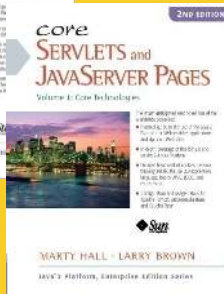
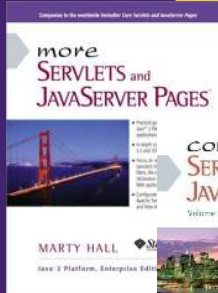




# JavaScript: A Crash Course Part I: Core Language Syntax

Originals of Slides and Source Code for Examples:  
<http://courses.coreservlets.com/Course-Materials/ajax.html>

**Customized Java EE Training:** <http://courses.coreservlets.com/>  
Servlets, JSP, JSF 1.x & JSF 2.0, Struts Classic & Struts 2, Ajax, GWT, Spring, Hibernate/JPA, Java 5 & 6.  
Developed and taught by well-known author and developer. At public venues or onsite at *your* location.



**For live Ajax & GWT training, see training courses at <http://courses.coreservlets.com/>.**



**Taught by the author of *Core Servlets and JSP*, *More Servlets and JSP*, and this tutorial. Available at public venues, or customized versions can be held on-site at your organization.**

- Courses developed and taught by Marty Hall
  - Java 6, intermediate/beginning servlets/JSP, advanced servlets/JSP, Struts, JSF 1.x & 2.0, Ajax, GWT, custom mix of topics
  - Ajax courses can concentrate on one library (jQuery, Prototype/Scriptaculous, Ext-JS, Dojo) or survey several
- Courses developed and taught by coreservlets.com experts (edited by Marty)
  - Spring, Hibernate/JPA, EJB3, Ruby/Rails

Contact [hall@coreservlets.com](mailto:hall@coreservlets.com) for details

# Topics in This Section

- Overview
- JavaScript references
- Embedding in browser
- Basic syntax
- Strings and regular expressions
- Functions
- Objects

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## Intro

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Developed and taught by well-known author and developer. At public venues or onsite at *your* location.

# Books

- **JavaScript the Definitive Guide**
  - By David Flanagan, O'Reilly. The only really complete reference on the JavaScript language. Thorough and well-written.
    - Makes the global variable blunder when covering Ajax.
- **JavaScript: The Good Parts**
  - By Douglas Crockford (of JSON and YUI fame), O'Reilly
  - Outstanding advanced guide to best practices in core JavaScript, especially functions, objects, and regular expressions. *Very* short.
    - Does not cover Ajax at all. No DOM scripting. "The K&R of JS".
- **Pro JavaScript Techniques**
  - By John Resig (of jQuery fame), APress
  - Excellent guide to best practices; not a thorough reference
    - Does not make the global variable blunder when covering Ajax.
- **DOM Scripting**
  - By Jeremy Keith, FriendsOf Press
  - Focuses on manipulating DOM and CSS
    - Makes the global variable blunder when briefly covering Ajax.

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# Online References

- **JavaScript tutorial (language syntax)**
  - <http://www.w3schools.com/js/>
  - [http://developer.mozilla.org/en/docs/Core\\_JavaScript\\_1.5\\_Guide](http://developer.mozilla.org/en/docs/Core_JavaScript_1.5_Guide)
- **JavaScript API references (builtin objects)**
  - <http://www.w3schools.com/jsref/>
  - <http://www.devguru.com/technologies/ecmascript/QuickRef/>
  - <http://www.devguru.com/technologies/JavaScript/>
  - <http://www.javascriptkit.com/jsref/>
  - [http://developer.mozilla.org/en/docs/Core\\_JavaScript\\_1.5\\_Reference](http://developer.mozilla.org/en/docs/Core_JavaScript_1.5_Reference)
- **HTML DOM reference (with JavaScript Examples)**
  - [http://www.w3schools.com/html/dom/dom\\_reference.asp](http://www.w3schools.com/html/dom/dom_reference.asp)
- **Official ECMAScript specification**
  - <http://www.ecma-international.org/publications/standards/Ecma-262.htm>

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# Firebug

- **Install Firebug in Firefox**
  - <http://getfirebug.com/>
- **Use Firebug console for interactive testing**
  - <http://getfirebug.com/cl.html>
- **Can also use Firebug Lite in Internet Explorer**
  - Not great, but better than nothing
  - <http://getfirebug.com/lite.html>
    - See especially “bookmarklet” link
- **For more details on Firebug usage**
  - See section on Ajax development and debugging tools

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## Embedding JavaScript in HTML

Customized Java EE Training: <http://courses.coreservlets.com/>

Servlets, JSP, JSF 1.x & JSF 2.0, Struts Classic & Struts 2, Ajax, GWT, Spring, Hibernate/JPA, Java 5 & 6.  
Developed and taught by well-known author and developer. At public venues or onsite at *your* location.

# Loading Scripts

- **script with src**

- `<script src="my-script.js" type="text/javascript"></script>`

- Purpose

- To define functions, objects, and variables.
    - Functions will later be triggered by buttons, other user events, inline script tags with body content, etc.

- **script with body content**

- `<script type="text/javascript">JavaScript code</script>`

- Purpose

- To directly invoke code that will run as page loads
      - E.g., to output HTML content built by JavaScript
    - Don't use this approach for defining functions or for doing things that could be done in external files.
      - Slower (no browser caching) and less reusable

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# Example (phish.js)

```
function getMessage() {
    var amount = Math.round(Math.random() * 100000);
    var message =
        "You won $" + amount + "!\n" +
        "To collect your winnings, send your credit card\n" +
        "and bank details to oil-minister@phisher.com.";
    return(message);
}

function showWinnings1() {
    alert(getMessage());
}

function showWinnings2() {
    document.write("<h1><blink>" + getMessage() +
        "</blink></h1>");
}
```

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