

CODING FOR BEGINNERS: HTML AND CSS

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INTRODUCTIONS

WHO AM I?

- Have been developing websites for around 10 years
- Lonely Planet (LP.com, Client Solutions), Intrepid Travel, not-for-profits and freelance.
- I love learning and meeting new amazing people
- [GA Profile](#), [LinkedIn](#)

WHO ARE YOU?

- Name
- What you do
- Why you're here
- Any web development experience?

BEFORE WE START

Have you installed:

Sublime Text (Text Editor)

Google Chrome (Browser)

TAKEAWAYS

- How the Internet and web pages work
- Introducing HTML / CSS **Code along**
- Getting your site on the Internet
- How to modify the code of existing websites
- Techniques to use at-home when stuck on code

HOW THE INTERNET AND WEB PAGES WORK

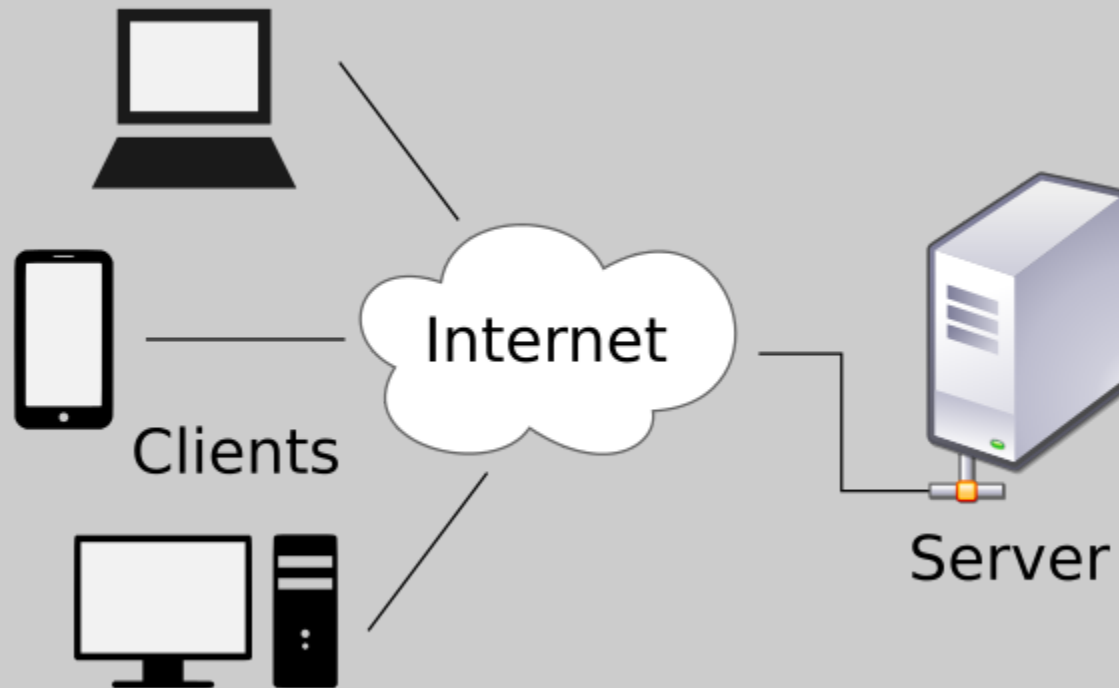
WHAT IS THE INTERNET?

- A worldwide telecommunications system
- A network that transports electronic messages across distance and platform

WHAT ARE SERVERS AND CLIENTS?

- A **server** is a fast computer with a huge amount of memory and space
- Internet networks are connected to servers
- Servers host web pages
- Our devices are considered the **client**

CLIENT-SERVER MODEL



Clients = service requesters

Servers = providers of a resource or service

HOW DO WE ACCESS THE INTERNET?

- An **Internet Service Provider (ISP)** enables us (the client) to access the Internet (via their server)
- A **browser** (such as Chrome, Firefox, or Safari) enables your device to read and display web pages

HOW DO WEB PAGES WORK?

- Web pages are written in **HTML** (Hypertext Markup Language)
- A browser translates the HTML into the content you see on the screen.
- **CSS** (Cascading Style Sheet) controls how the page looks, making the HTML content pretty

HUMAN BODY ANALOGY

HTML = structure (bones)

CSS = style (skin/makeup)

JavaScript = behaviour

(nervous system - action, reaction, computation, etc)

INTRODUCING HTML

WHAT IS HTML?

HTML = THE PAGE STRUCTURE

- Describes the kind of things on a page.
- Different elements have different somantic (structural) meaning.
- A page is a document.

HTML TAG SYNTAX



Not all elements need a closing tag:

``

`
`

TAG ATTRIBUTES



Common attributes include:

id class style href src data

BASIC DOCUMENT STRUCTURE

```
<!DOCTYPE html> - tells browser what type of document
```

```
<html>
```

```
  <head> - document metadata container  
  </head>
```

```
  <body> - on screen container  
  </body>
```

```
</html>
```

DOCUMENT LEVEL TAGS

```
<head>
  <meta charset="utf-8">
  <title>Some web page</title>
  <link rel="stylesheet" href="css/style.css">
</head>
```

- The tags inside the head
- Not visible on the page
- Contain information about the document
- eg. **meta**, **title**, **link**

CONTENT TAGS

- Headings
- Text
- Lists
- Links

HEADINGS

`<h1>Largest Heading</h1>`

`<h2>...</h2>`

`<h3>...</h3>`

`<h4>...</h4>`

`<h5>...</h5>`

`<h6>Smallest Heading</h6>`

TEXT

`<p>`This is a paragraph`</p>`

`<code>`This is some computer code`</code>`

``This is a some text``

LISTS

```
<ul>  
  <li>First list item</li>  
  <li>Second</li>  
  <li>Third</li>  
</ul>
```

- This is an **unordered list** example.
- Note the indentation for child elements.

LINKS

`First item`

- A hyperlink is actually called an anchor tag.
- It can link to:
 - another section within the same page
 - another page on your site
 - a page on another site

`Jump to section 2`

`See more`

`Great site`

SEMANTIC VS NON-SEMANTIC

- Semantic elements give structural meaning to the page
(eg. `nav`, `header`, `footer`, `section`, `h1`, etc)
- Non-semantic elements don't
(eg. `div`, `span`)
- Give your page meaning where possible

**HOW DO WE ADD
STYLE TO HTML?**

WE LINK A STYLE SHEET!

- A style sheet is a set of rules that tell the browser how to decorate elements and element content.
- Style sheets can be embedded in the html page (bad) or linked as an external file (good).
- External Style Sheets are linked in the `<head>` as:
`<link rel="stylesheet" href="css/style.css">`

PUTTING IT ALL TOGETHER

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Some web page</title>
    <link rel="stylesheet" href="css/style.css">
  </head>
  <body>
    <h1>Heading text here</h1>
    <p>Paragraph text here with a
      <a href="LinkUrl">Link</a></p>
  </body>
</html>
```

LET'S BUILD A HTML WEB PAGE!

IN 10 SIMPLE STEPS

INTRODUCING CSS

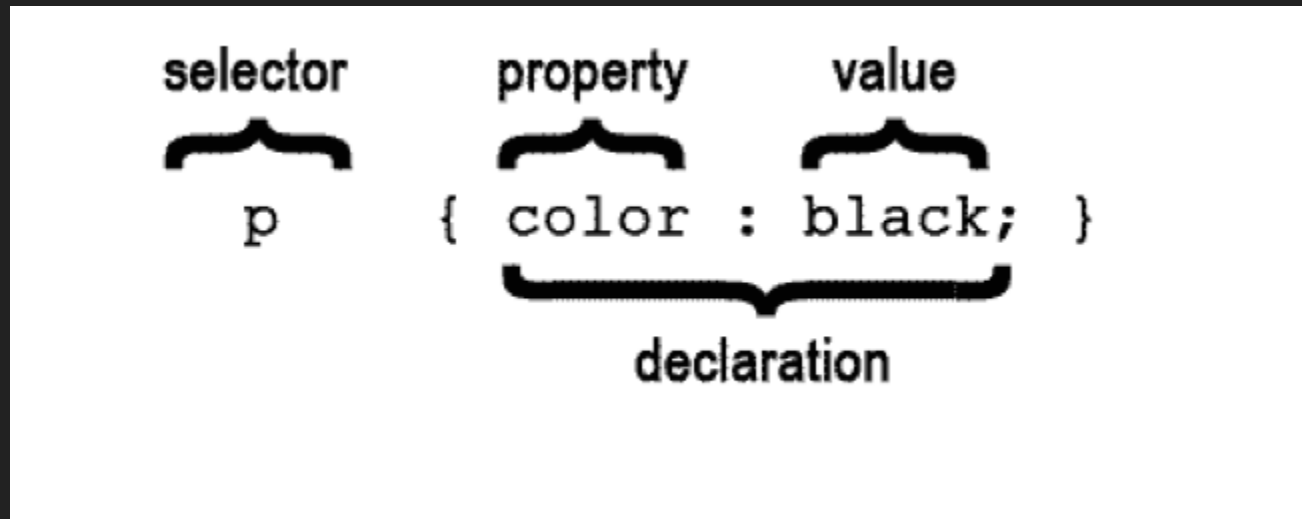
WHAT IS CSS?

CSS = style (skin/makeup)

CASCADING STYLE SHEETS

Styles have an affect on the look, the layout, and the positioning of elements.

CSS RULE(S)!



This whole thing is called a **rule**.

The browser reads the rules, finds the elements that match the rule, and renders the element using the rules properties.

CSS SELECTOR

```
p {  
  color: red;  
  font-weight: bold;  
}
```

The **selector**, **p** in this case, specifies what parts of the HTML document should be styled by the declaration.

This selector will style all **p** elements on the page.

THE DECLARATION BLOCK

```
{  
  color: red;  
  font-weight: bold;  
}
```

Declarations go inside curly braces.

Every declaration is a **property** followed by a **value**, separated by a colon, ending in a semicolon.

This example has two declarations.

THE CSS CASCADE

CSS reads top to bottom.

If conflicting then last overrides all previous.

```
p {  
  background: blue;  
  font-size: 16px;  
}  
p {  
  background: orange;  
}
```

SPECIFICITY

More specific rules override less specific rules

```
body {background: orange;}  
p {background: blue;}  
  
<body>  
  <p>Paragraph text here.</p>  
</body>
```

INHERITANCE

Child elements inherit rules from parent elements

```
body {font-family: sans-serif;}  
p {font-family: Georgia, serif;}  
  
<body>  
  <p>Paragraph text here.</p>  
</body>
```

p will inherit **body** font-family if we don't set it

IMPORTANCE

Order of Selector Importance (from least to most):

- Type (eg. `p`, `div`)
- Class (eg. `.example`)
- ID (eg. `#example`)

CSS COLORS

Colors can be specified in CSS in a variety of ways:

- keywords `white`, `black`
- hex codes `#6756A7`, `#FFF`, `#000`
- rgb `rgb(0,0,0)`
- rgba `rgba(12, 78, 200, 0.7)`
- hsl `hsl(0, 100%, 50%)`
- hsla `hsla(0, 100%, 50%, 0.5)`

BUILDING RESPONSIVELY

Hello **media** queries!

```
/* Phones ----- */  
@media screen and (max-width: 767px) {  
  
}  
  
/* Tablet/Desktop ----- */  
@media screen and (min-width: 768px) {  
  
}
```


**LET'S ADD SOME STYLES
TO OUR STYLE SHEET
IN 10 SIMPLE STEPS**

GETTING YOUR SITE ON THE INTERNET

1. Find a web host (eg. Crazy Domains, Dreamhost, etc)
2. Buy a domain name

Many hosting companies offer a free domain when you sign up for hosting

3. Download an FTP program (eg. FileZilla)

Upload your files to your server

HOW TO MODIFY THE CODE OF EXISTING WEBSITES

- Get to know the basics
- Practice, practice, code, code
- Keep building on what you know
- Use debugging tools to edit and learn

CHROME DEBUGGER

Useful to see/edit:

- the styles applied to the elements
- the elements location in the page document structure

Let's check it out!

(Install [Firebug](#) if using Firefox)

TECHNIQUES TO USE AT-HOME WHEN STUCK ON CODE

- Make a cup of tea/coffee
- Google the problem (check the date!)
- Visit helpful coding websites (see Resources)
- Don't get intimidated
- Determine to be a problem solver
- Go for a walk (clear head and come back to it)
- Talk to coding friends

REVIEW: TAKEAWAYS

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RESOURCES

HTML RESOURCES

- [HTML Dog](#)
- [Mozilla's web guide for HTML5](#)
- [Mozilla's List of HTML elements](#)

CSS RESOURCES

- [CSS Tricks](#)
- [AtoZ CSS](#)
- [Mozilla's guide for CSS](#)
- [Mozilla's CSS reference](#)

OTHER RESOURCES

- [Can I Use](#)
- [HTML 5 Please](#)
- [HTML Validator](#)
- [CODEPEN](#) - Testing your own code, looking at cool things other people have done.

WHERE TO FROM HERE?

The next step: Intensive Front End course

<https://generalassemb.ly/education/front-end-web-development/melbourne>

QUESTIONS?