

Web jQuery

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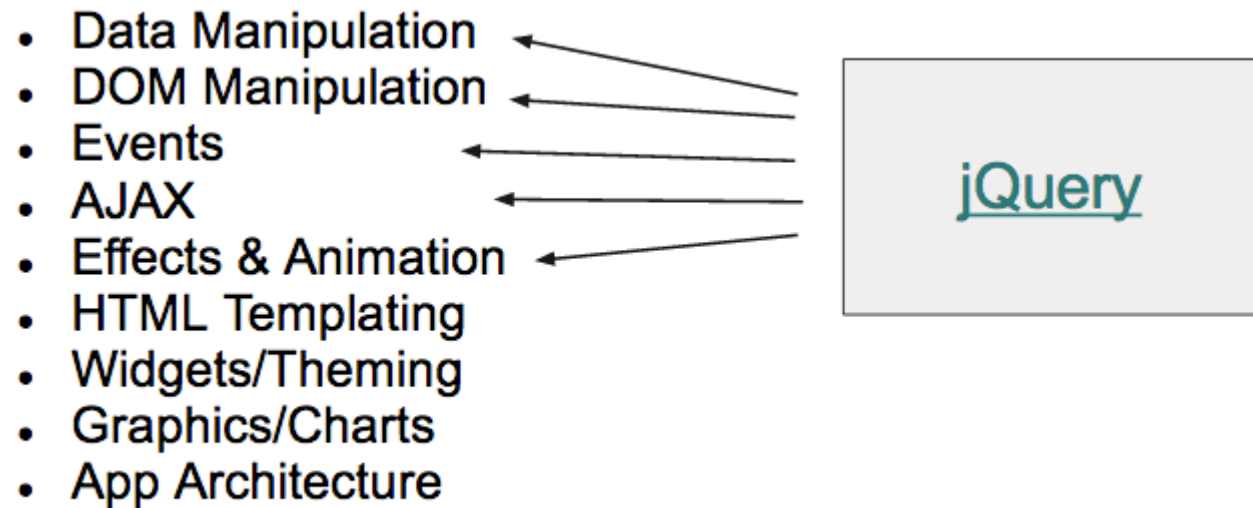
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jQuery

- <https://jquery.com/>
- Library that allows writing less code



Why use jQuery?

Without jQuery

```
var elems =  
document.getElementsByTagName('img');  
for (var i = 0; i < elems.length; i++) {  
    elems[i].style.display = 'none';  
}
```

```
var p = document.createElement('p');  
p.appendChild(document.createTextNode('Welcome!'));  
p.style.cssFloat = 'left';  
p.style.backgroundColor = 'red';  
p.className = 'special';  
document.querySelector('div.header').appendChild(p);
```

With jQuery

```
$('img').hide();
```

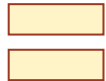
```
var newP = $('<p>Welcome!</p>');  
newP.css({'float': 'left', 'background-color': 'red'});  
newP.addClass('special');  
$('div.header').append(newP);
```

Steps

```
<p>Welcome to jQuery!</p>
```



```
$( 'p' ).addClass( 'special' );
```



```
<p class="special">Welcome to jQuery!</p>
```

- 1st step: select an element
`$('p')`
- 2nd step: use a jQuery method to manipulate
`$('p').addClass('special');`

.addClass() documentation: <https://api.jquery.com/addClass/>

Selectors

- All CSS selectors are valid: <https://api.jquery.com/category/selectors/>

```
<p>Welcome!</p>
```

```
$('p')
```

```
<div id="main">Welcome!</div>
```

```
$('#main')
```

```
<p class="intro">Welcome!</p>
```

```
$('.intro')
```

```
<div id="main">
```

```
  <p class="intro">Welcome!</p>
```

```
</div>
```

```
$('#main .intro')
```

Reading elements

Starting with HTML:

```
<a id="yahoo" href="http://www.yahoo.com" style="font-size:20px;">Yahoo!</a>
```

We can get:

```
$('#a#yahoo');
```

We can store:

```
var myLink = $('#a#yahoo');
```

We can find out:

```
myLink.html();
```

→ 'Yahoo!'

```
myLink.attr('href');
```

→ 'http://www.yahoo.com'

```
myLink.css('font-size');
```

→ '20px'

Modify elements

```
<a href="http://www.google.com">Google</a>
```



```
$('#a').html('Yahoo!');  
$('#a').attr('href', 'http://www.yahoo.com');  
$('#a').css({'color': 'purple'});
```



```
<a href="http://www.yahoo.com" style="color:purple">Yahoo</a>
```


jQuery objects and DOM

```
var paragraphs = $('p');           // an array
var myParagraph = paragraphs[0];    // a regular DOM node
var $myParagraph = $(paragraphs[0]); // a jQuery Object

                                   // a loop

for(var i = 0; i < paragraphs.length; i++) {
    var element = paragraphs[i];
    var paragraph = $(element);
    paragraph.html(paragraph.html() + ' wowee!!!!');
};
```

Defining events with jQuery

```
// First Example, with named callback & .on
var onButtonClick = function() {
    console.log('clicked!');
};

$('button').on('click', onButtonClick);

// Second Example, with anonymous callback & .on
$('button').on('click', function () {
    console.log('clicked!');
});

// Third Example, with .click (& a named callback)
$('button').click(onButtonClick)
```

Preventing default events with jQuery

```
//default event for clicking on link is to go to new page
$('a').on('click', function (event) {
    event.preventDefault();
    console.log('Not going there!');
});

//default event is to submit form and reload page
$('form').on('submit', function (event) {
    event.preventDefault();
    console.log('Not submitting, time to validate!');
});
```

Define effects and animations

```
//on page load
$('.kitty-image').show(3000);

$('.kitty-image').fadeIn(3000);

//with an event handler, as a callback
$('.button').click(function() {
    $('.kitty-image').show();
});

$('.button').mouseover(function() {
    $(this).css('color', 'red');
});
```

jQuery plugins

- *"If you want to create an animation, effect, or UI component, chances are pretty good that someone has done the work for you already."*

- How to use:

1. Download the plugin and associated files to the project folder

2. On the HTML, reference the associated CSS files

```
<link rel="type/styleSheet" type="text/css" href="tablesorter.css">
```

3. On the HTML add a <script> tag for the jQuery plugin

```
<script src="lib/tablesorter.js"></script>
```

4. On the JavaScript call the plugin on the DOM

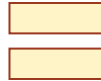
```
$('table').tableSorter();
```

Plugins: <http://plugins.jquery.com/>

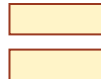
"Which JavaScript Library Should I Pick?": <http://blog.pamelafox.org/2013/07/which-javascript-library-should-i-pick.html>

Chaining

```
banner.css('color', 'red');  
banner.html('Welcome!');  
banner.show();
```



```
banner.css('color', 'red').html('Welcome!').show();
```



```
banner.css('color', 'red')  
    .html('Welcome!')  
    .show();
```



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