Zendha Core

Project Summary

This project involved the design and development of a cloud-based ERP built entirely from scratch to support operations across Europe and Latin America. The system was designed to comply simultaneously with European and Mexican regulations, covering accounting, taxation, and operational requirements, including highly regulated environments such as the medical sector.

Beyond software development, the project required continuous implementation, validation, and adaptation to different legal interpretations, data protection frameworks, and business models across multiple countries.

Objectives

- Build a cloud ERP capable of operating across multiple jurisdictions
- Ensure compliance with European (RGPD) and Latin American regulations
- Support accounting, fiscal, and operational processes in regulated sectors
- Enable continuous deployment, testing, and evolution of the system
- Maintain retrocompatibility across multiple software versions

Initial Ecosystem

- Operations distributed across Europe, Mexico, and other Latin American countries
- Significant differences in legal, fiscal, and data protection frameworks
- Use cases involving sensitive data, including medical studies
- No unified system capable of handling multi-country compliance
- Multiple stakeholders with differing expectations and priorities

Key Challenges

- Simultaneous compliance with RGPD and local data protection regulations
- Different legal interpretations between European and Latin American jurisdictions
- Management of sensitive and regulated data, including medical information
- Need for continuous deployment, A/B testing, and client-specific adaptations
- High technical complexity combined with legal and administrative constraints
- Misalignment between stakeholders regarding the evolution of the business model

Solution Approach

- Development of a modular cloud ERP from scratch using a vanilla technology stack
- Architecture designed for continuous integration and continuous deployment (CI/CD)
- Virtualized versions of the software adapted to client-specific needs and processes
- Implementation of advanced data protection and security policies
- Segmented infrastructure with secure and demilitarized zones and IP-level controls
- Ongoing coordination between technical, legal, and operational teams

Scope of Work & Role

I was involved in the architectural design, technical strategy, and phased execution of the ERP, ensuring that the system remained compliant, scalable, and adaptable across different countries and regulatory environments.

My role focused on aligning technical execution with legal constraints, operational requirements, and evolving business objectives, while managing complexity across multiple stakeholders and jurisdictions.

Final Deliverables & Outcome

- Fully operational cloud-based ERP deployed across multiple countries
- Compliance with European RGPD and local data protection regulations
- Support for regulated environments, including medical-related operations
- Scalable and maintainable architecture with continuous deployment capabilities
- Successfully launched system after multiple validation and implementation phases

Contextual Note

The project included on-site work in Spain for initial discovery, cultural alignment, and research validation, with collaboration linked to academic and research institutions.