MSc/ICY Software Workshop
Induction Week - Formal Language Example: HTML

Manfred Kerber   `www.cs.bham.ac.uk/~mmk`

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HTML - Part of the Language

For a tutorial, see, e.g., https://www.w3schools.com/html/.
The language elements, also called tags, start with a left acute
bracket `<` and end with a right acute bracket `>`. They
typically come in pairs such as the opening `<html>`
and the closing `</html>`.

- `<! followed by any comment>`: comments start
  with an exclamation mark.
- Each html file should start (except for the
  document type and comments) with `<html>` (and in
  consequence end with `</html>`. The `<html>` element
  must contain two elements, a `<head>` and a `<body>`.
- The `<head>` contains information about the file
  such as a title with the `<title>` tag.
- The `<body>` contains the actually text to be
  displayed.
- Paragraphs are built using the `<p>` tag.

HTML - Web Pages - Examples

```html
<!DOCTYPE html>
<!-- An html page which just displays "Hello World" -->
<html>
  <head>
    <title>Hello World Page</title>
  </head>

  <body>
    <p>
      Hello World
    </p>
  </body>

</html>
```

Some Important Tags

- `<h1>`, `<h2>`, `<h3>`, `<h4>`, and `<h5>` to display headers.
- `<table>` for tables, each line using `<tr>` and in each line each entry using the `<td>` tag.
- A newline is introduced with the `<br>` tag. Instead of `<br></br>` it is also possible to write `<br/>`.
- Images can be included by something like `<img width="150" src="http://www.cs.bham.ac.uk/~mmk/pictures/kerber.jpg" alt="Manfred Kerber"/>`.
- Links to other web pages can be included by something like `<a href="http://www.cs.bham.ac.uk/~mmk">Manfred's home page</a>`.

- `<ol>` for ordered list and `<ul>` for unordered lists. Each item in the list goes with `<li>`.
- Horizontal bars by `<hr>`: Again `<hr></hr>` is abbreviated by `<hr/>`.

HTML - Web Pages - Examples (Cont'd)

```
<!DOCTYPE html>
<html>
  <head>
    <title>Example</title>
  </head>
  <body>
    <h1>A first example</h1>
    <p>
      Manfred offers regular office hours. For more details
      <a href="http://www.cs.bham.ac.uk/~mmk/timetable.php"
    </p>
    <p> This is how Manfred looks like:<br/>
      <img width="150" src="kerber.jpg" alt="Manfred Kerber
    </p>
  </body>
</html>
```

```
<!DOCTYPE html>
<html>
  <head>
    <title>Example</title>
  </head>
  <body>
    <h1>A first example</h1>
    <p>
      Manfred offers regular office hours. See
      <a href="http://www.cs.bham.ac.uk/~mmk/timetable.php"
    </p>
    <p> This is how Manfred looks like:<br/>
      <img width="160" src="kerber.jpg"
           alt="Manfred Kerber">
    </p>
    <h2>Timetable Overview</h2>
    <table>
      <tr>
        <th>Monday</th>
        <th>Tuesday</th>
        <th>Wednesday</th>
        <th>Thursday</th>
```

HTML - Web Pages - Examples (Cont'd)

```html
<!DOCTYPE html>
<html>
  <head>
    <title>Example</title>
    <meta name="description" lang="en" content="Example for
    <link rel="stylesheet" type="text/css" href="./example.
  </head>
  <body>
    <h1>A first example</h1>
    <p>
      Manfred offers regular office hours. See
      <a href="http://www.cs.bham.ac.uk/~mmk/timetable.php"
    </p>
    <p> This is how Manfred looks like:<br/>
      <img width="150" src="kerber.jpg"
           alt="Manfred Kerber">
           </p>
    <h2>Timetable Overview</h2>
    <table>
      <tr>
        <th>Monday</th>
        <th>Tuesday</th>
```

HTML - Web Pages - Examples (Cont'd)

```
<!DOCTYPE html>
<html>
  <head>
    <title>Example</title>
    <meta name="description" lang="en" content="Example for
    <link rel="stylesheet" type="text/css" href="./example.
  </head>
  <body>
    <h1>A first example</h1>
    <div id="left">
      <p>
        Manfred offers regular office hours. For more detai
        <a href="http://www.cs.bham.ac.uk/~mmk/timetable.ph
      </p>
      <p> This is how Manfred looks like:<br/>
        <img width="150" src="kerber.jpg"
             alt="Manfred Kerber">
```

```
body {
    background-color: #FFFFFF;
    color: #00AA00;
}
table {
    border-width: 1;
    border-style: solid;
    width: 50%;
}
td {
    border-width: 1;
    background-color: #117755 ;
    color:            #FFFFFF ;
    font-weight: bold ;
    font-style: italic ;
    width: 15%;
    text-align: center;
```

Exercise

Build a page similar to
`http://www.cs.bham.ac.uk/internal/modules/2018/06-26956/`

Some useful hints on Linux:

Open first a terminal.

`mkdir SWW`	creates a new directory with the name SWW
`cd SWW`	changes the working directory to SWW
`gedit school.html`	opens an editor to write a file
`firefox school.html`	opens the file in the firefox browser