

jQuery in Domino apps

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Agenda

- What is jQuery
- Samples of jQuery features
- Why jQuery instead of Dojo
- jQuery and forms editing
- jQuery and AJAX / JSON
- Code examples
- Questions and (hopefully) Answers

What is jQuery?

jquery.org say a

- fast and concise JavaScript Library that
- simplifies HTML document traversing,
- event handling,
- animating, and
- Ajax interactions for rapid web development.
- jQuery is designed to change the way that you write JavaScript.

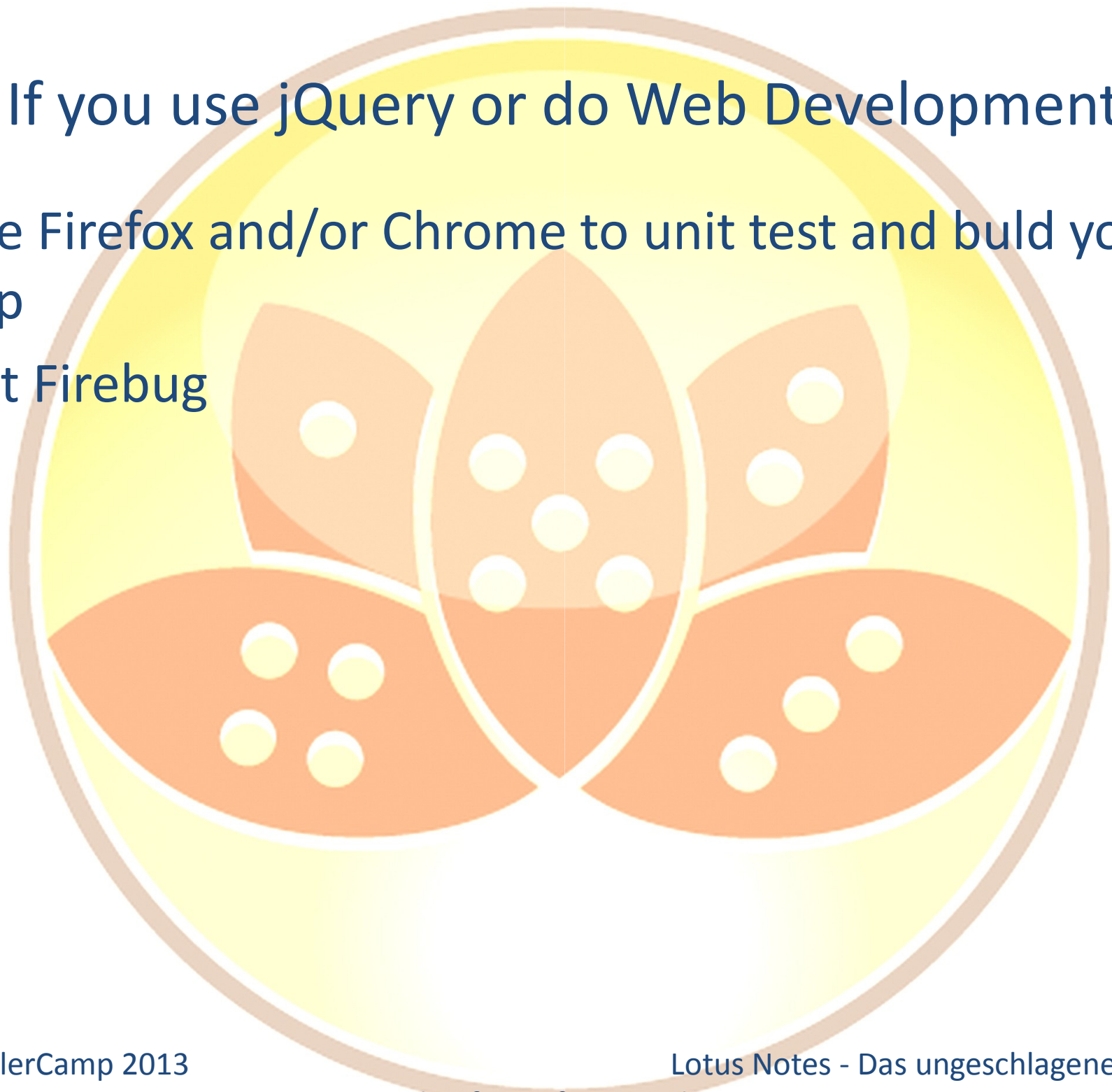
jQuery Components



- jQuery base library
- jQuery UI
- QUnit test suite
- Sizzle CSS editor

If you use jQuery or do Web Development

- Use Firefox and/or Chrome to unit test and build your app
- Get Firebug



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Samples of jQuery features

- Use '\$' or 'jQuery' to invoke features
 - 'jQuery needed when '\$' is used elsewhere (dojo, prototype, etc.)
- Selectors, selectors and more selectors
 - All elements of a given type
 - jQuery('h1') - jQuery('div') - jQuery('input')
 - All elements with a specific class
 - jQuery('.myClass') - jQuery('.yourClass')
 - Children Elements
 - jQuery('table.DataEntryTable > tbody > tr')...
 - More options

jQuery Actions

- Read or Set dimensions
 - `$(...).width(600) $(...).height(300)`
 - `innerHeight() outerHeight();`
- Show or hide item
 - `$(...).show() $(...).hide() - $(...).toggle()`
 - `$(...).fadeIn() $(...).fadeOut() $(...).fadeToggle()`
 - `$(...).slideDown() $(...).slideUp() $(...).slideToggle()`
- Manipulate CSS attributes
 - `$(...).css('font-size','12pt')`
 - `$(...).css('vertical-align','middle')`

jQuery Functions

- `$('document').ready(function() { })`
- **AJAX**
 - `$.get()` `$.getJSON()` `$.getScript()`
 - `$.post()`
- **\$.get Parameters**
 - URL
 - Data (if any) to send (JSON object)
 - Done Function
 - Data Type
- **Completion Functions**
 - `.done()` `.fail()` `.always()`

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Why jQuery instead of Dojo or ???

- jQuery is very small < 32 K minimized
- Dojo is bulky, loads many files as you use features
- jQuery syntax is simple to master and powerful
- jQuery can run with dojo and other frameworks
- jQuery useful in making sites appear differently
 - To different users
 - At different times
 - When data is in specific states

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Setting data entry attributes

- Selecting all inputs that are not buttons
 - `jQuery('input[type!="button"]')`
- Setting width and font of input controls
 - `$(...) .width(400).css('font-size','12pt');`
- Setting label attributes
 - `jQuery('.DataEntryLabelCell').width(100)`
 - `.height(40)`
 - `.css('font-size','8pt')`
 - `.css('vertical-align','middle')`
 - `.css('padding-left','5px')`
 - `.css('font-weight','bold');`

Using a Client Side Tabbed Interface

- Place the content of each tab in its own div with an id of tab<n>
- Add buttons with class of “tabButton” which call showTab(n) for each tab
- Build a prepTabs function:

```
function prepTabs() {  
    jQuery(':button.tabButton').css('font-weight', 'normal').css('font-size','8pt');  
    currentTab = 1;  
    for(var i=0; i<10; i++) {  
        jQuery('#tab' + i).height(300).width(600).css('border','1px solid grey').hide();  
    }  
    jQuery('#tab1').show();  
}
```


Tabbed Interface Continued

- Add the showTab function

```
function showTab(tnum){  
    jQuery('#tab' + currentTab).hide();  
    jQuery('#tab' + tnum).show();  
    currentTab = tnum;  
}
```

- Setup the tabs on document load

```
jQuery('document').ready(function(){prepTabs()})
```

Flagging Required Fields

- Create an array of the required field names
- Add this function to the JS Header

```
function checkRequiredFields() {  
    var val = "";  
    var fld = null;  
    for(var i=0; i<requiredFields.length; i++) {  
        fld = document.forms[0][requiredFields[i]]  
        val = fld.value;  
        if(val=="") {  
            jQuery(fld).css('background-color','#FFE0E6');  
        } else {  
            jQuery(fld).css('background-color','#C2FF91');  
        }  
        if(!reqFieldsLoaded) jQuery(fld).blur(function(){checkRequiredFields();});  
    }  
    reqFieldsLoaded = true;  
}
```

Flagging Required Fields

- Set the prepTabs and checkRequiredFields function to run when the page is loaded

```
jQuery(document).ready(function(){  
  prepTabs();  
  checkRequiredFields();  
})
```


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AJAX in jQuery

- jQuery has full featured AJAX support
 - `jQuery.ajax()` is lowest level interface
- Shorthand methods
 - `jQuery.get()`
 - `jQuerygetJSON()`
 - `jQuery.getScript()`
 - `jQuery.post()`
 - `jQuery.load()`
 - Directly populates a region of the page with HTML

jQuery.getJSON()

- All the Shorthand methods take three parameters
 - URL – Where to get or post the data
 - Data – data to send with the request
 - Success – Function to execute when the call succeeds
`$.getJSON(url,function(data) {...})`
- You can add error and completion handlers
`$.getJSON(url,function(data) {...}).error(function(){...})`
`$.getJSON(url,function(data) {...}).complete(function(){...})`
- JSON data must be fully JSON compliant
 - Double quoted labels for tags required

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Thank-you

Please fill out your evaluations

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