WEB DEVELOPMENT COURSE FRONT-END

SESSION 2

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JUL, 2023

What is HTML5?

HTML5 is the latest version of Hypertext Markup Language, the code that describes web pages. It's actually three kinds of code: HTML, which provides the structure; Cascading Style Sheets (CSS), which take care of presentation; and JavaScript, which makes things happen.

What's so great about HTML5?

HTML5 has been designed to deliver almost everything you'd want to do online without requiring additional software such as browser plugins. It does everything from animation to apps, music to movies, and can also be used to build incredibly complicated applications that run in your browser.

What does HTML5 do?

We've come a long way since HTML could barely handle a simple page layout. HTML5 can be used to write web applications that still work when you're not connected to the net; to tell websites where you are physically located; to handle high definition video; and to deliver extraordinary graphics.

What’s new about HTML5

HTML5 new tags : <main>, <section>, <article>, <header>, <footer>, <aside>, <nav> and <figure>, are added. New attributes are introduced, some elements and attributes

have been removed, and others such as <a>, <cite> and <menu> have been changed, redefined or standardized. At the very top of the page you will see the doctype declaration: <!DOCTYPE html>

HTML5 vs HTML

HTML vs HTML5 – Comparison

Both HTML and HTML5 are hypertext markup languages, primarily used to develop web pages or applications. HTML5 is the latest version of HTML and supports new markup language functionalities such as multimedia, new tags and elements as well as new APIs. HTML5 also supports audio and video.

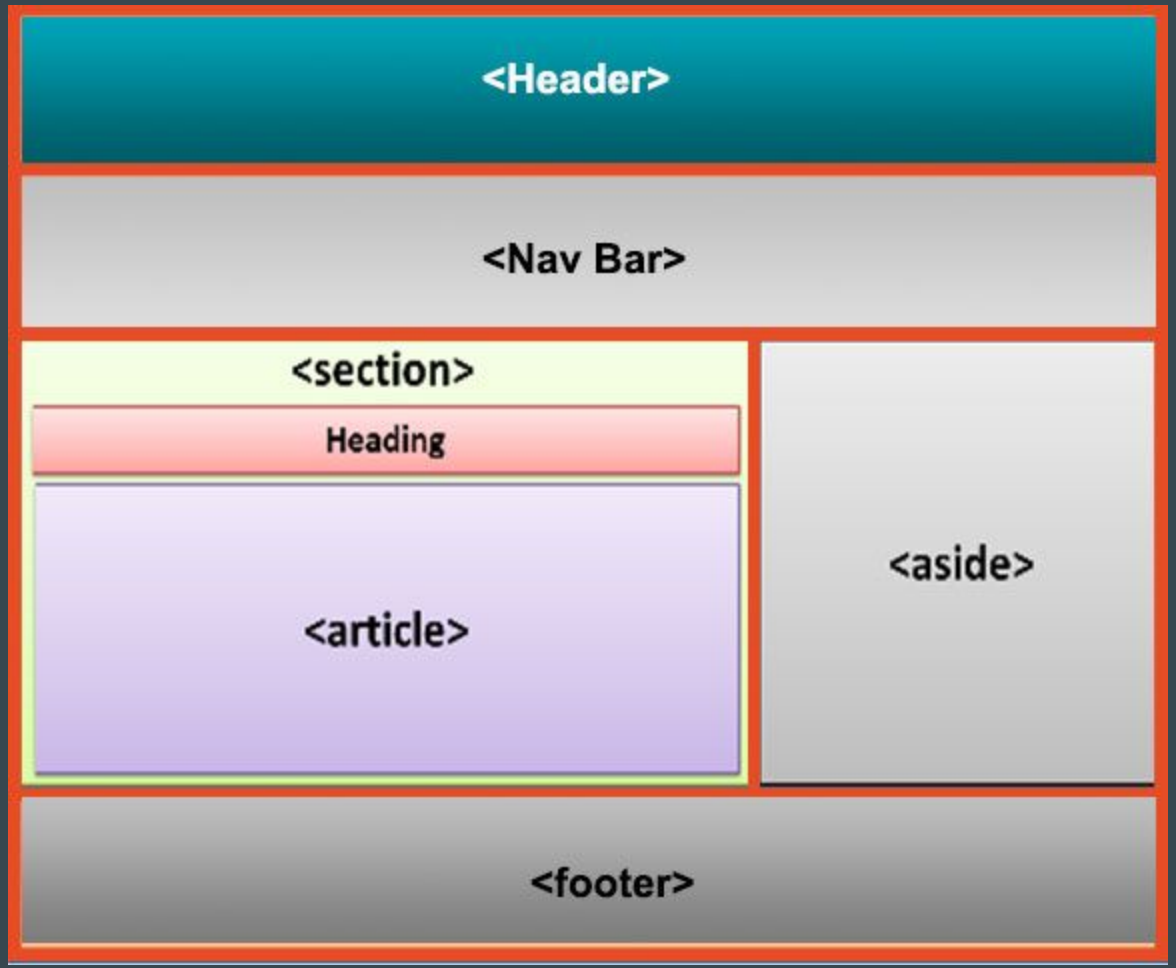
HTML	HTML5
HTML does not provide native audio and video support.	HTML5 provides native audio and video support.
HTML only supports vector graphics if used in conjunction with different technologies like **Flash**, **VML**, or **Silverlight**.	HTML5 supports SVG (Scalable Vector Graphics), Canvas, and other virtual vector graphics.
HTML allows inline MathML and SVG in text with restricted use.	HTML5 allows inline **MathML** and **SVG** in text
HTML doesn't allow users to draw shapes such as circles, triangles, and rectangles.	HTML allows users to draw shapes such as circles, triangles, and rectangles.

HTML only uses browser cache and cookies to store data temporarily.	HTML5 uses web SQL databases, local storage, and application cache for storing data temporarily.
JavaScript and browser interface run in the same thread.	JavaScript and browser interface run in separate threads.
Longer **document type declaration**.	Shorter document type declaration.
Longer character encoding declaration. Uses the ASCII **character set**.	Shorter **character encoding** declaration. Uses the UTF-8 character set.
Compatible with almost all browsers.	Only compatible with newer browsers, considering there are many new tags and elements which only some browsers support.

But what is the real major difference?

It’s a simple answer: layouts

So, as we know HTML5 introduced some new concepts which made a major difference in the structure and the layout of it.


<Header>
<Nav Bar>
<section>
Heading
<article>
<aside>
<footer>

HTML5 layout explained

- header: Used to include header content in the web page, like information about the page, summary, login/register links. shopping cart details etc.
- nav: Used to provide navigational links, ex: menus for routing through across the application pages.
- section: Used to represent a section in the web page and it can be anything such as quick news section, headline, etc.

HTML5 layout explained

- article: As the name suggests, it’s a separate section used to include a blog, a forum post, a magazine article, etc.
- aside: As the name suggests, it's used to include some extra information regarding the main content.
- footer: Used to include footer content in the web page, like licensing information, copyright information, some quick access links, etc.

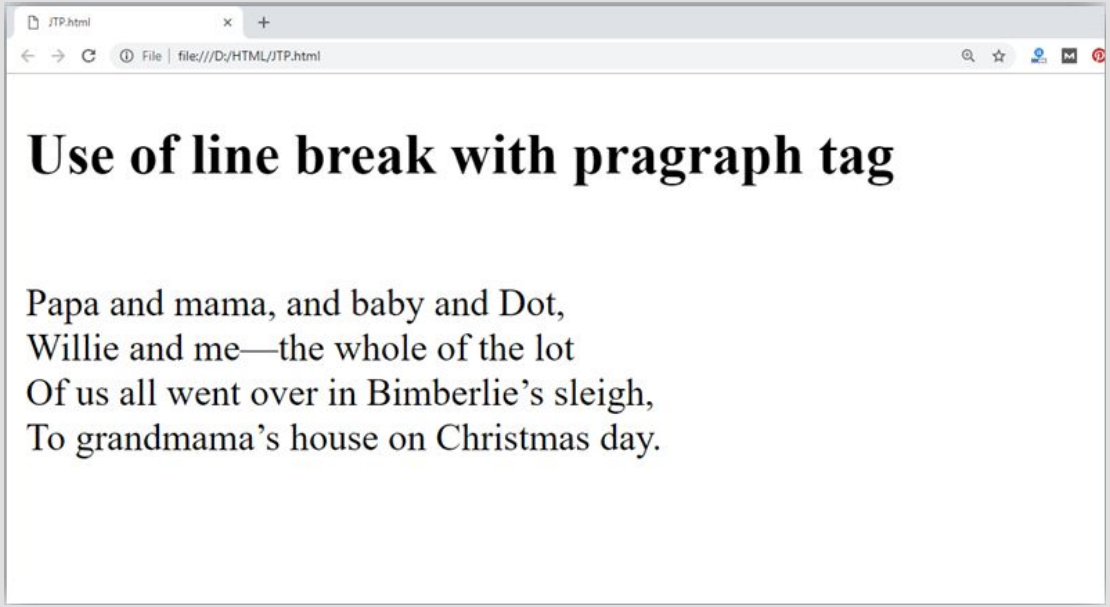
Now, let’s get back to the elements and tags conflict

HTML Tags Vs Elements

Technically, an HTML element is the collection of start tag, its attributes, an end tag and everything in between. On the other hand an HTML tag (either opening or closing) is used to mark the start or end of an element, as you can see in the above illustration.

Course objective No.2:
Let’s write some code !!

Your second HTML element: The paragraph tag



Hands-on 1:

Introduce yourself in a p tag

Hint: mix it up with some H tags

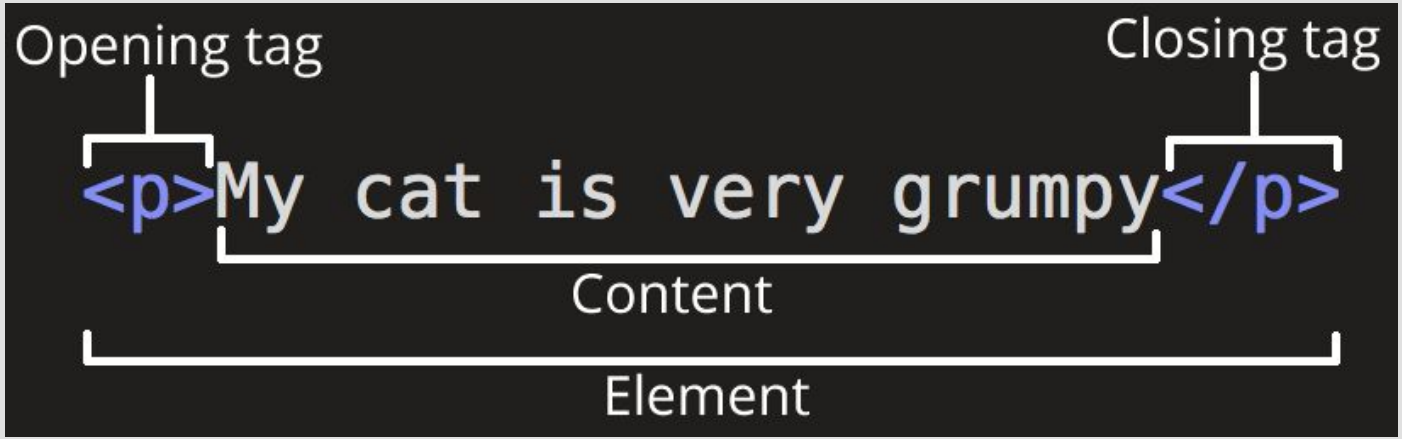
Block-level Elements

A block-level element always starts on a new line, and the browsers automatically add some space (a margin) before and after the element.

A block-level element always takes up the full width available (stretches out to the left and right as far as it can).

Two commonly used block elements are: <p> and .

Reminder: What is tags?:



Block-level elements examples

Here are the block-level elements in HTML:

`<address>`	`<article>`	`<aside>`	`<blockquote>`	`<canvas>`	`<dd>`	`<div>`	`<dl>`
`<dt>`	`<fieldset>`	`<figcaption>`	`<figure>`	`<footer>`	`<form>`	`<h1>-<h6>`	`<header>`
`<hr>`	`<li>`	`<main>`	`<nav>`	`<noscript>`	`<ol>`	`<p>`	`<pre>`
`<section>`	`<table>`	`<tfoot>`	`<ul>`	`<video>`			

Hands-on 2:
Let’s give it a try

<h1>-<h6>, <header>, <address>, <article>,
<aside>, <main>,

Inline Elements

An inline element does not start on a new line.

An inline element only takes up as much width as necessary.

This is a element inside a paragraph.

<a>	<abbr>	<acronym>	<b>	<bdo>	<big>	 	<button>
<cite>	<code>	<dfn>		<i>	<img>	<input>	<kbd>
<label>	<map>	<object>	<output>	<q>	<samp>	<script>	<select>
<small>			<sub>	<sup>	<textarea>	<time>	<tt>
<var>							

Hands-on 3:
Let’s give it a try

<bdo>,
,<b>,<a>,<l>,<img>,<q>,
<small>,,

Inline Elements

<bdo>: Specify the text direction

: line breaks
<b>: Make some text bold (without marking it as important.
<a>: Create a link
<i>: Italic text

Inline Elements

<q>: Mark up a short quotation
<small>: Define a smaller text
: is an inline container used to mark up a part of a text.
: element defines text with strong importance

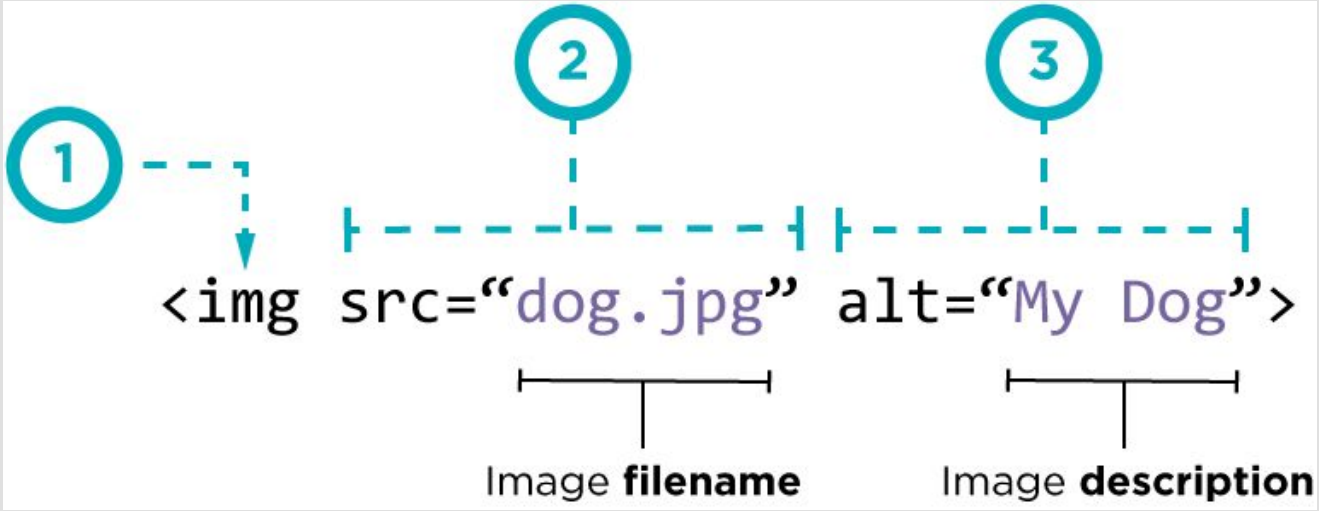
The <img> tag:

The <img> tag is used to embed an image in an HTML page.

Images are not technically inserted into a web page; images are linked to web pages. The <img> tag creates a holding space for the referenced image.

The <img> tag has two required attributes:

- src - Specifies the path to the image
- alt - Specifies an alternate text for the image, if the image for some reason cannot be displayed


1
2
3
<img src="dog.jpg" alt="My Dog">
Image filename
Image description

```
<!DOCTYPE html>
<html>
   <head>
      <title>HTML img Tag</title>
   </head>

   <body>
      <img src="/html/images/test.png" alt="Simply Easy Learning" width="200"
         height="80">
   </body>
</html>
```

Anchors and Hyperlinks

The <a> tag:

The <a> tag defines a hyperlink, which is used to link from one page to another.

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

Hands-on 4:

- How to open a link in a new browser window:
- How to link to another section on the same page
- How to use an image as a link (challenge)

HTML Attributes

HTML attributes provide additional information about HTML elements.

- All HTML elements can have attributes
- Attributes provide additional information about elements
- Attributes are always specified in the start tag
- Attributes usually come in name/value pairs like: name="value"

HTML Attributes

The href Attribute

The <a> tag defines a hyperlink. The href attribute specifies the URL of the page the link goes to:

Example
Visit google

HTML Attributes

The src Attribute

The <img> tag is used to embed an image in an HTML page.
The src attribute specifies the path to the image to be displayed:

Example
<img src="img_girl.jpg">

HTML Attributes

The width and height Attributes

The <img> tag should also contain the width and height attributes, which specifies the width and height of the image (in pixels):

Example
<img src="img_girl.jpg" width="500" height="600">

HTML Attributes

The alt Attribute

The required alt attribute for the <img> tag specifies an alternate text for an image, if the image for some reason cannot be displayed. This can be due to slow connection, or an error in the src attribute, or if the user uses a screen reader.

Example
<img src="img_girl.jpg" alt="Girl with a jacket">

HTML Attributes

The style Attribute

The style attribute is used to add styles to an element, such as color, font, size, and more.

Example

```
<p style="color:red;">This is a red paragraph.</p>
```

HTML Attributes

The title Attribute

The title attribute defines some extra information about an element.

The value of the title attribute will be displayed as a tooltip when you mouse over the element:

Example

```
<p title="I'm a tooltip">This is a paragraph.</p>
```

Recap time !!

Q&As time !!

Thank you folks
Have a good day