



Summer Term 2011

# Softwareentwicklung in der Geoinformatik Praxis

## HTML

## Web Programming Basics

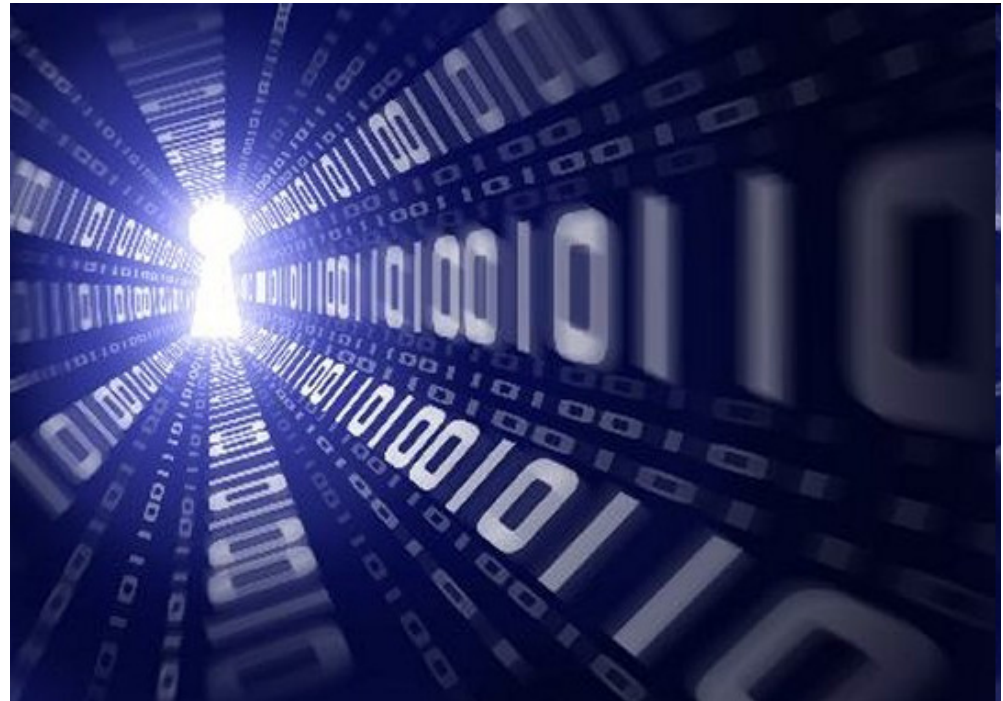
Bernd Resch

04 May 2011



# Overview

- Organisational
- HTML



# Organisational ::: Dates

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- Wed, 16 March 2011 09.00-12.00 → HS 3.004
- Wed, 06 April 2011 09.00-12.00 → HS 3.004
- Wed, 13 April 2011 09.00-12.00 → HS 3.004
- Wed, 04 May 2011 09.00-12.00 → HS 3.004
- Wed, 18 May 2011 09.00-12.00 → HS 3.004
- Wed, 01 June 2011 09.00-12.00 → HS 3.004
- Wed, 22 June 2011 09.00-12.00 → HS 3.004

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- *Fri, 15 July 2011* *End-term Assignment Due Date*

# HTML

# HTML

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- **H**yper **T**ext **M**arkup **L**anguage
- Text-based (XML) markup language for structuring texts, images and hyperlinks in documents → description of web sites
- Tag-based structure
- ➔ Rendering of a web site in a browser on the basis of this structure

# HTML ::: Tags

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- Tags are characterised by angle brackets (<, >)
- Tags appear in „pairs“:  
`<p> </p>`
- ➔ Start-tag and end-tag

# HTML ::: Element Syntax

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- Start-tag (opening tag) and end-tag (closing tag)
- Element contents: everything between start-tag and end-tag
- Empty elements without content possible: `<br/>`
- Elements can have attributes

# HTML ::: Basic Structure

- Page element structure

```
<html>  
  <head>  
    <title>title</title>  
    ...  
  </head>  
  <body>  
    ...  
  </body>  
</html>
```

# HTML ::: Styles and Cascading Style Sheets

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- Style: uniform formatting of HTML elements
- Can be seen as alternative to descriptive attributes
- ``
- ``

# HTML :: Styles and Cascading Style Sheets

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- CSS: Cascading Style Sheets
- Creation of classes for pre-defined formatting of elements
- Stored in a separate .css file
- Usage:

```
<head>  
  <link rel="stylesheet" type="text/css" href="mystyle.css">  
</head>
```

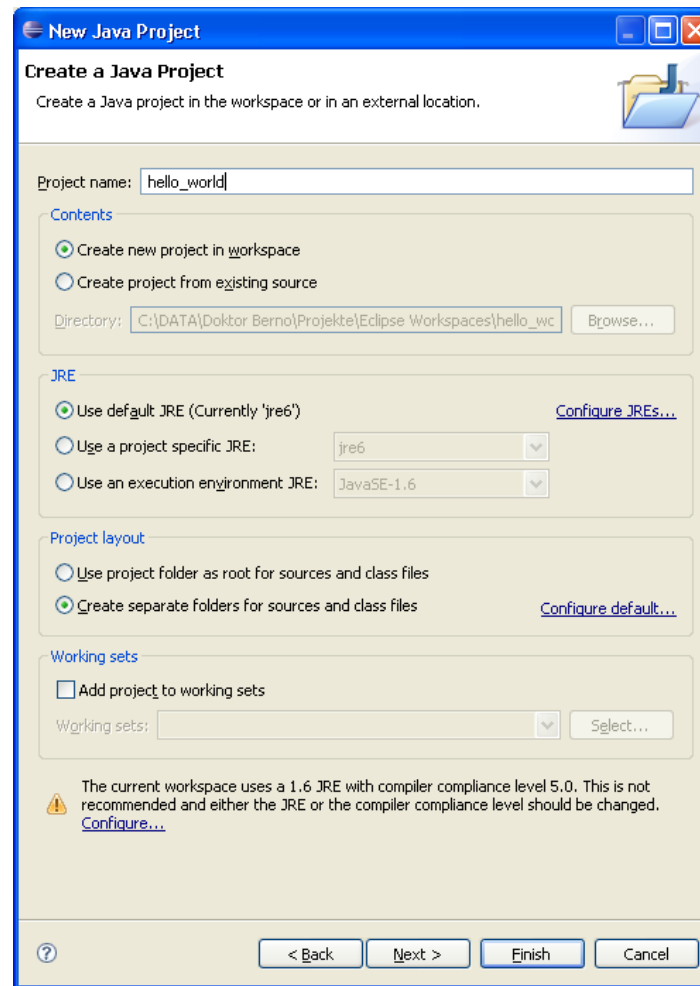
# HTML ::: CSS Example

- CSS structure

```
body  
{  
  background-color:#d0e4fe;  
}  
h1  
{  
  color:orange;  
  text-align:center;  
}  
p  
{  
  font-family:"Times New Roman";  
  font-size:20px;  
}
```

# Introduction to Eclipse

- Create a new project
- “unit4”



## HTML ::: Exercise

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- Create an HTML file “HelloWorld.html” that displays the following text:
  - ◆ Hello World!
  - ◆ Use a <p>-Element for displaying text
- ➔ Tutorial: <http://www.w3schools.com/html>
- ➔ Element reference: <http://de.selfhtml.org>

## HTML ::: Exercise

- Create an HTML file "unit4.html" that displays the following table:

<b>Language</b>	<b>Type</b>
Java	Object-oriented programming
PHP	Scripting
HTML	Markup




## HTML ::: Exercise

- Link each of the programming languages to the according Wikipedia pages (URL link):

Language	Type
<a href="#">Java</a>	Object-oriented programming
<a href="#">Python</a>	Scripting
<a href="#">HTML</a>	Markup




# HTML ::: Exercise

- Add a column to the table containing the logo for each language (logo height: 50 pixels):

Language	Type	Logo
<a href="#">Java</a>	Object-oriented programming	
<a href="#">Python</a>	Scripting	
<a href="#">HTML</a>	Markup	




# HTML ::: Exercise

- Link the images to the according Wikipedia pages (click on image opens page):

Language	Type	Logo
<a href="#">Java</a>	Object-oriented programming	
<a href="#">Python</a>	Scripting	
<a href="#">HTML</a>	Markup	



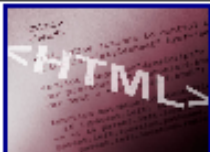
# HTML ::: Exercise

- Create a Cascading Style Sheet *unit4.css*, which changes the the colour of the links to dark red and visited links to dark blue:

Language	Type	Logo
<a href="#"><u>Java</u></a>	Object-oriented programming	
<a href="#"><u>Python</u></a>	Scripting	
<a href="#"><u>HTML</u></a>	Markup	




# HTML ::: Exercise

- In the CSS, set the table border colour to dark green and its width to 10px:

Language	Type	Logo
<u>Java</u>	Object-oriented programming	
<u>Python</u>	Scripting	
<u>HTML</u>	Markup	

# HTML ::: Exercise

- Add a map using the Google Maps API (JavaScript) below the table:

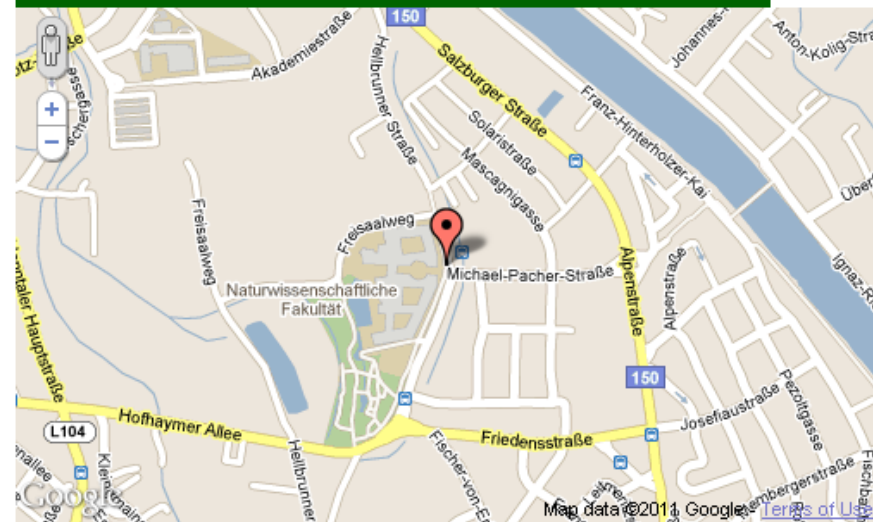
Language	Type	Logo
<a href="#">Java</a>	Object-oriented programming	
<a href="#">Python</a>	Scripting	
<a href="#">HTML</a>	Markup	



# HTML ::: Exercise

- Add a marker to the map using the HTML5 GeoLocation API:
- Sample: <http://diveintohtml5.org>

Language	Type	Logo
<a href="#">Java</a>	Object-oriented programming	
<a href="#">Python</a>	Scripting	
<a href="#">HTML</a>	Markup	





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