**Exercise 02\_02\_01 – Step 1**

TwoFunctions.php

<!doctype html>

<html>

<head>

<!--

Exercise 02\_02\_01

Author: Mark J. Buckler

Date: September 10, 2017

Filename: TwoFunctions.php

-->

<title>Two Functions</title>

<meta charset="UTF-8">

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

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

</head>

<body>

</body>

</html>

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

TwoFunctions.php

<body>

<?php

<h2>Two Functions</h2>

<?php

?>

</body>

TwoFunctions.php

<?php

function displayMessage($firstMessage) {

echo "<p>$firstMessage</p>";

}

?>

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

TwoFunctions.php

// main script body

displayMessage("This message was displayed from within a   
 function.");

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

TwoFunctions.php

function returnMessage() {

return "<p>This message was displayed from within a   
 function.</p>";

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

TwoFunctions.php

$returnValue = returnMessage();

echo $returnValue;

**Exercise 02\_02\_01 – Step 2**

PassParameters.php

<body>

<h2>Passing Parameters</h2>  
 <?php  
  
 ?>

</body>

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

PassParameters.php

<?php

function incrementByValue($countByValue) {

++$countByValue;

echo "<p>incrementByValue() value is   
 $countByValue.</p>";

}

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

PassParameters.php

// main program

$count = 1;

echo "<p>Main program starting value is $count.</p>";

incrementByValue($count);

echo "<p>Main program after incrementByValue() value is   
 $count.</p>";

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

PassParameters.php

function incrementByReference(&$countByReference) {

++$countByReference;

echo "<p>incrementByReference() value is   
 $countByReference.</p>";

}

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

PassParameters.php

incrementByReference($count);

echo "<p>Main program after incrementByReference() value is   
 $count.</p>";

PassParameters.php

<?php

echo "<h2>Default Arguments</h2>";

function paint($color) {

return "<p>The color of the room is {$color}.</p>";

}

echo paint("blue");

?>

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

PassParameters.php

echo paint("blue");

echo paint();

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

PassParameters.php

function paint($color="red") {

return "<p>The color of the room is {$color}.</p>";

}

echo paint("blue");

echo paint();

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

PassParameters.php

function paint($room="office", $color="red") {

return "<p>The color of the {$room} is {$color}.</p>";

}

echo paint();

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

PassParameters.php

echo paint();

echo paint("bedroom", "blue");

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

PassParameters.php

echo paint();

echo paint("bedroom", "blue");

echo paint("bedroom", null);

PassParameters.php

echo paint();

echo paint("bedroom", "blue");

echo paint("bedroom", null);

echo paint("bedroom");

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

PassParameters.php

echo paint();

echo paint("bedroom", "blue");

echo paint("bedroom", null);

echo paint("bedroom");

echo paint("blue");

**Exercise 02\_02\_01 – Step 3**

VariableScope.php

<h2>Variable Scope</h2>

<?php

$globalVariable = "global variable";

?>

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

VariableScope.php

function scopeExample() {

$localVariable = "local variable";

echo "<p>This is a $localVariable</p>";

}

scopeExample();

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

VariableScope.php

scopeExample();

echo "This is a $globalVariable</p>";

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

VariableScope.php

scopeExample();

echo "This is a $globalVariable</p>";

echo "This is a $localVariable</p>";

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

VariableScope.php

function globalExample() {

echo "<p>This is a $globalVariable</p>";

}

globalExample();

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

VariableScope.php

function globalExample() {

global $globalVariable;

echo "<p>This is a $globalVariable</p>";

}

globalExample();

**Exercise 02\_02\_01 – Step 4**

DiceRoll.php

<h2>Dice Roll</h2>

<?php

$faceNamesSingular = array("one", "two", "three", "four",   
 "five", "six");

$faceNamesPlural = array("ones", "twos", "threes", "fours",   
 "fives", "sixes");

?>

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

DiceRoll.php

function checkForDoubles($die1, $die2) {

global $faceNamesSingular;

global $faceNamesPlural;

echo "Die 1: $die1<br>Die 2: $die2 <br>";

}

checkForDoubles(2, 2);

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

DiceRoll.php

if ($die1 === $die2) {

echo "The roll was double ", $faceNamesPlural[$die1   
 - 1], ".<br>";

}

if ($die1 !== $die2) {

echo "The roll was a ", $faceNamesSingular[$die1 -   
 1], " and a ", $faceNamesSingular[$die2 - 1],   
 ".<br>";

}

}

checkForDoubles(6, 6);

checkForDoubles(1, 6);

DiceRoll.php

~~checkForDoubles(6, 6);~~

~~checkForDoubles(1, 6);~~

$dice = array();

$dice[0] = rand(1,6);

$dice[1] = rand(1,6);

echo "<p>";

$score = $dice[0] + $dice[1];

echo "The total score for the roll was $score.<br>";

checkForDoubles($dice[0], $dice[1]);

echo "</p>";

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

DiceRoll.php

function displayScoreText($score) {

if ($score === 2) {

echo "You rolled snake eyes!<br>";

}

if ($score === 3) {

echo "You rolled a loose deuce!<br>";

}

if ($score === 5) {

echo "You rolled a fever five!<br>";

}

if ($score === 7) {

echo "You rolled a natural!<br>";

}

if ($score === 9) {

echo "You rolled a nina!<br>";

}

if ($score === 11) {

echo "You rolled a yo!<br>";

}

if ($score === 12) {

echo "You rolled boxcars!<br>";

}

}

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

DiceRoll.php

checkForDoubles($dice[0], $dice[1]);

displayScoreText($score);

echo "</p>";

**Exercise 02\_02\_01 – Step 5**

DiceRoll2.php

function checkForDoubles($die1, $die2) {

global $faceNamesSingular;

global $faceNamesPlural;

echo "Die 1: $die1<br>Die 2: $die2<br>";

if ($die1 === $die2) {

echo "The roll was double ", $faceNamesPlural[$die1   
 - 1], ".<br>";

}

else {

echo "The roll was a ", $faceNamesSingular[$die1 -   
 1], " and a ", $faceNamesSingular[$die2 - 1],   
 ".<br>";

}

}

**Exercise 02\_02\_01 – Step 6**

DiceRoll3.php

function displayScoreText($score) {

if ($score === 2) {

echo "You rolled snake eyes!<br>";

}

else if ($score === 3) {

echo "You rolled a loose deuce!<br>";

}

elseif ($score === 5) {

echo "You rolled a fever five!<br>";

}

elseif ($score === 7) {

echo "You rolled a natural!<br>";

}

elseif ($score === 9) {

echo "You rolled a nina!<br>";

}

elseif ($score === 11) {

echo "You rolled a yo!<br>";

}

elseif ($score === 12) {

echo "You rolled boxcars!<br>";

}

else {

echo "Your roll has no nickname!<br>";

}

}

**Exercise 02\_02\_01 – Step 7**

DiceRoll4.php

function checkForDoubles($die1, $die2) {

global $faceNamesSingular;

global $faceNamesPlural;

$returnValue = false;

echo "Die 1: $die1<br>Die 2: $die2<br>";

if ($die1 === $die2) {

echo "The roll was double ", $faceNamesPlural[$die1   
 - 1], ".<br>";

$returnValue = true;

}

else {

echo "The roll was a ", $faceNamesSingular[$die1 -   
 1], " and a ", $faceNamesSingular[$die2 - 1],   
 ".<br>";

$returnValue = false;

}

return $returnValue;

}

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

DiceRoll4.php

$doubles = checkForDoubles($dice[0], $dice[1]);

displayScoreText($score, $doubles);

DiceRoll4.php

function displayScoreText($score, $doubles) {

if ($doubles) {

if ($score === 2) {

echo "You rolled snake eyes!<br>";

}

elseif ($score === 12) {

echo "You rolled boxcars!<br>";

}

}

else {

if ($score === 3) {

echo "You rolled a loose deuce!<br>";

}

elseif ($score === 5) {

echo "You rolled a fever five!<br>";

}

elseif ($score === 7) {

echo "You rolled a natural!<br>";

}

elseif ($score === 9) {

echo "You rolled a nina!<br>";

}

elseif ($score === 11) {

echo "You rolled a yo!<br>";

}

else {

echo "Your roll has no nickname!<br>";

}

}

}

**Exercise 02\_02\_01 – Step 8**

DiceRoll5.php

function displayScoreText($score~~, $doubles~~) {

switch ($score) {

case 2:

echo "You rolled snake eyes!<br>";

break;

case 3:

echo "You rolled a loose deuce!<br>";

break;

case 5:

echo "You rolled a fever five!<br>";

break;

case 7:

echo "You rolled a natural!<br>";

break;

case 9:

echo "You rolled a nina!<br>";

break;

case 11:

echo "You rolled a yo!<br>";

break;

case 12:

echo "You rolled boxcars!<br>";

break;

default:

echo "Your roll has no nickname!<br>";

break;

}

}

**Exercise 02\_02\_01 – Step 9**

DiceRoll6.php

$faceNamesPlural = array("ones", "twos", "threes", "fours",   
 "fives", "sixes");

$doublesCount = 0;

$rollNumber = 1;

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

DiceRoll6.php

$dice = array();

while ($rollNumber <= 5) {

$dice[0] = rand(1,6);

$dice[1] = rand(1,6);

echo "<p>";

$score = $dice[0] + $dice[1];

echo "The total score for the roll was $score.<br>";

$doubles = checkForDoubles($dice[0], $dice[1]);

displayScoreText($score, $doubles);

echo "</p>";

if ($doubles) {

++$doublesCount;

}

++$rollNumber;

}

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

DiceRoll6.php

while ($rollNumber <= 5) {

$dice[0] = rand(1,6);

$dice[1] = rand(1,6);

echo "<p>";

$score = $dice[0] + $dice[1];

echo "The total score for the roll was $score.<br>";

$doubles = checkForDoubles($dice[0], $dice[1]);

displayScoreText($score, $doubles);

echo "</p>";

if ($doubles) {

++$doublesCount;

}

++$rollNumber;

}

echo"<p>Doubles occurred on $doublesCount of the five   
 rolls.</p>";

**Exercise 02\_02\_01 – Step 10**

DiceRoll7.php

do {

$dice[0] = rand(1,6);

$dice[1] = rand(1,6);

echo "<p>";

$score = $dice[0] + $dice[1];

echo "The total score for the roll was $score.<br>";

$doubles = checkForDoubles($dice[0], $dice[1]);

displayScoreText($score, $doubles);

echo "</p>";

if ($doubles) {

++$doublesCount;

}

++$rollNumber;

} while ($rollNumber <= 5);

**Exercise 02\_02\_01 – Step 11**

DiceRoll8.php

for ($rollNumber = 1; $rollNumber <= 5; $rollNumber++) {

$dice[0] = rand(1,6);

$dice[1] = rand(1,6);

echo "<p>";

$score = $dice[0] + $dice[1];

echo "The total score for the roll was $score.<br>";

$doubles = checkForDoubles($dice[0], $dice[1]);

displayScoreText($score, $doubles);

echo "</p>";

if ($doubles) {

++$doublesCount;

}

}

**Exercise 02\_02\_01 – Step 12**

DiceRoll9.php

$faceNamesPlural = array("ones", "twos", "threes", "fours",   
 "fives", "sixes");

$faceValues = array(1, 2, 3, 4, 5, 6);

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

DiceRoll9.php

~~$dice = array();~~

$rollcount = 0;

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

DiceRoll9.php

$rollcount = 0;

$scoreCount = array();

for ($possibleRolls = 2; $possibleRolls <= 12;   
 $possibleRolls++) {

$scoreCount[$possibleRolls] = 0;

}

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

DiceRoll9.php

foreach ($faceValues as $die1) {  
 foreach ($faceValues as $die2) {  
 echo "<p>";  
 echo "The total score for the roll was $score.<br>";  
 $doubles = checkForDoubles($dice[0], $dice[1]);  
 displayScoreText($score, $doubles);  
 echo "</p>";  
 if ($doubles) {  
 ++$doublesCount;  
 }  
 } }

DiceRoll9.php

foreach ($faceValues as $die2) {

++$rollcount;

$score = $die1 + $die2;

++$scoreCount[$score];

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

DiceRoll9.php

echo "The total score for the roll $rollCount was   
 $score.<br>";

$doubles = checkForDoubles($die1, $die2);

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

DiceRoll9.php

echo"<p>Doubles occurred on $doublesCount of the $rollCount   
 rolls.</p>";

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

DiceRoll9.php

echo"<p>Doubles occurred on $doublesCount of the $rollCount   
 rolls.</p>";

foreach ($scoreCount as $scoreValue => $scoreCount) {

echo "<p>A combined value of $scoreValue occurred   
 $scoreCount of $rollCount times.</p>";

}

**Project 02\_02\_01**

**Part 1**

ConditionalScript.php

<!doctype html>

<html>

<head>

<!--

Exercise 02\_02\_01

Author: Mark J. Buckler

Date: September 23, 2017

Filename: ConditionalScript.php

-->

<title>Conditional Script</title>

<meta charset="UTF-8">

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

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

</head>

<body>

<h2>Conditional Script</h2>

<?php

?>

</body>

</html>

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

ConditionalScript.php

<?php

$intVariable = 75;

$result = "";

($intVariable > 100) ? $result = '$intVariable is greater   
 than 100' : $result = '$intVariable is less than or   
 equal to 100';

echo '<h3>$result: ' . "$result</h3>";

?>

ConditionalScript.php

if ($intVariable > 100) {

$result = '$intVariable is greater than 100';

}

else {

$result = '$intVariable is less than or equal to 100';

}

**Part 2**

OddNumbers.php

<?php

$counter = 1;

while ($counter <= 100) {

if ($counter % 2 === 1) {

echo "$counter<br>";

}

++$counter;

}

?>

**Part 3**

WhileLogic.php

<?php

$counter = 0;

while ($counter > 100) {

$numbers[] = $counter;

++$counter;

}

foreach ($count as $currentNum) {

echo "$currentNum<br>";

}

?>

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

WhileLogic.php

<?php

$counter = 1;

while ($counter <= 100) {

$numbers[] = $counter;

++$counter;

}

foreach ($numbers as $currentNum) {

echo "$currentNum<br>";

}

?>

**Part 4**

GasPrices.php

<?php

$gasPrice = 2.57;

if ($gasPrice >= 2) {

if ($gasPrice <= 3) {

echo "<p>Gas prices are between $2.00 and   
 $3.00.</p>";

}

}

?>

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

GasPrices.php

<?php

$gasPrice = 2.57;

if ($gasPrice >= 2 && $gasPrice <= 3) {

echo "<p>Gas prices are between $2.00 and $3.00.</p>";

}

?>

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

GasPrices.php

if ($gasPrice >= 2 && $gasPrice <= 3) {

echo "<p>Gas prices are between $2.00 and $3.00.</p>";

}

else {

echo "<p>Gas prices are not between $2.00 and   
 $3.00.</p>";

}

**Part 5**

CoastCityComputers.php

<!doctype html>

<html>

<head>

<!--

Exercise 02\_02\_01

Author: Mark J. Buckler

Date: September 23, 2017

Filename: CoastCityComputers.php

-->

<title>Coast City Computers</title>

<meta charset="UTF-8">

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

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

</head>

<body>

<?php include("inc\_header.php"); ?>  
 <h2>Memorial Day Sale</h2>

<ul>

<li>Compaq Presario m2007us Notebook:

<strong>$799.99</strong></li>

<li>Epson Stylus CX6600 Color All-In-One Printer,   
 Print/Copy/Scan:<strong>$699.99</strong></li>

<li>Proview Technology Inc. KDS K715s 17-inch LCD   
 Monitor, Silver/Black:<strong>$199.99</strong></li>

<li>Hawking Technology Hi-Speed Wireless-AC Cardbus   
 Card:<strong>$9.99</strong></li>

</ul>

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

</html>

inc\_header.php

<h1>Coast City Computers</h1>

<strong>Buy Online or Call 1-800-555-1212</strong>

<hr>

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

inc\_footer.php

<hr>

<strong>Updated</strong>&nbsp;06 January, 2017<br>

&copy; 2017 by Coast City Computers<br>

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**Part 6**

TempConversion.php

<!doctype html>

<html>

<head>

<!--

Exercise 02\_02\_01

Author: Mark J. Buckler

Date: September 23, 2017

Filename: TempConversion.php

-->

<title>Temp Conversion</title>

<meta charset="UTF-8">

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

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

</head>

<body>

<h1>Temp Conversion</h1>

<?php

$tempFahrenheit = 0;

while ($tempFahrenheit <= 100) {

$tempCelsius = ($tempFahrenheit - 32) \* (5/9);

echo "Fahrenheit: $tempFahrenheit Celsius: " .   
 number\_format($tempCelsius, 2) . "<br>";

++$tempFahrenheit;

}

?>

</body>

</html>