

PHP & MySQL



Zetlan Technologies

e-Learning Course

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COURSE MODULES

Module 1: Introduction to PHP & MySQL

- Overview of PHP & MySQL
- Setting up a development environment (XAMPP, MAMP, or LAMP)
- Basics of PHP syntax
- Variables, Constants & Data Types
- Operators & Expressions

Module 2: Control Structures & Functions

- Conditional statements (if, else, switch)
- Loops (for, while, do-while, foreach)
- Functions (Defining, Calling, Arguments, Return Values)
- Built-in PHP functions
- Working with arrays & array functions

Module 3: Working with Forms in PHP

- HTML Forms & PHP
- GET vs POST method
- Form validation & sanitization
- Handling form submissions

Module 4: PHP and MySQL Integration

- Introduction to MySQL
- Connecting PHP to MySQL using MySQLi and PDO
- CRUD operations (Create, Read, Update, Delete)
- Handling errors & exceptions

Module 5: Advanced Database Concepts

- Database normalization
- Joins (INNER, LEFT, RIGHT, FULL)
- Indexing & performance optimization
- Stored procedures & triggers

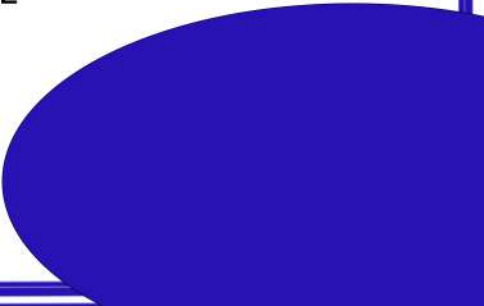
Module 6: User Authentication & Security

- User registration & login system
- Password hashing (password_hash(), password_verify())
- Session management in PHP
- Preventing SQL Injection & XSS attacks
- CSRF protection techniques

Module 7: File Handling & Uploads

- Reading & writing files in PHP
- Handling file uploads securely
- Image manipulation using GD Library

Module 8: Working with APIs & JSON

- Introduction to REST APIs
 - Consuming external APIs with cURL
 - Creating a REST API with PHP
 - Working with JSON data
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Module 9: Object-Oriented PHP

- Classes & Objects
- Properties & Methods
- Constructors & Destructors
- Inheritance, Polymorphism & Encapsulation
- Namespaces & Autoloading

Module 10: Advanced PHP Concepts

- Working with Sessions & Cookies
- Exception Handling
- PHP and Email (SMTP, PHPMailer)
- Using Composer for Dependency Management

Module 11: PHP Frameworks (Optional)

- Introduction to Laravel or CodeIgniter
- MVC Architecture
- Routing & Middleware
- Blade Templates & Eloquent ORM

Module 12: Project Development & Deployment

- Developing a complete PHP & MySQL project
- Testing & debugging PHP applications
- Deploying PHP applications to a live server
- Best practices & optimization techniques

