

HTML Introduction



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Building blocks of web apps

HTML



HTML the Skeleton



CSS



CSS the Skin



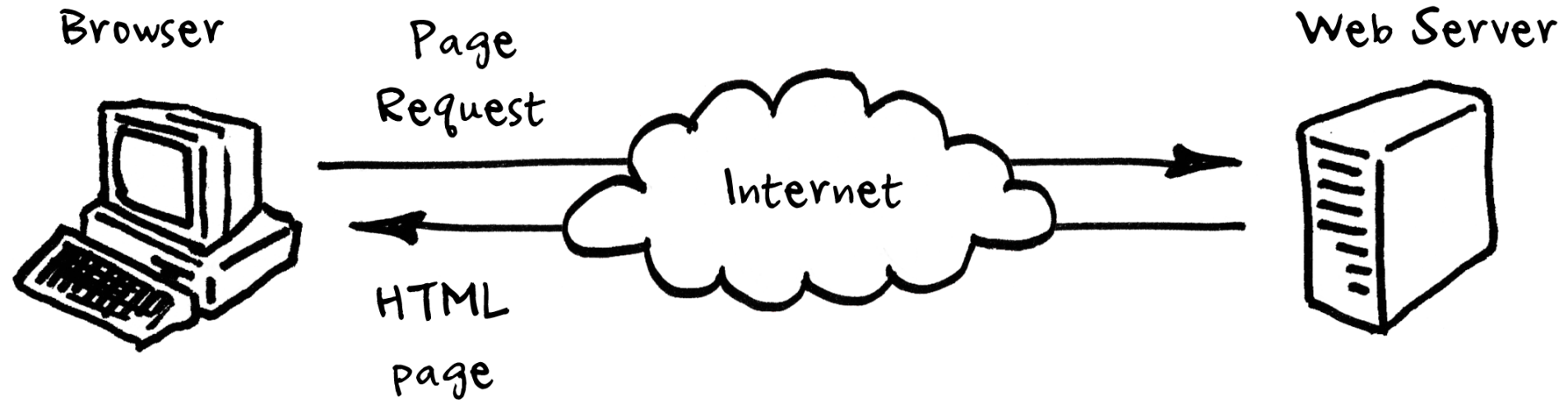
JS



Javascript the Brain



Web app in browsers



HTML



What is HTML ?

Hyper Text Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It defines the content and structure of web content.



HTML Document Structure

- `<!DOCTYPE html>` - This declaration is not an HTML tag. It is an "information" to the browser about what document type to expect.
- `<html></html>` - The tag represents the root of an HTML document. And contains all other HTML elements.

```
<!DOCTYPE html>
<html>

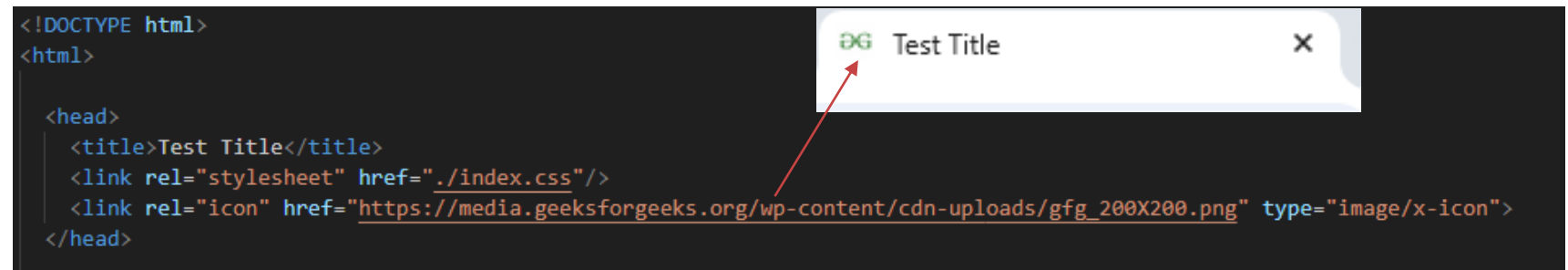
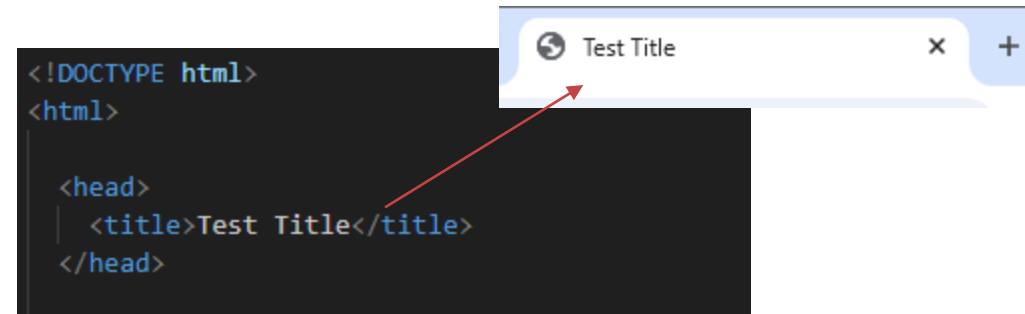
  <head>
    <title>My First Webpage</title>
  </head>

  <body>
    <h1>
      My First Webpage
    </h1>
    <p>This is a paragraph...</p>
  </body>

</html>
```

HTML Head

- The `<head>` element is a container for metadata (data about data) and is placed between the `<html>` tag and the `<body>` tag.
- Metadata is not displayed.
- The elements that can go inside the `<head>` element: `<title>`, `<style>`, `<base>`, `<link>`, `<meta>`, `<script>`



HTML Body

- The `<body>` tag defines the document's body.
- The `<body>` element contains all the contents of an HTML document, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- There can only be one `<body>` element in an HTML document.

```
<body>
  <header>
    <nav>
      <ul>
        <li><a href="./index.html">Home</a></li>
        <li><a href="./about.html">About</a></li>
        <li><a href="#">Contact</a></li>
      </ul>
    </nav>
  </header>

  <main class="container">
    <h1>Welcome to my web page</h1>
    <section class="search-bar">
      <input type="search" placeholder="Search..." />
      <button id="search-btn">Search</button>
    </section>
  </main>

  <footer>
    <p>&copy; All rights reserved</p>
  </footer>
</body>
```


HTML Tags

- HTML tags are the keywords that are used to produce web pages in various formats.



Common Tags

Basic HTML

Tag	Description
<u><!DOCTYPE></u>	Defines the document type
<u><html></u>	Defines an HTML document
<u><head></u>	Contains metadata/information for the document
<u><title></u>	Defines a title for the document
<u><body></u>	Defines the document's body
<u><h1> to <h6></u>	Defines HTML headings
<u><p></u>	Defines a paragraph
<u>
</u>	Inserts a single line break
<u><hr></u>	Defines a thematic change in the content
<u><!--...--></u>	Defines a comment

Formatting

Tag	Description
<u></u>	Defines bold text
<u></u>	Defines emphasized text
<u><i></u>	Defines a part of text in an alternate voice or mood
<u><small></u>	Defines smaller text
<u></u>	Defines important text
<u><sub></u>	Defines subscripted text
<u><sup></u>	Defines superscripted text
<u><ins></u>	Defines inserted text
<u></u>	Defines deleted text
<u><mark></u>	Defines marked/highlighted text

Common Tags

Lists

Tag	Description
<u><menu></u>	Defines an alternative unordered list
<u></u>	Defines an unordered list
<u></u>	Defines an ordered list
<u></u>	Defines a list item

Forms and Input

Tag	Description
<u><form></u>	Defines an HTML form for user input
<u><input></u>	Defines an input control
<u><textarea></u>	Defines a multiline input control (text area)
<u><button></u>	Defines a clickable button
<u><select></u>	Defines a drop-down list
<u><optgroup></u>	Defines a group of related options in a drop-down list
<u><option></u>	Defines an option in a drop-down list
<u><label></u>	Defines a label for an <input> element

Common Tags

Tables

Tag	Description
<code><table></code>	Defines a table
<code><caption></code>	Defines a table caption
<code><th></code>	Defines a header cell in a table
<code><tr></code>	Defines a row in a table
<code><td></code>	Defines a cell in a table
<code><thead></code>	Groups the header content in a table
<code><tbody></code>	Groups the body content in a table
<code><tfoot></code>	Groups the footer content in a table

Links

Tag	Description
<code><a></code>	Defines a hyperlink
<code><link></code>	Defines the relationship between a document and an external resource (most used to link to style sheets)
<code><nav></code>	Defines navigation links

Self Closing Tags

- Self-closing tag is an element that does not need an explicit closing tag. It is written in a single line, and the tag is "closed" by including a forward slash (/) before the closing angle bracket (>)
- There is no content between the opening and closing tags.

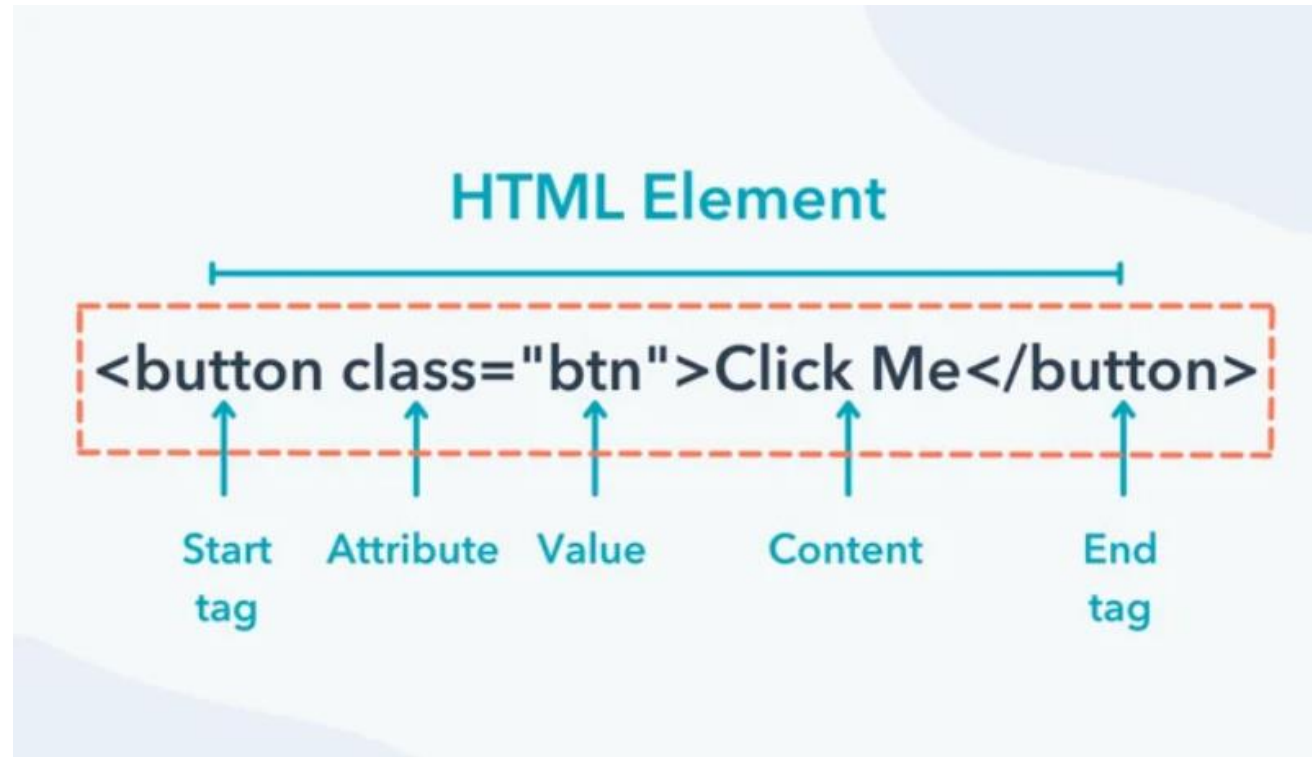
```
  
  

```

```
<input type="search" placeholder="Search..." />
```

```
<link rel="stylesheet" href="assets/index.css"/>
```

HTML Element



HTML Attributes

- All HTML elements can have attributes
- Attributes are always specified in the start tag
- Attributes usually come in name/value pairs like: *name="value"*, *class="first-name"*

Attribute	Description
alt	Specifies an alternative text for an image
disabled	Specifies that an input element should be disabled
href	Specifies the URL (web address) for a link
id	Specifies a unique id for an element
src	Specifies the URL (web address) for an image
style	Specifies an inline CSS style for an element
title	Specifies extra information about an element (displayed as a tool tip)

Attributes Examples

```
<section class="search-bar">  
  <input type="search" placeholder="Search..." />  
  <button id="search-btn">Search</button>  
</section>
```

```
<ul>  
  <li><a href="./index.html">Home</a></li>  
  <li><a href="./about.html">About</a></li>  
  <li><a href="#">Contact</a></li>  
</ul>
```

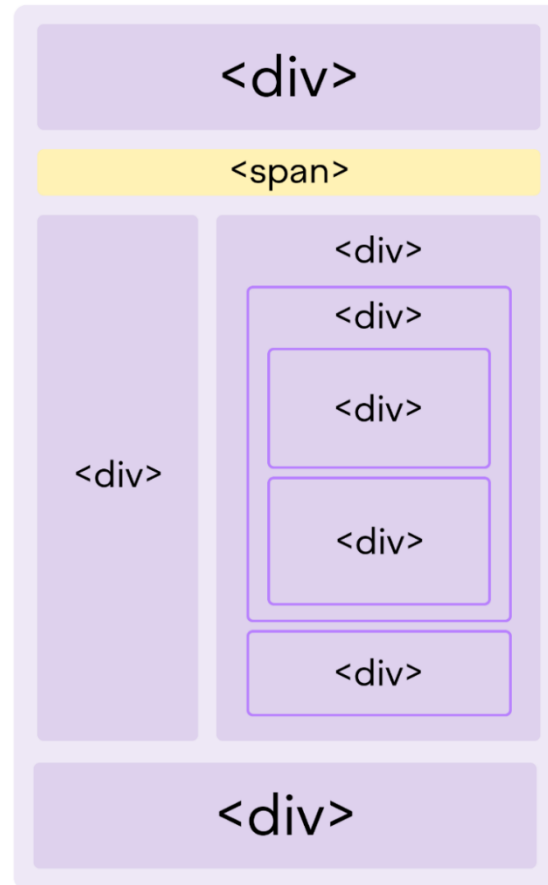

HTML Events

- HTML Events allow JavaScript to add event listener or event handlers to HTML elements.

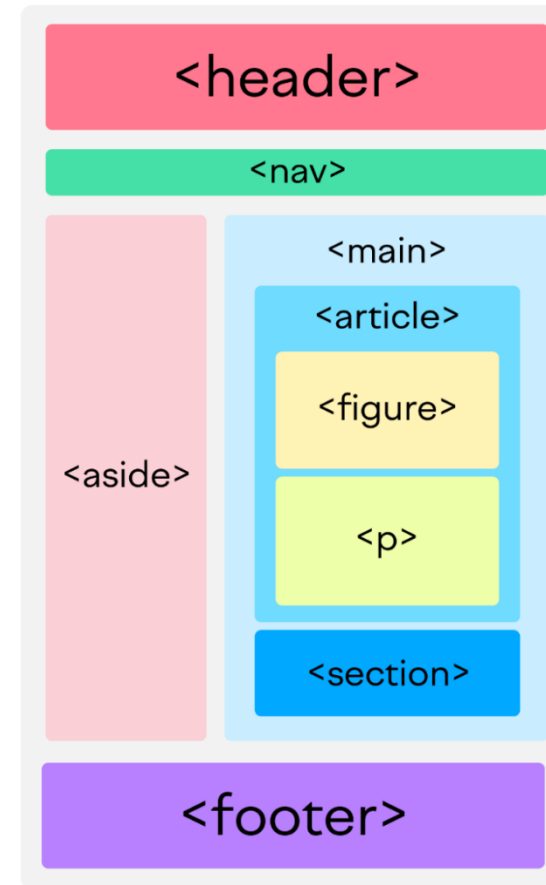
Mouse	<code>onclick, oncontextmenu, ondblclick, onmousedown, onmouseenter, onmouseleave, onmousemove, onmouseover, onmouseout, onmouseup,</code>
Keyboard	<code>onkeydown, onkeypress, onkeyup</code>
Frame	<code>onabort, onbeforeunload, onerror, onhashchange, onload, onpagehide, onpageshow, onresize, onscroll</code>
Drag	<code>ondrag, ondragend, ondragenter, ondragleave, ondragover, ondragstart, ondrop</code>
Clipboard	<code>oncopy, oncut, onpaste</code>
Media	<code>onabort, onended, onerror, onpause, onplay, onplaying, onvolumechange, onseeking, onratechange</code>

What is Semantic HTML ?

Non-Semantic HTML



Semantic HTML



Semantic Elements

- 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.
- The `<section>` element defines a section in a document.
- The `<article>` element specifies independent, self-contained content.
- The `<header>` element represents a container for introductory content or a set of navigational links.
- The `<footer>` element defines a footer for a document or section.
- The `<nav>` element defines a set of navigation links.
- The `<aside>` element defines some content aside from the content it is placed in (like a sidebar).

Questions

