Lab 7 – Programming Arrays, Objects

# Purpose

* Programming using Arrays
* Upload your website to a Web server

# Due Date

* This lab must be handed in at the end of Week 7:

**Sunday November 1st, 2015 – before midnight**

# Assessment

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

# Estimated Time

* This Lab is estimated to take 2 hours.

This is only an estimate of the time required to complete this Lab. I would encourage you to work at your own pace and if at all possible obtain a laptop so that you can work on your assignments from anywhere

# Assigned Readings

The following chapters of PHP, MySQL & JavaScript will be useful in completing this exercise:

* Chapter 3
* Chapter 6

# Lab Supplies

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

* Textbook: PHP, MySQL & JavaScript
* EasyPHP, or other WAMP server
* Eclipse, Notepad (or other text editor, or IDE)
* FileZilla (or other FTP client)

# Summary of Tasks

1. Develop the logic to display your web application
2. Upload your website to the webserver provided for the class
3. View your webpage using a web browser
4. Submit Assignment Link on Blackboard

# Task 1

Use techniques learned in ‘Common Look and Feel’ to develop the following web site. Your web site MUST use ‘Design Pattern 4’. Your web site will include the following PHP scripts:

* Header.php
* Footer.php
* Menu.php
* Array1.php
* Array2.php
* Objects.php

**Header.php**

Header.php must contain a script to display a Common Header that will appear on every page. The header must contain: Name, Student Number, Lab Number and Lab Title

**Footer.php**

Footer.php must contain a script to display a Common Footer that will appear on every page. The footer must contain the Lab Number and Lab Title.

**Menu.php**

Menu.php must contain a script to display a Common Menu to be shown on left side of every page. The menu must contain links to Array1.php, Array2.php and Objects.php

**Array1.php**

Create a PHP script that will perform the following tasks.

1. Create an array called ‘$calendar’
2. Fill the array with the months of a year, starting with January and going in order to December
3. Use the print\_r() function to display the contents of the array
4. Place a header (h1) on the page with the following words ‘FOR loop’
5. Use a for loop to display the contents of the array

Month 1: January

Month 2: February

…

Month 12: December

1. Use the sort() function on the array
2. Use the print\_r() function to display the contents of the array
3. Please a header (h1) on the page with the following words ‘FOREACH loop’
4. Use a foreach loop to display the contents of the array

Month 1: January

Month 2: February

…

Month 12: December

1. Please a header (h1) on the page with the following words ‘WHILE loop, SWITCH statement’
2. Use a while loop and a switch to display the following information:

Month 1: January has 31 days

Month 2: February has 28, or 29 days

…

Month 12: December has 31 days

**Array2.php**

Answer the following questions and use only a HTML ordered-list to display the questions and your answers.

1. What is the difference between a numeric and associative array?
2. What is the main benefit of ***array*** keyword?
3. What is the difference between ***foreach*** and ***each*** ?
4. How can you create a multidimensional array?
5. How can you determine the number of elements there are in an array?
6. What is the purpose of ***explode*** function?
7. How can you set PHP’s internal pointer into an array back to the first element of the array?

**Note:** *PHP Scripts are not needed to display static content on this page.*

**Objects.php**

Answer the following questions and use only a HTML ordered-list to display the questions and your answers.

1. What is the main benefit of using a function?
2. How many values can a function return?
3. What is the difference between accessing a variable by name and by reference?
4. What is the meaning of “scope” in PHP?
5. How can you incorporate one PHP file within another?
6. How is an object different from a function?
7. How do you create a new object in PHP?
8. What syntax would you use to create a subclass from an existing one?
9. How can you call an initializing piece of code when an object is created?
10. Why is it a good idea to explicitly declare properties within a class?

**Note:** *PHP Scripts are not needed to display static content on this page.*

# Task 2

Upload your website to the Web server. Use an FTP client to connect to your Web server.

Once you connect to the webserver using an FTP client, create a directory called ‘/CST8238/Lab7’. Once your course directory has been created navigate to that new directory. Add your index.php file to this location. (Using FileZilla simply drag the index.php file into your folder). The index.php file will refer to all of your php files.

We recommend the FTP client Filezilla. The program is provided for free (and open source for those who are interested in such things) by the Mozilla Foundation; the makers of Firefox and Thunderbird.

For more information on using FileZilla please navigate to the following material in Blackboard: Course Content 🡪 Extra Material 🡪 FileZilla Guide (Video)

# Task 3

View your website using a web browser. Open a web browser and navigate to the following web address:

**http://web-server\_domain\_name/CST8238/Lab7/<filename>**

For example, the web address to my page is:   
  
http://profrejaul.com/CST8238/Lab7/index.php

Where ‘profrejaul.com’ is the domain name of the Web server, ‘ /CST8238/Lab7’ is the name of the directory I created in the Web server using FTP client and ‘index.php’ is the web page I created for this lab.

# Task 4

Once you have confirmed that your webpage is available online, you are ready to hand in your lab.  
  
To hand in your lab go to Blackboard and navigate to Course Content 🡪 Labs and click on ‘Lab 7 – Programming Arrays, Objects’ link.

Under “Assignment Materials”, in the Submission text box write out the following Information:

* Student Number
* First Name
* Last Name
* Algonquin Username
* The URL, or hyperlink, prepared in Task 3

Finally, once the Submission and Comments section are complete, click the ‘Submit’ button to send the lab to your professor.

**IMPORTANT NOTE**:

If the URL, or hyperlink, does not direct the professor to the lab you will receive a ZERO for the lab assignment.

**IMPORTANT NOTE:**

You may only submit a Lab ONE TIME. Be sure the lab is complete before clicking on the ‘Submit’ button.