

Software Technik

HTWG Konstanz

Anforderungsanalyse

Teil III Prototyping mit JavaScript



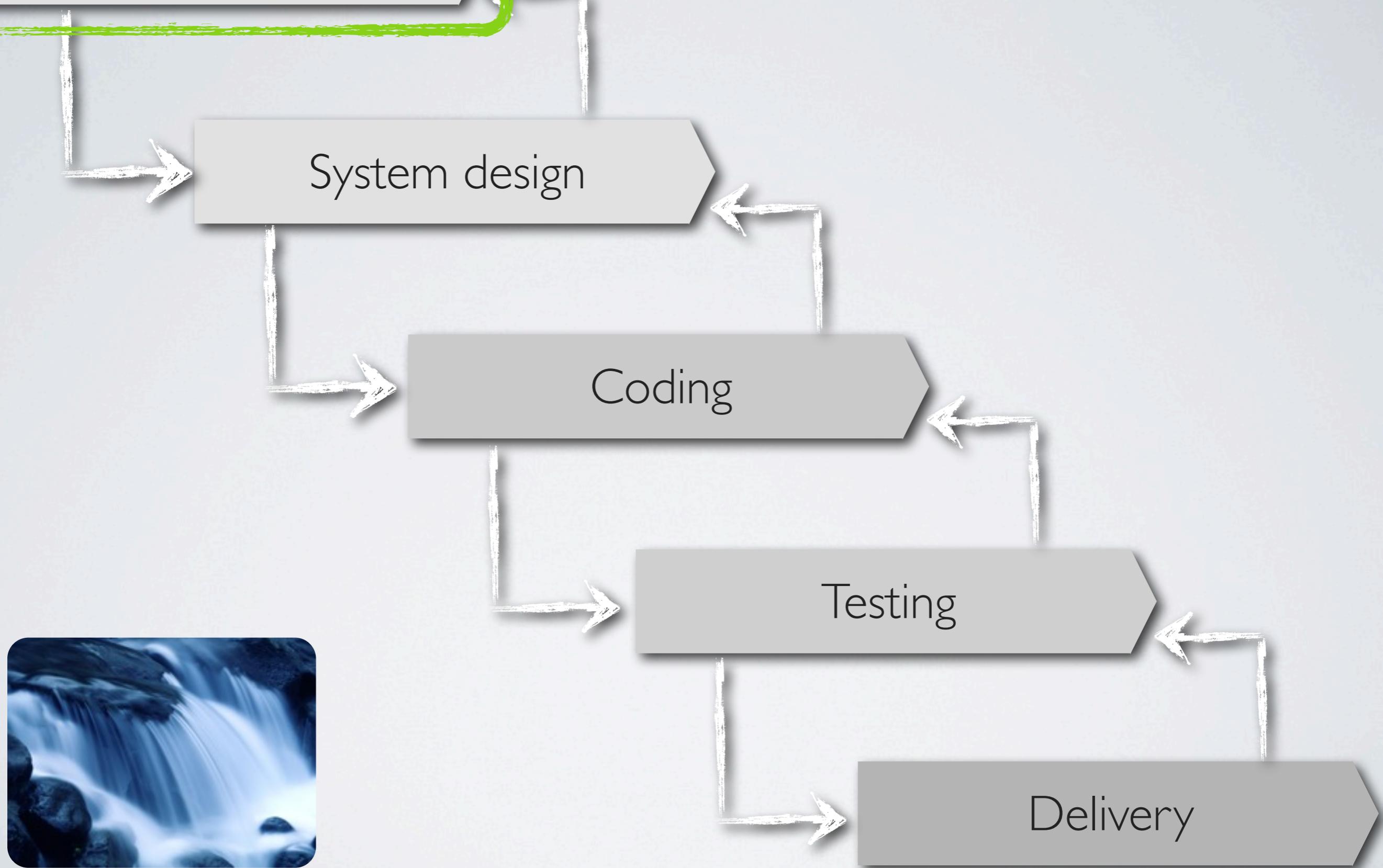
Christian Baranowski

Prozess Wasserfallmodell



Requirement analysis

Wasserfallmodell





Funktionale Anforderungen
erfassen mittels **Prototyping**

HTML UND CSS

Wiederholung

Listen

Aufzählungsliste ...

Nummerierte Liste ...

Definitionsliste <dl><dt><dd>...</dl>

Tabellen

einfache Tabellen mit <th> <td>

Tabellen mit Kopf und Fuß <thead><tbody> . . .

Links und Grafiken

...

Syntax von CSS-Angaben

Syntax

selector {css-element:wertangabe;}

Beispiele

h1 {font:arial; color:green;}

p {font-weight:bold;}

#mainpage {font:arial;}

.box {font:arial;}

Box Models

The screenshot shows a web browser window titled "Column Layout". The address bar displays the URL: "file:///Users/developer/Develop/workspace-st-html/software-technik-html/03%20html%20css%20pattern/column%20layout/index.html". The page content is organized into three main sections:

- Left Column:** Contains a section titled "Beispiel Text" followed by a paragraph of Lorem Ipsum text.
- Right Column:** Contains a section titled "Menü" followed by three links: "Home", "Links", and "Kontakt".
- Bottom Column:** Contains a section titled "Beispiel Text" followed by a paragraph of Lorem Ipsum text.

The browser interface includes standard navigation buttons (back, forward, search) and a title bar with the window name.

Beispiel Text

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

Menü

[Home](#)

[Links](#)

[Kontakt](#)

Beispiel Text

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Column Layout

Example: Website Left Nav With Submenus Built From Markup (YUI Library)

Communication



Shopping



Entertainment



Information



NOTE: This example demonstrates how to add submenus to a menu using existing markup.

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FOOTER: Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Maecenas sit amet metus. Nunc quam elit, posuere nec, auctor in, rhoncus quis, dui. Aliquam erat volutpat. Ut dignissim, massa sit amet dignissim cursus, quam lacus feugiat.

CSS Grids

The screenshot shows the homepage of the 5by5 website, which uses a CSS Grid layout for its main content area. The grid consists of 12 columns and 5 rows.

- Row 1:** A header row containing the logo "5BY5" and various navigation links: HOME, LIVE, BROADCASTS, ABOUT, CONTACT, BLOG, STORE, ADVERTISE, DONATE, ITUNES, and links to social media and a subscribe button.
- Row 2:** A section titled "BROADCASTS" with a "More →" link. It features a horizontal grid of show thumbnails, including "The BIG RED SHOW", "The CONVERSATION", "The Dev Show", "EXPRESSION ENGINE PODCAST", "The Mixdown", "The Ruby Show", and "INTERNET SUPERHERO".
- Row 3:** A section titled "LATEST EPISODES" with a "More →" link. It displays a horizontal grid of episode thumbnails, each with a title and a brief description. The episodes shown are:
 - THE DEV SHOW #25: Legen. Wait for it. Dary.
 - THE RUBY SHOW #134: MongoDB has it.
 - INTERNET SUPERHERO #2: Dave takes on tweeting while driving. All of this data can wait until later -- and much of it can wait until never.
 - THE CONVERSATION #32: Dan and Christina talk about the new Twitter, how mobile is changing web apps.
 - THE TALK SHOW #8: John Gruber, Dan Benjamin, and special guest Adam Lister discuss the new Twitter, Apple's fighting or not in Metro, etc. In this episode you
 - THE DEV SHOW #24: Dan files solo this week while Jason is out fighting or not in Metro, etc. In this episode you
- Row 4:** A footer row containing a "SUBSCRIBE" button and links to "RSS FEED", "PODCAST", "TWITTER", "FACEBOOK", and "YOUTUBE".
- Row 5:** A footer row containing copyright information: "© 2012 5by5 Networks, Inc. All rights reserved."

HTML Pattern by Example

Kasse

Summe: 5,50 Euro

Basar Nummer
10001

Betrag
10,5 1 Euro 0,5 Euro

Beschreibung
10,5

Hinzu

Nr.	Basar Nummer	Betrag	
2	1001	2.50	Storno
1	1002	2	Storno

Bezahlen Gesamt Storno

Gewinn: 100 Euro

Umsatz: 500 Euro

↓

Verwalten

Basar Nummer	Nachname	
1001	Baranowski	Bearbeiten
1002	Mustermann	Bearbeiten

[Neuen Verkäufer](#)

↓

New / Edit

Basar Nummer:
1001

Nachname:
1001

OK Abbrechen

HTML Pattern by Example

Kasse

Summe: 5,50 Euro

Basar Nummer
10001

Betrag
10,5

Beschreibung
10,5

Hinzu

1 Euro 0,5 Euro

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Bezahlen **Gesamt Storno**

Gewinn: 100 Euro

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↓

Verwalten

Basar Nummer	Nachname	
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Neuen Verkäufer

↓

New / Edit

Basar Nummer:
1001

Nachname:
1001

OK **Abbrechen**

JAVASCRIPT

Einführung in JavaScript

WAS IST JAVASCRIPT

- Nicht Java
- ECMAScript
- Web Browser - Client Scriptsprache

Hello World

```
<html>
<head>
<title>Java Script Demo</title>
<script type="text/javascript">
    alert('Hello World')
</script>
</head>
<body>
</body>
</html>
```

Variablen

```
var i = 100;  
var pi = 3.14;  
var str = "Hallo";
```

Anweisungsstrukturen

```
if (Bedingung) {  
    // Anweisungen des wahr-Teils  
}  
else {  
    // Anweisungen des falsch-Teils  
}
```

Beispiel:

```
if ( x>=0 && x<=10 )  
{  
    alert("x liegt zwischen 0 und 10.");  
}
```

Anweisungsstrukturen - Loops

```
for (var i=0; i<10; i++)  
{  
    alert(i);  
}
```

Anweisungsstrukturen - while

```
var i=0;  
while (i<10){  
    alert(i);  
    i++;  
}
```

JavaScript and
first-class functions
(function literals, function types)

Functions

```
function sayHello(text)  
{  
    alert(text);  
}
```

Functions

```
function sayHello(text)
{
    print();
    function print(){
        alert(text);
    }
}
```

Functions

```
function sayHello(text)
{
    var print = function() {
        alert(text);
    }
    print();
}
```

Functions

```
var printer = alert('Hello World');
sayHello(printer)
function sayHello(printer) {
    printer();
}
```

Functions

```
sayHello(function() {  
    alert('Hello World');  
});
```

```
function sayHello(printer) {  
    printer();  
}
```

Objects

```
function Customer(){};  
  
Customer.prototype.setName = function(name){  
    this.name = name;  
};  
Customer.prototype.getName = function(){  
    return this.name;  
};  
  
var customer = new Customer();  
customer.setName('Christian');
```

DOM

- Document Object Model
- dynamisches HTML

DOM

- `getElementById(...)`
- `document.createElement('input')`
- `addEventListener('click', function(){}, true);`
- ...

JSON

- Syntax Objekte

{ string : value } oder {string : value, string value}

- Syntax Array

[value, value]

- value = string, number, object, array, true, false, null

JSON

```
{"customers": [  
    {  
        "name": "Christian",  
        "lastname": "Baranowski",  
        "basarNummer": 10001 },  
    {  
        "name": "Christian",  
        "lastname": "Johner",  
        "basarNummer": 10002  
    }  
]
```

JSON und JavaScript

```
var model = {name: 'Tester'}
```

```
JSON.stringify(model)
```

```
model = JSON.parse('{"name": "Tester"}')
```

JavaScript Model persistieren

```
window.name = JSON.stringify(model);
```

```
model = JSON.parse(window.name);
```

HTML Seite laden

```
window.location.href = 'customer.html';
```

URL Parameter mit JavaScript

siehe Demo Code

JQUERY

Einführung in JQuery

WAS IST JQUERY

- jQuery ist ein von John Resig entwickeltes, open source Javascript-Framework.
- Funktionen zum Navigieren / Manipulieren DOM
- Funktionen für animierte Effekte, Ajax und Event-Handling

Wie verwendet man JQuery

```
<script src="jquery.js" type="text/  
javascript"></script>
```

JQuery Syntax

```
$(<<selektor>>) {
```

Beispiele:

```
$( "a" ).click(function() {
    alert("Click Link!");
    return false;
});
```

```
$( "#saveButton" ).click(function() {
    alert("Click Button with ID saveButton");
    return false;
});
```

VORTEILE JQUERY

- DOM Abstraktion
- Flexible Funktionen um Elemente im DOM zu selektieren
- jQuery ist ein Tool um viel Zeit und Code zu sparen.
- leicht lesbarerer Javascript-Code

Übungen

- Erstellen Sie ein Objekt das eine Aufgabe repräsentiert
- Binden Sie Ihr Formular an den JavaScript Code an zum erstellen einer Aufgabe
- Verbinden Sie die Übersichtsseite und Anlegen/Bearbeiten Seite



Software Technik

HTWG Konstanz

Anforderungsanalyse mit der UML
22.10.2010 um 17:30 Uhr



Christian Baranowski