Excellence Educational Academy
Alipore, Kolkata
*[Where **TALENT** is the keyword]*
Sister Concern is

e-DIGITAL LEARNING

AN INSTITUTE FOR MULTIDISCIPLINE TECHNICAL COACHING CLASSES & GUIDANCE
[Founded and Directed by a Renowned Academicians & Corporate Professionals]

Ref. No. : EEA/TTD-LV/IT/2024   **Date : 10/11/2024**

IT Professional Corporate Training Curriculum for IT/Non-IT Participants

Name of the Corporate Training :

Laravel Development

Course Duration: 80 Hours
Course Code: TTD-LV
Target Audience: Students, corporate trainees, or professionals seeking to learn web development using Laravel.
Prerequisites: Basic understanding of PHP, HTML, CSS, and JavaScript.

Course Outline

Module 1: Introduction to Laravel

- **Topics Covered:**
    - Basics of PHP need to Laravel
    - Overview of web frameworks
    - Introduction to Laravel and its ecosystem
    - Setting up Laravel environment (Local development with Laravel Homestead or XAMPP)
    - Understanding MVC architecture
- **Milestone 1 Project:**
    - Create a simple Laravel application that displays "Hello World".

Module 2: Routing and Controllers

- **Topics Covered:**

- Understanding routing in Laravel
- Creating routes and route parameters
- Introduction to controllers
- Resourceful routing

- **Milestone 2 Project:**
  - Build a basic blog with routing and controller functionality.

Module 3: Views and Blade Templating

- **Topics Covered:**
  - Introduction to views in Laravel
  - Using Blade templating engine
  - Creating reusable components
  - Template inheritance in Blade
- **Milestone 3 Project:**
  - Enhance the blog application with Blade templates for better UI.

Module 4: Database and Eloquent ORM

- **Topics Covered:**
  - Setting up database connections
  - Introduction to Eloquent ORM
  - CRUD operations with Eloquent
  - Migrations and database seeding
- **Milestone 4 Project:**
  - Implement database functionality in the blog application to store posts.

Module 5: Form Handling and Validation

- **Topics Covered:**
  - Handling form submissions in Laravel
  - Input validation and error handling
  - CSRF protection
  - File uploads
- **Milestone 5 Project:**
  - Add a form to create new blog posts with validation.

Module 6: Authentication and Authorization

- **Topics Covered:**
  - Setting up authentication in Laravel
  - User registration and login
  - Role-based access control
  - Middleware for authorization
- **Milestone 6 Project:**
  - Implement user authentication in the blog application with role management.

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Module 7: Working with APIs

- **Topics Covered:**
  - Introduction to RESTful APIs
  - Building APIs with Laravel
  - API authentication (Laravel Sanctum or Passport)
  - Consuming APIs in Laravel
- **Milestone 7 Project:**
  - Create an API for the blog application to manage posts.

Module 8: Advanced Eloquent and Relationships

- **Topics Covered:**
  - Understanding Eloquent relationships (One-to-One, One-to-Many, Many-to-Many)
  - Query scopes and advanced querying techniques
  - Eager loading and lazy loading
- **Milestone 8 Project:**
  - Enhance the blog application by adding comments with relationships.

Module 9: Laravel Testing

- **Topics Covered:**
  - Introduction to testing in Laravel
  - Writing feature tests
  - Unit testing with PHPUnit
  - Test-driven development (TDD) principles
- **Milestone 9 Project:**
  - Write tests for the blog application's features.

Module 10: Deployment and Maintenance

- **Topics Covered:**
  - Preparing the application for production
  - Deployment options (VPS, shared hosting, and cloud services)
  - Environment configurations
  - Application monitoring and logging
- **Milestone 10 Project:**
  - Deploy the blog application to a cloud service (e.g., Heroku, DigitalOcean).

Assessment and Evaluation

- Milestone Projects: 60% of final grade
- Final Project: 30% of final grade
- Participation and Attendance: 10% of final grade

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Resources

- Recommended Books:
    - "Laravel: Up & Running" by Matt Stauffer
    - "PHP Objects, Patterns, and Practice" by Mika Schwartz
- Online Platforms:
    - [Laracasts](#)
    - [Laravel Documentation](#)

Course Delivery

- Method: Blended learning (theory and practical)
- Format: Lectures, hands-on coding sessions, and project work

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