

# € TRAINING

PHP Language





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## Introduction:

This training program introduces participants to PHP Hypertext Preprocessor, a powerful server-side scripting language widely used for web development. Through it, participants will gain comprehensive knowledge and practical skills essential for developing dynamic websites and web applications.

## Program Objectives:

By the end of this program, participants will be able to:

- Understand the fundamentals of PHP language syntax and concepts.
- Develop web applications using PHP for server-side scripting.
- Integrate PHP with HTML and CSS to create dynamic web pages.
- Implement database connectivity and manipulate data using PHP.
- Apply security best practices and debugging techniques in PHP development.

## Target Audience:

- Web Developers.
- Software Engineers.
- IT Professionals.

## Program Outline:

### Unit 1:

#### Introduction to PHP:

- Overview of PHP: history, features, and applications.
- Setting up a PHP development environment e.g., XAMPP, WAMP.
- Basic syntax and data types in PHP.
- Variables, constants, operators, and expressions in PHP.
- Writing and executing PHP scripts.

## Unit 2:

### Control Structures and Functions:

- Conditional statements if, else, elseif and loops for, while, do-while in PHP.
- Arrays: indexed, associative, and multidimensional arrays in PHP.
- Functions: defining, invoking, and passing parameters in PHP.
- Scope and lifetime of variables in PHP.
- Practical exercises and assignments on control structures and functions.

## Unit 3:

### PHP and Web Development:

- Integrating PHP with HTML and CSS for dynamic web pages.
- Form handling and processing user input in PHP.
- Session management and cookies in PHP.
- File handling and uploading files using PHP.
- Practical examples of web application development with PHP.

## Unit 4:

### Database Connectivity with PHP:

- Introduction to databases: MySQL, PostgreSQL, SQLite, etc.
- Connecting PHP with databases using MySQLi and PDO.
- Performing CRUD operations Create, Read, Update, Delete in PHP.
- Prepared statements and SQL injection prevention in PHP.
- Hands-on exercises on database integration and manipulation in PHP.

## Unit 5:

### Advanced PHP Concepts:

- Object-oriented programming OOP in PHP: classes, objects, inheritance, polymorphism.



- Exception handling: try, catch, finally blocks in PHP.
- PHP libraries and frameworks Laravel, Symfony.
- Security best practices: data validation, sanitization, and securing PHP applications.
- Debugging and error handling techniques in PHP.