

Training Report

Company: Casamedia

Internship Period: May 2024 – August 2024

Company Overview

I interned at Casamedia, a startup founded in 1990 specializing in IoT hardware and software development, internet solutions, billing systems, graphic design, and complex software development projects. The company is committed to delivering reliable and customer-centric solutions and has built strong, long-term relationships with its clients. Casamedia's extensive partner network enables it to manage larger projects effectively.

Internship Project Overview

During my internship, I worked on a Flutter project called Fibudo, an inventory management system that handles purchase orders, sales orders, and stock management. The project had already been in development for five months when I joined, and my initial task was to implement the purchase order management feature.

I spent the first two weeks learning Flutter and Dart, followed by a week getting familiar with the project's structure before gradually taking on development tasks. My main contributions included:

1. Developing data models and user interfaces for managing purchase orders.
2. Implementing features to create, read, update, and delete purchase orders.
3. Integrating the purchase order functionality with the inventory and sales order modules.
4. Working with MongoDB for backend data management and using Postman for API testing.
5. Utilizing Flutter Intl for internationalization (i18n) and improving app localization.

6. Applying Visual Studio Code shortcuts to enhance efficiency when working with large codebases.
7. Contributed to resolving open issues and improving documentation, including detailed work on the work order page and model.

The project follows an MVC (Model-View-Controller) architecture, with the Provider class handling state management. The scale of this project far exceeded any previous experience I had, which required me to stay on top of daily commits from over ten developers. Regular communication with my supervisor was crucial for clarifying tasks and navigating the complexities of the project.

Key Learnings and Skills Acquired

1. Mastery of Flutter and Dart

Before this internship, I was unfamiliar with Flutter and Dart. Through self-study and project experience, I became proficient in these technologies. My background in JavaScript, Java, and React Native helped me understand Flutter's widget-based framework and Dart's asynchronous programming model quickly.

2. Experience in Large-Scale Project Development

This was the first time I had worked on a large-scale software project. I learned the importance of modularizing code and organizing it across multiple files for better maintainability. The MVC architecture also helped me grasp how different components work together in a complex system.

3. Remote Work

The flexibility of remote work allowed me to balance my family responsibilities with work tasks. However, it also required me to be proactive in communicating with my supervisor and understanding task requirements, as there was no structured training program.

4. Collaboration and GitHub

I gained experience using GitHub for version control in a team environment. The project involved frequent code reviews and collaboration, which helped me refine my coding skills and contribute effectively to a multi-developer project. I also utilized GitHub Copilot to streamline my coding process.

5. Problem Solving and Adaptability

Throughout the internship, I faced various technical challenges, particularly due to the lack of formal training. Nevertheless, I was able to overcome these obstacles by being resourceful, self-teaching, and actively collaborating with the team. This experience has made me more confident in tackling complex development tasks.

Conclusion

This internship was an invaluable experience that allowed me to master a new programming language and gain deep insight into the development and management of large-scale software projects. Working on an inventory management system gave me practical experience in integrating different components like purchase orders, sales orders, and stock management. The flexibility of remote work enabled me to balance personal and professional responsibilities, and the project sharpened my problem-solving skills. Although the company is small and lacked formal training, the hands-on experience prepared me well for future roles in Flutter development.