

LARAVEL SYLLABUS

Module 1: Introduction to Laravel

- What is Laravel and MVC Architecture
- Features of Laravel
- Installing Laravel (Composer, XAMPP)
- Project Structure Overview
- Laravel Folder Structure
- Running Laravel Project

Module 2: Routing

- Introduction to Routing
- Web Routes & API Routes
- Route Parameters
- Named Routes
- Route Groups & Middleware
- Route Model Binding

Module 3: Controllers

- What are Controllers
- Creating Controllers
- Resource Controllers
- Passing Data to Views
- Controller Methods

Module 4: Blade Templating Engine

- Introduction to Blade
- Layouts & Components
- Blade Directives (@if, @foreach)
- Template Inheritance

- Including Files
- Reusable Components

Module 5: Database & Migrations

- Database Configuration (.env)
- Creating Migrations
- Running & Rolling Back Migrations
- Schema Builder
- Seeding Database

Module 6: Eloquent ORM

- Introduction to Eloquent
- Models & Naming Convention
- CRUD Operations
- Mass Assignment
- Relationships (One-to-One, One-to-Many, Many-to-Many)

Module 7: Forms & Validation

- Creating Forms in Blade
- CSRF Protection
- Form Validation
- Custom Validation Rules
- Error Handling

Module 8: Authentication & Authorization

- Laravel Authentication (Login/Register)
- Middleware Protection
- Role & Permission Basics
- Password Reset

Module 9: File Uploading

- Uploading Images & Files
- File Storage (Local & Public)
- Validating Files
- Displaying Uploaded Files

Module 10: Session & Cookies

- Session Handling
- Flash Messages
- Working with Cookies

Module 11: Middleware

- What is Middleware
- Creating Custom Middleware
- Using Middleware in Routes

Module 12: REST API Development

- API Routes
- JSON Responses
- API Controllers
- CRUD API
- API Authentication Basics

Module 13: Advanced Laravel Features

- Artisan Commands
- Events & Listeners
- Jobs & Queues
- Mail Sending
- Notifications

Module 14: Security Best Practices

- CSRF Protection
- XSS & SQL Injection Prevention
- Password Hashing
- Secure File Handling

Module 15: Deployment

- Environment Configuration
- Hosting Laravel Project
- Optimizing for Production
- Caching & Performance

Module 16: Project Development

- Admin Panel Development
- CRUD Application
- Blog System
- Role-based Dashboard