



introductie jQuery



Mark@Soekarjo.nl



Introductie

- Voorstelrondje
- Agenda
- Dagindeling
- Cursusmateriaal
- Doel van deze cursus



even voorstellen ...

- **zelfstandig trainer**
- meer dan 15 jaar i.s.m. enkele Cedeo erkende buro's en voor eigen B2B klanten
- **maatwerk** : in-company workshops
- **opleidingen**: web design, Photoshop, Flash
- **trainingen** : CSS(masterclass), jQuery, Prezi, WordPress, html5 / css3, bootcamp front-end blogging, Twitter Bootstrap, enz ...
- veel ervaring in reclame / communicatie
- voorheen wetenschappelijk onderzoeker



mark@soekarjo.nl
+31' 6' 50244446



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jQuery intro

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in-company training made to measure



mark@soekarjo.nl
+31' 6' 50244446



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Agenda

- Inleiding jQuery en javascript
- Aan de hand van voorbeelden zelf verwerken



Dagindeling

- 8:45 -..... Begin cursusdag
 - § Per onderwerp
 - theorie
 - opdrachten maken
 - opdrachten bespreken
- 10:30-10:45 Koffiepauze
- 12:00-12:45 Lunchpauze
- 14:30-14:45 Koffiepauze
--16:00 Einde cursusdag



Cursusmateriaal

- Sheets
- Online bronnen
 - § Links per mail aan het einde van de dag
 - § Een aantal belangrijke bronnen



jQuery bronnen





jQuery.com

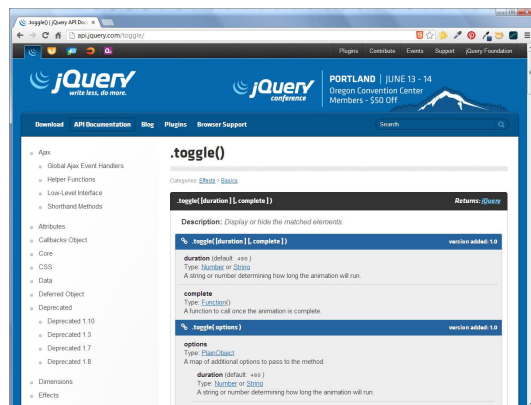
- Downloads
- Referentie api.jquery.com
- Leren try.jquery.com
- Plug-ins plugins.jquery.com
- jQuery UI jqueryui.com



jQuery api Documentatie

- <http://api.jquery.com>
- Complete referentie van alle onderdelen van jQuery
- Syntax
- Beschrijving
- Code voorbeelden
- Demo's
- Uitgebreidere artikelen:

<http://learn.jquery.com/>





jQuery UI

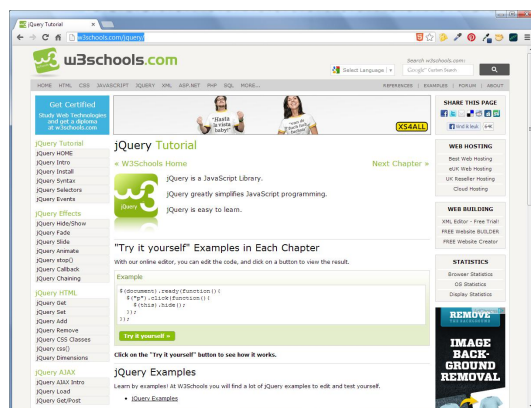
- <http://jqueryui.com>
- library voor effecten, ui elementen (widgets) en interacties, thema's
- Op jquery gebouwd



W3schools jQuery

<http://w3schools.com/jquery/>

- Ingangsniveau tutorials
- Overzichtelijk
- Bekend format
- Beschrijvingen
- Try it yourself
- examples





Doelen van deze cursus

- introductie javascript en jQuery
- Begrip van waar je jQuery voor kan gebruiken
- Effectief gebruik van selectoren om elementen in de pagina te selecteren
- Plug-ins toe kunnen passen

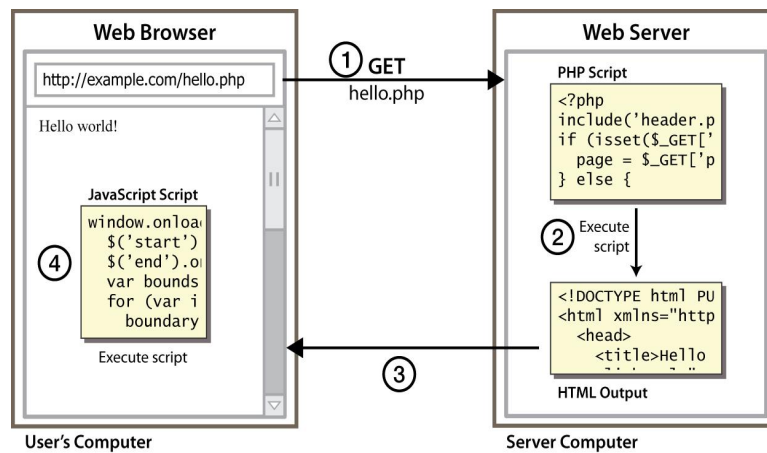


javascript

- client side scripting language
- (exception: Node.js runs server side)



Client Side Scripting



Why use client-side programming?

PHP already allows us to create dynamic web pages.
Why also use client-side scripting?

- client-side scripting (JavaScript) benefits:
 - § **usability:** can modify a page without having to post back to the server (faster UI)
 - § **efficiency:** can make small, quick changes to page without waiting for server
 - § **event-driven:** can respond to user actions like clicks and key presses



Why use client-side programming?

- server-side programming (PHP) benefits:
 - § **security**: has access to server's private data; client can't see source code
 - § **compatibility**: not subject to browser compatibility issues
 - § **power**: can write files, open connections to servers, connect to databases, ...



What is Javascript?

- a lightweight programming language ("scripting language")
 - § used to make web pages interactive
 - § insert dynamic text into HTML (ex: user name)
 - § **react to events** (ex: page load user click)
 - § get information about a user's computer (ex: browser type)
 - § perform calculations on user's computer (ex: form validation)
- a web standard (but not supported identically by all browsers)
- NOT related to Java other than by name and some syntactic similarities



Javascript vs Java

- interpreted, not compiled
- more relaxed syntax and rules
 - § fewer and "looser" data types
 - § variables don't need to be declared
 - § errors often silent (few exceptions)
- key construct is the function rather than the class
 - § "first-class" functions are used in many situations
- contained within a web page and integrates with its HTML/CSS content



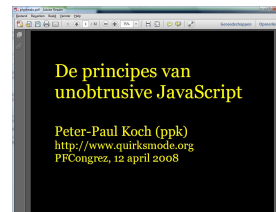
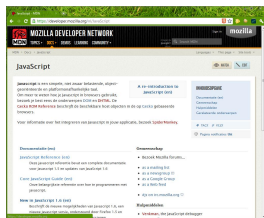
core concepts Javascript

- uitgelegd aan de hand van
 - § w3schools.com
 - § slides "Programming Concepts Javascript"



javascript libraries

- Javascript werkt in allerlei browsers verschillend.
- Een library helpt deze verschillen te verkleinen
- Waarom jQuery?
 - § Uitgebreide functionaliteit
 - § Grote acceptatie (emerging standards)
- Javascript bronnen en best practices



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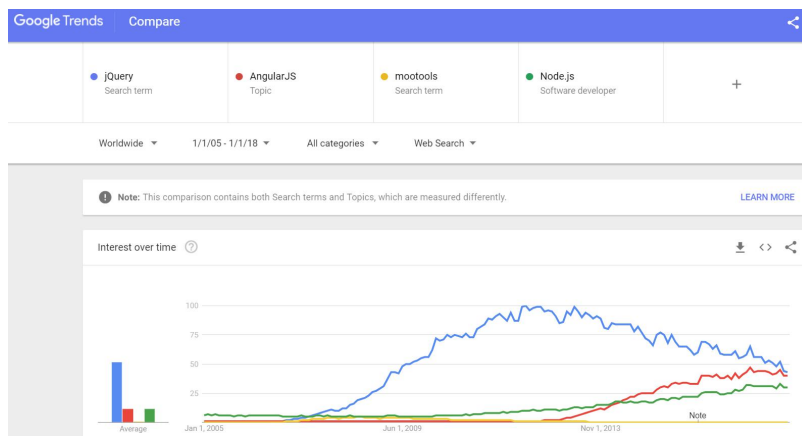
jQuery intro

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javascript libraries

- 40+ active libraries, in different categories



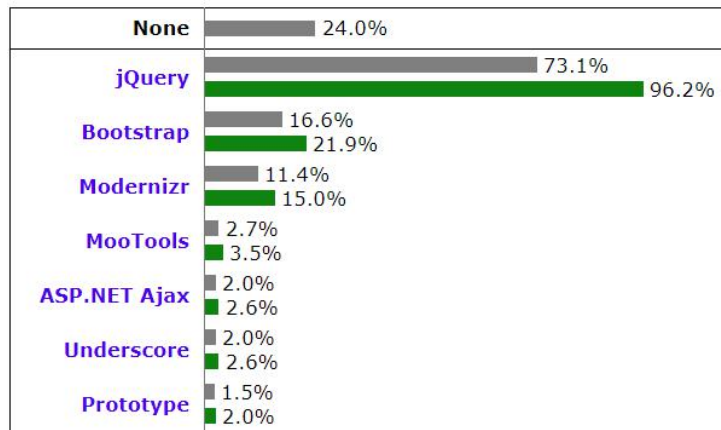
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JavaScript Library Usage per 1-1-2017

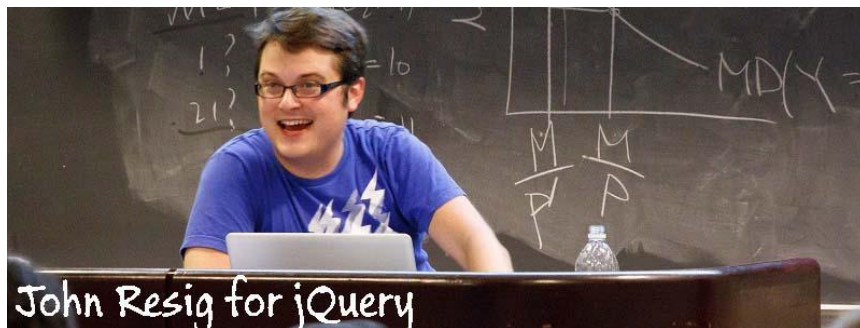


https://w3techs.com/technologies/overview/javascript_library/all



historie

- 2006 start, ajax (feb)
- 2007 jQuery UI (sep)
- 2011 jQuery mobile (nov)
- 2013 version2.0
Learning Center (feb)
- 2016 version3.0





Basic set-up

- in <head> or before </body>

```
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js">
</script> // jQuery library
<script src="plugin.js"></script> // jQuery plugin files, if needed
<script src="main.js"></script> // your global js/jquery code
<script> // init script
$(document).ready(function(){ // jQuery 'envelope'
  // jQuery and javascript statements
}); // jQuery 'envelope'
</script>
```

- extra css in <head>
 - § jQuery plugins might require their own CSS files



Basis-principe

- focus on changing DOM elements and UI enhancements (plug-ins)
- Select Something, Do Something

voorbeelden

- `$("button.continue").html("Next Step...")`
- `$(this).hide();`



Select Something

- Html tags
- ID selectors
- Class selectors
- Pseudo-selectors
- Complexe selectors
- Filters

- <http://learn.jquery.com/using-jquery-core/selecting-elements/>



Do Something

- DOM traversal
- DOM manipulatie
- Css styling
- Events
- Ajax



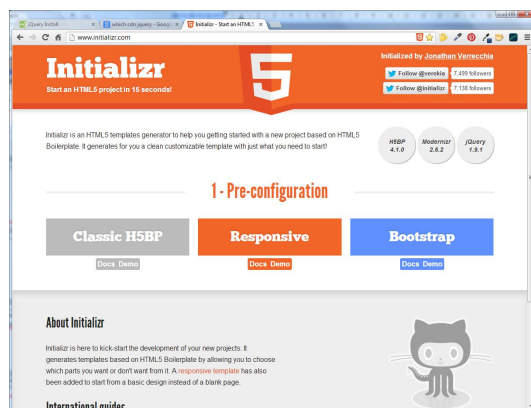
Inleiding jQuery

- Aan de hand van slides van John Resig
- <http://ejohn.org/apps/workshop/intro>
-



html template

- <http://www.initializr.com/>





jQuery install

- CDN
- Lokaal

- <http://jquery.com/download/>
- http://w3schools.com/jquery/jquery_install.asp
- <http://royal.pingdom.com/2012/07/24/best-cdn-for-jquery-in-2012/>
- <http://cdnjs.com/>



Plug-ins

- Plugins need:
 - § js
 - jquery.js
 - plugin.js
 - `<script> /* init-code */ </script>`
 - § CSS
 - plugin.css
 - § html
 - basic structure structure with hook, e.g. `<div id="plugin"> ... </div>`

- plug-ins to install
 - § jQuery-ui tabs <http://jqueryui.com/tabs/>
 - § Tablesorter <http://plugins.jquery.com/tablesorter/>
 - § Tooltipster <http://calebjacob.com/tooltipster/>

 - § forms (next slide)



forms

- Validatie
- <http://jqueryvalidation.org/>
- Mooier maken
- <http://plugins.jquery.com/superLabels/>
- submit via AJAX
- <http://malsup.com/jquery/form/>

<http://webdesign.tutsplus.com/tutorials/htmlcss-tutorials/all-you-need-to-know-about-the-html5-data-attribute>



input attributes for better UX and form validation

- type=" ... "
 - § text
 - § email
 - § url
 - § number
 - § tel
- pattern=["*regex*"]
 - § vb.nl postcode [1-9][0-9]{3}\s?[a-zA-Z]{2}
- required
- selected

```
<select>
  <option value="AF">Afghanistan</option>
  <!-- 150 more options -->
  <option value="NL" selected>Netherlands</option>
  <!-- 90 more options -->
  <option value="ZM">Zimbabwe</option>
</select>
```

https://www.w3schools.com/tags/att_input_type.asp
https://www.w3schools.com/tags/att_input_pattern.asp
<http://html5pattern.com/>
<https://www.freeformatter.com/iso-country-list-html-select.html>



Afsluiting

- Verder leren?
- Evaluatie



Verder leren?

- Regel z.s.m. een project
- Duik verder in de bronnen die we gebruikt hebben

Cursussen bij Vijfhart

- jQuery Mobile
- jQuery Advanced
- html5/css3
- html5 programmeren
- html5 development

- Ga naar conferenties
- Zie lanyrd.com

The screenshot displays the Lanyrd.com profile for Peter-Paul Koch. The profile includes a bio, a list of 75 upcoming events, and statistics on his speaking and attendance record. The events listed include 'Social Cities of Tomorrow' in Rotterdam, 'Autour du W3C: nouveaux standards de Web Mobile' in France, and 'Build Responsibly Workshop' in the United States. The 'Appears with' section lists several other professionals he has interacted with, such as Stephen Hay, Jeremy Keith, and Ethan Marcotte.



events

- `$("#tour").on('click', 'button', function(){})`

- <http://api.jquery.com/event.preventDefault/>



effects

- `hide()/show()`
- `fade()`
- `slide()`
- `animate()`

Combineer met

- `callback()`
- `chaining()`
- `stop()`



jQuery AJAX toepassingen

- Verversen van een deel van de pagina
- Voorbeelden van Google
 - § search: suggesties terwijl je typt
 - § Gmail: wisselen van mailbox/opstellen bericht
 - § Google maps: in- en uitzoomen

 - § Alles zonder de pagina te verlaten



jQuery AJAX

- \$.load() DOM insertie van (deel van) opgevraagde URL
- \$.get() / \$.post() meesturen van data naar host
- \$.ajax() onderliggende functie met veel mogelijkheden



Opdracht ajax met back-up

- Maak een link die:
- Ofwel een nieuwe pagina inlaadt (zonder javascript)
- Ofwel met ajax een gedeelte van de target-pagina inlaadt