



UI Builder Reflection

Bachelor's degree in the ACS
field

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1. INTRODUCTION

This document offers a two-part reflection on my 13-months internship at **Imas NV**, during which I built a *no-code, metadata-driven UI Builder* and several supporting micro-front-end artefacts for the Fenics web platform. Section 1 looks back at the **project itself**—what was delivered, its current state and next steps. Section 2 turns inward for a **personal reflection** on the skills, insights and growth I experienced. Together they provide a complete picture of both the business value created and the professional development achieved

2. REFLECTION ON THE PROJECT

2.1. What was accomplished and why it matters

During the internship I designed and implemented a no-code UI Builder that turns database metadata into live CRUD screens, integrated it as a micro-frontend, and, in the opening fortnight, built a Kafka-monitoring bridge that introduced me to the company's ecosystem. The Builder has already cut page-creation time from days to minutes and convinced management to adopt this pattern for most future Fenics modules.

2.2. Present state of the project

The tool is running in the **RAD** environment and migrating to **SIT**. A pilot group of users is exercising workflows, uncovering edge-case bugs, and providing UX feedback. Although not yet in production, the direction is set: the organisation plans to phase in the Builder across its ERP landscape.

2.3. Work that remains

Several tasks stand between the current build and a production launch:

- extending the platform so authors can create screens that consume arbitrary REST endpoints, not just table-backed data;
- closing RAD bug tickets, most of which involve validation rules in complex relation chains;

2.4 Advice for the principal

To safeguard the clarity and maintainability of the codebase I recommend keeping table-driven pages and forthcoming custom, API-driven pages in distinct flows rather than merging them. Following GRASP responsibilities will help as complexity grows, and early investment in end-to-end test automation will pay dividends once multiple business teams begin authoring screens.

3. PERSONAL REFLECTION

3.1. Skills and competencies

Technically, I deepened my understanding of modular React architectures, Webpack Module Federation, Syncfusion's enterprise component suite and four-environment deployment flows. Equally important, working so closely with a senior backend engineer sharpened my appreciation of contract-driven API design and strengthened my cross-team communication.

3.2. Key challenge and solution

The project's initial entity-relation model was poorly normalised, which surfaced as brittle joins and duplicated data in the frontend. By proposing—and then helping to execute—a full schema refactor, I reduced query complexity by almost a third and simplified the form generator. The episode reinforced the value of stepping back to revisit foundational assumptions.

3.3. Growth and outlook

The internship confirmed that I want to focus my career on front-end development and software architecture. It also led directly to a full-time position at Imas NV, where I can guide the UI Builder from pilot to production.

3.4. Early side project: Kafka Magic Bridge

Implementing the Kafka dashboard in my first two weeks forced me to learn the company's CI/CD pipeline and code-quality conventions fast—knowledge that accelerated subsequent work on the Builder.

3.5. Advice to my past self

Spend more time at the outset mapping the project's long-term goals before diving into implementation; a clear view of the forest helps you place each new tree correctly.

4. CONCLUSION

The internship produced a practical, future-proof advance for Fenics application and gave me a decisive boost in both technical and interpersonal skills. As the UI Builder moves toward production, I will remain on the team to ensure it realises its promise of faster delivery, consistent UX and true low-code empowerment for business analysts.