

# **BASIC & ADVANCE PHP SYLLABUS**

## **Module 1: Introduction to PHP**

- What is PHP and how it works
- Features of PHP
- Installing XAMPP/WAMP
- PHP syntax and structure
- Writing and executing first PHP program
- PHP vs other languages

## **Module 2: Variables & Data Types**

- Variables and constants
- Data types (string, integer, float, boolean, array)
- Type casting
- Operators (arithmetic, logical, comparison)

## **Module 3: Control Statements**

- if, if-else, nested if
- switch-case
- Conditional (ternary) operator
- Decision-making programs

## **Module 4: Loops**

- for loop
- while loop
- do-while loop
- foreach loop
- break and continue

## Module 5: Functions

- User-defined functions
- Function arguments
- Return values
- Recursive functions
- Built-in functions

## Module 6: Arrays

- Indexed arrays
- Associative arrays
- Multidimensional arrays
- Array functions
- Sorting arrays

## Module 7: Strings

- String functions
- String manipulation
- Regular expressions basics

## Module 8: Forms Handling

- Creating HTML forms
- GET and POST methods
- Form validation
- Handling user input securely

## Module 9: Sessions & Cookies

- What are sessions
- Creating and destroying sessions
- Cookies in PHP
- Session security

## Module 10: File Handling

- Opening and closing files
- Reading and writing files
- File upload handling
- File permissions

## Module 11: MySQL Database Integration

- Introduction to MySQL
- Connecting PHP with MySQL
- CRUD operations
- Prepared statements
- Preventing SQL Injection

## Module 12: Object-Oriented PHP

- Classes and Objects
- Constructors & Destructors
- Inheritance
- Polymorphism
- Encapsulation
- Interfaces & Traits

## Module 13: PHP with AJAX

- Introduction to AJAX
- Asynchronous requests
- Fetching data without page reload
- Live search example

## Module 14: REST API Development

- Introduction to APIs
- Creating RESTful APIs

- JSON handling
- API authentication basics

## Module 15: Security Best Practices

- Input validation & sanitization
- Preventing XSS attacks
- CSRF protection
- Password hashing

## Module 16: PHP Framework Introduction

- Overview of Laravel
- MVC architecture
- Why use frameworks

## Module 17: Deployment

- Hosting PHP projects
- Domain and server setup
- Configuration and optimization

## Module 18: Real-World Projects

- Login & Registration System
- CRUD Application
- Blog Website
- Admin Panel