

# PHP

In this PHP training course, students will learn to create database-driven websites using PHP and MySQL.

## Introduction to PHP Training Course Goals

- Learn how PHP works
- Learn the basic syntax of PHP
- Learn to create dynamic interactive pages with PHP
- Learn to manipulate files with PHP
- Learn to work with arrays in PHP
- Learn to validate forms with PHP
- Learn to write functions in PHP
- Learn to manipulate and manage database data with PHP
- Learn to authenticate users with PHP
- Learn to manage sessions with PHP
- Learn to work with the PEAR:DB module
- Learn advanced form validation with regular expressions
- Learn to send email with PHP

## Introduction to PHP Training Course Prerequisites

- HTML
- CSS
- Basic Programming
- Some SQL

### 1. PHP Basics

- How PHP Works
- The php.ini File
- Basic PHP Syntax

- PHP Tags
- PHP Statements and Whitespace
- Comments
- PHP Functions
- Hello World!

## **2. Variables**

- Variable Types
- Variable Names (Identifiers)
- Type Strength
- Hello Variables!
- Variable Scope
- Superglobals
- Constants
- Variable-Testing and Manipulation Functions

## **3. First PHP Script**

## **4. PHP Operators**

## **5. Creating Dynamic Pages**

- Single Quotes vs. Double Quotes
- Passing Variables on the URL
- 8. Passing Variables via the Query String

## **6 Flow Control**

- Conditional Processing
- If Conditions
- Working with Conditions
- Loops
- while
- do...while

- for
- break and continue
- Working with Loops
- Arrays
- Enumerated Arrays
- Initializing Arrays
- Appending to an Array
- Reading from Arrays
- Looping through Arrays
- Working with Enumerated Arrays
- Associative Arrays
- Initializing Associative Arrays
- Reading from Associative Arrays
- Looping through Associative Arrays
- 4. Superglobal Arrays
- Working with Associative Arrays
- Two-dimensional Arrays
- Reading from Two-dimensional Arrays
- Looping through Two-dimensional Arrays
- Array Manipulation Functions

## **7. PHP and HTML Forms**

- HTML Forms
- How HTML Forms Work
- A Sample HTML Form
- Form Variables
- Processing Form Input

## **8. String Manipulation**

- Formatting Strings

- Concatenation
- String Manipulation Functions
- Examples of String Functions
- Working with String Manipulation Functions
- Magic Quotes
- magic\_quotes\_gpc
- magic\_quotes\_runtime
- Recommendation on Magic Quotes
- Reusing Code and Writing Functions
- Including Files
- require
- require\_once
- auto\_prepend\_file and auto\_append\_file
- Adding a Header and Footer
- User Functions

## **9. Defining and Calling Functions**

- Default Values
- Variable Scope
- By Reference vs. By Value
- Form Processing
- Code Organization
- Form Validation and Presentation Functions

## **10. Managing Data**

- Querying a Database
- mysqli() Overview
- mysqli Methods and Properties
- Inserting and Updating Records

- mysqli Prepared Statements
- Inserting Records 8. PEAR:DB
- Advantages and Disadvantages of PEAR DB
- Why use a database abstraction layer?
- When not to use a database abstraction layer?
- Using PEAR DB
- Creating a Customer Report

### **11.Authentication with PHP and SQL**

- A Database-less Login Form
- Authenticating Users

### **12.Regular Expressions**

- Perl-compatible Regular Expression Functions
- preg\_match()
- preg\_replace()
- Regular Expression Tester
- Regular Expression Syntax
- Start and End ( ^ \$ )
- Number of Occurrences ( ? + \* { } )
- Common Characters ( . \d \D \w \W \s \S )
- Grouping ( [ ] )
- Negation ( ^ )
- Subpatterns ( ( ) )
- Alternatives ( | )
- Escape Character ( \ )
- Form Validation Functions with Regular Expressions

### **13.Session Control and Cookies**

- Sessions

- Configuring Sessions
- Session Functions
- Cookies
- Authentication with Session Control

#### **14. Sending Email with PHP**

- mail()
- Shortcomings of mail()
- PHP Mailer
- Sending a Password by Email

#### **15. File System Management**

- Opening a File
- fopen()
- Reading from a File
- fgets()
- Writing to a File
- fwrite()
- Writing to a File
- File Locking
- flock ()
- Uploading Files via an HTML Form
- Getting File Information
- More File Functions
- Directory Functions
- Getting a Directory Listing
- Creating a Resume Management Page

#### **Advanced PHP Training**

In this advanced PHP training course, students will learn advanced features of the

PHP web programming language, its extensions and open source libraries for XML processing. As the technical web programming paradigm changes, more layers of abstractions are introduced by the PHP open source community. This course takes a deep dive into those areas such as XML/XSLT, XML-RPC, Smarty Templates, Web Services, Ajax and many more. This PHP course also explores the built-in advanced Object oriented language constructs and looks at some of the best practices with all of the advanced technologies combined.

### **1. Advanced PHP Training Course Goals**

- Learn how to program in Object-Oriented PHP
- Learn to process XML with PHP
- Learn to work with the PEAR HTTP\_REQUEST Module
- Learn to work with XML RPC and PHP
- Learn to create PHP Web Services
- Learn to work with Smarty Templates to speed up PHP development

### **Advanced PHP Training Course Prerequisites**

- PHP
- XML

### **Advanced PHP Training Course Outline**

#### **1. Object-Oriented PHP**

- Building a Class
- Working with Properties and Functions 3. Private, Protected, Public modifiers
- Inheritance
- Interfaces
- Building a Web Page Object
- PHP Objects in N-Tier Web Architecture
- Importance of PHP Business Objects

#### **2. PHP XML Support**

- Simple XML Object
- Executing XPath Queries
- DOM Interoperability
- Using XPath
- Installing and Configuring LIBXSL
- Applying Server side XSL Transformations
- Using XML in N-Tier Architecture
- Mixing PHP Objects and XML

### **3. PEAR: HTTP\_REQUEST MODULE**

- Installing PEAR::HTTP\_REQUEST with Dependencies
- HTTP\_REQUEST Capability
- HTTP GET Request
- HTTP POST Request
- Programmatically Posting to a HTML Form
- Parsing the Response
- Building a Basic Authentication PHP Client

### **4. XML RPC**

- XML-RPC Implementations
- Installing and Configuring PHPXMLRPC
- XML RPC Data-Types
- XML RPC Server
- XML RPC Client
- XML RPC Request and Response
- Exploring the XML RPC API

### **5. PHP Web Services**

- Web Service Technology Stack
- SOAP Soup



- Web Services with PHP
- Installing NuSOAP
- Building a SOAP SERVER
- Consuming a Web Service
- Generating WSDL Dynamically
- Understanding Generated WSDL
- WSDL and SOAP Proxies

## **6. Complex PHP Web Services**

- Building Interoperable Web Services
- Generating and Handling SOAP Faults
- RPC Vs. Document Message Encoding
- Serializing the SOAP Envelope
- Web Service Best Practices

## **7. Ajax with PHP**

- Ajax Overview
- Ajax Technology Stack
- Ajax Implementations
- Installing and configuring HTML Ajax Pear Module
- Ajax Server
- Ajax Client

## **8. Smarty Templates**

- Smarty Overview
- Installing and configuring Smarty Pear Module
- Setting up a Template
- Passing Data to the Template
- Smarty for Template Designers
- Smarty for Programmers

- Smarty in N-Tier Architecture