Lab 6 – Logical and Conditional Statements

# Purpose

* Solve problems using logical and conditional statements of PHP

# Due Date

* This lab must be handed in:

**Sunday Feb 23, 2025 – before midnight**

# Assessment

* This Lab is worth 2% of your total course mark.

# Assigned Readings

* **Lecture Slides** posted on Brightspace.
* Module 3 -> Part 2
* The following chapters of **Fundamentals of Web Development** will be useful in completing this exercise:
* Chapter 12

# Lab Supplies

To complete this lab you will require the following lab supplies:

* Textbook: **Fundamentals of Web Development** by Randy Connolly and Ricardo Hoar
* EasyPHP, or other WAMP server
* Eclipse, Notepad++ (or other text editor, or IDE)

# Summary of Tasks

1. Develop the logic to solve and display the output for ChessBoard.php.
2. Develop the logic to solve and display the output for Prime.php.
3. Develop the logic to draw a specific pattern for Pattern.php.
4. View your webpage using a web browser
5. Submit source code of all PHP files on Brightspace

# Task 1

Implement the following Design Pattern to create a ‘Common Look and Feel’ to be used on every page of your website.

|  |
| --- |
|  |

Your web site will include the following PHP scripts:

* Header.php
* Footer.php
* Menu.php
* ChessBoard.php
* Prime.php
* Pattern.php

**Header.php**

Header.php must contain a script to display a Common Header that will appear on every page. The header must display Program Name and Course Name

**Footer.php**

Footer.php must contain a script to display a Common Footer that will appear on every page. The footer must contain Student Number, First Name, Last Name, Email Address

**Menu.php**

Menu.php must contain a script to display a Common Menu to be shown on every page. The menu must contain links to **ChessBoard.php**, **Prime.php,** and **Pattern.php**

**ChessBoard.php**

In ChessBoard.php, you need to create a script that will draw a chess board using logical and conditional statements of PHP.

Expected output is below:

|  |
| --- |
|  |

Also use the PHP statement ‘include’ to add your Header, Menu and Footer to the page.

**Prime.php**

In Prime.php, you need to create a script that will generate all prime numbers in between a range (Range 1 and Range 2) inputted from the user prompt.

For example, if Range 1= 50 and Range 2=100, you have to display all the prime numbers in between 50 and 100 by clicking ‘Generate’ button.

You must implement it using **HTML form elements** as well as **the Logical and Conditional statements** of PHP. Also use the PHP statement ‘include’ to add your Header, Menu and Footer to the page.

Expected sample output is below:

|  |
| --- |
| A screenshot of a computer  Description automatically generated |

Hints for Prime.php:

Range 1 and Range 2 values must be inputted from the user prompt.

You can use any standard algorithm for determining a prime number. An efficient algorithm is as follows:

|  |
| --- |
| ***START***  ***prime = true***  ***index  = 2***  ***WHILE ((index \* index) <= num) AND prime EQUAL true***  ***IF (num MOD index) = 0***  ***prime  = false***  ***ENDIF***  ***index  = index + 1***  ***ENDWHILE***  ***IF prime  = true***  ***then num is a prime number***  ***ENDIF***  ***END*** |

**Pattern.php**

Use conditional loop (for/while/do…while) statement of PHP to draw the following pattern.

Also use the PHP statement ‘include’ to add your Header, Menu and Footer to the page

|  |
| --- |
| \*\*\*\*\*\*\*\*\*\*  $$$$$$$$$  \*\*\*\*\*\*\*\*  $$$$$$$  \*\*\*\*\*\*  $$$$$  \*\*\*\*  $$$  \*\*  $ |

# Note: Please make sure that the header, footer, and menu are distinguishable with respect to the body (main content) of the web page.

# Task 2

Create Lab 6 submission folder ‘**Lab6**’ and copy **ChessBoard.php**, **Prime.php,** **Pattern.php** and any other required files **(**e.g**. css file)** into this folder. Create a **Lab6.zip** file by compressing the '**Lab6'** folder.

To hand in your lab go to Brightspace and navigate to Course Content 🡪 Labs.

Then click on ‘Lab 6 – Logical and Conditional Statements’ link.

Upload **Lab6.zip** on Brightspace.

**IMPORTANT NOTE**:

**You MUST demo the lab and explain the code to the Lab Professor to get marks.**