

HTML Tags

Building blocks in HTML

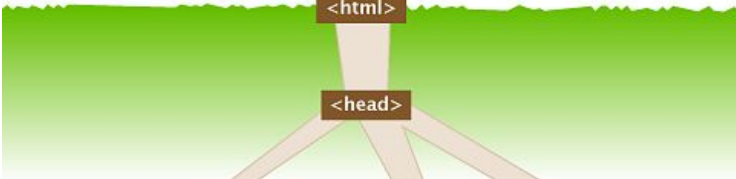
etiquette, elements, structure, ...

Agenda

- Tags
 - Structuring
 - To define content
 - To structure content
- Workshop: Let' try it!
- Questions

Learning Objectives

- What is a tag?
- How is the anatomy of a tag?
- How can be the tags grouped?
- Can the tags be nested?
- What is HTML validation?
- What is a semantic tag?



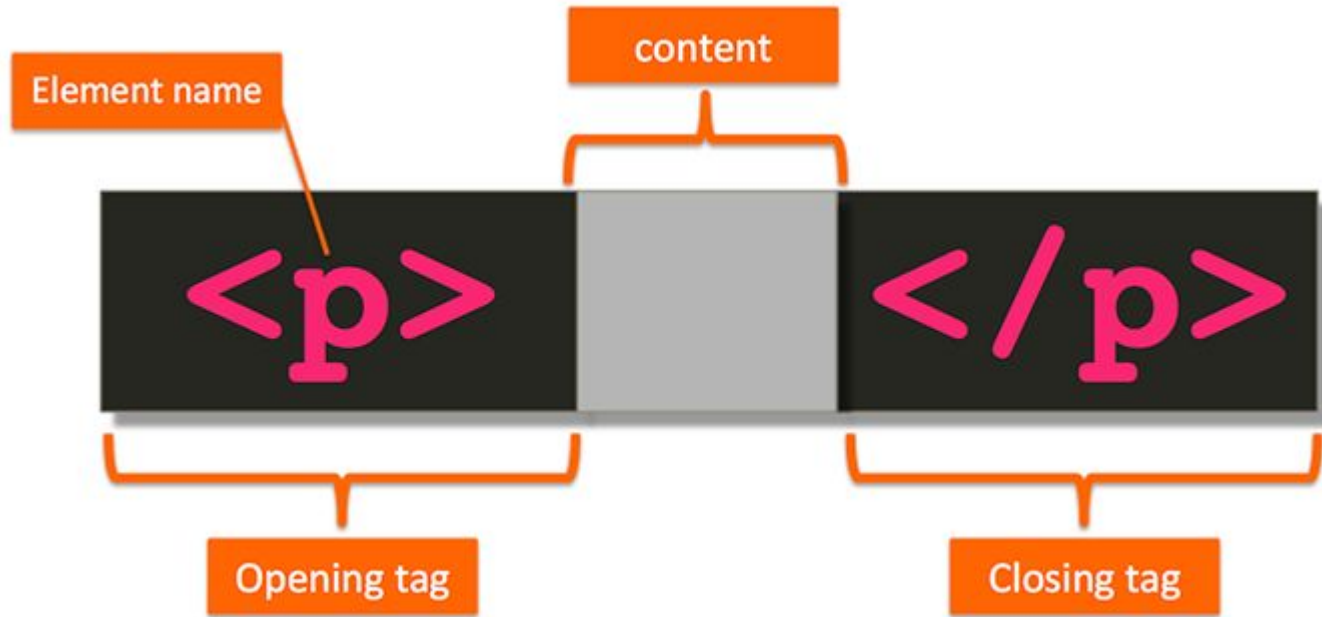
Document Object Model = DOM

Intro



How can data be defined in HTML structure and become a web document?

- Tags are commands
- Every tag is interpreted by the browser
- Interpreted tags assemble a view, browser page.
- Every tag has a meaning/duty.
- Classification
 - Tags for Structure
 - Tags for document content
 - Tags for document layout
 - Tags for Input, server communication



Anatomy of a tag (paired)

Optional a forward slash

``

Optional single space

Anatomy of void tag (unpaired)

Rules

- Almost all tags have a closing tag, write them together
- use always lowercase
- HTML does not break the line (of text) by itself
- closing tags uses always forward slash "/" like `</p>`
- opening tags can contain attributes, but not the closing one!
- There is only one parent
- use appropriate tag for the job

Classification



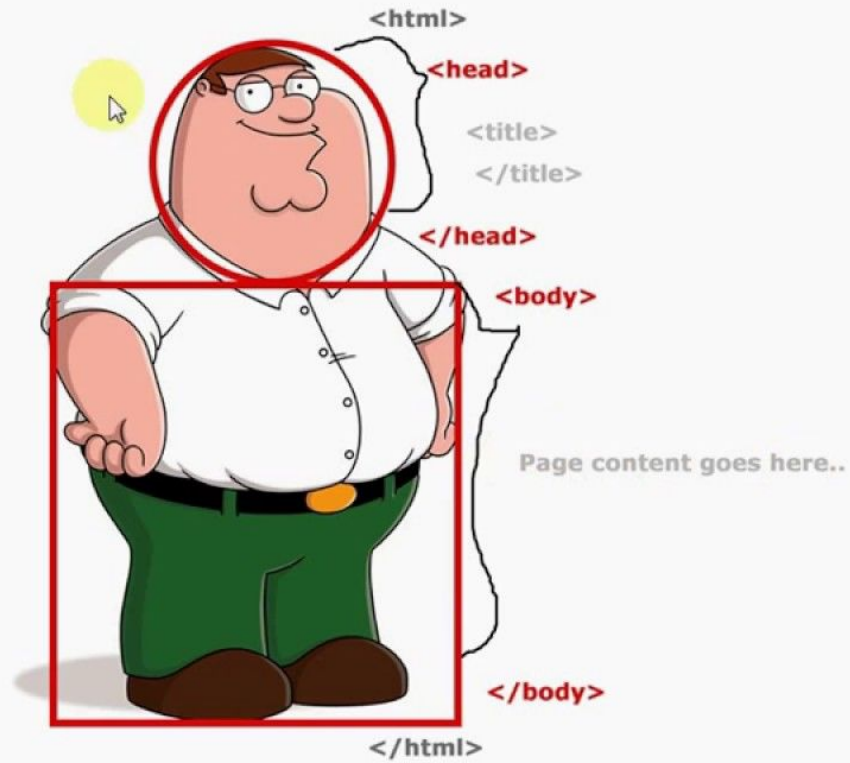
What kind of tag groups are existing?

- Tags for Structure
- Tags for document content
- Tags for document layout
- Tags for Input, server communication

Tags For Structure

The envelope, the root of the document, parent structure.

- `<!DOCTYPE html>`
 - Document type definition → html latest version HTML5
- `<html></html>`
 - Parent of the whole HTML ist.
- `<head></head>`
 - Invisible part
 - Defines document
 - `<title></title>`
 - `<meta/>`
 - `<link></link>`
 - Element for document linking, such as external CSS files
 - `<script></script>`
 - Javascript code / files can be imported
- `<body></body>`
 - Visible part of the page



:)

Minimum acceptable/**valid** HTML structure

- **doctype**
- html
- head
- **title**
- body

Minimum valid HTML

```
<!DOCTYPE html>  
  <title>title</title>
```

Minimum HTML

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>title</title>
  </head>
  <body>
    <!-- page content -->
  </body>
</html>
```

HTML with CSS & JS

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>title</title>
    <link rel="stylesheet" href="style.css">
    <script src="script.js"></script>
  </head>
  <body>
    <!-- page content -->
  </body>
</html>
```

HTML with CSS & JS

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>title</title>
    <link rel="stylesheet" href="style.css">
    <script src="script.js"></script>
  </head>
  <body>
    <!-- page content -->
  </body>
</html>
```


<> week02-01.html X

<> week02-01.html >  html >  body >  p

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>HiCoders - Week 02 - Tags</title>
7  </head>
8  <body>
9
10     <h1>HiCoders</h1>
11     <h2>Coding Academy</h2>
12     <h3>For everybody</h3>
13     <p>Lorem ipsum dolor sit amet consectetur adipisicing elit.
14         Quo sequi harum non, in nemo voluptates, voluptas nostrum
15         libero a qui ad minus nobis inventore! Vitae itaque dolor
16         sit error dignissimos!</p>
17
18 </body>
19 </html>
20
```

HiCoders

Coding Academy

For everybody

Lorem ipsum dolor sit amet consectetur adipisicing elit. Quo sequi harum non, in nemo voluptates, voluptas nostrum libero a qui ad minus nobis inventore! Vitae itaque dolor sit error dignissimos!

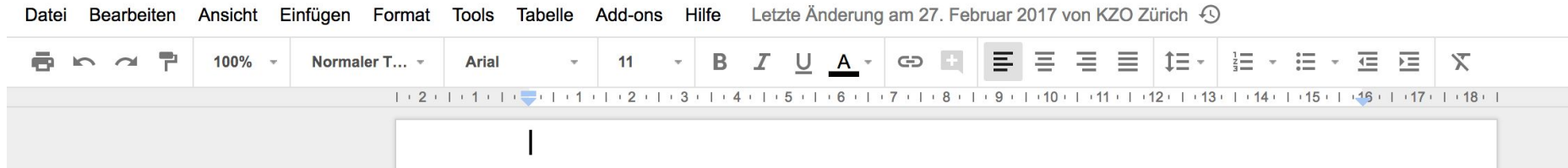
An HTML, written in VSCode

Tags for Content

How can one format the
content?

Think/treat it as a word document

- `<h1></h1>` (h2, h3, h4, h5, h6)
 - Element for defining **Headings**.
- `<p></p>`
 - Element for defining **Paragraphs**
- ``, ``
- `<i></i>`, ``
- `<a>`
 - Anchor
- ``
 - **Unordered List**, Element for defining an unstructured list
- ``
 - **Ordered List**, Element for defining an structured list
- ``
 - **List Item**, Element for defining a list
- ``, `<video>`



Exactly the same formatting as in the MS Word document.

Database Design Template - Blue Theme - Coverpage Image - Word

FILE HOME INSERT DESIGN PAGE LAYOUT REFERENCES MAILINGS REVIEW VIEW DEVELOPER

Clipboard Font Paragraph Styles Editing

1 Introduction

The Database Design maps the logical data model to the target database management system with consideration to the system's performance requirements. The Database Design converts logical and conceptual data constructs to physical storage constructs (e.g., tables, files) of the target DBMS.

Use this Database Design Template to define the basis for the [Application] database design. Describe how the database that will support the [Application] data model, supported with details of the logical and physical definitions, non-functional issues, database interfaces, and storage requirements. Where possible, provide expected data volumes, functional and non-functional usage of the tables, and performance considerations and requirements.

1.1 Purpose

The purpose of the Database Design is to ensure that every database transaction meets or exceeds its performance requirements. This document takes into account data and transaction volume to produce a schema and environment that will meet necessary performance.

Describe the purpose of the Database Design document.

1.2 Scope, Approach and Methods

Describe the scope of this document as it relates to the project. For example:

The Database Design for the [Application] is composed of definitions for database objects derived by mapping entities to tables, attributes to columns, unique identifiers to unique keys and relationships to foreign keys. During design, these definitions may be enhanced to support the functionality described in the functional specifications and defined in the primary and supporting modules of the application's High-Level Design.

1.3 System Overview

Briefly describe the system for which this database will be designed. This serves as a point of reference for the system designers and others involved in decision-making roles.

System Overview	Details
Project Sponsor	
System name	
System type	Major application, support system, back office etc
Operational status	Operational / In development / Under modification

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1.4 Acronyms and Abbreviations

Provide a list of the acronyms and abbreviations used in this document and the meaning of each.

Acronym / Abbreviation	Meaning
POC	Point of Contact
RDBS	Relational Database System
SA	System Administrator
DBA	Database Administrator

1.5 Points of Contact

Identify the points of contact that may be needed for informational purposes.

Role	Name	Email	Telephone
[Role]	[Name]	[Email]	[123-345-456]
[Role]	[Name]	[Email]	[123-345-456]
[Role]	[Name]	[Email]	[123-345-456]

1.5.1 Information

Provide a list of the points of organizational contact (POCs) that may be needed by the document user for informational and troubleshooting purposes. Include type of contact, contact name, department, telephone number, and e-mail address (if applicable). Points of contact may include, but are not limited to, helpdesk POC, development/maintenance POC, and operations POC.

Role	Name	Email	Telephone
[Role]	[Name]	[Email]	[123-345-456]

1.5.2 Coordination

Provide a list of organizations that require coordination between the project and its specific support function (e.g., installation coordination, security, etc.). Include a schedule for coordination activities.

Organization	POC Name	Email	Telephone
[Installation]	[Name]	[Email]	[123-345-456]
[Development]	[Name]	[Email]	[123-345-456]
[Security]	[Name]	[Email]	[123-345-456]

Phase	Activity	POC	Start Date
Design	Sign-off document	[Name]	DD/MM/YYYY
Development	Develop Database	[Name]	DD/MM/YYYY
Testing	Test cycle	[Name]	DD/MM/YYYY

1.5.3 Data Owners

Identify points of contact for those who own or are responsible for data quality, currency, accuracy, etc.

Type of Data	POC Name	Email	Telephone

2 System Overview

2.1.3 Support Software

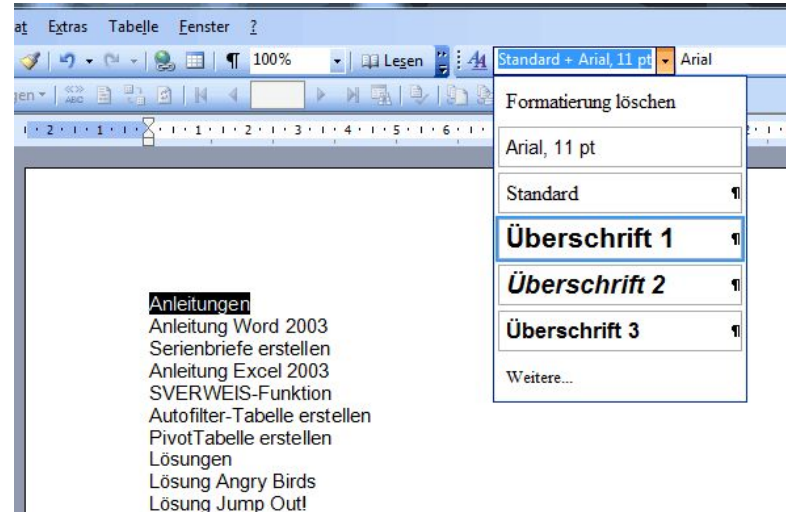
PAGE 8 OF 31 3573 WORDS ENGLISH (UNITED STATES) 57%

a nice formatted word document

Tags for Content

Headings

<h1></h1> (h2, h3, h4, h5, h6)



<h1>Heading</h1>

<h2>Heading</h2>

<h3>Heading</h3>

<h4>Heading</h4>

<h5>Heading</h5>

<h6>Heading</h6>

Tags for Content – I

Text formatting

- **Paragraph:** `<p></p>`
- **Bold:** ``, ``
- ***Italic:*** `<i></i>`, ``
- **Marked text:** `<mark></mark>`
- **TEST** Small text: `<small></small>`
- ~~**Deleted text:** ``~~
- **Inserted text:** `<ins></ins>`, `<u></u>`
- **TEST** Subscript text: ``
- **TEST** Superscript text: ``
- **New Line:** `
`

Paragraph:

This is at est paragraph. This is at est paragraph. This is at est paragraph. This is at est paragraph.

Bold Text: **Fetschrift mit dem Tag** ``

Important Text: **Fetschrift mit dem Tag** ``

Italic Text: *Kursiv Text mit dem Tag* `<i></i>` Emphasized Text: *Hervogehobenr Text* ``

Marked text: **Markierter Text mit dem Tag** `<mark></mark>`

Small text: Normaler Text mit kleinerem Text mit dem Tag `<small></small>`

Deleted text: ~~Gelöschter Text mit dem Tag~~ ``

Underlined Text: Unterstrichener Text mit dem Tag `<u></u>`

Inserted Text: Underlined Text mit dem Tag `<ins></ins>`

Subscript Text: Normaler Text _{und teifgestellter Text mit dem Tag} ``

Superscript Text: Normaler Text ^{und hochgestellter Text mit dem Tag} ``

```
26 <p>
27   Bugün günlerden cumartesi, <mark>nese doluyor her yer!</mark>
28   <strong>Eyvah yok ödevi verdin mi?</strong>
29   <del>Kurstan silinebilirsin</del>, <ins>sakin unutma!</ins>
30 </p>
```

Bugün günlerden cumartesi, nese doluyor her yer! Eyvah yok ödevi verdin mi? Kurstan silinebilirsin, sakin unutma!

An example to text formatting

let's try it

Icerik Formatlama

Lorem *ipsum* dolor sit amet consectetur adipisicing elit. Accusantium, neque impedit **fuga harum cumque** recusandae eos ~~incididunt non~~ ratione tenetur omnis aperiam suscipit quaerat excepturi dolore? **Deleniti vero numquam eaque.**

CO₂

$$x^2 + y^2 = z^2$$

Tags for Content – II

Text formatting

- **Links:** `Linkismi`
 - href is an **Attribute**
 - `Click to open the google`
- **Lists:**
 - Ordered List
 - ``
 - `List Item`
 - `List Item`
 - ``
 - Unordered List
 - ``
 - `List Item`
 - `List Item`
 - ``

A link (hyperlink)

[Click to open the google](#)

Ordered List

1. List Item 1
2. List Item 2

Unordered List

- List Item 1
- List Item 2

```
28
29     <ul>
30         <li>Elma</li>
31         <li>Armut</li>
32         <li>Kiraz</li>
33     </ul>
```

- Elma
- Armut
- Kiraz

An example to use the listing

Icerik Formatlama

Listeleme

Alisveris Listesi:

- Süt
- Ekmek
- Gipfeli

Bugün sirasi ile yapılacak isler:

1. Sabah kalk
2. Selam dur!
3. Kahvalti yap
4. Cantayi kontrol et!
5. Trene bin

let's try it

Tags for Content – III

Text formatting

- **pre:** Maintains original format
- **q:** Smaller, shorter quotations
- **blockquote:** Quotations from other sources
- **label:**
- **fieldset, legend:**
- **img:**
- **audio:**
- **video:**
- **embed:**
- For more -> <https://www.w3schools.com/tags/default.asp>

let's try it

Merhaba

Bu gördüğünüz tag, tüm bosluklari yazdigimi gibi ekrana bastiriyor

. . .

"Bu tag (q), bu textin bir alinti oldugunu semantic olarak anlatiyor"

Daha büyük alintilar icin bu tagi (blockquote) kullanacagiz

Fieldset, Legend

icerik



Tags for Communication with the Server

- form
- input
- textarea
- select
 - option
- button

Tags for Server Forms

- `<form></form>`
- `<input type="text" name="soyisim" value="club"/>`
 - type: text, number, email, file, color, search, date, checkbox, submit, button, image, password, hidden
- `<select></select>`
 - `<optgroup></optgroup>`
 - `<option></option>`
- `<textarea></textarea>`
- `<button></button>`

A collection of various HTML form elements:

- A simple text input field.
- A date input field showing "dd . mm . yyyy".
- A color input field showing a black color swatch.
- A text input field.
- A text input field containing five dots ".....".
- A file upload button labeled "Choose file" and the text "No file chosen".
- A checked checkbox with a blue checkmark.
- An unchecked radio button.
- An image input field with a small square icon and the URL "http://www.psdgraphics.com/file/blank-price-tag.jpg".
- A submit button labeled "gönder".
- A dropdown menu showing "Secenek 1.1" with a blue arrow icon.
- A text area with a small diagonal icon in the bottom right corner.
- A button labeled "Bit Button".

EXAMPLE

Email address

Password

File input

 No file chosen

Example block-level help text here.

☐ Check me out

```
<form>
  <div class="form-group">
    <label for="exampleInputEmail1">Email address</label>
    <input type="email" class="form-control" id="exampleInputEmail1" placeholder="Email">
  </div>
  <div class="form-group">
    <label for="exampleInputPassword1">Password</label>
    <input type="password" class="form-control" id="exampleInputPassword1" placeholder="Password">
  </div>
  <div class="form-group">
    <label for="exampleInputFile">File input</label>
    <input type="file" id="exampleInputFile">
    <p class="help-block">Example block-level help text here.</p>
  </div>
  <div class="checkbox">
    <label>
      <input type="checkbox"> Check me out
    </label>
  </div>
  <button type="submit" class="btn btn-default">Submit</button>
</form>
```

[Copy](#)

An HTML Form



Chrome
Developer Tools

TRY: Chrome Dev Tools

<https://getbootstrap.com/docs/4.0/examples/checkout/>

let's try it

Tables

Displays tabular data

- Table Container: `<table></table>`
- Table Row: `<tr></tr>`
- Table Cell: `<td></td>`
- Table Headings: `<th></th>`
- Table Header: `<thead></thead>`
- Table Body: `<tbody></tbody>`
- Table Footer: `<tfoot></tfoot>`
- Table Caption: `<caption></caption>`

```
<table border="2">
  <caption style = "font-size:24px; color: #90F; font-weight: bold;">
    An HTML Table for Tabular Data
  </caption>
  <tr>
    <th width="202" scope="col">Col 1 Heading</th>
    <th width="209" scope="col">Col 2 Heading</th>

  </tr>
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>

  </tr>
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>

  </tr>
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>

  </tr>
</table>
```

Table Code - I

Source: Google Images

Title	Price	Available
CSS Demystified	\$29	16
Mastering JavaScript	\$35	10
HTML5: An Introduction	\$15	6
Total		32

```

<table>
  <thead>
    <tr>
      <th> Title </th>
      <th> Price </th>
      <th> Available </th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td> CSS Demystified </td>
      <td> $29 </td>
      <td> 16 </td>
    </tr>
    <tr>
      <td> Mastering JavaScript </td>
      <td> $35 </td>
      <td> 10 </td>
    </tr>
    <tr>
      <td> HTML5: An Introduction </td>
      <td> $15 </td>
      <td> 6 </td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <td> Total </td>
      <td></td>
      <td> 32 </td>
    </tr>
  </tfoot>
</table>

```

Table Code - II

Source: Fastwebstart



Chrome
Developer Tools

TRY: Chrome Dev Tools

<https://www.smashingmagazine.com/2008/08/top-10-css-table-designs/>

let's try

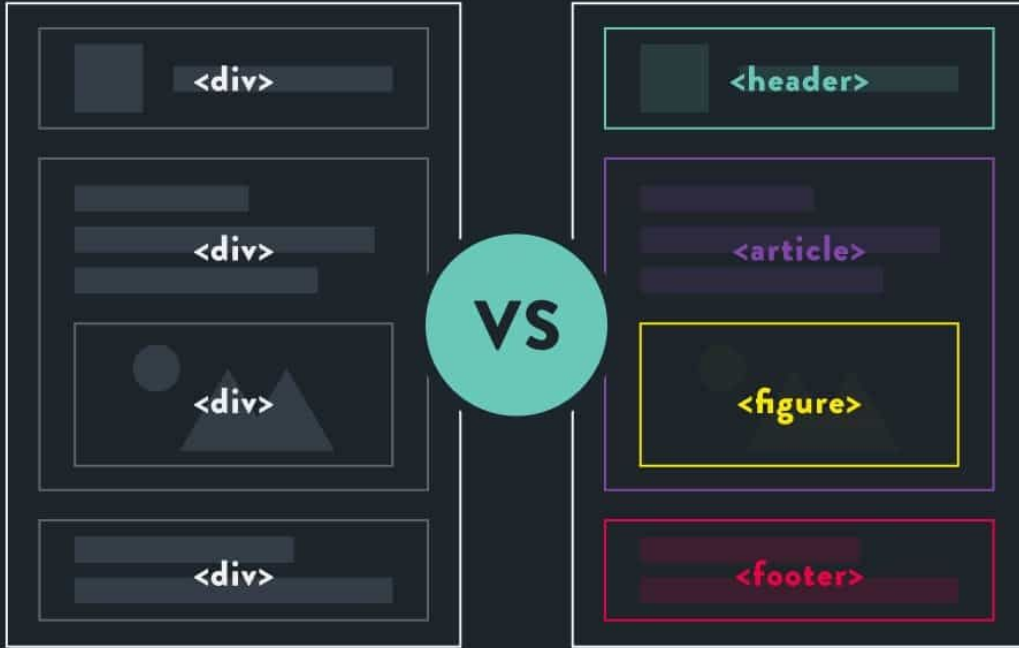


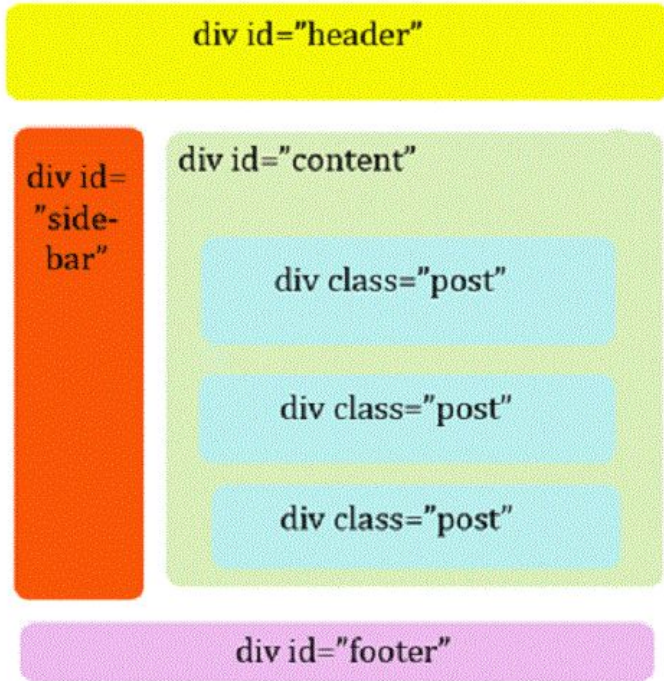
Tags for Content Structuring

Layout

Tags for Grouping

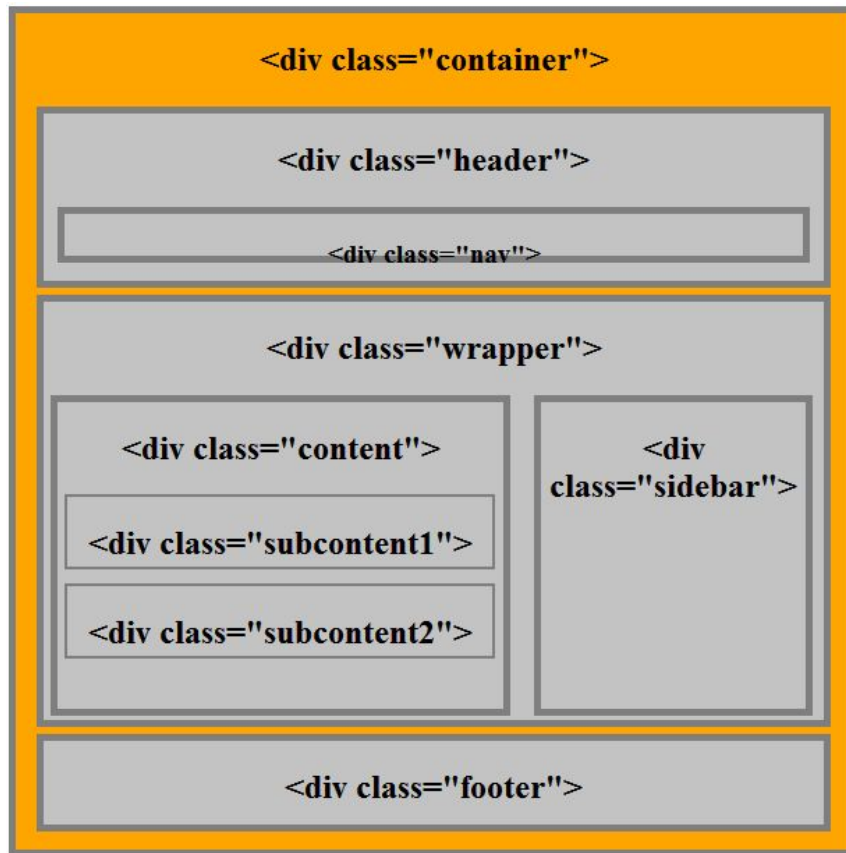
- *div (division)*
- *span*
- *fieldset*
- *form*
- `main`
- `header`
- `footer`
- `nav`
- `aside`
- `article`
- `section`
- `details, summary`





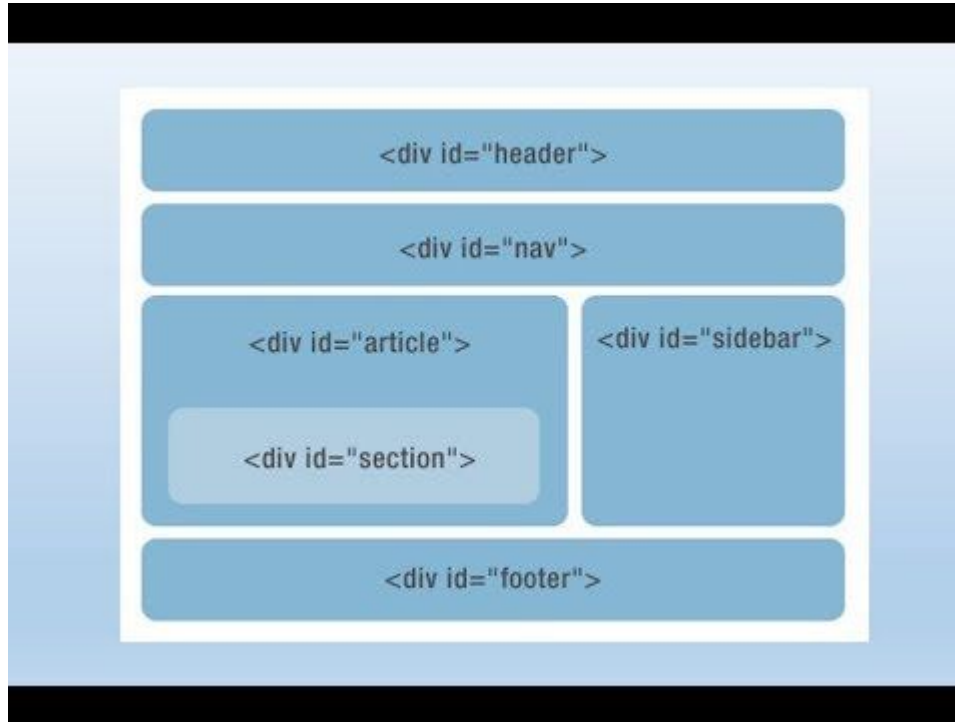
NON-Semantic HTML Tags

Source: Hongkiat



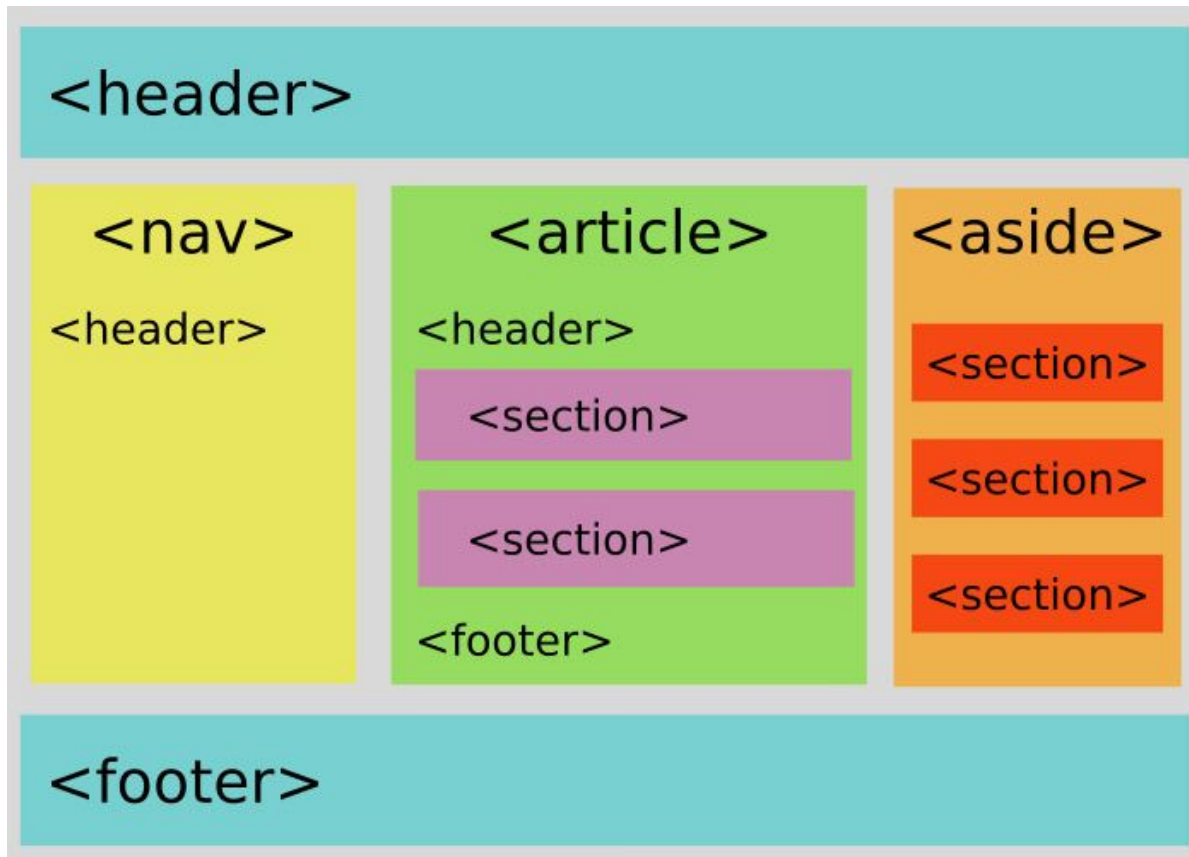
NON-Semantic HTML Tags

Source: C-sharpcorner



NON-Semantic HTML Tags

Source: Hongkiat



Semantic HTML Tags

Source: Hongkiat



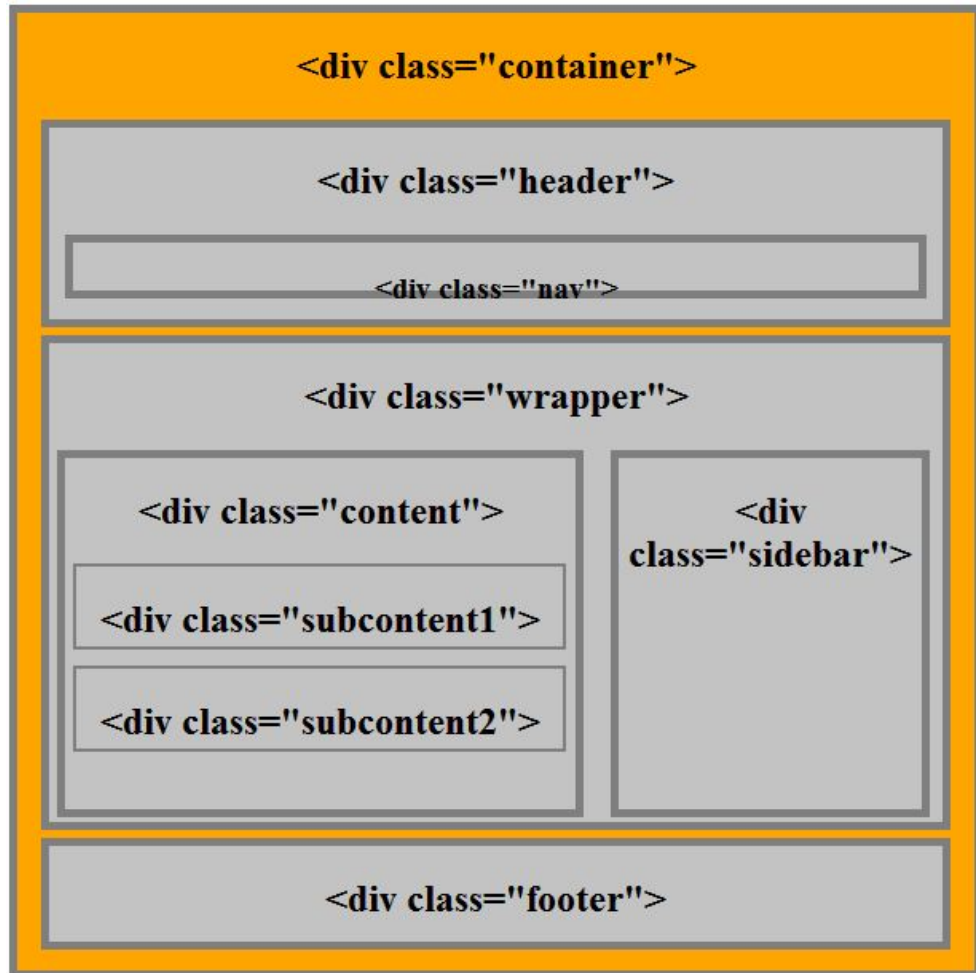
Chrome
Developer Tools

TRY: Chrome Dev Tools

<https://getbootstrap.com/docs/4.0/examples/album/>

let's try it

write it with divs convert it into semantic tags!



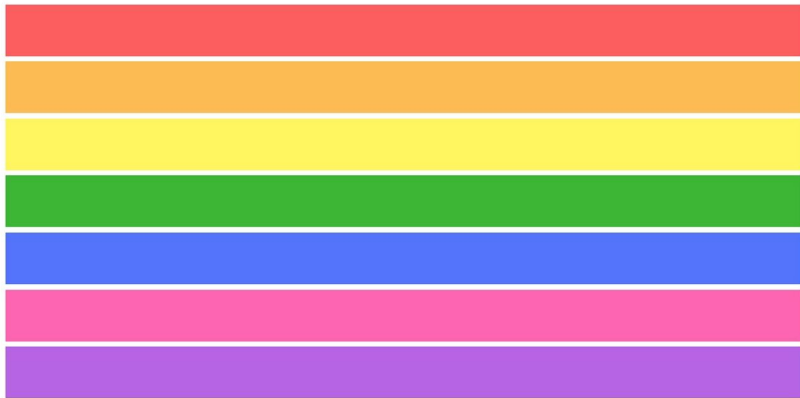
Inline, Block Tags (Elements)

Elements can also be classified differently

<https://marksheet.io/html-block-inline.html>

Inline: Dostunu ötelemeyen tag

BLOCK-LEVEL ELEMENTS:



INLINE ELEMENTS:



Questions?