HTML Tags

Building blocks in HTML
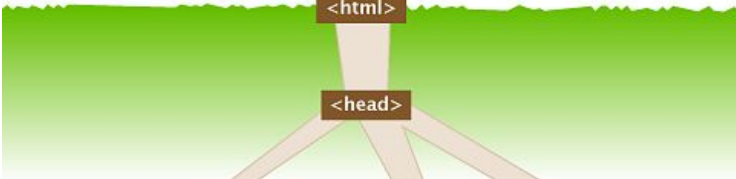
etiquette, elements, structure, ...

⟨hi/coders⟩

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
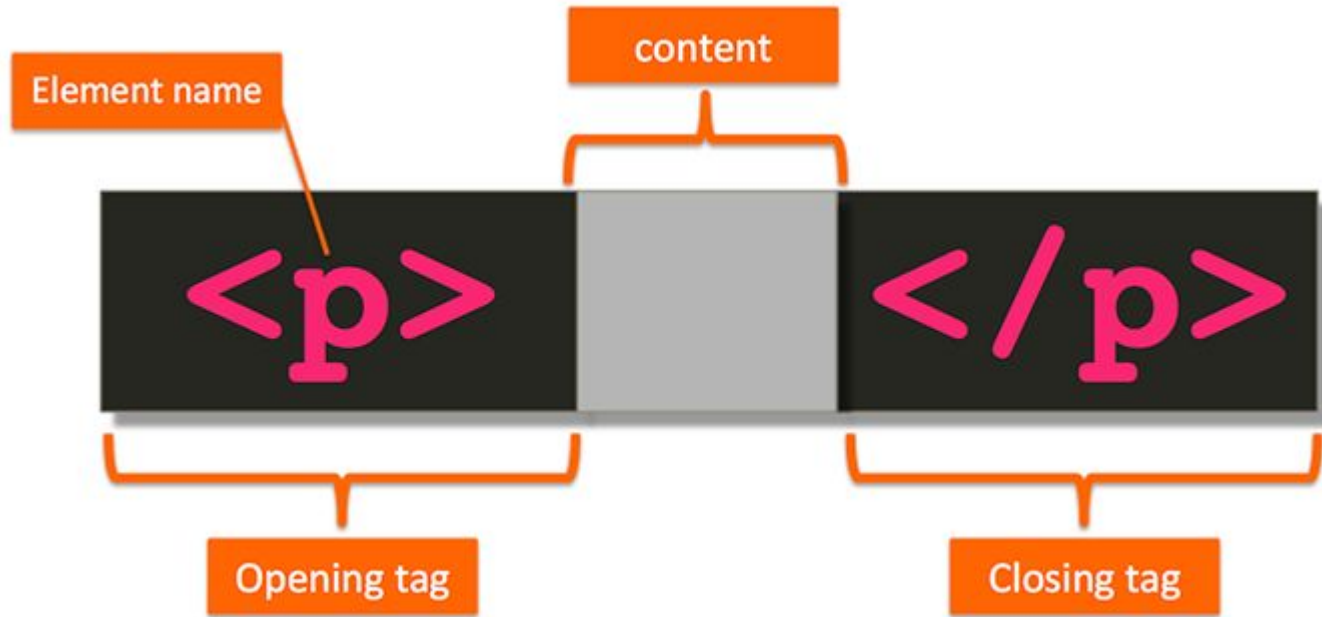
Anatomy of a tag (paired)

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 defintion → 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

:)
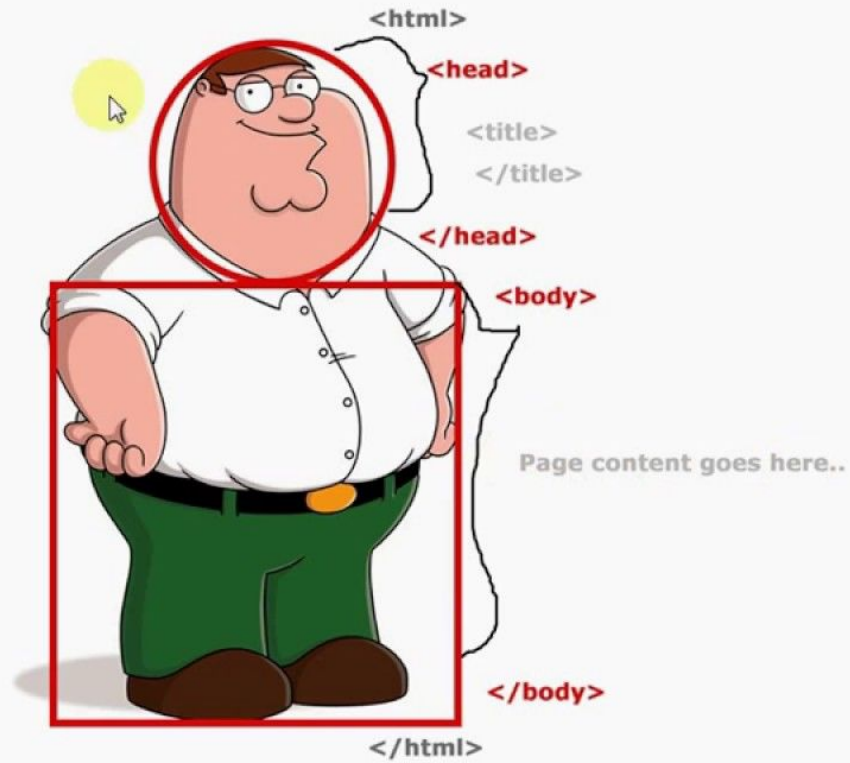
Minimum acceptable/valid HTML structure

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

Minimum valid HTML

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

Minimum HTML

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

HTML with CSS & JS

```html
<!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

```html
<!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 > 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 **H**eadings.
- <p></p>
  - Element for defining **P**aragraphs
- ,
- <i></i>,
- <a>
  - Anchor
-
  - **U**nordered **L**ist, Element for defining an unstructured list
-
  - **O**rdered **L**ist, Element for defining an structured list
-
  - **L**ist **I**tem, Element for defining a list
- <img>, <video>

100%   Normaler T...   Arial   11
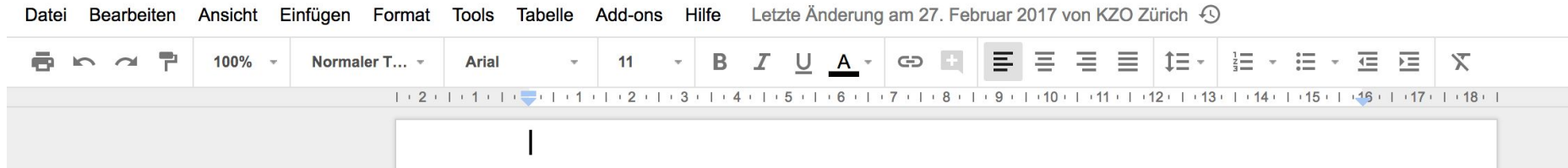
Exactly the same formatting as in the MS Word document.

a nice formatted word document

Tags for Content

Headings

<h1></h1> (h2, h3, h4, h5, h6)
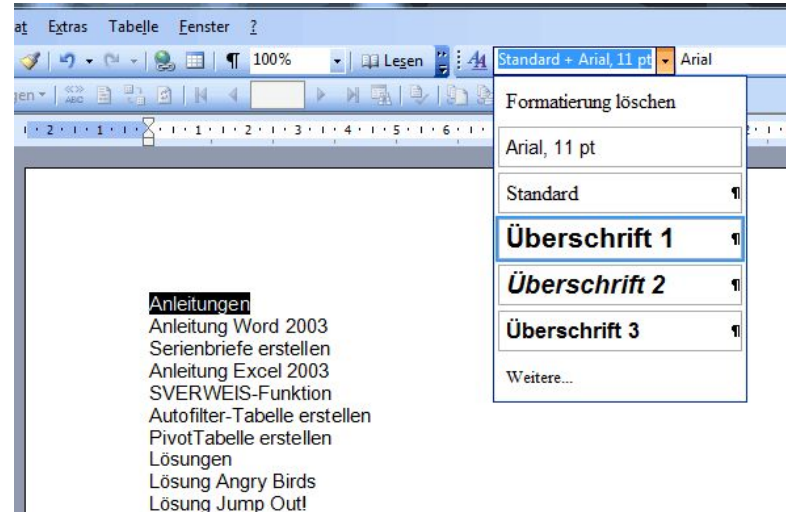
Tags for Content – I

Text formatting

- **Paragraph**: <p></p>
- **Bold**: ,
- *Italic*: <i></i>,
- <mark>**Marked text**</mark>: <mark></mark>
- **TEST** <small>Small text</small>: <small></small>
- ~~**Deleted text**~~: <del></del>
- <u>**Inserted text**</u>: <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: **Fetschrifft mit dem Tag**
Important Text: **Fetschrifft mit dem Tag**

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

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

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

Deleted text: ~~Gelöschter Text mit dem Tag~~ <del></del>

Underlined Text: <u>Unterstrichener Text mit dem Tag</u> <u></u>
Inserted Text: <u>Underlined Text mit dem Tag</u> <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, <mark>nese doluyor her yer!</mark> **Eyvah yok ödevi verdin mi?** ~~Kurstan silinebilirsin~~, <u>sakin unutma!</u>

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 ~~incidunt non~~ ratione <u>tenetur omnis</u>aperiam suscipit quaerat excepturi dolore? <mark>Deleniti vero numquam eaque.</mark>

CO_2

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

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 yapilacak 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 gördügünüz 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>

dd . mm . yyyy

•••••

Choose file No file chosen

http://www.psdgraphics.com/file/blank-price-tag.jpg

gönder

Secenek 1.1

Bit Button

Email address

Email

Password

Password

File input

Choose File   No file chosen

Example block-level help text here.

☐ Check me out

Submit

```html
<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

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> </td>
    <td> </td>

  </tr>
  <tr>
    <td> </td>
    <td> </td>

  </tr>
  <tr>
    <td> </td>
    <td> </td>

  </tr>
</table>
```

Table Code - I

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

```html
<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>
```
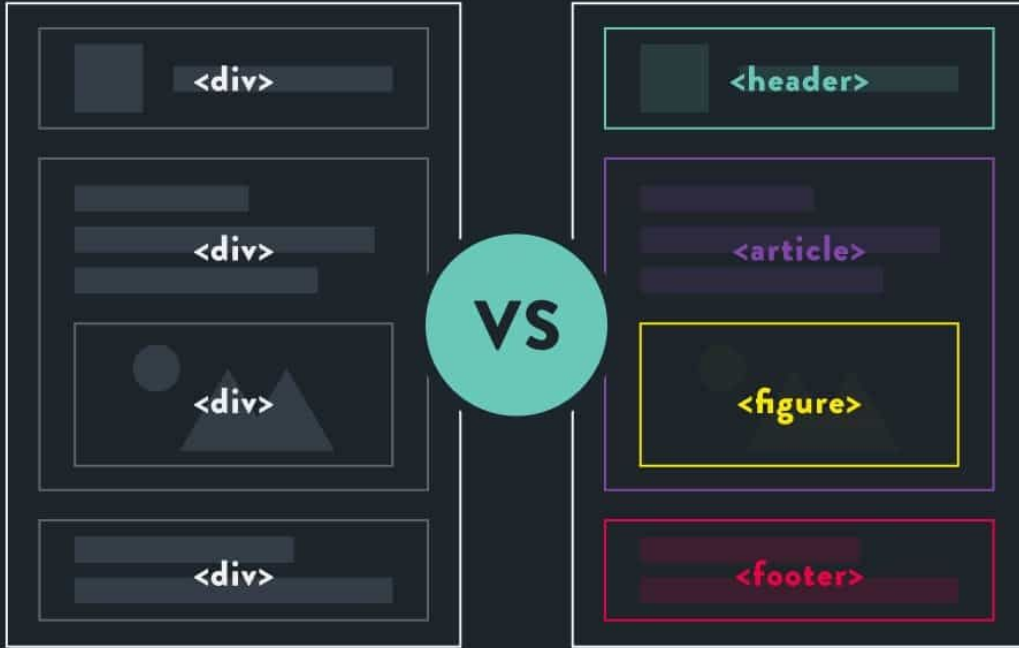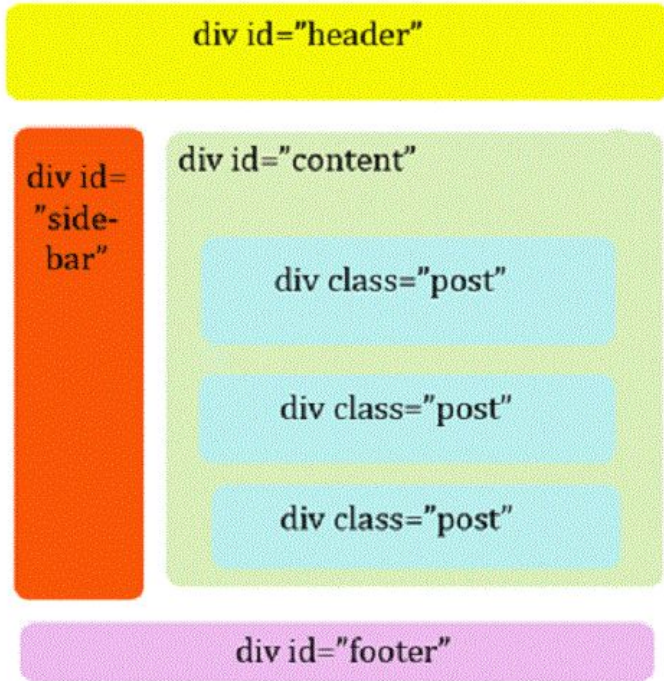
Table Code - II

Source: Fastwebstart

TRY: Chrome Dev Tools

let's try

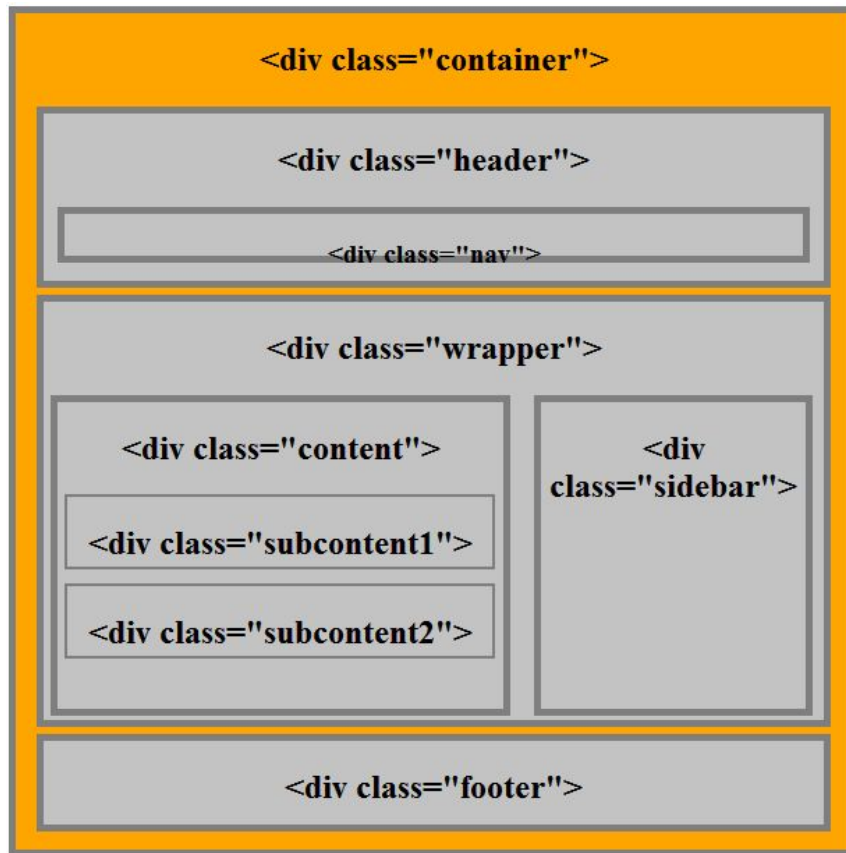| Lisbon 21°C | Paris 11°C | Belgrade 15°C |
| Moscow 2°C | New Delhi 17°C | Tel Aviv 23°C | Cairo 21°C |
| New York 3°C | San Francisco 15°C | Tokyo 8°C |

Tags for Content Structuring

Layout
Tags for Grouping

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

Left panel:
- <div>
- <div>
- <div>
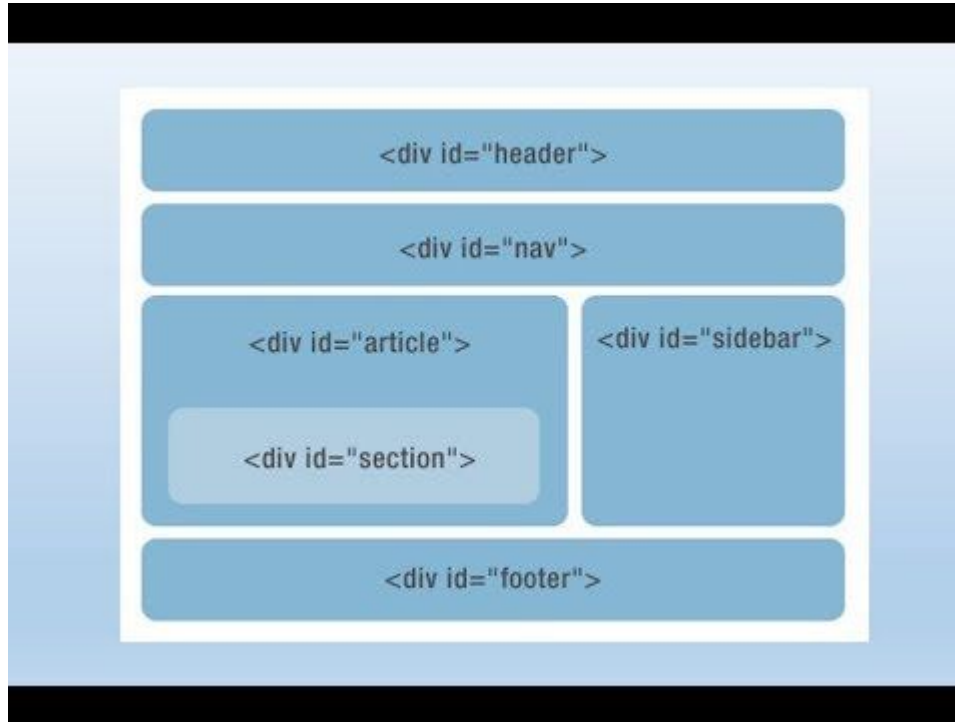- <div>

VS

Right panel:
- <header>
- <article>
- <figure>
- <footer>

NON-Semantic HTML Tags

Source: Hongkiat

NON-Semantic HTML Tags

NON-Semantic HTML Tags
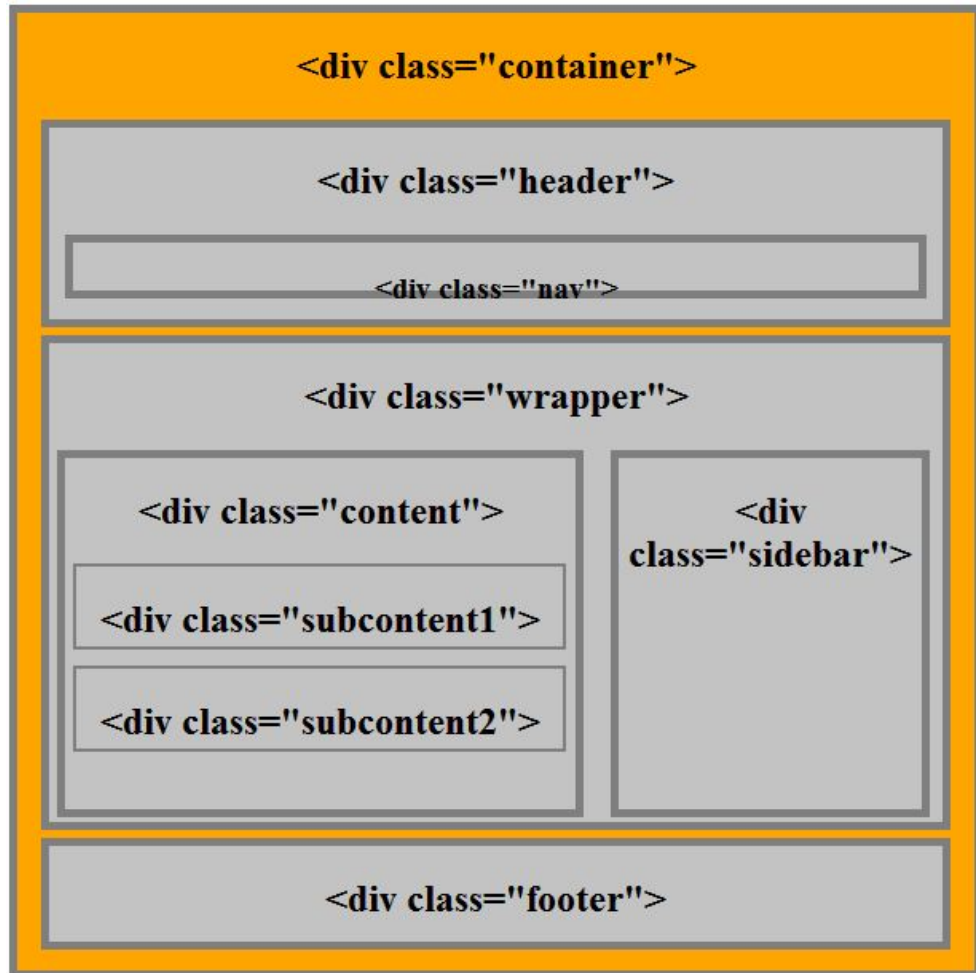
Source: Hongkiat

Semantic HTML Tags

TRY: Chrome Dev Tools
https://getbootstrap.com/docs/4.0/examples/album/
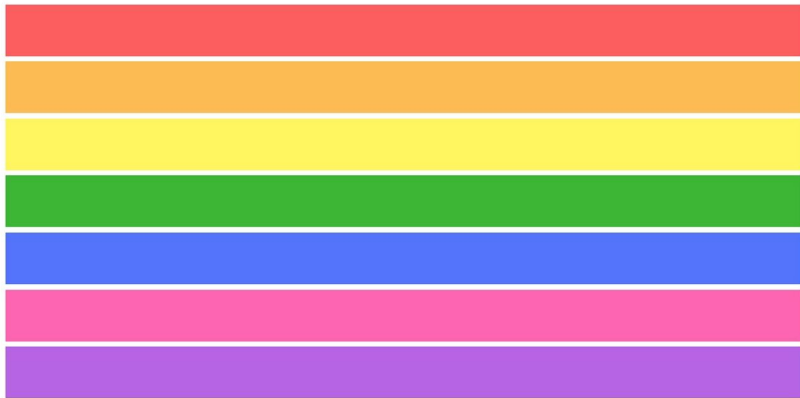
let's try it

write it with divs convert it into semantic tags!

Inline, Block Tags (Elements)

Elements can also be classified differently

Inline: Dostunu ötelemeyen tag

Questions?