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## Course Syllabus: Advanced PHP with Laravel

*Batch Name: Advanced PHP with Laravel*

*Eligibility: Graduation*

*Course Start: 1st of Every Month*

*Course Duration: 180 Hours*

### Courses / Modules Paper

#### Module 1

Paper 1	Paper 2	Paper 3
Advanced PHP	Laravel	Laravel PHP Framework

### Paper 1: Advanced PHP

#### Introduction

- 1.1 Local Development Environment and Software Install
- 1.2 Embedding PHP in HTML
- 1.3 Inserting Comments in PHP

#### Data Types

- 1.1 Variables in PHP
- 1.2 Arrays
- 1.3 Associative Arrays

#### Control Structures

- 1.1 If Statements
- 1.2 Switch statements in PHP
- 1.3 Comparisons and logical operators
- 1.4 Loops in PHP

#### Functions and Classes

- 1.1 Defining Functions
- 1.2 Global Variable and Scope
- 1.3 Function in and out parametres
- 1.4 Constants
- 1.5 Math, String, Array Functions
- 1.6 Objects and Classes

#### Forms

- 1.1 Form submission
- 1.2 Extracting information from form
- 1.3 Validating form
- 1.4 External Page

#### Databases

- 1.1 Creating a database in PHPmyadmin
- 1.2 Queries- select insert delete and update
- 1.3 Refactoring Database
- 1.4 Files
- 1.5 Refactoring

#### PHP Security

- 1.1 Password Encryption
- 1.2 SQL Injection

#### Web on PHP

- 1.1 Get/ Post
- 1.2 Cookies
- 1.3 Session

#### CMS Project/ Blogging System

- 1.1 CMS
- 1.2 Assets
- 1.3 Reusable
- 1.4 Working with Data
- 1.5 Navigation Links
- 1.6 Categories
- 1.7 Dashboard
- 1.8 Notification

#### Pagination

- 1.1 Links and Get Request

### Paper 2: Laravel

#### Introduction

- 2.1 Meaning and Features of Laravel
- 2.2 History of Laravel
- 2.3 Laravel Directory Structure

#### Laravel Routing

- 2.1 Laravel Basic Routing
- 2.2 Routing Parametres
- 2.3 Laravel Named Routes
- 2.4 Laravel Middleware
- 2.5 Laravel Route Groups

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## Laravel Controllers

- 2.1 Laravel Controllers
- 2.2 Routing Controllers
- 2.3 Resource Controllers
- 2.4 Controller Middleware

## Laravel Views

- 1.1 Laravel Views
- 1.2 Passing data to views

## Laravel Blade Template

- 2.1 Display Images
- 2.2 Make Anchor
- 2.3 Displaying Variables
- 2.4 Conditional Statements
- 2.5 Loop in Blade
- 2.6 PHP Function
- 2.7 Build your Master Layout
- 2.8 Extending the master layout
- 2.9 Nested views
- 2.10 Include views
- 2.11 Adding assets

## Using Forms and Gathering Input

- 2.1 Adding HTML5 Package
- 2.2 Creating a form using Blade Syntax
- 2.3 Validating user input
- 2.4 File uploading
- 2.5 Error message handling
- 2.6 Encrypting and decrypting data
- 2.7 Preserving the data

## Laravel Migration

- 2.1 Laravel Migration
- 2.2 Migration Structure
- 2.3 Generating Migration
- 2.4 Migration Commands

## Laravel Database

- 2.1 Introduction Model
- 2.2 Type of database using
- 2.3 Eloquent ORM Model
- 2.4 Naming Convention
- 2.5 Table name
- 2.6 Primary Key
- 2.7 Timestamps
- 2.8 Use Model
- 2.9 Display data from models in views
- 2.10 Manage Mass Assignment
- 2.11 CRUDS Operation (Create Read Update Delete Search Operation)
- 2.12 Fluent
- 2.13 Simple Query String
- 2.14 Query Builder

## Security

- 2.1 Removing Public from URL

## **Paper 3: Laravel PHP Framework**

### Introduction of Laravel PHP Framework

- 3.1 Installing Laravel
- 3.2 Artisan CLI (Command- line interface)
- 3.3 Laravel Directory Structure
- 3.4 Configurinh a new Laravel project

### Architecture & Basics

- 3.1 Architecture overview- Basic routing
- 3.2 Call a controller method from a route
- 3.3 Passing variables from controllers

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- 3.4 CSRF Protection
- 3.5 Validation
- 3.6 Error handling
- 3.7 Controller
- 3.8 Request
- 3.9 Response
- 3.10 Views
- 3.11 Session

**HTML Template to Laravel Blade Template**

- 3.1 Master Layout
- 3.2 Extending the Master Layout
- 3.3 Displaying Variables
- 3.4 Blade conditional statements & loops
- 3.5 PHP functions in Blade
- 3.6 Creating and using a basic views
- 3.7 Loading a view into another view/ nested views
- 3.8 Adding assets
- 3.9 Integrating with Bootstrap

**Security and Session**

- 3.1 Authentication
- 3.2 Authorisation
- 3.3 Encryption
- 3.4 Hashing
- 3.5 Using Security
- 3.6 Sessions Effective

**Database**

- 3.1 Introduction
- 3.2 Query Builder
- 3.3 Migrations
- 3.4 Seeding

**Eloquent ORM (Storing and Using Data)**

- 3.1 Eloquent ORM Models
- 3.2 Naming conventions
- 3.3 Table name and primary keys
- 3.4 Timestamps
- 3.5 Eloquent ORM Inser, Read, Update, Delete
- 3.6 Using models in controllers
- 3.7 Display data from models in views

**Creating a Registration and User Login Form**

- 3.1 Artisan command to create inbuilt user register and login system
- 3.2 Authentication your Application
- 3.3 Adding Custom Fields to Registration Form
- 3.4 Creating user profile page

**Admin Panel Setup**

- 3.1 Introduction
- 3.2 Setup Admin Panel using Bootstrap theme
- 3.3 Create Admin login
- 3.4 Create an admin authentication system
- 3.5 Encrypting and decrypting data

**Using Ajax and jQuery**

- 3.1 Introduction
- 3.2 Getting data from another page
- 3.3 Setting up a controller to return JSON data