CSCI 337 - Note-taking app - Final Report

Logan Humbert

May 3, 2024

Contents

List of Figures

1 Description of the application

This little mobile application aims to let students taking notes for their different classes, and organizing them by class.

2 Requirements

- **Who are the users?** The users are students (College, High School, Middle School, ...)
- **Who are the customers?** This app is only made in a school context. There is no real customer for it.
- **User stories:**
  - As a new user, I want to add my different classes, and start adding notes for them
  - As a regular user, I keep adding a new note during a lecture in my different classes, then I review them when I study. I can easily modify the content of the note if I need to.

3 Features

The user should be able to complete these different tasks easily:

- See his different classes
- Add/edit or delete a class
- Create/edit/delete a note for any class he has created
- View a note
- Search for a class or a note by typing a part of its name

4 Iterative design

4.1 Sketches on paper

Here is a first sketch of the different pages of the app, and the transitions between them:

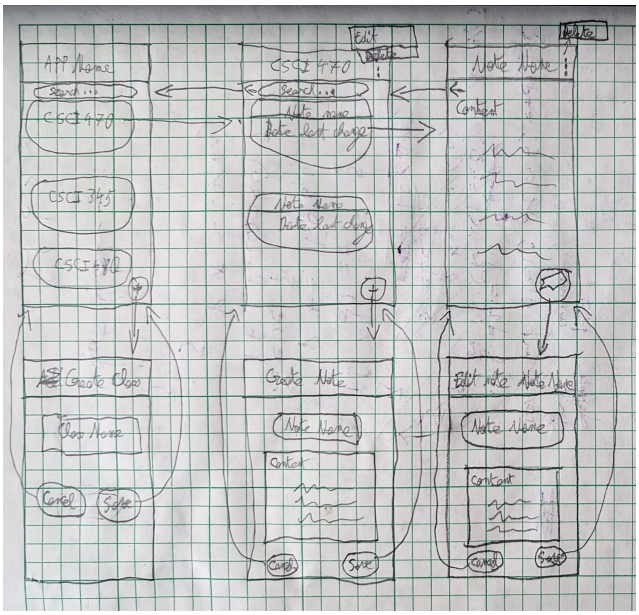

Figure 1: First sketch on paper

I imagine having 5 different screens:

- The home page, containing a list of the existing classes.
- The add/edit class form
- The list of notes in a class
- The add/edit note form
- The content of a note

All pages can be accessed by clicking on a specific element, as the arrows on the sketches show.

4.2 Designing and prototyping on Figma

After drawing my first sketches on paper, I started making a more accurate and clean design of the UI on Figma, and I used its prototyping features to create the transitions between the pages of the app.

For developing my app I decided to use Flutter, as I will explain more in details in the next section. As this framework uses the Google Material's design, I used their official figma template, which contains reusable Material component, so my Figma design could be as close as possible as the UI the final app will have.

You can access my figma design here.

I started by making the User Story "Create a class"

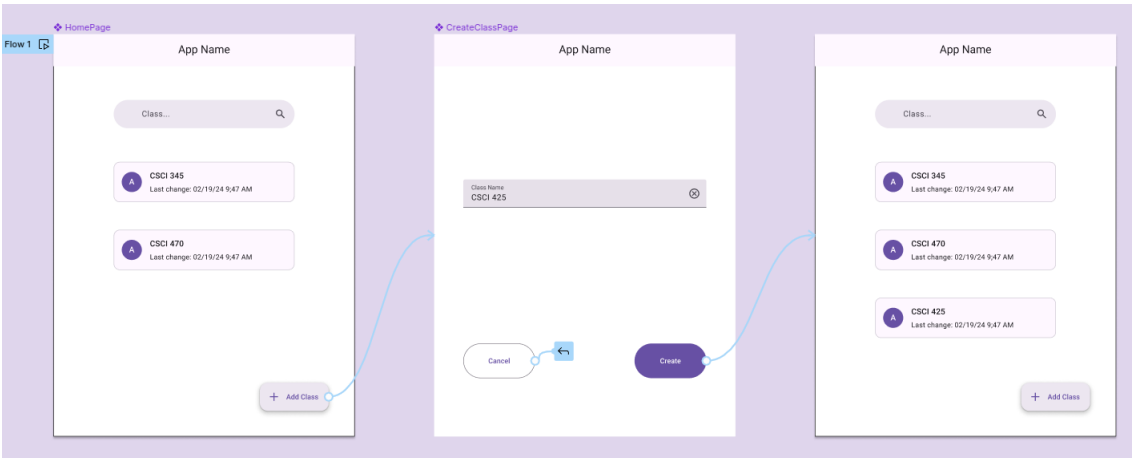

Figure 2: User story "Create Class" on Figma

From the home page that contains the list of our classes, a button lets the user create a class by giving it a name. It is then immediately available from the home page.

Then I added the other user stories and added transitions between the different pages of the app:

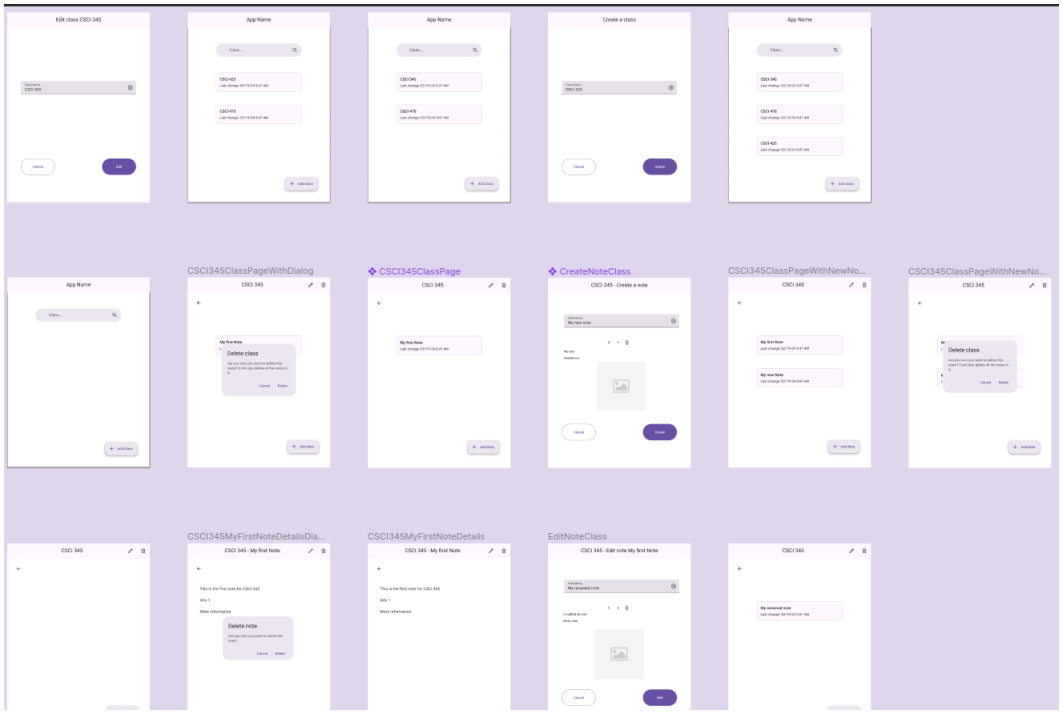

Figure 3: All user stories on Figma

Some pages of the app have been duplicated, as they simulate a change in database, or they display an additional graphical element, such as a dialog box, which is not possible to achieve directly on Figma. These are used to obtain a better experience when we execute the prototype on figma.

4.3 Development with Flutter

After obtaining a first satisfying design and prototyping my app on figma, I started to develop my app.

I decided to use Flutter, which is an open-source framework created and maintained by Google. Its main advantage is that it allows building natively compiled multi-platform applications from a single codebase.

I focused mainly on making a web version as it is one of the easiest versions to debug, and it would allow my app to be available on any platform that has a web browser, such as windows and mac computers, Android and IOS phones and tablets.

Anyway, it would be very easy to build a native Android or IOS app for example, with none or just a few modifications of the code needed.

The source code and the instructions to build and run the Flutter app are available here.

4.4 Publishing the app

After judging that my app was complete and stable enough I decided to publish it.
For this I used a service named Github pages, that allows any Github repository to be accessed as a website.
The only cons of it is that it we cannot serve a nodeJS, apache or nginx server for example with this service.
As Flutter apps are don't require any of these, Github pages is a good choice.

You can access the latest public version of my app here.

4.5 UI/UX tests

After developing and publishing my app I decided to do UI/UX tests. For this, I asked other students who were potential future users of my app to try it and give me feedbacks

5 Links

Here are the links to important resources:

- Project's repository
- Figma Design
- Web version of the app