CNT 4714: Enterprise Computing Spring 2013

Introduction to PHP – Part 1

Instructor: Dr. Mark Llewellyn

markl@cs.ucf.edu

HEC 236, 407-823-2790

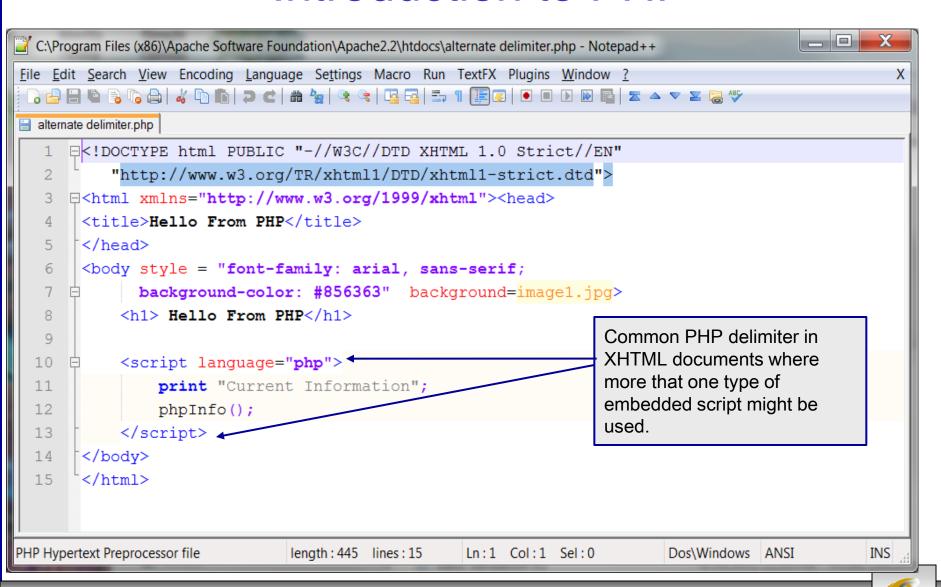
http://www.cs.ucf.edu/courses/cnt4714/spr2013

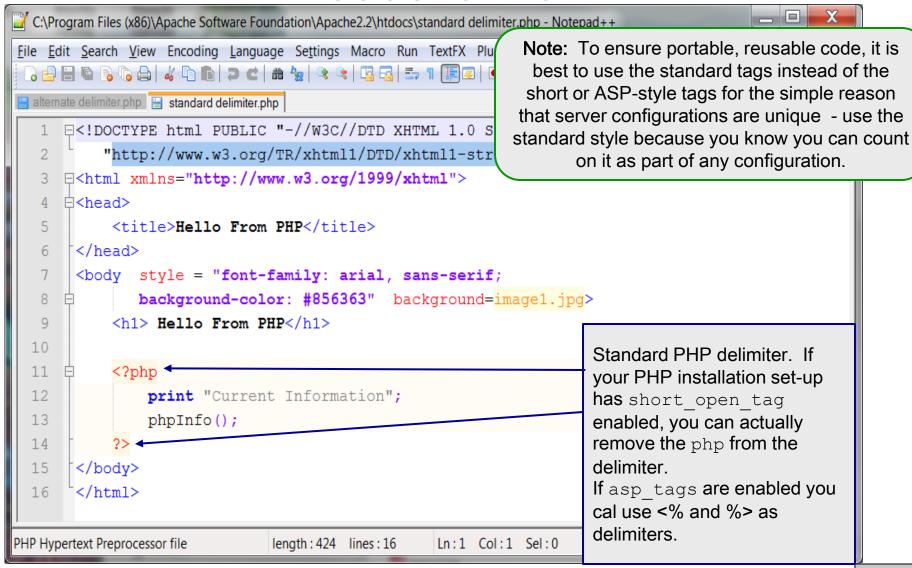
Department of Electrical Engineering and Computer Science
Computer Science Division
University of Central Florida



- We looked at a simple PHP example at the end of the set of notes that covered the installation of the Apache HTTP Server and PHP.
- PHP scripts can be created with any text editor, although Notepad++ is quite convenient for PHP scripting. I'll primarily use it in the examples.
- PHP script files should be saved with a .php extension.
- When PHP is embedded inside XHTML documents, as it commonly is, several different delimiters can be used. These are illustrated on the next page.









- As with any programming language, good practice in writing scripts would require comments to be included within the script.
- In-line comments in PHP are indicated with two forward slashes (//).
- Comments can appear any where in the script file and can appear in any position on any line.
- Multiple line comments are delimited with /* and */
- Most PHP implementations also allow # to delimit in-line comments.



Variables In PHP

- You can select just about any set of characters for a variable name in PHP, but they must:
 - Use a dollar sign (\$) as the first character.
 - Use a letter or an underscore character (_) as the second character.
- As with any programming/scripting language, good practice would suggest selecting variable names that help describe their function. For example \$counter is more descriptive than \$c or \$ctr.
- You can use the echo statement or the print() function to output data in PHP. Which you use is more a matter of personal taste or style than anything else.



Variables In PHP

• To print out the value of a variable \$x, write the following PHP statement:

```
print ("$x");
```

• The following code will output "Candice is 26 years old".

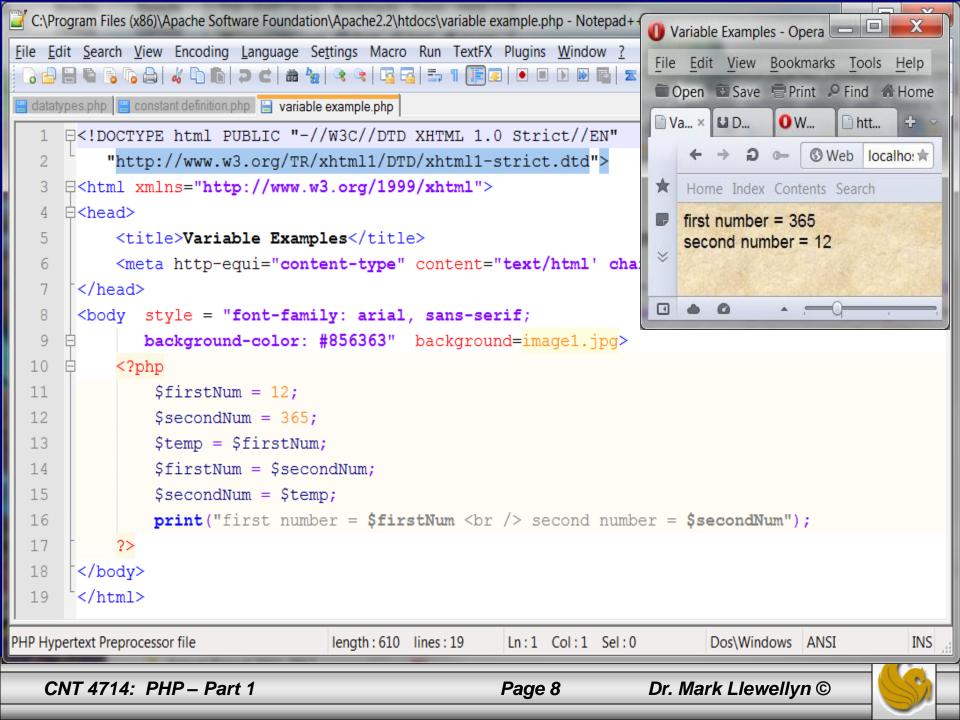
```
$age=26;
print ("Candice is $age years old.");
```

• The next page illustrates a full example using PHP variables.

Note: Constants are defined in PHP using the built-in define () function. As its name would imply a constant's value cannot be changed once it is set.

```
datatypes.php 📙 constant definition.php
                                                              Open Save Print P Find A Home Tile Casc
    ⊟<html>
 2 \triangle<head>
                                                              Data Types ... × 🚨 Downloads 💉 🚺 Welcome t... × 📋 http
    <title>Data Types In PHP</title>
                                                                                 © Web | localhost:8081/constant5 ★
    </head>
     <body style = "font-family: arial, sans-serif;</pre>
                                                                Home Index Contents Search Glossary Help First Prev
           background-color: #856363" background=image1.jpg>
     <h3> Defining And Using A Constant In PHP</h3>
                                                               Defining And Using A Constant In PHP
    □<?php
       define ("YEAR", 2012);
10
       echo "Today is July 5, ". YEAR;
                                                               Today is July 5, 2012
     </body>
     </html>
```

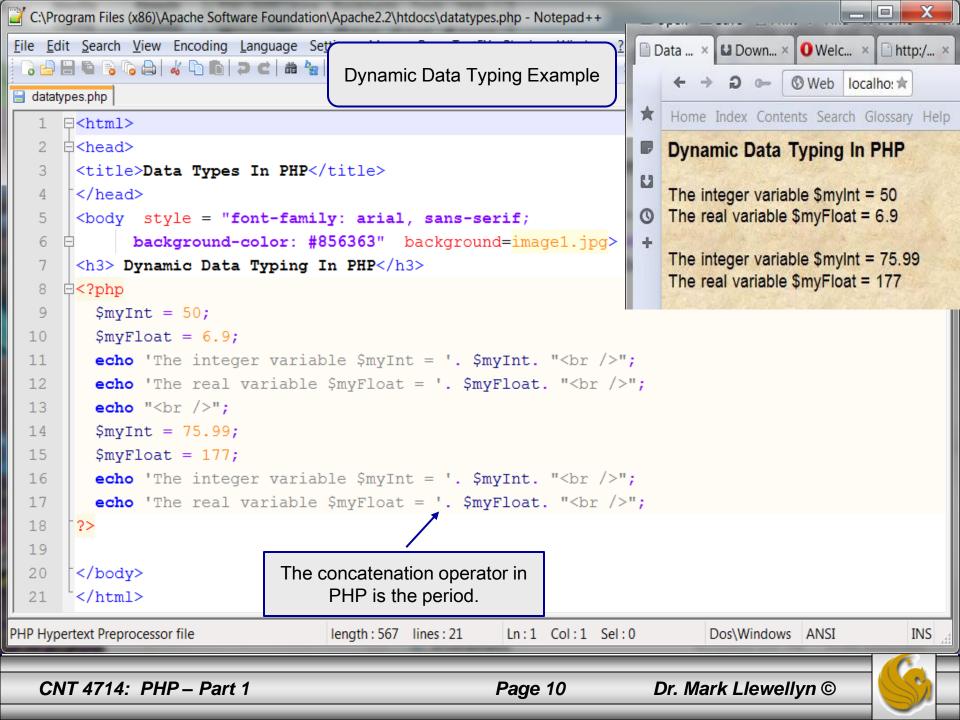




Data Types In PHP

- PHP is a dynamically typed language. This basically means that variables are not assigned a type when the variable is declared. Variable type is determined through assignment.
- The standard data types in PHP are shown in the table below:

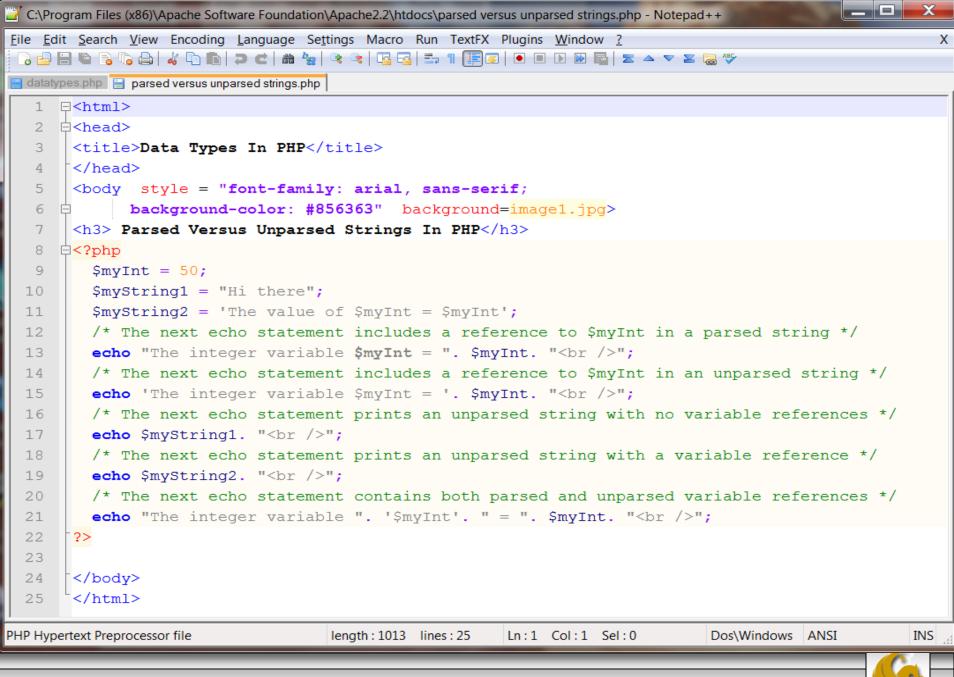
Data Type	Example	Description
Boolean	true	Either true or false
Integer	5	A whole number
Float or Double	3.14159	A floating-point number
String	"Hello"	A collection of characters
Object		An instance of a class
Array		An ordered set of keys and values
Resource		Reference to a 3 rd party resource (e.g. a database)
NULL		An uninitialized variable

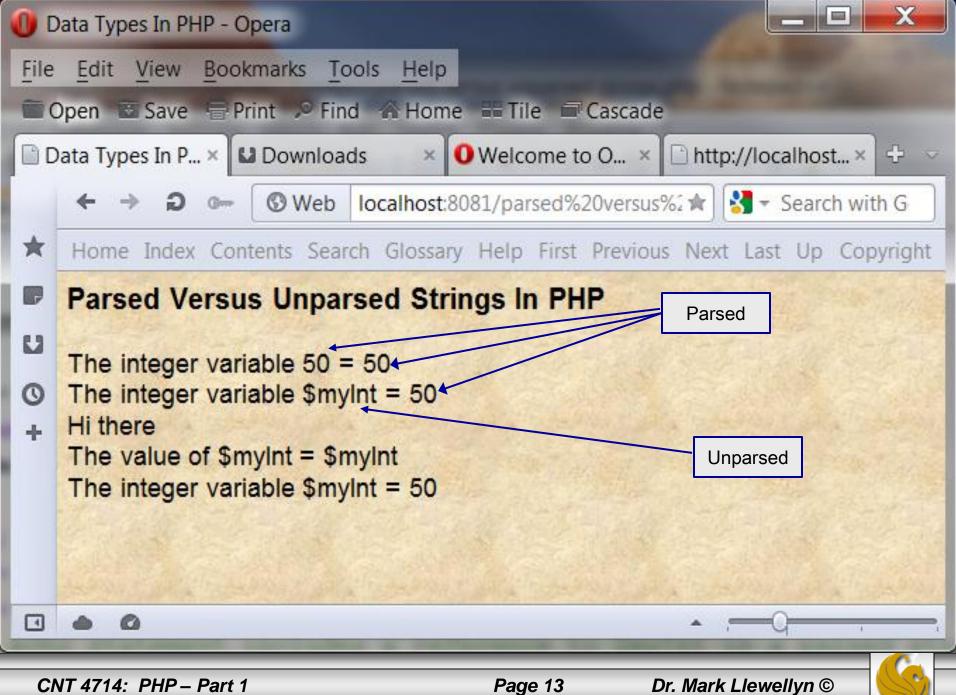


Data Types In PHP

- Technically speaking, there are two types of strings in PHP: parsed and unparsed.
- Parsed strings are defined using double quotes and are parsed by PHP.
- Unparsed strings are defined using single quotes and are taken as is (they are not parsed).
- What's the difference? Within a parsed string, any references to variables within that string will be automatically replaced with their respective values, whereas within an unparsed string nothing is replaced.
- The example on the next page will clarify the differences.







Arithmetic Operations In PHP

• PHP supports all normal arithmetic operators, with the normal semantic associated with each operator.

Operator	Effect	Example	Result
+	Addition	\$x = 2 + 2;	\$x is assigned 4.
_	Subtraction	\$y = 3; \$y = \$y - 1;	\$y is assigned 2.
/	Division	\$y = 14 / 2;	\$y is assigned 7.
*	Multiplication	\$z = 4; \$y = \$z * 4;	\$y is assigned 16.
୪	Remainder	\$y = 14 % 3;	\$y is assigned 2.

- PHP supports automatic increment and decrement operations in both prefix and postfix form, i.e., -- and ++.
- Using an unassigned variable in an expression does not generate an error, the value is simply assumed to be null.

```
<?php
$y = 3;
$y = $y + $x + 1;
print("x=$x y=$y");
?>
```

The output is: x=y=4



- PHP supports character string variables and this is a widely used aspect of PHP in handling form data.
- Be careful in PHP not to mix numeric and string types together in an expression.
- For example, you might expect the following statements to generate an error message, but they will not. Instead, they will output "y=1".

```
<?php
$x = "banana";
$sum = 1 + $x'
print("y=$sum");
?>
```



• The string concatenation operator in PHP is the period as shown below:

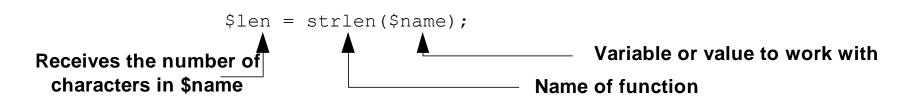
```
<?php
   $firstname = "Megan";
   $lastname = "Fox"
   $fullname = $firstname . $lastname;
   print("Full name = $fullname");
?>
```

The output of this script would be: Fullname=MeganFox

You can also use double quotation marks to create concatenation directly. Using the above example you could do the following: \$fullname2 = "\$firstname \$lastname"; This would have the same effect as: \$fullname2 = \$firstname . \$lastname;



- PHP supports a large variety of string handling functions. A few of the more commonly used ones are illustrated on the next few pages.
- Most string functions require you to send them one or more arguments.
- Arguments are input values that functions use in the processing they do.
- Often functions return a value to the script based on the input arguments. For example:





strlen() function:

• This function returns the number of characters in the string argument to the function. Consider the following script:

```
<?php
$comments = "Good Job";
$len = strlen($comments);
print ("Length=$len");
?>
```

This PHP script would output "Length=8".



trim() function:

 This function removes any blank characters from the beginning and end of a string. For example, consider the following script:

```
<?php
$in_name = " Megan Fox ";
$name = trim($in_name);
print ("name=$name$name");
?>
```

This PHP script would output "name=Megan FoxMegan Fox".



strtolower() and strtoupper functions:

• These functions return the argument string in all uppercase or all lowercase letters, respectively. For example, consider the following script:

```
<?php

$inquote = "Now Is The Time";

$lower = strtolower($inquote);

$upper = strtoupper($inquote);

print("upper=$upper lower=$lower");

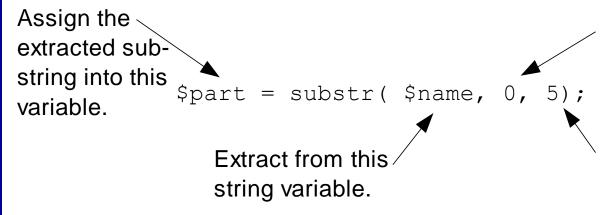
?>
```

This PHP script would output "upper=NOW IS THE TIME lower = now is the time"



substr() function:

• This function enables a PHP script to extract a portion of the characters in a string variable. The general syntax is:



Starting position to start extraction from.

Number of characters to extract. (If omitted it will continue to extract until the end of the string.)



substr() function:

- The substr() function enumerates character positions starting with 0 (not 1),
 - For example, in the string "Homer", the "H" would be position 0, the "o" would be position 1, the "m" position 2, and so on.
- For example, the following would output "Month=12 Day=25".

```
<?php
  $date = "12/25/2002";
  $month = substr($date, 0, 2);
  $day = substr($date, 3, 2);
  print ("Month=$month Day=$day");
?>
```



substr() function:

■ This example does not include the third argument (and thus returns a substring from the starting position to the end of the search string).

```
<?php
  $date = "12/25/2010";
  $year = substr($date, 6);
  print ("Year=$year");
?>
```

■ The above script segment would output "Year=2010".



- PHP contains the normal control statements that handle decision making and iteration within a script.
- Normal logical operators are all supported with their standard semantics.
- As with many modern programming and scripting languages remember to use == in a logical comparison operation and not =. The single equal sign is an assignment operator and as such is always true. No syntax error is generated.
- The table on the following page illustrates the common logical operators in PHP.

Note: PHP also contains a === logical comparison operator (called the identical operatior). This binary operator returns true iff its two operands are equal in value and also have the same type.



Test Operator	Effect	Example	Result
==	Equal to	<pre>if (\$x == 6) { \$x = \$y + 1; \$y = \$x + 1; }</pre>	Run the second and third statements if the value of $$x$$ is equal to $$x$$.
!=	Not equal to	<pre>if (\$x != \$y) { \$x = 5 + 1; }</pre>	Run the second statement if the value of $\$x$ is not equal to the value of $\$y$.
<	Less than	if (\$x < 100) { \$y = 5; }	Run the second statement if the value of $$x$$ is less than 100.
>	Greater than	<pre>if (\$x > 51) { print "OK"; }</pre>	Run the second statement if the value of \$x is greater than 51.
>=	Greater than or equal to	<pre>if (16 >= \$x) { print "x=\$x"; }</pre>	Run the second statement if 16 is greater than or equal to the value of \$x.
<=	Less than or equal to	<pre>if (\$x <= \$y) { print "y=\$y"; print "x=\$x"; }</pre>	Run the second and third statements if the value of x is less than or equal to the value of x .



- PHP includes several different forms of logical control statements (decision statements).
- The if statement has the form:

```
if (expression) {
     //code to execute if expression evaluates to true
}
```

• The if-else statement has the form:



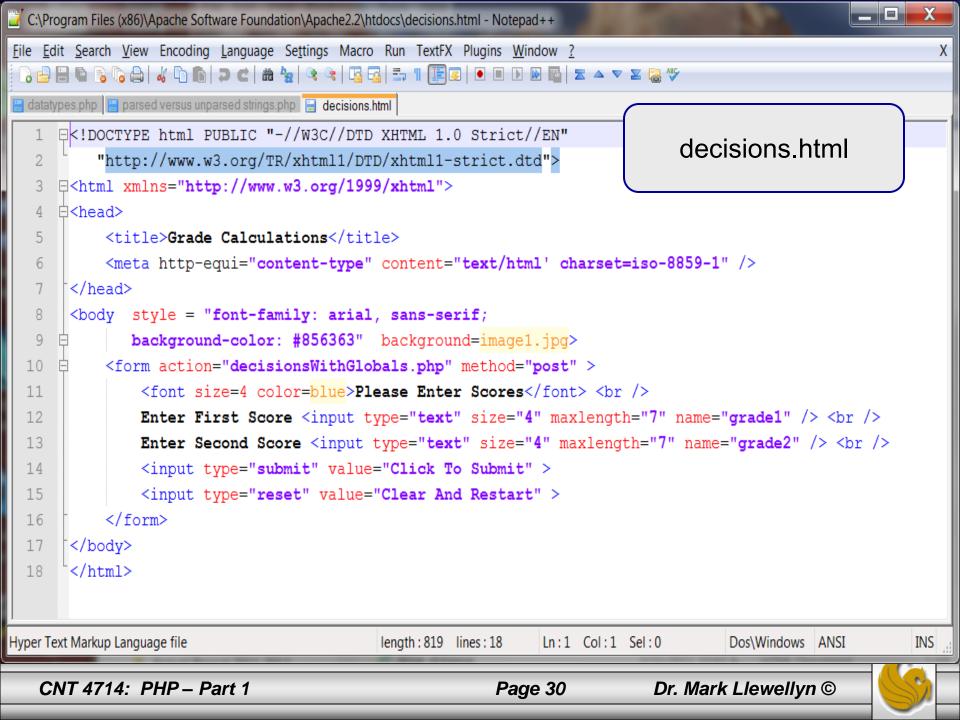
• There is also an elseif clause that can be used with if statements for a nested stack of if statements. The basic syntax for this clause is:

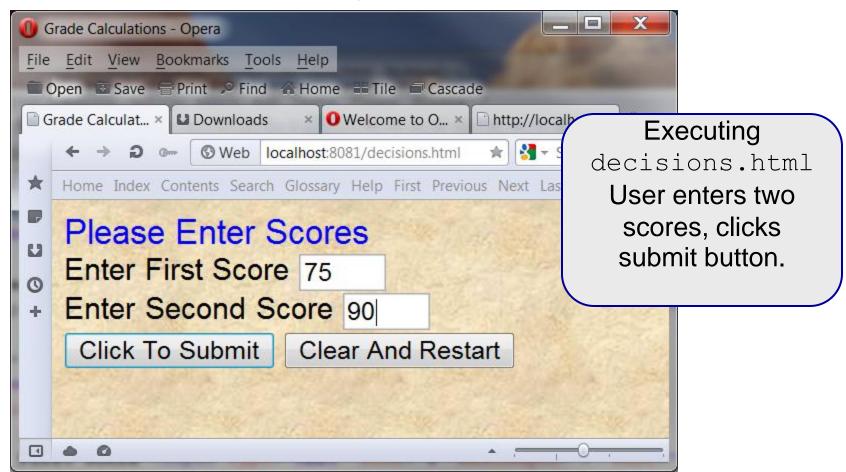
```
if (expression) {
      //code to execute if expression evaluates to true
} elseif (another expression) {
      //code to execute when expression evaluates to false
      //and another expression evaluates to true
} else {
      //code to execute if all expressions evaluate to false
}
```

• PHP includes a switch statement which allows for multiple options for a single evaluation of an expression. The basic syntax for the switch statement is:

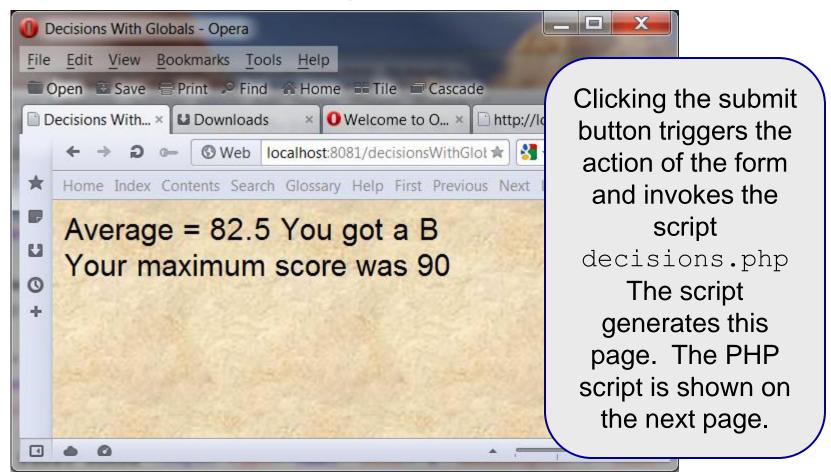
- The following example uses an input form (XHTML) and two values are extracted from the form (grade1 and grade2), passed to a PHP script which determines the average score, the maximum score and assigns a grade to the average for the student's scores.
- We'll get much more into forms and form handling in PHP later, but this simple example will illustrate several of the common threads that appear in form handling in PHP (and server side scripting in general).













```
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
 💪 📇 🖺 🐿 🕞 🖟 🖨 | 🚜 🗅 🛍 | 🖚 | 🖚 🖒 🍪 🦠 | 🤏 🤏 | 🖫 🖂 | 🚍 🖺 | 🖫 🖫 🕟 🗷 🕩 🖼 💆
decisionsWithGlobals.php
     □<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"</p>
          "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
     =<html xmlns="http://www.w3.org/1999/xhtml">
      ⊨<head>
   5
           <title>Decisions With Globals</title>
   6
           <meta http-equi="content-type" content="text/html' charset=iso-8859-1" />
       </head>
   7
   8
       <body style = "font-family: arial, sans-serif;</pre>
   9
              background-color: #856363" background=image1.jpg>
  10
           <?php
                $grade1 = $ POST["grade1"];
  11
  12
                $grade2 = $ POST["grade2"];
                \alpha = (\alpha + \beta - 1)/2;
  13
  14
                if ($average > 89) {
  15
                    print ("Average = $average You got an A");
  16
                } elseif ($average > 79) {
                   print ("Average = $average You got a B");
  17
  18
                  elseif ($average > 69) {
  19
                   print ("Average = $average You got a C");
  20
                } elseif ($average > 59) {
                   print ("Average = $average You got a D");
  21
  22
                 elseif ($average >= 0) {
  23
                   print ("Average = $average You got an F ");
  24
  25
                   print ("Illegal average less than 0: Average = $average");
  26
  27
                $max=$grade1;
                if ($grade1 < $grade2) {</pre>
  28
                    max = quade2;
  29
  31
                print ("<br /> Your maximum score was $max");
  32
           ?>
  33
       </body>
  34
       </html>
PHP Hypertext Preprocessor file
                                                                Ln:1 Col:1 Sel:0
                                                                                                              INS
                                             length: 1115 lines: 34
                                                                                       Dos\Windows ANSI
```

C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\decisionsWithGlobals.php - Notepad++

- PHP supports three types of iterative constructs:
 - the while loop (both top and bottom tested versions are supported)
 - the for loop
 - and the foreach loop.
- The for and while loops act as you would expect given your knowledge of other programming languages. The foreach loop applies specifically to arrays in PHP. We'll look at the foreach loop later.
- The next couple of pages show the basic syntax for each of the iterative constructs in PHP.



The syntax for the top tested version of the while loop is:

The syntax for the bottom tested version of the while loop is:

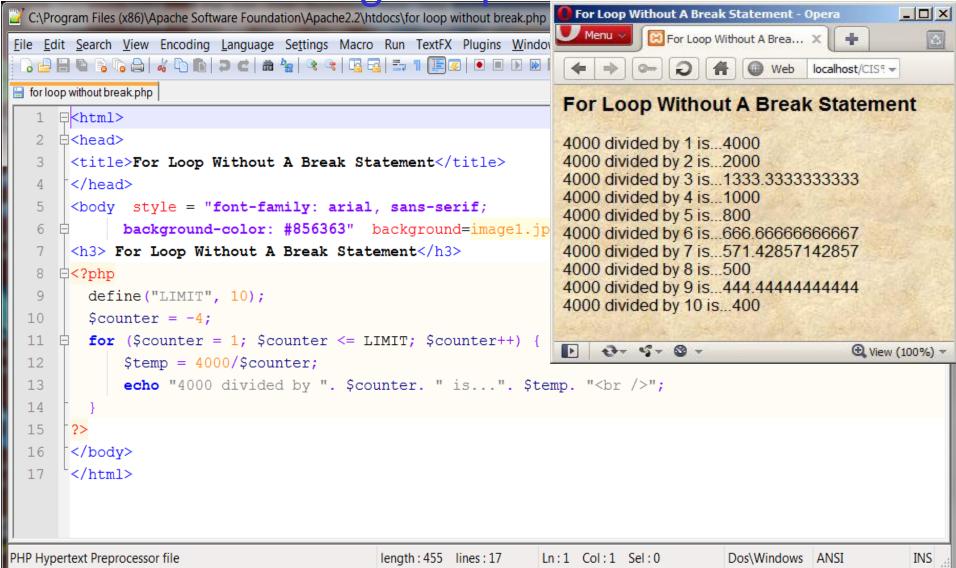


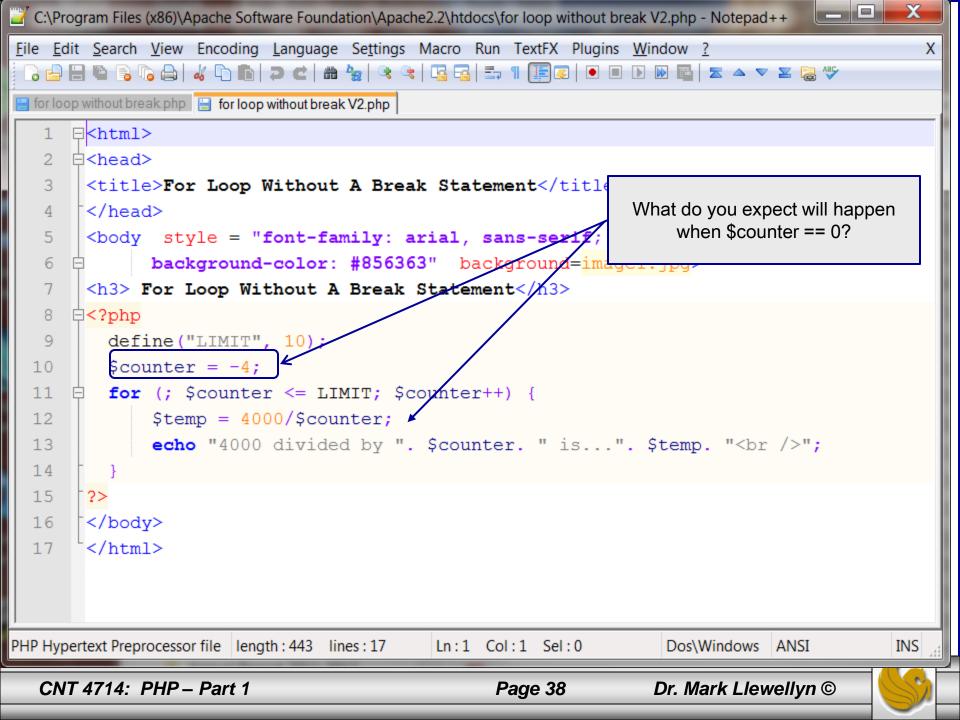
• The basic syntax for the for statement is:

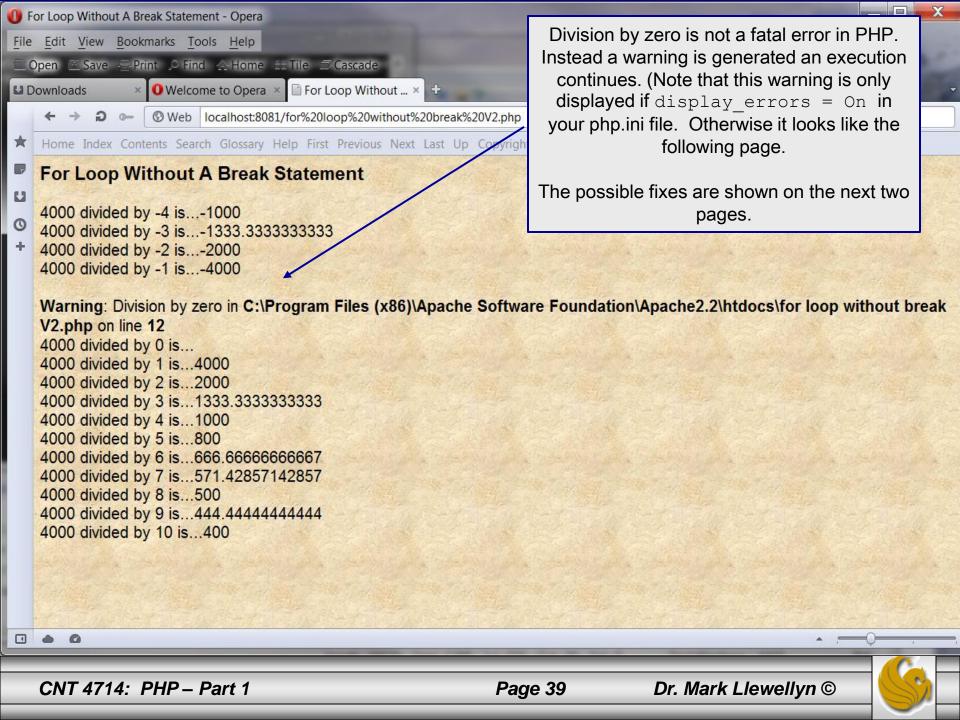
```
for (initialization expr; test expr; modifying expr) {
      //statements to be executed
}
```

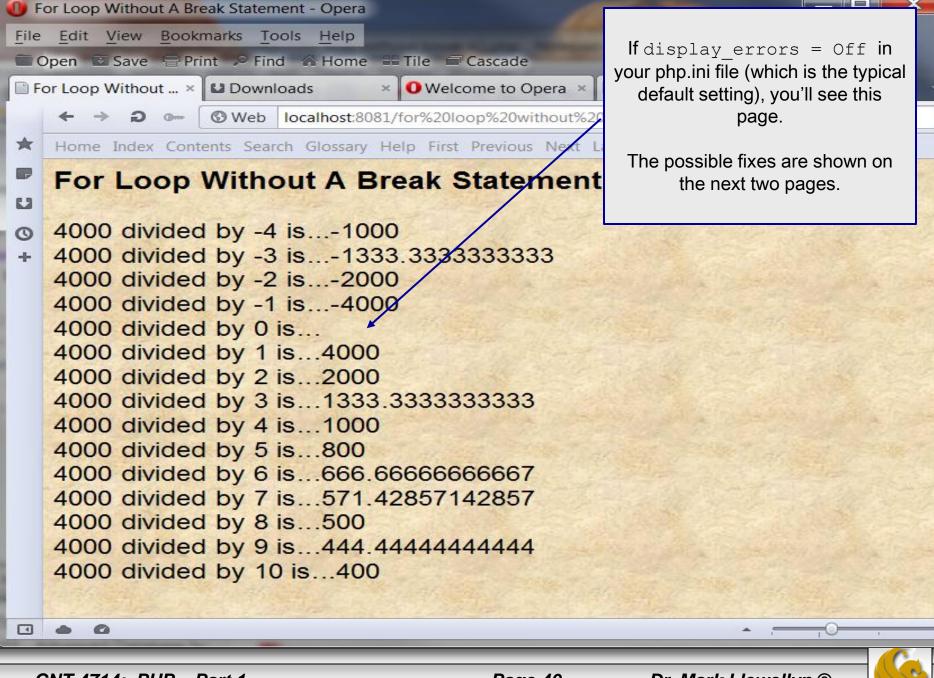
• The next couple of pages illustrates some of the nuances of dealing with counted loops in PHP.



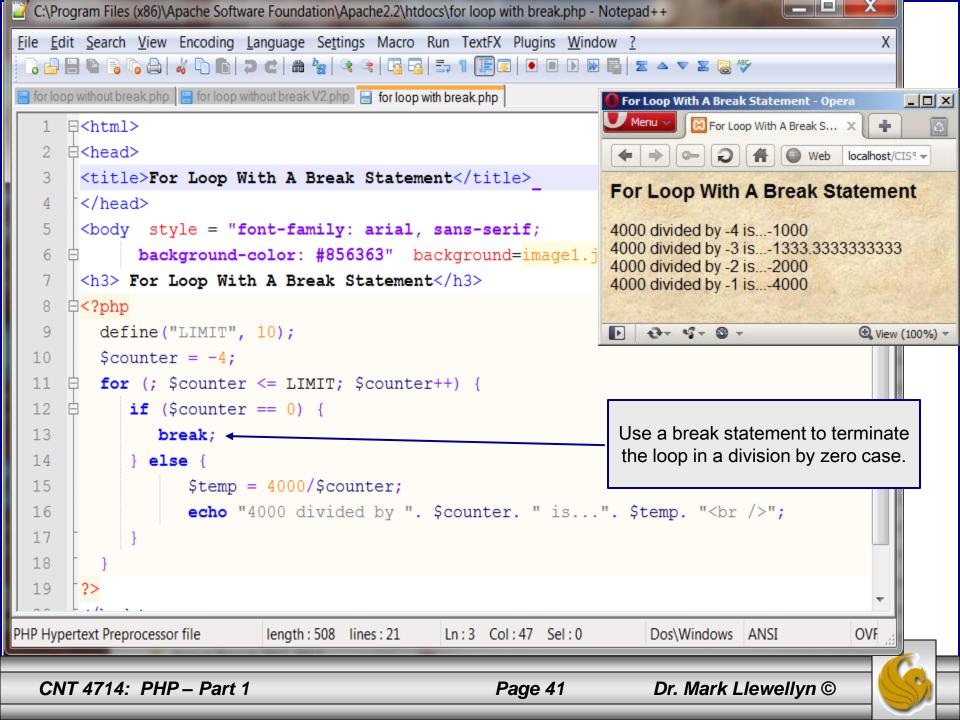


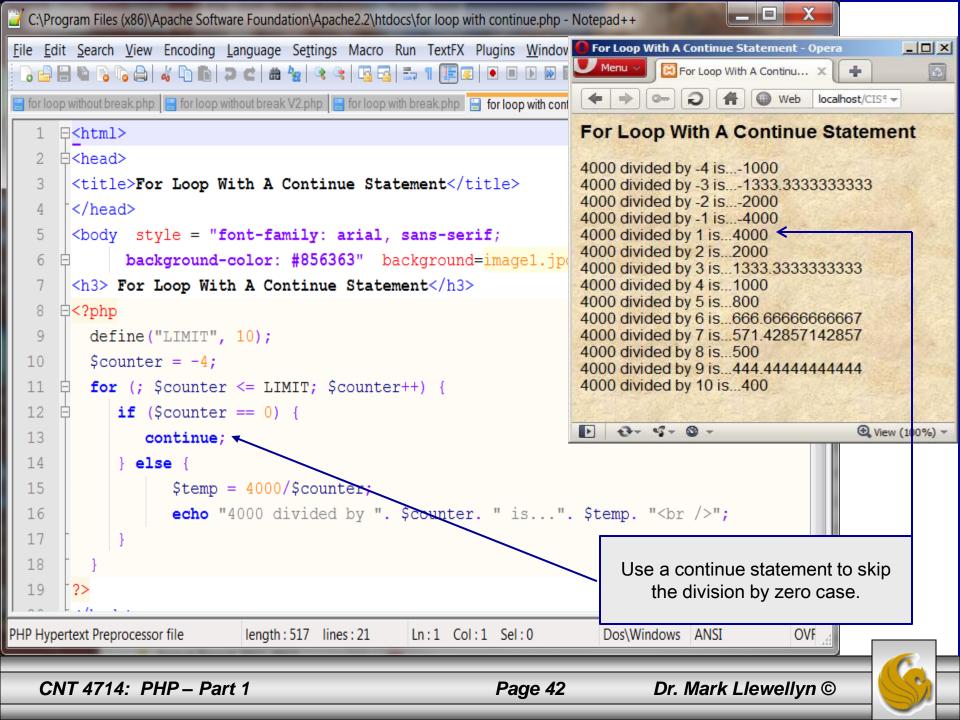






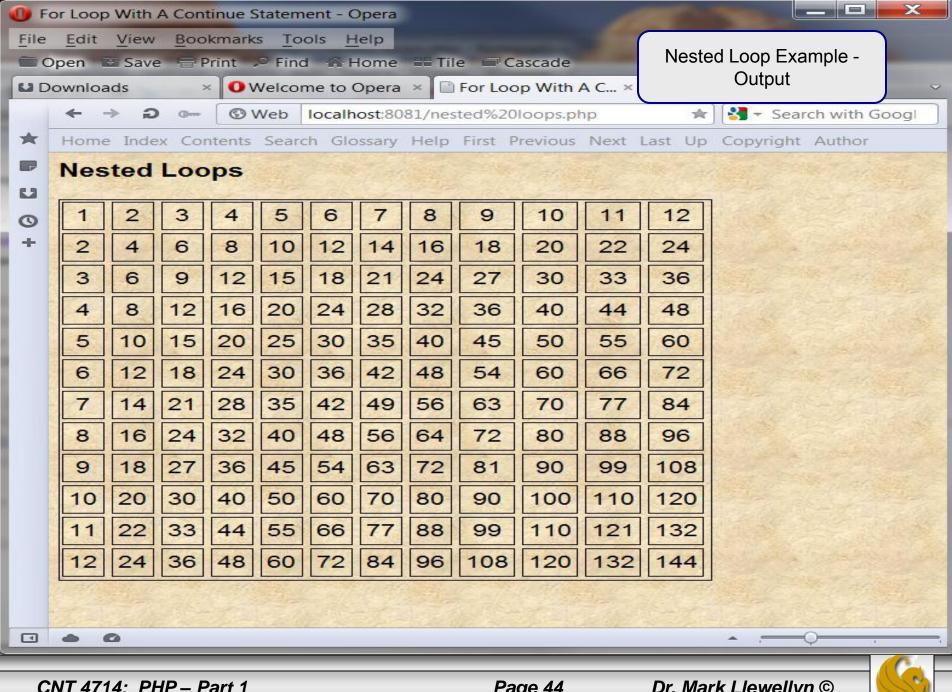






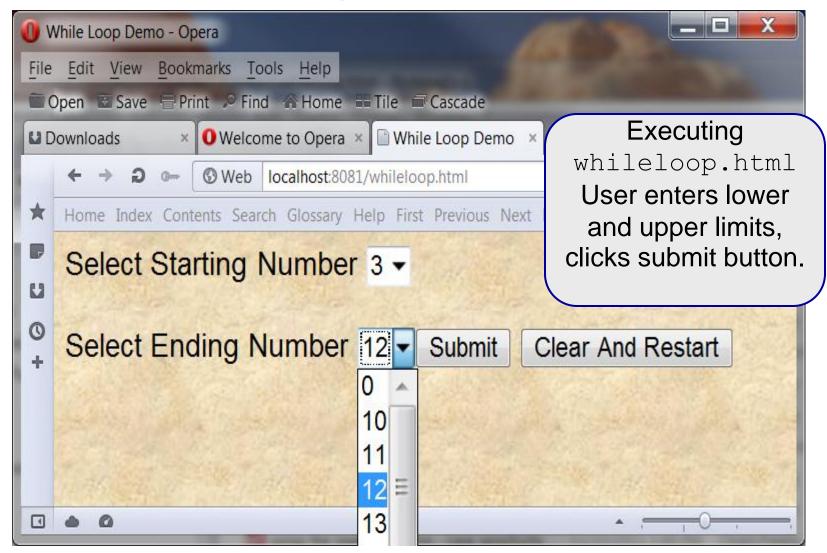
```
C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\nested loops.php - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
 ] 🔒 🔡 🖺 🐚 🤚 🚜 🖒 🖍 🖒 🖒 🕽 🗢 ♥ 🗶 🕍 🖎 🔍 🤏 🖳 🚍 🗐 🖺 🥫 💌 🗈 🕩 🖼 🗷 🗷 🔻 🗷 💆
                                                                                  Nested Loop Example
📙 for loop without break.php 📔 for loop without break V2.php 📋 for loop with break.php 📋 for loop with continue.php 📋 nested loops.
     ⊟<html>
    - d<head>
      <title>For Loop With A Continue Statement</title>
      </head>
   4
   5
       <body style = "font-family: arial, sans-serif;</pre>
            background-color: #856363" background=image1.jpg>
   6
       <h3> Nested Loops</h3>
     □<?php
   8
         define("LOWER LIMIT", 1);
   9
         define ("UPPER LIMIT", 12);
  10
         echo " \n";
 11
         for ($i = LOWER LIMIT; $i <= UPPER LIMIT; $i++) {</pre>
  12
           echo " \n";
 13
           for ($j = LOWER LIMIT; $j <= UPPER LIMIT; $j++) {</pre>
  14 白
              echo "";
 15
              echo($i * $j);
 16
              echo " \n";
 17
 18
           echo " \n";
 19
 20
  21
         echo "</table?";</pre>
 22
       ?>
 23
       </body>
       </html>
  24
PHP Hypertext Preprocessor file
                                                                                            Dos\Windows ANSI
                                                                                                                  OVF
                                                     length: 667 lines: 24
                                                                       Ln:1 Col:1 Sel:0
                                                                               Dr. Mark Llewellyn ©
   CNT 4714: PHP - Part 1
                                                            Page 43
```

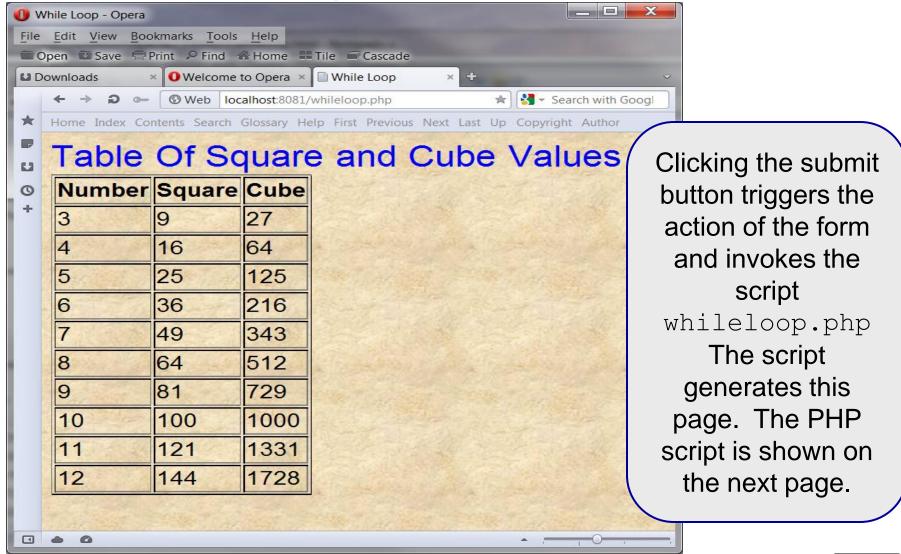
_ D X



• The example on the next couple of pages illustrates a while loop. Again, I've used a form to extract user input. This time the user input sets the lower and upper limit on the loop.

```
_ D X
C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\whileloop.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
 } 🖶 🖺 ષ 🦒 😘 🕍 🕻 Thin ⊃ c' i 🛗 🛬 💘 🥞 🖫 🚍 🚍 1 🗐 🗐 🕟 🗈 D D 🔀 🖫 🗷 🗢 ▽ 🗷 🥞 ザ
whileloop.html
     □<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"</p>
                                                                                    whileloop.html
          "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
      □<html xmlns="http://www.w3.org/1999/xhtml">
      ⊟<head>
           <title>While Loop Demo</title>
           <meta http-equi="content-type" content="text/html' charset=iso-8859-1" />
       </head>
   8
       <body style = "font-family: arial, sans-serif;</pre>
              background-color: #856363" background=image1.jpg>
   9
  10
           <form action="whileloop.php" method="post" >
  11
               Select Starting Number
               <select name="start"><option>0</option> <option>1</option> <option>2</option>
  12
                    <option>3</option> <option>4</option> <option>5</option> <option>6</option>
  13
                    <option>7</option> <option>8</option> <option>9</option>
  14
               </select> <br /><br />
  15
               Select Ending Number
  16
  17
               <select name="end"><option>0</option> <option>10</option> <option>11</option>
                    <option>12</option> <option>13</option> <option>14</option> <option>15</option>
  18
                    <option>16</option> <option>17</option> <option>18</option> <option>19</option</pre>
  19
  20
               </select> <br />
  21
               <input type="submit" value="Submit" >
               <input type="reset" value="Clear And Restart" >
  2.2
           </form>
  23
  24
       </body>
       </html>
  25
Hyper Text Markup Language file
                                                       length: 1128 lines: 25
                                                                                                 Dos\Windows ANSI
                                                                           Ln:1 Col:1 Sel:0
                                                                                                                       INS
   CNT 4714: PHP - Part 1
                                                                                    Dr. Mark Llewellyn ©
                                                               Page 46
```







```
C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\whileloop.php - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
 ] 🔒 🔡 🖺 🖺 🤚 🥱 🤚 🚜 🗅 🛍 🖚 🔁 C l 🛍 🗽 l 🤏 l 🤏 l 👺 🖺 🖫 🍴 🗐 🗩 🗩 🕟 🖾 🔻 🗷 💆 💆
whileloop.html whileloop.php
     □<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"</p>
          "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

□<html xmlns="http://www.w3.org/1999/xhtml">
                                                                                  whileloop.php
     ⊟<head>
          <title>While Loop</title>
          <meta http-equi="content-type" content="text/html' charset=iso-8859-1" />
      </head>
      <body style = "font-family: arial, sans-serif;</pre>
  9
             background-color: #856363" background=image1.jpg>
  10
          <font size=5 color=blue> Table Of Square and Cube Values </font> <br />
           11
               Number   Square   Cube 
 12
  13
              <?php
                  $start = $ POST["start"];
 14
 15
                  $end = $ POST["end"];
                  $i = $start;
 16
                  while ($i <= $end) {
 17
                     $square = $i * $i;
 18
                     Scube = $i * $i * $i;
 19
  20
                     print ("$i$square$cube");
                     $i++;
  21
  22
  23
          24
 25
       </body>
PHP Hypertext Preprocessor file
                                                    length: 821 lines: 26
                                                                      Ln:1 Col:1 Sel:0
                                                                                           Dos\Windows ANSI
                                                                                                                INS
   CNT 4714: PHP - Part 1
                                                           Page 49
                                                                               Dr. Mark Llewellyn ©
```

- Now that we've seen most of the control structures in PHP, we need to see how these control structures can be used more effectively to produce XHTML elements (or any other output).
- PHP is an embedded language that enables you to code both your XHTML and the supporting script in the same document.
- PHP takes this concept a bit further by allowing you to "turn off" the PHP parser during a control structure and embed non-PHP output without losing the logic provided by the control structure.
- The following example, illustrates this concept by displaying an image in your XHTML document only when a variable is set to true.



```
C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\embedded control structures v1.php - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
embedded control structures v1.php
     ⊟<html>
     □<head>
      <title>Embedding Control Stuctures</title>
   4
     </head>
   5
      <body style = "font-family: arial, sans-serif;</pre>
   6
             background-color: #856363" background=image1.jpg>
       <h3> Embedding Control Structures - Version 1</h3>
     <?php
         $displayKart = true;
  10
         $displayBike = false;
     if ($displayKart) {
  11
           echo "<img src=\" sprint kart.jpg\" >";
  12
  13
        if ($displayBike) {
  14
           echo "<img src=\" /Eddy Merckx.jpg\" >";
  15
  16
  17
       ?>
       </body>
  18
  19
       </html>
PHP Hypertext Preprocessor file
                         length: 452 lines: 19
                                            Ln:1 Col:1 Sel:0
                                                                  Dos\Windows ANSI
                                                                                        INS
```



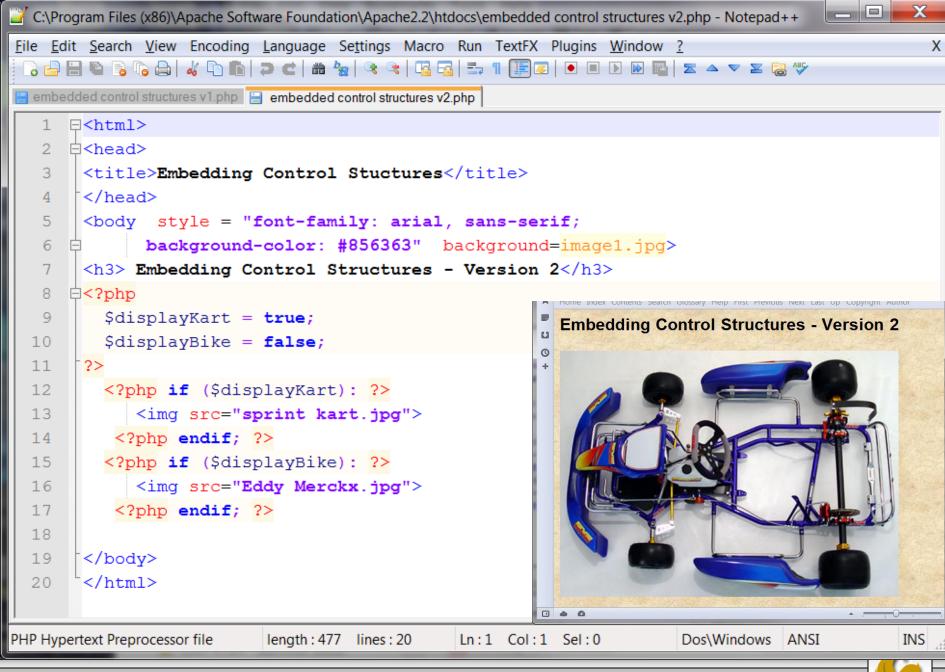


- Although the previous solution works and for novice PHP programmers it seems to be the most obvious technique, PHP provides an alternate syntax that is actually allows the embedding of the control structure into the markup.
- This alternative syntax is:

```
<?php . . .
   if (conditional): ?>
      - text/whatever that should be output but not parsed
<?php endif;
?>
```

• This is shown in the next version of this example on the following page.



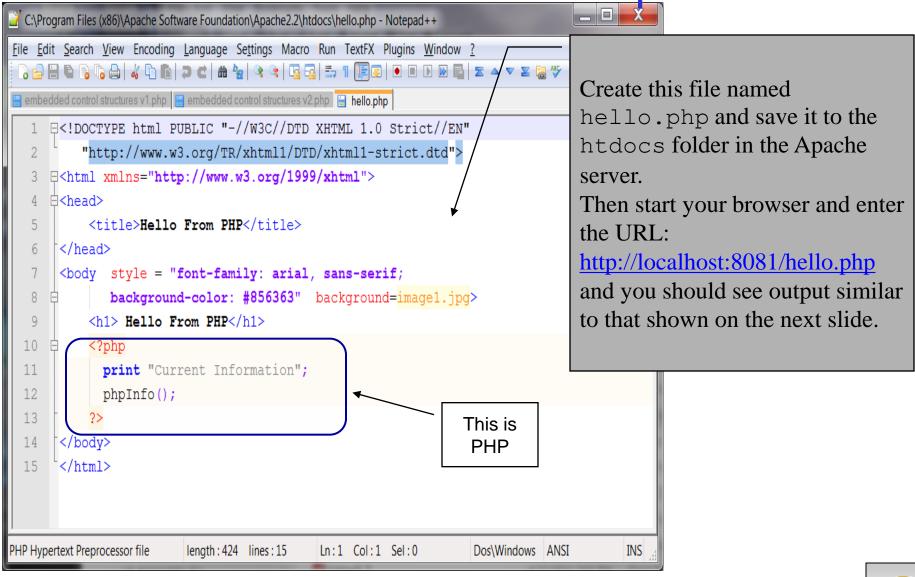


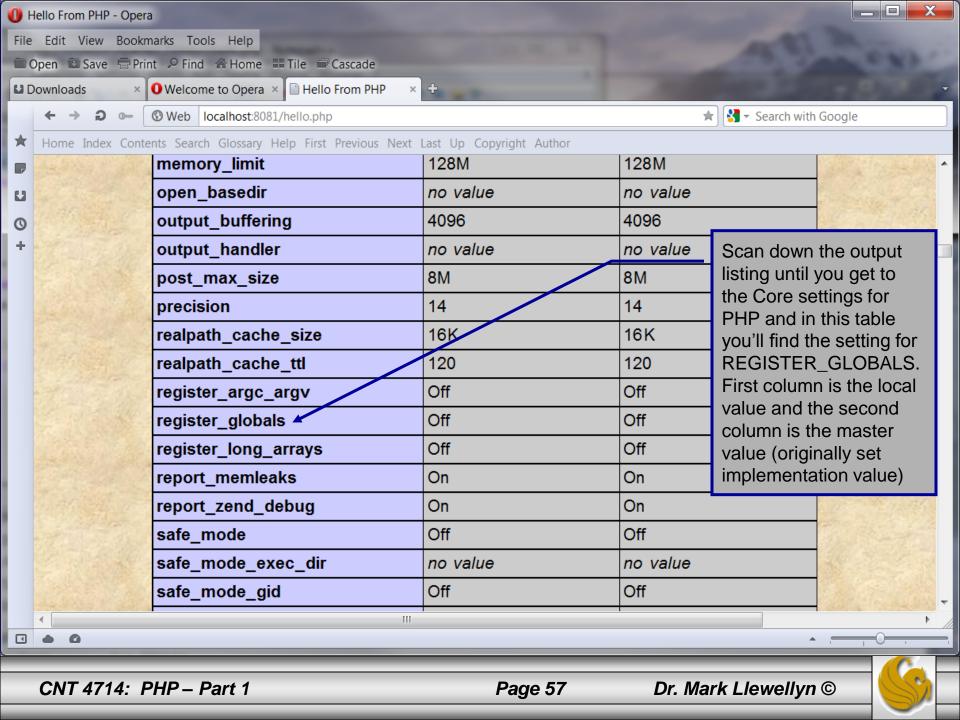
Using PHP With REGISTER_GLOBALS OFF

- Since PHP 4.2.0, PHP is shipped with the REGISTER_GLOBALS configuration variable set to OFF. Prior to version 4.2.0 this variable was set to ON, but represented a fairly large security concern, so since that time the default setting is OFF. While this setting can be overridden by local system administrators, it is wise not to do so.
- When PHP is configured with REGISTER_GLOBALS set to OFF, you need an extra step to receive input from forms, cookies, or session variables.
- You can tell your PHP site's status of REGISTER_GLOBALS by running the phpInfo() function that was shown in the hello.php script in the setting up PHP section of notes (repeated here)...

CNT 4714: PHP – Part 1 Page 55 Dr. Mark Llewellyn ©

A PHP Test Example





Using PHP With REGISTER_GLOBALS OFF

- When REGISTER_GLOBALS is set to OFF you must receive XHTML form input data using the \$_POST, or \$_GET associative arrays.
- Go back and look at the PHP scripts on pages 46 and 49 and you will see the \$_POST associative array has been used in both examples to extract the input form data.
- We'll deal with this in more detail later, but for now these two examples should give you a good idea of how form data extraction is handled in PHP scripts.
- There are many other associative arrays utilized in PHP. The remainder of this set of notes is devoted to some of these arrays.

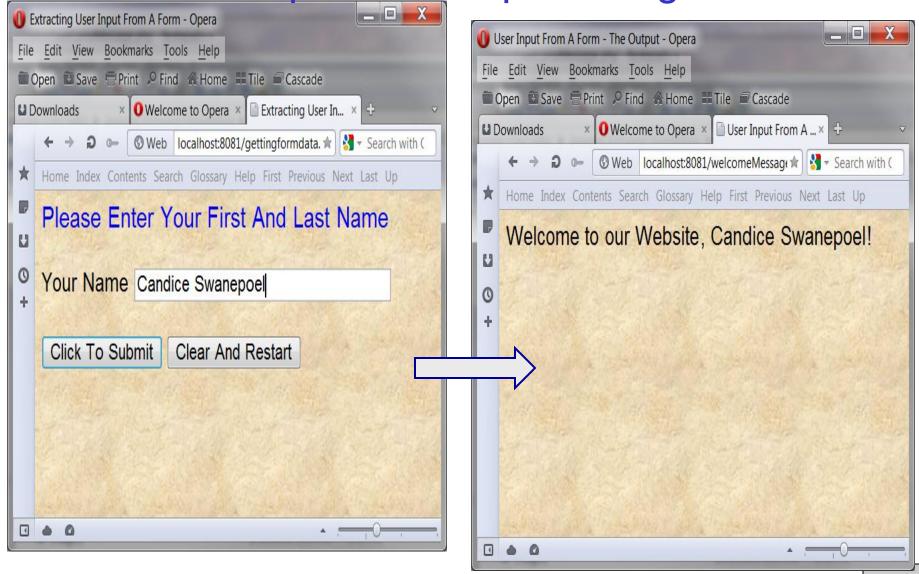


- Several of the previous examples illustrated extracting user input from form variables. Let's look at one more example, where we prompt a user for their first and last name, and then use that information to display on every page of our website.
- First, let's write the HTML form and PHP script necessary to get the user's name.
- The XHTML document is shown on page 60 and the PHP script is shown on page 61, with an example shown on page 62.



```
C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\gettingFormData.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
 📑 embedded control structures v1.php 📋 embedded control structures v2.php 📋 hello.php 📋 php.ini 📋 gettingFormData.html
     □K!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
                                                                                           The XHTML document
          "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
      ⊟<html xmlns="http://www.w3.org/1999/xhtml">
      ⊟<head>
           <title>Extracting User Input From A Form</title>
           <meta http-equi="content-type" content="text/html' charset=iso-8859-1" />
       </head>
   8
       <body style = "font-family: arial, sans-serif;</pre>
   9
              background-color: #856363" background=image1.jpg>
           <form action="welcomeMessage.php" method="post" >
  10
  11
               <font size=4 color=blue>Please Enter Your First And Last Name</font> <br /><br />
               <label> Your Name <input type="text" size="34" maxlength="37" name="Name" /> </label><br /> <br />
  12
               <input type="submit" value="Click To Submit" />
  13
               <input type="reset" value="Clear And Restart" />
  14
  15
           </form>
  16
       </body>
  17
       </html>
Hyper Text Markup Language file
                                                            length: 781 lines: 17
                                                                               Ln:1 Col:1 Sel:0
                                                                                                     Dos\Windows ANSI
                                                                                                                           INS
```

```
C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\welcomeMessage.php - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
                                                                                                               X
  ] 🔒 🔡 🖫 📭 🤚 🖟 🤚 🚜 🕩 🆍 🗷 🖎 🗷 🖀 🦖 👒 🥞 📑 ¶ 🖫 🕡 🕨 🗷 🕟 🗷 🛣 🗢 🔻 🗷 🖓
 embedded control structures v1.php 📋 welcomeMessage.php
      □<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
           "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
                                                                                      The PHP script
      □<html xmlns="http://www.w3.org/1999/xhtml">
      自<head>
   4
            <title>User Input From A Form - The Output</title>
            <meta http-equi="content-type" content="text/html' charset=iso-8859-1" />
   6
       </head>
   8
       <body style = "font-family: arial, sans-serif;</pre>
   9
               background-color: #856363" background=image1.jpg>
  10
            <?php
  11
                $Name = $ POST["Name"];
  12
                echo ("Welcome to our Website, $Name!");
  13
            ?>
       </body>
  14
  15
       </html>
PHP Hypertext Preprocessor file
                                        length: 514 lines: 15
                                                                                    Dos\Windows ANSI
                                                            Ln:15 Col:8 Sel:0
                                                                                                           INS
```



- Now suppose that we wanted to construct our website so that it showed the visitor's name at the top of every page.
- While the script we've just constructed gets us the required data, there are a couple of problems we need to overcome, if we're going to do this right.
 - 1. We need the name at the top of every page, not just the first one.
 - 2. We have no control over which page at our site the user might first enter.
 - The first problem is fairly easy to handle, once the visitor's name is in a variable on one page, we simply pass it as part of any request for another page by adding the name to the query string of all links.



- To pass the name as part of a query string of a link, we'll embed PHP code right into the middle of an XHTML tag.
- This is perfectly legal and will work just fine.
- The revised link would look like the following:

```
<a href="newpage.php?name=<?php echo urlencode($_GET["name"]);?> />
```

- The urlencode function takes special characters in the string, e.g., spaces, and converts them into the special codes they need ot be in order to appear in the query string.
- For example, if the \$name variable had a value of "Mark Llewellyn", then, since spaces are not allowed in a query string, the output of urlencode would be "Mark+Llewellyn". PHP would then convert it back automatically when it created the \$_GET variable in newpage.php.

- Now that we know how to handle the first problem, we now need to figure out how to get the name in the first place.
- We constructed a special XHTML document that contained a form for the visitor to enter their name. The problem is that we don't want to force the user to enter our site by that page every time they visit the site.
- The solution is to have every page in the site check to see if a name has been specified and prompt the user for one if necessary.
- Pages in websites that can decide whether to display one thing or another are referred to as multipurpose pages. A basic template for a multipurpose page is shown on the following slide. With examples for our specific case shown on the pages following the template.



```
C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\multipurpose page template.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
                                                                                                                  X
  ] 🖶 🗎 📭 🥛 🕞 🛦 🖟 🖟 🖟 🕩 🖍 🕩 🖍 🗩 😅 📹 🥞 🥞 🖺 🖫 🕞 🗩 🕩 🖼
                                                                              Template for a multipurpose
 🛁 embedded control structures v1.php 📔 welcomeMessage.php 📙 multipurpose page example.html 📜 multipur
                                                                                       webpage

□<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
</p>
           "http://www.w3.org/TR/xhtml1/DTD/\(\frac{\text{vhtml1} - \text{trict.dtd"} \)
                                                    Exit
      ⊟<html xmlns="ht</pre>
                                   w3.org/1999,
                           Enter
                                                   PHP
      ⊟<head>
                            PHP
                                                   mode
                                                          itle>
            <title>Mu/t mode
                                  Web Page Ter
            <meta http-equi="content-type" content="text/html' charset=iso-8859-1" />
        </head>
               style = "font-family: arial, sans-serif;
               background-color: #856363" background=image1.jpg>
   9
  10
            <?php if (condition) { ?>
                <!-- XHTML content to display if condition is true goes here -->
  11
            <?php } else { ?>
  12
                <!-- XHTML content to display if condition is false goes here -->
  13
            <?php } ?>
  14
        </body>
  15
        </html>
  16
                                                                                       Dos\Windows ANSI
Hyper Text Markup Language file
                                          length: 630 lines: 16
                                                              Ln:1 Col:1 Sel:0
                                                                                                               INS
```

```
C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\multipurpose page template - alternate form.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
                                                                                                                 X
  3 🖶 🗎 🖺 🥫 🥱 🗚 🚜 🕩 🦍 ⊃ cc | aa 🛬 | 🖎 🥞 🖫 🖶 1 🖫 🕡 🗨 🗉 🗈 🕩 🖼 🔀 🗢 🔻 🗷 🗟 💖
🚆 welcomeMessage.php 📳 multipurpose page example.html 📙 multipurpose page template.html 📔 multipurpose page template - alternate form.html
                                                                                                               4 >
      □K!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
                                                                                  Template for a multipurpose
           "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
                                                                                  webpage – Alternate syntax
      □<html xmlns="http://www.w3.org/1999/xhtml">
                                                                                             format
      ⊟<head>
            <title>Multipurpose Web Page Template - Alternate Form</title>
   6
            <meta http-equi="content-type" content="text/html' charset=iso-8859-1" />
       </head>
        <body style = "font-family: arial, sans-serif;</pre>
   9
               background-color: #856363" background=image1.jpg>
  10
            <?php if (condition): ?>
               <!-- XHTML content to display if condition is true goes here -->
  11
  12
            <?php else: ?>
               <!-- XHTML content to display if condition is false goes here -->
  13
            <?php endif; ?>
  14
        </body>
  15
        </html>
  16
                                         length: 650 lines: 16
                                                                                      Dos\Windows ANSI
Hyper Text Markup Language file
                                                              Ln:1 Col:1 Sel:0
                                                                                                              INS
```

Viewing Client/Server Environment Variables

- Knowledge of a client's execution environment is useful to system administrators who want to provide client-specific information.
- Environment variables contain information about a script's environment, such as the client's web browser, the HTTP host and the HTTP connection.
 - The table on the next page summarizes some of the superglobal arrays defined by PHP.
- The XHTML document on page 70 displays the values of the server's environment variables in a table. PHP stores the server variables and their values in the \$_SERVER array. Iterating through the array allows one to view all of the server's environment variables.

CNT 4714: PHP - Part 1

Some Superglobal Environment Arrays

Variable Name	Description
\$_SERVER	Data about the currently running server.
\$_ENV	Data about the client's environment.
\$_GET	Data posted to the server by the get method.
\$_POST	Data posted to the server by the post method.
\$_COOKIE	Data contained in cookies on the client's computer.
\$GLOBALS	Array containing all global variables.



server.php Example

```
C:\Program Files (x86)\Apache Software Foundation\Apache2.2\htdocs\server.php - Notepad++
File Edit Search View Encoding Language Settings Macro Run TextFX Plugins Window ?
                                                                                                       X
  ] 🔒 🔚 🖺 🖺 🥫 🖟 🖟 🗸 🕩 🖍 🖒 🖍 🗢 🗲 🛗 🤚 😢 🤏 👺 😢 🥰 👺 🖫 🕦 🕩 🗈 🕩 🕟 📠 🛣 🗢 🔻 🔀
                                                                                                     4 >
 🧺 welcomeMessage.php 📙 multipurpose page example.html 📔 multipurpose page template.html 📔 multipurpose page template - alternate form.html
      □<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
          "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
      □<html xmlns="http://www.w3.org/1999/xhtml">
       <!-- server.php
       <!-- Program to display $ SERVER variables -->
      □<head>
           <title>SERVER Variables Display</title>
       </head>
   8
       <body style = "font-family: arial, sans-serif;</pre>
   9
             background-color: #856363" background=image1.jpg>
  10
           11
                                                                             Iterate through the
                width = "100%">
  12
  13
               <?php
                                                                             $_SERVER array to list all
                 // print the key and value for each element
  14
                                                                            of the SERVER variables for
                 // in the $ SERVER array
  15
                                                                            the current server on which
                 foreach ( $ SERVER as $key > $value )
  16
                                                                            PHP is running.
                    print( "
  17
                        <strong>$key</strong>
  18
                        $value" );
  19
  20
  21
           22
       </body>
       </html>
  23
PHP Hypertext Preprocessor file
                                     length: 837 lines: 23
                                                        Ln:1 Col:1 Sel:0
                                                                              Dos\Windows ANSI
                                                                                                    INS
```

