

PHP

Seminar: Web-Oriented Software Development

Juanjuan Jiang

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 - ❑ Detail reading of PHP (Q & A)
 - ❑ Application examples and explanation
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First glance (1)

- What is PHP?
 - PHP (Hypertext Preprocessor),
 - server-side script language for web development
 - support operating systems (Linux, many Unix variants (including HP-UX, Solaris and OpenBSD), Microsoft Windows, Mac OS X, RISC OS)
 - History story?
 - PHP/FI (Personal Home Page/ Forms Interpreter), Rasmus lerdorf, 1995. Perl & C.
 - PHP/FI 2.0, 1997
 - PHP 3, Andi Gutmans and Zeev Suraski, 1998
 - PHP 4, 2000
 - PHP 5, 2004
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First glance (2)

□ What can PHP do?

- server-side scripting (collect form data, generate dynamic page content, send&receive cookies)
 - Command line script (running without browser). cron (on *nix or Linux) or Task Scheduler (on Windows)
 - create a desktop application with a graphical user interface (PHP-GTK, an extension of PHP)
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First glance (3)

□ What does PHP script look like?

■ `<html>`
 `<head>`
 `<title>Example</title>`
 `</head>`
 `<body>`
 `<?php`
 `echo "Hi, I'm a PHP script!";`
 `?>`
 `</body>`
`</html>`

First glance (4)

- How does PHP run?
 - browser and server module
 - command (php * * * .php)
 - PHP runs as a back end



Detail reading (1)

- What does PHP support, as a program language?
 - close to Perl & C syntax
 - support
(Types, Variables, Constants, Expressions, Operators, Control Structures, Function, Class and Objects, Exceptions, Reference)
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Detail reading (2)

- An example to explain language usage?

- `<html>`

- `<head>`

- `<title> PHP - Cookie Example 1 </title> </head>`

- `<body>`

```
<? $visitcount = $_COOKIE ["visits"];
```

```
if( $visitcount == "" ) $visitcount = 0;
```

```
else $visitcount++;
```

```
setcookie("visits",$visitcount);
```

```
print "This is visit number " . $visitcount; ?>
```

- `</body>`

- `</html>`

Detail reading (3)

- Why and When choose PHP as a Web development language?
 - Script language. Fast and simple compared to system program languages (C, JAVA)
 - Server-side development. compared to client-side development
 - Competitive Server-side program languages (ASP Microsoft Internet Information Server (IIS) , JSP Sun/extension to Java servlet technology J2EE)
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Detail reading (4)

- What functionalities does PHP provide, as a server-side web development language?
 - Send and receive cookies
 - Sessions (unique id, online shopping example)
 - dealing with XForms
 - Handling file upload
 - Using remote file
 - Creating Database connection
 - Connection handling (Normal, Aborted, Timeout)
 - ...
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Detail reading (5)

- What kinds of server protection are provided by PHP?
 - HTTP Authentication (code)
 - Edit setup in configuration file (php.ini).
Eg. `cgi.force_redirect = 1 doc_root=***`
`user_dir safe_mode = on`
 - no protection for database
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Application examples and explanation

□ Demo...

□ Ref:

<http://www.scit.wlv.ac.uk/~jphb/sst/php/>

Evaluation and Summary

- 😊 Open source and free
 - 😊 familiar syntax to C and Perl
 - 😊 support multiple operating system
 - 😊 Object-oriented
 - 😊 performance good on small to medium size sites
 - 😞 scalability, security, and reliability still need be improved
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Refs

- ❑ www.php.net
 - ❑ <http://theopensource.com/phpover.htm>
 - ❑ <http://www.scit.wlv.ac.uk/~jphb/sst/php/>
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