**Introduction to PHP (Hypertxet PreProcessor, HyperText Processor)**

**Part 3**

**PHP Arrays and Superglobals**

**References**

* Chapter 8 Introduction to Server-Side Development with PHP of the Text Book Entitled Fundamentals of Web Development, by Randy Connolly and Ricardo Hoar
* PHP 5.6.14 Released Oct. 1, 2015
* PHP 5.6.1 Released Oct. 2, 2014, <http://php.net/>
* PPH Documentation, <http://php.net/urlhowto.php>
* PHP Language Reference, <http://php.net/manual/en/langref.php>

**Predefined Superglobals,** [**http://php.net/manual/en/language.variables.superglobals.php**](http://php.net/manual/en/language.variables.superglobals.php)

Superglobals // Built-in variables that are always available in all scopes

* $GLOBALS // All variables available in global scope (array containing info about the

 request and the server)

* $\_SERVER // Server and execution environment info
* $\_GET // HTTP GET variables (array of query string data passed to the server via

 the URL)

* $\_POST // HTTP POST variables (array of query string data passed to the server

 via the HTTP header)

* $\_FILES // HTTP file upload variables (array of file items uploaded to the server)
* $\_REQUEST // HTTP request variables (array containing the contents of $\_GET,

 $\_POST, and $\_COOKIE)

* $\_SESSION // Session variables (array contains session data)
* $\_ENV // Environment variables (array) of a server
* $\_COOKIEs // Array of Cookie data passed to page via HTTP request

HTTP Cookies, <http://php.net/manual/en/features.cookies.php>

* PHP Supports for HTTP Cookies
* Set the session cookie parameters, <http://php.net/manual/en/function.session-set-cookie-params.php>

$\_SERVER, <http://php.net/manual/en/reserved.variables.server.php>

* An array containing information such as Headers, Paths, Script Location
* There is no guarantee that every web server will provide any of these ino
* See CGI/1.1 Specification, <http://www.faqs.org/rfcs/rfc3875.html>

**Example 1. A PHP Page that uses print Server retained info in the $\_SERVER**

Also use date(), <http://php.net/manual/en/function.date.php>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"

<head>

<meta content="text/html; charset=utf-8" http-equiv="Content-Type" />

<meta content="en-us" http-equiv="Content-Language" />

<title>This HTML page prints out your b</title>

</head>

<body>

<p>This HTML page prints out your browser info and the IP addresses of the HTTP

Request. </p>

Your Computer Name: <?php echo $\_SERVER['HTTP\_HOST'] ?><br />

Your Browser is : <?php echo $\_SERVER['HTTP\_USER\_AGENT'] ?><br />

Your IP address : <?php echo $\_SERVER['REMOTE\_ADDR'] ?> <br/>

Your IP address : <?php echo $\_SERVER['REMOTE\_PORT'] ?> <br/>

Server Name: : <?php echo $\_SERVER['SERVER\_NAME'] ?> <br/>

Server Protocol : <?php echo $\_SERVER['SERVER\_PROTOCOL'] ?><br />

Server Software : <?php echo $\_SERVER['SERVER\_SOFTWARE'] ?><br />

Request Method : <?php echo $\_SERVER['REQUEST\_METHOD'] ?><br />

Request Time : <?php echo $\_SERVER['REQUEST\_TIME'] ?><br />

Request Date: <?php echo date("D:d:M:Y:H:i:s") ?>;</body>

</html>

**Example 2: A PHP page that shows the contents kept in $\_COOKIE from the server that process your form data.**

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<!-- readYourCookies.php -->

<html xmlns="http://www.w3.org/1999/xhtml">

<head>

<meta content="text/html; charset=utf-8" http-equiv="Content-Type" />

<meta content="en-us" http-equiv="Content-Language" />

<title>Displaying the Cookie Contents</title>

</head>

<body>

<p>This PHP page prints out your Cookie Contents. </p>

<?php

 setcookie("color", "red");

echo $\_COOKIE["color"];

?>

</body>

</html>

**Example 3. A PHP Page that shows Server and browser info in the $\_SERVER.**

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<!-- PHPbrowser-server-InfoAll.php -->

<html xmlns="http://www.w3.org/1999/xhtml">

<head>

<meta content="text/html; charset=utf-8" http-equiv="Content-Type" />

<meta content="en-us" http-equiv="Content-Language" />

<title>This HTML page prints out your b</title>

</head>

<body>

<p>This HTML page prints out your browser info and the IP addresses of the HTTP

Request. </p>

<p>

<?php

 echo "Your Computer Name: " . $\_SERVER['HTTP\_HOST'];

 echo "<br/>HTTP User Agent: " . $\_SERVER['HTTP\_USER\_AGENT'];

 echo "<br/>Your Browser is: " . $\_SERVER['HTTP\_USER\_AGENT'];

 echo "<br/>Your IP address: " . $\_SERVER['REMOTE\_ADDR'];

 echo "<br/>Your Port address: " . $\_SERVER['REMOTE\_PORT'];

 echo "<br/>Request Method: " . $\_SERVER['REQUEST\_METHOD'];

 echo "<br/>Request Time: " . $\_SERVER['REQUEST\_TIME'];

 echo "<br/>Server Name: " . $\_SERVER['SERVER\_NAME'];

 echo "<br/>HTTP Host: " . $\_SERVER['HTTP\_HOST'];

 echo "<br/>Server IP address " . $\_SERVER['SERVER\_ADDR'];

 echo "<br/>Server Port " . $\_SERVER['SERVER\_PORT'];

 echo "<br/>Server Protocol: " . $\_SERVER['SERVER\_PROTOCOL'];

 echo "<br/>HTTP Connection: " . $\_SERVER['HTTP\_CONNECTION'];

 echo "<br/>HTTP Accept Encoding" . $\_SERVER['HTTP\_ACCEPT\_ENCODING'];

 echo "<br/>Server Software: " . $\_SERVER['SERVER\_SOFTWARE'];

?>

<?php echo "<br/>Request Date: " . date("D:d:M:Y:H:i:s"); ?>

</p>

</body>

</html>

**Example 4. Handling the File Upload**

* Using a HTML form for upload:
	+ POST method
* PHP File Upload
	+ Configure php.ini
		- file\_uploads = on
		- upload\_file\_maxsize
		- post\_max\_size
		- memory\_limit
		- max\_execution\_time
		- max\_input\_time
	+ POST method, <http://php.net/manual/en/features.file-upload.post-method.php>
	+ \_$FILE array, keys
		- name – full file name
		- type – MIME (Multipurpose Internet Mail Extension) type of the file
			* application, audio, image, message, multipart, text, video
		- tmp\_name – full path to the location on your server
		- error
		- size
	+ Figure 9.12 Example (page 387), keys - <http://php.net/manual/en/reserved.variables.files.php>
		- echo $\_FILE[“file1”][“name”]; // “sample1.png”
		- echo $\_FILE[“file1”][“type”]; // “image/png”
		- echo $\_FILE[“file1”][“tmp\_name”]; // tmp/phpJ08pVh
		- echo $\_FILE[“file1”][“error”]; // 0
		- echo $\_FILE[“file1”][“size”]; //1219038
* References
	+ Handling File Uploads, <http://php.net/manual/en/features.file-upload.php>
	+ <http://www.w3schools.com/php/php_file_upload.asp>
	+ The Content-Type Header Field, <http://www.w3.org/Protocols/rfc1341/4_Content-Type.html>
	+ Media Types, 2015-10-12, <http://www.iana.org/assignments/media-types/media-types.xhtml>

<html>

<title> File Upload </title>

<head> </head>

<body>

<form encrypt='multipart/form-data' method='post'>

 <input type='file' name='thisFile'/>

 <input type='submit' />

</form>

</body>

</html>

**PHP Reading/Writing Files Support**

* Stream Access
	+ Read just a small portion of the file at a time
	+ Most memory-efficient approach, but I/O intensive
* In-Memory File Access
	+ Read entire file into memory (PHP variable)
	+ Easier for file processing

**Listing 9.19**

<?php

$f = fopen("sample.txt", "r");

$ln = 0;

while ($line = fgets($f)) {

 $ln++;

 printf("%2d: ", $ln);

 echo $line . "<br>";

}

fclose($f);

?>

**sample.txt**

1: 01070,Picasso,The Actor,1904
2: 01080,Picasso,Family of Saltimbanques,1905
3: 02070,Matisse,The Red Madras Headdress,1907
4: 05010,David,The Oath of the Horatii,1784

**Listing 9.20**

PHP functions used

* array file(string $filename), read entire file into an array, <http://php.net/manual/en/function.file.php>
* array explode(string $delimiter, string $string), split a string by string, <http://php.net/manual/en/function.explode.php>

<?php

$filename="sample.txt";

// read the file into memory; if there is an error then stop processing

$paintings = file($filename) or die('ERROR: Cannot find file');

// our data is comma-delimited

$delimiter = ',';

// loop through each line of the file

foreach ($paintings as $painting) {

 // returns an array of strings where each element in the array

 // corresponds to each substring between the delimiters

 $paintingFields = explode($delimiter, $painting);

 $id= $paintingFields[0];

 $artist = $paintingFields[1];

 $title = $paintingFields[2];

 $year = $paintingFields[3];

 // do something with this data

 //Not in book listing - but here for demo.

 echo "Painting (#$id) $title by $artist in $year<br>";

}

?>

**PHP Functions Reference**

* **echo()**
* **unset() // Destroy variables**
* **func\_get\_args() // get function arguments**
* **func\_num\_args() // get function argument count**

**String Manipulation Functions**

* **strcmp() // string comparison, case sensitive**
* **strcasecmp() // string comparison, non case sensitive**
* **substr() // the sub string**
* **strlen() // The number of chars in the string**
* **strops() // The character position**
* **chop() // Remove all white spaces from its ends**
* **trim() // remove all white spaces from both ends**
* **strtolower() // covert to lower case characters**
* **strtoupper() // convert to upper case characters**

**Arithmetic Functions**

* **floor(), ceil(), round(), srand(), rand(), abs(), min(), max()**

**Ouput Functions**

* **print()**
* **printf() // formatted output**

**PHP Functions**

* func\_get\_args() // <http://us3.php.net/manual/en/function.func-get-args.php>
* func\_num\_args()

<!DOCTYPE html>

<!—funct\_arguments.php - A trivial example to illustrate a php document -->

<html lang = "en">

 <head>

 <title> funct\_arguments.php </title>

<meta charset = "utf-8" />

 </head>

 <body>

<?php

 function func\_dynamic() {

 echo “ITC 250/CPET 499 Web Systems: “.func\_num\_args(). “Number of arguments.<br>”;

 $args = func\_get\_args();

 for($i = 0; $i < count($args); $i++{

 echo “Passed arguments: {args[$i]} <br>;

 }

 }

 func\_dynamic(5, 4, 3, 2, 1 );

?>

 </body>

 </html>