

CIT 106: Web Technology - I Assignment #8

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1 Introduction

1.1 Starting PHP Script



Info: You can install PHP from PHP.NET To run the PHP server go to the folder of your PHP files and run in terminal:



Command Line

```
php -S 127.0.0.1:8080 -t .
```

1.2 PHP Basics

When PHP parses a file, it looks for opening and closing tags, which are `<?php` and `?>` which tell PHP to start and stop interpreting the code between them. Parsing in this manner allows PHP to be embedded in all sorts of different documents, as everything outside of a pair of opening and closing tags is ignored by the PHP parser.

```
basic.php
1 1. <?php echo 'if you want to serve PHP code in XHTML or XML documents,
2     use these tags'; ?>
3
4 2. You can use the short echo tag to <?= 'print this string' ?>.
5 It's equivalent to <?php echo 'print this string' ?>.
6
7 3. <? echo 'this code is within short tags, but will only work '.
8 'if short_open_tag is enabled'; ?>
```

1.3 Escaping from HTML

```
escaping.php
1
2 <?php if ($expression == true): ?>
3 This will show if the expression is true.
4 <?php else: ?>
5 Otherwise this will show.
6 <?php endif; ?>
```

2 Lab Objectives

1. Learning to use PHP as back-end script.
2. Learning the control loops and arrays.

3 Examples

```
arrays.php
1 <?php
2 // Define a multidimensional array
3 $students = array(
4     array("John", "Doe", 25),
5     array("Jane", "Doe", 23),
6     array("Bob", "Smith", 30),
7 );
8
9 // Access elements in the array
10 echo $students[0][0] . " " . $students[0][1] . " is " .
11 $students[0][2] . " years old. <br>";
12 echo $students[1][0] . " " . $students[1][1] . " is " .
13 $students[1][2] . " years old. <br>";
14 echo $students[2][0] . " " . $students[2][1] . " is " .
15 $students[2][2] . " years old. <br>";
16
17 // Add a new student to the array
18 $students[] = array("Alice", "Johnson", 28);
19
20 // Loop through the array and print out each student's information
21 foreach ($students as $student) {
22     echo $student[0] . " " . $student[1] . " is " .
23     $student[2] . " years old. <br>";
24 }
25 ?>
```

strings.php

```
1 <?php
2 // Define a string
3 $string = "Hello, World!";
4
5 // Convert the string to uppercase
6 $uppercase_string = strtoupper($string);
7 echo "Uppercase: " . $uppercase_string . "<br>";
8
9 // Convert the string to lowercase
10 $lowercase_string = strtolower($string);
11 echo "Lowercase: " . $lowercase_string . "<br>";
12
13 // Get the length of the string
14 $length = strlen($string);
15 echo "Length: " . $length . "<br>";
16
17 // Get a substring of the string
18 $substring = substr($string, 0, 5);
19 echo "Substring: " . $substring . "<br>";
20
21 // Replace part of the string with another string
22 $replaced_string = str_replace("World", "PHP", $string);
23 echo "Replaced string: " . $replaced_string . "<br>";
24
25 // Find the position of a substring within the string
26 $position = strpos($string, "World");
27 echo "Position: " . $position . "<br>";
28 ?>
```

control.php

```
1 <?php
2 // Define a variable
3 $num = 10;
4
5 // If statement
6 if ($num > 0) {
7     echo "The number is positive.<br>";
8 }
9
10 // If-else statement
11 if ($num % 2 == 0) {
12     echo "The number is even.<br>";
13 } else {
14     echo "The number is odd.<br>";
15 }
16
17 // Switch statement
18 switch ($num) {
19     case 10:
20         echo "The number is ten.<br>";
21         break;
22     case 20:
23         echo "The number is twenty.<br>";
24         break;
25     default:
26         echo "The number is neither ten nor twenty.<br>";
27         break;
28 }
29
30 // While loop
31 $i = 0;
32 while ($i < 5) {
33     echo "The value of i is: " . $i . "<br>";
34     $i++;
35 }
36
37 // For loop
38 for ($j = 0; $j < 5; $j++) {
39     echo "The value of j is: " . $j . "<br>";
40 }
41
42 // Foreach loop
43 $colors = array("red", "green", "blue");
44 foreach ($colors as $color) {
45     echo "The color is: " . $color . "<br>";
46 }
47 ?>
```

4 Lab Questions

Question 1

Write a PHP script to iterate over list of students. Display the marks on practical, theory and sum of the practical and theory marks. Total Subjects to work on: 5.

Subjects: {"Maths", "Physics", "Chemistry", "Biology", "English"}
Total Score: 100