page content ...</p>
```

```
/* Paragraph is indented to show hierarchy under body. */
```

```
</body>
```

```
</html>
```

Editing Tools

Be careful to save your work appropriately for the tool you are using.

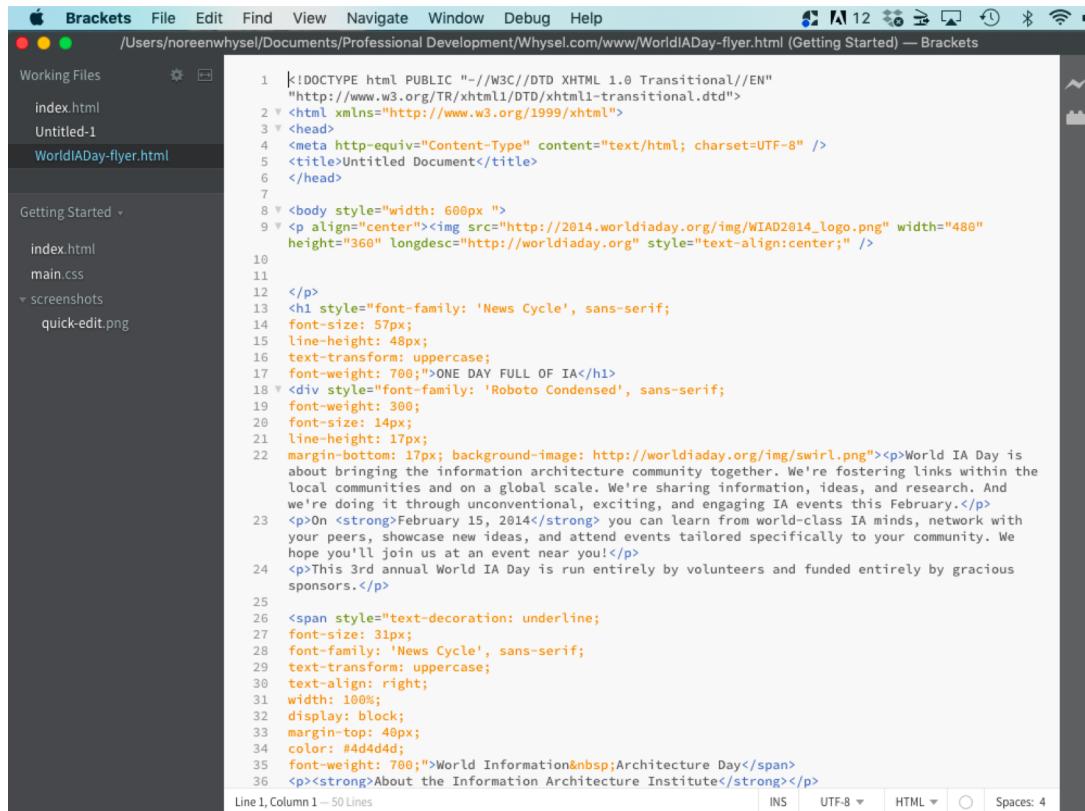
TextEdit / Notepad

Brackets.io

Dreamweaver

Word

Brackets.io



A screenshot of the Brackets.io interface. The top bar shows the application menu (Brackets, File, Edit, Find, View, Navigate, Window, Debug, Help) and system status icons. The title bar indicates the file path: /Users/noreenwhysel/Documents/Professional Development/Whysel.com/www/WorldIADay-flyer.html (Getting Started) — Brackets. The left sidebar shows 'Working Files' with index.html, Untitled-1, and WorldIADay-flyer.html selected. Below that is a 'Getting Started' section with index.html, main.css, screenshots, and quick-edit.png. The main area is a code editor with line numbers 1 through 36. The code is an HTML document for a World IA Day flyer, featuring a logo, a main heading, a paragraph about the event, and links to the event date and sponsors. The bottom status bar shows 'Line 1, Column 1 ~ 50 Lines', mode indicators (INS, UTF-8, HTML), and a 'Spaces: 4' setting.

```
1  !DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
2  "http://www.w3.org/TR/xhtml/DTD/xhtml-transitional.dtd"
3  <html xmlns="http://www.w3.org/1999/xhtml">
4  <head>
5  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
6  <title>Untitled Document</title>
7  </head>
8  <body style="width: 600px ">
9  <p align="center">
10 
11 
12 </p>
13 <h1 style="font-family: 'News Cycle', sans-serif; font-size: 57px; line-height: 48px; text-transform: uppercase; font-weight: 700;">ONE DAY FULL OF IA</h1>
14 <div style="font-family: 'Roboto Condensed', sans-serif; font-weight: 300; font-size: 14px; line-height: 17px; margin-bottom: 17px; background-image: http://worldiday.org/img/swirl.png"><p>World IA Day is about bringing the information architecture community together. We're fostering links within the local communities and on a global scale. We're sharing information, ideas, and research. And we're doing it through unconventional, exciting, and engaging IA events this February.</p>
15 <p>On February 15, 2014 you can learn from world-class IA minds, network with your peers, showcase new ideas, and attend events tailored specifically to your community. We hope you'll join us at an event near you!</p>
16 <p>This 3rd annual World IA Day is run entirely by volunteers and funded entirely by gracious sponsors.</p>
17 
18 <span style="text-decoration: underline; font-size: 31px; font-family: 'News Cycle', sans-serif; text-transform: uppercase; text-align: right; width: 100%; display: block; margin-top: 40px; color: #4d4d4d; font-weight: 700;">World Information&ampnbspArchitecture Day</span>
19 <p><strong>About the Information Architecture Institute</strong></p>
```

Download at [Brackets.io](#) on your home computer so you can use it for your homework.

Brackets File Edit Find View Navigate Window Debug Help

/Users/noreenwhysel/Documents/Professional Development/Whysel.com/www/WorldIADay-flyer.html (Getting Started) — Brackets

Working Files

- index.html
- Untitled-1
- WorldIADay-flyer.html

Getting Started

- index.html
- main.css
- screenshots
- quick-edit.png

```
1  !DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
2  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3  <html xmlns="http://www.w3.org/1999/xhtml">
4  <head>
5  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
6  </head>
7
8  <body style="width: 600px ">
9  <p align="center">
10
11
12 </p>
13 <h1 style="font-family: 'News Cycle', sans-serif; font-size: 57px; line-height: 48px; text-transform: uppercase; font-weight: 700;">ONE DAY FULL OF IA</h1>
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15 <p>On <strong>February 15, 2014</strong> you can learn from world-class IA minds, network with your peers, showcase new ideas, and attend events tailored specifically to your community. We hope you'll join us at an event near you!</p>
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17
18 <span style="text-decoration: underline; font-size: 31px; font-family: 'News Cycle', sans-serif; text-transform: uppercase; text-align: right; width: 100%; display: block; margin-top: 40px; color: #4d4d4d;">
19 <font-weight: 700;">World Information&ampnbspArchitecture Day</span>
20 <p><strong>About the Information Architecture Institute</strong></p>
```

Line 1, Column 1 — 50 Lines INS UTF-8 ▾ HTML ▾ ○ Spaces: 4

New Elements in HTML5

HTML5 is the Newest Specification

Simplified **Doctype Declaration**: <!DOCTYPE html>

Simplified **Character Encoding**: <meta charset="UTF-8">

New **semantic elements** like <header>, <footer>, <nav>, <article>, <aside>, and <section>.

New **attributes** for form elements like number, date, time, calendar, and range.

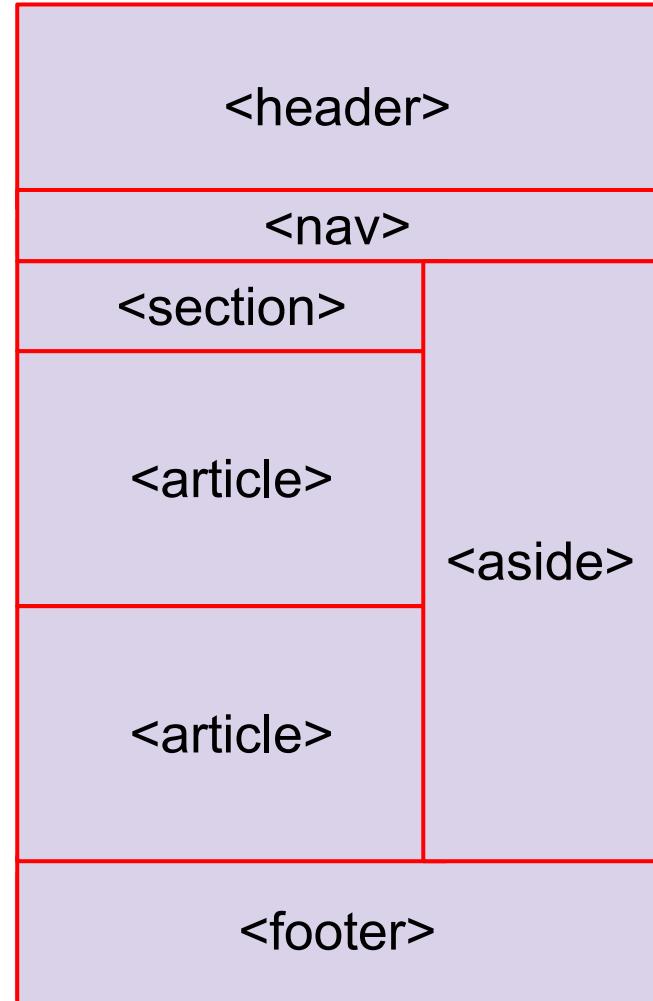
New **graphic elements**: <svg> and <canvas>.

New **multimedia elements**: <audio> and <video>.

Semantic Markup

The information conveyed by the sections, navigation elements, headings and links adds to the **users' understanding** of what a website or a page on the site is about.

Browsers and other, external tools like search engines, also use these elements to infer **meaning** from the parts of a web page.



Activity: Building a Semantic Resume

Building a Semantic Resume

Open Brackets and follow along as we build a “semantic resume”.

What are some ways we can use the **HTML5 Semantic elements** for each part of your resume?

```
<header>  
<nav>  
<section>  
<article>  
<aside>  
<footer>
```

LAB : w3schools.com

Homework

Due: Wed. Feb. 23

Turn in your Homework Post a link on the class blog on openlab

- Upload your HTML file from today's exercise to your site and post a link to it.
- BASIC HTML QUIZ next week! Remember to study.

Reading: Web ReDesign Workflow by Kelly Goto and Emily Cotler,
<http://bit.ly/COMD2451-Whysel-Reading-Goto>