



TECHNOCATION FREELANCING TRAINING INSTITUTE & SOFTWARE HOUSE

Professional PHP Web Development Course Outline

Module 1: Introduction to PHP

- What is PHP? (Overview & History)
 - Advantages of PHP for Web Development
 - Installing PHP & Setting Up Local Server (XAMPP, WAMP, LAMP)
 - Writing Your First PHP Script
 - Understanding PHP Syntax & Basic Structure
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Module 2: PHP Fundamentals

- Variables & Data Types
 - Operators (Arithmetic, Logical, Comparison)
 - Control Structures (if-else, switch-case)
 - Loops (for, while, do-while, foreach)
 - Working with Arrays (Indexed, Associative, Multidimensional)
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Module 3: Working with Functions in PHP

- Defining & Calling Functions
 - Function Parameters & Return Values
 - Variable Scope & Global Variables
 - Built-in PHP Functions
 - Working with Include & Require Statements
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Module 4: Handling Forms & User Input

- Creating & Handling HTML Forms with PHP
 - GET vs. POST Methods
 - Form Validation & Sanitization
 - File Uploading & Handling Errors
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Module 5: Working with PHP & MySQL Database

- Introduction to MySQL & PHPMyAdmin
 - Connecting PHP with MySQL Database
 - CRUD Operations (Create, Read, Update, Delete)
 - Using Prepared Statements & SQL Injection Prevention
 - Displaying Database Data in HTML Pages
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Module 6: PHP Sessions & Cookies

- Understanding Sessions & Cookies
 - Creating & Managing Sessions
 - Storing & Retrieving Cookie Data
 - Implementing User Authentication with Sessions
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Module 7: Object-Oriented Programming (OOP) in PHP

- Introduction to OOP in PHP
 - Classes, Objects & Constructors
 - Inheritance & Polymorphism
 - Encapsulation & Visibility (Public, Private, Protected)
 - Namespaces & Autoloading
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Module 8: PHP Security & Best Practices

- Preventing SQL Injection & XSS Attacks
- Secure File Uploading & Data Validation
- Password Hashing & Encryption (bcrypt, hash)
- Implementing HTTPS & Security Headers

- Protecting Against Cross-Site Request Forgery (CSRF)
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Module 9: Advanced PHP Concepts

- Working with APIs (RESTful API, cURL)
 - Sending Emails with PHP (PHPMailer)
 - Working with JSON & XML
 - Error Handling & Debugging in PHP
 - Cron Jobs & Automated Tasks
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Module 10: PHP Frameworks (Laravel, CodeIgniter, Symfony)

- Introduction to PHP Frameworks
 - MVC Architecture in PHP
 - Installing & Setting Up Laravel
 - Building a Simple CRUD Application in Laravel
 - Routing, Middleware & Blade Templating
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Module 11: Building Real-World Projects with PHP

- Developing a Blog Website
 - Creating a User Authentication System
 - Building an E-commerce Website with PHP & MySQL
 - Implementing an Admin Dashboard
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Module 12: Deployment & Optimization

- Hosting PHP Applications (cPanel, VPS, Cloud)
- Deploying PHP Applications on AWS & DigitalOcean
- Performance Optimization Techniques
- Debugging & Logging in PHP Applications
- SEO & Best Practices for PHP Websites