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This document tracks the time I spent to learn the Online Course "**Introduction to PHP**", course number **P100.16** taken at **http://www.eclasses.org/** from reading and documenting online lectures, reading online resources, and doing homeworks.

These online classes are primarily conducted via the web board interface - called Web Crossing. You can take a Virtual Tour of an Online Classroom at ***http://www.eclasses.org/Demo/***. The previous statement was the old way of running the classes, As of August 2, 2009 eClasses.org is using the Moodle (Modular Object-Oriented Dynamic Learning Environment) classroom. Moodle is also known as a Course Management System, Learning Management System, or Virtual Learning Environment. It has a significant user base with 49,256 registered sites with 28,177,443 users in 2,571,855 courses (as of February, 2009).

Moodle is designed to help educators create online courses with opportunities for rich interaction. Its open source license and modular design mean that people can develop additional functionality. Development is undertaken by a globally diffused network of commercial and non-commercial users, streamlined by the Moodle Company based in Perth, Western Australia. See Wikipedia.

(note: the ".16" in P100.16 refers to the number of times the course has been given).

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Total number of hours I spent on* Introduction to PHP *(details below) = 127.0 ***hrs***

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**********Course Description**********

Introduction to PHP – course number **P100.16**

Start Date: 14-September-2009; **Duration:** 6 weeks; **CEUs:** 3.0; **Course Number:** P100.16; **Instructor:** Patricia Osborne

How eClasses Work

The classroom environment is based on Lundeen & Associates Web Crossing technology, a threaded messaging system. Instructors post lectures, reading selections, and hands-on assignments once a week in the online classroom. Students can discuss the assignments with the instructor and amongst themselves in the classroom area. **This format has no set meeting time**, which allows students to attend class at a time most convenient to them, yet still provides logically organized communication between class participants. Students can apply for the completion certificate after finishing the class. Web Study certificate is also available. Click on the Certificates link on the top navigation bar for more information.

About eClasses.Org - Affordable Web Technology Learning

Since 1998 eClasses.Org offer over 60 online instructor-led courses and 4 Web certificates. Our courses are for both casual and professional interest in the areas of Web Design, Web Programming, and eCommerce.

The main benefit of our courses is the interaction among you, your instructor and other students in classroom (online message board). Students can post comments or questions to the instructor or other students, share ideas, communicate about your learning experience, or discuss topics of the course with other interested students.

- **Convenience :** Complete all courses via the Internet.
- **Flexibility :** Attend classes at anytime and from anywhere you would like to.
- **Instructor-Led Education :** Our instructors will help you with assignment questions, provide you additional resources, and keep you up-to date with rapidly changed internet technologies.
- **Affordable :** We provide high quality courses with much lower tuition than other training organizations.

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Course Outline: Introduction to PHP

PHP is an open-source embeddable server-side language which is simple enough to use on small sites yet powerful enough to handle large, complex applications. This course is designed to provide students with a basic working knowledge of PHP.

Through reading assignments and lessons, it will acquaint students with the structure and foundations of the language, including variables, arrays, flow control, functions and form validation. Weekly exercises tie these concepts to practical applications.

This course takes an integrated approach to PHP, tying it to its (X)HTML and CSS environment so that students finish with a recognition of PHP's place in the overall process of web development.

Objectives for this class are to:

- Learn foundations of PHP programming and security
- Become familiar with 6 basic PHP data types
- Learn basic flow control structures
- Create and use functions and includes
- Learn simple and deep form validation
- Learn to construct sticky forms

Outline

Week 1: PHP Foundations

- Basics of dynamic publishing
- Important PHP configuration settings
- Language focus: basic syntax and punctuation
- Data type focus: numerics, booleans and strings (part 1)
- Control structure focus: the if statement
- if test focus: the is_numeric function
- Form focus: form processing basics

Week 2: Strings and Simple Self-processing Forms

- Language focus: explicit casting
- Data type focus: strings (part 2)
- Control structure focus: the switch statement
- if test focus: the is_empty function
- Form focus: self-processing with simple fields

Week 3: Simple Arrays, Loops and Complex Form Fields

- Data type focus: single-dimensional arrays
- Control structure focus: the for and foreach statements
- if test focus: the isset function

Week 4: Complex Arrays, Loops and Compound Form Fields

- Data type focus: multi-dimensional arrays
- Control structure focus: simple and complex while statements

Week 5: Forms and Array

- Complex fields: radio buttons, checkbox groups and multi-selects
- Compound fields and deep validation
- Special function focus: checkdate
- Simple vs. deep validation
- Simple sticky form

Week 6: User-defined Functions, Validation and Sticky Forms

- Language focus: creating and using functions
- Creating code libraries and using include and require
- Form focus: validation and processing with simple abstraction layer

Prerequisites

Although this is a beginning PHP course, it is not a beginning programming course. Students must have completed the P010 course (or equivalent experience), and some practical experience using basic control structures and data types is helpful. The course assumes a working knowledge of HTML or XHTML, either through experience or the H101 or H401 course. This is a time-intensive course. Students should be prepared to spend 10-12 hours a week on reading and assignments. Those who are fairly new to programming are advised not to take it while taking other classes.

Requirements

- Students should have access to a reliable web host running PHP and enough web space to post their assignments. If you do not have one, the eClasses.org student accounts offered through Bizland supports PHP. Students may choose to load PHP on their local systems, but this is not necessary. If a student chooses to do a local installation, she or he should understand that debugging installations is not within the scope of this course and that assignments must still be posted in working order to an accessible online account for grading.

Additional Information:

This online course is limited to 100 participants. Your place in the course is confirmed by your payment. Introductory courses are intended for students with no experience in the subject matter and are seeking beginner level training.

Additional Cost: Book and software might be required for the course. Read the Requirements and Book section for more information. Course fee does not include the book and software cost .

How eClasses Work: The classroom environment is based on Lundeen & Associates Web Crossing technology, a threaded messaging system. Instructors post lectures, reading selections, and hands-on assignments once a week in the online classroom. Students can discuss the assignments with the instructor and amongst themselves in the classroom area. **This format has no set meeting time**, which allows students to attend class at a time most convenient to them, yet still provides logically organized communication between class participants. Students can apply for the completion certificate after finishing the class. Web Study certificate is also available. Click on the Certificates link on the top navigation bar for more information.

Instructor: Triche (Patricia) Osborne

Since 1989, she has worked in the computer industry, first as a software trainer and support technician, then as a systems analyst in Unix environments and for the last seven years, as a freelance web designer and applications developer. She is an active participant in three professional web design lists where she enjoys helping others solve problems with JavaScript, PHP and MySQL. Gabriele Bartolini, co-instructor, has been a Web developer for over 10 years, with experience in various programming languages (including C, C++ and PHP) and technologies (including XHTML, CSS, XML, XSLT and Web accessibility). For the past 8 years, he's been actively involved in the open-source community, with the development of free software applications. One of his specializations is the development of database driven applications for the web, using PHP, MySQL and PostgreSQL.

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How eClasses Work

About the Classroom

The classroom environment is based on Web Crossing technology, a threaded messaging system (message board). Instructors post lectures, reading assignment, and hands-on assignment once a week. Classes start on a certain date but this format has no set meeting time, which allows students to attend class at a time most convenient to them. Students only need to complete the assignment within one week and continue with another assignment in the following week.

The main benefit of our classes is the interaction among you, your instructor and other students in classroom (online message board). Students can post comments or questions to the instructor or other students, share ideas, communicate about your learning experience, or discuss topics of the course with other interested students.

How to Access Your Classroom

After you register for a class, you will get a receipt email and an instructional email. Simply follow the instructions to add yourself to the classroom (or grant yourself access to the classroom). After that, you can access your classroom at http://classroom.eclasses.org/

How to Use the Classroom

The classroom is organized by folders and discussion. A folder is like a folder or directory on your hard disk. It contains discussions or other sub-folders. Every folder has a title and a heading which describe the folder. On top of each page, there is the path of the current folder, so you can see where you are. If you click on any folder or you will go to that page.

A discussion has a title and heading that describe its purpose. Discussions are not 'chat-rooms', they are more like organized electronic mail. You can browse a discussion and post a message at any time. To post a message, just scroll down to the message form at the end of each discussion. Fill in the form, and then click on the 'Post Message' button following the form.

Someone else will see your post later, when they are browsing or when they check for new messages. You can always read the whole discussion from beginning to end, so you never have to wonder what people are talking about. Because a discussion may have many of messages posted to it, long discussions are split into smaller pieces. In a long discussion, you'll see buttons at the top and/or bottom that let you go back and forth.

The system automatically keeps track of messages as you view them. When you see a discussion in a folder, the listing includes how many messages are in the discussion, and how many are new messages. There is another way to check for new messages, through your 'Subscription List'. After you subscribe to a discussion or folder, you can later check your subscription list at any time. You'll then be shown the first new message, discussion, or folder that has been added since you last checked.

What are CEUs?

One Continuing Education Unit (CEU) is generally defined as ten contact hours of participation in an organized continuing education experience under responsible sponsorship and qualified instruction. For instructor-led online learning, each course is assigned a number of CEUs for that course which may not relate to the total number of hours an individual takes to complete the course. The number of CEUs awarded is the average number of hours required to complete a course.

Class Schedule

Almost every week, a group of classes is open for registration. A class is open about 1-2 months prior to its start date. Click on the Open Classes link to see the list of classes that are open for registration now. The same class is offered every 2-3 months.

Student Center

Student Center is another online system which requires a different password (which students selected when they first register.) Below is the list of what you can do in the Student Center:

- Grant yourself access to your registered courses
- Register for new eClasses
- Get the list of your previous and current courses
- Get your payment history
- Check your final grades
- Apply for class completion certificates
- Apply for Web Study certificates
- Check your Web Study certificate application status
- Update your email and mailing address

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http://aruljohn.com/
An **IP address** (Internet Protocol Address) is a logical address of a network adapter. The **IP address** is unique and identifies computers on a network.

IP address

Short for Internet Protocol address. An IP address identifies a computer that is connected to the Internet or a network. An IP address usually consists of four groups of numbers separated by periods, such as 192.200.44.69.

Change TCP/IP settings

TCP/IP defines the language that your computer uses to communicate with other computers. We recommend using automated Dynamic Host Configuration Protocol (DHCP) to automatically assign Internet Protocol (IP) addresses to the computers on your network, if your network supports it. If you use DHCP, then you don't have to change your settings if you move your computer to another location, and DHCP doesn't require you to manually configure settings such as Domain Name System (DNS) and Windows Internet Name Service (WINS).

Domain Name System (DNS)

A technology that translates Internet address names into numerical addresses (IP addresses) so that the address can be found over the Internet. For example, if you type www.microsoft.com into a web browser, the name is translated into a numerical address and that address is used to connect you to the Microsoft website.

Windows Internet Name Service (WINS)

A technology that translates computer names into numerical addresses (IP addresses). Computers use these addresses to find other computers on a network. WINS enables you to connect to a network computer by typing the computer's name, so you don't have to know the IP address.

In computer networking, a **Media Access Control address** (MAC address) is a unique identifier assigned to most network adapters or network interface cards (NICs) by the manufacturer for identification, and used in the Media Access Control protocol sub-layer. If assigned by the manufacturer, a MAC address usually encodes the manufacturer's registered identification number. It may also be known as an **Ethernet Hardware Address** (EHA), **hardware address**, **adapter address**, or **physical address**.

http://searchwindevelopment.techtarget.com/sDefinition/0,,sid8_gci520967,00.html
What is a static IP address/dynamic IP address? A static IP address is a number (in the form of a dotted quad) that is assigned to a computer by an Internet service provider (ISP) to be its permanent address on the Internet. Computers use IP addresses to locate and talk to each other on the Internet, much the same way people use phone numbers to locate and talk to one another on the telephone. When you want to visit whatis.com, your computer asks a domain name system (DNS) server (think telephone information operator) for the correct dotted quad number (think phone number) for whatis.com and your computer uses the answer it receives to connect to the whatis.com server.

It would be simple if every computer that connects to the Internet could have its own static IP number, but when the Internet was first conceived, the architects didn't foresee the need for an unlimited number of IP addresses. Consequently, there are not enough IP numbers to go around. To get around that problem, many Internet service providers limit the number of static IP addresses they allocate, and economize on the remaining number of IP addresses they possess by temporarily assigning an IP address to a requesting Dynamic Host Configuration Protocol (DHCP) computer from a pool of IP addresses. The temporary IP address is called a dynamic IP address.

Requesting DHCP computers receive a dynamic IP address (think temporary phone number) for the duration of that Internet session or for some other specified amount of time. Once the user disconnects from the Internet, their dynamic IP address goes back into the IP address pool so it can be assigned to another user. Even if the user reconnects immediately, odds are they will not be assigned the same IP address from the pool. To keep our telephone analogy going, using a dynamic IP address is similar to using a pay phone. Unless there is a reason to receive a call, the user does not care what number he or she is calling from.

There are times, however, when users who connect to the Internet using dynamic IP wish to allow other computers to locate them. Perhaps they want to use CU-SeeMe or use a VoIP application to make long distance phone calls using their IP connection. In that case, they would need a static IP address. The user has two choices; they can contact their ISP and request a static IP address, or they can use a dynamic DNS service. Either choice will probably involve an additional monthly fee.

Using a dynamic DNS service works as if there was an old-fashioned telephone message service at your computer's disposal. When a user registers with a DNS service and connects to the Internet with a dynamic IP address, the user's computer contacts the DNS service and lets them know what IP address it has been assigned from the pool; the service works with the DNS server to forward the correct address to the

requesting DHCP computer. (Think of calling the message service and saying "Hi. I can be reached at 435.44.32.111 right now. Please tell anyone who tries to reach me to call that number.) Using a dynamic DNS service to arrange for computers to find you even though you are using a dynamic IP address is the next-best thing to having a static IP.

IPv6, which has also been called "IPng" (IP Next Generation), lengthens IP addresses from 32 bits to 128 bits and increases the number of available IP addresses significantly, making static IP addresses easier and less expensive to obtain and maintain.

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Documentations: The documents - **file names** - that I wrote/created are:

1. TimeSpentToLearnIntroductionToPHP.doc
2. Most Documents are in *.html (or *.htm) format, and some in *.doc format.

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Date	Time Spent (hrs)	Description (mainly)
Friday September 11, **2009**	1.25	**Start of Introduction To PHP -**course number **P100.16** **Documented** Misc. course materials at http://www.eclasses.org/ Documents **created** are located at: C:\Users\boutros\Documents\MyPrograms\eClasses.Org\Course_IntroductionToPHP_P100.16
Saturday September 12, 2009	4.75	**Documented** Week1 to Week6 Materials: Lectures, Labs, References, etc. for **Introduction to PHP** class.
Sunday September 13, 2009	3.0	**Created** 2 templates for the course to use for homework submissions: a PHP template and an XHTML template. **Tested** the Web Server as required in the classroom notes. In order to participate in the class, I needed to be able to do two things: 1. View the PHP error messages. (Error tests) 2. Upload the source code to the server in a readable format. (Source test)
Monday September 14, 2009	0.5	**Read** week 1 Teacher's Material for **Introduction to PHP** class.
Tuesday September 15, 2009	0.75	**Reading** week 1 Teacher's Lecture for **Introduction to PHP** class.
Wednesday September 16, 2009	2.25	**Installed** *ConText*: a fast and powerful freeware text editor for Windows from http://www.context.cx/ **Installed XAMPP Windows 1.7.2** [Basic package]: Apache 2.2.12 (IPv6 enabled), MySQL 5.1.37 + PBXT engine, PHP 5.3.0, OpenSSL 0.9.8k, phpMyAdmin 3.2.0.1, XAMPP Control Panel 2.5.8, XAMPP CLI Bundle 1.6, Webalizer 2.21-02, Mercury Mail Transport System v4.62, msmtp 1.4.17, FileZilla FTP Server 0.9.32, SQLite 2.8.17, SQLite 3.6.16, ADOdb 5.09a, eAccelerator 0.9.6-rc1, Xdebug 2.0.5, Ming 0.42 : For Windows 2000, 2003, XP, VISTA (for Vista Ultimate: Server test OK but no support for xdebug) **The new version of XAMPP 1.7.2, includes: (** http://www.apachefriends.org/en/xampp-windows.html#641 Apache 2.2.12 (IPv6 enabled) + OpenSSL 0.9.8k ; MySQL 5.1.37 + PBXT engine ; PHP 5.3.0 ; phpMyAdmin 3.2.0.1 ;Webalizer 2.21-02 + GeoIP lite ; FileZilla FTP Server 0.9.32 ; msmtp 1.4.17 To test your PHP scripts locally, you will need to install a development environment like WAMPP (stands for: Windows, Apache, MySQL, PHP and Perl) http://www.apachefriends.org/en/xampp-windows.html **Read** General class online references: http://www.php.net/ http://www.php.net/links.php **http://www.php.net/manual/en/index.php** --- PHP Manual

		http://www.phpbuilder.com/ http://www.apachefriends.org/en/xampp-linux.html http://www.apachefriends.org/en/xampp-windows.html http://www.apachefriends.org/en/xampp-macosx.html http://www.wampserver.com/en/ http://www.php-editors.com/review/ http://www.midnighthax.com/phpeditors.php http://barebones.com/ http://www.crimsoneditor.com/ http://www.contexteditor.org/ http://notepad-plus.sourceforge.net/uk/site.htm http://www.gnu.org/software/emacs/ http://validator.w3.org/ http://www.mozilla.com/en-US/firefox/ie.html https://addons.mozilla.org/en-US/firefox/addon/60 http://httpd.apache.org/ http://www.mysql.com/ http://www.phpmyadmin.net/home_page/index.php http://webyog.com/en/
Thursday September 17, 2009	2.0	**Reading** week1 Teacher's Lecture for **Introduction to PHP** class.
Friday September 18, 2009	3.0	**Read** week1 Teacher's Lecture for **Introduction to PHP** class.
Saturday September 19, 2009	1.75	**Working on** week 1 Homework for **Introduction to PHP** class.
Sunday September 20, 2009	4.25	**Finished** week 1 Homework for **Introduction to PHP** class. Posted it online at: http://bacsoftwareconsulting.com/introPHP/week1/source1.php
Monday September 21, 2009	1.0	**Reading** week2 Teacher's Lecture for **Introduction to PHP** class.
Tuesday September 22, 2009	2.25	**Continue-Reading** week2 Teacher's Lecture for **Introduction to PHP** class.
Wednesday September 23, 2009	3.0	**Continue-Reading** week2 Teacher's Lecture for **Introduction to PHP** class.
Thursday September 24, 2009	3.5	**Read** week2 Teacher's Lecture for **Introduction to PHP** class. **Working on** week 2 Homework for **Introduction to PHP** class.
Friday September 25, 2009	3.75	**Working on** week 2 Homework for **Introduction to PHP** class.
Saturday September 26, 2009	3.0	**Working on** week 2 Homework for **Introduction to PHP** class.
Sunday September 27, 2009	2.75	**Finished** week 2 Homework for **Introduction to PHP** class. Posted it online at: http://bacsoftwareconsulting.com/introPHP/week1/source2.php
Monday September 28, 2009	0.5	**Reading** week3 Teacher's Lecture for **Introduction to PHP** class.
Tuesday September 29, 2009	2.75	**Continue-**Reading week3 Teacher's Lecture for **Introduction to PHP** class.
Tuesday September 30, 2009	1.5	**Read** week3 Teacher's Lecture for **Introduction to PHP** class.

Thursday October 1, 2009	1.0	**Working on** week 3 Homework for **Introduction to PHP** class.
Friday October 2, 2009	4.25	**Working on** week 3 Homework for **Introduction to PHP** class.
Sunday October 4, 2009	5.0	**Finished** week 3 Homework for **Introduction to PHP** class. Posted it online at: http://bacsoftwareconsulting.com/introPHP/week3/source3.php
Monday October 5, 2009	2.0	**Reading** week4 Teacher's Lecture for **Introduction to PHP** class.
Tuesday October 6, 2009	2.5	**Continue**-Reading week4 Teacher's Lecture for **Introduction to PHP** class.
Wednesday October 7, 2009	2.75	**Continue**-Reading week4 Teacher's Lecture for **Introduction to PHP** class.
Thursday October 8, 2009	3.75	**Read** week4 Teacher's Lecture for **Introduction to PHP** class. **Working on** week 4 Homework for **Introduction to PHP** class.
Friday October 9, 2009	3.0	**Working on** week 4 Homework for **Introduction to PHP** class.
Saturday October 10, 2009	5.5	**Working on** week 4 Homework for **Introduction to PHP** class.
Sunday October 11, 2009	2.75	**Finished** week 4 Homework for **Introduction to PHP** class. Posted it online at: http://bacsoftwareconsulting.com/introPHP/week4/source4.php
Monday October 12, 2009	2.0	**Documented** Week5 Materials: Lectures, Labs etc. for the **Introduction to PHP** class.
Tuesday October 13, 2009	2.0	**Reading** week5 Teacher's Lecture for **Introduction to PHP** class.
Wednesday October 14, 2009	3.0	**Continue**-Reading week5 Teacher's Lecture for **Introduction to PHP** class.
Thursday October 15, 2009	3.0	**Continue**-Reading week5 Teacher's Lecture for **Introduction to PHP** class. **Working on** week5 Homework for **Introduction to PHP** class.
Friday October 16, 2009	3.75	**Working on** week5 Homework for **Introduction to PHP** class.
Saturday October 17, 2009	0.75	**Working on** week5 Homework for **Introduction to PHP** class.
Sunday October 18, 2009	2.5	**Finished** week 5 Homework for **Introduction to PHP** class. Posted it online at: http://bacsoftwareconsulting.com/introPHP/week5/source5.php
Monday October 19, 2009	5.0	**Continue**-Reading week5 Teacher's Lecture for **Introduction to PHP** class.
Wednesday October 21, 2009	2.0	**Read** week5 Teacher's Lecture for **Introduction to PHP** class. **Documented** Week6 Materials: Lectures, Labs etc. for the

		Introduction to PHP class.
Thursday October 22, 2009	3.5	**Read** week6 Teacher's Lecture for **Introduction to PHP** class.
Friday October 23, 2009	3.5	**Working on** week6 Homework for **Introduction to PHP** class.
Saturday October 24, 2009	3.75	**Finished** week 6 Homework for **Introduction to PHP** class. Posted it online at: http://bacsoftwareconsulting.com/introPHP/week6/source6.php
Monday October 26, 2009	1.75	**Fixed** week6 Homework for **Introduction to PHP** class.
Saturday October 31, 2009	1.5	**Documented** other students homeworks for week 5 and Week6.
Wednesday February 3, 2010	1.5	**Re-Reading** week4 Teacher's Lecture (Form Processing, Part 1) for the **Introduction to PHP** class.
Thursday February 4, 2010	0.5	**Re-Reading** week4 Teacher's Lecture (Form Processing, Part 1) for the **Introduction to PHP** class.
Thursday February 11, 2010	0.75	**Re-Read** week4 Teacher's Lecture (Form Processing, Part 1) for the **Introduction to PHP** class.
Tuesday February 16, 2010	1.0	**Re-Reading** week5 Teacher's Lecture (Form Processing, Part 2) for the **Introduction to PHP** class.
Thursday February 18, 2010	1.0	**Re-Reading** week5 Teacher's Lecture (Form Processing, Part 2) for the **Introduction to PHP** class.
Tuesday February 23, 2010	1.0	**Re-Reading** week5 Teacher's Lecture (Form Processing, Part 2) for the **Introduction to PHP** class.
Sunday February 28, 2010	3.25	**Re-Read** week5 Teacher's Lecture (Form Processing, Part 2) for the **Introduction to PHP** class. **Re-Read** week6 Teacher's Lecture (Validating and Sending Email) for the **Introduction to PHP** class.

Total = 127.0 hrs

****** End of Introduction to PHP ******

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