



COMP 4021

Internet Computing

AJAX with jQuery

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Simplest Ajax in jQuery: Load a File

```
$(document).ready(function(){  
    $("button").click(function(){  
        $("#div1").load("demo_test.txt");  
    });  
});
```

Let jQuery AJAX Change This Text

Get External Content

jQuery and AJAX is FUN!

This is some text in a paragraph.

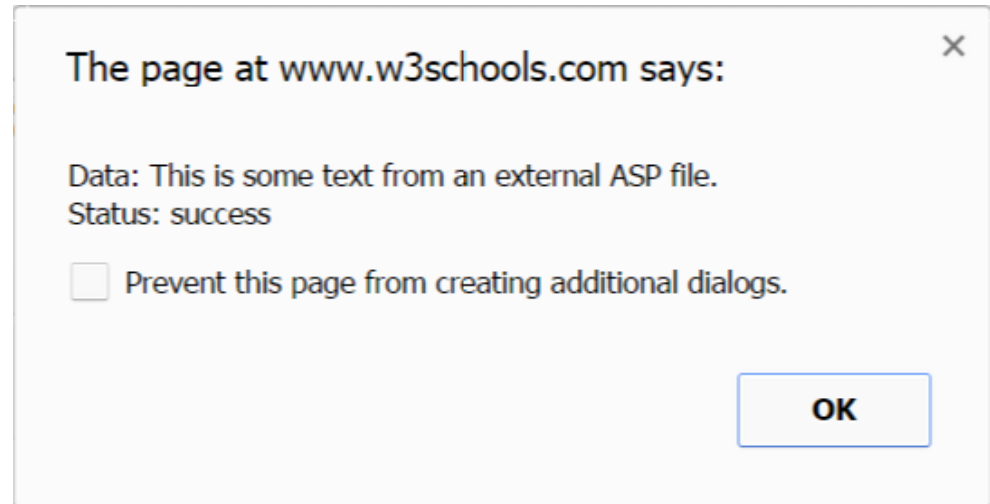
Get External Content

<div id="div1"><h2>Let jQuery AJAX Change This Text</h2></div>

<button>Get External Content</button>

GET in jQuery

```
$(document).ready(function(){  
    $("button").click(function(){  
        $.get("demo_test.asp", function(data, status){  
            alert("Data: " + data + "\nStatus: " + status);  
        });  
    });  
});
```



<button>Send an HTTP GET request to a page and get the result back</button>

POST in jQuery

\$.post() loads data from the server using an HTTP POST request

```
$(document).ready(function(){  
  $("button").click(function(){  
    $.post("demo_test_post.php",  
    { name: "Donald Duck", city: "Duckburg" },  
    function(data){  
      $("#demo").text(data);  
    });  
  });  
});
```

PHP script

key/value to be passed to server script

If successful, update the "demo" <p> with returned result

Send an HTTP POST request to a page and get the result back

↓

Send an HTTP POST request to a page and get the result back

Dear Donald Duck. Hope you live well in Duckburg.

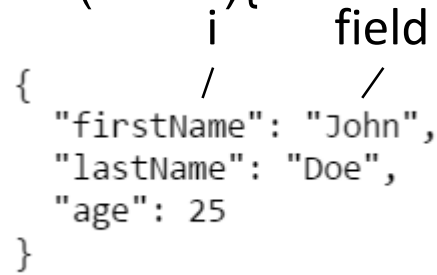
<button>Send an HTTP POST request to a page and get the result back</button>

<p id="demo"></p>

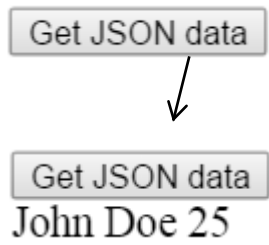
getJSON in jQuery

```
$(document).ready(function(){
    $("button").click(function(){
        $.getJSON("demo_ajax_json.js", function(result){
            $.each(result, function(i, field){
                $("div").append(field + " ");
            });
        });
    });
});
</script>
</head>
<body>

<button>Get JSON data</button>
<div></div>
```



```
{
  "firstName": "John",
  "lastName": "Doe",
  "age": 25
}
```



```
Get JSON data
↓
Get JSON data
John Doe 25
```

Ajax in jQuery

```
$.ajax({  
  type: "POST",           // parameters: key/value pairs  
  url: "some.php",        // a string containing the url  
  data: { name: "John", location: "Boston" } // settings : key-value pairs  
});
```

- Returns jqXHR Object, a superset of XMLHttpRequest
- Contains **responseText** and **responseXML** properties and **getResponseHeader()** method
- Other functions:
 - jqXHR.done(function(data, textStatus, jqXHR){})
 - jqXHR.fail(function(jqXHR, textStatus, errorThrown){})
 - jqXHR.always(function(data, textStatus, error){})

jqXHR Object

```
var jqxhr = $.ajax( "example.php" )  
  .done(function() {  
    alert( "success" );  
  })  
  .fail(function() {  
    alert( "error" );  
  })  
  .always(function() { // whether call succeeds  
    or fails  
    alert( "complete" );  
  });
```

Take Home Message

- jQuery hides some details of AJAX
 - No need to remember response code, numerical status, etc.
 - No need to open connection, etc.
- jQuery is more browser independent than raw AJAX
- Ajax is an example of client server communication
- Despite the name XMLHttpRequest implies, Ajax does not require XML; plain text, csv, tsv, json, xml, etc. can be used as long as the client knows how to parse the data
- Data are passed between client and server without human involvement; what user sees on screen is after post-processing by Ajax client