COWB40385 Introduction to Web Programming

# Introduction to Web Programming Assessment Part 3

## Preliminary

Each exercise below should be completed as a separate web page. Once you have completed Exercise One you should make a copy of the web page you have produced and use that copy as the basis for Exercise Two. This process should be repeated until completion of the final exercise.

All web pages should use, and be compliant with, the following doctype:

<!DOCTYPE html>

All functionality should take place on the server and be written in PHP.

## Exercise One – Bingo Card

Create a PHP web page which generates a 5x5 bingo card. Have a heading row with B, I, N, G and O as column headings.

Populate the card with random, non-repeating numbers up to 75, and having 1 free square in the middle, similar to the one shown in Figure 1.

The numbers should be arranged so that column B has numbers between 1-15, column I numbers 16-30, column N 31-45, column G 46-60 and O 61-75.

Add a button that generates a new card every time you click it.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **B** | **I** | **N** | **G** | **O** |
| 2 | 23 | 42 | 66 | 84 |
| 4 | 25 | 47 | 68 | 92 |
| 6 | 33 | **Free** | 70 | 93 |
| 7 | 36 | 52 | 72 | 94 |
| 14 | 37 | 58 | 73 | 95 |

Figure : Example bingo card layout

## Exercise Two – Calculator

Implement a simple addition, subtraction, multiplication and division calculator in PHP. You should use 1 text box, for inputting numbers, which accepts **integer values only**. You should also include four buttons (to add, subtract, divide and multiply). The calculation should allow for any number of integer values and mathematical operations to be entered. Your calculator should produce a running total.

## Exercise Three – Sessions

Create a three page web site that allows a user (Fred) and password (Bloggs) to logon. The first page should allow the logon/logoff operation to occur and give links to the other pages. The second page should be visible by any user but if a logged on user is visited, it should display a personalised welcome message. The last page should only be viewable by a valid user and should direct the user to login if invalid.

## Exercise Four – Hidden Fields

Create a four stage registration ‘wizard’. You may implement this as one or multiple scripts. Each stage should supply the previously collected information as hidden fields for output at the final step.

Stage one – name and address.

Stage two – date of birth, desired username and password, and mother’s maiden name.

Stage three – terms & conditions (make those up) a T&C acceptance checkbox and an e-mail address to receive promotional material.

Stage four – a confirmation page, listing all of the input entered.

# Assessment Criteria

## Contribution of Parts 1, 2 and 3 to the Coursework

Assessment Part 1, Assessment Part 2 and Assessment Part 3 will be handed out between weeks 2 and 4 inclusive. The three parts constitute 40% of the overall mark for the coursework. The coursework constitutes 100% of the marks available for the module.

Of the 40% contributed by Parts 1, 2 and 3 the individual allocation is as follows:

Part 1: 10%

Part 2: 14%

Part 3: 16% (this part)

**Total: 40%**

## Marks Allocation for Assessment Part 3

### Functionality marks (worth 80% of the marks available for Part 1)

2=Functionality completed, 1=Good attempt, 0=Poor attempt/No attempt

|  |  |  |
| --- | --- | --- |
|  | **Functionality** | **Marks (out of)** |
| Exercise 1 | Generate 5x5 bingo card | 2 |
| Include required column headings | 2 |
| Populate card with numbers | 2 |
| Numbers randomly generated from 1 to 75 | 2 |
| No numbers repeat | 2 |
| Numbers arranged in correct columns | 2 |
| Exercise 2 | Single text box entry | 2 |
| Accept integers only | 2 |
| Perform addition | 2 |
| Perform subtraction | 2 |
| Perform multiplication | 2 |
| Perform division | 2 |
| Keep running total | 2 |
| Exercise 3 | Only Fred (user) Bloggs (password) can log on | 2 |
| Log off | 2 |
| Personalised greeting if logged in | 2 |
| Access to secure page only if logged in | 2 |
| Redirect to log in page if not logged in (not authorised) | 2 |
| Exercise 4 | Page1:Accept name and address | 2 |
| Page2:Accept dob, username, password and mother’s maiden name | 2 |
| Page3:Accept acceptance of T&C and accept email address | 2 |
| Page4:Confirm and output values | 2 |
| Use hidden fields | 2 |

### Discretionary Mark (worth an additional 20% of the marks available for Part 3)

There will be a further mark available as the discretion of the assessor to be awarded for the adoption of best practices as evidenced in the PHP code.

|  |  |
| --- | --- |
| **Function/Requirement** | **Mark (out of)** |
| Adoption of ‘best practice’ PHP development | 100 |

70+

Exceptional code of a professional standard that is clearly written (indented, variables and functions well named, follows a naming convention) using a consistent style with little or no duplication and is well documented (code commenting).

60-69

Very good code that is clearly written (indented, variables and functions well named, follows a naming convention) using a consistent style with little or no duplication and has some documentation (code commenting).

50-59

Very good code that is clearly written (indented with good naming convention) some documentation (code commenting).