

I399: Web Development

Knowledge Check #2

THE INTERNET

1. The default page browsers look for when given an address with no specified page is *index.html*. It allows for simpler URLs. For example, <http://www.iub.edu/> = <http://www.iub.edu/index.html>.
2. In a long URL, the forward slash represents a folder. <http://www.mypage.com/images/my-cat.jpg> is a webserver with a folder called “images” containing a jpg formatted photo called “my-cat.”
3. HTML files end in .html, CSS files end in .css

ESSENTIAL HTML STRUCTURE

(items in grey part of our template, but not required for a valid document)

```
<!DOCTYPE html>
<html lang="en">
<!--
    Documentation Comment (name, date, revisions, what the page is for)
-->

<html>
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width,
initial-scale=1, shrink-to-fit=no">
    <meta http-equiv="x-ua-compatible" content="ie=edge">
    <title></title>

    <!-- Stylesheets -->
    <link rel="stylesheet" type="text/css"
href="assets/css/normalize.css">
```

```

        <link href="assets/css/styles.css" rel="stylesheet" type="text/css"
media="all">

        <!--[if lt IE 9]>
        <script
src="assets/components/html5shiv/html5shiv.min.js"></script>
        <![endif]-->
    </head>
    <body>

    </body>
</html>

```

- Why do we need to specify UTF-8 encoding? Why is UTF-8 important?
- HTML elements are actually all BOXES.

ESSENTIAL CSS STRUCTURE

```

/*
    Documentation Comment
    Name, Date, Revisions, What the page is linked to
*/

/* apply a natural box layout model to all elements */
html {
    box-sizing: border-box;
}
*, *:before, *:after {
    box-sizing: inherit;
}

```

- CSS style sheets go from **general** styles to **specific** styles
- It's a great idea to put a documentation comment at the top of each style sheet
- In theory, basic websites only have ONE style sheet for the entire site
- In practice, websites have additional style sheets that take care of issues such as backwards compatibility (HTML5 shiv), cross-browser issues (reset.css or

normalize.css), and setting up rows and columns for easy layout (CSS frameworks).

“BLOCK LEVEL” HTML ELEMENTS

- Any element that starts itself on a “new line” is considered a block level element.
- Block level elements will appear to STACK down the page from top to bottom.
- This stacking of elements is called NORMAL FLOW.
- Examples include <div>, <p>, <h1>, , , <table>, and so on.

“INLINE” HTML ELEMENTS

- Any element that does not create a “new line” when used in an HTML document.
- Examples include , , <i>, , , <a>,
- The acts like an inline element, but the image itself takes up space like a block level element.

HTML ELEMENTS

How to center a block level element:

In the CSS

```
div {  
    width: 300px; /* width must be set to something less than 100% */  
    margin: 0 auto;  
}
```

How to center text:

In the CSS

```
p {  
    text-align: center;  
}
```

How to create a tooltip on a link:

```

```

How to place an image with a caption (can then be positioned with CSS):

The HTML5 Method:

```
<figure>  
      
    <figcaption>My cat loves the internet!</figcaption>  
</figure>
```

The HTML4 Method:

```
<div class="photo">  
      
    <p class="caption">My cat loves the internet!</p>  
</div>
```

With HTML5, any grouping of HTML code can be turned into a link:

Yup.

```
<div></div>  
<p>Although we all know <a href="#">the internet is made of cats</a>,  
some believe it's actually a network of interconnected computers.</p>
```

Yup.

```
<a href="#"><div></div>
```

<p>Although we all know the internet is made of cats,
some believe it's actually a network of interconnected computers.</p>

CSS SELECTORS

/*

The “h1” is a **selector**. It matches an element in your HTML document.

The “color: red;” is a **declaration** made up of a **property** (color) and **value** (red).

The property and value are **always separated by “:” and end with “;”**

*/

h1 {

color: red;

}

/*

Styles can be applied to multiple selectors at once.

In this example, all text-containing HTML elements will be the same font.

The space/tabs aren't important to the computer, but are important to you.

*/

h1, h2, h3, h4, h5, h6, li, td, p {

font-family: 'Georgia', 'Times New Roman', serif;

}

/*

Sometimes a property can take more than one value.

Some properties *expect* more than one value.

*/

div {

border: 1px solid black;

/* “border” takes three values.. line width, line style, and color */

}

GOOD CODING PRACTICES

YES

`` OR ``
Use single or double quotes, but don't mix them or leave them out.

NO

``

YES

``

NO

``

GOOD DESIGN PRACTICES

#4: Always use an ***alt*** attribute with your image tags.

The ***alt*** is what shows up if the image does not. It's also what the computer and search engines see, and what blind people who use readers hear when the site is read aloud.

#5: You can choose what people see as a link. Make it relevant.

GOOD

You might also like *Godzilla: Hero or Menace?*

OKAY

Read the next story

BAD

Click here

#6: When you link to something with a big file size, like a Word document, Excel sheet or PDF, let the user know what they are getting into.

GOOD

[Complete list of My Little Ponies](#) (XLS, 180K)

STILL OKAY

[Complete list of My Little Ponies](#) (XLS)

#7: Inline styles should only used with great reservation.

```

```

#8: For one or two page websites, internal style sheets are an option.

```
<head>
  <style>
    img {
      width: 400px;
      height: 300px;
      border: 0;
    }
  </style>
</head>
```

#9: Most HTML pages should `<link>` to their stylesheet(s), as opposed to the styles being inline or internal.

```
<head>
  <link href="style.css" rel="stylesheet">
</head>
```

- This is VERY POWERFUL because it means we can completely change related items in our site by modifying our stylesheet rather than each page.
- And like Spider-Man learns, “with great power, comes great responsibility:” **Proper structure, commenting, hierarchy and indentation** in your style sheet is essential to not wasting your time finding bugs and to creating clean, beautiful, web standard CSS.