

Backend Architecture Audit

The first 48 hours: what I look at, and why

When founders ask me to look at their backend, I don't start with the code. I start with these five questions.

If you can answer all of them clearly, your architecture is probably fine. If you can't, the gaps below are where things break.

01 Observability

Can you see what's slow?

- p50, p95, p99 latency tracked per endpoint
- Slow query log enabled (>200ms threshold)
- Error rate dashboard, not just exception emails

RED FLAG

If your first response to a slow API is to SSH into the server, you don't have observability.

02 The Database

Where does your data hurt?

- EXPLAIN ANALYZE run on the 10 slowest queries
- N+1 query patterns audited (the silent killer)
- Indexes match your actual query filters and joins

RED FLAG

Most performance problems aren't architecture. They're three missing indexes and one ORM mistake.

03 Caching & Queues

What does the request path actually do?

- Reference data cached (categories, settings, configs)
- Heavy work (email, webhooks, reports) on a queue
- Cache invalidation strategy is written down somewhere

RED FLAG

Caching everything is a tax. Caching nothing is a tax. The line between them is the entire job.

04 Deployment & Infrastructure

Can you ship Friday at 5pm without panic?

- Staging environment matches production (not just kind of)
- Rollback is one command, not one meeting
- Containerised builds; infra defined in code, not memory

RED FLAG

If only one person can deploy, you have a hostage situation, not a deployment process.

05 The People Layer

Will this team still understand this in 18 months?

- Code review checklist exists and is enforced
- Architecture decisions written down (even a Notion page)
- Onboarding takes days, not months, to first commit

RED FLAG

The best architecture is the one your team can debug at 2am. Everything else is performance art.

Want me to run this audit on your system?

I do paid architecture reviews — a written report, recommendations, and a 60-minute call to walk through it.

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