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PHP & MySQL

FOR

DUMMIES®

Learn to:

- Create well-formed PHP code that's compliant with PHP 4, 5, and 6
- Easily install and set up PHP and MySQL using XAMPP
- Choose a Web host and secure your files
- Build dynamic, database-delivered Web sites

Janet Valade



PHP & MySQL[®] For Dummies[®]

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by Janet Valade



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About the Author

Janet Valade is the author of PHP & MySQL Web Development All-in-One Desk Reference For Dummies, PHP 5 For Dummies, PHP & MySQL Everyday Apps For Dummies, and PHP & MySQL: Your visual blueprint for creating dynamic, database-driven Web sites, as well as the first, second, and third editions of this book. In addition, Janet is the author of Spring into Linux and a coauthor of Mastering Visually Dreamweaver 8 and Flash 8.

Janet has twenty years of experience in the computing field. Most recently, she worked as a Web designer and programmer in an engineering firm for four years. Before that, Janet worked for thirteen years in a university environment, where she was a systems analyst. During her tenure, she supervised the installation and operation of computing resources, designed and developed a data archive, supported faculty and students in their computer usage, wrote numerous technical papers, and developed and presented seminars on a variety of technology topics.

To keep in touch, see janetvalade.com.

Author's Acknowledgments

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for me to write about. Furthermore, I never would have learned this software without the lists, where people generously spend their time answering foolish questions from beginners.

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Some of the people who helped bring this book to market include the following:

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Pat O'Brien)

Acquisitions Editor: Kyle Looper

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Debbie Stailey, Director of Composition Services

Introduction

Welcome to the exciting world of Web database applications. This book provides the basic techniques to build any Web database application, but I certainly recommend that you start with a simple one. In this book, I develop two sample applications, both chosen to represent two types of applications frequently encountered on the Web: product catalogs and customer- or member-only sites that require the user to register and log in with a password. The sample applications are complicated enough to require more than one program and to use a variety of data and data manipulation techniques, yet simple enough to be easily understood and adapted to a variety of Web sites. After you master the simple applications, you can expand the basic design to include all the functionality that you can think of.

About This Book

Think of this book as your friendly guide to building a Web database application. This book is designed as a reference, not as a tutorial, so you don't have to read it from cover to cover. You can start reading at any point — in Chapter 1, Chapter 9, wherever. I divide the task of building a Web database application into manageable chunks of information, so check out the table of contents and locate the topic that you're interested in. If you need to know information from another chapter to understand the chapter you're reading, I reference that chapter.

Here's a sample of the topics I discuss:

Building and using a MySQL database

Adding PHP to HTML files

Using the features of the PHP language

Using HTML forms to collect information from users

Showing information from a database in a Web page

Storing information in a database

Conventions Used in This Book

This book includes many examples of PHP programming statements, MySQL statements, and HTML. Such statements are shown in a different typeface, which looks like the following line:

```
A PHP program statement
```

In addition, snippets or key terms of PHP, MySQL, and HTML are sometimes shown in the text of a paragraph. When they are, the special text in the paragraph is also shown in the example typeface, different than the paragraph typeface. For instance, `this text` is an example of a PHP statement within the paragraph text.

In examples, you will often see some words in italic. Italicized words are general types that need to be replaced with the specific name appropriate for your data. For instance, when you see an example like the following:

```
SELECT field1,field2 FROM tablename
```

field1, field2, and tablename need to be replaced with real names because they are in italic. When you use this statement in your program, you might use it in the following form:

```
SELECT name,age FROM Customer
```

In addition, you might see three dots (...) following a list in an example line. You don't type the three dots. They just mean that you can have as many items in the list as you want. For instance, when you see

```
SELECT field1,field2,... FROM tablename
```

the three dots just mean that your list of fields can be longer than two. It means you can go on with field3, field4, and so forth. For example, your statement might be

```
SELECT name,age,height,shoesize FROM  
Customer
```

From time to time, you'll also see something in bold. Pay attention to these; they indicate something I want you to see or something you need to type.

What You're Not To Read

Some information in this book is flagged as *Technical Stuff* with an icon off to the left. Sometimes you'll see this technical stuff in a sidebar: Consider it information that you don't need to read to create a Web database application. This extra information might contain a

further look under the hood or describe a technique that requires more technical knowledge to execute. Some readers may be interested in the extra technical information or techniques, but feel free to ignore them if you don't find them interesting or useful.

Foolish Assumptions

To write a focused book rather than an encyclopedia, I needed to assume some background for you, the reader. I assumed that you know HTML and CSS and have created Web sites with HTML and CSS. Consequently, although I use HTML/CSS in many examples, I do not explain the HTML/CSS. If you don't have an HTML background, this book will be more difficult to use. I suggest that you read an HTML book — such as *HTML, XHTML & CSS For Dummies* by Ed Tittel and Jeff Noble (Wiley) — and build some practice Web pages before you start this book. In particular, some background in HTML forms and tables is useful. However, if you're the impatient type, I won't tell you it's impossible to proceed without knowing HTML and CSS. You may be able to glean enough HTML and CSS from this book to build your particular Web site. If you choose to proceed without knowing HTML, I suggest that you have an HTML book by your side to assist you.

If you're proceeding without any experience with Web pages, you might not know some required basics. You must know how to create and save plain text files with an editor such as Notepad or save the file as plain text from your word processor (not in the word processor format). You also must know where to put the text files containing the code (HTML or PHP) for your Web pages so that the

pages are available to all users with access to your Web site, and you must know how to move the files to the appropriate location.

You do *not* need to know how to design or create databases or how to program. All the information that you need to know about databases and programming is included in this book.

How This Book Is Organized

This book is divided into six parts, with several chapters in each part. The content ranges from an introduction to PHP and MySQL to installing to creating and using databases to writing PHP programs.

Part I: Developing a Web Database Application Using PHP and MySQL

Part I provides an overview of using PHP and MySQL to create a Web database application. It describes and gives the advantages of PHP, of MySQL, and of their use together. You find out how to get started, including what you need, how to get access to PHP and MySQL, and how to test your software. You then find out about the process of developing the application.

Part II: MySQL Database

In Part II you find out the details of working with MySQL databases. You create a database, change a database, and move data into and out of a database.

Part III: PHP

Part III provides the details of writing PHP programs that enable your Web pages to insert new information, update existing information, or remove information from a MySQL database. You find out how to use the PHP features that are used for database interaction and forms processing.

Part IV: Applications

Part IV describes the Web database application as a whole. You find out how to organize the PHP programs into a functioning application that interacts with the database. Two complete sample applications are provided, described, and explained.

Part V: The Part of Tens

Part V provides some useful lists of important things to do and not to do when developing a Web database application.

Part VI: Appendixes

The final part, Part VI, provides instructions for installing PHP and MySQL for those who need to install the software themselves. Appendix B discusses how to configure PHP.

Icons Used in This Book



This icon is a sticky note of sorts, highlighting information that's worth committing to memory.



This icon flags information and techniques that are more technical than other sections of the book. The information here can be interesting and helpful, but you don't need to understand it to use the information in the book.



Tips provide extra information for a specific purpose. Tips can save you time and effort, so they're worth checking out.



You should always read warnings. Warnings emphasize actions that you must take or must avoid to prevent dire consequences.

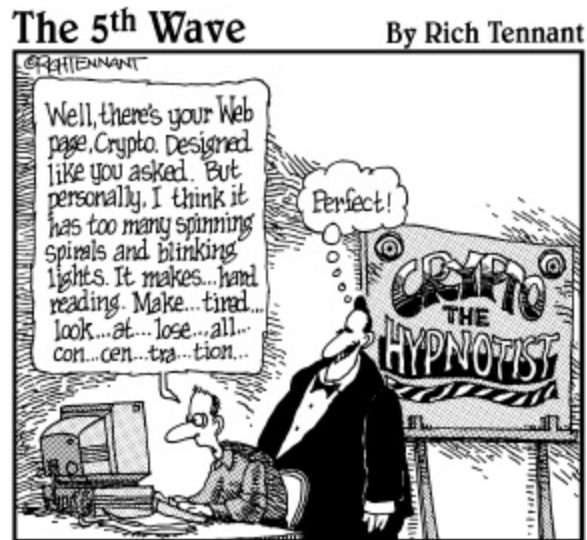
Where to Go from Here

This book is organized in the order in which things need to be done. If you're a newbie, you probably need to start with Part I, which describes how to get started, including how to design the pieces of your application and how the pieces will interact. When implementing your application, you need to create the MySQL database first, so I discuss MySQL before PHP. After you understand the details of MySQL and PHP, you need to put them together into a complete application, which I describe in Part IV. If you're already familiar with any part of the book, you can go directly to the part that you need. For instance, if you're familiar with database design, you can go directly to Part II, which describes how to implement the design in MySQL. Or if you know MySQL, you can just read about PHP in Part III.

And if you want even *more* information, check out the cheat sheet at www.dummies.com/cheatsheet/phpmysql.

Part I

Developing a Web Database Application Using PHP and MySQL



In this part . . .

In this part, I provide an overview. I describe PHP and MySQL, how each one works, and how they work together to make your Web database application possible. After describing your tools, I show you how to set up your working environment. I present your options for accessing PHP and MySQL and point out what to look for in each environment.

After describing your tools and your options for your development environment, I provide an overview of the

development process. I discuss planning, design, and building your application.