

Java Web Front-end Basic

-

Getting started with jQuery

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agenda

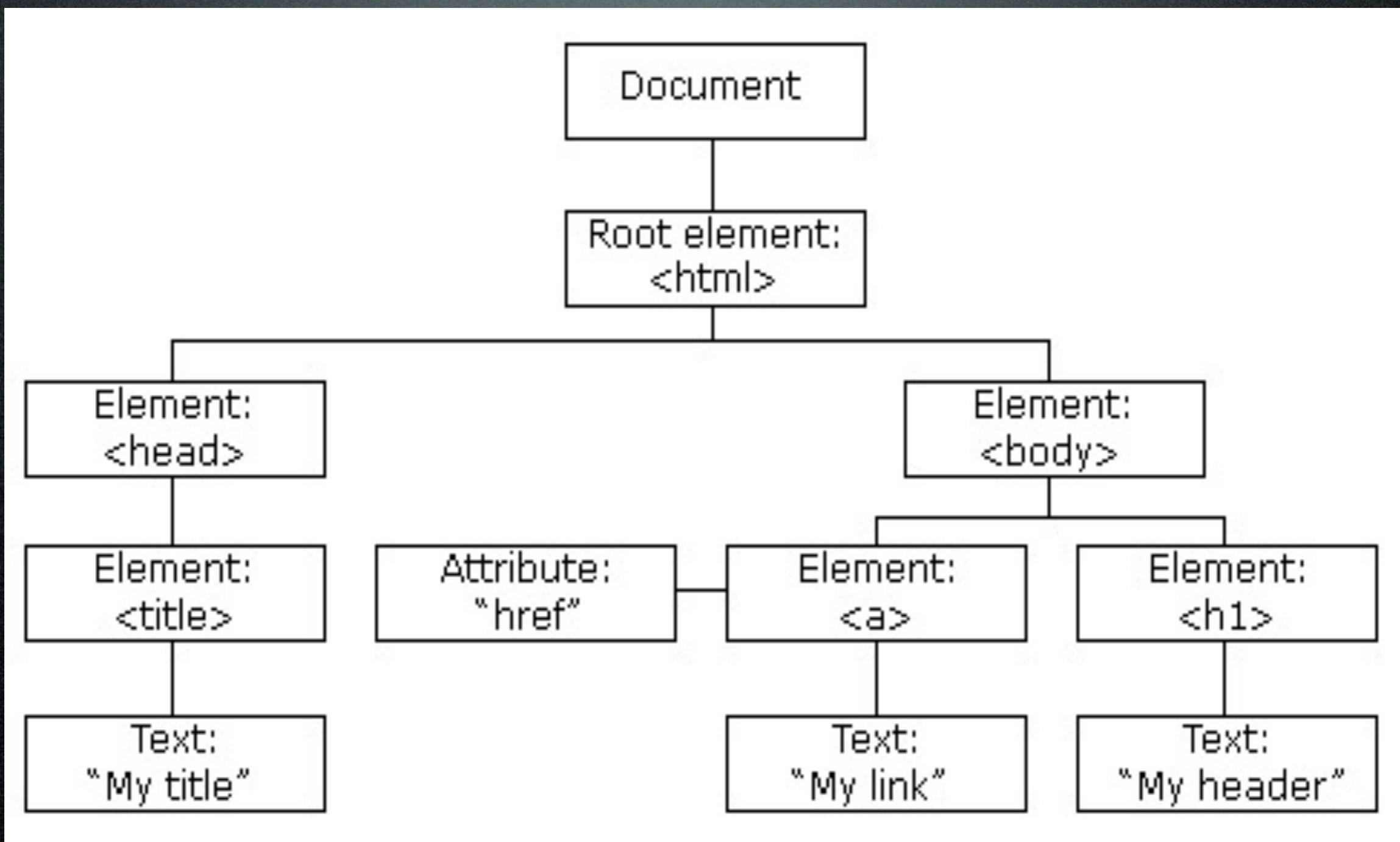
- DOM
- javascript manipulating DOM
- jQuery

DOM

What is the Document Object Model?

"The Document Object Model is a platform- and language-neutral interface that will allow programs and scripts to dynamically access and update the content, structure and style of documents. The document can be further processed and the results of that processing can be incorporated back into the presented page. "

DOM



DOM window

```
var handler = setTimeout(code,millisec)  
clearTimeout(handler)
```

```
var handler = setInterval(code,millisec)  
clearInterval(handler)
```

Diff:

timeOut only execute once

Relation:

use setTimeout to implement something like setInterval

```
var handler = setTimeout("func()",millisec)  
  
function func() {  
  
    //doSomething here, then  
  
    handler = setTimeout(func,millisec);  
  
}
```

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DOM document

getElementById()

innerHTML

getElementsByName()

getElementsByTagName()

createDocumentFragment()

createElement()

createTextNode()

appendChild()

open(mimetype,replace)

write()

close()

DOM style

```
document.getElementById("id").style.property = somevalue
```

Hiding/Displaying Elements

onload:

```
document.getElementById('show').addEventListener('click',  
show, false);
```

```
function show()  
{  
    document.getElementById('info').style.display = 'block';  
    document.getElementById('info').style.color = 'red';  
};
```

```
document.getElementById('info').style.display = 'none';
```

jQuery

jQuery is 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.

- **find stuff and do stuff with it!**
- **simplify web development**

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Browse the jQuery API

- All
- + Ajax
- Attributes
- Callbacks Object
- Core
- CSS
- Data
- Deferred Object
- Deprecated
- Dimensions
- + Effects
- + Events
- Forms
- Internals
- + Manipulation
- + Miscellaneous
- Offset
- + Plugins
- + Properties
- + Selectors
- + Traversing
- Utilities
- + Version

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

Replace old way of working by jQuery

- Launching code on document ready
- Create element
- Find element
- Manipulating element style
- Manipulating events
- Make AJAX request

Lunching code on document ready

```
<script type="text/javascript" src="jquery-1.7.1.js"></script>
<script type="text/javascript">
    //old way
    //window.onload = function(){ alert("welcome"); }

    //new way
    $(document).ready(function(){
        $("a").click(function(event){
            alert("Thanks for visiting!");
        });
    });

</script>
```

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1. `$(document)` 其实调用是jQuery的核心函数`jQuery(elements)`拿到一个jQuery对象
2. jQuery的chain的操作方式使得我们拿到这个对象之后能够继续方便的操作
3. `.ready(fn)` 是jQuery事件API中关于页面加载的一个函数，作用是页面加载完成时执行callback函数fn里面的内容
4. 在一个页面中我们可以声明多出`$(document).ready(fn)`, 执行的顺序和声明的顺序一致
5. `.click`也是一个事件API中的函数，参数`event`对象可参考下面的链接
`6.event.preventDefault()`
<http://docs.jquery.com/Events>
<http://docs.jquery.com/Events/jQuery.Event>

Manipulating element

- Find element
- Manipulating element style
- Manipulating element attribute
- Manipulating events

```
$('a')  
$('.class')  
$('.class.class')  
$('#id')  
$('*')  
$('selector1, selector2,  
    selectorN')
```

Selectors

```
addClass('className');"  
removeClass('className');  
toggleClass('className');
```

text(),text(vlaue)
html(),html(value)
val(),val(value)

```
attr('attrName','value')  
removeAttr('attrName');
```

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1. just show some basic selector here,more selectors please refer to: <http://docs.jquery.com>Selectors>

2. document manipulating
<http://docs.jquery.com/Manipulation>

3. attributes related, class, attribute, text, html, value
<http://docs.jquery.com/Attributes>

Effects

Basics:

show()
show(speed, callback)
hide()
hide(speed, callback)
toggle()
toggle(switch)
toggle(speed, callback)

Fading:

Name	Type
fadeIn(speed, callback)	
fadeOut(speed, callback)	
fadeTo(speed, opacity, callback)	

Sliding:

slideDown(speed, callback)
slideUp(speed, callback)
slideToggle(speed, callback)

Traversing

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Make AJAX request

Ajax Requests:

```
jQuery.ajax( options )  
load( url, data, callback )  
we can use selector  
load("url #id tagName",...)  
jQuery.get( url, data, callback, type )  
jQuery.getJSON( url, data, callback )  
jQuery.getScript( url, callback )  
jQuery.post( url, data, callback, type )
```

Ajax Events:

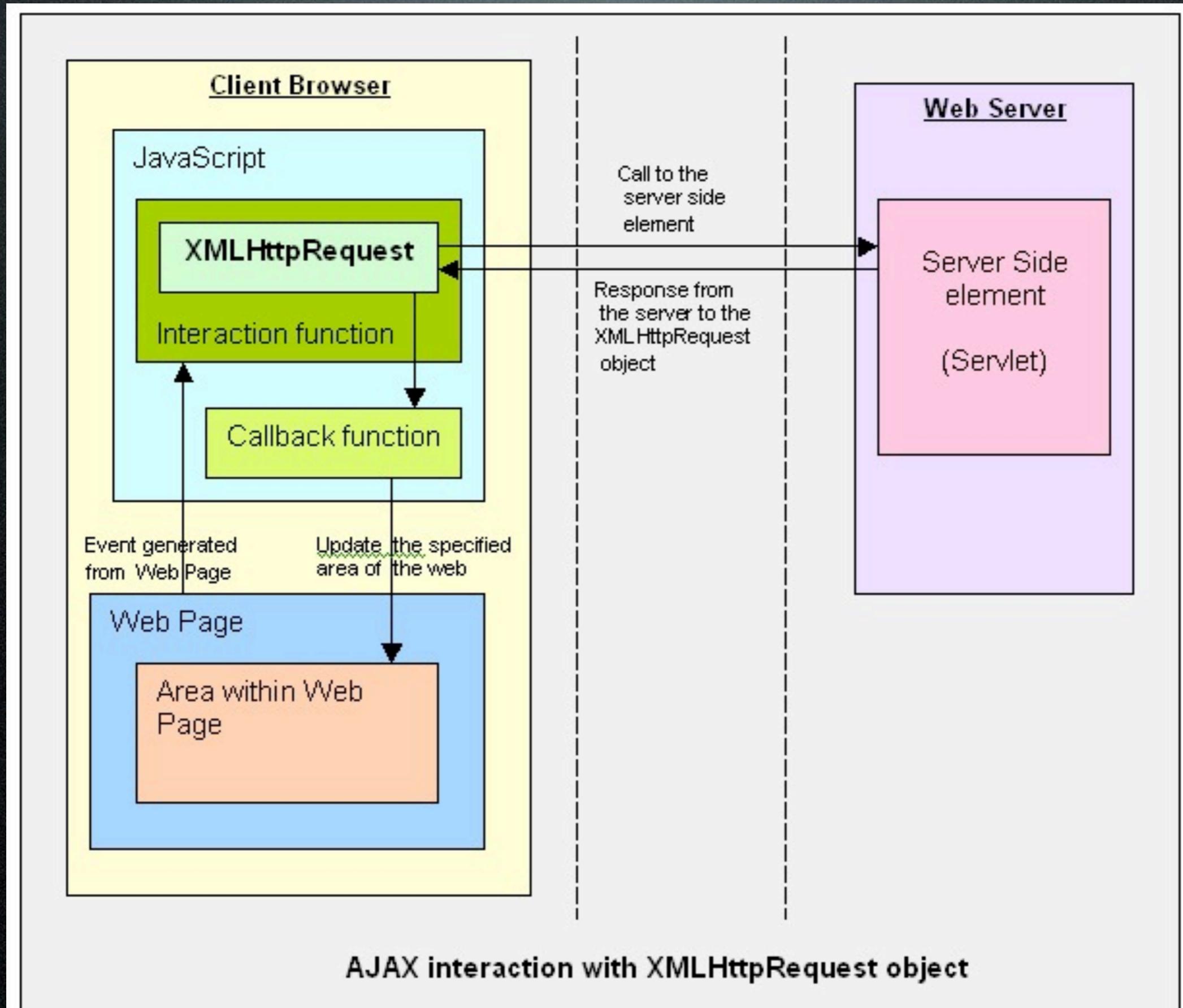
```
ajaxComplete( callback )  
ajaxError( callback )  
ajaxSend( callback )  
ajaxStart( callback )  
ajaxStop( callback )  
ajaxSuccess( callback )
```

References

- <http://www.w3.org/DOM/>
- <http://jquery.com/>

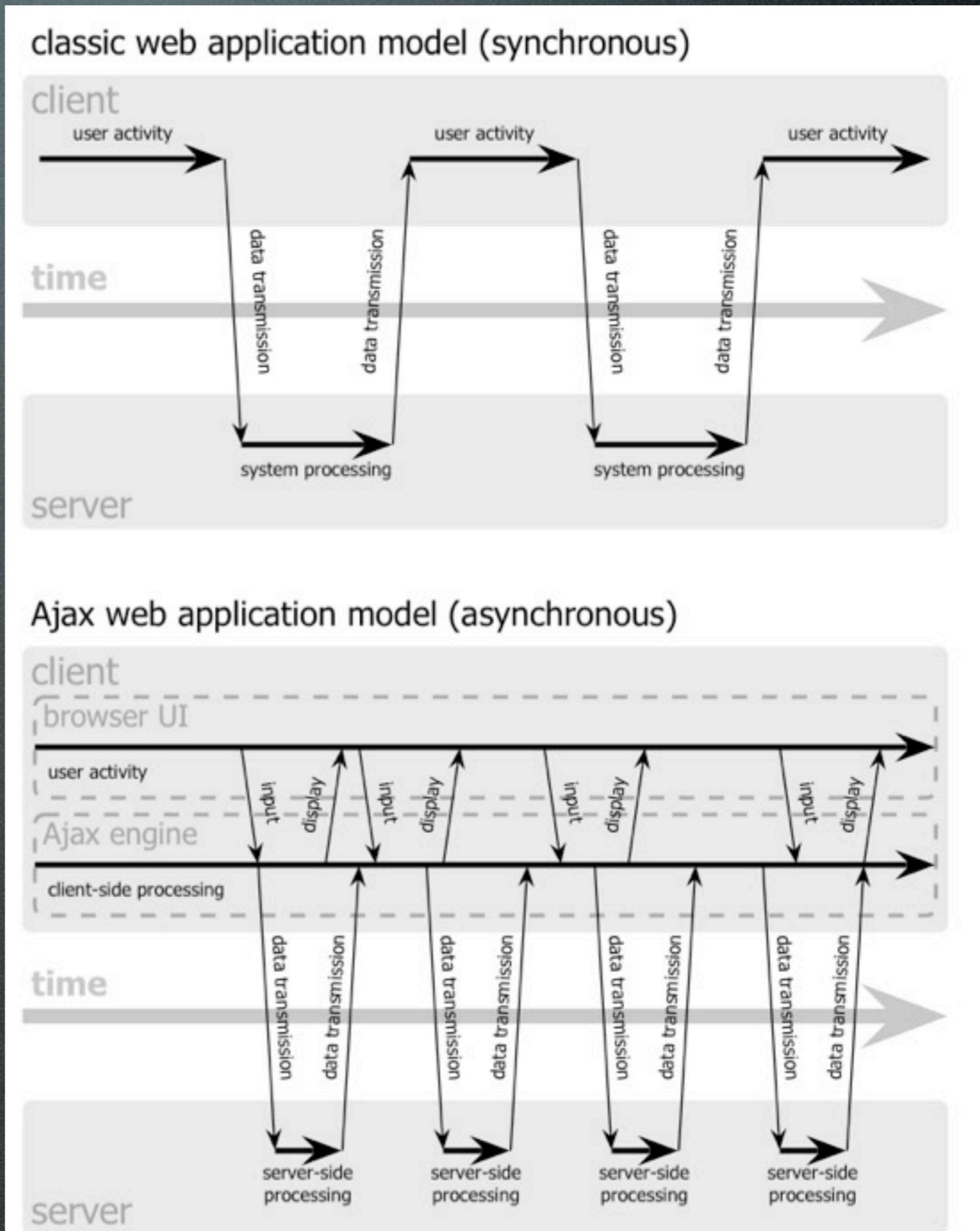
Q&A

Asynchronous JavaScript and XML



Web application model

Classic & Ajax



demo: manual AJAX

Use totally manual style to do a AJAX request

```
var XMLHttpRequest = new XMLHttpRequest()

xmlHttpRequest.open("get","url",true);

xmlHttpRequest.onreadystatechange = function callback() {

    if (request.readyState == 4) {
        //get complete server response
        if (request.statusText==200) {
            alert("status is:"+request.status + "(" + request.statusText + ")");
            alert("Response text is:"+request.responseText);

            alert("Response headers:"+request.getAllResponseHeaders());
        }
    }
};

xmlHttpRequest.send(null);
```

coding an ajax login?

step1: download the zip file [link](#)

step2: open it with your favourite editor

step3: make an ajax request

note: if you are familiar with servlet, you can use tomcat to load my webproject.

if not, just use response.json as url target

what is in: response.json

```
{  
    status:1,  
    info:"welcome!dear!"  
}
```