

CodeIgniter Syllabus

Topics : [Codeigniter](#)

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1: Introduction to CodeIgniter

- [Overview of CodeIgniter framework](#)
- [Setting up CodeIgniter on local environment](#)
- [Understanding MVC \(Model-View-Controller\) architecture](#)
- [Creating a simple "Hello World" application](#)

2: Controllers

- [Introduction to Controllers in CodeIgniter](#)
- [Creating and managing Controllers](#)
- [Passing data from Controllers to Views](#)
- [Using URI routing for clean URLs](#)

3: Views

- [Understanding Views in CodeIgniter](#)
- [Creating and loading Views](#)
- [Working with HTML, CSS, and JavaScript in Views](#)
- [Using View layouts and templates](#)

4: Models and Database Integration

- [Introduction to Models in CodeIgniter](#)
- [Connecting CodeIgniter with databases \(MySQL, SQLite, etc.\)](#)
- [Performing CRUD \(Create, Read, Update, Delete\) operations using Models](#)
- [Using Active Record for database interactions](#)

5: Form Handling and Validation

- [Creating forms in CodeIgniter](#)
- [Handling form submissions](#)
- [Implementing form validation using CodeIgniter's validation library](#)
- [Displaying validation errors](#)

6: Sessions and Authentication

- [Managing user sessions in CodeIgniter](#)
- [Implementing user authentication and authorization](#)
- [Securing routes and controllers](#)
- [Integrating authentication libraries like Ion Auth or SimpleLoginSecure](#)

7: RESTful APIs

- [Introduction to RESTful APIs](#)
- [Creating RESTful APIs in CodeIgniter](#)
- [Handling HTTP requests and responses](#)
- [Authentication and security considerations for APIs](#)

8: File Uploading and Image Manipulation

- [Uploading files in CodeIgniter](#)
- [Validating and processing uploaded files](#)
- [Image manipulation using libraries like GD2 or ImageMagick](#)
- [Implementing image resizing, cropping, and watermarking](#)

9: Caching and Performance Optimization

- [Understanding caching techniques in CodeIgniter](#)
- [Implementing caching for improved performance](#)
- [Optimizing database queries and code for speed](#)
- [Profiling and debugging techniques](#)

10: Advanced Topics

- [Working with third-party libraries and helpers](#)
- [Internationalization and localization](#)
- [Error handling and logging](#)
- [Extending CodeIgniter with custom libraries and helpers](#)

11: Project Development

- Students work on a project applying all the concepts learned throughout the course
- Instructor provides guidance and assistance as needed
- Presentation of projects and peer review