Web Engineering

HTML Layout

Types of HTML Elements

1. **Block-level HTML Elements**
    - A block-level element always starts on a new line and takes up the full width available
    - The <div> element is a block-level and is often used as a container for other HTML elements
    - the block-level element contains inline elements.

2. **Inline HTML Elements**
    - An inline element does not start on a new line and it only takes up as much width as necessary
    - The <span> element is an inline container used to mark up a part of a text, or a part of a document
    - An inline element cannot contain a block-level element!

There are two display values: block and inline

Block-level Elements in HTML

- [<div>](#)
- [<p>](#)
- [<form>](#)
- [<h1>-<h6>](#)
- [<header>](#)
- [<hr>](#)
- [<li>](#)
- [<ol>](#)
- [<table>](#)
- [<ul>](#)

Inline Elements in HTML

<a>	<select>
<b>	<span>
 	<strong>
<button>	<sub>
<cite>	<sup>
<em>	<textarea>
<i>	
<img>	
<input>	
<label>	
<script>	

HTML class Attribute

- The HTML class attribute is used to specify a class for an HTML element.

- Multiple HTML elements can share the same class.

- To create a class; write a period (.) character, followed by a class name. Then, define the CSS properties within curly braces {}:

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
.city {
  background-color: tomato;
  color: white;
  padding: 10px;
}

.main {
  text-align: center;
}
</style>
</head>
<body>

<h2>Multiple Classes</h2>
<p>Here, all three h2 elements belongs to the "city" class. In addition, London also
belongs to the "main" class, which center-aligns the text.</p>

<h2 class="city main">London</h2>
<h2 class="city">Paris</h2>
<h2 class="city">Tokyo</h2>

</body>
</html>
```

Multiple Classes

Here, all three h2 elements belongs to the "city" class. In addition, London also belongs to the "main" class, which center-aligns the text.

London

Paris

Tokyo

```
<h2 class="city">Paris</h2>
<p class="city">Paris is the capital of France</p>
```

HTML id Attribute

- The HTML id attribute is used to specify a unique id for an HTML element.
- You cannot have more than one element with the same id in an HTML document.

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
#myHeader {
  background-color: lightblue;
  color: black;
  padding: 40px;
  text-align: center;
}
</style>
</head>
<body>

<h2>The id Attribute</h2>
<p>Use CSS to style an element with the id "myHeader":</p>

<h1 id="myHeader">My Header</h1>

</body>
</html>
```

The id Attribute

Use CSS to style an element with the id "myHeader":

My Header

id and class

- A class name can be used by multiple HTML elements, while an id name must only be used by one HTML element within the page.

```
<style>
/* Style the element with the id "myHeader" */
#myHeader {
  background-color: lightblue;
  color: black;
  padding: 40px;
  text-align: center;
}

/* Style all elements with the class name "city" */
.city {
  background-color: tomato;
  color: white;
  padding: 10px;
}
</style>

<!-- An element with a unique id -->
<h1 id="myHeader">My Cities</h1>

<!-- Multiple elements with same class -->
<h2 class="city">London</h2>
<p>London is the capital of England.</p>

<h2 class="city">Paris</h2>
<p>Paris is the capital of France.</p>
```
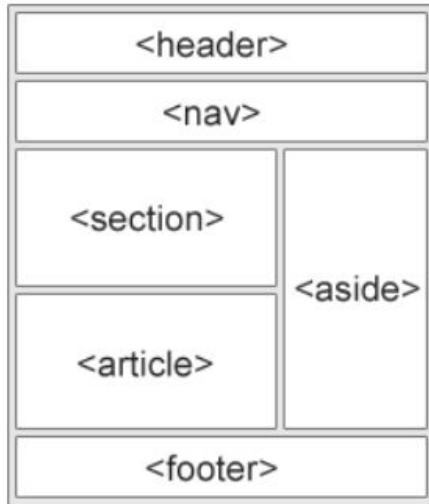
HTML Layout Elements

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

`<header>`
`<nav>`

`<section>`	`<aside>`
`<article>`	

`<footer>`

- `<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
- `<details>` - Defines additional details that the user can open and close on demand
- `<summary>` - Defines a heading for the `<details>` element

You can read more about semantic elements in our HTML Semantics chapter.

CSS Layout - The display Property

- The display property is the most important CSS property for controlling layout.

- **The display Property**

- The display property specifies if/how an element is displayed.

- Every HTML element has a default display value depending on what type of element it is. The default display value for most elements is block or inline.

CSS Layout - The display Property

- visibility:hidden; also hides an element.

- However, the element will still take up the same space as before. The element will be hidden, but still affect the layout:

- Hiding an element can be done by setting the display property to none. The element will be hidden, and the page will be displayed as if the element is not there:

- h1.hidden {
    display: none;
  }

THANK
YOU