

Chapter 3: Developing a Web Database Application37

Part II: MySQL Database63

Chapter 4: Building the Database.....65

Chapter 5: Protecting Your Data.....93

Part III: PHP 111

Chapter 6: General PHP 113

Chapter 7: PHP Building Blocks for Programs.....143

Chapter 8: Data In, Data Out187

Chapter 9: Moving Information from One Web Page to the Next255

Part IV: Applications275

Chapter 10: Putting It All Together.....277

Chapter 11: Building an Online Catalog.....289

Chapter 12: Building a Members Only Web Site.....327

Part V: The Part of Tens357

Chapter 13: Ten Things You Might Want to Do Using PHP Functions359

Chapter 14: Ten PHP Gotchas367

Part VI: Appendixes373

Appendix A: Installing MySQL375

Appendix B: Installing PHP.....391

Appendix C: Installing and Configuring Apache.....407

Index419

COPYRIGHTED MATERIAL

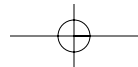
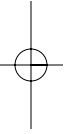


Table of Contents

***Introduction*..... 1**

About This Book.....	1
Conventions Used in This Book	2
What You're Not To Read	3
Foolish Assumptions	3
How This Book Is Organized.....	4
Part I: Developing a Web Database Application	
Using PHP and MySQL.....	4
Part II: MySQL Database	4
Part III: PHP	4
Part IV: Applications	4
Part V: The Part of Tens.....	5
Part VI: Appendixes.....	5
Icons Used in This Book.....	5
Where to Go from Here.....	5

***Part I: Developing a Web Database Application Using PHP and MySQL*..... 7**

Chapter 1: Introduction to PHP and MySQL 9

What Is a Web Database Application?	10
The database.....	11
The application: Moving data into and out of the database.....	11
MySQL, My Database	12
Advantages of MySQL.....	13
How MySQL works	14
Communicating with the MySQL server.....	15
PHP, a Data Mover	15
Advantages of PHP	16
How PHP works	16
MySQL and PHP, the Perfect Pair	18
Advantages of the relationship.....	18
How MySQL and PHP work together	18
Keeping Up with PHP and MySQL Changes	19

Chapter 2: Setting Up Your Work Environment 21

The Required Tools.....	21
Finding a Place to Work.....	22
A company Web site.....	22
A Web hosting company.....	24
Setting up and running a Web site on your local computer	26

Testing, Testing, 1, 2, 3	32
Understanding PHP/MySQL functions	32
Testing PHP	33
Testing MySQL	35
Chapter 3: Developing a Web Database Application	37
Planning Your Web Database Application.....	37
Identifying what you want from the application	38
Taking the user into consideration	40
Making the site easy to use	41
Leaving room for expansion	41
Writing it down	42
Presenting the Two Running Examples in This Book.....	42
Stuff for Sale	42
Members Only.....	43
Designing the Database.....	44
Choosing the data	44
Organizing the data	46
Designing the Sample Databases	50
Pet Catalog design process	51
Members Only design process	53
Types of Data.....	56
Character data	56
Numerical data	56
Date and time data	57
Enumeration data.....	57
MySQL data type names	57
Writing it down	59
Taking a Look at the Sample Database Designs	59
Stuff for Sale database tables.....	59
Members Only database tables	60
Developing the Application	61
Building the database	62
Writing the programs	62
 Part II: MySQL Database	 63
Chapter 4: Building the Database	65
Communicating with MySQL	65
Building SQL queries.....	66
Sending SQL queries	67
Building a Database	73
Creating a new database.....	73
Deleting a database.....	74
Adding tables to a database.....	74
Changing the database structure	76

Moving Data Into and Out of the Database.....	77
Adding information	78
Retrieving information.....	82
Combining information from tables	87
Updating information.....	92
Removing information	92
Chapter 5: Protecting Your Data	93
Controlling Access to Your Data	93
Understanding account names and hostnames	94
Finding out about passwords	96
Taking a look at account permissions	97
Setting Up MySQL Accounts	98
Identifying what accounts currently exist.....	100
Adding accounts	100
Adding and changing passwords	101
Changing permissions	102
Removing accounts and permissions	103
Backing Up Your Data	104
Restoring Your Data.....	107
Upgrading MySQL	110
 Part III: PHP	 111
Chapter 6: General PHP	113
Adding a PHP Section to an HTML Page	113
Writing PHP Statements	116
Using PHP Variables.....	119
Naming a variable.....	119
Creating and assigning values to variables.....	119
Dealing with notices.....	121
Using PHP Constants	122
Working with Numbers	123
Working with Character Strings	125
Single-quoted strings versus double-quoted strings	126
Joining strings.....	127
Working with Dates and Times.....	128
Setting local time	128
Formatting a date	129
Storing a timestamp in a variable.....	130
Using dates with MySQL.....	131
Comparing Values	132
Making simple comparisons	133
Matching character strings to patterns.....	135
Joining Comparisons with and/or/xor.....	139
Adding Comments to Your Program	141

Chapter 7: PHP Building Blocks for Programs	143
Useful Simple Statements	144
Using echo statements	145
Using assignment statements	148
Using increment statements	149
Using exit	150
Using function calls	150
Using PHP Arrays	151
Creating arrays	151
Viewing arrays	152
Removing values from arrays	154
Sorting arrays	154
Getting values from arrays	156
Walking through an array	158
Multidimensional arrays	160
Useful Conditional Statements	163
Using if statements	164
Using switch statements	167
Using Loops	168
Using for loops	169
Using while loops	170
Using do..while loops	172
Infinite loops	174
Breaking out of a loop	176
Using Functions	178
Using variables in functions	180
Passing values between a function and the main program	181
Using built-in functions	185
Chapter 8: Data In, Data Out	187
PHP and MySQL Functions	187
Making a Connection	189
Connecting to the MySQL server	190
Selecting the right database	191
Sending SQL queries	194
Getting Information from a Database	195
Sending a SELECT query	196
Getting and using the data	196
Using functions to get data	202
Getting Information from the User	206
Using HTML forms	207
Making forms dynamic	211
Using the information from the form	224
Checking the information	226
Giving users a choice with multiple submit buttons	236
Putting Information into a Database	238
Preparing the data	238
Adding new information	242
Updating existing information	247

Getting Information in Files250
 Using a form to upload the file250
 Processing the uploaded file.....251
 Putting it all together252

Chapter 9: Moving Information from One Web Page to the Next . . .255

Moving Your User from One Page to Another256
 Moving Information from Page to Page259
 Adding information to the URL.....260
 Storing information via cookies.....264
 Passing information with HTML forms267
 Using PHP Sessions.....267
 Opening sessions.....268
 Using PHP session variables269
 Sessions without cookies271
 Making sessions private273
 Closing PHP sessions274

***Part IV: Applications*275**

Chapter 10: Putting It All Together277

Organizing the Application277
 Organizing at the application level278
 Organizing at the program level279
 Keeping It Private.....285
 Ensure the security of the computer285
 Don't let the Web server display filenames286
 Hide things286
 Don't trust information from users287
 Use a secure Web server287
 Completing Your Documentation.....288

Chapter 11: Building an Online Catalog289

Designing the Application289
 Showing pets to the customers290
 Adding pets to the catalog291
 Building the Database.....291
 Building the Pet table.....292
 Building the PetType table.....295
 Building the Color table.....296
 Adding data to the database297
 Designing the Look and Feel.....299
 Showing pets to the customers299
 Adding pets to the catalog303
 Writing the Programs.....306
 Showing pets to the customers306
 Adding pets to the catalog312

Chapter 12: Building a Members Only Web Site 327

Designing the Application	328
Building the Database.....	328
Building the Member table.....	329
Building the Login table.....	332
Adding data to the database.....	333
Designing the Look and Feel.....	333
Storefront page.....	334
Login page.....	334
New Member Welcome page.....	336
Members Only section.....	336
Writing the Programs.....	337
Writing PetShopFront.....	338
Writing Login.....	340
Writing New_member.....	352
Writing the Members Only section.....	354
Planning for Growth.....	355

Part V: The Part of Tens 357**Chapter 13: Ten Things You Might Want to Do Using PHP Functions 359**

Communicate with MySQL.....	359
Send E-Mail.....	360
Use PHP Sessions.....	362
Stop Your Program.....	362
Handle Arrays.....	362
Check for Variables.....	363
Format Values.....	363
Compare Strings to Patterns.....	365
Find Out about Strings.....	365
Change the Case of Strings.....	366

Chapter 14: Ten PHP Gotchas 367

Missing Semicolons.....	367
Not Enough Equal Signs.....	368
Misspelled Variable Names.....	368
Missing Dollar Signs.....	368
Troubling Quotes.....	369
Invisible Output.....	369
Numbered Arrays.....	370
Including PHP Statements.....	371
Missing Mates.....	371
Confusing Parentheses and Brackets.....	372

Part VI: Appendixes	373
Appendix A: Installing MySQL	375
On Windows	375
Downloading and installing MySQL	375
Running the MySQL configuration wizard	378
Starting and stopping the MySQL server	380
On Linux and Unix	381
Using RPM (Linux only)	382
From source files	383
On Mac	386
Verifying a Downloaded File	388
Configuring MySQL	389
Appendix B: Installing PHP	391
Installing PHP on Unix, Linux, or Mac with Apache	391
On Unix and Linux	391
On Mac OS X	394
Installation options	398
Configuring Apache for PHP	399
Installing PHP on Windows	400
Configuring your Web server for PHP	402
Configuring PHP	404
Appendix C: Installing and Configuring Apache	407
Selecting a Version of Apache	407
Installing Apache on Linux and Unix	408
Before installing	408
Installing	408
Starting and stopping Apache	410
Getting information from Apache	412
Installing Apache on Windows	412
Installing	412
Starting and stopping Apache	414
Getting information from Apache	415
Installing Apache on Mac	416
Configuring Apache	417
Changing settings	417
Changing the location of your Web space	418
Changing the port number	418
Index	419

