Creating a basic Web2.0-application with XHTML, CSS, JavaScript and PHP

Johannes Starlinger
Prof. Dr. Ulf Leser
What to expect

• Some necessary concepts
• Walk-through development of an exemplary app
• Basic introduction to the used languages
• Hopefully: “It's easy!”
• Hopefully: “It's fun!”
What NOT to expect

- Thorough introduction of the used languages
- Advanced techniques
- “Classic” slideshow lecture
Agenda

• Technology basics
  – Client vs server
  – Mini intro to the languages used
  – Apache webservice quick guide → use .public_html

• Creating a web page:
  – Mockup
  – HTML structure
  – JavaScript functions
  – PHP content generation
  – CSS styles
Technologies

Creating a basic Web2.0-application with XHTML, CSS, JavaScript and PHP
Technologies

XHTML, CSS, JavaScript and PHP

Web page structure
Web page style
Web page function
Content generation
Technologies

XHTML, CSS, JavaScript and PHP

Web page **structure**

Web page **style**

Web page **function**

Content **generation**

Evaluated on Client

Evaluated on Server
Client vs Server

Evaluated on
Client

Evaluated on
Server
Client vs Server

index.html
index.php
other.php
Client vs Server

GET file xy

Deliver file xy

index.htm
style.css
picture.jpg
index.php
other.php
Creating a basic Web2.0-application with XHTML, CSS, JavaScript and PHP
What you need

- An idea
- Graphics software
  - or pen and paper
- Web server with PHP
  - Apache, lighttpd, nginx, …
- Text editor
  - vim, emacs, notepad, …
  - Or WYSIWYG
- Browser
  - Firefox, Chrome, Opera, Safari, Internet Explorer
Name-A-Face

Search for a face:

Johannes
Create a Mockup

Name-A-Face

Search for a face:

[Image of a computer screen showing a GIMP interface with a mockup for an application named 'Name-A-Face']
Create a Mockup

Name-A-Face

Search for a face:

Joh
Johann
Johanna
Johannes
Create a Mockup
Where's all the technology?

[Image of Name-A-Face app with search bars and results]

Search for a face:
- John
- Johann
- Johanna
- Johannes

Search for a face:
- Johannes

Other result

Other result

Other result
Where's all the technology?

XHTML / CSS

JavaScript

PHP
Where's all the technology?

XHTML / CSS

JavaScript

Asynchronous JavaScript And XML

PHP
XHTML

- HyperText Markup Language
- W3C Standard
- Uses `<tag></tag>` to structure content on a web page
CSS

• Cascading StyleSheets
• Language for defining the style of web page elements
JavaScript / AJAX

- Scripting language for in-browser execution
- Accesses objects from browser API
- AJAX: uses the XMLHttpRequest Object
  - To communicate with the server in the background
Client vs Server: AJAX

GET file xy

Deliver file xy

index.htm
style.css
picture.jpg
index.php
other.php
PHP

- PHP Hypertext Preprocessor
- Scripting language
- Embeddable into HTML
- File extension .php
- Webserver executes PHP when a .php file is requested → code is executed on request
- .public_html : version 5.2.4
• Let's go live
Project Overview

- Basic page with search form
  - Styles for the page
  - Functionality incl. AJAX
  - Searching
  - Autocompletion Suggestions

<table>
<thead>
<tr>
<th>Name</th>
<th>Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>index.html</td>
<td>0 bytes</td>
<td>HTML document</td>
</tr>
<tr>
<td>name_a_face.css</td>
<td>0 bytes</td>
<td>CSS stylesheet</td>
</tr>
<tr>
<td>name_a_face.js</td>
<td>0 bytes</td>
<td>JavaScript program</td>
</tr>
<tr>
<td>search.php</td>
<td>0 bytes</td>
<td>PHP script</td>
</tr>
<tr>
<td>suggest.php</td>
<td>0 bytes</td>
<td>PHP script</td>
</tr>
</tbody>
</table>
Web App

• Data
  – Store
    • As files
    • In database
    • In Lucene
    • In Cloud

• Application logic
  – Provide operations
    • CRUD: Create, Read, Update, Delete
Web App

• Data
  – Store
    • As files
    • In database
    • In Lucene
    • In Cloud

• Application logic
  – Provide operations
    • CRUD: Create, Read, Update, Delete
Caveats

• Security
• Scalability
• .public_html
  – Web server needs read permissions
Where to go from here

• Frameworks and libraries help
  – JavaScript
    • mootools
    • jQuery
  – PHP
    • Cake
    • Zend
    • ...
Where to go from here

- Play!
- .public_html
- http://de.selfhtml.org
- http://www.google.de