Case Study 1: Building an Air Travel Claims SaaS Platform

Industry: Travel & Passenger Rights Regulation **Role**: Architect & Development Manager **Client Type**: SaaS company serving air travel carriers and consumers **Duration**: ~6 weeks for MVP, ongoing enhancements

Background & Challenge

With new air travel passenger rights regulations coming into effect, a client in the travel-tech space needed a system to automate and manage passenger compensation claims. Their prototype was incomplete, lacked integrations, and wasn't compliant with upcoming regulations.

The business opportunity was time-sensitive, and failure to deliver a robust platform before enforcement would have left them behind competitors.

My Role

As both **Architect and Development Manager**, I was responsible for translating regulatory requirements and high-level product concepts into a fully functional cloud-native platform. I:

- Designed the end-to-end architecture, spanning frontend, backend, and third-party integrations
- Led a small but focused cross-functional team of 6 engineers (across Europe and Canada)
- Established development workflows, QA strategy, and CI/CD pipelines
- · Reviewed and iterated on functional specs, UAT feedback, and integration testing
- Partnered directly with the founder and legal advisors to ensure compliance and scope alignment

Stack & Execution



Backend

FastAPI (Python), PostgreSQL, REST APIs



Frontend

Oracle APEX for internal admin views



APIs

CorePay for multi-region payouts (Canada, U.S., EU)



Infrastructure

Oracle Cloud Infrastructure (OCI), Docker, GitLab CI



Security

Token-based OAuth2, PII encryption, audit logging



Data Reporting

Internal BI dashboards for claims volume, SLA tracking, resolution cycles

Outcome



MVP released in 6 weeks

Live in 2 jurisdictions



Fully automated workflow



Claim approval and tracking



Scalable architecture

Ready for onboarding new airlines



Positioned as compliant

Integration-ready with airline and payment providers



Created reusable process

Architecture for similar regulated use cases

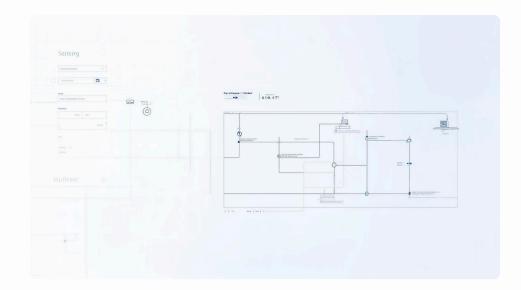
Case Study 2: Real-Time Procurement API Layer for Global Engineering Firm

Industry: Engineering & Construction **Role**: Architect & Development Manager **Client Type**: Enterprise with global engineering projects and legacy Oracle systems **Duration**: 3 months

Background & Challenge

The client's Oracle-based procurement and inventory systems were deeply siloed, and engineering project teams struggled to access up-to-date PO and materials data. Exporting reports for analysis created manual overhead, version issues, and significant delays.

They needed a **real-time**, **secure API layer** to expose key data to their project control teams and external systems—without modifying their ERP.



My Role

As the lead Architect and Development Manager, I:

- Conducted API and data modeling workshops with key business units
- Designed a secure, modular Oracle ORDS API architecture
- Led the development of Create/Read/Update/Delete endpoints for requisitions, POs, inventory, and invoices
- Designed a "heartbeat + audit trail" system to monitor data exposure
- Managed deployments and worked directly with downstream system leads for successful integration

Stack & Execution

Tech

Oracle ORDS, SQL Developer, RESTful APIs, Oracle DB views

Security

OAuth2 authentication, audit trail, environment whitelisting

API Modules

Requisitions, PO headers and lines, materials, invoices

Operations

Test suite, UAT coordination, production deployment scripting

Delivery Model

Iterative sprints with CI-style rollout into QA and Prod

Outcome

- All scoped APIs delivered within timeline
- Enabled real-time procurement insights and automation across 4 departments
- Significantly reduced turnaround time for material tracking and approvals
- Created reusable data and API blueprints for future systems
- Provided foundational shift from extract-based to service-based data flow

Case Study 3: Enterprise Integration Architecture Using Oracle ORDS

Industry: Professional Services **Role**: Architect & Development Manager **Client Type**: Mid-sized consulting firm modernizing their internal systems **Duration**: 2–4 months (ongoing enhancements)

Background & Challenge

The firm was modernizing their Oracle Forms-based procurement and approval systems. The goal was to expose transactional data for client-facing applications and partner portals — securely, reliably, and without disrupting live operations.

Their IT team lacked experience in API-first design, REST standards, and security practices. They needed architectural direction and reliable execution.

My Role

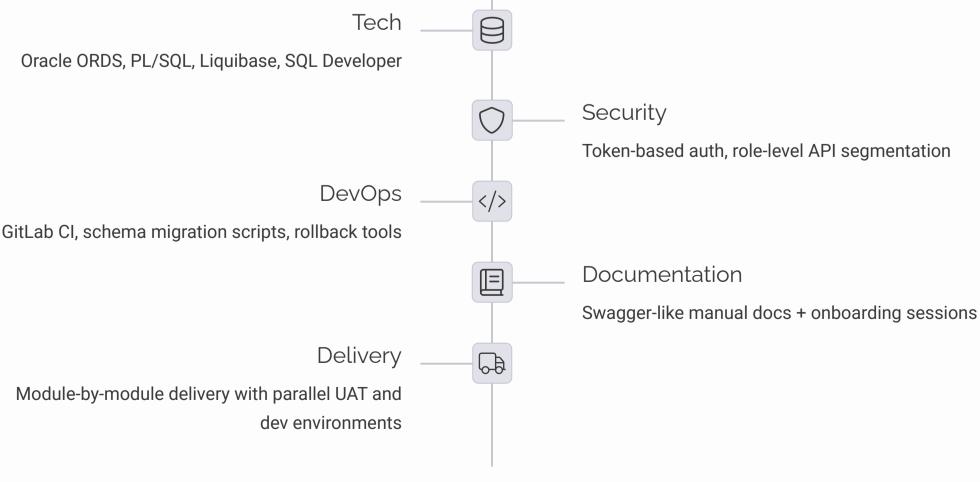
I was brought in to design and build a modern API layer that adhered to **RESTful principles** and integrated seamlessly with their Oracle environment. My scope included:

- Designing REST endpoints with clear versioning and pagination

 Designing developer friendly ADI desurportation.
- Building developer-friendly API documentation
- Establishing CI pipelines and environment strategies
- Coaching internal developers and onboarding client tech teams

 Defining long term prohitecture to replace file based experts on
- Defining long-term architecture to replace file-based exports and email workflows

Stack & Execution



- Outcome
- Enabled client's partners to integrate directly with approval workflows

Delivered a **repeatable playbook** the internal team continues to use

Delivered production-ready ORDS API for 6 modules in under 3 months

- Reduced reliance on manual exports, attachments, and shared drives
- Helped shift internal culture toward API-first thinking