



LARAVEL PHP

Duration: 4 days; Instructor-led

COURSE DESCRIPTION

Laravel is a free, open source PHP web application framework, designed for development of MVC web applications. Laravel is released under MIT license, with its source code hosted on GitHub.

Laravel has taken the PHP community by storm, with its incredibly expressive syntax, the most powerful Active-Record implementation available, a robust command line tool, and much more.

This is an in-depth Laravel Training, which is an open source project to create websites with easy development techniques. Laravel follows the elegant, expressive syntax. Laravel makes the development procedure a gratifying one for the developers without sacrificing applications functionality. Laravel course will acquaint participants with accessible tools needed for robust, large applications.

AUDIENCE

This course is designed for Developers who wish to know how to develop web applications using Laravel PHP Framework.

PREREQUISITES

Participants should have practical experience of writing web applications in PHP.

METHODOLOGY

Every participant will be provided with course notes and are required to bring in their own laptops for hands-on exercise and practice sessions.

COURSE OBJECTIVES

Upon completion of this program, participants will be able to:

- Set up and install Laravel
- Use forms and gather/validate inputs
- Create an authentication system for the application
- Store and use data by creating data tables and raw SQL statements
- Use controllers and routes for APIs and URLs
- Display views and loading nested views
- Create and using composer packages
- Use jQuery and Ajax
- Implement security and sessions effectively using encryption/decryption
- Deploy and integrate third-party services into application

KEY CONTENT

Module 1: Basic Scripting, Conditional and Looping Constructs

- PHP Scripting Fundamentals
- Print Statement
- Code Blocks
- Primitive Data Types
- Defining Constants and Variables
- Looping Constructs
- while, do... while, for, exit and break
- True and False Expressions
- if, else and elseif
- switch/case Statement
- The ? (Ternary) Operator

Module 2: Modularity through Include Files

- Using Include Files
- The Require Statement
- Modularizing Code with Functions
- Defining and Using Basic Functions

Module 3: PHP Operators

- Logical Operators
- Relational Operators
- Bitwise Operators
- Other Operators
- PHP7 Null Coalescing operator
- PHP7 Spaceship Operator



Module 4: PHP Functions

- Introduction to Functions
- Declaring Functions
- Scope
- Passing Arguments to Functions
- Local and Global Scope
- Passing Arguments to Functions by Value and Reference
- Variable Scoping and Return Values
- Recursion
- Coercive and Strict Type Declarations for Parameters and Return Values
- Optional and REST Parameters
- Argument Unpacking
- Generator Return Expressions
- Dynamic Function Calls
- Predefined PHP Functions

Module 5: Arrays in PHP

- What are Arrays?
- Usage of Arrays in PHP
- Array Indexing
- Initializing Arrays
- Operating on Arrays
- Sorting Arrays
- One-Dimensional and Multi-Dimensional Arrays
- Associative Arrays
- Array Functions
- Forms and Arrays in Web Applications

Module 6: Basic OOP in PHP

- Defining Object Oriented Programming
- Creating New Objects in PHP
- PHP Object Syntax
- Using Predefined PHP OOP Libraries
- Implementing New Classes
- Extending Classes
- Understanding Private, Public and Protected
- Inheriting Methods and Properties
- Overriding Methods and Properties

Module 7: Introduction

- Overview
- Installation and Composer
- Configuration

Module 8: Request, Routing & Responses

- Request Lifecycle
- Basic Routing
- Route Parameters
- Views
- Views Data
- Redirects
- Custom Responses
- Response Shortcuts

Module 9: Controllers

- Creating Controllers
- Controller Routing
- RESTful Controllers

Module 10: Blade

- Creating Templates
- PHP Output
- Controller Structures
- Templates Inheritance

Module 11: Unit Testing

- Introduction
- Environment
- Creating and Running Tests
- HTTP Tests
- Browser Tests

Module 12: Advanced Routing

- Named Routes
- Secure Routes
- Parameter Constraints
- Route Groups
- Route Prefixing
- Domain Routing

Module 13: URL Generation

- The current URL
- Generating Framework URLs
- Asset URLs
- Generation Shortcuts

Module 14: Request Data

- Retrieval
- Old Input
- Uploaded Files
- Cookies

Module 15: Forms

- Opening Forms
- Form Fields
- Form Buttons
- Form Macro
- Form Security



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Module 16: Validation

- Simple Validation
- Validation Rules
- Error Messages
- Custom Validation Rules
- Custom Validation Messages

Module 17: Security

- Configuration
- Storing Passwords
- Authenticating Users
- Manually Logging In Users
- Protecting Routes
- HTTP Basic Authentication
- Password Reminders & Reset
- Encryption
- Authentication Drivers

Module 18: Databases

- Abstraction
- Configuration
- Preparing

Module 19: Schema Builder

- Creating Tables
- Column Types
- Column Modifiers
- Updating Tables
- Dropping Tables
- Schema Tricks

Module 20: Migrations

- Basic Concept
- Creating Migrations
- Running Migrations
- Rolling Back
- Migration tricks

Module 21: Eloquent

- Models, Tinker, Legacy DBs
- Scopes - Global Scopes and Traits
- Accessors and Mutators
- Creating and Updating
- Advanced Where and When
- Relationships
- Relationship Queries
- Querying Relationship Children
- Collections

Module 22: Elixir

- Installing Node.JS
- Installing Elixir Repertoire Designer
- Installing Database Drivers and Additional Class Files
- Adding Data Source
- Adding Page Title Header
- Populating the Report
- Sorting and Grouping
- Labelling
- Creating Elixir Task
- Compiling with Laravel Elixir and Running Elixir

Module 23: Implementing RESTful Servers with PHP

- Understanding RESTful Servers
- Benefits of PHP for Implementing RESTful Servers
- Using HTTP Verbs to Access Data
- Understanding RESTful URIs
- Defining PHP Objects to Access RESTful URIs
- Effective Use of OOP Inheritance
- Implementing a RESTful Server in PHP for a Small Application

Module 24: JSON Security

- Introduction
- Middleware Authentication
- Authorizers
- Controller Authorization
- Helpers

Module 25: Conclusion