

Livearts



Introduction

In the continuity of my formation as a fifth-year student at Epitech, I had to take part in a 3 months internship to validate my academic year.

Livearts is a small French B2C online artists services ordering platform created in 2020 by Amanda Blyau. The company has for goal to put in touch event organizer and available for work artists around Paris.

They hired me as an intern to work on their mobile application.

To reduce development cost, they chose to use a cross-platform framework: Flutter, a Google UI toolkit for crafting beautiful, natively compiled applications for mobile, web, and desktop from a single codebase.



In this Internship report, I will be explaining to you all the tasks I had to take on and talk about the issues I encountered, and how I got around them.

Table of Contents

Introduction.....	2
Table of contents	Error! Bookmark not defined.
1.1 Company context	5
1.2 Company team:.....	6
1.3 Context and tasks overview	7
1.3.1 Authentication	7
1.3.2 Screen creation	9
1.4 Other technology used.....	11
1.5 Work method.....	12
1.5.1 Weekly sprint.....	12
1.5.2 GitHub Issues/Project	12
1.6 Conclusion	13
Table of figures	14
2.1 Preamble.....	16
2.2 Mail.....	16
3.1 Preamble.....	18
3.2 Mail.....	18

Part 1:

Deontology, introduction
and pursuit of the mission

1.1 Company context

Livearts is a young start-up company, created in 2020 by Amanda Blyau

The company is aiming at the Parisian B2C market for putting event organizers in touch with artists, like Uber-eats but for artists and shows.

They decided to focus on a mobile application release first, and then on a website release to start getting orders quickly, and to maximize popularity since most of the people are ordering services through mobile applications nowadays.

Both of their products, mobile application and website, are working with the same API, based on a custom mix between Firebase and Strapi.



Figure 1 : Livearts logo

1.2 Company team:

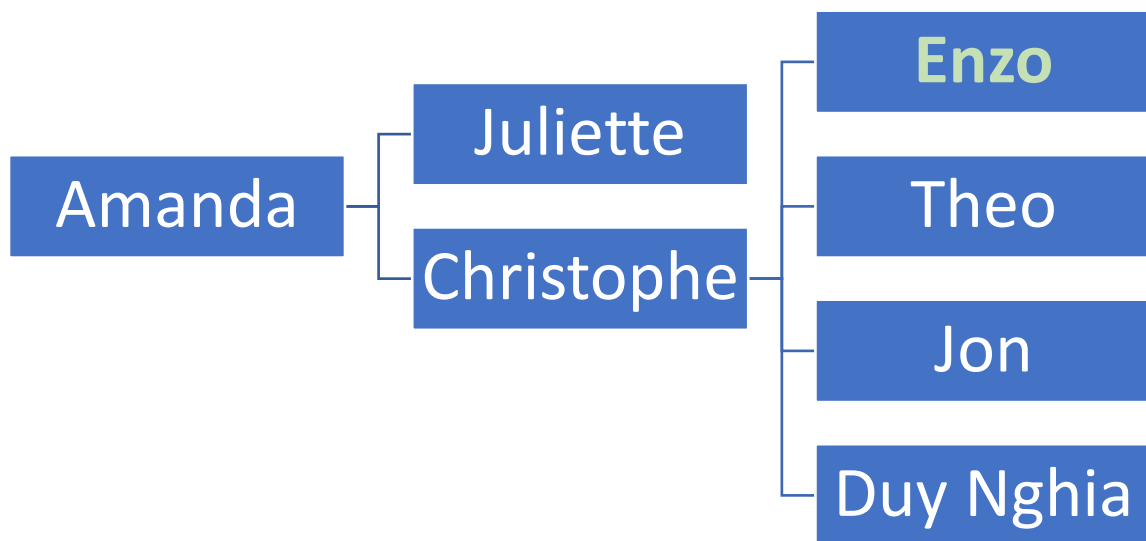


Figure 2 : company organization chart

Amanda as the founder and director of Livearts.

Juliette as the graphic designer.

Christophe as the project manager and developer.

Enzo as an intern developer.

Jon as a freelance developer.

Theo as a freelance developer.

Duy Nghia as a freelance developer.

1.3 Context and tasks overview

During my internship at Livearts, I have been given different tasks to accomplish, all revolving around authentication of the users, modifying the existing back-office and creating front-end and back-end screens of the application as well as unit testing.

1.3.1 Authentication

Since I joined Livearts at the very beginning of the development process, the authentication was not yet made, and Christophe the project manager assigned me the task to create the mobile application authentication which will be reused for the website.

The authentication needed to work with different providers such as Facebook sign in, Google sign in, Apple sign in as well as a classic email/password combination login.

After learning everything I needed to know to take on the project, I started to implement the authentication with Firebase Auth, one of the multiple services in the Firebase development kit.



Figure 3 : Firebase logo

It makes the authentication process easier since all the API back-end process for each user information provider is handled by Firebase.

Once I made all the authentication processes, we needed to store all the user data like their avatars, their names and different IDs in a database.

Firebase has two built-in services for storing user data: Cloud Firestore, and Cloud Storage, but we chose to use none of them since they are not free but in a “pay to scale” business model, that mean that the more you use the service, the more you need to pay. Since we didn’t want to pay a huge amount of money if the application went viral or if users were spamming, we choose to use Strapi, an open source Node.js headless CMS that was going to store the user data and let us request that same data with RESTful and GraphQL API requests.



Figure 4 : Strapi logo

At the end of this task the authentication was viable and reliable, and we could see beta testers register through Firebase Auth and see their data on Strapi.


Identifier	Providers	Created	Signed In	User UID ↑
contact@enzoconty.dev		Sep 11, 2020	Sep 11, 2020	81HwK4uZEbeWfpyueorOJKhL7gJ3

Figure 5: Freshly created user on Firebase Auth

A screenshot of the Strapi user management interface. The page title is "Local" with "API ID : user" below it. There is a "Supprimer" button in the top right corner. The form contains several fields: "Firstname" with the value "Enzo", "Lastname" with "CONTY", "Email" with "@ contact@enzoconty.dev", "Password" (empty), "Uid" with "81HwK4uZEbeWfpyueorOJKhL7gJ3", "Confirmed" with a toggle switch set to "OFF", "Blocked" with a toggle switch set to "OFF", and "Username" with "Enzo CONTY".

Figure 6: user data on Strapi.

1.3.2 Screen creation

One of my tasks was to create screens, the visible layout, for the application and later, to link those screens to the back-office, where we store user data, and implement the business logic into those screens.

For all the screens realized, Juliette the graphic designer helped us to sketch and model of the application in InVision. We only had to follow the InVision model and re-create it using Dart and Flutter, sometimes with minor changes because of technical limits.

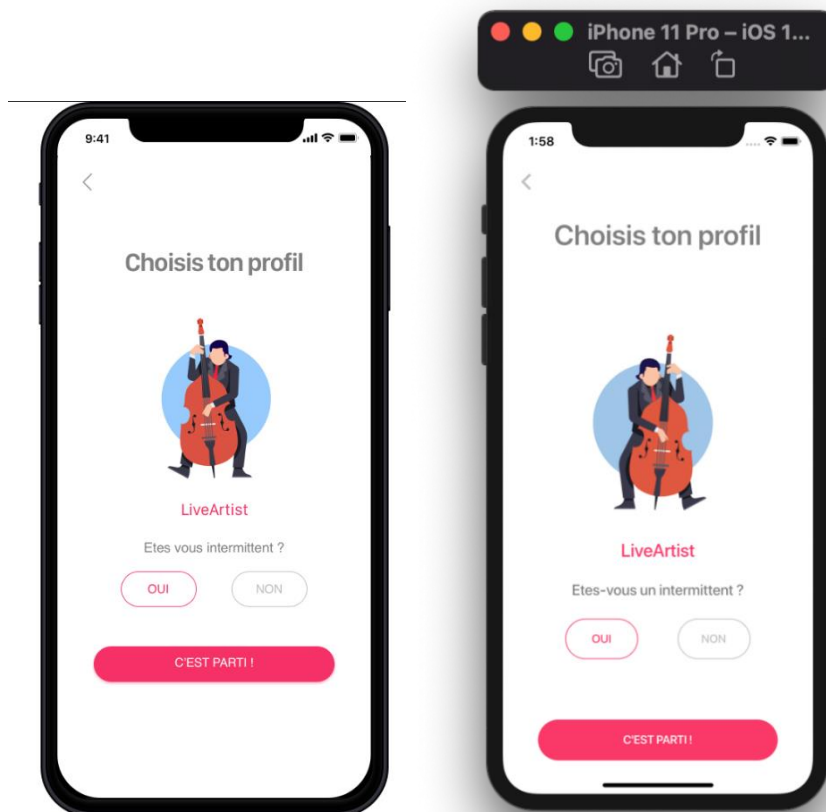


Figure 7 : InVision model (left) and final product (right).

The challenge here, is to adapt every screen to every phone on iOS and on Android, you should be able to make a screen that can adapt itself to a Huawei

Mate Xs (a 8” foldable phone) as well as the iPhone 5, one of the smallest phone in the market. Your screen should be also able to update its layout to support portrait and landscape mode.

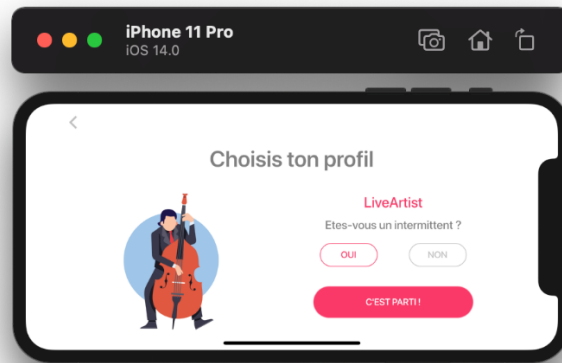


Figure 8: Landscape mode of the screen presented on Figure 7

For those tests we use a variety of testing processes to insure that our development will be effective on a majority of phones, one of them is “Device Preview”.

Device Preview is a Flutter dependency created by the community that helps you to display your application in a mock-up phone. We use it daily to check our work with overflows, layout, and internalization.

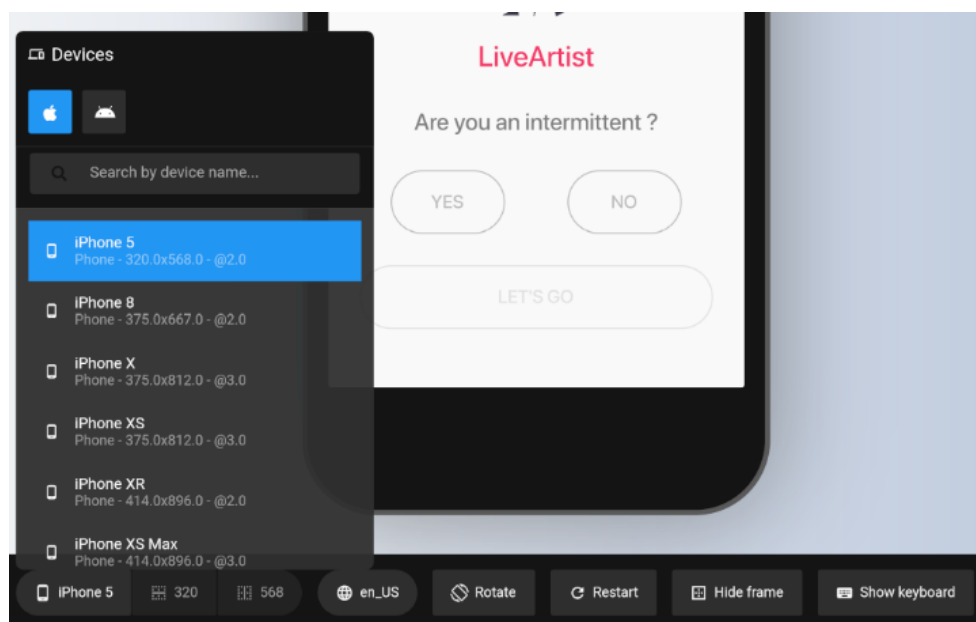


Figure 9: Settings of « Device Preview »

1.4 Other technology used

We programmed mostly in Dart, the language that is used by Flutter. We were using the MVVM (Model View ViewModel) architecture with a lot of request to our API using GraphQL query through Strapi.

In this internship, I was asked to create and maintain many tasks with lots of new technologies for me.

Here are some of them and their function:

GraphQL is an open-source data query and manipulation language for APIs, we used it mostly for requesting our data from our back-office, it made us save a lot of queries that we must have done with classic REST Api.

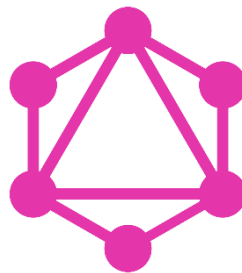


Figure 10 : GraphQL logo

Since we were creating a cross-platform mobile application, deployed on both Android and iOS, we used Fastlane to deploy internal and beta builds, it was hard to setup but very easy to use after that, a simple command was able to deploy a local version of the mobile application on every beta-testers device.



Figure 11 : Fastlane logo

1.5 Workflow

1.5.1 Weekly sprint

This is an agile work method for managing work, it is designed for teams of three to nine developers, so as a 5 members developer group, we used it to break our work into actions called sprints. Each sprint contains tasks that must be completed at the end of the sprint, and those will be assigned to each developer by the project manager. It is a very useful work method for tracking progress and get a global view and understanding of the project. Every week, all the developers and the project manager regroup in a videocall meeting for 2 hours meeting where each of us explains the work we've done, what we are progressing on, and where we struggled, to other developers who can suggests a solutions.

1.5.2 GitHub Issues/Project

Since we had tasks assigned each week, we filtered them as GitHub issues, so we could track the progress of each issue through the GitHub project.

GitHub project is a project management platform for agile developers, it's designed for teams who use the SCRUM method, and provide them boards called "Kanban" where each developer can see all the tasks in progress and to whom they have been assigned.

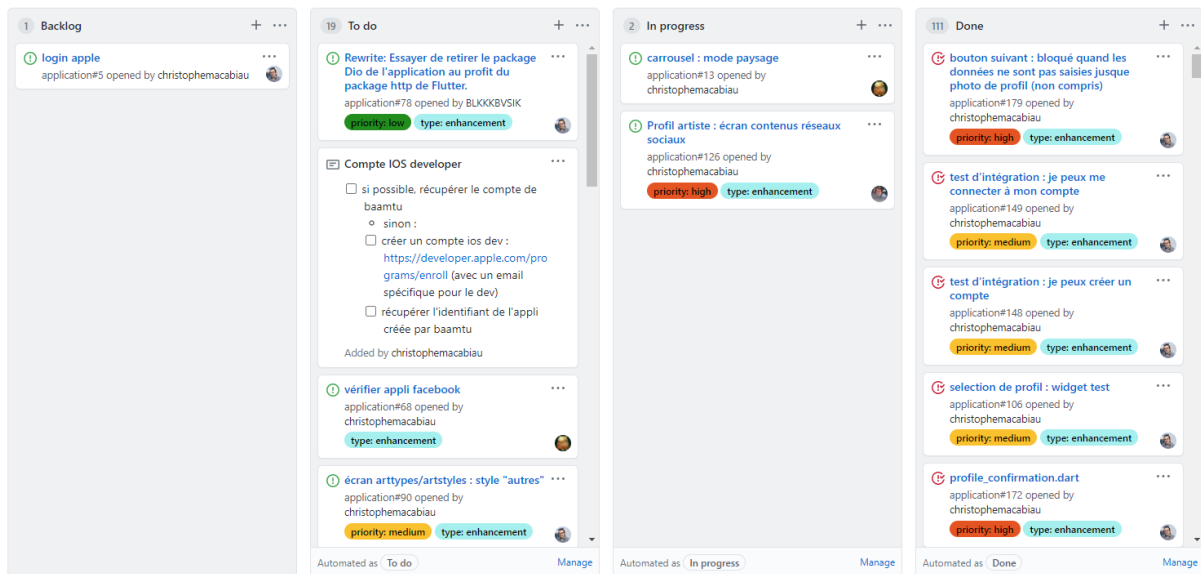


Figure 12 : GitHub project filled with GitHub issues

The project manager creates and assigns tasks to a developer, he/she can also assign issues and more. GitHub project is the visualization of each issues of the mobile application, it provides a global view of the work in progress for each developer, so it is easier to understand what needs to be done.

1.6 Conclusion

It was a very nice experience working at Livearts. I was very well welcomed, and it motivated me the first days at the internship. Taking part in this internship gave me the opportunity to know my strengths better as well as the areas in which I had to improve.

It is the first time that I had the opportunity to work with Flutter, after more than 2 years of personal practice through personal projects, so I was happy to push my Flutter competence from personal to professional.

My experience was a great one. I got to work with very interesting persons from very different backgrounds, and it made me feel like I learned a lot especially when I was taking on tasks that challenged my abilities.

All in all, the internship was a great experience and confirmed my will to work in the mobile development field.

Table of figures

Figure 1 : Livearts logo	5
Figure 2 : Company organization chart	6
Figure 3 : Firebase logo	7
Figure 4 : Strapi logo	8
Figure 5: Freshly created user on Firebase Auth	8
Figure 6: ser data on Strapi.	8
Figure 7 : InVision model (left) and final product (right).	9
Figure 8: Landscape mode of the screen presented on Figure 7.....	10
Figure 9: Settings of « Device Preview »	10
Figure 10 : GraphQL logo	11
Figure 11 : Fastlane logo	11
Figure 12 : GitHub project filled with GitHub issues	13

Part 2:

Asking to take on the entire
project.

2.1 Preamble

After Christophe, the project manager, left the company, Amanda, the founder of Livearts is searching for a new project manager, so I applied to this position based on the work have done, the skills I acquired and my personal feelings.

2.2 Mail

From: contact@enzoconty.dev

To: amanda@live-arts.com

Subject: Enzo Conty: Project manager position

Dear Amanda,

Since Christophe left the company, there is an empty position as a project manager. This empty position is not beneficial to the company since most of the developers lack leadership, direction and did not prioritize the right features for the last couple of sprints. I contact you today to apply as a project manager since I have been in the company since its very beginning, and I know the project in its entirety.

During my internship, I confirmed my desire to work with Flutter and I was also able to confirm that my professional aspirations are in agreement with your company and I want to continue to work in the objective that was set at my arrival: create an application while still keeping in mind the thin deadlines.

I was able to work for 3 months on the project and create a large part of its architecture like the authentication, most of the screens and the back-office. That is why I wanted through the content of this email, express my motivation to work with you as your new project manager.

Sincerely,

Enzo Conty.

Part 3:

My dream project.

3.1 Preamble

Livearts is now a prosperous company, with more than 50+ employees, after a long period of time in the company, I decide to ask Amanda, the founder of Livearts to create my product, under her company.

3.2 Mail

From: contact@enzoconty.dev

To: amanda@live-arts.com

Subject: A new product for Livearts?

Dear Amanda,

Recently, I got the idea to create a new mobile application, that can be beneficial for the company in a lot of ways:

We could make an application suggesting artistic events around Paris: each event would be created by the community, and the application would suggest you nearby artistic events, or events on specific themes like a Jazz concert or an ice sculpting show.

This project is also a good way to promote artists that are already registered on Livearts, as we can suggest more events at which Livearts artist are participating. It will probably push a lot of artists to register on Livearts and help to spread the application in the Parisian area.

I believe myself capable of handling the responsibility of the project as a project manager, keeping tight deadlines to create this mobile application that I named "LiveEvents" temporary.

Indeed, during my time in your company, I was able to acquire a lot of knowledge on mobile application, and I know the objective of the company. I would be able to create a first prototype of the application made with Dart and Flutter in 4 weeks with the help of 3 experimented Dart developers.

I think that this mobile application can be very beneficial to the company and for the visibility of Paris based artists.

Let me know what you think of this idea.

Kind regards,
Enzo Conty.