

Lecture 2

HTML 5



HTML Syntax

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Page Title</title>
```

```
</head>
```

```
<body>
```

```
<h1>My First Heading</h1>
```

```
<p>My first paragraph.</p>
```

```
</body>
```

```
</html>
```

Syntax refers to the rules that define the structure of a language. Syntax in computer programming means the rules that control the structure of the symbols, punctuation, and words of a programming language.



HTML Block and Inline Elements

Every HTML element has a default display value, depending on what type of element it is. There are two display values: block and inline.

- **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). In block level elements, the top and bottom margins, width and height are respected. Two commonly used block elements are:

`<p>` and `<div>`.

The `<p>` element defines a paragraph in an HTML document.

The `<div>` element defines a division or a section in an HTML document.



HTML Block and Inline Elements

- **Inline Elements**

An inline element does not start on a new line. An inline element only takes up as much width as necessary. In inline elements, the top and bottom margins, width and height are not respected.

An inline element cannot contain a block-level element! while a block-level element can contain one or more inline elements.

Here are the block-level elements in HTML:

<p>, <div>, <video>, <aside>, <article>, <hr>, , , <main>, <nav>, <footer>, <section>, <pre>, and much more.

Here are the inline elements in HTML:

**<a>, , <button>, , ,
, , <sub>, <sup>, <small>, <select>, <label>, <input>, and much more.**

The `<div>` Element

The `<div>` element is often used as a container for other HTML elements. The `<div>` element has no required attributes, but `style`, `class` and `id` are common. When used together with CSS, the `<div>` element can be used to style blocks of content:

```
<div style="background-color:black;color:white;padding:20px;">  
  <h2>London</h2>  
  <p>London is the capital city of England. </p>  
</div>
```

The **** Element

The **** element is an inline container used to mark up a part of a text, or a part of a document. The **** element has no required attributes, but style, class and id are common. When used together with CSS, the **** element can be used to style parts of the text:

```
<p>My mother has <span style="color:blue;font-weight:bold">blue</span> eyes and my father has <span style="color:darkolivegreen;font-weight:bold">dark green</span> eyes.</p>
```

HTML Semantic Elements

Semantic elements = elements with a meaning.

A semantic element clearly describes its meaning to both the browser and the developer.

Examples of **non-semantic** elements: `<div>` and `` - Tells nothing about its content.

Examples of **semantic** elements: `<form>`, `<table>`, and `<article>` - Clearly defines its content.

In HTML there are some semantic elements that can be used to define different parts of a web page: `<article>`, `<aside>`, `<header>`, `<nav>`, `<main>`, `<section>`, `<footer>` e.t.c

HTML Layout Elements

HTML has several semantic elements that define the different parts of a web page:

- **<header>** - Defines a header for a document or a section
- **<nav>** - Defines a set of navigation links
- **<section>** - Defines a section in a document
- **<article>** - Defines an independent, self-contained content
- **<aside>** - Defines content aside from the content (like a sidebar)
- **<footer>** - Defines a footer for a document or a section

<header>	
<nav>	
<section>	<aside>
<article>	
<footer>	



HTML Comments

Comments are not displayed by the browser, but they can help document your HTML source code. You can add comments to your HTML source by using the following syntax:

<!-- Write your comments here -->

Notice that there is an exclamation point (!) in the start tag, but not in the end tag. Comments can be used to hide content temporarily.

<!-- This is a comment -->

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