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GENERAL INTRODUCTION

Online learning has been on the rise in recent years, and it's not hard to see why. in reality, E-learning courses have become hugely popular by the simple virtue of being so much more convenient than traditional face to face courses.

Ask anyone with more than a passing interest in emerging trends in education today.
"I can't go back to school." You can expect this kind of response. You don't have to go back to school. You can learn online without setting foot in the classroom again.
Online education brings learning to where you are.

In fact, students can fit them around their existing responsibilities and commitments, and can engage with multimedia content and learning materials at whatever time is most convenient to them. Even better: they don't have to travel anywhere to study, they can simply log in to the virtual campus from the comfort of their own home or office.

It is in this context that my project within Eliteware consists of the design and implementation of a streaming platform called Mastery Share that assures remote access to educational content, the individualization of learning and tele-tutoring.

Unlike most e-learning platforms focused on teaching hard skills like cloud computing or UX design, Mastery Share targets a different audience: creatives who are looking to learn and gain some inspiration along the way.
The site has courses in categories like writing, cooking, sports, business, and politics, and each of them is taught by the best instructor in each field.
Each class provides video lessons, a course workbook, and class feedback.
If you're craving an online course to inspire you, help you hone a craft, or give you valuable advice from a respected expert, Mastery Share is definitely worth a try.

This report describes the work carried out; it comprises Three chapters structured as follows:

The First Chapter is an introductory chapter illustrating the general context of my project: presentation of the host organization, statement of the problem, the business context of my project, a study of the existing situation in order to achieve the definition of the proposed solution as well as capturing the requirements.

The Second Chapter will contain an introduction to engineering design then the graphic design. After that I will talk about the methodology and approach adopted in the development of this project then its process.
And last, I will be talking about the choice of the software engineering workshop and the design process.

The Third Chapter will be the realization phase, it will contain an Introduction to the chapter that will have a part for the development environment, a part for the site map and project potential, and last but not least a part for the presentation of examples of interfaces.

CHAPTER 1: PROJECT INITIALIZATION AND NEEDS SPECIFICATIONS

1. Introduction

In this chapter, I am going to introduce the Eliteware host organization where I did my graduation project internship.

Then, I will introduce the subject and discuss the problem and the proposed solution as well as specifying the functional and non-functional needs.

Finally, I will close the chapter with a brief conclusion that will contain the most important points from the chapter.

2. Host organization and summary

My internship took place at Eliteware which is an international web/mobile development agency that's been around for over 7 years now. This company works with over 250 clients all around the world and helped a lot of big companies with their issues as well as gave away new startups to launch.

Eliteware was founded by Aladdin BenSassi a well-known web developer, writer, and speaker, who spends most of his time trying to improve the company and reach new heights.

This report is a detailed overview of my internship journey at Eliteware.

During my Internship I have learned a lot about Web development, communication, team-leading and team-working.

I have learned to work in a corporate space which not only enriched me professionally but also helped me grow personally as well. My contribution was appreciated by my supervisor and other members of the department.

The career path I would be selecting for myself is quite influenced from my internship as I have had a great opportunity to practically see how development business works.

3. Issue

What do most people do in their spare time? They are on social media, browsing and watching videos, consuming their free time and energy on useless things.

In fact, since the current covid-19 situations began, people are staying home basically doing nothing.

However, even if they look up the internet for educational platforms to learn or gain some inspiration, they won't find any Tunisian platform that targets them, creatives who are looking to learn new things along the way, Such as sports, cooking, writing, business...

As a matter of fact, E-learning solutions or platforms are required for companies and for all educational purposes, but it is limited to that.

What if we want to do more than "virtual classrooms" and "virtual meetings"?

What if we want to spend a couple hours a week learning something new or exploring an interest, a hobby or a passion?

It can be any interest or random thing we are feeling curious about.

why don't we have any other alternative to lean on from the pandemic? to continue to live and continue learning because that's what's important.

4. Existing Solution critics

Studying the existing systems and the different facts that will be put at my disposal is an important step for the smooth running of the project.

So, in order to make my project successful, I needed to look up for every E-learning platform that offers the solutions to our problem.

From creative philosophies and business practices to software tutorials and technique guides, there are numerous online courses and instructional platforms for professionals looking to upgrade their skills within a particular creative field.

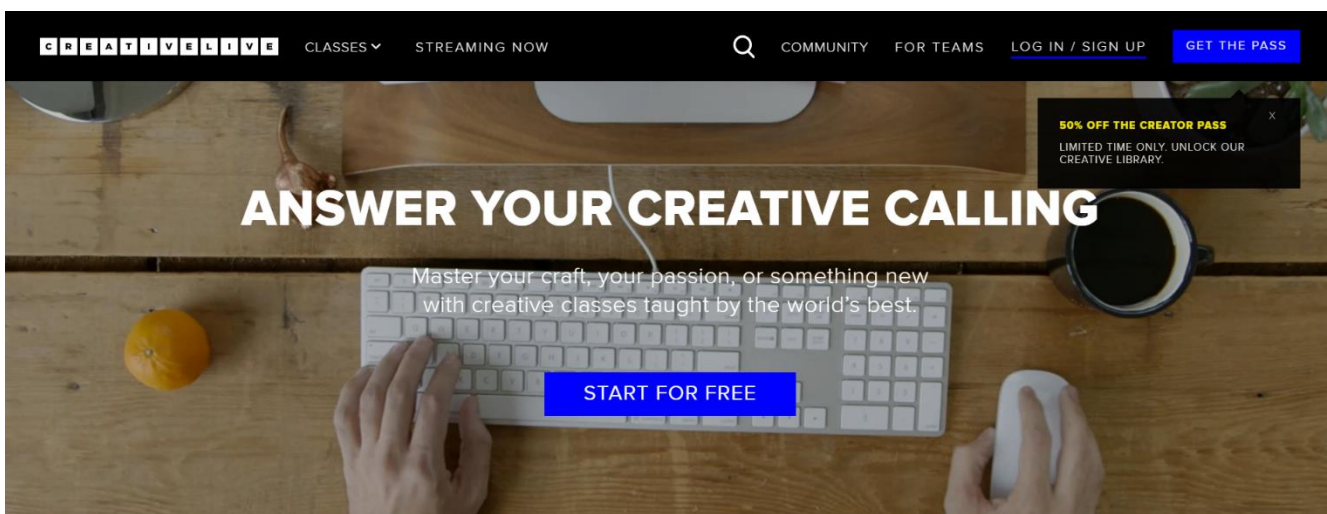Let's dive into these existing platforms:

A. CREATIVELIVE

CreativeLive has top-notch videos from accomplished people in a range of fields. There aren't any crowd-uploaded courses here, so you know every option is a quality program. This platform boasts over 1,500 class options, and many are categorized into those related to business, skill, or software within a field. For example, you'll find everything from technique guides and genre-specific classes to software how-to and business aids within the Photo & Video category.
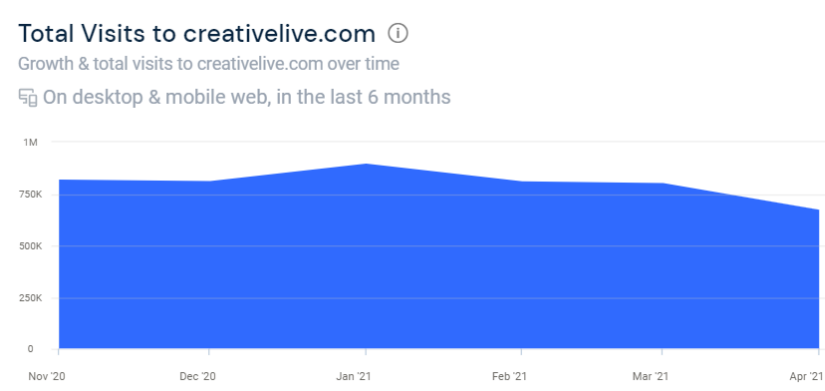

Figure 1 Creative live logo

Cons

- Many lessons are longer (over 30 minutes)
- Free courses are limited and are only offered at pre-set times Individual
- courses are expensive

Figure 2 Creative live landing page

Global Rank ⓘ
Worldwide

▼ 77,495

Country Rank ⓘ
United States

▼ 36,837

Category Rank ⓘ
Hobbies and Leisure > Photography ✎

▲ 130

Total Visits to creativelive.com ⓘ
Growth & total visits to creativelive.com over time

On desktop & mobile web, in the last 6 months

1M					
750K					
500K					
250K					
0					
Nov '20	Dec '20	Jan '21	Feb '21	Mar '21	Apr '21

Engagement

Total Visits	672.25K
	▼ 16.22%
🕑 Avg. Visit Duration	00:03:50
🗐 Pages per Visit	3.16
↗ Bounce Rate	59.41%

Audience Interests ⓘ

Categories ⓘ

Computers Electronics And Technology > Computers Electronics And Technology

News And Media

Hobbies And Leisure > Photography

Computers Electronics And Technology > Programming And Developer Software

Finance > Banking Credit And Lending

Figure 3 Creative live statistics

B. Masterclass

Masterclass is an online learning platform where the world's most successful people teach you the things that made them famous. All of these classes comprise video lessons and downloadable workbooks for you to easily follow along.
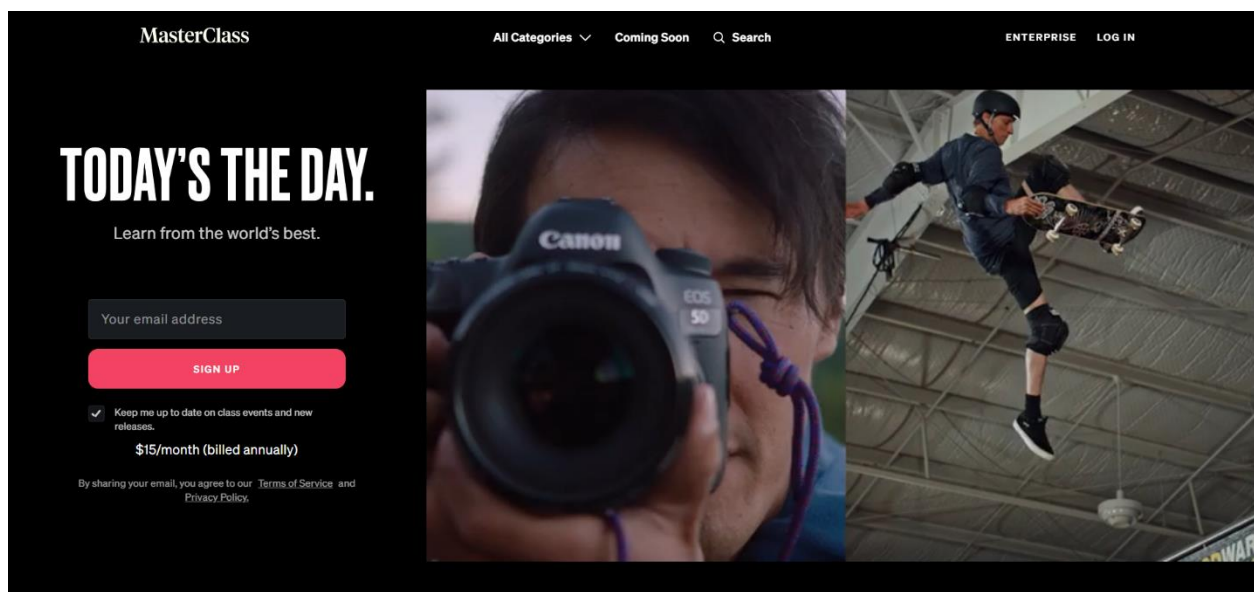
When you enroll in Masterclass, you'll instantly see why people have been raving about it. It's addictive! There are hundreds of hours of educating content. The video lessons are inspiring and entertaining

Figure 4 Masterclass logo

Cons

- No Free Courses
- Very Few Courses
- Not the Greatest Community

Figure 5 Masterclass landing page

Global Rank ⓘ
Worldwide

▾ 5,762

Country Rank ⓘ
United States

▾ 2,343

Category Rank ⓘ
Arts and Entertainment > Arts and ... ✏

▴ 54

Total Visits to masterclass.com ⓘ
Growth & total visits to masterclass.com over time
On desktop & mobile web, in the last 6 months

12.5M

10M

7.5M

5M

2.5M

0

Nov '20   Dec '20   Jan '21   Feb '21   Mar '21   Apr '21
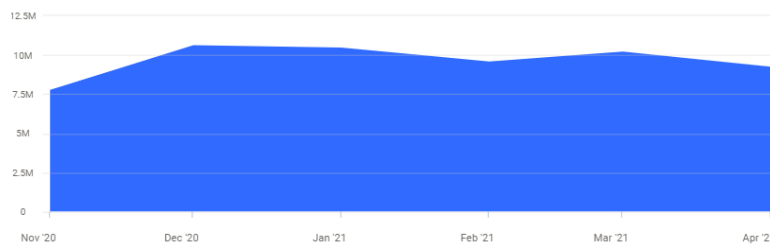
Engagement

Total Visits   **9.25M**
                ▾ 9.49%

🕐 Avg. Visit Duration   00:04:00

▣ Pages per Visit   3.72

↗ Bounce Rate   45.50%

Audience Interests ⓘ

Categories ⓘ

Science And Education > Education

Science And Education > Universities And Colleges

News And Media

Computers Electronics And Technology > Computers Electronics And Technology

Food And Drink > Cooking And Recipes

Figure 6 Masterclass statistics

C. Skillshare

Skillshare is an entirely open-source platform that's akin to Udemy or LinkedIn Learning. However, compared to these two, Skillshare tends to be lower-rate because there is little barrier to entry.
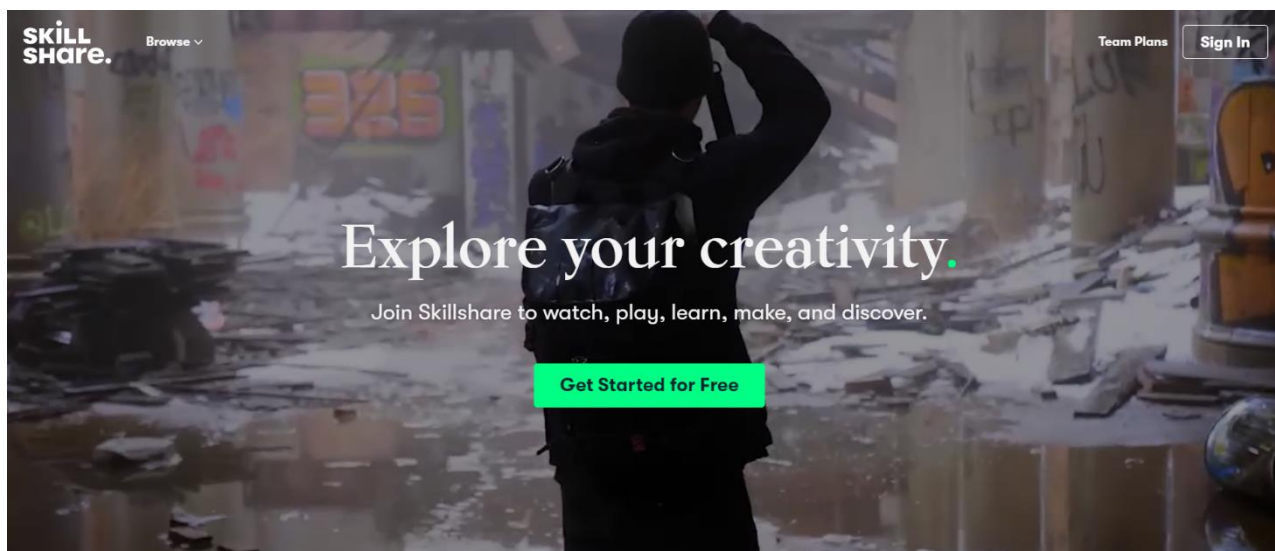
The courses you can access on Skillshare are diverse, and there are more than 25,000 of them. But the slide format doesn't lend itself to art or music production tutorials nearly as well as a video does. Many of the classes offer little value, but you may find a narrowly focused course that covers a specific topic you're interested in.

Figure 7 Skill share logo

Cons

- Numerous low-quality courses
- High-quality courses are often still short
- Amateurs make many classes

Figure 8 Skill share landing page

Global Rank ⓘ
Worldwide

▲ 6,904

Country Rank ⓘ
United States

▼ 4,723

Category Rank ⓘ
Hobbies and Leisure > Photography ✎

▼ 27

Total Visits to skillshare.com ⓘ
Growth & total visits to skillshare.com over time
On desktop & mobile web, in the last 6 months

April, 2021
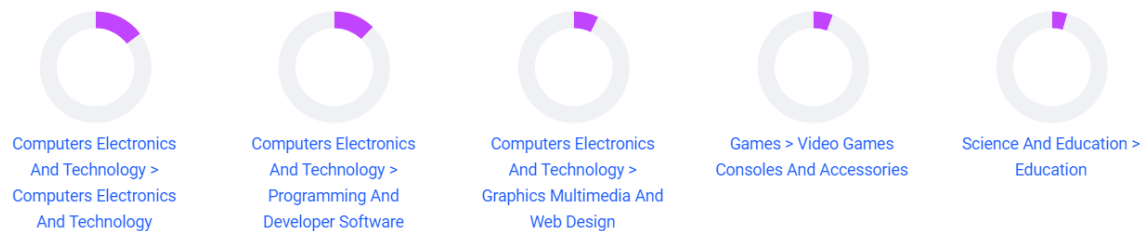**skillshare.com:** 8,150,000

10M
7.5M
5M
2.5M
0
Nov '20   Dec '20   Jan '21   Feb '21   Mar '21   Apr '21
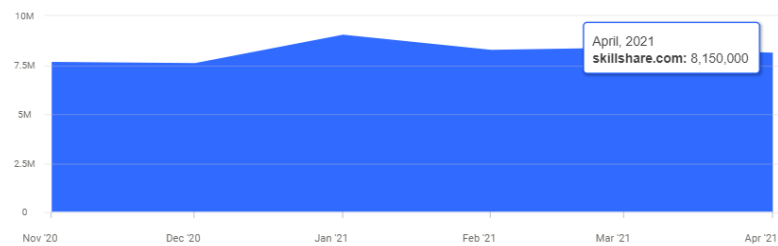
Engagement

Total Visits   **8.13M**
                                 ▼ 3.03%

🕐 Avg. Visit Duration   00:04:07

🗗 Pages per Visit   4.02

🗠 Bounce Rate   42.99%

Audience Interests ⓘ

Categories ⓘ

Computers Electronics And Technology > Computers Electronics And Technology

Computers Electronics And Technology > Programming And Developer Software

Computers Electronics And Technology > Graphics Multimedia And Web Design

Games > Video Games Consoles And Accessories

Science And Education > Education

Figure 9 Skill share statistics

5. Proposed solution

<u>What is Mastery Share?</u>

"Mastery Share" is a powerful platform accessible to all Tunisians which on the one hand allows users to be inspired by the content, to learn new skills and to make discoveries.

On the other hand, formers can share their experiences and receive compensation. Thus, this platform will allow users to find courses that interest them and allows formers to find interested learners.

It offers courses for students of all skill levels, across a really wide array of interests such as writing, acting, cooking, dancing....

You can stream Mastery Share video anywhere or even download the courses to watch them offline.

And it never gets old, every certain period we will add new classes.

<u>Why is it better than every other platform?</u>

After studying the existing systems and platforms and considering their cons, Mastery Share will not contain low-quality courses because the instructors are limited and well chosen by our stuff and we will be in charge with the video making of every course.

This will ensure the high-quality videos in all courses. In fact, following this method will ensure the length of the videos as well because we will take charge of every detail before recording and editing the videos and will ensure the good content.

The platform will contain also some free courses for our members for marketing purposes.

In the next page, an example of the detailed content of a course:

Mastery Share Class
Skateboarding
By BlackoutTeam

Videos

Introduction:
Introduction to Blackout Team who's ready to teach you keys to become a professional skateboarder step by step.

Basics (Mount, Move, Stop, Pushing):
You've got your brand new (or your newly inherited hideous hand-me-down) skateboard and you're ready to go for your first ride. Congratulations! Before you get to it, you should learn some basic motions and practice them.

Ticktack + Manual/Nose
Once you get comfortable with moving while on your skateboard as well as with increasing speeds, the next maneuver which is worth your while to learn are tricks called "tick-tacking" and "Manual/nose" So long as you have developed a comfortable sense of balance while standing and moving on your skateboard, these trciks should come quite naturally and easily to you.

Front-Side/Back-Side Power slide
The F/S power slide is a trick that forcefully turns your board 90 degrees, your body turning forward as it slides. The trick can be used for controlling speeds while going downhill, and it is also a basis of sorts for slide tricks done on boxes, ledges, and bowls.

Shove-It + Ollie
The ollie is an absolutely essential trick to skateboarding. Once you get comfortable with the ollie, that's really when a completely new world of skateboarding will start opening up to you.

Duration

Average video duration is 4/5min;

The shortest video is going to be 3-min-long but it can be up to 7min.

Specifics

- Instructors: Malek ben Amor, Daly Hammouda, Yassine Jedidi.
- Photographer: Maemoun Bouaouina.
- Language: Tunisian Arabic.
- Number of videos: 5-8.
- Category: Sports & Gaming.

Contact

+216 (93467287).
All Right Reserved
Mastery Share ©.

Figure 10 Example of detailed content of a course

6. Needs identifications

Needs Identification is the process of determining what and how a customer wants a product to perform.

The analysis of the subject and the study of existing tools allowed me to identify the functionalities that will be offered by my platform. The constraints that the system is subjected to realize and its good functioning will be described here after as non-functional needs.

6.1 Functional requirements: what the system should do?

A Functional Requirement is a description of the service that the software must offer. It describes a software system or its component. My platform system must, therefore, allow to:

Administrator:

1. The system must allow changes to user information.
2. The system must support management of access, views, functionality and security roles such as user, program administrator, and technical administrator.

Course and Class Delivery:

1. The system must associate classes with instructor names for specific sessions.
2. The system must display unique ID numbers for courses and events.
3. The system must manage course registration.

User Registration:

1. The system must allow the user to self-register into classes available.
2. The system must be configured with email notification robot to alert the user for every event.

Payment and security:

1. The system must allow diverse payment methods.
2. The system must ensure a secure payment process.

6.2 Nonfunctional requirements

Usability:

1. The system must support all current versions and any previous supported versions of modern web browsers including Internet Explorer, Firefox, Chrome and Safari.

Availability:

1. Planned system downtime must be scheduled at least 24 hours in advance.
2. The system must allow failovers to occur without disruption to service.
3. Planned system updates, patches and support must occur without service disruption.

Reliability:

1. The system must track and display student information.

Security:

1. The system must integrate with 3rd party authentication.
2. The system must provide configurable role-based authentication.

7. Conclusion

During COVID-19, e-learning has proven to be the most reliable solution to numerous problems rising with the global lockdown. Therefore, building an online learning platform can answer many challenges if it is done right.

Such benefits of online learning platforms and apps and the growing demand for them are sure to catch our attention and makes us aim to create a platform that solves our problem.

CHAPTER 2: ENGINEERING DESIGN

1. Introduction

In this part, I am going to present the engineering design process detailed with its figures and the graphic one while arguing about my choice of the design.

2. Synopsis

Any multimedia project begins with the writing of its synopsis, the information which contains it must allow the reader to imagine what the product could be and thus to know its interest:

Subject:

E-learning platform.

Type and support:

Website supported by every browser.

Objectif:

The main objective is to provide a powerful platform accessible to all Tunisians which on the one hand allows users to be inspired by the content, to learn new skills and to make discoveries. On the other hand, formers can share their experiences and receive compensation. Thus, this platform will allow users to find courses that interest them and allows formers to find interested learners

Targets and their equipment:

-This platform is intended for all age groups, for all those who want to advance, develop or discover a new passion.

-The platform will be compatible with all operating systems (Windows, Linux, Mac Os ...) and all devices including smartphones and personal computers or tablets.

The specifications of the platform:

-The formers speak Tunisian Arabic, but the videos will be subtitled in French to reach a wider audience going as far as the greater Maghreb.

-The platform will contain free and premium classes/courses and it can be accessed through a class purchase or a monthly/yearly subscription:

Monthly /Yearly subscription:

This subscription gives you unlimited access to all videos in Mastery Share.

Class purchase:

This Purchase gives you limited access to a single course.

3. Graphic design

During this step, I will try to harmonize the colors, the shapes, and the typography.
I will present in this part the product and the graphic charter of the platform and justify my choice

A. Graphical charter

The graphic charter is a working document comprising recommendations for use and the characteristics of the various graphic elements that can be used on the various communication media of the company.
The graphic charter guarantees the homogeneity of visual communication within the company.

Choice of colors

A neutral color like black is ideal in combination with cool colors like green, neutral colors are often used to counterbalance the primary colors and thus create a certain balance.

Green being a cold color gives an effect of freshness, calm, relaxation, confidence, peace, hope

#2da397

Black being a neutral color is associated with elegance, authority, power, strength, intelligence.

#242424

Choice of shapes and lines:

- **Using lines in my design:**

Lines create visual hierarchy by dividing designs into sections and separating dissimilar content. They are excellent organizational elements because they create separation between text or visual elements. This makes then indispensable in most designs, especially layouts involving a lot of information.

- **Using shapes in my design:**

Although any imaginable shape can be used in design, straight-edged shapes are the most frequently used. This includes squares, rectangles, triangles, pentagons, hexagons, and more.

B. Template

A website template determines your site's structure, functions, and how it will display. and for the most website templates today, they use the full-width content, which is my choice.
A full-width design is when the background image stretches the full width of your computer screen.

Full-width layouts are very popular and work well for mobile responsive templates and graphic heavy websites. Generally speaking, they are considered more creative and modern.

4. Methodology and approach adopted

Waterfall, is the most conventional software development methodology. In fact, I chose this method because it has been one of the most popular approaches for web development projects for several decades due to its plan-driven approach.

below, the waterfall life cycle model:
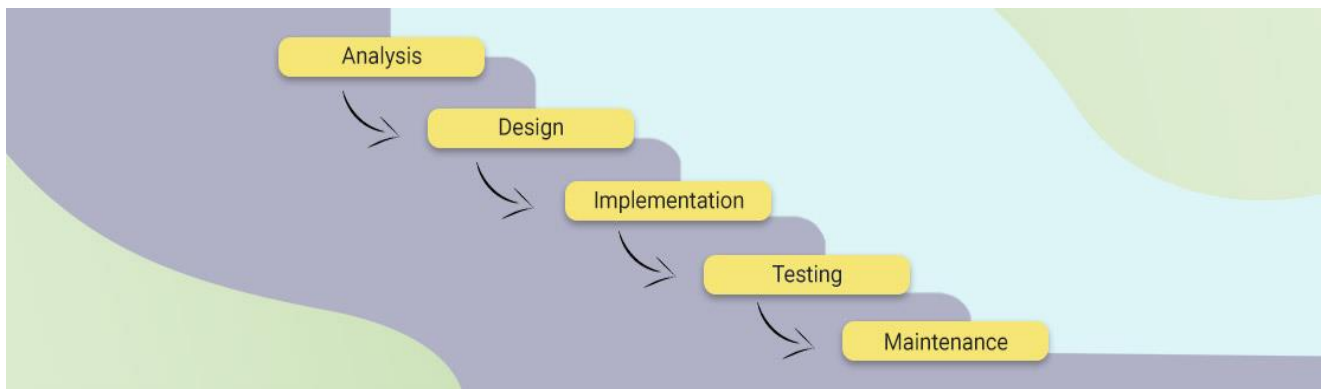
Figure 11 Waterfall cycle

Waterfall lacks flexibility which means that every phase should be fully completed before moving forward to the next stage which is best to complete everything properly.
The Waterfall approach requires a lot of structure and documentation. The process is divided into several stages that form a sequence.

5. The choice of software engineering workshop

To better present the architecture of my web application, I chose the most adopted modeling language UML (Unified Modeling Language) because it has several advantages:

- It facilitates the understanding of complex abstract representations.

-Its versatile character and flexibility make it a universal language.

-Its ability to frame the analysis.

In fact, UML is designed to represent, specify and document applications and brings great rigor, offering a better understanding of applications and allowing to capture relevant aspects to meet customer needs.

My UML design tool is "Draw.io" which is an open-source technology stack for building diagramming applications, and the world's most widely used browser-based end-user diagramming software.

Below, The design tool logo:

Figure 12 Draw.io logo

6. The design processes

The design process is a series of steps that we follow to come up with a solution to a problem. Many times, the solution involves designing a product (like a machine or computer code) that meets certain criteria and/or accomplishes a certain task.

a. Actors

An actor represents the abstraction of a role played by external entities.
In my web application, I mainly distinguish three actors which are the following:

Visitor:
This is the person who uses the web application to be inspired by the content and make discoveries.

Member:
It is the person who uses the application to consult the courses and who can consult his online profile.

Administrator:
This is the person who manages the administration of the web application such as the management of students, courses, teachers, etc.

b. Expression of needs

The expression of needs phase makes it possible to describe the global use cases and the detailed ones of the application. It describes the interdependence between the system and the actor by determining the user's needs and what the system needs to do for the actor.

In the next page, the general use case diagram
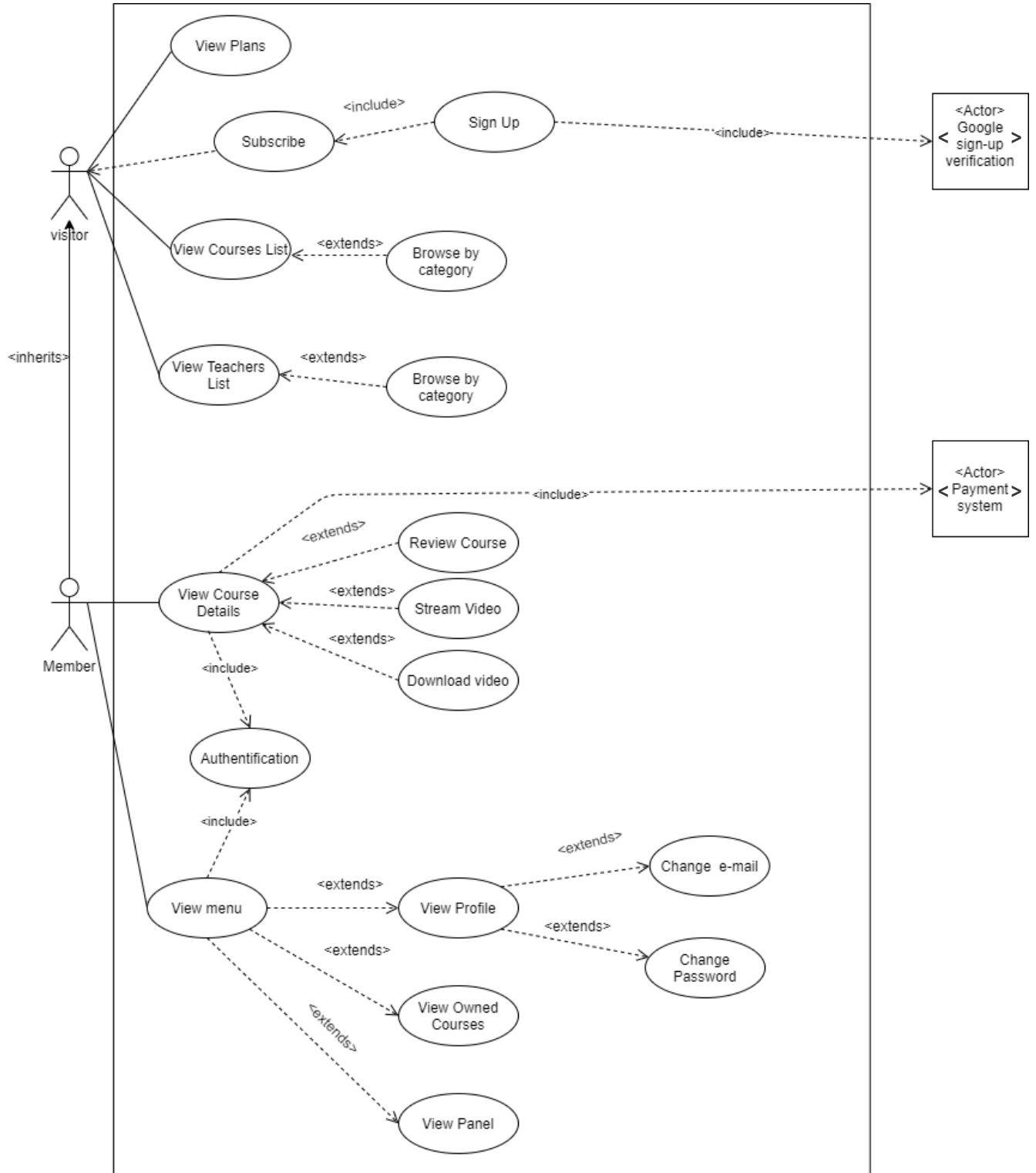
Figure 13 General use case of user and member

Details of use case of the visitor module
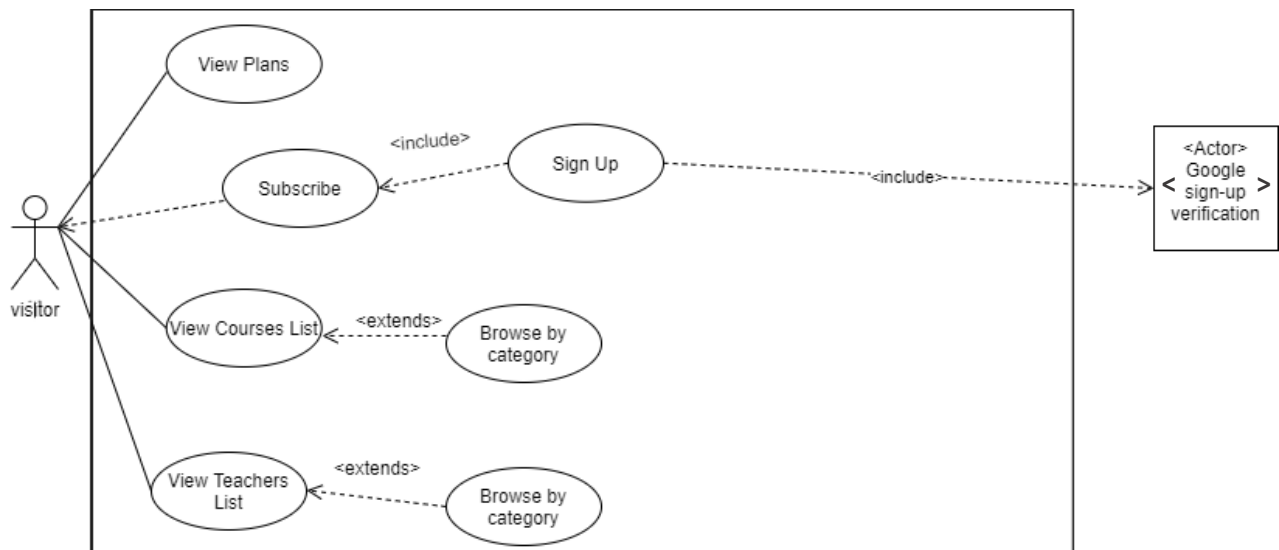
Figure 14 Detailed use case of the visitor

Use case description: View plans

1. Actor: Visitor

2. Pre-condition: The visitor chooses to see plans (Tarif)

3. Post-condition: the visitor sees the plans and offers

4. The use case: View plans

5. Main scenario:

-The visitor enters to the plans page

-The visitor chooses the plan that suits him

Use case description: Subscribe

1. Actor: Visitor

2. Pre-condition: The visitor wants to subscribe

3. Post-condition: The visitor becomes a member

4. The use case: Subscribe

5. Main scenario:

-The visitor enters sign up page

-The visitor creates an account and verify it from the external system of google verification

-The visitor chooses the subscription that suits him

Use case description: View Courses List

1. Actor: Visitor
2. Pre-condition: The visitor chooses to view courses list
3. Post-condition: the visitor explores the diverse categories
4. The use case: View courses list
5. Main scenario:

-The visitor enters to the courses page

-The visitor can filter the courses by category

Use case description: View Teachers List

1. Actor: Visitor
2. Pre-condition: The visitor chooses to view Teacher's list
3. Post-condition: the visitor explores the teachers by alphabetic order
4. The use case: View teachers list
5. Main scenario:

-The visitor enters to the teacher's page

-The visitor can filter the teachers by an alphabetic order

Details of the use case of the member module
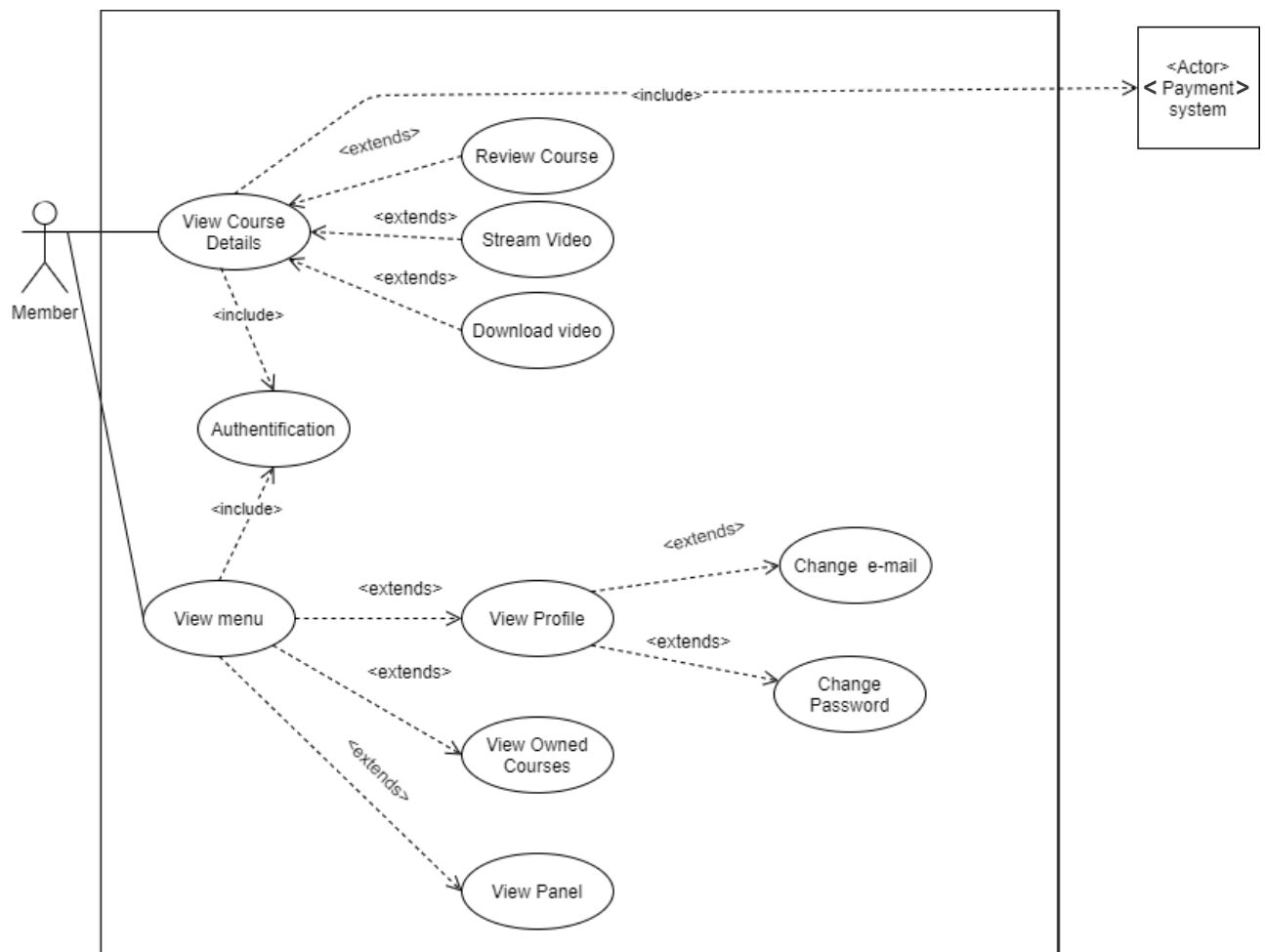
Figure 15 Detailed use case of the member

Use case description: View Course details

1. Actor: Member
2. Pre-condition: The member wants to check the details of a course
3. Post-condition: the member makes a payment that can allows him to stream download or review the course
4. The use case: view course details
5. Main scenario:

-The member must be authenticated and must buy the course or have an active subscription using an external system of payment that allows him to see the course details

-The member enters to the courses page

-The member chooses the right course

-The member views the course details

-the member chooses to buy the course

-The member stream/download/review the course

Use case description: View menu

1. Actor: Member
2. Pre-condition: The member wants to view the menu
3. Post-condition: the member checks his panel; classes owned or edit profile
4. The use case: View menu
5. Main scenario:

-The member must be authenticated to be able to see the menu

-The member chooses what to edit (password, update information, change subscription)

-the member views the classes owned

-the member browses his panel

Use case of the admin module

Figure 16 General use case of the admin

Use case description: Manage Member

1. Actor: Admin

2. Pre-condition: The admin wants to manage members

3. Post-condition: The admin manages the members

4. The use case: Manage member

5. Main scenario:

-The admin enters to the admin dashboard

-The admin edits or deletes members

-The admin saves the change

Use case description: Manage Teacher

1. Actor: Admin
2. Pre-condition: The admin wants to manage teachers 3.
3. Post-condition: The admin manages the teachers
4. The use case: Manage teacher
5. Main scenario:

-The admin enters to the admin dashboard

-The admin edits or deletes or adds teachers

-The admin saves the change

Use case description: Manage Courses

1. Actor: Admin
2. Pre-condition: The admin wants to manage courses
3. Post-condition: The admin manages the courses
4. The use case: Manage courses
5. Main scenario:

-The admin enters to the admin dashboard

-The admin edits or deletes or adds courses

-The admin saves the change

7. Analysis phase

the class diagram shows the classes and the different relationships between them:
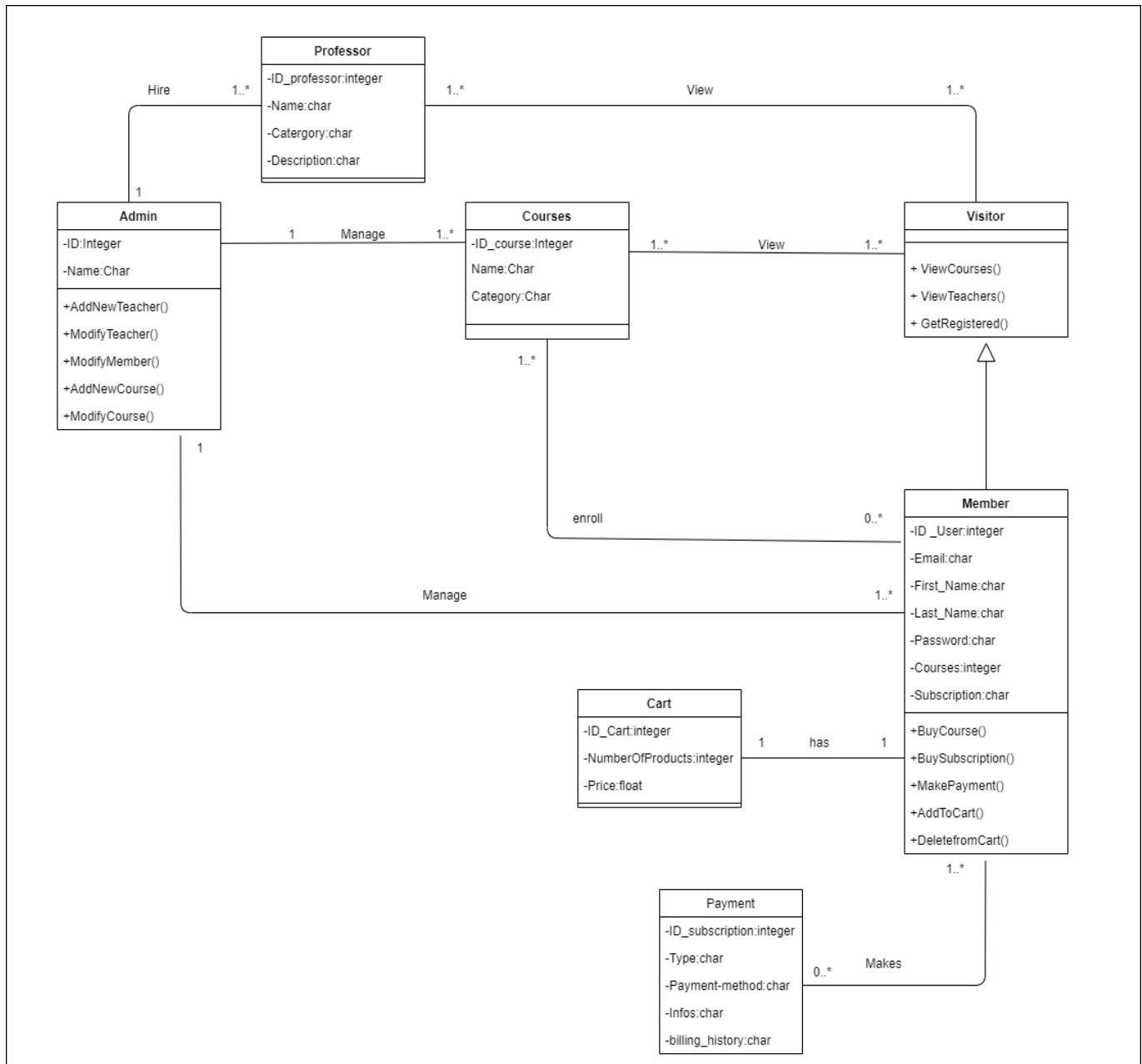
Figure 17 General class diagram

8. Conception phase

In this section I will present the sequence diagrams of my web application.

Sequence diagrams are the graphic representation of the interactions between the actors and the system in chronological order in the UML formulation in this section I will present the sequence diagrams of my web application.

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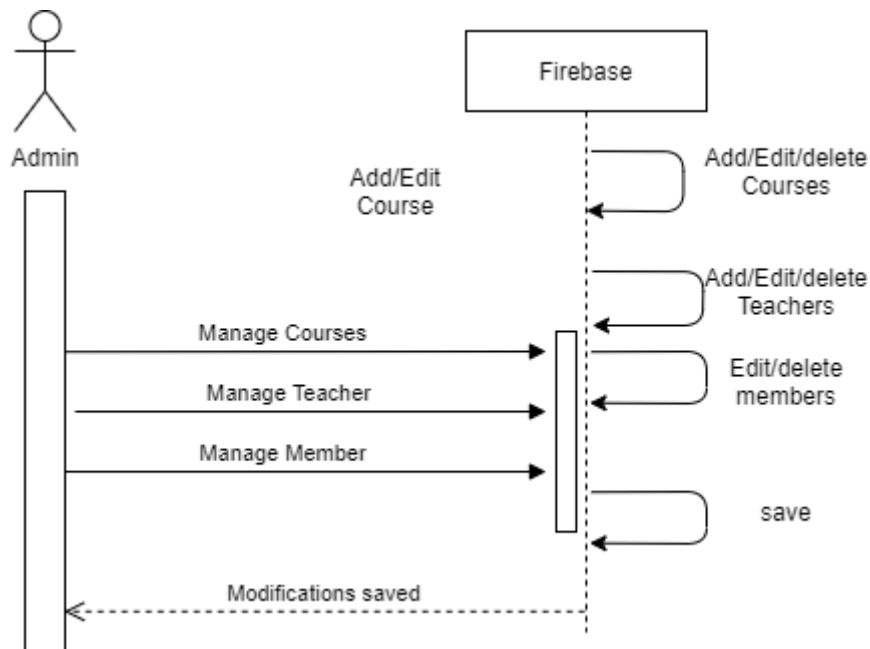
Figure 18 Sequence diagram of admin
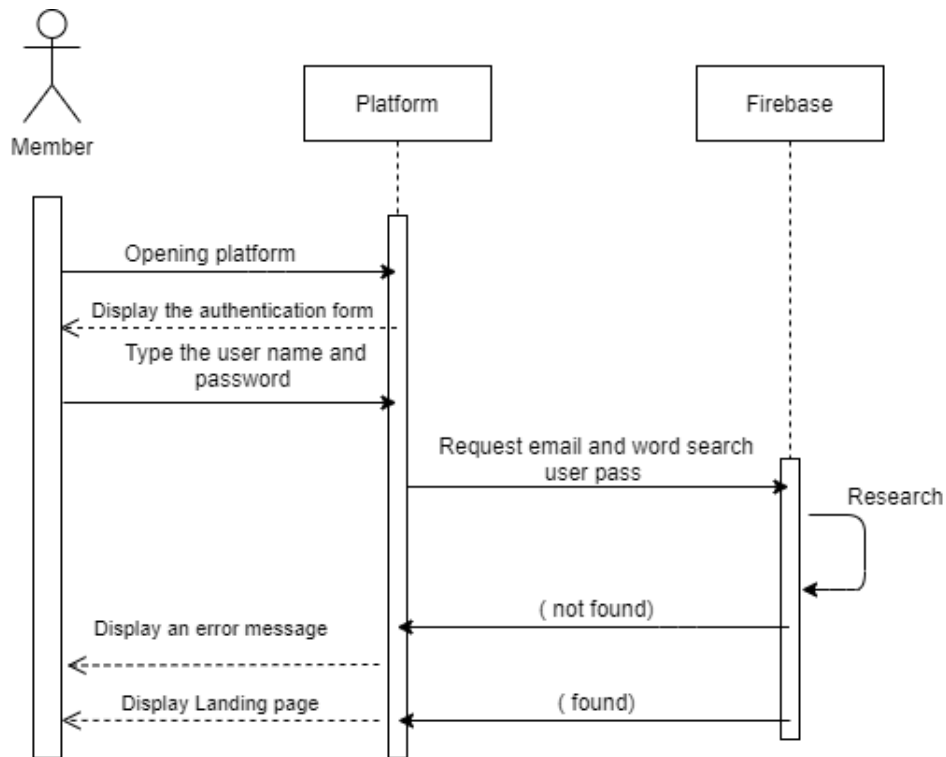
Figure 19 Sequence diagram of member authentification
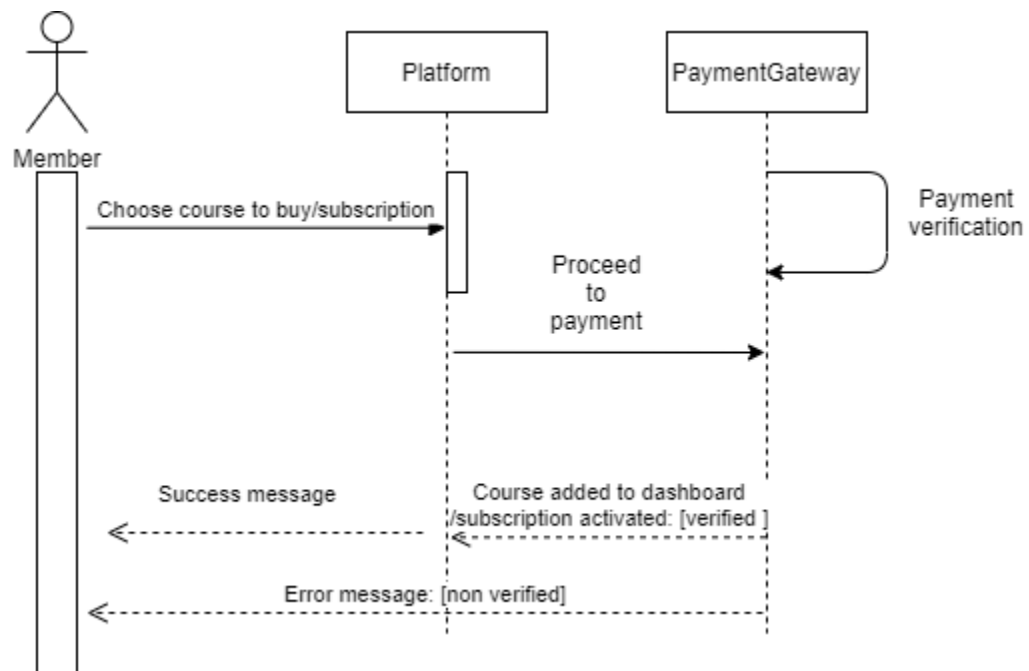
Figure 20 Sequence diagram of member payment process
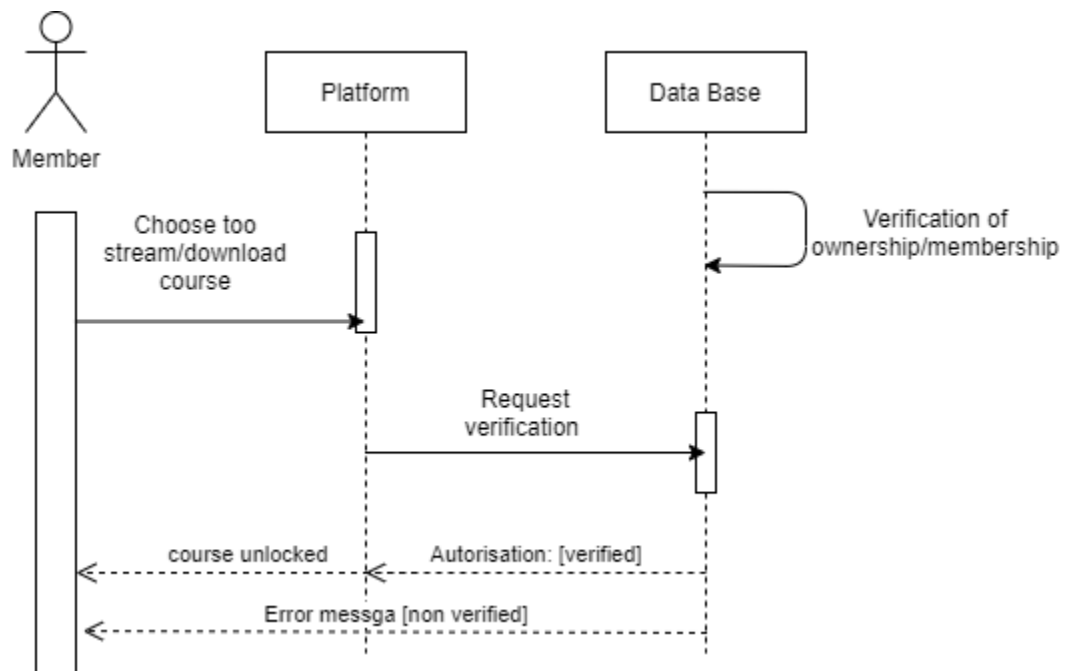
Figure 21 Sequence diagram of member consuming the product

9. Conclusion

In this chapter, I have presented diagrams that describe the functionality of my application such as use case diagrams and sequence diagrams.

In the following chapter, realization, I will formalize what I have just described during this chapter.

CHAPTER 3: REALIZATION

1. Introduction

After having affected the study and design of my web application, I will move on to the realization phase.

This chapter presents the result of the work carried out during this end of studies project.

I will be presenting the potential of the project itself then I will also present the hardware and software environment and the development tools used.

And finally, I will end this chapter with some screenshots demonstrating the functionalities of my web application.

2. Project potential

Starting your own business as a startup is always a difficult prospect. You want to make it the best place to work in the world but that's easier said than done. You have to build an online reputation as well and protect yourself from defamation and much more.

However, the idea of this project is that it is not limited to my graduation work, but it is a strong start for me to reach out the best of it in the future.

In my free time during the realization of this work, I tried to start a solid plan for it by writing a business plan and build its future from that day because it is an innovative

Idea for a startup.

3. Development environment

A development environment is a collection of procedures and tools for developing, testing and debugging an application or program.

a. Hardware environment

My work was carried out with one laptop which has the following characteristics:

Brand: Asus Rog

Processor: Intel Core i7

Memory: 16GB

Operating system: Windows 10 (64 Bit)

b. Software environment

After presenting the hardware resources that the project was carried out on, I will discuss in:

-Development tool: VS CODE

I used Microsoft Visual Studio Code for writing and debugging my react based application. Visual Studio Code is a useful tool that assisted me with quickly writing and updating my scripts. It is lightweight and has a number of nice built-in features, such as automatically highlighting the same variables in the interface.

Figure 22 Vs code logo

-Design tool: FIGMA

Figma is a web-based graphics editing and user interface design app. I used it to do all kinds of graphic design work from interfaces, prototyping designs and everything in between.
Figma is different from other graphics editing tools. Mainly because it works directly on my browser. This means I get to access my projects and start designing from any computer or platform without having to buy multiple licenses or install software.

Figure 23 Figma logo

-Development tool: FIREBASE

Firebase is a software development platform launched in 2011 by Firebase Inc., and acquired by Google in 2014. Started as a Realtime database, now it has 18 services and dedicated APIs. The whole platform is a Backend-as-a-Service solution both for mobile and web-based applications that includes services for building, testing, and managing apps.

I chose firebase because it's common to use React with Firebase, it enables frontend developers to build full-stack applications. Firebase is a BaaS tool that makes it easier for web and mobile developers to implement common functionalities such as authentication, file storage, and CRUD database operations.

Figure 24 Firebase logo

-DESIGNING TOOL: PHOTOSHOP

Adobe Photoshop is a software application for image editing and photo retouching for use on Windows or MacOS computers. Photoshop offered me the ability to create, enhance, or otherwise edit images, artwork, and illustrations. It was a good tool that helped me personalize my content as much as I wanted thanks to its performant tools

Figure 25 Adobe photoshop logo

4. Languages used

Choosing a programming language for a project is different than choosing one to learn. Often, people will tell you that there's no choice. Certain languages are chosen as the industry standard, and you just have to adapt. With as little freedom as you have, there are still some considerations to be made when choosing a programming language. After all, it will impact the main constraints on your project, such as time, budget, resources, and maintainability... That's why I chose the languages below:

REACT JS

React JS is a JavaScript library used in web development to build interactive elements on websites. I chose it because of its very simple library that made it easy to learn.
in fact, the ability to reuse the components made so much faster for the development process.
It is indeed one of the most trending frontend technologies as well and have a strong community and support.
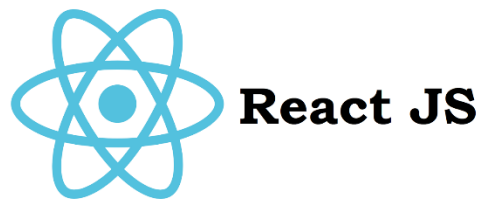
Figure 26 React js logo

NODE JS

Node.js is a server-side JavaScript run-time environment.
Knowing JavaScript made it so easy to me to learn node js in no time, and its robustness made it my choice which allows organizing full-stack JavaScript development ensuring the speed and performance of the application aside with its scalability which makes my application can easily grow with my business.

Figure 27 Node js logo

<u>Express js</u>

Express.js is a framework of Node.js which means that most of the code is already written for programmers to work with. You can build a single page, multi-page, or hybrid web application using Express.js. Express.js is lightweight and helps to organize web applications on the server-side into a more organized MVC architecture.

Figure 28 Express js logo

<u>Postman</u>

Postman is a collaboration platform for API development. Postman's features simplify each step of building an API and streamline collaboration so you can create better APIs—faster.

Figure 29 Postman logo

5. Site map

A sitemap is as crucial to planning a new website as a map is to planning a road trip.
As the name implies, a sitemap is a visual representation of my website, aiding users on how to find information. As a vital tool for building a functional and usable website, a sitemap will take consumers where I want them to go instead of going around in circles and ultimately leaving my website in an act of frustration

Figure 30 Admin site map
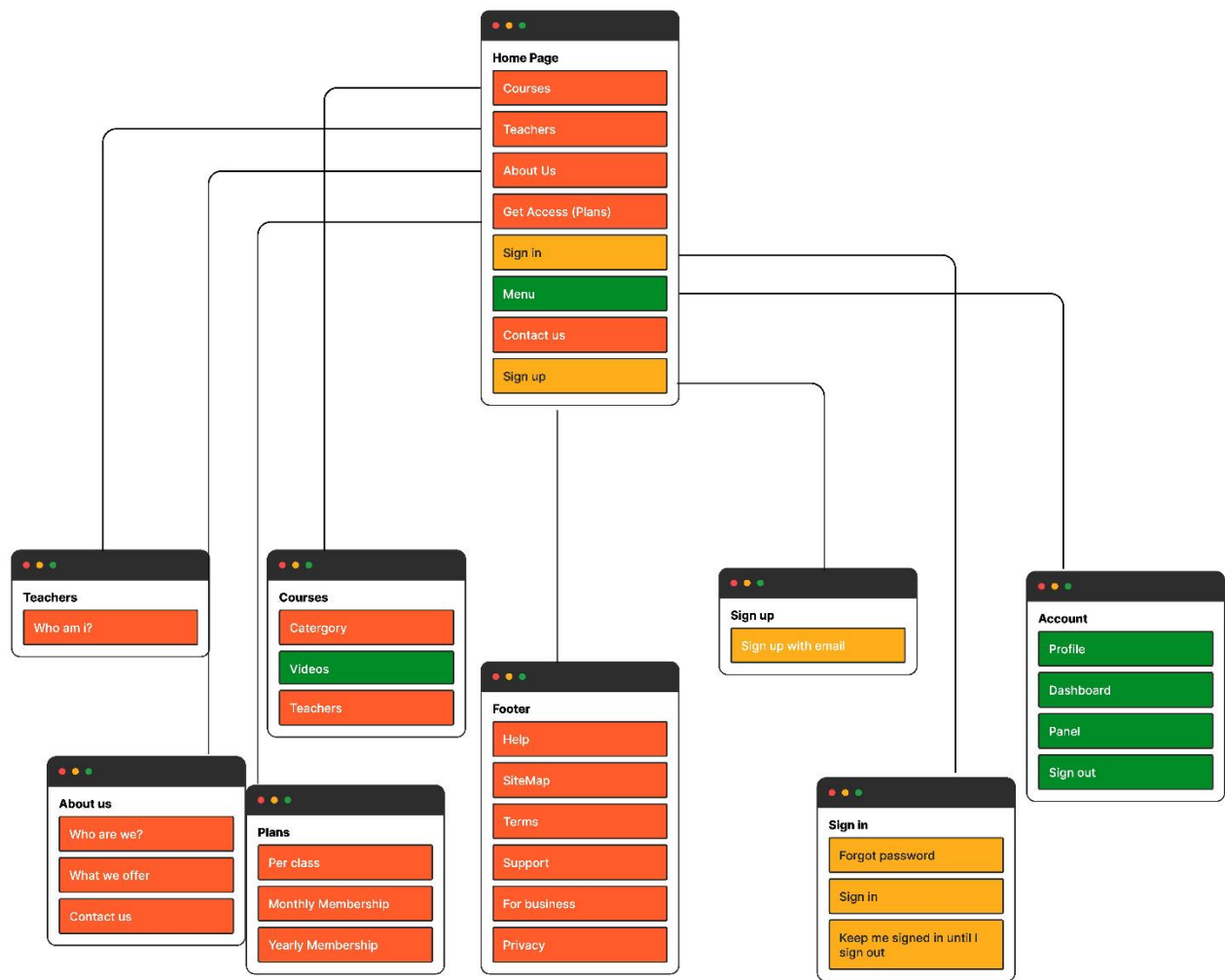
Figure 31 User site map

6. User Interface according to the site map created:
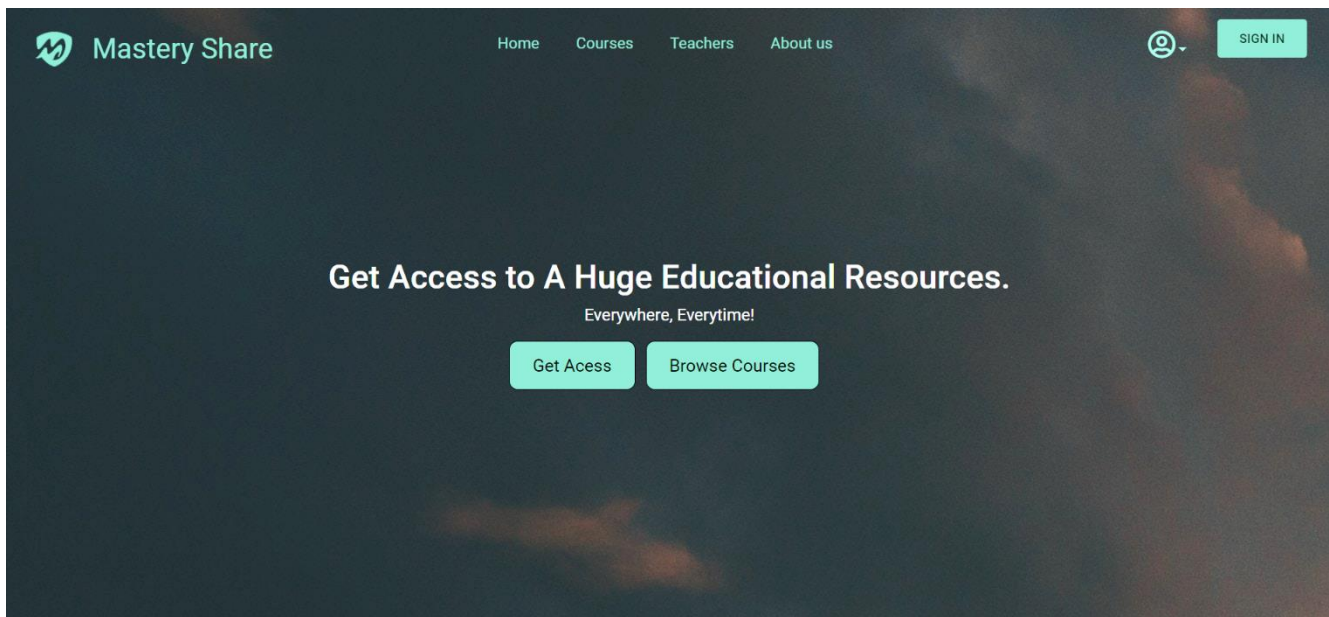
Figure 32 User landing page

As written before, the design is modern as it follows a full-width style that makes the navbar as well transparent, and according to the site map, the UI is built as shown, a navbar that contains 4 different pages including the home, and if clicked, it will use a function go to element that scrolls down to it on the same page.

However, the function will be a normal go to page when the route is not Home.

The Home page will lead the user to the following pages:

This is the Courses page where you can browse classes by category as shown
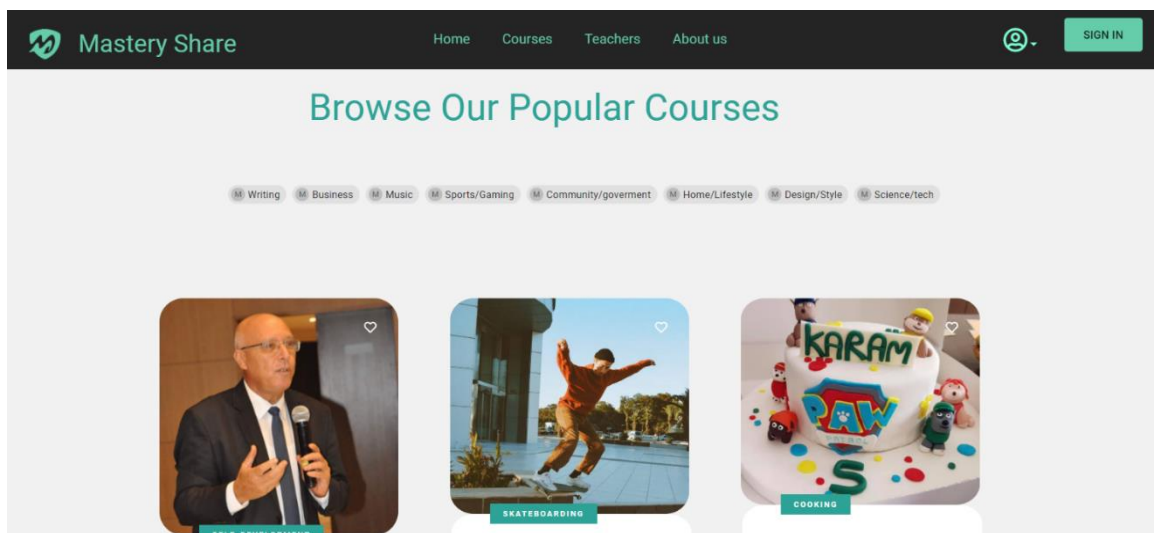
Figure 33 Course browsing page

And this is the teachers page where you can find all teachers with details if clicked on someone
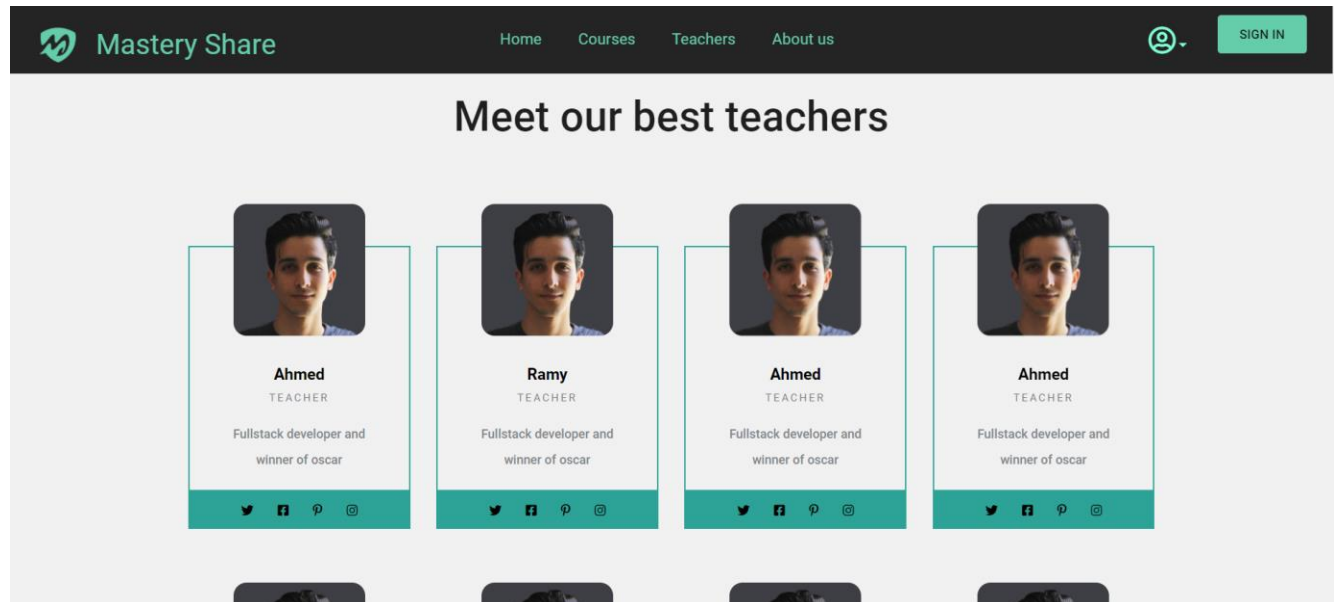
Figure 34 Teacher browsing page

About us page where you can now some information about us and contact us if needed
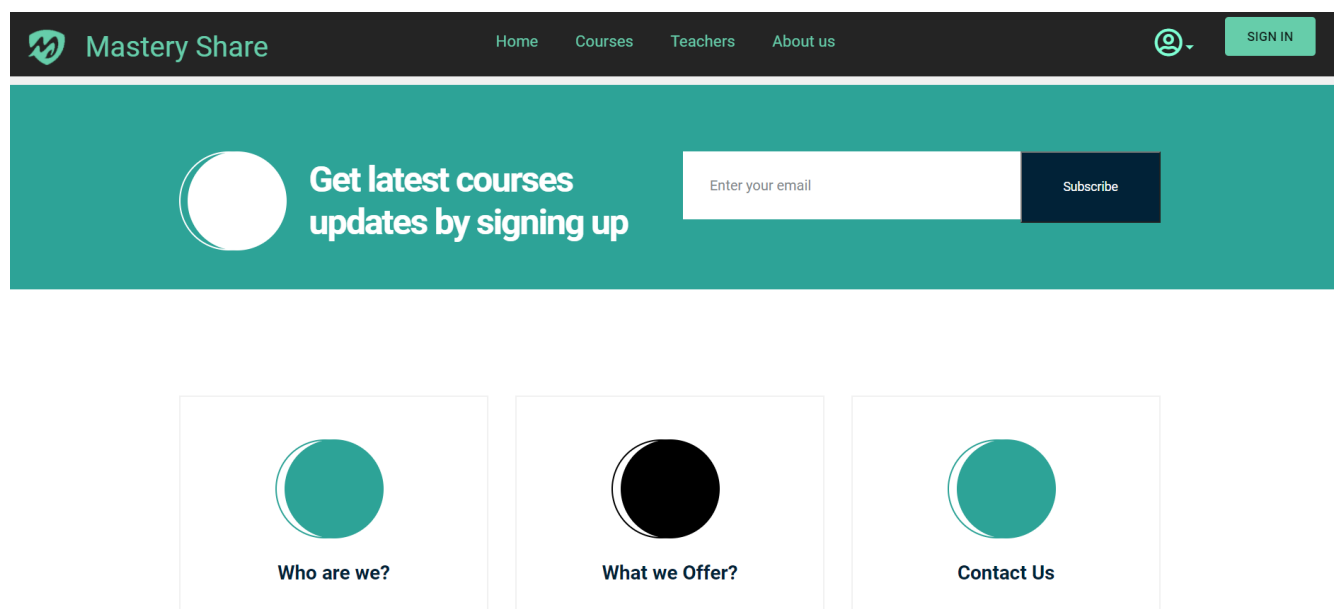
Figure 35 About us page

In order to see other pages, you need to sign up/ sign in

Figure 36 Sign in page

Figure 37 Sign up page

And to have a plan, which is buying a solo course or having a subscription

Choose the plan that's right for you

29.9DT	120DT	59.9DT
ONE CLASS	YEARLY SUBSCRIPTON	MONTHLY SUBSCRIPTON
Video quality : Good	Access To All Courses	Access To All Courses
Resolution : 720p	Video quality : Best	Video quality : Better
24h Support	Resolution : 4K	Resolution : 1080p
CHOOSE PLAN	24h Support	24h Support
	Live Courses	Live Courses
	Q and A With Instructors	CHOOSE PLAN
	CHOOSE PLAN	

Figure 38 Plan's page

After that the user turns to a member that can actually see other protected pages as below
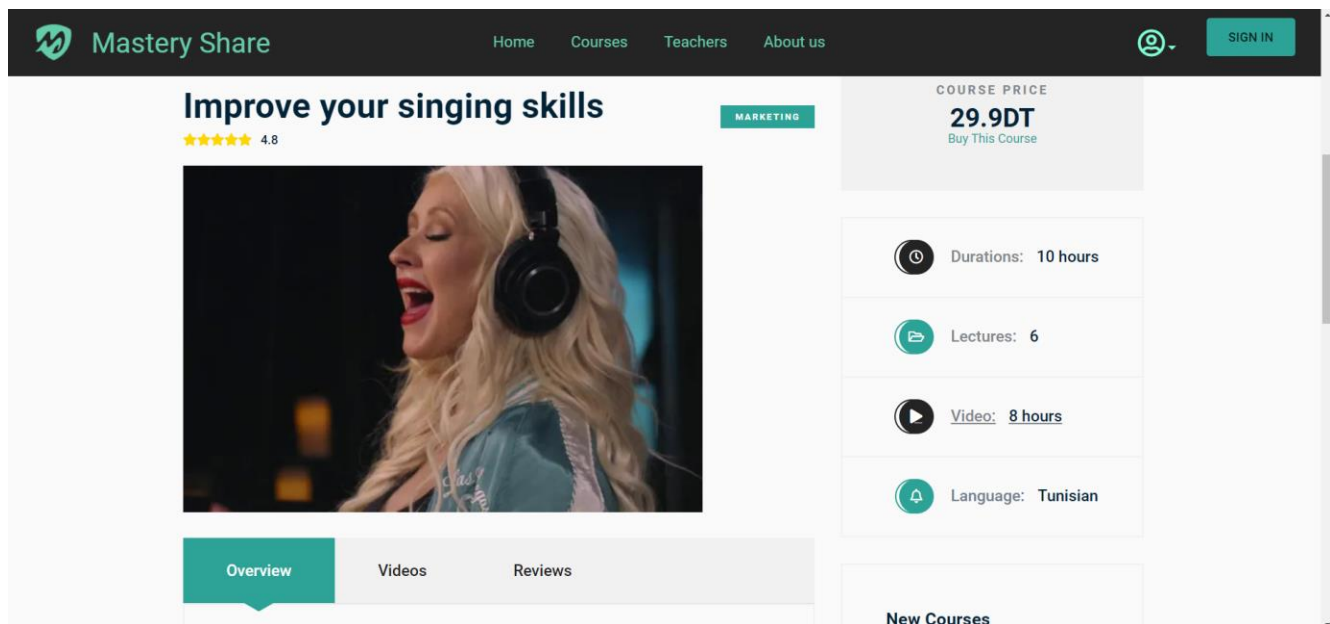
Figure 39 Course overview page
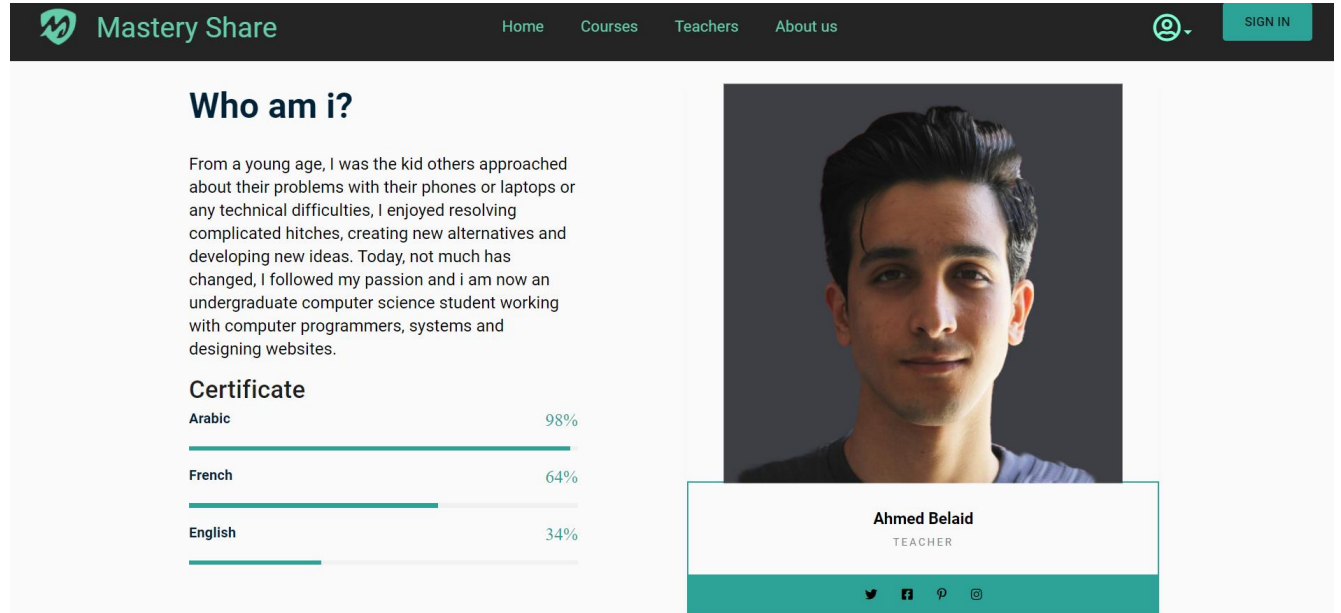
Figure 40 Teacher details page

And obviously can now have a profile page where he can edit his information

Figure 41 Profile page

And a dashboard page where he can see his owned courses
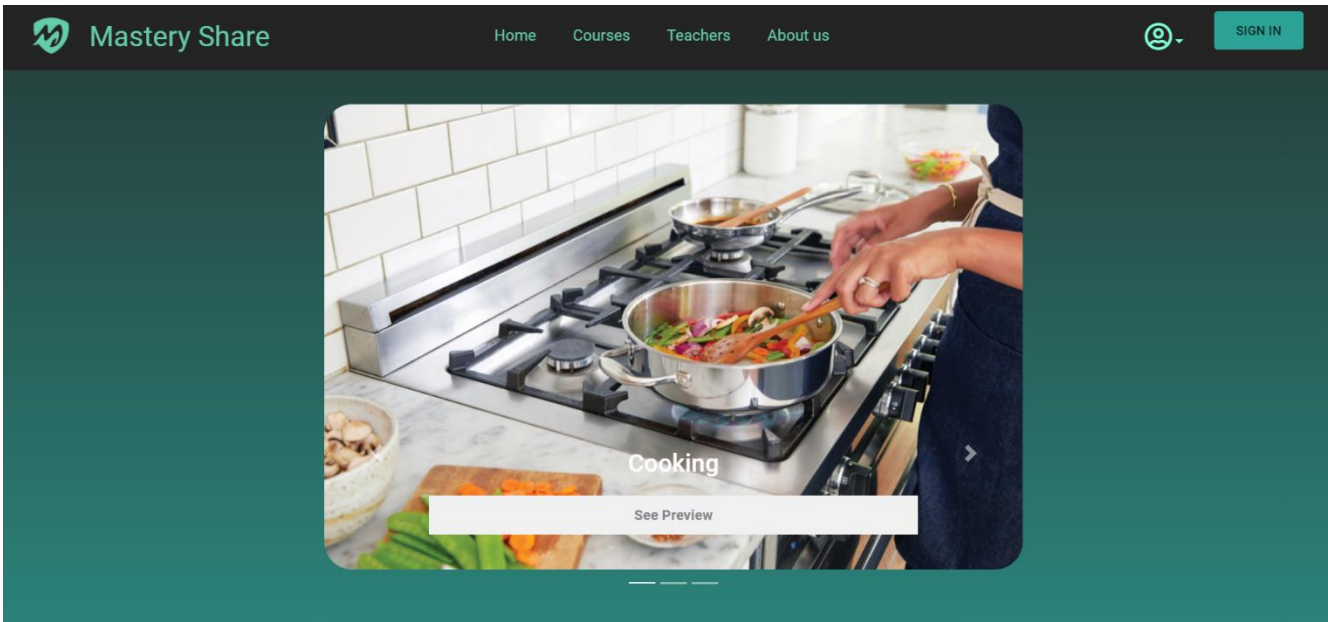
Figure 42 Dashboard page

And of course, he can now buy courses and have a panel like this
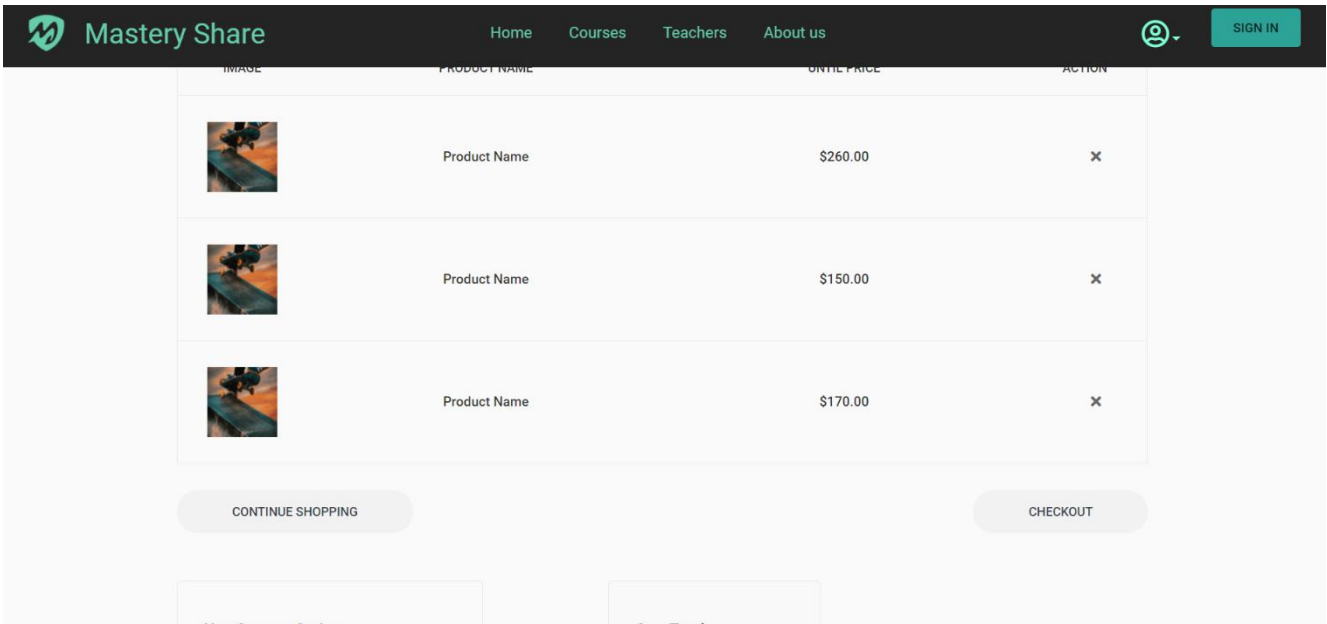
Figure 43 Panel page

7. Admin interface according to the site map

And for the admin part, this is the landing page where you can see already the analytic in front of you.
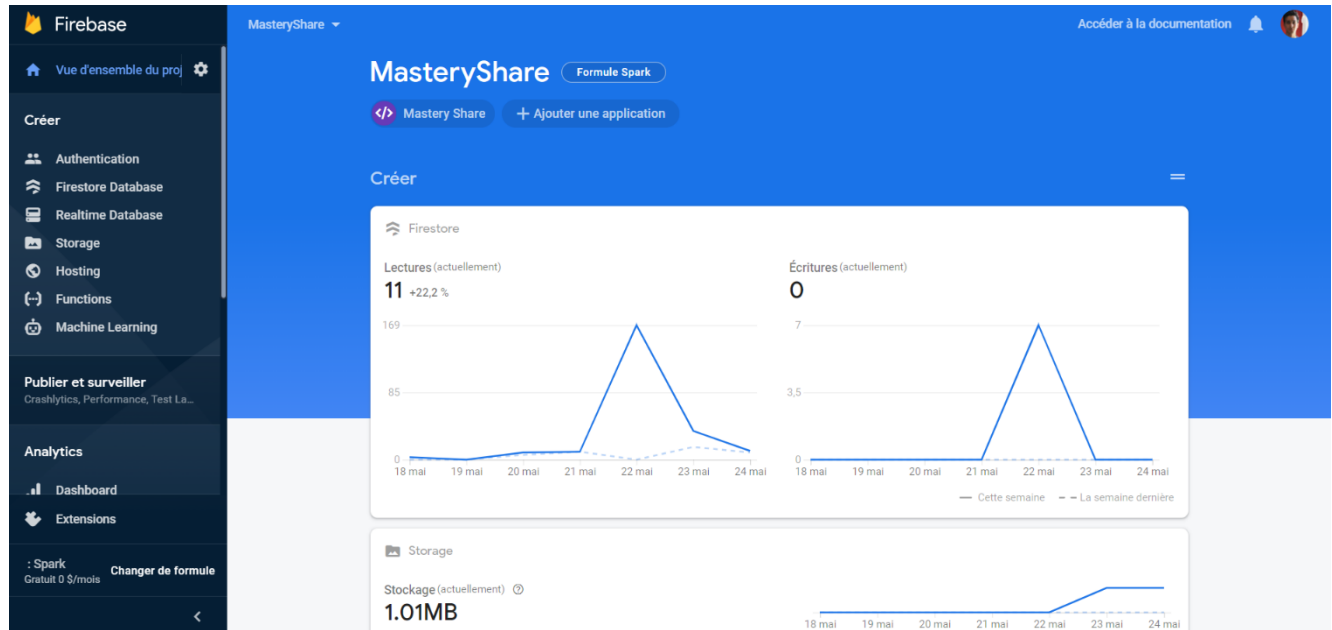
Figure 45 Admin landing page

NB: I did NOT create or designed this dashboard/interface, it is already created with its API by google

Figure 44 Users management page
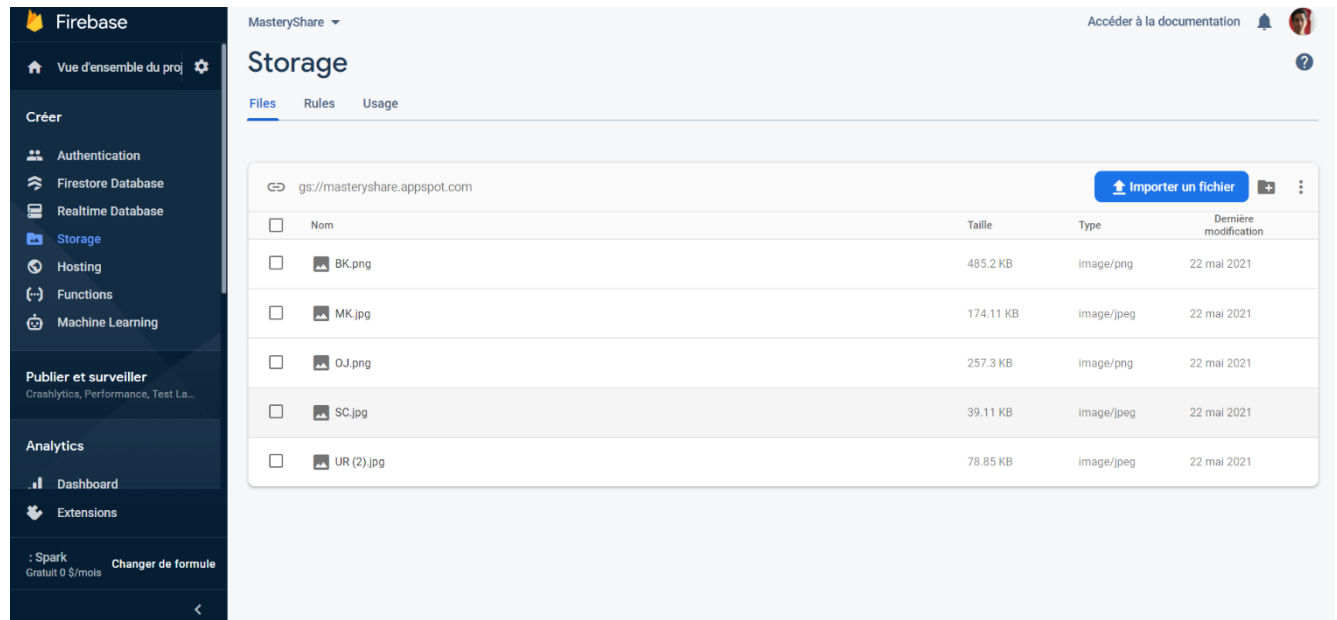
Figure 46 Data management page

On the server side, I have used postman to test my API and server to make it easier and faster to debug the code
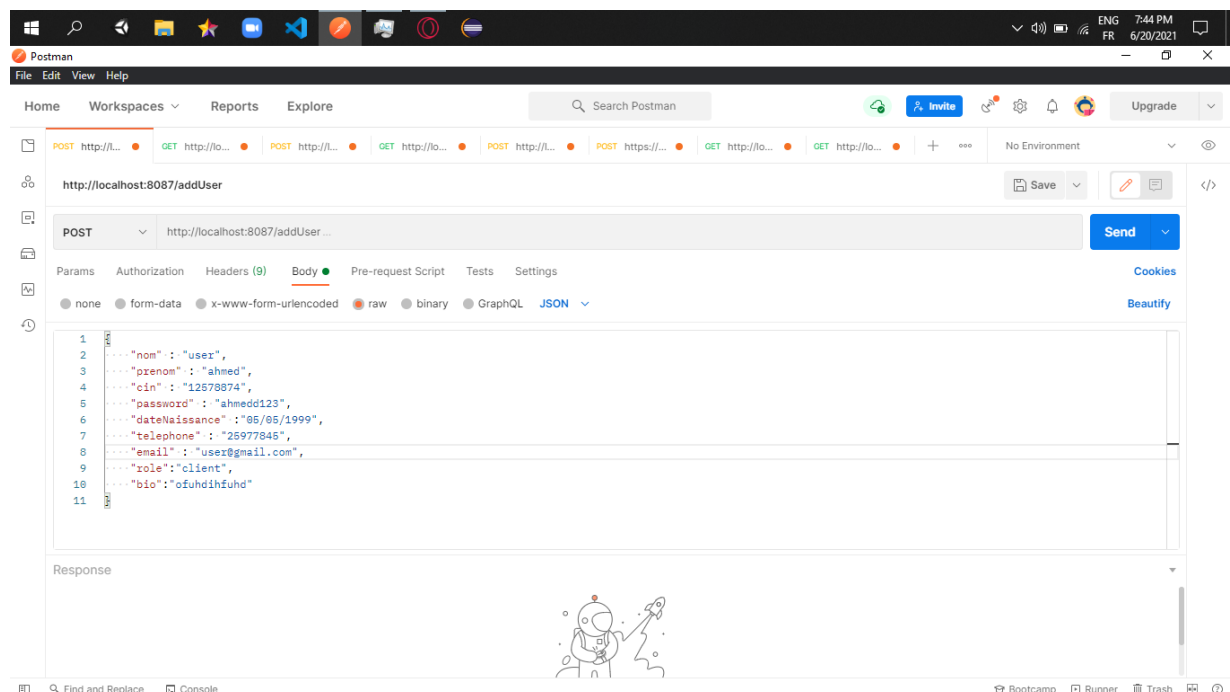
Figure 47 Server Testing postman

8. Conclusion

In this chapter, I have covered the details of realizing my application, which is the phase that took me the most time.

GENERAL CONCLUSION

Throughout this project, I have been led to design and implement an application that I will prepare for the future as a startup thanks to Eliteware.

This internship was very beneficial, this work was the opportunity to apply in a professional framework, the knowledge acquired during my training, indeed, it combined several disciplines and allowed me to take advantage of the studies of the previous semesters and to perfect my knowledge in subjects already studied.

Finally, the features offered by this application are immense, and have a huge potential in the Tunisian market and I am looking forward to finish studying the project and realize a huge educational platform.

Figures Table

WEBOGRAPHY

https://becomeawritertoday.com/best-masterclass-alternatives

https://www.amara-marketing.com/travel-blog/why-sitemap-website-important

https://www.altexsoft.com/blog/firebase-review-pros-cons-alternatives/   https://www.theme-junkie.com/what-is-figma/

https://www.agitraining.com/design-news/photoshop-training-news/what-photoshop

https://www.techopedia.com/definition/16376/development-environment#:~:text=A%20development%20environment%20is%20a,referred%20to%20as%20the%20DSP.

https://scand.com/company/blog/methodology-for-web-development/#:~:text=Waterfall,lot%20of%20structure%20and%20documentation.

https://blog.logrocket.com/user-authentication-firebase-react-apps/

https://firebase.google.com/docs/use-cases/custom-onboarding

https://experteditor.com.au/blog/masterclass-review/

https://undraw.co/search

https://about.udemy.com/?locale=en-us

https://www.creativelive.com/about

https://www.skillshare.com/about

https://privacy.masterclass.com/policies