Facilitator Meeting
Instructions 6 – PHP Data Types and Operators

Aims:

- Develop an understanding of the basic use of *variables, arrays and expressions* in PHP.
- Gain some of the knowledge and skills needed to complete Assignments.

The tasks are due next week by your facilitator meeting. Email the link of your web page running on the Mercury server to your facilitator before the due date to be marked off. Tasks will not be marked if the email is not received.

Task 1: Using PHP variables, arrays and if statements

In this task we will

- Inspect create an **array** and initialise it with values
- Use an **if** statement to process the values
- Use PHP to generate some HTML.

- **Remember:** PHP script generates HTML on the ***server*,** and then **returns it to the *client* Browser.** So you ***must*** upload your PHP files to **mercury** so they are processed by the PHP engine that is attached to the HTTP server.
- All web pages delivered to the client should conform to HTML5 and should be validated.

Step 1: Create a PHP script

Create a new folder **lab06** under the unit folder on the mercury server in your htdocs folder.
Save today's work in this folder. Create a file **myfirst.php** with a PHP script. The script does the following:

1. Declares and initialises an **array** named **$marks[]** and with three integer elements 85, 85 and 95.
2. Modifies the value of the second element to contain 90.
3. Computes the average score of the values from the three elements and stores the result in **$ave.**
4. Uses an **if** statement to assign a value of **"PASSED"** to variable **$status** if the average is at least 50, otherwise assigns a value of **"FAILED".**
5. Uses output statements to display **"The average score is "** along with the averaged value and **" You "** followed by the status.

Use any text editor on your local computer (e.g. Notepad++) and code the following:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8"/>
    <title>Using PHP Variables, arrays and operators</title>
    <!-- add other meta -->
</head>
<body>
    <h1>PHP Variables, arrays and operators </h1>
<?php
    $marks = array (85, 85, 95);  // declare and initialise array
    $marks[1] = 90;    // modify second element
    $ave = ($marks[0] + $marks[1] + $marks[2])/3;  //Compute Average
    if($ave >= 50)
        $status = "PASSED";
    else
        $status = "FAILED";
    echo "<p>The average score is $ave. You $status.</p>";
?>

</body>
</html>
```

Note the syntax here. We have used double quotes, so the variables are evaluated

Step 2: Load to the Server

Use WinSCP or similar to copy the file **myfirst.php** to your **lab06** folder on Mercury.

Remember that PHP only works on a server - you cannot run it from the local drive.

Step 3: Test

Test in the browser, and check that the page is valid HTML5.

How to validate a PHP page? Open the page **from the server**, right click the page and choose view page source, copy the page source, paste it to the html validator https://validator.w3.org/ to make sure it is valid HTML 5.

Task 2: Experimenting on arrays

In this task we will apply the approach covered in Task 1 to a similar problem.

Step 1: Create the PHP script

Create a file **daysarray.php** with a PHP script that declares and initialises an **array** named **$days[]** and with the days of the week Sunday, Monday, etc.

Use output statements to display "The Days of the week in English are:" along with the values in the **$days[]** array.

Step 2: Load and test on the server

Copy to the server, test in the browser, and check that the page is valid HTML5.

Step 3: Change the script

Add some more code to re-assign the values in the **$days[]** array with the days of the week in French, Sunday is *Dimanche*, Monday is *Lundi*, Tuesday is *Mardi*, Wednesday is *Mercredi*, Thursday is *Jeudi*, Friday is *Vendredi*, and Saturday is *Samedi*.

Then use output statements to display "The days of the week in French are:" along with the French values in the **$days[]** array

Step 4: Load and test again

Re-save the document as **daysarray.php**, to the server, test in the browser, and again check that the page is valid HTML5.