



Computer Science E-75

Building Dynamic Websites

Harvard Extension School

<http://cs75.net/>

Lecture 2: PHP, Continued

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Forms

Search a Manual

Apache MySQL
PHP YUI

Regular Expressions

<http://us3.php.net/pcre>

Regular Expression	Will match...
foo	The string "foo"
^foo	"foo" at the start of a string
foo\$	"foo" at the end of a string
^foo\$	"foo" when it is alone on a string
[abc]	a, b, or c
[a-z]	Any lowercase letter
[^A-Z]	Any character that is not a uppercase letter
(gif jpg)	Matches either "gif" or "jpeg"
[a-z]+	One or more lowercase letters
[0-9\.\-]	Any number, dot, or minus sign
^[a-zA-Z0-9_]{1,}\$	Any word of at least one letter, number or _
([wx])([yz])	wy, wz, xy, or xz
[^A-Za-z0-9]	Any symbol (not a number or a letter)
([A-Z]{3} [0-9]{4})	Matches three letters or four numbers

A Dynamic Website

The screenshot shows a Mozilla Firefox browser window displaying the website for Harvard Extension School's Computer Science E-75: Building Dynamic Websites. The browser's address bar shows the URL `http://cs75.net/`. The website has a blue header with the text "csci e-75: building dynamic websites" and a login status "You are not logged in. Log in." with a link. The main content area is divided into three columns. The left column features a sidebar for "David J. Malan, Instructor" with contact information and a list of navigation links: "Forum ::", "Lectures ::", "Office Hours ::", "Projects ::", "Resources ::", "Sections ::", "Software ::", "Staff ::", and "Syllabus ::". Below this is a "Search a Manual" input field and buttons for "Apache", "MySQL", "PHP", and "YUI". The middle column has a "Welcome" section followed by a paragraph about the course, a paragraph about dynamic websites, and a "Recent Messages in the Forum" section with a bulleted list of forum topics. The right column displays the Harvard University crest, the text "Spring 2008", and announcements for "NEXT OHs" and "NEXT VOHS" on "Saturday @ 10:30a" in the "Virtual Classroom". The footer contains copyright information for David J. Malan, 2008.

Harvard Extension School's Computer Science E-75: Building Dynamic Websites - Mozilla Firefox

File Edit View History Bookmarks Tools Help

`http://cs75.net/` Google

You are not logged in. [Log in.](#)

csci e-75: building dynamic websites @ harvard extension

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cs75.tv

VIRTUAL CLASSROOM

Forum ::
Lectures ::
Office Hours ::
Projects ::
Resources ::
Sections ::
Software ::
Staff ::
Syllabus ::

Search a Manual

Apache MySQL
PHP YUI

Welcome

Computer Science E-75: Building Dynamic Websites is a course at [Harvard University's Extension School](#). It is part of the school's [Distance Education Program](#), which means that students can take this course via the Internet as well as on campus.

Today's websites are increasingly dynamic. Pages are no longer static HTML files but instead generated by scripts and database calls. User interfaces are more seamless, with technologies like Ajax replacing traditional page reloads. This course teaches students how to build dynamic websites with Ajax and with Linux, Apache, MySQL, and PHP (LAMP), one of today's most popular frameworks. Students learn how to set up domain names with DNS, how to structure pages with XHTML and CSS, how to program in JavaScript and PHP, how to configure Apache and MySQL, how to design and query databases with SQL, and how to use Ajax with both XML and JSON. The course discusses issues of security, scalability, and cross-browser support.

Available at left is the course's [syllabus](#) and much more.

No matter your distance from Cambridge, Massachusetts, we invite you to join us in building dynamic websites!

Recent Messages in the Forum

- SSI (2 replies)
- Flash generated code fails validation (3 replies)
- php debugger (no replies)
- Background color not filling page? (no replies)
- YUI style sheets fail W3C CSS validation (1 reply)
- Should my CSS validate when using YUI Fonts CSS? (no replies)

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Spring 2008

NEXT OHs
to be announced

NEXT VOHS
Saturday @ 10:30a
Virtual Classroom

Done

<lecture />

```
<lecture number="1">
  <title>PHP</title>
  <dates>Monday, 4 February 2008</dates>
  <resources>
    <resource name="Demos">
      <format path="src/" label="malanrouge.com" />
    </resource>
    <resource name="How to Install XAMPP">
      <format path="http://www.keitr.com/xampp" label="XHTML" />
    </resource>
    <resource name="Notes">
      <format path="notes1.pdf" label="PDF" />
    </resource>
    <resource name="Slides">
      <format path="lecture1.pdf" label="PDF" />
    </resource>
    <resource name="Video">
      <format path="/play/podcasts/2008/lectures/lecture1.flv" label="Flash" />
      <format path="/get/podcasts/2008/lectures/lecture1.mp3" label="MP3" />
      <format path="/get/podcasts/2008/lectures/lecture1.mov" label="QuickTime" />
      <format path="http://cm.dce.harvard.edu/2008/02/22858/L02/index.shtml" label="RealVideo" />
    </resource>
  </resources>
</lecture>
```

XML

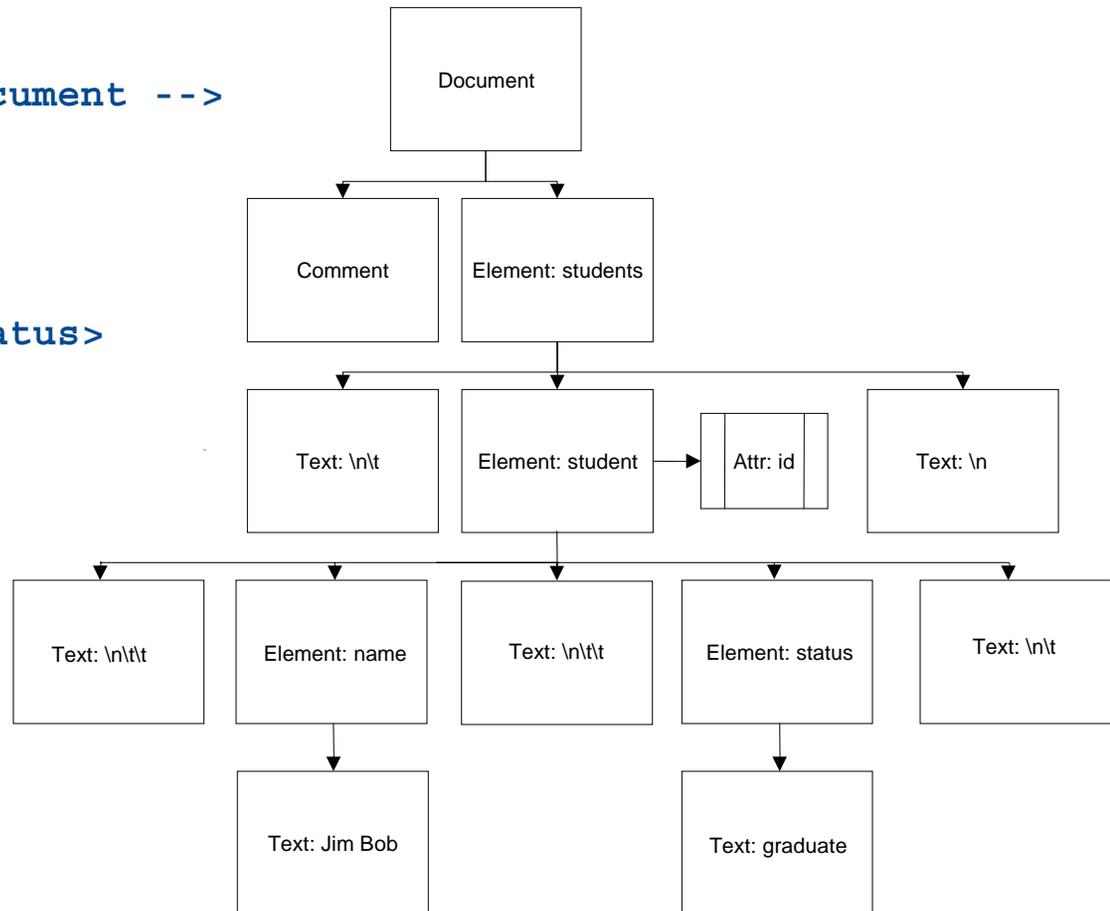
```
<!-- an XML document that describes students -->
```

```
<students>
  <student id="1">
    <name>
      <first>Jim</first>
      <last>Bob</last>
    </name>
    <status>graduate</status>
    <dorm/>
    <major>Computer Science & Music</major>
    <description>
      <![CDATA[My name <em>really</em> is Jim Bob.]]>
    </description>
  </student>
  <student id="2">
    ...
  </student>
</students>
```

DOM

```
<!-- smaller, simpler document -->
```

```
<students>  
  <student id="1">  
    <name>Jim Bob</name>  
    <status>graduate</status>  
  </student>  
</students>
```

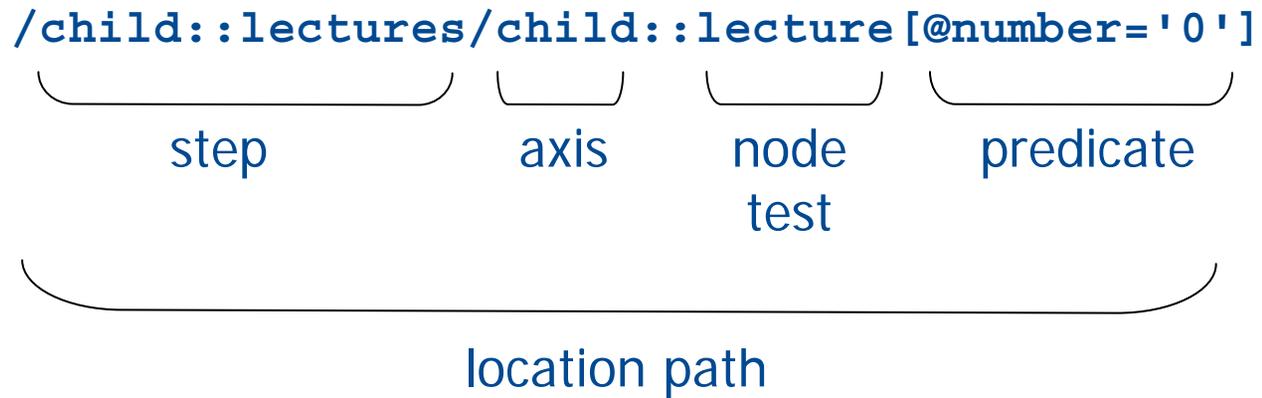




XML

<http://us2.php.net/simplexml>

XPath





OOP

<http://us2.php.net/zend-engine-2.php>

Authentication

Log In

Please provide your username and password for cs75.net.

Username:

Password:

.htaccess

```
RewriteEngine On
```

```
#
```

```
RewriteCond %{HTTP_HOST} !^cs75\.net [NC]
```

```
RewriteRule (.*) http://cs75.net/$1 [R=301,L]
```

```
#
```

```
RewriteCond %{HTTPS} = on
```

```
RewriteCond %{REQUEST_URI} !/(ajax|login)/
```

```
RewriteRule (.*) http://cs75.net/$1 [R=301,L]
```

```
#
```

```
RewriteCond %{REQUEST_URI} /login/
```

```
RewriteCond %{HTTPS} != on
```

```
RewriteRule (.*) https://cs75.net/$1 [R=301,L]
```

SSL



Up to **256-bit** encryption!
99% browser recognition!

SSL Certificates

Secure data and transactions!

> SECURE

#1 IN HOSTED SSL CERTIFICATES

#2 SSL CERTIFICATE PROVIDER

The banner features a yellow padlock graphic on the right side, symbolizing security.

SSL

```
SSLCertificateFile /path/to/certificate  
SSLCertificateKeyFile /path/to/key  
SSLCertificateChainFile /path/to/chain
```

<https://certs.godaddy.com/CSRgeneration.go>

Cookies



Image from sgc.se.

Sessions



PizzaML



Image from junkfoodnews.net.



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