



ELEVO LABS

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Course Overview

Course Details

Course Name: Modern Web Development with CakePHP

Instructor: Isabella Rossi

Created On: 16 June, 2025

Updated On: 16 June, 2025

Price: 6000 INR

Duration: 5 Weeks

Modules: 15

Language: English, Hindi

Level: Intermediate

Certifications: Yes

Course Description

Step into the world of rapid application development with CakePHP, a modern PHP framework that provides a complete 'batteries-included' toolkit for developers. This course teaches you how to leverage CakePHP's powerful conventions and code generation tools to build sophisticated web applications with minimal setup and configuration.

We will guide you through every aspect of the framework, starting with the core principles of MVC and CakePHP's powerful ORM, including database migrations for schema management. You will master database interactions, learning how to define relationships, query data, and validate it with ease. A core focus is the 'Bake' console, a powerful tool that

scaffolds your application's code, saving you countless hours of development time.

The curriculum covers advanced topics such as the robust Authentication and Authorization system, the Events manager, Middleware, Caching, Emailing, Error Handling & Logging, and building RESTful APIs. You'll learn how to write testable code and use CakePHP's integrated testing tools to ensure your application is reliable and robust. By the end, you'll be capable of developing and deploying real-world CakePHP applications.

What You'll Learn:

- Understanding CakePHP's Convention over Configuration philosophy and MVC structure.
- Setting up a CakePHP project and using its command-line tools.
- Mastering Database ORM (Table & Entity Objects), Query Builder, and defining complex associations.
- Managing database schema changes with Migrations and populating data with Fixtures/Seeders.
- Rapid scaffolding of application code with the 'Bake' console.
- Building secure applications with the Authentication and Authorization components.
- Creating dynamic views with CakePHP's Templating Engine and powerful Helpers.
- Implementing robust form handling and Data Validation.
- Understanding Middleware and Advanced Routing techniques.
- Utilizing the Events system, Caching, and Emailing features.
- Building, securing, and testing RESTful APIs.
- Effective Error Handling & Logging.
- Writing automated tests for Models, Controllers, and Components.
- Deploying and maintaining a CakePHP application, including debugging and optimization.

Who Is This Course For?

This course is for PHP developers who want to maximize their productivity and build web applications quickly using a structured framework. If you appreciate clear guidelines and powerful tools out-of-the-box, CakePHP is for you. It's ideal for intermediate PHP developers looking to expand their framework knowledge and build production-ready applications.

Prerequisites:

- **Solid PHP Fundamentals:** A strong understanding of PHP syntax, variables, data types, control structures, functions, arrays, and basic OOP (classes, objects) is essential.

- **Basic MySQL/Database Knowledge:** Familiarity with basic SQL queries (CRUD) and database concepts.
- **Basic HTML & CSS:** Understanding of web page structure and styling.
- **Command Line Basics:** Comfort with basic terminal commands (e.g., navigating directories, running composer).
- **A Computer/Laptop:** A working computer (Windows, macOS, or Linux) with an internet connection.
- **A Willingness to Learn:** Enthusiasm for building modern web applications.

Includes in-depth project work, practical labs, and a certificate of completion. Available in English and Hindi.

Course Curriculum Details

Module 1: Module 1: Welcome to CakePHP & Core Concepts

6 Lessons

1. 1. CakePHP Philosophy: Convention over Configuration **20min**
2. 2. Installation via Composer & Initial Setup **25min**
3. 3. Understanding the Directory Structure & MVC Pattern in CakePHP **25min**
4. 4. The Request & Response Cycle in CakePHP **20min**
5. 5. Introduction to `bin/cake` Console Commands **20min**
6. 6. Recap & Practical Task: Setup a New CakePHP Project and Explore its Basics **40min**

Module 2: Module 2: Database Management with Migrations & Schema

5 Lessons

1. 7. Database Configuration and Connection **20min**

2. 8. Introduction to Migrations: Managing Database Schema Changes **30min**

3. 9. Creating and Running Migrations (`bin/cake migrations`) **35min**

4. 10. Rollbacks and Seeding Data with Fixtures/Seeders **30min**

5. 11. Recap & Practical Task: Implement Migrations and Seeders for a Blog Database
1hr

Module 3: Module 3: The ORM: Table & Entity Objects

6 Lessons

1. 12. Introduction to the ORM (Object-Relational Mapper) **25min**

2. 13. Table Objects: Interacting with Database Tables **30min**

3. 14. Entity Objects: Representing Database Rows **25min**

4. 15. Retrieving Data with the Query Builder (Basic `find()`, `get()`) **35min**

5. 16. Saving and Deleting Data (CRUD Operations) **30min**

6. 17. Recap & Practical Task: Build Basic CRUD for a 'Products' Table **1hr**

Module 4: Module 4: ORM Associations (Relationships)

4 Lessons

1. 18. Defining Associations: `hasMany`, `belongsTo`, `hasOne`, `belongsToMany`
35min

2. 19. Retrieving Associated Data (`contain()`, `matching()`) **30min**

3. 20. Saving Associated Data (Complex Saves) **30min**

4. 21. Recap & Practical Task: Implement Relationships (e.g., Users & Posts) **1hr**

Module 5: Module 5: Controllers & Components

7 Lessons

1. 22. Controller Actions and Parameters **25min**

2. 23. The Request Object: Accessing Input Data **30min**

3. 24. The Response Object: Sending Different Response Types **25min**

4. 25. Setting View Variables and Rendering Views **20min**

5. 26. Using Components for Reusable Controller Logic **30min**

6. 27. Creating Custom Components **25min**

7. 28. Recap & Practical Task: Build a Form Submission Controller with Component Integration **1hr**

Module 6: Module 6: Views, Templates & Helpers

6 Lessons

1. 29. CakePHP's Templating Engine: Basic Syntax **20min**

2. 30. Creating Reusable Template Elements and Layouts **30min**

3. 31. Built-in Helpers: `HtmlHelper`, `FormHelper`, `NumberHelper`, `TextHelper`
40min

4. 32. Creating Custom Helpers **25min**

5. 33. Using View Cells for Complex Widget Logic **25min**

6. 34. Recap & Practical Task: Build a Dynamic Navigation Menu and a Custom Form Element **1hr**

Module 7: Module 7: The Bake Console & Rapid Scaffolding

6 Lessons

1. 35. Introduction to CakePHP's Bake Console: Speeding Up Development **20min**

2. 36. Baking Models, Tables, and Entities **30min**

3. 37. Baking Controllers and Views for a Resource **30min**

4. 38. Baking an Entire MVC Application (Rapid Scaffolding) **40min**

5. 39. Customizing Bake Templates **25min**

6. 40. Recap & Practical Task: Rapidly Generate CRUD for a New Feature **1hr 15min**

Module 8: Module 8: Authentication & Authorization

7 Lessons

1. 41. Introduction to CakePHP's Authentication Component **30min**

2. 42. Setting Up Basic User Login and Logout **35min**

3. 43. Password Hashing and Secure User Management **25min**

4. 44. Introduction to Authorization: Controlling Access **25min**

5. 45. Using the Authorization Plugin for Access Control Lists (ACL) **35min**

6. 46. Role-Based Access Control (RBAC) Implementation **30min**

7. 47. Recap & Practical Task: Build a Simple User Login System with Role-Based Access **1hr 30min**

Module 9: Module 9: Middleware & Advanced Routing

6 Lessons

1. 48. What is Middleware? Intercepting Requests and Responses **25min**

2. 49. Applying Middleware: Global, Application-Specific, and Route-Specific **30min**

3. 50. Creating Custom Middleware **25min**

4. 51. Advanced Routing Techniques: Prefix, Plugin, and Resource Routes **30min**

5. 52. Custom Route Classes and URL Generation **25min**

6. 53. Recap & Practical Task: Implement Custom Middleware for Logging and Create Advanced Routes **1hr**

Module 10: Module 10: Forms & Data Validation

6 Lessons

1. 54. Form Helper (Revisited for Advanced Usage) **20min**

2. 55. Data Validation: Built-in Validation Rules **30min**

3. 56. Creating Custom Validation Rules **25min**

4. 57. Validating Entity Data and Form Errors **25min**

5. 58. Security Tokens (CSRF) in Forms **20min**

6. 59. Recap & Practical Task: Build a Complex Form with Custom Validation **1hr**

Module 11: Module 11: Advanced Application Features (Caching, Email, Events)

6 Lessons

1. 60. Introduction to Caching in CakePHP **20min**

2. 61. Implementing View Caching and Query Caching **25min**

3. 62. Sending Emails with CakePHP's Mailer **30min**

4. 63. Customizing Email Templates and Attachments **25min**

5. 64. The Events System: Dispatching and Listening to Events **30min**

6. 65. Recap & Practical Task: Implement Email Notifications for User Actions and Cache a Dynamic Page **1hr 15min**

Module 12: Module 12: Building RESTful APIs

6 Lessons

1. 66. Setting up an API in CakePHP **25min**

2. 67. Creating API Controllers and Resource Handling **30min**

3. 68. Automatic JSON/XML View Rendering **25min**

4. 69. API Authentication Strategies (e.g., Token-based) **30min**

5. 70. Handling API Errors and Response Codes **20min**

6. 71. Recap & Practical Task: Build a Simple API for a Blog Resource **1hr**

Module 13: Module 13: Testing, Debugging & Error Handling

7 Lessons

1. 72. Introduction to Testing in CakePHP with PHPUnit **20min**

2. 73. Using Fixtures for Reliable Test Data **25min**

3. 74. Testing Models and Table Classes **30min**

4. 75. Testing Controllers and Integration Tests **40min**

5. 76. Debugging Techniques in CakePHP (`debug()`, DebugKit) **30min**

6. 77. Error Handling and Logging in CakePHP **25min**

7. 78. Recap & Practical Task: Write Tests for a Key Application Feature **1hr 15min**

Module 14: Module 14: Final Project - Task Management App

7 Lessons

1. 79. Project Overview: Planning Features and Database Schema **45min**

2. 80. Scaffolding the Project with Bake Console **30min**

3. 81. Building Custom Logic, Associations, and Validations **1hr 30min**

4. 82. Implementing Authentication and Authorization **1hr**

5. 83. Adding Advanced Features (e.g., Caching, Emails) **1hr**

6. 84. Final Review and Project Submission **45min**

7. 85. Recap & Course Conclusion **40min**

Module 15: Module 15: Deployment & Maintenance

5 Lessons

1. 86. Configuration for Production Environment **25min**

2. 87. Optimizing CakePHP Application for Performance **30min**

3. 88. Deploying a CakePHP Application to a Web Server **35min**

4. 89. Maintaining and Updating CakePHP Applications **20min**

5. 90. Recap & Course Summary **30min**

This curriculum is subject to minor adjustments to ensure the most up-to-date and effective learning experience.