

Advanced Client-Side Development

How The Web Works?

HTML5

Core CSS (Color, Text, Shadows and gradients etc.)

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How The Web Works?

- Think about it!
- What terms/technologies can you think of?
- Example

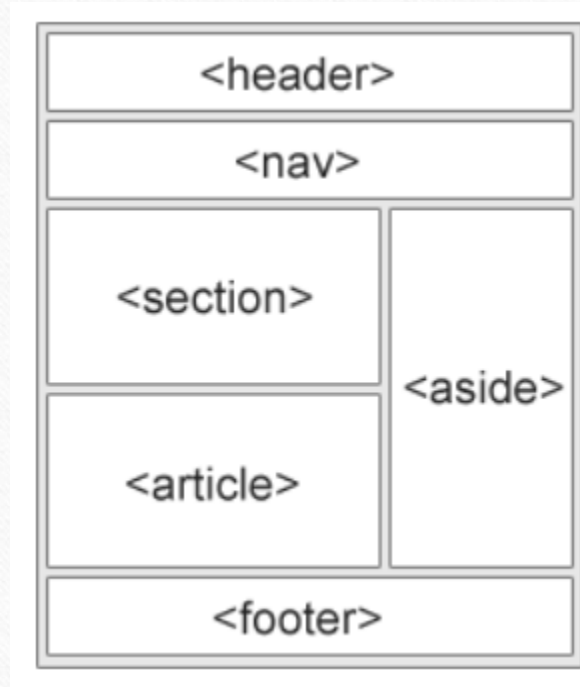
HTML5

- Hypertext Markup Language
- H1 – H6, Div, Span etc.
- HTML vs HTML5?
- What are the common HTML5 elements?

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.

Semantic Elements in HTML5



<!DOCTYPE html>

- This declaration defines the document type and version of HTML. If give, it tells the browser that the document follows HTML5.
- Ensures that the webpage is rendered correctly by modern browsers, preventing them from switching to "quirks mode" (which can lead to unexpected behaviour).

<html lang="en">

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- The <html> tag wraps the entire HTML document. The lang="en" attribute specifies that the document is written in English.
 - It signals to browsers, screen readers, and search engines the language of the webpage, which improves accessibility and SEO.

<head>

- The <head> element contains meta-information about the HTML document, like its title, character encoding, and viewport settings.
- It helps define how the document behaves in the browser and how it's displayed in search engines.

<meta charset="UTF-8">

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- The <meta> tag with the charset attribute sets the character encoding of the document to UTF-8 (Unicode Transformation Format 8), which supports most languages and characters.
 - Ensures that the webpage correctly displays characters from different languages and symbols.

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

- This <meta> tag controls the viewport's behaviour, crucial for responsive web design.
- It tells the browser how to scale the content on different devices.
- width=device-width makes sure the page fits the screen width of the device, and initial-scale=1.0 sets the initial zoom level.

<title>HTML & CSS Example with Gradients</title>

- The <title> tag specifies the title of the webpage, which is shown on the browser tab.
- It helps users understand the content of the page before clicking and improves SEO.

<header>

- The <header> element is used to define introductory content or a navigation section at the top of the page.
- Typically contains headings, logos, or navigation links.

<nav>

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- The <nav> element defines a set of navigation links.
 - Helps users navigate to other pages or sections within the site.

<section>

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- The <section> element defines a section in a document, often used to group content that has a related theme.
 - For example, section containing two articles, grouping them together under a common theme.

<article>

- The <article> element represents a self-contained composition in a document, which could be reused or shared independently.
- Typically used for blog posts, news articles, or forum posts.

<mark>

- The <mark> element highlights text.
- It represents text that has been marked or highlighted for reference or emphasis.

<figure> and <figcaption>

- <figure>: Represents self-contained content, often with media like images or code snippets.
- <figcaption>: Provides a caption or description for the media inside <figure>.
- Together, these elements provide a structured way to display images with appropriate descriptions, enhancing accessibility.

<details> and <summary>

- <details>: A collapsible container for additional content.
- <summary>: Defines the visible heading of the <details> element.
- Allows users to reveal more content interactively (by clicking on the summary).

<time datetime="2023-09-20">

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- The <time> element represents a specific point in time, with the datetime attribute holding a machine-readable date.
 - Improves semantics and searchability for time-related content.

<progress>

- The <progress> element represents the completion progress of a task.
- Useful for showing users how much of a task is completed, like a progress bar.

<meter>

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- The <meter> element represents a scalar measurement within a known range (e.g., disk usage, temperature).
 - Provides visual feedback for a specific measurement within a range.

<aside>

- The <aside> element represents content that is tangentially related to the main content (e.g., a sidebar).
- Often used for ads, related links, or additional information.

<footer>

- The <footer> element represents the footer of a document or section, typically containing copyright information or navigation links.
- It appears at the bottom of the webpage and usually includes metadata like author details or legal information.

Semantic Elements in HTML5

- Example (index.html)

Core CSS

- Font
- Colors
- Text Effects
- Backgrounds
- Shadows
- Gradients
- Attribute Selectors

Core CSS (See example 02)

- Explanation:
 - Font: Integrated Google Fonts (Roboto for the body and Lobster for the headings).
 - Colors: Solid background on body (#3498db) and a semi-transparent background on the header.
 - Text Effects: Underline on the header text and text-shadow on the <h2> elements.
 - Backgrounds: section uses a background image with a gradient overlay.
 - Shadows: Applied box-shadow to .article-card for a shadow effect.
 - Gradients: The footer has a linear gradient from orange to pink.
 - Attribute Selectors: Links starting with https are styled green, and images with an alt attribute are given a red border.

Self Study

- https://www.w3schools.com/cssref/css_selectors.php
- https://www.w3schools.com/css/css3_gradients.asp
- https://www.w3schools.com/cssref/css3_pr_box-shadow.php
- https://www.w3schools.com/css/css_background.asp