

Backend Roadmap to Match Market Demands (Laravel, Microservices, DevOps)

Phase 1: Laravel Advanced Mastery (Weeks 1-3)

- Master Laravel's Service Container, Service Providers, Facades.
- Queues with Redis, Horizon, Jobs, Listeners, Broadcasting.
- Advanced Artisan Commands, Caching with Redis, Tags, TTL.
- Laravel Octane for high-performance apps.
- Role & Permission (Policies, Gates).

Resources: Laravel Docs, Laracasts Advanced Series.

Projects: E-Commerce Admin Panel, Job Processing Platform.

Phase 2: System Design & Architecture (Weeks 4-5)

- Learn SOLID principles and Clean Architecture.
- Explore Design Patterns: Factory, Repository, Strategy, Observer.
- Implement layered architecture (Controller > Service > Repository).
- Understand CQRS & Domain-Driven Design (DDD).

Resources: "Clean Architecture" book, PHP Design Patterns book.

Phase 3: REST & GraphQL APIs (Weeks 6-7)

- Build RESTful APIs using Laravel API Resources.
- Secure APIs with Laravel Sanctum.
- Use Swagger/OpenAPI for documentation.
- Introduction to GraphQL with Laravel Lighthouse.

Projects: API for marketplace, Billing system.

Phase 4: DevOps & CI/CD (Weeks 8-9)

- Learn Docker, Docker Compose for Laravel containers.

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- Implement GitHub Actions/GitLab pipelines for CI/CD.
- Set up production-ready deployment (DigitalOcean/VPS).
- Logging with Monolog, Sentry.

Projects: Dockerized Laravel App with CI pipeline.

Phase 5: Microservices & Event-Driven Systems (Weeks 10-11)

- Microservices with Lumen or Laravel Octane.
- Use Redis or RabbitMQ for message queues.
- Explore Service Orchestration: Saga Pattern.
- Circuit Breaking, Retry Mechanism.

Projects: Billing Microservices, Notification System.

Phase 6: Monitoring, Observability & High Load (Week 12)

- Use Grafana, Prometheus for monitoring.
- Log to Elasticsearch using Laravel Monolog.
- Cache intelligently with Redis (keys, tags).
- Load testing with K6.

Bonus Add-ons (Optional)

- Frontend Integration: Tailwind, Vue 3, Alpine.js, Inertia.js.
- Hosting Knowledge: WHMCS, cPanel APIs, DNS & domain flows.
- Test with PHPUnit, Jest, Cypress.

Suggested Practice Projects

1. Billing System with Microservices (Laravel + Lumen + Redis + Docker)

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2. Job Queue Monitoring Dashboard (Laravel + Horizon + Vue)
3. Marketplace with Event-Driven Architecture (Laravel + RabbitMQ + ElasticSearch)
4. SaaS Hosting Panel (cPanel API + Laravel + GraphQL)