BCIT

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

PHP MATH GAME

You will build a PHP application that revolves around a math game.

The user is given a random math question that involves the addition or subtraction of two numbers. These are the rules you must adhere to regarding questions asked:

- The numbers and operators (addition and subtraction) are generated randomly. Each randomly generated number must be an integer ranging from 0 to 50. Note that both 0 and 50 are included in this range.

  NOTE: It is not hard to extend the math game to do multiplication and division. This was not done for simplicity.

- The user is asked a question (example: 9 + 3) and is presented with a text box for the answer. The user enters an answer, then clicks on a button and it tells if he/she got it right or wrong and subsequently asks another question. The game continues asking more questions indefinitely and never ends.
- A user must login to play the math game.
- The game displays a count of rights answers out of total questions asked.
- The login page should be named *login.php* and the main page of your application (math game) should be named *index.php*.

JOURNEY

Your application will behave like http://1536.azurewebsites.net, which is deployed on Azure:

- Login with these credentials:

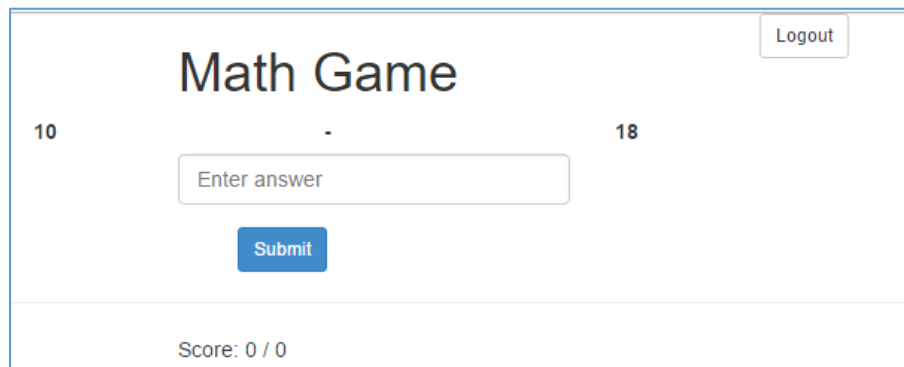| email	password
a@a.a	aaa
b@b.b	bbb

- These login credentials are saved in a text file on the server named *credentials.config*. The contents of the *credentials.config* file are:

  a@a.a, aaa
  b@b.b, bbb

Of course, this is not what is done in the real world. In the real world, usernames and passwords are saved in a database and are encrypted.

You must create these same credentials in your solution so that your instructor knows what username & password to use when testing your application.

- If you enter the proper credentials, then a session variable is set and you will see the main page like this:

- When you enter an answer, and click on *Submit*, the application with tell you whether your answer is correct. It then keeps a score and continues asking you more questions. This continues indefinitely.
- At any time, you can click on *Logout*. Internally, this simply invalidates a session variable.
- Validate your deployed website and make sure it conforms to HTML5 standards.

It is not necessary that your application looks exactly as the demo. However, it should have the same functionality.

HINTS:

- The PHP *rand(0,50)* function will randomly return a number between 0 and 50. Both 0 and 50 are included.
- Every PHP page must start with *session_start()*.
- The string concatenation operator is . (period) in PHP.
- Use the PHP *isset()* function to check whether or not a variable exists.
- Use the PHP *is_numeric()* function to check whether or not a field is numeric.
- The PHP command to redirect to *index.php* is: *header("Location: index.php"); die();*

SUBMISSION

1) The folder that contains your entire website must be named *LastName1_LastName2*. Example: Jones_Baker for students Ann Jones & Tom Baker.

2) Include a *readme.txt* file in the root of your web site. The *readme.txt* file must include the following information:

- Your *names, student numbers, set* and *email* addresses
- What you have completed
- What you have not completed
- Any major challenges
- The Azure URL address of your deployed website

3) Your submission consists of a ZIP file named: "*StudentId(1)_ StudentId(2)_set_assign03.zip*". (example: *A00123123_A00234234_1B_assign03.zip*). Any other file compression standard like .rar, .7z, etc… will not be accepted. Only the *.zip* standard is accepted.

4) Each team must make only one submission. If you make more than one submission then you should use the same file name and clearly version the file by adding _v2, _v3, etc..

5) Your *ZIP* file will include all directories and files comprising your entire website. This includes all PHP, images, html, and CSS style files.

6) Submit your ZIP file into your lab's D2L dropbox folder for Assignment #3. While uploading your file to Azure, enter a D2L comment with the deployment URL address of your website.

MARKING GUIDE:

Task	Max Mark	Actual Mark
Website deployed to Azure	6	
Math Game works as expected	8	
Login / Logout works as expected Username and password saved in a text file named credentials.config	2	
Best practices • external style sheet • relative addressing • every page has a title • images and CSS in dedicated folders • home page is *index.php*	2	
HTML5 • Conformance to HTML5 standards • Appropriate use of HTML5 sematic tags	2	
TOTAL:	20	

If your submission does not comply with submission rules then you will lose 10% of the mark.