**Exercise 02\_04\_01 – Step 1**

Superglobals.php

<head>

<!--

Exercise 02\_04\_01

Author: Mark J. Buckler

Date: October 8, 2017

Filename: Superglobals.php

-->

<title>Superglobals</title>

<meta charset="UTF-8">

<meta name="viewport" content="initial-scale=1.0">

<script src="modernizr.custom.65897.js"></script>

</head>

<body>

<h2>Superglobals</h2>

<?php

?>

</body>

</html>

------------------------------------

Superglobals.php

<?php

echo "<h3>Superglobal Array \$\_SERVER[]</h3>";

echo "<p>The name of the current script is: ",   
 $\_SERVER["SCRIPT\_NAME"], "<br>";

echo "This script was executed with the following server   
 software: ", $\_SERVER["SERVER\_SOFTWARE"], "<br>";

echo "This script was requested with the following server   
 protocol: ", $\_SERVER["SERVER\_PROTOCOL"], "<br>";

echo "This script is running on the following server   
 name: ", $\_SERVER["SERVER\_NAME"], "</p>";

echo "This script is running on the following server   
 address: ", $\_SERVER["SERVER\_ADDR"], "<br>";

echo "This script is running with the following gateway   
 interface: ", $\_SERVER["GATEWAY\_INTERFACE"], "<br>";

echo "This script is running with the following request   
 method: ", $\_SERVER["REQUEST\_METHOD"], "<p>"; ?>

**Exercise 02\_04\_01 – Step 2**

Scholarship.html

<!doctype html>

<html>

<head>

<!--

Exercise 02\_04\_01

Author: Mark J. Buckler

Date: October 8, 2017

Filename: Scholarship.html

-->

<title>Scholarship</title>

<meta charset="UTF-8">

<meta name="viewport" content="initial-scale=1.0">

<script src="modernizr.custom.65897.js"></script>

</head>

<body>

</body>

</html>

------------------------------------

Scholarship.html

<body>

<h2 style="text-align: center">Scholarship Form</h2>

<form name="scholarship" action="Process\_Scholarship.php"   
 method="post">

<p>First name: <input type="text" name="fName"></p>

<p>Last name: <input type="text" name="lName"></p>

<p>

<input type="reset" value="Clear Form">&nbsp;&nbsp;

<input type="submit" name="submit" value="Send Form">

</p>

</form>

</body>

**Exercise 02\_04\_01 – Step 3**

Process\_Scholarship.php

<body>

<h2>Process Scholarship</h2>

<?php

?>

</body>

------------------------------------

Process\_Scholarship.php

<?php

$firstName = $\_POST['fName'];

$lastName = $\_POST['lName'];

echo "Thank you for filling out the scholarship form, " .   
 $firstName . " " . $lastName . ".";

?>

------------------------------------

Process\_Scholarship.php

$firstName = stripslashes($\_POST['fName']);

$lastName = stripslashes($\_POST['lName']);

**Exercise 02\_04\_01 – Step 4**

Scholarship2.html

<form name="scholarship" action="Process\_Scholarship2.php"   
 method="post">

------------------------------------

Process\_Scholarship2.php

$errorCount = 0;

------------------------------------

Process\_Scholarship2.php

function displayRequired($fieldName) {

echo "The field \"$fieldName\" is required.<br>\n";

}

------------------------------------

Process\_Scholarship2.php

function validateInput($data, $fieldName) {

global $errorCount;

if (empty($data)) {

displayRequired($fieldName);

++$errorCount;

$retval = "";

}

else {

$retval = trim($data);

$retval = stripslashes($retval);

}

return $retval;

}

------------------------------------

Process\_Scholarship2.php

$firstName = validateInput($\_POST['fName'], "First name");

$lastName = validateInput($\_POST['lName'], "Last name");

Process\_Scholarship2.php

if ($errorCount > 0) {

echo "$errorCount errors: Please use the \"Back\" button   
 to re-enter the data.<br>\n";

}

else {

echo "Thank you for filling out the scholarship form, $firstName $lastName.";

**Exercise 02\_04\_01 – Step 5**

Process\_Scholarship2.php

function redisplayForm($firstName, $lastName) {

?>

<h2 style="text-align: center">Scholarship Form 2</h2>

<form name="scholarship" action="Process\_Scholarship2.php"   
 method="post">

<p>First name: <input type="text" name="fName"   
 value="<?php echo $firstName; ?>"></p>

<p>Last name: <input type="text" name="lName"   
 value="<?php echo $lastName; ?>"></p>

<p>

<input type="reset" value="Clear Form">&nbsp;&nbsp;

<input type="submit" name="submit" value="Send Form">

</p>

</form>

<?php

}

------------------------------------

Process\_Scholarship2.php

if ($errorCount > 0) {

echo "$errorCount errors: Please re-enter the   
 information below.<br>\n";

redisplayForm($firstName, $lastName);

}

**Exercise 02\_04\_01 – Step 6**

NumberForm.php

<body>

<h2>Number Form</h2>

<?php

?>

</body>

------------------------------------

NumberForm.php

<?php

$displayForm = true;

$number = "";

?>

------------------------------------

NumberForm.php

if (isset($\_POST['Submit'])) {

$number = $\_POST['number'];

if (is\_numeric($number)) {

$displayForm = false;

}

else {

echo "<p>You need to enter a numeric value.</p>\n";

$displayForm = true;

}

}

NumberForm.php

if ($displayForm) {

?>

<form name="NumberForm" action="NumberForm.php"   
 method="post">

<p>

Enter a number: <input type="text" name="number"   
 value="<?php echo $number; ?>">

</p>

<p>

<input type="reset" value="Clear Form">&nbsp;&nbsp;

<input type="submit" name="Submit" value="Send   
 Form">

</p>

</form>

<?php

}

?>

------------------------------------

NumberForm.php

<?php

}

else {

echo "<p>Thank you for entering a number.</p>\n";

echo "<p>Your number, $number, squared is " .   
 ($number \* $number) . ".</p>\n";

echo "<p><a href=\"Numberform.php\">  
 Try again?</a></p>\n";

}

?>

**Exercise 02\_04\_01 – Step 7**

inc\_header.html

<h1 style="text-align: center">Sample Web Template</h1>

------------------------------------

inc\_footer.php

<p>Todays Date: <?php echo date('r'); ?></p>

------------------------------------

inc\_home.html

<h2>Home Page</h2>

<p>This is the default home page that displays

whenever a new visitor comes to the site.</p>

------------------------------------

inc\_about.html

<h2>About Me</h2>

<p>This is the page that tells about me and my Web site.</p>

------------------------------------

inc\_contact.html

<h2>Contact Me</h2>

<p>This is the page where people can use a Web form to send me an e-mail.</p>

------------------------------------

inc\_buttonnav.html

<form action="WebTemplate.php" method="get">

<input type="submit" name="content" value="Home"><br>

<input type="submit" name="content" value="About Me"><br>

<input type="submit" name="content" value="Contact Me"><br>

</form>

WebTemplate.php

<body>  
 <?php include("inc\_header.html") ?>

<div style="width: 20%; text-align: center; float: left">

<?php include("inc\_buttonnav.html") ?>

</div>

<!-- Start of dynamic content section -->

<?php

?>

<!-- End of dynamic content section -->

<?php include("inc\_footer.php") ?>

</body>

------------------------------------

WebTemplate.php

<?php

if (isset($\_GET['content'])) {

switch ($\_GET['content']) {

case 'About Me':

include("inc\_about.html");

break;

case 'Contact Me':

include("inc\_contact.html");

break;

case 'Home':

// A value of home means to

// display the default page

default:

include("inc\_home.html");

break;

}

}

else { // no button selected

include("inc\_home.html");

}

?>

**Project 02\_04\_01**

**Part 1**

JumbleMaker.html

<body>

<h1>Jumble Maker</h1>

<form action="processJumbleMaker.php" method="post">

<p>

word 1: <input type="text" name="word1"><br>

word 2: <input type="text" name="word2"><br>

word 3: <input type="text" name="word3"><br>

word 4: <input type="text" name="word4"><br>

</p>

<input type="reset" value="Clear Form">&nbsp;&nbsp;

<input type="submit" name="Submit" value="Send Form">

</form>

</body>

------------------------------------

processJumbleMaker.php

<body>  
 <h2>Process Jumble Maker</h2>  
 <?php  
   
 ?>  
</body>  
------------------------------------

processJumbleMaker.php

<?php

$errorCount = 0;

$words = array();

?>

------------------------------------

processJumbleMaker.php

function displayError($fieldName, $errorMsg) {

global $errorCount;

echo "Error for \"$fieldName\": $errorMsg<br>\n";

++$errorCount;

}

processJumbleMaker.php

function validateWord($data, $fieldName) {

global $errorCount;

$retval = "";

return $data;

}

------------------------------------

processJumbleMaker.php

$words[] = validateWord($\_POST['word1'], "Word 1");

$words[] = validateWord($\_POST['word2'], "Word 2");

$words[] = validateWord($\_POST['word3'], "Word 3");

$words[] = validateWord($\_POST['word4'], "Word 4");

foreach ($words as $word) {

echo "$word<br>";

}

------------------------------------

processJumbleMaker.php

if ($errorCount > 0) {

echo "Please use the \"Back\" button to re-enter any   
 missing data.<br>\n";

}

else {

$wordNum = 0;

foreach ($words as $word) {

echo "Word " . ++$wordNum . ": $word<br>\n";

}

}

------------------------------------

processJumbleMaker.php

if (empty($data)) {

displayError($fieldName, "This field is required");

++$errorCount;

$retval = "";

}

return $retval;

processJumbleMaker.php

else {

$retval = trim($data);

$retval = stripslashes($retval);

if (strlen($retval) < 4 || strlen($retval) > 7) {

displayError($fieldName, "Words must be between   
 4 and 7 characters in length");

}

if (preg\_match("/^[A-Za-z]+$/i", $retval) == 0) {

displayError($fieldName, "Words must consist   
 only of letters");

}

}

------------------------------------

processJumbleMaker.php

$retval = strtoupper($retval);

$retval = str\_shuffle($retval);

return $retval;

**Project 02\_04\_01**

**Part 2**

ContactForm.php

<body>

<?php

?>

</body>

------------------------------------

ContactForm.php

<?php

$showForm = true;

$errorCount = 0;

$sender = "";

$email = "";

$subject = "";

$message = "";

?>

ContactForm.php

function displayForm($sender, $email, $subject, $message) {

?>

<h2 style="text-align: center">Contact Me</h2>

<form name="contact" action="ContactForm.php"   
 method="post">

<p>Your name:<br> <input type="text" name="Sender"   
 value="<?php echo $sender; ?>"></p>

<p>Your E-mail:<br> <input type="text" name="Email"   
 value="<?php echo $email; ?>"></p>

<p>Subject:<br> <input type="text" name="Subject"   
 value="<?php echo $subject; ?>"></p>

<p>Message:<br>

<textarea name="Message"><?php echo   
 $message?></textarea>

</p>

<p>

<input type="reset" value="Clear   
 Form">&nbsp;&nbsp;

<input type="submit" name="Submit" value="Send   
 Form">

</p>

</form>

<?php

}

displayForm($sender, $email, $subject, $message); // debug

?>

ContactForm.php

<?php

}

if ($showForm) {

if ($errorCount > 0) {

echo "<p>Please re-enter the form information   
 below.</p>\n";

}

displayForm($sender, $email, $subject, $message);

}

else {

$result = true; // debug

if ($result) {

echo "<p>Your message has been sent. Thank you, " .   
 $sender . ".</p>\n";

}

else {

echo "<p>There was an error sending your message, "   
 . $sender . ".</p>\n";

}

}

?>

------------------------------------

ContactForm.php

function validateInput($data, $fieldName) {

global $errorCount;

if (empty($data)) {

echo "\"$fieldName\" is a required field.<br>\n";

++$errorCount;

$retval = "";

}

else {

$retval = trim($data);

$retval = stripslashes($retval);

}

return $retval;

}

ContactForm.php

if (isset($\_POST['Submit'])) {

$sender = validateInput($\_POST['Sender'], "Your Name");

$email = validateInput($\_POST['Email'], "Your E-mail");

$subject = validateInput($\_POST['Subject'], "Subject");

$message = validateInput($\_POST['Message'], "Message");

if ($errorCount == 0) {

$showForm = false;

}

else {

$showForm = true;

}

}

------------------------------------

ContactForm.php

function validateEmail($data, $fieldName) {

global $errorCount;

if (empty($data)) {

echo "\"$fieldName\" is a required field.<br>\n";

++$errorCount;

$retval = "";

}

else {

$retval = trim($data);

$retval = stripslashes($retval);  
 $pattern = "/^[\w-]+(\.[\w-]+)\*@" .   
 "[\w-]+(\.[\w-]+)\*" .   
 "(\.[a-z]{2,})$/i";

if (preg\_match($pattern, $retval) == 0) {

echo "\"$fieldName\" is not a valid e-mail   
 address.<br>\n";

++$errorCount;

}

}

return $retval;

}

------------------------------------

ContactForm.php

$sender = validateInput($\_POST['Sender'], "Your Name");

$email = validateEmail($\_POST['Email'], "Your E-mail");

$subject = validateInput($\_POST['Subject'], "Subject");

ContactForm.php

else {

$senderAddress = "$sender <$email>";

$headers = "From: $senderAddress\nCC:$senderAddress";

$result = mail("mark.buckler@west-mec.org", $subject,   
 $message, $headers);

**Project 02\_04\_02**

Paychek.html

<body>

<h2>Enter Paycheck Data</h2>

<form name="paycheck "action="Paycheck.php" method="post">

<p>Hours Worked: <input type="text" name="hours"></p>

<p>Hourly Wage: $<input type="text" name="wage"></p>

<input type="reset" value="Clear Form">&nbsp;&nbsp;

<input type="submit" name="Submit" value="Send Form">

</form>

</body>

------------------------------------

Paycheck.php

<body>  
 <h2>Process Paycheck</h2>  
 <?php  
   
 ?>  
</body>  
------------------------------------

Paycheck.php

<?php

$errors = 0;

if ($errors == 0) {

echo "<p><a href=\"Paycheck.html\">Calculate another   
 paycheck</a></p>";

}

?>

Paycheck.php

$errors = 0;

if (is\_numeric($\_POST['hours'])) {

}

else {

++$errors;

echo "<p>Error: 'Hours Worked' must be a numeric   
 value.<br>

echo "Use the \"Back\" button to re-enter data.</p>";

}

------------------------------------

Paycheck.php

if (is\_numeric($\_POST['hours'])) {

if ($\_POST['hours'] > 0) {

}

else {

++$errors;

echo "<p>Error: 'Hours Worked' must be greater than   
 0.<br>";

echo "Use the \"Back\" button to re-enter   
 data.</p>";

}

}

------------------------------------

Paycheck.php

if ($\_POST['hours'] > 0) {

$hours = round($\_POST['hours'], 2);

if ($hours > 40) {

$regularHours = 40;

$overtimeHours = $hours - 40;

}

else {

$regularHours = $hours;

$overtimeHours = 0;

}

}

Paycheck.php

if (is\_numeric($\_POST['wage'])) {

}

else {

++$errors;

echo "<p>Error: 'Hourly Wage' must be a numeric   
 value.<br>";

echo "Use the \"Back\" button to re-enter data.</p>";

}

------------------------------------

Paycheck.php

if (is\_numeric($\_POST['wage'])) {

if ($\_POST['wage'] > 0) {

$wage = round($\_POST['wage'], 2);

}

else {

++$errors;

echo "<p>Error: 'Hourly Wage' must be greater than   
 0.<br>";

echo "Use the \"Back\" button to re-enter   
 data.</p>";

}

}

------------------------------------

Paycheck.php

if ($errors == 0) {

echo "<p>$regularHours hours @ \$$wage/hr = \$" .   
 ($regularHours \* $wage) . "<br>\n";

echo "$overtimeHours hours @ \$" . ($wage \* 1.5) . "/hr   
 = \$" . ($overtimeHours \* $wage \* 1.5) . "<br>\n";

echo "Total for $hours hours is \$" . (($regularHours \*   
 $wage) + ($overtimeHours \* $wage \* 1.5)) . "</p>\n";

echo "<p><a href=\"Paycheck.html\">Calculate another   
 paycheck</a></p>";

}

Paycheck.php

echo "<p>$regularHours hours @ \$$wage/hr = \$" .   
 number\_format(($regularHours \* $wage), 2) .   
 "<br>\n";

echo "$overtimeHours hours @ \$" . ($wage \* 1.5) . "/hr   
 = \$" . number\_format(($overtimeHours \* $wage \*   
 1.5), 2) . "<br>\n";

echo "Total for $hours hours is \$" .   
 number\_format((($regularHours \* $wage) +   
 ($overtimeHours \* $wage \* 1.5)), 2) . "</p>\n";