



Computer Science S-75

Building Dynamic Websites

Harvard Summer School
<https://www.cs75.net/>

Lecture 7: Ajax

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DOM

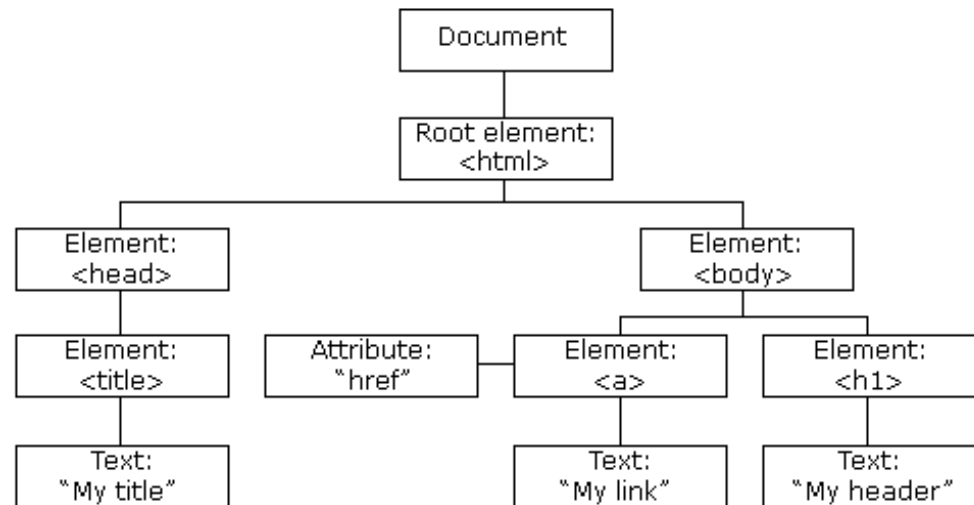
```
<!DOCTYPE html>

<html>
  <head>
    <title>My title</title>
  </head>
  <body>
    <a href="">My link</a>
    <h1>My header</h1>
  </body>
</html>
```

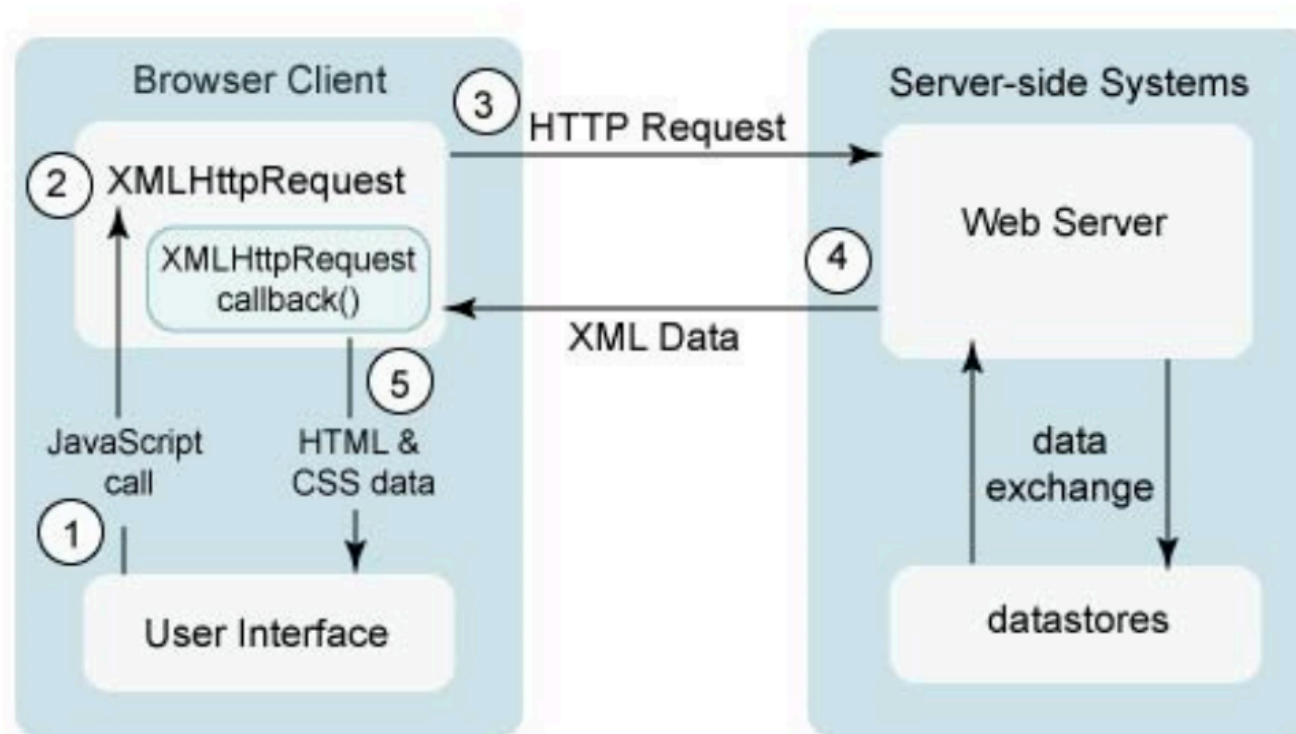
DOM

```
<!DOCTYPE html>

<html>
  <head>
    <title>My title</title>
  </head>
  <body>
    <a href="">My link</a>
    <h1>My header</h1>
  </body>
</html>
```



Ajax



XMLHttpRequest

- abort()
- getAllResponseHeaders()
- getResponseHeader(header)
- open(method, url)
- open(method, url, async)
- open(method, url, async, user)
- open(method, url, async, user, password)
- send()
- send(data)
- setRequestHeader(header, value)

XMLHttpRequest

- onreadystatechange
- readyState
 - 0 (uninitialized)
 - 1 (open)
 - 2 (sent)
 - 3 (receiving)
 - 4 (loaded)
- responseBody
- responseText
- responseXML
- status
 - 200 (OK)
 - 404 (Not Found)
 - 500 (Internal Server Error)
 - ...
- statusText



Content Types

- HTML (text/html)
- XML (text/xml)
- JSON (application/json)

JSON

- ASP:
 - JSON for ASP.
 - JSON ASP utility class.
- ActionScript:
 - ActionScript3.
 - JSONConnector.
- Ada:
 - GNATCOLLJSON.
- Bash:
 - Jshon.
 - JSON.sh.
- BlitzMax:
 - bmx-rjson.
- C:
 - JSON_checker.
 - YAJL.
 - js0n.
 - LibU.
 - json-c.
 - json-parser.
 - jsonsl.
 - M's JSON parser.
 - cJSON.
 - Jansson.
 - jsmn.
 - cson.
- C++:
 - JSONKit.
 - jsonme--.
 - ThorsSerializer.
 - JsonBox.
 - jsoncpp.
 - zoolib.
 - JOST.
 - CAJUN.
 - libjson.
 - nosjob.
 - rapidjson.
- C#:
 - fastJSON.
 - JSON_checker.
 - Jayrock.
 - Json.NET - LINQ to JSON.
 - LitJSON.
 - JSON for .NET.
 - JsonFx.
 - JSON@CodeTitans
 - How do I write my own parser?
 - JSONSharp.
 - JsonExSerializer.
 - fluent-json
 - Manatee Json
- Clojure:
 - clojure-json.
 - API for json.
- Cobol:
 - XML Thunder.
- ColdFusion:
 - ColdFusion 8.
 - toJSON.
- D:
 - Cashew.
 - Libdjson.
- Delphi:
 - Delphi Web Utils.
 - JSON Delphi Library.
 - JSON Toolkit.
 - tiny-json.
- E:
 - JSON in TermL.
- Erlang:
 - ejson.
 - mochijson2.
- Fantom:
 - Json.
- Go:
 - package json.
- Haskell:
 - RJson package.
 - json package.
- haXe:
 - hxJSON.
- Java:
 - org.json.
 - org.json.me.
 - Jackson JSON Processor.
 - Json-lib.
 - JSON Tools.
 - Stringtree.
 - SOJO.
 - Jettison.
 - json-taglib.
 - XStream.
 - Flexjson.
 - JON tools.
 - Argo.
 - jsonij.
 - fastjson.
 - mjson.
 - jjson.
 - json-simple.
 - json-io.
 - JsonMarshaller.
 - google-gson.
 - Jjson-smart.
- JavaScript:
 - JSON.
 - json2.js.
 - json_sans_eval.
 - clarinet.
- Lisp:
 - Common Lisp JSON.
 - Yason.
 - Emacs Lisp.
- LotusScript:
 - JSON LS.
- Lua:
 - Json4Lua.
 - LuaJSON.
 - LuaJSON C Library.
 - Fleece.
 - Lua CJSON.
 - dkjson.
- Matlab:
 - JSONlab.
 - JSON Parser.
 - (another) JSON Parser.
- Objective C:
 - json-framework.
 - MTJSON.
 - JSONKit.
 - yajl-objc.
 - TouchJSON.
- OCaml:
 - Yojson.
 - jsonm.
- OpenLaszlo:
 - JSON.
- Perl:
 - CPAN.
 - perl-JSON-SL.
- PHP:
 - PHP 5.2.
 - json.
 - Services_JSON.
 - Zend_JSON.
 - Solar_json.
 - Comparison of php json libraries.
- Pike:
 - Public.Parser.JSON.
 - Public.Parser.JSON2.
- PL/SQL:
 - pljson:
 - Librairie-JSON.
- PowerShell:
 - PowerShell.
- Prolog:
 - SWI-Prolog HTTP support
- Puredata:
 - PuRestJson
- Python:
 - The Python Standard Library.
 - simplejson.
 - pyson.
 - Yajl-Py.
 - ultrajson.
- Qt:
 - QJson.
- R:
 - rjson.
- Racket:
 - json-parsing.
- Rebol:
 - json.r.
- RPG:
 - JSON Utilities.
- Ruby:
 - json.
 - yajl-ruby.
 - json-stream.
- Scala:
 - package json.
- Scheme:
 - MZScheme.
 - PLT Scheme.
- Squeak:
 - Squeak.
- Symbian:
 - s60-json-library.
- Tel:
 - JSON.
- Visual Basic:
 - VB-JSON.
 - PWJSON.
- Visual FoxPro:
 - fwJSON.
 - JSON.

PHP + JSON

- `json_encode($value)`
<http://us3.php.net/manual/en/function.json-encode.php>
- `eval(string)`
<http://www.json.org/js.html>


Progress...

- Ajax loading gif generator
<http://www.ajaxload.info/>
- AJAX Activity indicators
<http://mentalized.net/activity-indicators/>
- . . .



jQuery.ajax()

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



lo **BART**



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