

<HTML5>

An introduction

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What is HTML?

- HTML = **H**yper **T**ext **M**arkup **L**anguage
- Developed in 1990 by Tim Berners Lee
- Current Version: **HTML 5**
 - developed since 2004, released 2012
 - W3C (World Wide Web Consortium) recommendation since 2014 (<http://www.w3.org/TR/html5/>)
 - incorporates all features from earlier versions of HTML, including the stricter XHTML
- Predecessors: HTML4 and XHTML
- Separation of the structure of the document's information from the presentation of a document



HTML5 - Syntax Options

HTML5 is designed based on XHTML and HTML4 and supports several syntax options:

- Uppercase tag names are allowed

`<SECTION>` or `<section>`

- Quotes are optional for attributes.

`<input name=address maxlength=200>`
`<input name=address maxlength='200'>`
`<input name=address maxlength="200">`



must not contain any literal space characters or ", ', =, >, <, or ` , characters

- Attribute values are optional.

`<input name=address disabled>`
`<input name=address disabled="">`



equivalent

- Closing void (empty) elements is optional.

``
``

HTML5 - Syntax Rules

Please note:

As we will work with the XML editor oXygen in this class, we will use the XML-syntax rules!

```
<element attribute="value">element content</element>
```

```
<element attribute="value"/>
```

```
<!-- This is a comment -->
```

The DOCTYPE

A DOCTYPE is a required preamble – every HTML document starts with it.

In HTML5:

```
<!DOCTYPE html>
```

The DOCTYPE indicates the browser which type and version of document to expect.

The <html> element



<html> is the root element of each document

```
<html lang="en">  
  <!-- the page's content -->  
</html>
```

The @lang attribute declares which language the page content is in.

Though not strictly required, it should be specified to assist search engines and screen readers.

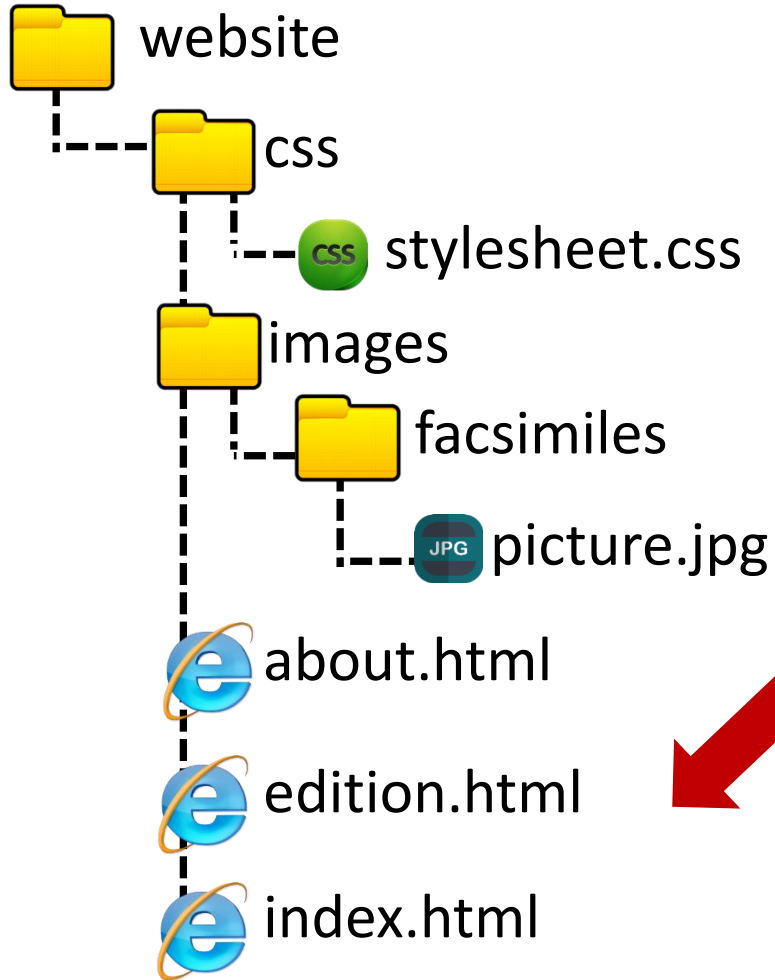
ISO 639-1 language Codes:

http://www.w3schools.com/tags/ref_language_codes.asp

HTML5 document structure

```
<!DOCTYPE html>  
<html lang="en">  
  <head>  
    <!--the document's metadata-->  
  </head>  
  <body>  
    <!--the content of the page-->  
  </body>  
</html>
```

A little detour: How to organize your folders



Use lowercase to name your folders and files!

Do not use spaces or special characters!

You are here!

Address documents/media via the document path.

```
<a href="index.html"> ...
```

```
<link href="css/stylesheet.css" ...
```

```

```


Exercise 1: Creating a HTML5 doc with basic structure

- Create a folder called **website** (e.g. in Documents or on the Desktop)
- Open a file in oXygen
 - **Open oXygen** → **File** → **New file** → **HTML**

Attention!

The opened file will be XHTML. To create HTML 5 you will have to change

- the Document Declaration to `<!DOCTYPE html>`
- the root element to `<html lang="en">`

- Create the basic structure of an html5 document
- Write **Hello World!** in the `<body>` and open the document in your browser with



- Name the document **index.html** and save it in **website**

<head> - The document's metadata pt.1

The `<head>` element is a container for meta data about the HTML document, it is not displayed (only `<title>`).

<code><title></code>	title of the document (required! and visible for users)
<code><meta></code>	specifies page description, keywords, author, and other metadata
<code>@name</code>	a name for the metadata
<code>@content</code>	the value associated with the name attribute
<code>@charset</code>	specifies the character encoding for the HTML document
	Common values:
	<ul style="list-style-type: none">• UTF-8 - Character encoding for Unicode• ISO-8859-1 - Character encoding for the Latin alphabet

Example: <head>

```
<!DOCTYPE html>
<html>
  <head>
    <title>Fanny Lewald - Digital Edition of the correspondence</title>
    <meta name="author" content="Frederike Neuber"/>
    <meta name="description"
      content="Digital Edition of the correspondence of Fanny Lewald "/>
    <meta name="keywords" content="Lewald, 1848, Feminism, Literature"/>
    <meta charset="UTF-8"/>
  </head>
  <body>
    ...
```

<head> - The document's metadata pt.2

<link>	defines the page relationship to an external resource, e.g. to a related stylesheet
@rel @href	specifies the relationship between current and linked document location of the linked document (URL)
<style>	defines style information how HTML elements should render in a browser, CSS code
<script>	defines a client-side script, such as a JavaScript, contains scripting statements, or it points to an external script file through the src attribute.
@src	specifies the URL of an external script file

Example: <head>

```
<head>
<title>Fanny Lewald - Digital Edition of the correspondence</title>
  <meta name="author" content="Frederike Neuber"/>
  <meta name="description"
    content="Digital Edition of the correspondence of Fanny Lewald "/>
  <meta name="keywords" content="Lewald, 1848, Feminism, Literature"/>
  <meta charset="UTF-8"/>
  <link rel="stylesheet" href="css/style.css" />
  <style>
    h1{
      color:red;
      font-weight:bold;
    }
    p{
      color:blu;
    }</style>
  <script src="js/edition.js" />
</head>
```

Exercise 2: Creating <head>

Download the Dropbox folder HTML (save the image folder in your website folder)

Use sample texts of **exercises_texts.txt**

Open **index.html**

- Give the document a title
- Enrich it with further metadata using `<meta>`
 - Document's author
 - Description of the website
 - Keywords
 - Encoding information
- Open it in your browser, view the source code.

<body> - The content of the page

<body> contains all the contents of an HTML document, such as text, hyperlinks, images, tables, lists, etc. which are displayed.

Binary distinction of tags up to HTML4

Block-level elements (HTML5 „Flow content“)

- are formatted with a line break before and after the element, thereby creating a stand-alone block of content
- e.g. all structural elements <header> <nav> <section> etc. and <div> <p> <h1..6>
- can contain either other block elements (except <h1..6> and <p>) or Inline elements

Inline elements (HTML „Phrasing Content“)

- occupies only the space bounded by the tags that define the inline element
- can contain either data or other Inline elements
- e.g. <a> <q>

Structural elements

<code><header></code>	used to contain the header content of a site or <code><section>/<article></code>
<code><nav></code>	contains the navigation menu, or other navigation functionality for the page
<code><section></code>	a section is a thematic grouping of content. The theme of each section should be identified, typically by including a heading (h1-h6 element) as a child of the section element.
<code><article></code>	contains a standalone piece of content that would make sense if syndicated as an RSS item, for example a news item
<code><aside></code>	defines a block of content that is related to the main content around it, but not central to the flow of it
<code><footer></code>	contains the footer content of a site or <code><section>/<article></code>

More block-level elements

`<div>` for grouping an area of content, often for styling/visual purposes (**not semantic!**)

`<p>` defines a paragraph

`<h1>` - define headings; `<h1>` defines the most important heading, `<h6>` the least important heading

`<h1>headline1</h1>`

`<h2>headline2</h2>`

`<h3>headline3</h3>`

`<h4>headline4</h4>`

`<h5>headline5</h5>`

`<h6>headline6</h6>`



headline1

headline2

headline3

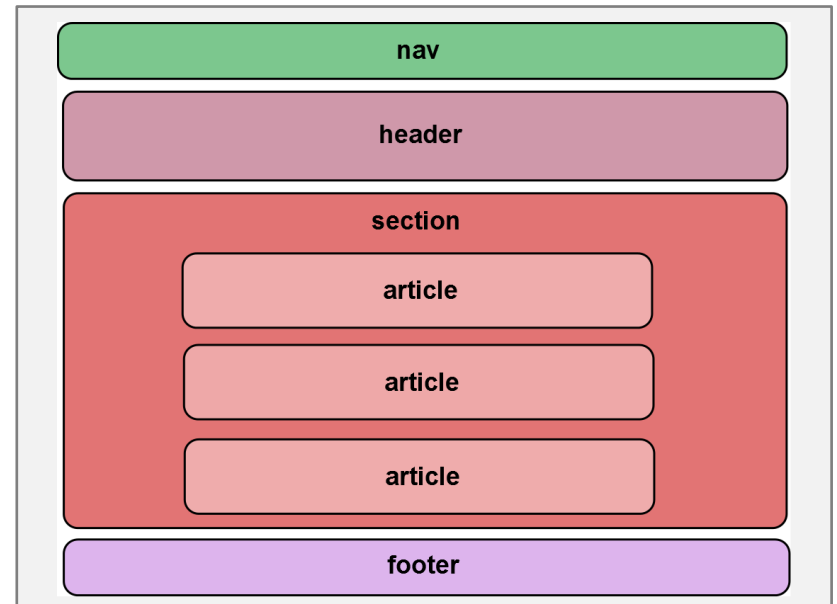
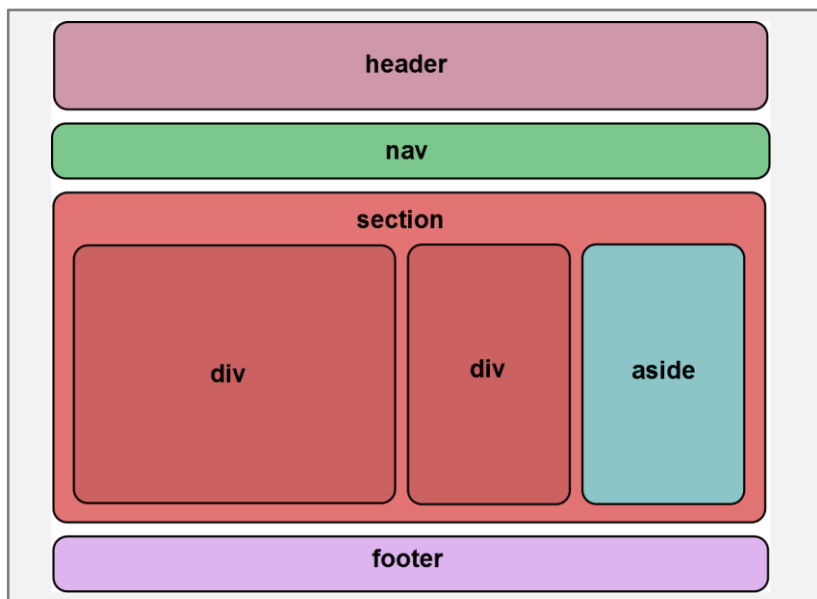
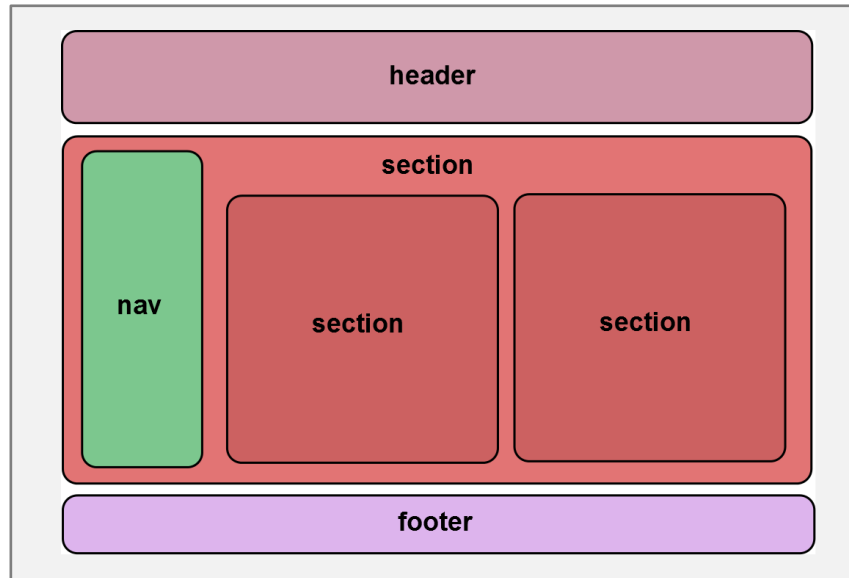
headline4

headline5

headline6



Example: Structuring a website



<section> vs. <div>

W3C specification:

“The section element is not a generic container element. When an element is needed only for styling purposes or as a convenience for scripting, authors are encouraged to use the div element instead.”

The <div> is a semantically neutral element, the <section> element is not.

Example: <body>

```
<body>
  <header>
    <h1>William Godwin's Diary</h1>
  </header>
  <section>
    <h2>Reconstructing a Social and Political Culture 1788-1836</h2>
    <p>Welcome to the award-winning digital edition of the diary of William
Godwin (1756-1836). Godwin's diary consists of 32 octavo notebooks. The first
entry is for 6 April 1788 and the final entry is for 26 March 1836, shortly before
he died.</p>
  </section>
</body>
```

Exercise 3: Creating the <body> of index.html

Structure your content into

- a <header> containing
 - a headline with the title of the project
 - a further headline with the subtitle
- a <section> containing
 - a headline for the welcoming page
 - a paragraph with the description of the status of your project

Open it in your browser!

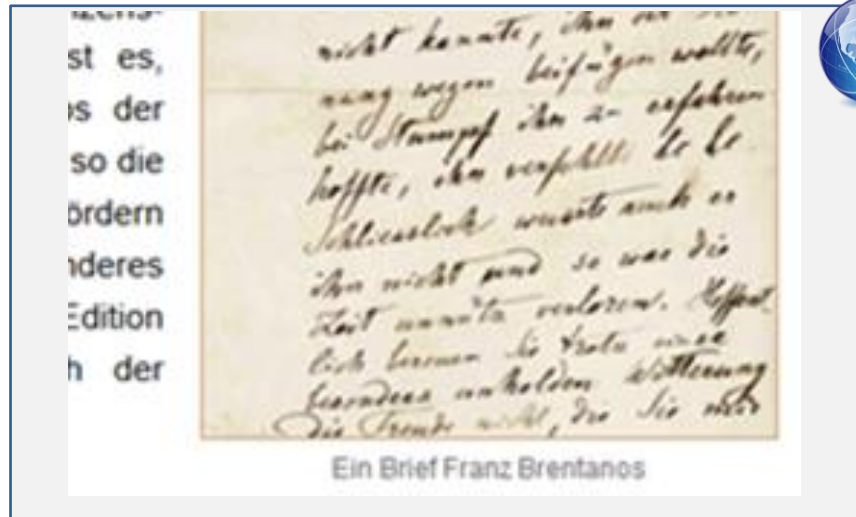
Use sample text of exercises_texts.txt

More elements: images

<code><figure></code>	specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.
<code></code>	defines an image in an HTML page, has two required attributes: <code>@src</code> and <code>@alt</code> . Can be used without figure.
<code>@src</code>	specifies the URL for an image or path
<code>@alt</code>	specifies an alternate text for an image
<code>@width @height</code>	specify size of an image in pixel (if set one the other adapts)
<code>@title</code>	provides additional information, pops up when you hover over an image
<code><figcaption></code>	defines a caption for a <code><figure></code> element

The `` element can also be used alone. While `<figure>` is a block-level element, `` is an inline element.

Example: vs. <figure>



Option 1:

```
  
<p>Ein Brief Franz Brentanos</p>
```

Option 2:

```
<figure>  
    
  <figcaption>Ein Brief Franz Brentanos</figcaption>  
</figure>
```

More elements: lists

`` defines an unordered, bulleted list

`` defines an ordered list. An ordered list can be numerical or alphabetical

`` defines a list item, contained by `` and ``

Unordered List

```
<ul>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ul>
```



- Coffee
- Tea
- Milk



Ordered List

```
<ol>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ol>
```



1. Coffee
2. Tea
3. Milk



More elements: links

`<a>` defines a hyperlink, which is used to link from one page to another

`@href` specifies the URL of the page the link goes to
If e-mail: address value starts with "`mailto:...`"

```
<a href="http://www.w3schools.com">Visit W3Schools.com!</a>  
<a href="mailto:neuber.frederike@gmail.com">Frederike Neuber</a>
```

By default, links will appear as follows in all browsers:

- An unvisited link is underlined and blue
- A visited link is underlined and purple
- An active link is underlined and red

Example: Building a navigation using `` and `<a>`

```
<nav>
  <ul>
    <li><a href="http://gams.uni-graz.at/..context=fr">France</a></li>
    <li><a href="http://gams.uni-graz.at/..context=it">Italy</a></li>
    <li><a href="http://gams.uni-graz.at/..context=es">Spain</a></li>
    <li><a href="http://gams.uni-graz.at/..">Complete List</a></li>
    <li><a href="http://gams.uni-graz.at/..">Advanced search</a></li>
  </ul>
</nav>
```



Spektatoren *Periodica*
Moralische Wochenschriften *Esp*

FRANCE ITALY SPAIN Complete List Advanced search

The Spectators in the international context

The journalistic genre of the Spectators (or Moral Weeklies), which had its origins at the

Exercise 4: More <body> features

Add to your existing <body>

- a navigation <nav> containing **Start**, **Edition**, **About** and link these items to **index.html**, **edition.html**, **about.html**
- a <figure> below <h3> containing the photography of Stefan George: **george.jpg** (set size to 300x400px)
- a <footer> with three logos wrapped in a <div>: **dixit.png**, **ide.png**, **zim.png** (set height for all three of them to 60px) – use

Open it in your browser!

Text-level semantics: Inline Elements

`` represents strong importance, seriousness, or urgency for its contents

`` represents stress emphasis of its contents.

`` defines text that has been deleted from a document

`<ins>` text that has been inserted into a document

`<sub>` defines subscript text

`<sup>` defines superscripted text

`` used to group inline-elements in a document – **has no semantic meaning** on its own, but can be useful when in combination with e.g. `@class`, `@lang`

Example: Inline Elements

`<p>My favorite color is blue red!</p>`



My favorite color is ~~blue~~ red!

`Emphasized text

Strong text`



Emphasized text
Strong text

`<p>Example for a superscript and a subscript!!!</p>`



Example for a ^{superscript} and a _{subscript}!!!

`<p>This is dangerous!</p>`



This is dangerous!

Global Attributes: @class

So called *global attributes* can be used on almost every HTML element.

@class specifies one or more classnames for an element. It is mostly used to point to a class in a style sheet. There is no standard set of class names.

```
<p class="sad_story">
```

```
<span class="name person">Peter</span> met a <span class="person">  
woman</span>.
```

```
Her name was <span class="name person">Linda</span>. They decided to get  
married in <span class="name place">New York</span>.
```

```
In <span class="date">2015</span> they broke up and <span class="name  
person">Peter</span> said:
```

```
<span class="song">No <span class="person">woman</span> no cry.</span>  
</p>
```

Global Attributes: @id

@id provides an **unique** identifier for an element within the document.

Most used in CSS code as a hook for styling purposes, or by JavaScript code to make changes or add behavior to the element by referencing its unique id.

- "id"** Naming rules:
- Must contain at least one character
 - Must not contain any space characters

```
<div id="transcription_column">Edited text</div>  
<div id="facsimile_column">Images</div>
```

```
<div id="transcription_column">Edited text</div>  
<div id="transcription_column">Normalized text</div>  
<div id="faesimile_column">Images</div>
```

Summary: @class vs. @id

- ! @id and @class are global attributes
- ! @id is unique to the specific element - classes can be used across several elements
- ! Multiple classnames can be assigned to one element
- ! @id can appear only once in a document
- ! Elements can even have both @id and @class at the same time
 - @class is for generic purpose , for grouping elements under the same label !
 - @id is for unique identification purpose !

It is recommended to use values that are as semantically meaningful as possible to indicate to a human who reads it what that element's purpose or meaning is, rather than how it looks.

Within the elements `` and `<div>` @class and @id are often used to group and structure a document for styling purposes.

Global Attributes: more

@lang

Specifies the language being used for the element. Languages are indicated with specific codes. You can find a list of the ISO language codes on

[<http://www.w3schools.com/tags/ref_language_codes.asp>](http://www.w3schools.com/tags/ref_language_codes.asp)

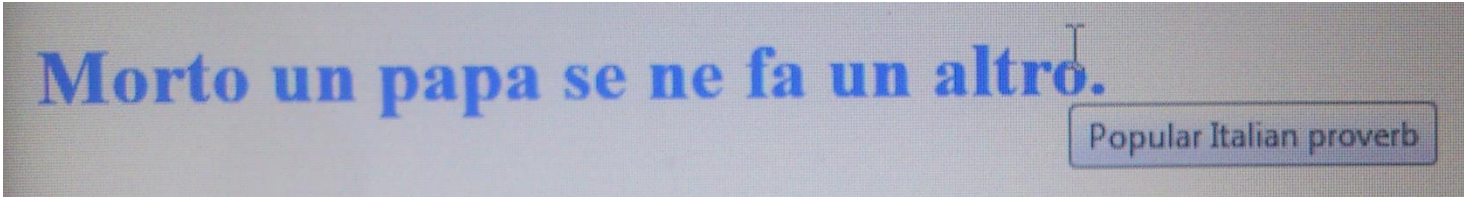
@title

Specifies extra information about an element, appears when mouseover.

@style

Specifies an inline CSS style for an element containing one or more CSS properties and values separated by semicolons, overrides any style set globally – is not recommended

```
<p lang="it" title="Popular Italian proverb" style="color:blue;font-weight:bold">Morto un papa se ne fa un altro.</p>
```



Morto un papa se ne fa un altro.

Popular Italian proverb



Exercise 5: Going deeper into the text

Download the two html templates from the Dropbox and save them in your website-folder as edition.html and about.html.

about.html

- Markup places, names and dates with `` using `@class` with the values: `place`, `name` (for persons), `date`
- Set geoNames references for places – links to be found in **exercises_texts.txt**
- Enhance the contact information with **link** and **e-mail address**
- Use `` and `` in this sentence
“George rejected any attempts to use it for mundane political purposes, especially National Socialism.”

Open the document in your browser!

Final exercise: The edition

edition.html

Mark-up

- Pages and verses using `<div>`
- Linebreaks `
`
- Headlines, assign them if necessary `@class` (e.g. for colors)
- Colored text parts

Where pageturns , insert images using ``, set `@width` to 485

Questions



Thank you!

Links

- W3C: <http://www.w3.org/TR/html5/>
(Markup Validator: <http://validator.w3.org/>)
- W3Schools: <http://www.w3schools.com/html/>