



ELEVO LABS

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Course Overview

Course Details

Course Name: PHP & MySQL Fundamentals: Build Your First Dynamic Websites

Instructor: Michael Lee

Created On: 16 June, 2025

Updated On: 16 June, 2025

Price: 3000 INR

Duration: 2 Weeks

Modules: 10

Language: English, Hindi

Level: Beginner

Certifications: Yes

Course Description

This course is your absolute starting point for backend web development using PHP and MySQL. We start from scratch, assuming no prior backend knowledge, and guide you through the fundamental concepts needed to build dynamic, data-driven web applications.

You'll begin with the core syntax of PHP, understanding variables, data types, operators, and control structures. Critically, you will learn how PHP code gets executed on a server, including the role of the Zend Engine and the request lifecycle. From there, you'll master essential web concepts like handling user input from forms, managing application state with sessions and cookies, and working with PHP's built-in functions for strings, arrays, and

numbers.

A significant portion of the course is dedicated to database integration with MySQL. You will learn how to connect to a MySQL database using the modern PDO interface, perform all basic CRUD (Create, Read, Update, Delete) operations, and ensure secure data handling with prepared statements. We'll also cover basic file system operations and essential security practices for fundamental web applications.

Please Note: This course focuses purely on procedural and fundamental PHP and MySQL. Advanced topics like Object-Oriented Programming (OOP), Composer for dependency management, building complex REST APIs, or implementing the MVC pattern will be covered in separate, more advanced courses.

What You'll Learn:

- Core PHP syntax, variables, data types, and operators.
- How PHP code is executed, including the request lifecycle, SAPI, and the Zend Engine.
- Control flow statements (`if/else`, `switch`) and loops (`for`, `while`, `foreach`).
- Defining and using PHP functions, understanding variable scope.
- Working with PHP arrays (indexed and associative) and string manipulation.
- Handling web forms (`GET` & `POST`), file uploads, and superglobals.
- Managing user sessions and cookies for state persistence.
- Connecting PHP to MySQL databases securely using PDO.
- Performing CRUD (Create, Read, Update, Delete) operations in MySQL.
- Basic file system operations (reading, writing files).
- Implementing fundamental security practices (input sanitization, password hashing, prepared statements).

Who Is This Course For?

This course is designed for absolute beginners to backend web development. It's perfect for front-end developers looking to add backend skills, or anyone who wants to learn how dynamic websites work behind the scenes using PHP and MySQL. No prior programming experience is required beyond basic HTML/CSS.

Prerequisites:

- **Basic HTML & CSS Knowledge:** Familiarity with creating web pages.
- **A Computer/Laptop:** A working computer (Windows, macOS, or Linux).

- **Internet Connection:** For downloading software and resources.
- **Willingness to Learn:** Enthusiasm for building dynamic web applications.

Includes practical exercises for each module, a final mini-project to apply your skills, and a certificate of completion. Available in English and Hindi.

Course Curriculum Details

Module 1: Module 1: Introduction to PHP and Environment Setup

6 Lessons

1. 1. What is PHP and How it Works (Server-Side Scripting) **15min**
2. 2. Setting Up Your Local Development Environment (XAMPP/MAMP/Laragon) **30min**
3. 3. Your First PHP Script: Embedding PHP in HTML **15min**
4. 4. PHP Syntax Rules and Comments **10min**
5. 5. Printing Output: `echo` vs. `print` **10min**
6. 6. Recap & Practical Task: Create a Simple Dynamic HTML Page **25min**

Module 2: Module 2: PHP Code Execution & Request Lifecycle

7 Lessons

1. 7. How PHP Works with Web Servers (Apache/Nginx Integration) **20min**
2. 8. Understanding SAPI (Server Application Programming Interface) **25min**
3. 9. The Zend Engine: PHP's Core Compiler and Executor **30min**

4. 10. PHP Request Lifecycle: From Web Server to Browser Response **35min**

5. 11. Understanding `php.ini` and Core Configuration Directives **25min**

6. 12. Basic Error Reporting vs. Error Logging **15min**

7. 13. Recap & Practical Task: Inspect PHP Info and Error Logs **40min**

Module 3: Module 3: PHP Language Fundamentals: Variables, Data Types & Operators

7 Lessons

1. 14. Variables: Declaration, Naming Rules, and Scope **25min**

2. 15. Data Types in PHP: Strings, Integers, Floats, Booleans **30min**

3. 16. Composite Data Types: Indexed Arrays and Associative Arrays **35min**

4. 17. Special Data Types: `NULL` and Resources **15min**

5. 18. Operators in PHP: Arithmetic, Assignment, Comparison, Logical **30min**

6. 19. Type Juggling and Type Casting **15min**

7. 20. Recap & Practical Task: Build a Simple Calculator Script **40min**

Module 4: Module 4: Control Flow and Functions

9 Lessons

1. 21. Conditional Statements: `if`, `else if`, `else` **25min**

2. 22. The `switch` Statement **20min**

3. 23. Loops: `for`, `while`, `do-while` **30min**

4. 24. Iterating Arrays with `foreach` Loop **25min**

5. 25. Defining and Calling User-Defined Functions **25min**

6. 26. Function Parameters (Pass by Value vs. Reference) and Default Arguments
20min

7. 27. Variable Scope in Functions (`global`, `static`) **20min**

8. 28. Built-in PHP Functions (String, Array, Math functions) **30min**

9. 29. Recap & Practical Task: Create a Function Library for Common Tasks **50min**

Module 5: Module 5: Handling Web Forms and State Management

8 Lessons

1. 30. Working with HTML Forms: `GET` and `POST` Methods **30min**

2. 31. Understanding Superglobal Arrays (`\$_GET`, `\$_POST`, `\$_REQUEST`,
`\$_SERVER`) **25min**

3. 32. Server-Side Form Validation (Basic Input Checks) **35min**

4. 33. Introduction to State Management: Sessions **30min**

5. 34. Using PHP Sessions: `session_start()`, `\$_SESSION` **25min**

6. 35. Introduction to Cookies: Setting and Retrieving **25min**

7. 36. File Uploads (Basics: `\$_FILES`, `move_uploaded_file`) **30min**

8. 37. Recap & Practical Task: Build a Simple Feedback Form with Session Storage
1hr

Module 6: Module 6: Introduction to MySQL and Database Connection (PDO)

6 Lessons

1. 38. Introduction to Relational Databases and SQL Basics **20min**
2. 39. Setting Up MySQL Database and Tables (using phpMyAdmin or CLI) **35min**
3. 40. PHP Data Objects (PDO): Why Choose PDO? **25min**
4. 41. Connecting PHP to MySQL Database using PDO **30min**
5. 42. Handling Database Connection Errors **20min**
6. 43. Recap & Practical Task: Connect PHP to a Sample Database **45min**

Module 7: Module 7: Basic Database Operations (CRUD) with PDO

7 Lessons

1. 44. Inserting Data into MySQL (`INSERT` statements with PDO) **30min**
2. 45. Retrieving Data from MySQL (`SELECT` queries with PDO) **40min**
3. 46. Updating Data in MySQL (`UPDATE` statements with PDO) **30min**
4. 47. Deleting Data from MySQL (`DELETE` statements with PDO) **25min**
5. 48. Using Prepared Statements to Prevent SQL Injection (Crucial for Security) **45min**
6. 49. Fetching Data (fetch, fetchAll) and Displaying Results **35min**
7. 50. Recap & Practical Task: Build a Basic User Management System (CRUD) **1hr 15min**

Module 8: Module 8: File System and Basic Error Handling

7 Lessons

1. 51. Reading Files in PHP (`fopen`, `fread`, `file_get_contents`) **25min**
2. 52. Writing to Files in PHP (`fopen`, `fwrite`, `file_put_contents`) **25min**
3. 53. Checking File Existence and Permissions **15min**
4. 54. Basic PHP Error Reporting and Display Settings **20min**
5. 55. Simple Error Handling with `die()` and `exit()` **15min**
6. 56. Including External PHP Files (`include`, `require`, `include_once`, `require_once`) **25min**
7. 57. Recap & Practical Task: Create a Simple Log File System **40min**

Module 9: Module 9: Essential PHP Security Basics

5 Lessons

1. 58. Input Sanitization: Filtering and Validating User Input **30min**
2. 59. Using `htmlspecialchars()` to Prevent Basic XSS **25min**
3. 60. Secure Password Hashing with `password_hash()` and `password_verify()` **25min**
4. 61. Basic File Upload Security **20min**
5. 62. Recap & Practical Task: Secure a User Registration Form **45min**

Module 10: Module 10: Final Project - Simple Dynamic Blog Application

6 Lessons

1. 63. Project Overview: Planning Blog Features and Database Schema **45min**

2. 64. Building the Public-Facing Blog (Displaying Posts) **1hr 30min**

3. 65. Creating an Admin Panel for Basic Post Management (CRUD) **2hr**

4. 66. Implementing Simple User Authentication (Login/Logout) **1hr 30min**

5. 67. Final Review and Project Submission **1hr**

6. 68. Recap & Course Conclusion **40min**

This curriculum is subject to minor adjustments to ensure the most up-to-date and effective learning experience.