East West University
CSE480: Web Database Programming
Section: 2, Lab Manual: Lab 4 (Basic PHP)

Solve the following problem using PHP, you can use HTML Form to take input.

1. Write a PHP script that displays the harmonic mean of all numbers between 2000 and 8000 that are prime.

2. Create a script to construct the following pattern, using a nested for loop. Take an input n= 5 (use HTML Form to take input) and produce like the following pattern.

    ```
    * * * * * * * * *
     * * * * * * *
      * * * * *
       * * *
        *
       * * *
      * * * * *
     * * * * * * *
    * * * * * * * * *
    ```

3. 12. Write a PHP function to change the following array's all values to upper or lower case.
    Sample arrays :
    $Color = array('A' => 'Blue', 'B' => 'Green', 'c' => 'Red');
    Expected Output :
    Values are in lower case.
    Array ([A] => blue, [B] => green, [c] => red)
    Values are in upper case.
    Array ([A] => BLUE, [B] => GREEN, [c] => RED)

4. Write a PHP program to sort a list in descending order of elements using Bubble sort.

5. Create a script that displays 1-2_3#4_5-6#7-8_9#10 on one line. There will be no hyphen (-), underscore (_), and hash(#) at starting and ending position.

6. Write a program in PHP to find sum of the right diagonals of a matrix.
    Test Data :
    Input the size of the square matrix : 2 (take the number using HTML Form)
    Input elements in the first matrix :
    element - [0],[0] : 1
    element - [0],[1] : 2
    element - [1],[0] : 3
    element - [1],[1] : 4
    Expected Output :
    The matrix is :
    1 2
    3 4
    Addition of the right Diagonal elements is :5

7. Write a PHP script to remove the special character from a string. Sample special character: [!@#$%^&*-_=+\<>?/]

8. Write a PHP script that creates the following table.

   input = 10;(Use HTML form to take input data)

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

9. Write a PHP program to display the number rhombus structure.

   Test Data
   Input the number: 7 (take the number using HTML form)
   Expected Output:

```
         1
        212
       32123
      4321234
     543212345
    65432123456
   7654321234567
    65432123456
     543212345
      4321234
       32123
        212
         1
```