

HTML

HTML: Hyper-Text Markup Language

- ▶ Hyper-Text: Links to other texts within the text.
- ▶ Markup Language: A limited language that *marks up* bits of the text.

Example

```
1 <!DOCTYPE html>
  <html>
3   <body>
    <h1>My First Heading</h1>
5
    <p>My first paragraph.</p>
7
9   </body>
  </html>
```

HTML Tags

```
<tagname>content</tagname>
```

Tags can be **nested** (partial example)

```
1 <b>  
2   Bold text  
3   <i>  
4     Bold italic text  
5   </i>  
6 </b>  
7 <i>  
8   Just italic.  
9 </i>
```

Bold text *Bold italic text* Just italic.

The **amount** of whitespace (spaces, newlines, tabs) is ignored.

The header

The header is used for general information about the document like

- ▶ Title
- ▶ Style
- ▶ Extra information not used by the browser

The tags in the head

```
1 <head>
  <title>The title of the document</title>
3  <meta>Meta information, e.g. keywords</meta>
  <style>An internal CSS style.... </style>
5 </head>
```

The body

The body is used to store the main information about the webpage it contains

- ▶ Text
- ▶ Pictures
- ▶ Links
- ▶ ...and many other things

```
1 <body>
  <p>A paragraph with some <i>italic</i> text.
  </p>
3
  <ul>Unordered list
5    <li>List item 1</li>
    <li>List item 2</li>
7  </ul>
</body>
```

Is this valid HTML code?

```
2 <body>
  <p>A paragraph with some <i>italic</i> text.
  </p>

4 <ul>Unordered list
  <li>List item 1</li>
  <li>List item 2</li>
  </body>
8 </ul>
```

Paragraphs and white space

The amount of space does not matter!

```
1 <body>
2   <p>A paragraph with some <i>italic</i> text.
   </p>
4   <p>A paragraph
6   with some <i>italic</i>
8           text.</p>
10 </ul>
```

The above give exactly the same output.

But spaces are useful to make the **HTML code** look nicer.

Headings

HTML is a *parts-of-document* language. Style is defined *indirectly*. For example, headings are specified via a *heading tag* and **not** by selecting different font sizes.

```
2 <h1>Title heading</h1>
  <p>Lorem ipsum dolor sit amet, consectetur
    adipiscing elit, sed do eiusmod tempor
    incididunt ut labore et dolore magna aliqua
    .</p>
4 <h2>Subheading</h2>
  <p> Ut enim ad minim veniam, quis nostrud
    exercitation ullamco laboris nisi ut
    aliquip ex ea commodo consequat.</p>
6 <h3>Subsubheading</h3>
  <p>La la la la</p>
```

A bad way to do headings

```
1 <font size="32">Title heading</font>
  <p>Lorem ipsum dolor sit amet, consectetur
    adipiscing elit, sed do eiusmod tempor
    incididunt ut labore et dolore magna aliqua
    .</p>
3 <font size="16">Subheading</font>
  <p> Ut enim ad minim veniam, quis nostrud
    exercitation ullamco laboris nisi ut
    aliquip ex ea commodo consequat.</p>
```

Why do you think this is “bad”? What are the advantages?
Disadvantages?

Links

The most important thing on a web page, apart from the text, are links to other webpages.

A local link

```
<a href="news.html">News</a>
```

A remote link

```
1 <a href="http://www.google.com/">Google</a>
```

Attributes

The tag `a` has an attribute `href`, meaning *hyper-reference*

Images

Links to images are easy:

```
1 
```

Tag attributes

- ▶ src: where the image is
- ▶ alt: text to display if the image cannot be found (optional)
- ▶ height: height of the image (optional)
- ▶ width: height of the image (optional)

the img tag is special: no closure is necessary

Lists

Unordered list

```
1 <ul>  
  <li>The winner</li>  
3  <li>The second place</li>  
  <li>The third place</li>  
5 </ul>
```

Ordered list

```
1 <ol>  
  <li>The winner</li>  
3  <li>The second place</li>  
  <li>The third place</li>  
5 </ol>
```

Tables

```
1 <table>
  <tr>
3     <th>Month</th>
     <th>Savings</th>
5 </tr>
  <tr>
7     <td>January</td>
     <td>$100</td>
9 </tr>
</table>
```

- ▶ table: a table
- ▶ tr: a row of the table
- ▶ th: a header (i.e. title) cell
- ▶ td: a data cell

Formatting tables is best done with CSS

HTML Comments

Sometimes we need to document our HTML code.

```
2 <!-- Maybe use a better smiley -->  

```

Global attributes

Some attributes can be used with any element. These are called global attributes.

Important attributes

- ▶ lang: specifies the language of an element (mainly useful for the whole document)
- ▶ style: specify a rendering style
- ▶ class: specify a rendering class
- ▶ title: a name for the element

We'll learn more about style and class when we do CSS, Cascading Style Sheets.

Exercise

Create an HTML page with

- ▶ A title.
- ▶ A link.
- ▶ A picture.
- ▶ Two levels of headings (e.g. My Homepage, My Hobbies, My Studies)
- ▶ An ordered list (e.g. your hobbies)

Access the page with `file:///path` in your browser.

Post results in `socrative.com` class FDD2