**PHP Programming**

**Course Overview**

The **PHP Programming** course is designed to equip learners with practical skills for building dynamic, data-driven web applications. PHP (Hypertext Preprocessor) is a widely-used open-source scripting language that powers over 75% of websites worldwide, including popular platforms like WordPress and Facebook.

This course takes a hands-on approach to PHP fundamentals, server-side scripting, form handling, session management, and integrating with databases using MySQL. It is ideal for aspiring web developers who want to understand backend development and build full-stack applications with PHP and HTML/CSS/JavaScript.

**Course Objectives**

By the end of this course, learners will:

* Understand the syntax and structure of PHP.
* Learn how PHP integrates with HTML to create dynamic web content.
* Handle forms, user input, and data validation.
* Manage files, sessions, cookies, and server configurations.
* Interact with MySQL databases using PHP (CRUD operations).
* Build mini web applications using PHP.
* Understand security principles in PHP (validation, sanitization, SQL injection prevention).

**Syllabus Breakdown**

**Module 1: Introduction to PHP**

* What is PHP and why use it?
* Installing XAMPP/WAMP for local development
* Writing first PHP scripts
* PHP syntax: variables, constants, data types
* Embedding PHP in HTML
* Echo, print, and comments

**Module 2: Control Structures and Functions**

* Conditional statements: if, else, switch
* Loops: while, do...while, for, foreach
* Defining and calling functions
* Function parameters and return values
* Global and local scope, include() and require()

**Module 3: Working with Forms and User Input**

* Creating forms with HTML
* GET vs POST method
* Validating and sanitizing user input
* Handling form submissions using PHP
* Error messages and user feedback

**Module 4: Arrays and Strings in PHP**

* Indexed, associative, and multidimensional arrays
* Array functions: array\_merge(), array\_push(), sort(), etc.
* String functions: strlen(), str\_replace(), explode(), implode()
* Looping through arrays and working with user data

**Module 5: File Handling and Data Storage**

* Reading and writing files
* Uploading files through forms
* File validation and security
* File permissions and path management

**Module 6: Sessions and Cookies**

* What are sessions and cookies?
* Creating and managing sessions
* Storing user information
* Using cookies to remember user preferences
* Security considerations in session management

**Module 7: PHP and MySQL Integration**

* Connecting PHP to MySQL using mysqli and PDO
* Creating databases and tables
* CRUD operations: Create, Read, Update, Delete
* Displaying database data on webpages
* Search and filter using SQL and PHP
* Error handling with database operations

**Module 8: Mini Project and Best Practices**

* Project: Build a simple Blog or Contact Management System
* Form validation and secure login system
* Code organization and reusable components
* Error reporting and debugging
* Preventing SQL injection and XSS
* PHP configuration settings and performance tips

**Career Opportunities**

With PHP being one of the most popular server-side languages, learners completing this course can pursue roles such as:

* **PHP Web Developer**
* **Backend Web Developer**
* **Full Stack Developer (LAMP stack)**
* **WordPress Developer**
* **Freelance Web Application Developer**
* **eCommerce Website Developer**
* **CMS and Portal Developer**

Industries such as **e-commerce, digital media, ed-tech, small businesses, and startups** actively hire PHP developers for custom web application development and maintenance.