Lab 6 – Managing State Information

Create a new folder '**lab06**' under the unit folder on the cmslamp14 server
Save today's work in this lab06 folder.

Task 1: Up and down counter using session (8 marks)

The overall task is to create a simple web application that displays an integer and contains three links to update the integer. One link increments the integer by 1, another link decrements the integer by 1, and the last link sets it to 0.

Step 1:
Create a file **number.php** that starts up a session, creates a session variable if it does not exists and displays it on the web page.

```php
<?php
  session_start();                      // start the session
  if (!isset ($_SESSION["number"])) {   // check if session variable exists
    $_SESSION["number"] = 0;            // create the session variable
  }
  $num = $_SESSION["number"];           // copy the value to a variable
?>

<html>
<head>
    <title>Managing Session</title>
</head>
<body>
<h1>Web Development - Lab06</h1>
<?php
    echo "<p>The number is $num</p>";       // displays the number
?>
<p><a href="numberup.php">Up</a></p>        <!—links to updating page -->
<p><a href="numberdown.php">Down</a></p>
<p><a href="numberreset.php">Reset</a></p>
</body>
</html>
```

Step 2:
Create a file **numberup.php** that increments the session variable by 1. This page does not contain any HTML tags and redirects to the **number.php** after update.

```php
<?php
  (____(1)____);                      // start the session
  (____(2)____);                      // copy the value to a variable
  $num++;                             // increment the value
  $_SESSION["number"] = $num;         // update the session variable
  header("location:number.php");      // redirect to number.php
?>
```

Step 3:
Create a file **numberdown.php** that decrements the session variable by 1. This page does not contain any HTML tags and redirects to the **number.php** after update.

```php
<?php
  (____(3)____);                      // start the session
  (____(4)____);                      // copy the value to a variable
  (____(5)____);                      // decrement the value
  (____(6)____);                      // update the session variable
```

```
      (_____(7)_____);                    // redirect to number.php
   ?>
```

Step 4:

Create a file **numberreset.php** that clears out all session variables and redirects to the **number.php** after reset.

```
   <?php
     session_start();           // start the session
     (____(8)____);             // unset all session variables
     (____(9)____);             // destroy all data associated with the session
     (____(10)____);            // redirect to number.php
   ?>
```

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

Task 2: Creating a simple "Guessing Game" (2 marks)

The overall task is to create a simple web application that generates and uses **sessions** to store a random number between 0 and 100.

Step 1:

Create a file **guessinggame.php** that will be the main page for the game. In this page, a user inputs their guess; the page displays the number of times the user has guessed; whether their number is higher or lower than the generated number; and congratulates them when they guess correctly. (Checking always if the input data is "in-range" and is numeric). It also include a 'Give Up' link to giveup.php, and a 'Start Over' link to startover.php.

Guessing Game

Enter a number between 1 and 100, then press the Guess button.

[_____] Guess

Congratulations! You guessed the hidden number.

Number of guesses: 5.

Give Up

Start Over

Hint:
The PHP's rand() function can be used to generate a random integer.
The rand() function accepts two arguments: the first argument specifies the minimum integer to generate; and the second argument specifies the maximum integer to generate.
For example, the statement
$randNum = rand(10,20) generates a random integer between 10 and 20 and assigns the number to the $randNum variable.

Step 2:

Create a file giveup.php that displays the random number generated for the current game. The value of the random number is accessed via the session variable.

Guessing Game

The hidden number was: **40**

Start Over

Step 3:

Create a file startover.php that has no html tags, it simply destroys the session then **redirects** the user back to guessinggame.php

Hint: Use header("location:URL") function to provide redirection.