

# INFOSOFT IT SOLUTIONS

**Training | Projects | Placements**

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## CodeIgniter

### **Introduction to CodeIgniter**

- Overview of PHP frameworks
- Features and advantages of CodeIgniter
- MVC (Model-View-Controller) architecture in CodeIgniter

### **Setting Up CodeIgniter**

- Installing CodeIgniter
- Configuration and folder structure
- Setting up development environment (XAMPP, WAMP, etc.)

### **CodeIgniter Basics**

- Understanding controllers, models, and views
- Routing and URI mapping
- Handling HTTP requests and responses

### **Working with Controllers**

- Creating and using controllers
- Controller methods and properties
- URI Routing and routing parameters

### **Views and Templates**

- Creating views in CodeIgniter
- Using templates and layouts

- Passing data to views from controllers

## **Models and Database Integration**

- Creating models in CodeIgniter
- CRUD operations (Create, Read, Update, Delete)
- Database configuration and connection setup

## **Form Handling and Validation**

- Creating forms in CodeIgniter
- Form validation library
- Custom validation rules

## **Session and Cookie Management**

- Handling sessions in CodeIgniter
- Storing session data
- Using cookies in CodeIgniter

## **File Uploading**

- Uploading files using CodeIgniter
- File upload configuration
- Validating uploaded files

## **Error Handling and Logging**

- Handling errors and exceptions
- Logging in CodeIgniter
- Debugging techniques

## **Security Best Practices**

- Cross-Site Scripting (XSS) prevention
- CSRF (Cross-Site Request Forgery) protection
- Input data sanitization and validation

## **Pagination and Data Filtering**

- Implementing pagination in CodeIgniter
- Filtering and sorting data
- Customizing pagination links and styles

## **Libraries and Helpers**

- Overview of CodeIgniter libraries and helpers
- Using built-in libraries (e.g., Email, Form, Session)
- Creating custom libraries and helpers

## **RESTful APIs with CodeIgniter**

- Overview of RESTful architecture
- Creating RESTful APIs in CodeIgniter
- Consuming APIs using CodeIgniter

## **Authentication and Authorization**

- Implementing user authentication
- User roles and permissions
- Securing routes and controllers

## **Caching and Performance Optimization**

- Overview of caching in CodeIgniter
- Using caching to improve application performance
- Optimizing CodeIgniter applications

## **Testing CodeIgniter Applications**

- Unit testing basics
- Testing controllers, models, and views
- Using PHPUnit with CodeIgniter

## **Deployment and Production Considerations**

- Configuring CodeIgniter for production
- Best practices for deployment

- Performance monitoring and scaling

## **CodeIgniter Advanced Topics**

- Working with third-party libraries and packages
- Integrating CodeIgniter with other frameworks and APIs
- Advanced customization and extensibility

## **Project Work and Real-world Applications**

- Building a complete web application using CodeIgniter
- Case studies of successful CodeIgniter projects

## **Hands-on Labs and Projects**

- Practical exercises and labs to reinforce CodeIgniter concepts
- Building and debugging CodeIgniter applications