Web Development

The Introduction To HTML

Day 1 outline

- The web content
- HTML Intro
- HTML Syntax
- HTML Basics
- Whitespaces with <br> and <p>
- Inline and block elements
- Basic structure of a web page.

The Web Content

The web is a collection of HTML documents which are made up of something called Hypertext Markup Language aka HTML. They also the basics of almost all web pages, even though they might be images, videos, pdf documents, e.t.c. So HTML document acts as a glue to display these documents. So it is considered the to be the heart of webpages.

HTML

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- HTML is a language used to create webpages for a website.

- HTML is derived from the SGML (Standard Graphics Markup Language).

- HTML is not a programming language, it is a markup language.

- Markup languages are made up of markup tags.

HTML Syntax

- The doctype
- The comment
- The element
- The attributes

HTML Doctype

The <!DOCTYPE> declaration must be the very first thing in your HTML document, before the <html> tag. The <!DOCTYPE> declaration is not an HTML tag; it is an instruction to the web browser about what version of HTML the page is written in.

Examples
HTML 4.01

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN""http://www.w3.org/TR/html4/strict.dtd">

HTML 5 <!DOCTYPE Html>

HTML comment

The comment tag is used to insert comments in the source code. Comments are not displayed in the browsers.

Syntax:

```
<!--

    comment body

-->
```

HTML Element

Syntax:

<tag> content </tag>

Void Element

<tag>
or

HTML Attribute

Syntax:

<tag attr="value"> content </tag>

Or

<tag attr="value">

Or

<tag attr="value" />

HTML Basics

HTML consist of the following

- Text content - what you see.
- Markup - what it looks like.
- Reference to other documents like images, videos, audios, e.t.c.
- Links to other webpages.
- Inline and block elements
- Basic structure

Text Content

What you see, when you open a webpage, like a message.

Example:

Welcome to spruzers

The markup

How the text content looks like on the browser.

Let's try the following in our browsers:

Bold text Welcome to spruzers

Italic text Welcome to spruzers

Line breaks

Text contents are always on one line.

Example below will still display on one line.

I am a very long text and I am meant to be broken into more than one line but I don't think so?

But with <br> placed anywhere in the example above will make everything after it go to the next line. We can also use the <p> tag to break lines.

I am a very long text and I am meant
  to be broken into more <p>than one line</p> but I don't think so?

Reference linking

We can reference things like images, videos, audios, documents, e.t.c in the HTML webpage. But for now we will be looking at image reference in this syntax.

Syntax:

Example:

Linking to other webpages

We can link to other webpages or websites using the anchor tag <a>

Syntax: content

Examples:

 Take me to facebook

Or

 Second page

Inline and Block elements

In the last few slides, we talked about line breaks, so we said we can break lines with either the <br> or <p> tag. So now we will be talking about the differences between the two tags.

First <br> is an inline tag and the <p> is a block tag.

Because the <br> tag is just ending a line while the <p> tag actually creates a block around the content then pushes a other contents after it to the next line.

\<span\> and \<div\> elements

Still on the previous topic, we have two normal tags that can also be used to talk more on inline and block elements. They are the \<span\> and \<div\> tags.

These elements don't do anything other than just contain their contents.

But the difference between them is \<span\> is inline and \<div\> is block.

Basic Structure of a web page

```
<!Doctype html>

<html>

        <head>

        </head>

        <body>

        </body>

</html>
```

References

- The head tags
    - <title></title>
    - <link />
    - <meta />
    - <script></script>
    - <style></style>
- The heading tags
    - <H1></H1>
    - <H2></H2>
    - <H3></H3>
    - <H4></H4>
    - <H5></H5>
    - <H6></H6>

- The paragraph tags - <p></p>
- List tags
- unordered list
    -
        -
        -

- Ordered list
    -
        -
    -

Reference - Format Tags.

<b>   Defines bold text

<em>   Defines emphasized text

<i>   Defines italic text

<small> Defines small text

<strong> Defines bold text

<sub>   Defines subscript text

<ins>   Defines inserted text

<del>   Defines deleted text

<mark> Defines marked/highlighted text

Structure of An Html Page.

```
<!Doctype Html>

<html>

    <head>

        <meta charset="utf-8">

        <meta name="viewport" content="width=device-width, initial-scale=1, maximum-scale=1, user-scalable=0" />

        <link rel="icon" type="image/x-icon" href="/favicon.ico">

        <title>Introduction to web development</title>

        <script type="text/javascript src="main.js"></script> <!-- preferable this should be at the bottom of your
page-- > <Link rel="stylesheet"  href="styles.css" >

    </head>
```

Structure of An Html Page. (cont'd)

<body>

    <h1>Introduction to Web Development</h1>

https://docs.google.com/presentation/d/1eqTOHO65QTl117l6aDjaTpHNioCteIa86HKwtknLfR0/edit?usp=sharing

</body>

CSS

Cascading Style Sheets

. . . . all about presentation

Day 2 CSS

- CSS Intro
    - Internal CSS
    - External CSS
- CSS Syntax
- CSS Classes
- CSS IDs
- CSS Divisions
- CSS Spans
- CSS Padding

Introduction to CSS

A CSS (cascading style sheet)

As always you use your HTML file to arrange the content, but all of the presentation (fonts, colors, background, borders, text formatting, link effects & so on…) are accomplished within a CSS.

At this point you have some choices of how to use the CSS, either internally or externally.

Internal CSS styling

First we will explore the internal method. This way you are simply placing the CSS code within the <head></head> tags of each HTML file you want to style with the CSS. The format for this is shown in the example below.

External CSS styling

Next we will explore the external method. An external CSS file can be created with any text or HTML editor such as "Notepad" or "Sublime text". A CSS file contains no HTML, only CSS. You simply save it with the .css file extension. You can link to the file externally by placing one of the following links in the head section of every HTML file you want to style with the CSS file.

So, which is better?

All the various methods will cascade into a new "pseudo" stylesheet in the following order:

1. Inline Style (inside HTML element)
2. Internal Style Sheet (inside the <head> tag)
3. External Style Sheet

As far as which way is better, it depends on what you want to do. If you have only one file to style then placing it within the <head></head> tags (internal) will work fine. Though if you are planning on styling multiple files then the external file method is the way to go.

CSS Syntax

The syntax for CSS is different than that of HTML markup. Though it is not too confusing, once you take a look at it. It consists of only 3 parts.

selector { property: value }

The selector is the HTML element that you want to style. The property is the actual property title, and the value is the style you apply to that property.

CSS Inheritance

When you nest one element inside another, the nested element will inherit the properties assigned to the containing element. Unless you modify the inner elements values independently.

For example, a font declared in the body will be inherited by all text in the file no matter the containing element, unless you declare another font for a specific nested element.

body {font-family: Verdana, serif;}

Changing the child fonts will look like this

h1 {font-family: Georgia, sans-serif;}

p {font-family: Tahoma, serif;}