CodeIgniter 4 Training Program (2 Weeks)

Week 1 – Foundations

Day 1 – Introduction to CodeIgniter 4
Why Learn: Understand MVC framework basics and CodeIgniter's lightweight architecture.

Tasks:

- Install CodeIgniter 4.
- Explore folder structure and MVC pattern.
- Create a welcome controller and route.

Day 2 – Routing & Controllers
Why Learn: Learn how CI4 handles routes and controllers.

Tasks:

- Create custom routes.
- Build a controller with multiple methods.
- Use route parameters and filters.

Day 3 – Views & Templates
Why Learn: Views separate logic from presentation.

Tasks:

- Create views with PHP templates.
- Use layout and sectioning.
- Include Bootstrap for styling.

Day 4 – Models & Database Integration
Why Learn: Interact with database using Models.

Tasks:

- Connect to MySQL.

- Create a model for users.

- Perform CRUD operations.

Day 5 – Forms & Validation
Why Learn: Secure user inputs with built-in validation.

Tasks:

- Build registration form with validation.

- Add CSRF protection.

- Store form data in DB.

Day 6 – Session & Authentication (Part 1)
Why Learn: Manage user sessions.

Tasks:

- Implement login/logout with sessions.

- Restrict access to private pages.

Day 7 – Authentication (Part 2)
Why Learn: Add role-based authentication.

Tasks:

- Create admin/user roles.

- Restrict routes based on role.

Week 2 – Advanced Features

Day 8 – File Uploads & Handling
Why Learn: Manage media content.

Tasks:

- Upload profile pictures.

- Store file metadata in DB.

Day 9 – Error Handling & Debugging
Why Learn: Improve debugging.

Tasks:

- Use CI4 debug toolbar.

- Create custom error pages.

Day 10 – Security Best Practices
Why Learn: Protect apps from threats.

Tasks:

- XSS filtering.

- SQL Injection prevention with query builder.

Day 11 – Pagination & Filtering
Why Learn: Efficient data handling.

Tasks:

- Paginate posts/users list.

- Add filters.

Day 12 – REST API with CodeIgniter 4
Why Learn: Build APIs.

Tasks:

- Create API routes.

- Return JSON responses.

- Test with Postman.

Day 13 – Testing
Why Learn: Ensure code reliability.

Tasks:

- Write unit tests with PHPUnit.

- Test controllers & models.

Day 14 – Deployment + Capstone Project
Why Learn: Deploy project to production.

Tasks:

- Deploy to Apache/Nginx hosting.

- Capstone: Blog/Events app with auth, CRUD, file uploads.