

This document tracks the time I spent to learn the Online Course "Shopping Cart Using PHP and MySQL ", course number P104.08 taken at <http://www.eclasses.org/> from reading and documenting online lectures, reading online resources, reading the book, and doing homeworks/projects.

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 ".08" in P104.08 refers to the number of times the course has been given).

Total number of hours I spent on Shopping Cart Using PHP and MySQL (details below) = 208.25 hrs

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

Shopping Cart Using PHP and MySQL - course number P104.08

Start Date: 26-April-2010; **Duration:** 8 weeks; **CEUs:** 4.0; **Course Number:** P104.8; **Instructor:** Veronica Yuill

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: Shopping Cart Using PHP and MySQL

Shopping Cart Using PHP and MySQL (P104)

The course will demonstrate how to build a shopping cart from scratch. Participants will learn intermediate to advanced use of PHP and MySQL, particularly the use of cookies and sessions to maintain state, and the security aspects of coding for e-commerce sites, or any other site handling sensitive information.

Outline

Week 1

- Review of PHP knowledge (especially array handling and MySQL functions)
- Review of MySQL knowledge
- Good coding practices
- Writing functions: students will develop their own functions to access and query a MySQL database

Week 2:

- Working with arrays: useful PHP functions and how to use them
- Create and populate the database
- Output a simple list of products with images

Week 3:

- Understand the concept of 'statelessness'
- System design: techniques for determining the system flow for the application
- Building a wireframe of the application
- Setting up the coding environment: templates, include files, libraries

Week 4:

- Using sessions in PHP
- Building the cart: adding, removing, and changing quantities
- Viewing the cart

Week 5:

- Future-proofing your code: good practice
- More on sessions: security
- The checkout process: calculate simple shipping and tax, build checkout form

Week 6:

- Validating user input using classes for extensible, re-usable code
- Preparing data for insertion to the database

- Updating the database

Week 7:

- Interfacing with a payment processor for online credit card payments
- Using a class to send emails to merchant and customer
- Security considerations

Week 8:

- Final review of cart
- Error handling
- Enhancing the cart
- Don't Repeat Yourself: using libraries and classes to encapsulate and re-use code

Prerequisites

'Introduction to PHP' course (P100) or equivalent knowledge is required. Some basic knowledge of SQL is useful

Requirements

Access to a webhost running PHP (at least version 4.x) and MySQL (version 4.x). Students may choose to load PHP and MySQL 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.

Books

Required Book: [Web Database Applications with PHP and MySQL](#) Web Database Applications with PHP & MySQL, 2nd Edition (Paperback), Hugh E. Williams and David Lane, ISBN: 0-596-00543-1

Suggested Book: [Programming PHP](#)

Additional Information:

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.

Refund Policy: Please read our Terms and Refund Policy before registering for this course.

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: Instructors post lectures (text-based, no video or audio), 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.

Instructor: Veronica Yuill

With over twenty years' experience of systems analysis, database design, and programming, Veronica specializes in creating dynamic, database-driven websites and intranet applications using PHP, MySQL, and Oracle. From 1999 to 2004, she also taught on a ground-breaking online degree course offered by the Open University. Since 2003, she has tutored online undergraduate courses forming part of the UK's Open University's Certificate in Web Application Development, and is now chair of the presentation team for the ColdFusion and MySQL course.

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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

		Chapter 6 [pages 171 - 184]. Finished week1 project for the class. Submitted it online at: http://bacsoftwareconsulting.com/shoppingcart/wk1/source1.php
Monday May 3, 2010	4.25	Finished week1 Peer Reviews for 2 students for the class. Rework of Week1 Project. Read Miscellaneous Online references.
Tuesday May 4, 2010	4.0	Read week 2 Teacher's Lectures for Shopping Cart class. Read Week2 Online References: http://devzone.zend.com/article/628-PHP-101-part-3-Looping-The-Loop http://us2.php.net/manual/en/language.types.array.php http://www.php.net/manual/en/control-structures.foreach.php http://us2.php.net/manual/en/language.types.array.php http://us.php.net/manual/en/ref.array.php http://www.php.net/manual/en/function.unset.php http://www.php.net/manual/en/function.array-pop.php http://www.php.net/manual/en/function.array-push.php http://www.php.net/manual/en/function.count.php http://www.php.net/manual/en/function.array-key-exists.php http://www.php.net/manual/en/function.in-array.php http://www.php.net/manual/en/function.extract.php http://www.php.net/manual/en/function.list.php http://www.php.net/manual/en/function.implode.php http://www.php.net/manual/en/function.explode.php
Wednesday May 5, 2010	3.25	Read Week2 Online References: http://oreilly.com/catalog/progphp/chapter/ch05.html Working on week2 project for the class.
Thursday May 6, 2010	8.0	Working on week2 project for the class.
Friday May 7, 2010	5.5	Working on week2 project for the class.
Saturday May 8, 2010	2.0	Finished week2 project for the class. Submitted it online at: http://bacsoftwareconsulting.com/shoppingcart/wk2/source2.php Documented Week3 Materials.
Sunday May 9, 2010	1.0	Read week3 Teacher's Lecture for Shopping Cart class.
Monday May 10, 2010	0.5	Finished week2 Peer Reviews for 1 students for the class.
Tuesday May 11, 2010	3.0	Read Week3 Online References: http://www.getahead-direct.com/gwentrel.htm http://articles.sitepoint.com/article/wire-frame-your-site http://www.informit.com/guides/content.aspx?g=sqlserver&seqNum=60 http://www.builderau.com.au/program/web/soa/Design-before-you-build-with-wire-frames/0,339024632,339282214,00.htm http://www.databaseanswers.org/tutorial4_db_schema/index.htm http://www.php.net/manual/en/features.persistent-connections.php Book: PHP and MySQL, by E. Williams and D. Lane Appendix E [pages 726 - 745]. Working on week3 project for the class.
Wednesday May 12, 2010	2.0	Working on week3 project for the class. Revisited and Improved Week2 Homework.

Thursday May 13, 2010	5.5	Finished week3 project for the class. Submitted it online at: http://bacsoftwareconsulting.com/shoppingcart/wk3/index.php
Friday May 14, 2010	1.0	Documented Week4 Materials.
Saturday May 15, 2010	2.25	Read Week4 Online References: http://devzone.zend.com/article/646-PHP-101-part-10-A-Session-In-The-Cookie-Jar Finished week3 Peer Reviews for 2 student for the class.
Sunday May 16, 2010	1.75	Read week4 Teacher's Lectures for Shopping Cart class. Read Week4 Online References: http://www.php.net/manual/en/ref.session.php http://www.coderookie.com/2006/tutorial/the-pseudocode-programming-process/ http://php.net/manual/en/function.print-r.php http://www.tizag.com/phpT/phpsessions.php http://coderemix.com/php-cookies-enabled-check
Tuesday May 18, 2010	5.75	Reading General Online References: http://v3.thewatchmakerproject.com/journal/276/building-a-simple-php-shopping-cart Working on week4 project for the class.
Wednesday May 19, 2010	5.25	Continue-Reading General Online References: http://v3.thewatchmakerproject.com/journal/276/building-a-simple-php-shopping-cart http://www.phpwebcommerce.com/ Working on week4 project for the class.
Thursday May 20, 2010	2.75	Continue-Reading General Online References: http://v3.thewatchmakerproject.com/journal/276/building-a-simple-php-shopping-cart http://www.phpwebcommerce.com/ Working on week4 project for the class. Finished week4 Quiz.
Friday May 21, 2010	4.0	Working on week4 project for the class. Continue-Reading General Online References: http://v3.thewatchmakerproject.com/journal/276/building-a-simple-php-shopping-cart http://whoyouknow.co.uk/php/shop/
Saturday May 22, 2010	6.0	Working on week4 project for the class.
Sunday May 23, 2010	4.75	Working on week4 project for the class.
Monday May 24, 2010	4.25	Finally Finished week4 project for the class. Submitted it online at: http://bacsoftwareconsulting.com/shoppingcart/wk4/source4.php
Tuesday May 25, 2010	3.75	Reviewed Multidimensional Arrays. Read General Online References: http://us2.php.net/manual/en/language.types.array.php Documented Week 5 Materials.
Thursday May 27, 2010	1.75	Read Week5 Online References: http://www.phpvs.net/2008/06/04/ten-php-best-practices-tips-that-will-get-you-a-job/ http://www.mikebernat.com/blog/My_PHP_Best_Practices
Friday May 28, 2010	3.25	Read Week5 Online References: http://devzone.zend.com/article/661-PHP-101-part-13-The-Trashman-Cometh---Part-1 Book: PHP and MySQL, by E. Williams and D. Lane

Chapter 9 [pages 285 - 337].

Saturday May 29, 2010	2.0	Read Week5 Online References: http://devzone.zend.com/node/view/id/662 Read week5 Teacher's Lectures for Shopping Cart class. Finished week4 Peer Reviews for 2 Students for the class.
	5.5	Working on week5 project for the class.
Sunday May 30, 2010	4.25	Continue -Working on week5 project for the class.
Monday May 31, 2010	5.75	Continue -Working on week5 project for the class.
Tuesday June 1, 2010	5.5	Continue -Working on week5 project for the class.
Wednesday June 2, 2010	8.25	Continue -Working on week5 project for the class.
Friday June 4, 2010	1.75	Book: PHP and MySQL, by E. Williams and D. Lane Chapter 11 [pages 369 - 401]. Documented Week 6 Materials. Read Week6 Online References: http://devzone.zend.com/node/view/id/662
Saturday June 5, 2010	2.5	Book: PHP and MySQL, by E. Williams and D. Lane Chapter 5 [pages 148-151]. Read Week 6 Online References: http://www.php.net/manual/en/function.mysql-real-escape-string.php http://dev.mysql.com/doc/refman/5.0/en/timestamp.html http://www.devshed.com/c/a/PHP/Building-An-Extensible-Form-Validator-Class/1/ http://us2.php.net/filter http://devzone.zend.com/node/view/id/1113 http://www.php.net/manual/en/function.mysql-insert-id.php
	2.0	Finished week5 project for the class. Submitted it online at: http://bacsoftwareconsulting.com/shoppingcart/wk5/source5.php
Sunday June 6, 2010	1.5	Read week6 Teacher's Lectures for Shopping Cart class.
	1.25	Working on week6 project for the class.
Monday June 7, 2010	1.5	Working on week6 project for the class.
Tuesday June 8, 2010	8.5	Working on week6 project for the class. Read Week6 Online References: http://devzone.zend.com/node/view/id/662 Reviewed Teacher's Lectures for Introduction to PHP class.
Wednesday June 9, 2010	4.25	Working on week6 project for the class.
Thursday June 10, 2010	1.0	Finished week6 project for the class. Submitted it online at: http://bacsoftwareconsulting.com/shoppingcart/wk6/thankyou.php

	2.0	Read week6 Quiz solution. Documented Week 7 Materials. Read week7 Teacher's Lecture for Shopping Cart class.
Friday June 11, 2010	2.0	Read Week 7 Online References: http://www.phpbuilder.com/columns/ProPHPSecurity_excerpt.php3 http://www.phpbuilder.com/columns/ProPHPSecurity_excerpt_part2.php3 http://www.phpbuilder.com/columns/ProPHPSecurity_excerpt_part3.php3 http://www.ibm.com/developerworks/opensource/library/os-php-secure-apps/index.html http://phpsec.org/projects/guide/ http://phpsec.org/projects/phpsecinfo/index.html http://www.cgisecurity.com/xss-faq.html http://www.damonkohler.com/2008/12/email-injection.html http://www.nyphp.org/PHundamentals/8_Preventing-Email-Header-Injection http://shiflett.org/articles/storing-sessions-in-a-database http://www.devshed.com/c/a/MySQL/MySQL-Table-Joins/ http://phpmailer.worxware.com/index.php?pg=phpmailer http://phpmailer.worxware.com/index.php?pg=tutorial http://us.php.net/manual/en/function.mail.php http://www.tuxradar.com/practicalphp/2/6/3 http://php.net/manual/en/function.htmlentities.php http://us2.php.net/manual/en/function.htmlspecialchars.php http://ch.php.net/manual/en/language.types.string.php#language.types.string.syntax.double http://php.net/manual/en/errorfunc.constants.php
Saturday June 12, 2010	2.5	Continue- Working on week6 project for the class. (Input Validation with regular Expressions)
Sunday June 13, 2010	1.5	Finally Finished week6 project for the class. (Input Validation with regular Expressions)
	2.25	Working on week7 project for the class.
Monday June 14, 2010	4.25	Working on week7 project for the class.
Tuesday June 15, 2010	6.5	Working on week7 project for the class.
Wednesday June 16, 2010	3.5	Working on week7 project for the class.
Thursday June 17, 2010	1.0	Finally Finished week7 project for the class. Submitted it Online at: http://bacsoftwareconsulting.com/shoppingcart/wk7/source7.php
	3.25	Documented Week 8 Materials. Read week8 Lecture. Read Week8 Online References: http://us2.php.net/set-error-handler http://devzone.zend.com/article/652-PHP-101-part-12-Bugging-Out---Part-1 http://devzone.zend.com/node/view/id/653 http://www.devshed.com/c/a/PHP/Web-Development-With-PHP-FastTemplate/ http://www.devshed.com/c/a/PHP/Using-PDO-Objects-in-PHP-5/ http://www.devshed.com/c/a/PHP/Handling-Result-Sets-and-More-with-PDO-Objects-in-PHP-5/ http://www.devshed.com/c/a/PHP/Working-with-Prepared-Queries-with-PDO-Objects-in-PHP-5/ http://pear.php.net/packages.php http://adodb.sourceforge.net/ http://phplens.com/adodb/code.initialization.html

Friday June 18, 2010	0.25	Book: PHP and MySQL, by E. Williams and D. Lane Chapter 7 [pages 219 221].
	1.75	Working on week8 project for the class.
Saturday June 19, 2010	5.5	Working on week8 project for the class.
Sunday June 20, 2010	2.0	Finished on week8 project for the class. Submitted it online at: http://bacsoftwareconsulting.com/shoppingcart/wk8/source8.php
Monday June 21, 2010	0.75	Documenting/Testing week8 projects for other students for the class.
Tuesday June 22, 2010	2.5	Documenting/Testing week8 projects for other students for the class. More Work on my week8 project for the class.
Wednesday June 23, 2010	2.0	Book: PHP and MySQL, by E. Williams and D. Lane Chapter 7 [pages 221 - 250]; Chapter 12 [pages 402 - 421].
Thursday June 24, 2010	1.25	Book: PHP and MySQL, by E. Williams and D. Lane Chapter 4 [pages 108 - 118 - 133]; Chapter 14 [pages 457 - 478].
Friday July 2, 2010	1.25	Improving the Shopping Cart code. Added a better validation code to zip code (5 or 5+4). Updated customers table to accept 10 characters instead of 8.

Total = 208.25 hrs

**** End of Shopping Cart Using PHP and MySQL ****
