## Chapter 4: Secure User Interfaces

After completing this chapter, the student will be able to:

- Explain why user input must be validated in the interface and business rules tiers
- Explain why user input must be filtered in the business rules tier
- Use HTML5 code to validate user input
- Use JavaScript code to validate user input
- Use PHP if statements (conditional statements) to validate and filter input
- Use foreach loops to dynamically create an HTML select box from an XML file
- Use simple arrays for filtering and validation
- Pass simple arrays into methods (functions)
- Understand how to use dependency injection to control code version changes

## Chapter 5: Handling and Logging Exceptions

After completing this chapter, the student will be able to:

- Explain the difference between errors and exceptions
- Create a PHP program that can handle general exceptions
- Create a PHP program that can create, raise, and handle user exceptions
- Explain and use a switch and/or embedded if/else statement
- Create a PHP program that uses the while loop and/or the for loop
- Create a program that reads/updates a text file using a two-dimensional array
- Create a PHP program that logs exceptions and e-mails support personnel

## Chapter 6: Data Objects

After completing this chapter, the student will be able to:

- Create a data class that inserts, updates, and deletes XML or JSON data
- Explain how to create a data class that updates MySQL Data using a SQL Script
- Create a PHP program that creates a change backup log
- Create a PHP program that can recover data from a previous backup
- Apply changes to create up-to-date valid information
- Use dependency injection to attach a data class to another class in the BR tier
- Create a three-tier PHP application

xviii