WAD LABORATORY 2

1 Objectives covered in this laboratory

- To develop an understanding of the basic use of variables in PHP.
- To develop an understanding of the basic use of functions & control structures in PHP.

2 Exercises

NOTE: Questions (a) – (d) are required exercises for all students, while Question (e) is an additional exercise.

(a) to (e) are 2.5 points each

a) Copy the code of “example_conditional.php” example from Canvas, into your mercury account, the various files from Lecture 2 which are stored in the Lab 2 folder, within the labs section on Canvas. Change the code to use “if/elseif/else” statements instead of “switch” statement to output the same result.

b) Copy the code of “example_loop.php” from Canvas, into your mercury account, the various files from Lecture 2 which are stored in the Lab 2 folder, within the labs section on Canvas. Now the code implements two functions, that given an input integer, the code can calculate either the factorial of that number or the Fibonacci numbers. Modify this file and add one more function that calculates the sum of all integers from 1 to the given number (see Figure 1 and Figure 2).

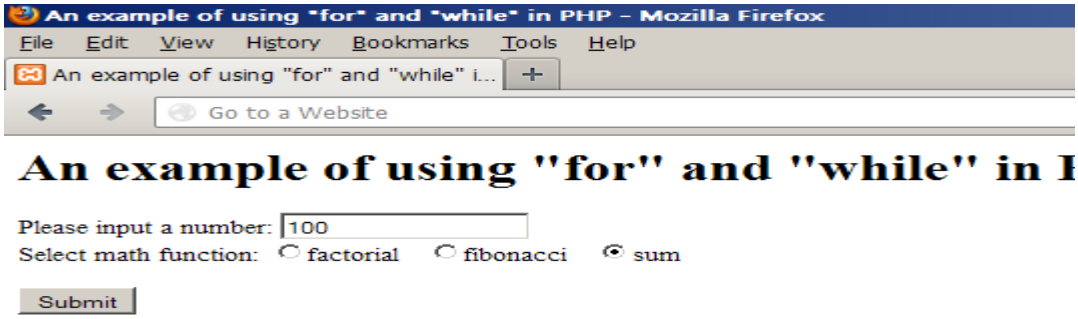

Figure 1 Add a “sum” function

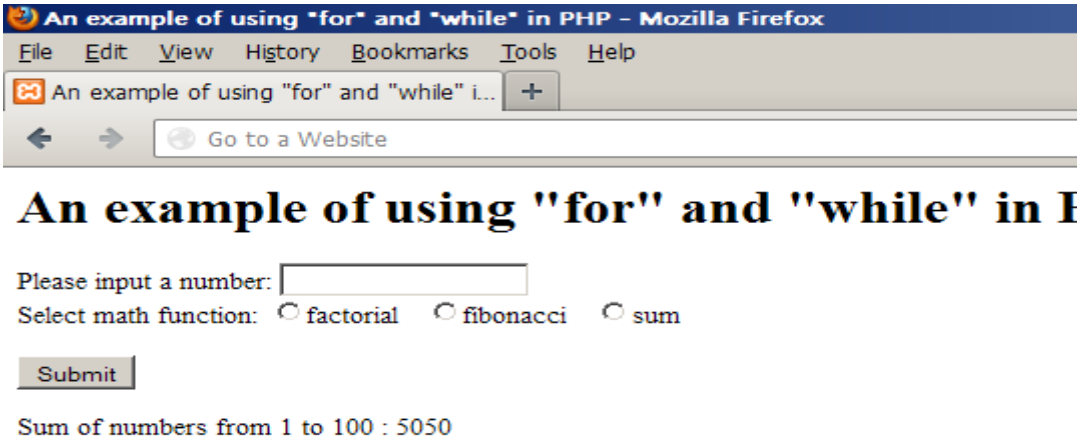

Figure 2 The result of "sum" function

c) Create a file on your editor and copy the code below into the file. What output do you think the code will produce? Then upload this code to mercury server and run it through a web browser and check the result. Change the code from 'echo $i--' to 'echo --$i'. Now what output do you think the code will produce? Run this code in mercury and check the result.

```
<?php
$i = 10;
while ($i>0)
{
    if ($i == 8)
    {
        $i--;
        continue;
    }
    if ($i == 5)
    {
        break;
    }
    echo $i--; //then change this line to 'echo --$i;'
}
?>
```

d) Write a PHP page, which provide a text box and a button on the page. The user can input an integer (the number should be larger than 0) in the text box and press the button, then the web page prints all the integers from the given number to 1 except the those numbers that can divide the given integer evenly. (For example, if the user input a number of 12, then the page prints the result as "12,11,10,9,8,7,5,1", because 12 can be divided evenly by 6,4,3,2. Always output the number itself and the number 1).

(Hint: You can use 'continue' and 'break' statements.).

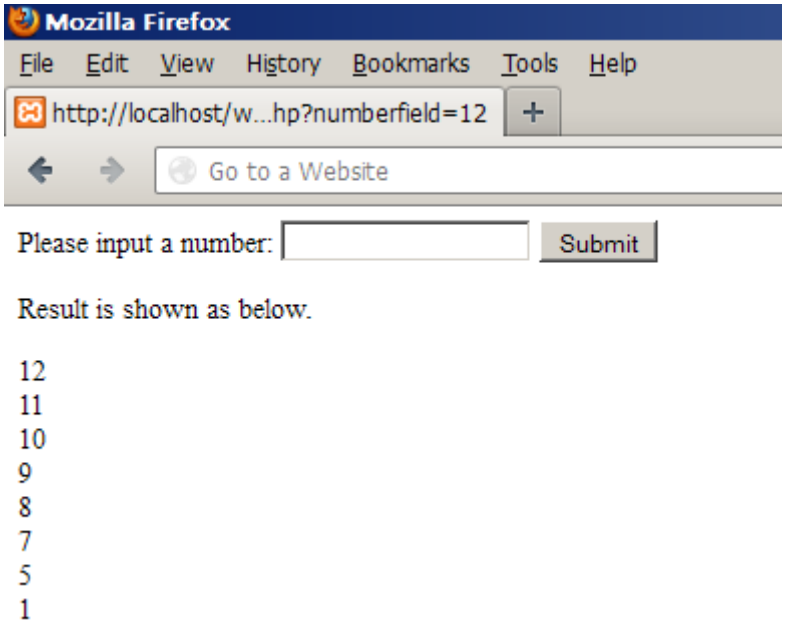

Figure 3 the example of printing number in d when the input is 12)

e) Write a simple online quiz. Initially, the web page shows 5 questions, and each question has four options. User can choose the answer of each question, then click "submit" button to submit the results to server. The PHP page analysis the submitted results then print the score (see Figure 4 and Figure 5). You don't need to use the same questions as shown. You can create your own questions.

(Hint: You can use "radio" input controls to get user input.)

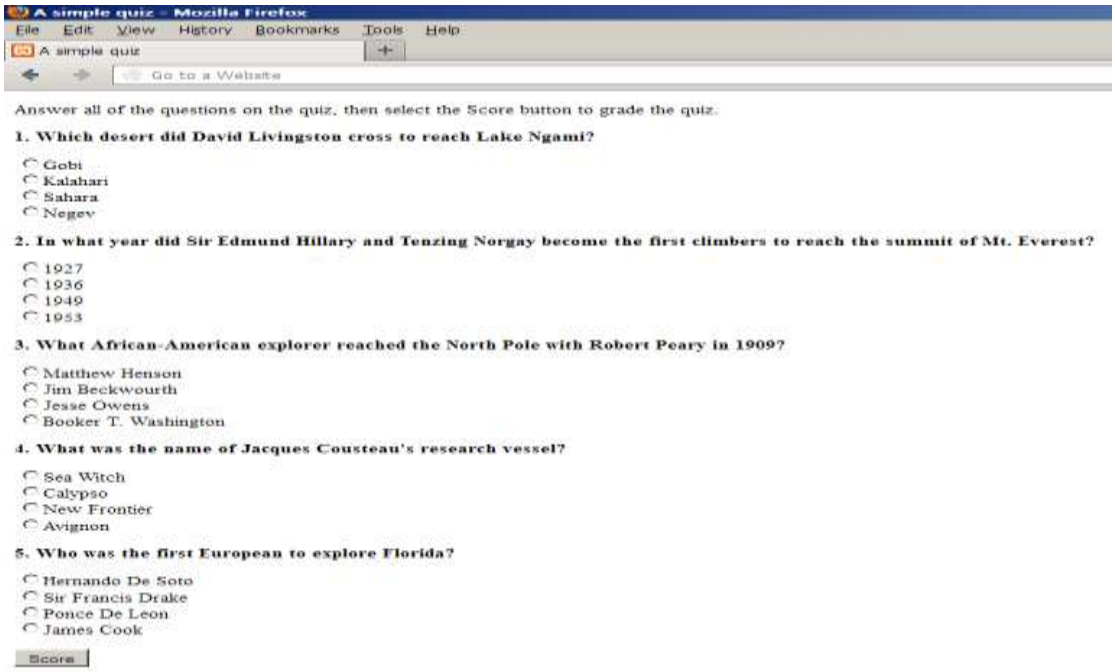

Figure 4 A simple quiz

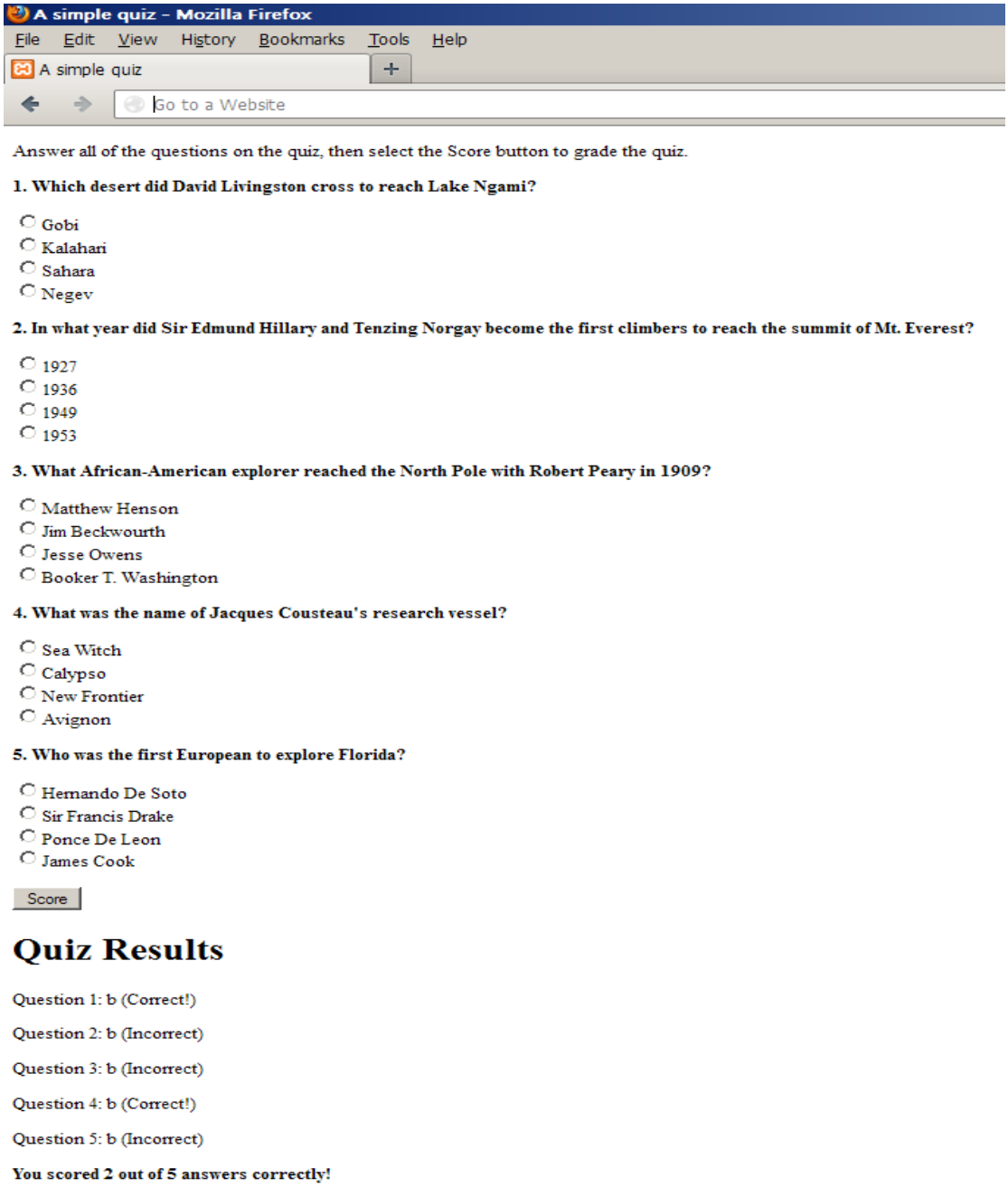

Figure 5 Quiz score