Tutorial 1

Before we start, it's a good idea to refresh your memory of PHP programming. Here are some exercises for you to try. If you get stuck or you want to discuss your answers, use the discussion below or come to the online tutorial for Week 1. I've also enabled "class conversations", so you can type questions against the text of the exercise

About running the exercises : If you are doing these at home, you should be able to use the command line of a terminal or console window on your machine to run them. Otherwise, you can put them in your web server document root folder) under a web server (for example, your public_html directory on the university web server) and use a URL in a browser to run them - the output will then appear in your browser rather than in a terminal.

Some exercises mention local servers or local databases - if you wish to practice these exercises using university servers, then just use your public_html directory under the university web server with an appropriate URL and the student MySQL database in place of the local servers mentioned.

Please try to attempt these exercises before the tutorial and then bring along any problems or points to discuss to the tutorial itself.

Exercise 1 - Calculating module marks

Write an HTML form that will calculate the module mark for this module, given marks for the two assessments. The form should allow the student to enter their marks for coursework 1 and for coursework 2. Write a PHP program that takes these values sent from the form (i.e., the action attribute on the form should point to the PHP program on the server using its URL), calculates the overall mark for the module, and then displays this to the user. The overall mark is the sum of the weighted coursework marks. Coursework 1 has a weight of 40% and Coursework 2 has a weight of 60%, so the overall module mark is given by the formula M = (CW1 * 0.4) + (CW2 * 0.6).

Deploy and test your code on the university web server.

Exercise 2

The following students recently did 6COSC022W and received these marks:

Samwise Gamgee	88
Frodo Baggins	56
Elrond Half-Elven	92
Gandalf Mithrandir	35
Merry Brandybuck	41
Pippin Took	25
Legolas Greenleaf	67

Create an HTML form that asks the user to enter a mark. Then write a PHP program that contains the above student data in an array. The program should take the data from the form and build a web page listing all the students who got that mark and above.

Exercise 3

Access the university student database server. You can find details about the database server, including your login details here:

https://support.ecs.westminster.ac.uk/w/index.php/Databases.

Create a table called 'books'. The table should contain information such as title, author, year of publication, and price. Put some sample data into the table using the phpmyadmin interface.

Create a PHP program that allows you to query the database based on title or author or year of publication. There should be a web page that displays a form where the user can enter the data for the search (such as year). Pressing the submit button on the form should then execute the PHP program which will,

   (i)   retrieve the data sent from the form
   (ii)   connect to and query the database to get matching books, and
   (iii)   build a web page that lists the matching books.

See if you can get the PHP program to display both the page with the form as well as the page listing the matching books (hint: look to see if the form data is present - if not, then build the form, if it is, get the data from the database etc.)