

Case Study: ERP Modernization Project

◆ Problem

The client's **legacy ERP system** was:

- Monolithic and difficult to scale.
- Lacking modern APIs for integration with other systems.
- Slow performance on large datasets.
- Hard to maintain due to outdated technologies.

◆ Solution

Designed and implemented a **modular, service-oriented architecture**:

- Built RESTful APIs with **.NET 8 + Entity Framework Core**.
- Introduced a **PostgreSQL database** with optimized queries.
- Developed a **Vue 3 SPA frontend** for usability and speed.
- Containerized services with **Docker & Docker Compose** for deployment consistency.
- Implemented **unit and integration tests** with xUnit.

◆ Results

- ☐ Reduced page load times by **40%**.
- ☐ Improved scalability with containerized services.
- ☐ Easier maintenance with modular architecture.
- ☐ Enabled integrations with third-party systems.

◆ Architecture Diagram