Andar360

Training Guide

HTML and CSS

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Hypertext Markup Language (HTML)

HTML Introduction

HTML is the basic language of the web and is easy to learn and understand! With some basic knowledge you can decipher seemingly complex pages and break them into their individual parts to better understand and control your e-Community sites.

Is essence, HTML describes what a page should look like when viewed through a web browser such a Mozilla Firefox, Google Chrome, Safari, and Internet Explorer.

HTML is a markup language which is comprised of a set of tags that describe the document's content. HTML files are simple text files that contain plain text and tags and typically have the file extension .html or .htm. They are commonly referred to as web pages.

HTML Tags

HTML Tags are keywords or tag names surrounded by angle brackets or < > and normally come in pairs like this: <tag> and </tag>. The first tag in a pair is the opening tag and the second tag is the closing tag. The closing tag is written the same way as the opening tag with a forward slash (/) to say "stop doing this."

For Example:

<tagname> content </tagname>

Your HTML document should always contain <html> to signify the beginning of the HMTL content and </html> to signify the end. Without this tag, the document is only text.

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HTML Editors

HTML can be created or edited in many different types of editors, many of which are free and work incredibly well. In reality, all you need is a simple text editor, like Microsoft Notepad, or TextEdit on a Mac to get started. An HTML editor makes things much easier by color coding different items making it simple to find specific items or locate errors.

Free Editors:
- Notepad ++ -   `http://notepad-plus-plus.org/`
- **Brackets -   `http://brackets.io`**
- CoffeeCup -   `http://www.coffeecup.com/free-editor/`

Commercial Editor:
- Adobe Dreamweaver -
  `http://www.adobe.com/products/dreamweaver.html`

Note: It is highly recommended that you do NOT use a word processing program to write or edit HTML. Word processing software works very much like HTML, but it uses buttons and menus to write the markup 'behind the scenes.' When copying from a word processing program, your HTML can be obfuscated by the software's internal markup.

HTML Basics

Working with HTML is much like working with word processing software. Once your content is written you simply start at the beginning of the content, highlight to the end of the content and select your formatting option, in the example below, you would use the 'B' button to make this text appear **Bold**.
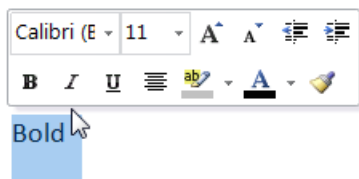
HTML Works in much the same way in that we use **Tags** to identify the content instead of highlighting it.

Bold or   <tagname> content </tagname>

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HTML Elements

An HTML Element is everything from the opening tag to the closing tag. The element content is everything between the opening and closing tags. There are also special elements that are closed in the start tag such as a line break. Most HTML elements can have attributes, or special characteristics that describe the element.

Start Tag	Element Content	End Tag
<html>	All of your HTML code	</html>
<head>	Special information about your page	</head>
<body>	The content of your page	</body>
<h1> to <h6>	Headings	</h1> to </h6>
<hr>	Adds a horizontal rule	none
<p>	This is a paragraph	</p>
	This is a link	
 	This is a line break	
<!--	This is a comment	-->

A Note about case: It is best to be consistent with your use of case; while HTML is not specific to case, Cascading Style Sheets are case specific. The World Wide Web Consortium (W3C) recommends lower case in HTML.

Special Elements

While there are a number of special HTML elements, such as the <br /> tag mentioned above, there are some other special elements you should know.

HTML Lines

The HTML horizontal rule can be used to divide content areas and uses the <hr> tag. Inserting the <hr> tag will draw a horizontal line across your content area.

HTML Comments

Comments can be inserted into HTML code to make it more readable and to explain to the reader of your code what it is you plan to do or what you have changed. It's always good practice to comment your HTML code.

Comment elements are written as follows and do not show on your rendered page.

<!-- This is a comment -->

The <!-- is the beginning of the comment and the --> is the end. Everything typed within these tags will be invisible to the viewer unless the source code is viewed.

HTML "White Space"

Browsers will ignore all "white space" in your HTML document. White space can be added to make your code more human readable, but it will be completely ignored when the browser renders the document. Keep this in mind when you write your code. Everything is controlled by a tag. Tags tell the browser what to do, if you instruct nothing, nothing will result.

HTML Attributes

HTML elements can have attributes which provide additional information about an element. Attributes are always assigned in the opening tag and always contain a name and value pair. The value must be contained in double quotes.

<tag name="value"> Content </tag>

Attribute	Description
Class	Specifies one or more classnames for an element (CSS)
Id	Specified a unique id for an element
Style	Specifies an inline CSS style for an element
Title	Specifies extra information about an element (displays as tooltip)

A common example of a complete element:

 andar360.com

HTML Headings

HTML headings are defined with <h1> through <h6> tags. <h1> defines the most important heading while <h6> defines the lease important heading. The browser used to view the headings will automatically add space before and after each heading. It is very important that you use headings for your content headers only and not simply to make any text larger. Search engine crawlers will use your heading tags to organize your content by order of importance. <h1> should always be used for your most important topics, followed by <h2> and so on.

HTML Paragraphs

HTML Documents are divided into paragraphs. Paragraphs are defined with the <p> tag. Browsers will automatically add white space above and below a paragraph tag. Make sure to include the closing </p> tag to complete the paragraph and start the next. Below is an example paragraph.

<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras pharetra metus a arcu vulputate aliquet. Nulla ac metus ut neque fringilla posuere. Pellentesque quis viverra nisl.</p>

HTML Formatting

HTML also uses tags for formatting text, much like you would with a word processing program. Text formatting means simply things like **bold,** *italic,* and <u>underline.</u> You should note, however, that underlining text in an HTML document is terribly poor form as it can be misconstrued as a link. All formatting tags must be closed.

Tag	Description
****	Defines bold text
<strong>	Also defines bold text
<i>	Defines italic text
<em>	Also defines italic text
<sub>	Defines subscript text
<sup>	Defines superscript text
<blockquote>	Defines a section of text that will be indented

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Example:

> <p>Text formatting means simply things like bold,<i> italic,</i> and <u>underline.</u>

HTML Links

The HTML <a> tag defines an anchor or hyperlink.

A hyperlink (or link) is a word, group of words, or image that you can click on to jump to another document.

When you move the cursor over a link in a Web page, the arrow will turn into a little hand.

The most important attribute of the <a> element is the href attribute, which indicates the link's destination.

By default, links will appear as follows in all browsers:

- An unvisited link is underlined and blue
- A visited link is underlined and purple
- An active link is underlined and red

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HTML Link Syntax

An HTML link is required to have an attribute in order to have a function. The <a> tag will surround the content you wish to effect, whether it be an image, text or any other HTML element. The value of the attribute **must** be contained in quotes.

Attribute	Value
href	Specifies the destination of the link
target	Specifies the browser window to display the link
id	Specifies a bookmark inside a document
title	Displays a tooltip (not required)

Examples:

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Top of the page

Go to the top of the page

Go to Home Page

Target Attribute

There are five values for the target attribute. The target attribute specifies where to open the linked document and is supported in all major browsers. As with all attributes the value must be contained in quotes.

Value	Description
_blank	Opens the linked document in a new window or tab
_self	Opens the linked document in the same frame as it was clicked
_parent	Opens the linked document in the parent frame
_top	Opens the linked document in the full body of the window
framename	Opens the linked document in a named frame

HTML Head

The HTML <head> element is a special container element to contain all of the head-specific elements. Elements inside the head can include scripts, tell the browser where to find external information such as stylesheets or Javascripts and provide search engines with descriptive information about the content of the page.

Tag	Description
<head>	Defines information about the document
<title>	Defines the title of a document
<base>	Defines the default address of the page
<link>	Links to the document to an external resourse
<meta>	Defines metadata about an HTML document
<script>	Defines a client-side script
<style>	Defines style information for a document

HTML Images

Images are displayed in HTML by use of the <img> tag. The <img> tag does not need to be closed. The <img> tag has multiple attributes to define what to display and how it should be displayed. As with other attributes, values must be contained in quotes.

Attribute	Value	Description
alt	Plain text	Alternate text to describe the image
border	Pixels #	Width of border around an image "0" for none
height	Pixels #	Height in pixels
src	URL	The location of the image file
width	Pixels #	Width in pixels

HTML Tables

A table is comprised of rows and columns, similar to a spreadsheet, and can be quite complex. Tables consist of a number of tags and will always start with the <table> tag. Like many other tags the table tag can have attributes assigned to it such as width and follow the same rules as other attributes. The <table> tag signifies the start of a table but will need other tags to assign rows and columns inside it.

Table Rows and Columns

Table Rows are defined using the <tr> tag and columns are defined using the <td> tag. The <td> tag stands for 'Table Data' and can contain text, images, links, lists or any other HTML element. Below is an example of a simple table in HTML.

```
<table>
<tr>
    <td>Row One – Column One</td>
    <td>Row One – Column Two</td>
</tr>
<tr>
    <td>Row Two – Column One</td>
    <td>Row Two – Column Two</td>
</tr>
</table>
```

HTML Output:

Row One –Column One	Row One – Column Two
Row Two – Column One	Row Two – Column Two

HTML Lists

There are two types of lists in HTML, Ordered and Unordered. Quite simply, the two are best described as Numbered and Bulleted, respectively. Lists contain two types of tags: The type of list: Ordered <ol> and Unordered <ul> and the List items <li>.

Unordered List
- List Item
- List Item
- List Item

Ordered List
1. List Item
2. List Item
3. List Item

Example:

```
<ul>
    <li>List Item</li>
    <li>List Item</li>
    <li>List Item</li>
</ul>
```

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HTML Blocks

HTML elements have a certain level of control over how they are displayed. For instance, the <p> tag will automatically place white space above and below its opening and closing tag while a <b> tag will only effect the content it surrounds. These two types of elements are called block level and inline elements, respectively. Block level elements will normally start and end with a new line when displayed and inline elements will not start a new line.

HTML <div> tag

The HTML <div> tag is frequently used in the e-Community modules. Almost every Web Customization, Web Option and Page Area has a <div> tag associated with it. Mastering the <div> tag will allow you to completely control the way your e-Community Modules will be displayed.

The <div> tag is a block level element and is used to group other HTML elements. Alone, the <div> tag has no particular effect on your document, but it is important to note that, because it is a block level element that a new line will be started.

In e-Community, <div> tags are most often assigned a 'class' attribute. A class attribute can be any value (provided it does not start with a number) and is typically a common name or phrase. You can find the class attribute of Web Customizations by viewing the Style Code on the Web Customization. Identifying the class will allow you to control how it is displayed using Cascading Style Sheets or CSS.

```
<DIV Class="DIV-WebGreeting">
```

Note Type ▲	Style Code
Home Page - e-Pledge - Body	WebGreeting
Home Page - e-Pledge - No e-Pledge License	WebEPNoLicenseHP
Home Page - e-Pledge - Title	WebWelcome

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Here is a simple example of the use of a <div> tag:

```
<div class="content">
        <p>This is a paragraph in the 'content' section of the document</p>
</div>
```

Basically, this means that and content that is contained within the <div> tag is assigned the class of 'content.' Class is one way you can assign style using CSS.

Cascading Style Sheets

Cascading Style Sheets are a fast and efficient way to control how your page is displayed. It can replace the need for using attributes for each and every element on you page and instead control them all at the same time.

When using the <p> tag, you may want to assign attributes or a number of other tags such as <font> to define how your paragraph is to be displayed. With CSS you can define that all of your paragraphs to display in the same manner, leaving you to code in HTML only with the <p> tag.

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Cascading Stylesheets (CSS)

CSS Introduction

Cascading Style Sheets (CSS) are **rules** used to control the way a web browser displays elements on a page.

With a basic understanding of HTML you can now learn to control it with CSS. CSS defines how to display your HTML elements by element name, ID or Class. ID and Class are attributes of your HTML elements, and most common in e-Community, the <div> tag. With HTML you will define the content of a document, headings, paragraphs, lists, tables, and so on. CSS will be used to define what each of those elements will look like by defining a **Rule**.

CSS will be defined in your HTML document in one of three ways:

In the <head> tag:

- Referenced to an external .css file
- Written directly in the <head> in a <style> tag
  OR
- Inline, or written within the HTML code itself

CSS Syntax

CSS is a set of rules. The rules specify the display properties. To put it in simple terms:

"All paragraphs look like this: Arial fonts, that are 12 pixels high, and gray in color. "

In CSS terms this rule would look like this:

```
p {font-family:Arial; font-size:12px; color:gray;}
```

While it may appear complicated it can be broken down into its parts.

CSS rules can control many properties, called declarations, of an element, to display exactly how you want in a clear, consice manner. Declarations are always contained in curly braces (**{ }**) and each declaration will end in a semi-colon(**;**). Each element is chosen in CSS by the 'selector' and defined in the 'declaration' by a 'property' and a 'value.'

In the example rule below, the <H1> (Header One) element will be displayed: blue in color and with a font size of 12 pixels.
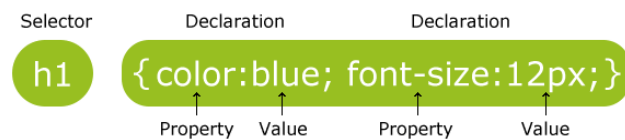

Figure 1 - A CSS rule consists of a single or multiple selectors, and at least one declaration containing a property and a value

Please Note: Due to the sheer volume of declarations available to you, this document will cover merely how they are used rather than each type with all possible values. Please refer to an online resource such as w3schools for reference.

You can also comment CSS code much like you can with HTML. CSS comments are signified by using /* at the beginning and */ at the end. You can type whatever text you want within these indicators.

CSS ID and Class as it Relates to e-Community

e-Community primarily makes use of a special HTML element called a 'division' tag or <DIV> tag. A DIV tag is used to describe and group content. It is used in conjunction with an 'attribute' and 'value.' A DIV tag's attribute is typically, in e-Community, a 'class' attribute with a given name for a value.

For example: <DIV Class="DIV-WebLoginNote1"> is the DIV element with the class of "DIV-WebLoginNote1." This denotes the beginning of the Web Customization called 'Login – Top.' Each of the web customizations found in Andar will have a field that matches this class name in the 'Style Code' column in the Web Customization window. There are also other e-Community items that can be assigned your own, custom, selector. It is also important to note that class names are case sensitive.

The selector in a CSS rule for a class **must** begin with a period. (**.**) Therefore for the example above, a rule for the DIV would appear like this:

.DIV-WebLoginNote1 { property:value; }

CSS Styling Backgrounds

There are multiple declarations you can assign to the background of your <div> or other element such as:

- background-color
- background-image
- background-repeat

For example you could define that the body of your HTML document had a background color of blue:

```
body {
        background-color:blue;
        }
```

You can also define a background image for your <div> tag or other element by using the background-image declaration. By default, a background image will display repeatedly unless you control it with the background-repeat declaration. Below is an example:

```
.somediv    {
            background-image:url(someimage.jpg);
            background-repeat:no-repeat;
            }
```

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CSS Styling Text

All of your text in an HTML document can be controlled by CSS. You can either define a rule for a particular element, such as <p>, <h1>, or by a <div> class for example.

Text color can be defined using the declaration: color. Colors can be defined by a color name, RGB values or Hex Colors. For example:

```
p       {
        color:blue;
        }
```

This rule says that all text contained within a <p> tag will have the color: blue.

There are other declarations that define how text should display. One of the great features of CSS is that most declarations are in plain English. In the next example, we will define what an <h1> tag should look like:

```
h1      {
        color:#333333; /*Also known as Gray*/
        text-decoration:underline;
        text-transform:uppercase;
        text-indent:10px;
        font-family:arial;
        font-size:15px;
        }
```

This will give the result of a <h1> tag that is Gray, Underlined, in all uppercase letters, indented 10 pixels, in Arial Font that is 15 pixels high.

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CSS Styling Fonts

In the example above we define some font characteristics for our <h1> tag. You can define other properties as well such as:

Property	Description
font	Sets all the font properties in one declaration
font-family	Specifies the font family for text
font-size	Specifies the font size of text
font-style	Specifies the font style for text
font-variant	Specifies whether or not a text should be displayed in a small-caps font
font-weight	Specifies the weight of a font

CSS Styling Links

Links can be styled just like any other text, but they have a special function called a link state. The link state is what happens when you interact with a link. The four interactions, or link states are:

- Link – A normal link that has not been clicked
- Visited – A link that has been clicked
- Hover – A link when the mouse curser is over it
- Active – A link when it is being clicked

An example of its usage:

```
a:link {color:red;}      /* unvisited link */
a:visited {color:blue;}  /* visited link */
a:hover {color:green;}   /* mouse over link */
a:active {color:black;}  /* selected link */
```
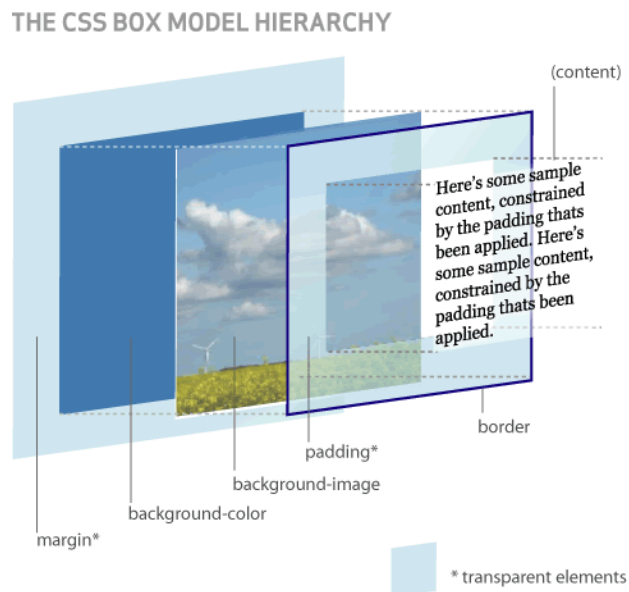
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CSS Styling Tables

Tables can be styled by addressing each of the elements that construct them. You can define borders and colors and the text contained in each. You can define that multiple elements are affected by the rule by including each element separated by a comma.

```
table, tr, td {
     border:1px;
     }
```

CSS Box Model

The CSS box model is the idea that each element on your page exists in its own 'box.' When you open a <DIV> tag and close a </DIV> tag you essentially create a 0px by 0px empty box. Items you place inside the box, like a <p> or a <table> cause it to grow in size to fit the content. You can control the box's size and other properties, regardless of its content, by using positioning, dimension, margin, padding, background and border properties for the <DIV> element.

The image below illustrates the box model.

When addressing the box model we refer to the following:

- Content – The actual HTML Element
- Border – A line around the content
- Padding – The space between the content and its border
- Background Image – An image displayed behind the content
- Background Color – A color behind the background image or content
- Margin – Space between the box and its surroundings

Another important declaration to use is the position declaration. The position declaration defines where in space the 'box' appears. For most e-Community module applications you will use the values of relative and absolute.

```
position:relative;

or

position:absolute;
```

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These positioning declarations tell the element where to start appearing on the page. Absolute position means the starting point is from the top left corner of the browser window while relative means that you are starting from the position of the previous element on the page.

Once you define an element's position you can then define other declarations such as width and height. Without first defining a position these declarations will be ignored. The table below provides some commonly used properties and their values.

Property	Value(s)	Property	Value(s)
height	#px	width	#px
margin-top, right, bottom, left	#px	padding-top, right, bottom, left	#px
border-width	#px	border-style	Solid, none
position	Static, relative, absolute	z-index	Integer representing stack order
float	Left, right, none		
Display	None	Visibility	hidden

CSS and HTML Reference

One of the best resources on the internet is known as w3schools. Should you progress further into using HTML and CSS this is an excellent reference guide providing examples and interactive test scenarios.

http://www.w3schools.com/html/default.asp

http://www.w3schools.com/css/default.asp

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End of Workbook