

PHP Course Contents

Course Duration: One Month

1. Introduction to PHP

- What is PHP?
- History and evolution of PHP
- Installing PHP (XAMPP, WAMP, MAMP)
- Setting up the development environment
- Writing your first PHP script
- PHP syntax basics

2. Basic PHP Syntax and Fundamentals

- PHP tags
- Comments in PHP
- Variables and data types
- Constants
- Operators (arithmetic, comparison, logical)
- Strings and string functions
- Numbers and math functions
- Type juggling and casting

3. Control Structures

- Conditional statements (if, else, elseif, switch)
- Looping (for, while, do-while, foreach)
- Breaking and continuing loops

4. Functions

- Defining and calling functions
- Function arguments and return values

- Variable scope (local, global, static)
- Anonymous functions and closures
- Recursion

5. Arrays

- Indexed arrays
- Associative arrays
- Multidimensional arrays
- Array functions (sort, merge, push, pop, etc.)

6. Working with Forms and User Input

- GET and POST methods
- Handling form data
- Validating and sanitizing input
- File uploads

7. Working with Strings and Regular Expressions

- String manipulation functions
- Pattern matching with regex (preg_match, preg_replace)

8. PHP and Web

- Introduction to HTTP and sessions
- Cookies management
- Working with headers and redirects
- Basic authentication

9. File Handling

- Reading and writing files
- Working with directories
- File upload and management

10. Object-Oriented Programming (OOP) in PHP

- Classes and objects
- Properties and methods
- Constructors and destructors
- Inheritance and interfaces
- Traits
- Namespaces
- Magic methods

11. Error and Exception Handling

- Types of errors in PHP
- Error reporting and logging
- Exception handling with try-catch blocks
- Custom exceptions

12. Working with Databases

- Introduction to databases and MySQL
- Connecting to MySQL with mysqli and PDO
- Executing queries and handling results
- Prepared statements
- CRUD operations

13. PHP and JSON / XML

- Working with JSON data (json_encode, json_decode)
- XML parsing basics

14. PHP Security Basics

- Preventing SQL Injection
- Cross-site scripting (XSS) prevention

- Cross-site request forgery (CSRF) basics
- Password hashing and authentication

15. PHP Frameworks and Tools (Overview)

- Introduction to popular PHP frameworks (Laravel, Symfony)
- Composer and dependency management
- Introduction to PHP testing (PHPUnit)

16. Project and Best Practices

- Structuring a PHP project
- Coding standards (PSR)
- Debugging techniques
- Deployment basics