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By : DAHMANE ABDELMALEK, ABDELHAKIM ABDALLAOUI

Subject

Plateform for Content Creators

Presented Publicly, in **14/10/2024**, before the following committee :

Dr. BAMBRIK Ilyes (Supervisor)

Dr. MERZOUG Mohammed (President)

Dr. ILES Nawel (Examinator)

Dr. ETCHIALI Abdelhak (Expert)

I would like to dedicate this thesis to ... ...

Acknowledgement

First and foremost, I would like to praise Allah the Almighty, the Most Gracious, and the Most Merciful for His blessing given to us during our studies and in completing this thesis. May Allah's blessing goes to His final Prophet Muhammad (peace be upon him), his family and his companions.

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General Introduction

In recent years, the content creation industry has experienced a significant growth all over the world, with algeria joining as a notable contributor not only tranformed it into a primary source of income for many individuals, but also prompted legislative action to regulate this sector.

Recently, the Algerian parliament approved a new draft law for self-entrepreneurs, which regulates several economic activities, including content creation, allowing content creators to contribute to driving development and carry out their activities legitimately.

However, despite this growth, content creators face several challenges. This includes difficulties in managing various aspects of content creation, such as video editing, captioning, looking for new ideas, and managing multiple social media accounts. Additionally, navigating between multiple applications for different tasks leads to less productivity and wasted time.

In response to these challenges, we have thought about making a content creators platform as a technological solution, which is SaaS platform, that aims to enhance productivity processes. These solution provide content creators with a set of tools they need.

Chapter 1

Similar Systems Analysis

1.1 Introduction

The world of content creation is evolving at lightning speed, and content creators need tools that simplify their workflow while enhancing creativity. With the increasing demand for efficiency and engagement, platforms that offer AI-powered features, such as automatic captioning, real-time collaboration, and publishing on social media, are becoming essential. These tools not just save time but also give creators the ability to concentrate more on making high-quality content that widespreads to larger audiences.

In this chapter, we'll review some of the most popular platforms available, focusing on their individual strengths and limitations, and we'll compare them to our platform, QuickCap.

1.2 Similar Systems

1.2.1 FastCut.ai

Fastcut is a highly customizable and interactive tool that allows users to create captivating short-form content without much effort. It provides support for 20 languages, ensuring inclusivity and accessibility. Also it provides Autobroll that improves videos through automatically selecting and inserting b-roll content, whereas AI-produced captions increases videos' legibility and comprehension through displaying accurate captions for the content. [1]

In addition, Fastcut offers a wide variety of transitions and emojis to add fun and personality to videos. This platform can be controlled conveniently, and has a well-designed interface to make the editing as smooth as possible. Also, there are many current popular templates in Fastcut, that enables users to create eye-catching posts. In general, Fastcut enables to create high-quality short films by users with no experience.

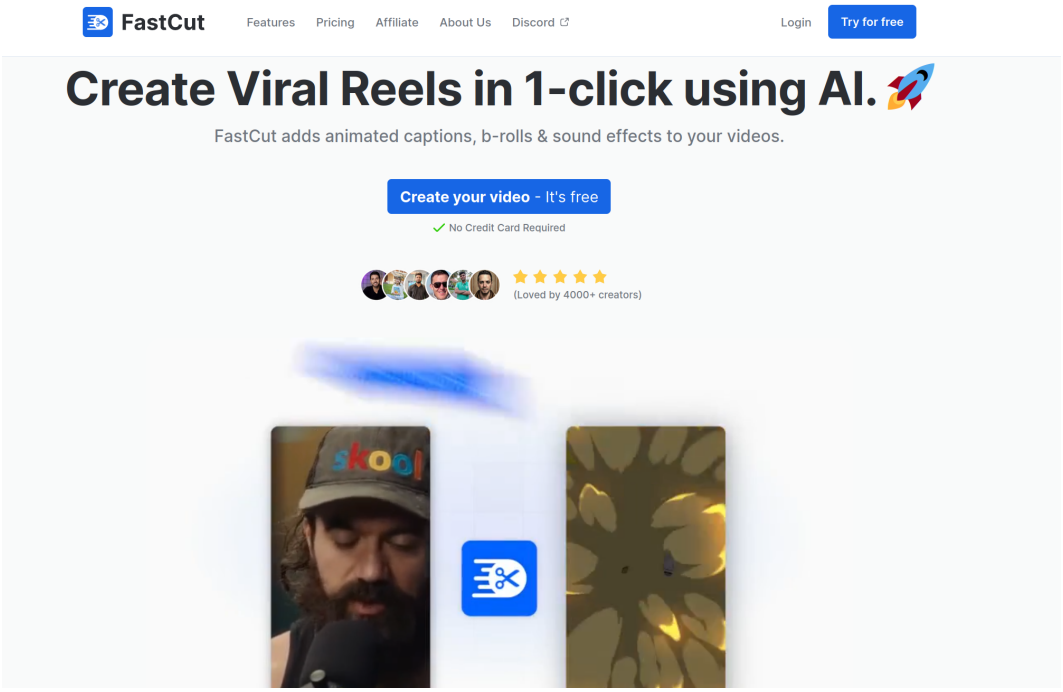

Figure 1.1: Fastcut Interface

1.2.2 Autocaption

Autocaption.io is a modern platform that is famous for its fast and easily navigable AI-based captioning tools. It performs exceptionally well in creating subtitles for videos with a single click and offers more than 100+ languages. That is why it is a perfect tool for content producers who want to target a wide audience.

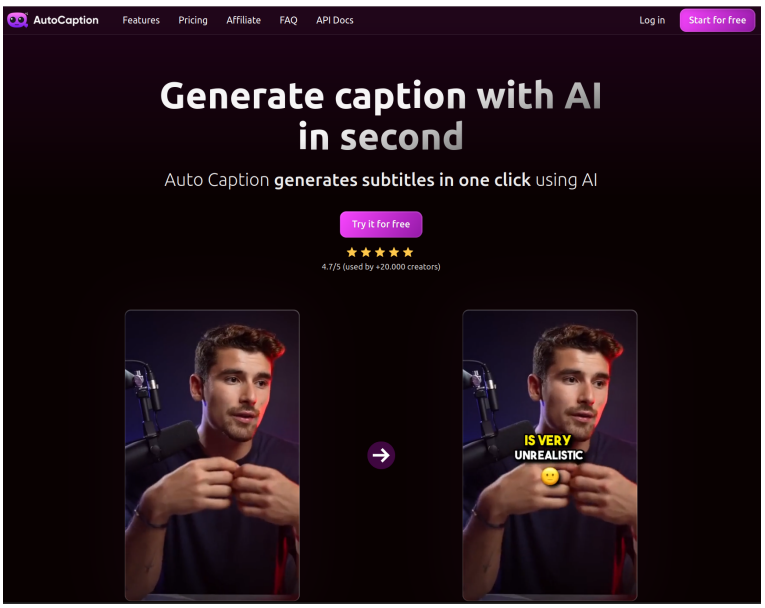

Figure 1.2: Autocaption.io homepage

One of the notable characteristics of AutoCaption is its ability to be customized. Subtitles can be completely customized by the users, where aspects such as the font type, color, and even adding animations or emojis is allowed, hence the consistent brand identity across the different social media platforms. It also has fast rendering, so the videos are processed quickly, in Full HD, at 60 FPS, in formats popular on social networks such as Instagram Reels and TikTok. [2]

Moreover, AutoCaption.io integrates with different third-party services, thus, improving the functionality and making the content creation even more convenient for the users. It is especially beneficial for content creators and marketers. [2]

1.2.3 Vidyo.ai

Vidyo.ai is an AI-Powered Video Editing for Instant Short Form Content, that helps users to increase their activities on any social network with minimal effort. The platform stands

out in cutting long videos or podcasts into short clips ideal for sharing on platforms like TikTok, Instagram Reels, and Youtube Shorts.[3]

A standout feature of Vidyo.ai is its ability to generate AI captions automatically, saving time and delivering information clearly and accurately to viewers.

Vidyo.ai also simplifies content delivery by allowing users to directly link and share their clips on social media easily. Additionally, Vidyo.ai enables the export of edited clips with ease, allowing users to fine tune the contents of their videos using other additional video editing software. [3]

Overall, Vidyo.ai enables you to create and distribute professional videos to your audience, which is a must-have in today's content-driven world.

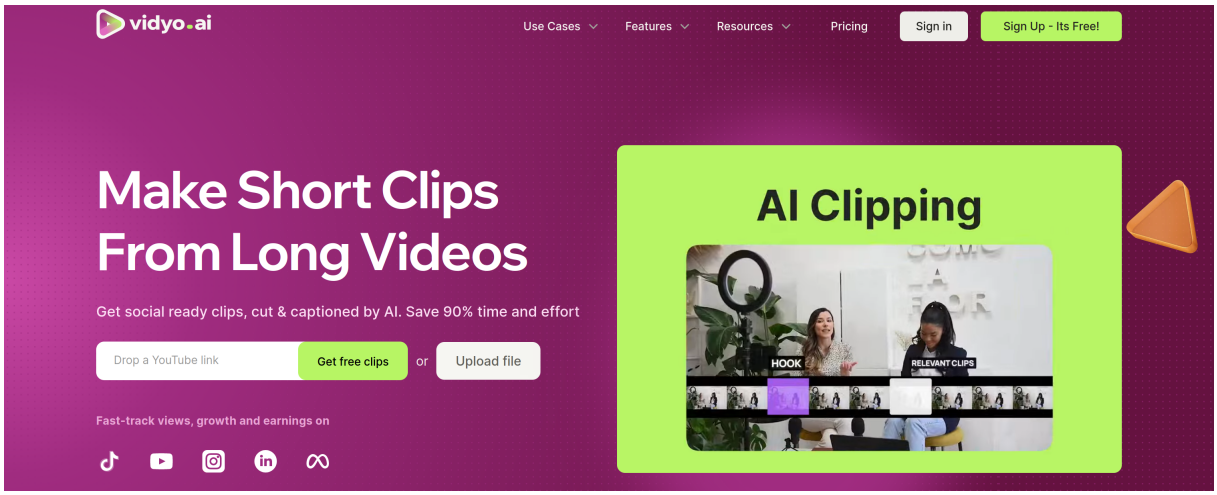

Figure 1.3: Vidyo.ai Interface

1.2.4 Opus Clip

Opus Clip is an AI-based tool that can help save a lot of time while editing a video since it allows users to turn long videos into clips. This platform is most useful for content creators who want to increase their activity in social networks without much effort.

Opus Clip also has an AI-based feature that analyzes a longer video and selects the best parts of the video to create clips for TikTok, Instagram Reels, YouTube Shorts, and more. This tool also has multiple clip templates (vertical, horizontal, and square) to suit more social media platforms. [4]

The other feature that has been noticed in Opus Clip is customization. The clips can be edited by the users in terms of text overlays and captions and music can also be added to it and hence there is always a creative freedom available to the users but the brand consistency is maintained by Opus clip. Moreover, Opus Clip is compatible with other commonly used social networks through which users can easily share the clips.

Adding b-roll footage to the shorts and making them even more visually interesting. It also has some of the most effective editing options like trimming, extending your clips, deleting filler words, and editing captions.

For teams, Opus Clip has brand templates and team controls which means that the content created is team-oriented and well branded. Furthermore the platform allows exporting projects to Adobe Premiere for further high production editing (opus clip).

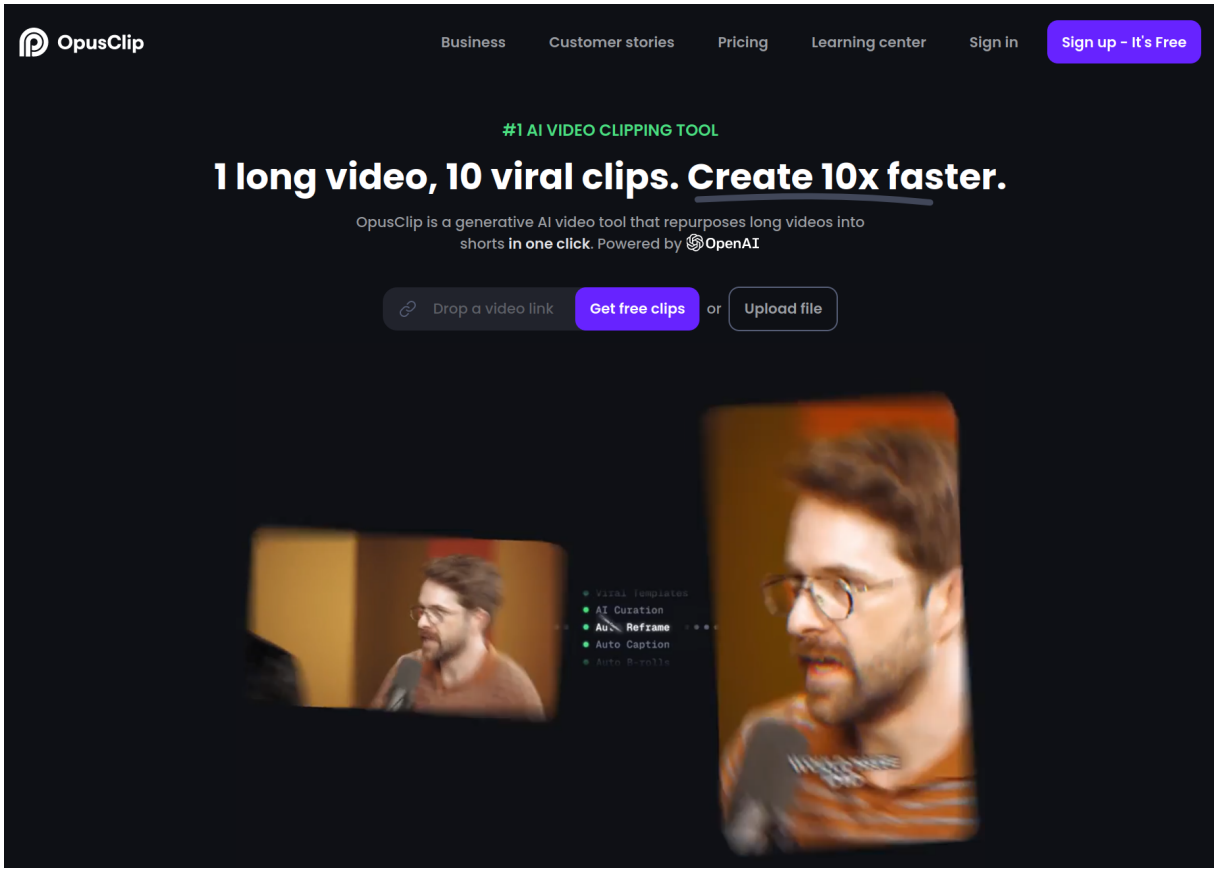

Figure 1.4: Opus Home page

1.2.5 Submagic

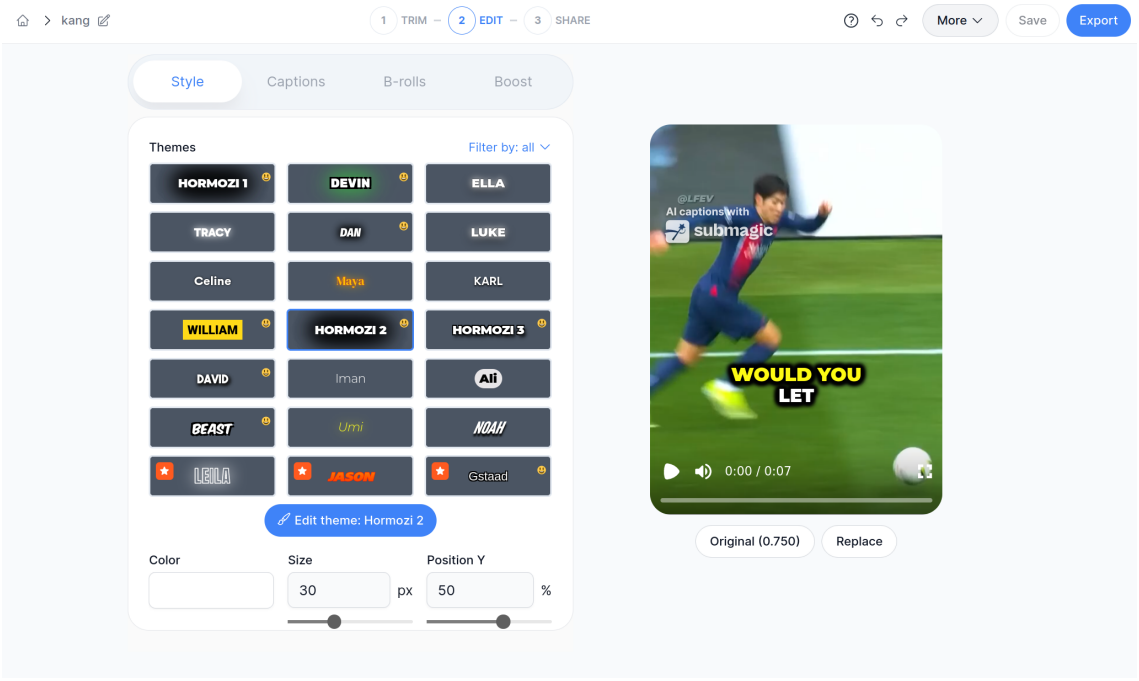

Figure 1.5: Submagic Interface

Submagic is a modern platform that stands out for its excellent AI-based captioning services for videos. Intended for content creators, marketers, businesses, educators, and non-profit organizations, Submagic has a set of features that could improve the video accessibility and viewership. [5]

Submagic is another worthy product that comes equipped with a special AI captioning option that works with more than 48 languages. That makes it a perfect tool for creators who want to attract a large audience. [5]

The other major attribute is flexibility. It also allows the users to customize subtitles by changing the font, color, and adding emojis, or animation that is quite important in the branding of social media accounts that are active on multiple platforms. It also has many templates that are based on popular designs so that it is easy to get a good looking video with little work. [6]

Submagic is well-known for its interface, which is quite simple even for a person who has no deep knokwledge of working with different tools. This ease of use is complemented by the platform's responsive support team, thus it means that the users of the platform can

get help at any time they wish. [5]

As for the price policy, Submagic has quite reasonable and varying pricing for the services provided. Besides, there is the Free plan for simple users, the Pro plan for more opportunities, and the Unlimited plan for intensive usage.

1.3 Comparison table

This section compares the features of several well-known platforms, including our platform, Autocaption.io, Vidyo.ai, Opus Clip, Submagic, and Fastcut.ai. The table 1.1 below highlights the key features of each platform.

Tableau 1.1: Comparison of Features

Feature	Autocaption.io	Vidyo.ai	Opus Clip	Submagic	Fastcut.ai	Our Platform
AI-based captioning	✓	✓	✓	✓	✓	✓
Subtitle customization	✓	✓	✓	✓	✓	✓
Video processing speed	Fast	Fast	Fast	Fast	Fast	Fast
Integration with 3rd-party services	✓	✗	✗	✗	✗	✗
Team collaboration	✗	✗	✓	✗	✗	✓
Clip export	✓	✓	✓	✓	✓	✓
Number of supported languages	100+	20	✗	48	20	57
Pricing	Free, paid plans	Free, paid plans	Free, paid plans	Free, paid plans	Free, paid plans	Free, paid plans
Trending Templates	✗	✗	✗	✗	✓	✓
Animated Captions	✗	✗	✗	✗	✗	✓
Auto B-rolls using AI	✗	✗	✓	✓	✓	✗
Easy to Use	✗	✗	✗	✓	✓	✓
Intuitive Design	✓	✗	✗	✗	✓	✓
Mobile Friendly	✗	✗	✗	✓	✓	✓
Cut Podcast into Shorts	✗	✓	✓	✗	✗	✗
Pro Plan	✓	✓	✓	✓	✓	✓
Sharing on social media	✗	✓	✓	✗	✗	✓
Ideas editor	✗	✗	✗	✗	✗	✓

1.3.1 Feature Descriptions

- **AI-based captioning**: Refers to the platform's ability to automatically generate captions for videos using AI.
- **Subtitle customization**: This feature allows users to edit and personalize subtitles, such as adjusting the text style, color, and positioning.
- **Video processing speed**: Indicates how fast the platform processes video files.
- **Integration with 3rd-party services**: Refers to the platform's ability to connect and integrate with external tools or services like video hosting platforms, or social media.
- **Team collaboration**: Allows multiple users to collaborate on projects within the platform.
- **Clip export**: Refers to the platform's functionality that enables users to export their edited video clips.
- **Number of supported languages**: Indicates the number of languages a platform supports for captioning and video transcription.
- **Pricing**: Relates to the available plans offered on the platform
- **Trending templates**: These are pre-designed and popular templates for subtitle text styling.
- **Animated captions**: Refers to captions that include dynamic animations or effects.
- **Auto B-rolls using AI**: B-roll refers to supplemental footage that adds visual variety to the video. With AI, the platform can automatically select and insert appropriate B-roll footage.
- **Ease of use**: Describes how user-friendly and intuitive the platform is for both novice and experienced users.
- **Intuitive design**: This refers to the platform's interface design, where actions and features are easy to understand and use without requiring extensive training.
- **Mobile-friendly**: Indicates whether the platform is designed for mobile use.
- **Cut Podcast into Shorts**: This feature allows users to break down longer podcast content into shorter clips for sharing on various platforms.

- **Pro Plan**: Refers to premium paid plans that offer additional features and capabilities beyond the basic or free plans of the platform.
- **Sharing on social media**: This feature allows users to directly share their edited videos on social media platforms.
- **Ideas editor**: A tool that allows users to organize, and manage their ideas within the platform. It provides a structured space for writing notes.

1.3.2 Comparative Analysis

If we compare our platform to other widely known systems, such as Autocaption.ai, Vidyo.ai, Opus Clip, Submagic, and Fastcut.ai, we can identify several aspects of our platform that we consider to be strengths.

All platforms including ours fully endorse the integration of AI in captioning and subtitle handling as well as the ability to customize subtitles. They also have a relatively high raw video processing rate. However, only Autocaption.io integrates with third party solutions, whereas our platform, along with Vidyo.ai, Opus Clip, Submagic, and Fastcut.ai, does not offer this feature.

Only our platform and Opus Clip support team collaboration, while others do not.

Clip export is supported by all platforms. Our platform supports 57 languages, more than Vidyo.ai (20 languages), Fastcut.ai (20 languages), and Submagic (48 languages). Autocaption.io supports over 100 languages, the most amongst all. Also all platforms offer a range of free and paid plans.

Both Fastcut.ai and our platform provide trending templates. Our platform includes animated captions, which are absent in the other systems. Opus Clip, Submagic, and Fastcut.ai support auto b-rolls using AI, while our platform and Autocaption.io do not.

Our platform, Submagic, and Fastcut.ai are noted for their ease of use and responsive designs. Also besides Autocaption.io and Fastcut.ai, we offer an intuitive design, which is not seen in the rest other platforms.

Our platform, Vidyo.ai, and Opus Clip support sharing on social media, which is not offered by Autocaption.io, Submagic, or Fastcut.ai. Our platform uniquely features an ideas editor, which is not available in the other systems.

In summary, our platform excels with unique features such as ideas editor, and AI assistant, along with competitive language support and subtitle customization. These capabilities differentiate our platform from others in the market.

1.4 Conclusion

In conclusion, we've explored how our platform stacks up against others like Autocaption.io and Vidyo.ai, highlighting what sets us apart. Our comparison table shows where we excel, especially with our unique features.

In the Next Chapter, we'll dive into the Functional Specification and Modeling to provide a closer look at how our platform works.

Chapter 2

Requirements Analysis and Design

2.1 Introduction

This chapter will focus on the functional specification and modeling of our system. This involves a clear breakdown of the system's requirements and functionalities. For system modeling, we will make use of UML.

UML is a standardized modeling language consisting of an integrated set of diagrams, developed to help system and software developers for specifying, visualizing, constructing, and documenting the artifacts of software systems, as well as for business modeling and other non-software systems.[7]

Through UML diagrams, specifically class, sequence, and use case diagrams, we will illustrate the structural and behavioral aspects of the system, facilitating effective communication among stakeholders.

2.2 System Actors

2.2.1 Primary Actors

- **Content Editors**: These individuals focus primarily on editing and refining the content within another user's workspace. As editors they can use Tools for text editing, formatting, and styling to refine written content, AI generated captions and titles. Also they have the possibility to export video. Additionally, they can manage and contribute to the Ideas Editor, helping to organize and develop content ideas.
- **Content Creators (Workspace Managers)**: These individuals act as both managers and content editors. Each content creator manages their own workspace but can also participate in other users' workspaces as a content editor. As managers, they have the authority to invite other users to collaborate within the workspace, also managing content projects.

All users, regardless of their role, have access to the ideas editor within any workspace they belong to. Besides having access to the AI assistant.

2.3 System Requirements

In the SDLC, defining system requirements is a critical step that translates client needs into detailed specifications for the software project. System requirements is a statement that identifies the functionality that need to be implemented in the system system in order to satisfy the customer's requirements.[8] System requirements encompass both functional and non-functional aspects, guiding the design, development, and deployment processes to ensure the final product meets the expectations and needs of its stakeholders.

2.3.1 Functional requirement

In this section, we outline the system needs and derive specific system requirements from each need, following the title names.

AI-based Captioning

a. The system must generate captions automatically using AI.

b. The system must allow users to review and edit auto-generated captions.

Subtitle Customization

a. The system must provide tools to change subtitle font, size, color, and position.

b. The system must save and apply user customization preferences.

Workspace Management, and Collaboration

a. The system must create a single workspace for content projects.

b. The system must allow users to manage their own workspaces.

c. The system must allow the workspace manager to invite other users to collaborate within the workspace.

Video Clip Export

a. The system must support exporting video clips.

Multi-language Support

a. The system must support multiple languages for video transcription to cater to a global audience.

Subscription Plans

a. The system must offer different subscription plans to suit different user needs.

Social Media Sharing

a. The system must provide direct sharing options for various social media platforms.

Ideas Editor

a. The system must include an editor for organizing and planning ideas.

AI-powered Chatbot

a. The system must include an AI-powered chatbot to assist users with platform features, provide support, and answer questions.

2.3.2 Non Functional requirement

Non-functional requirements define the quality attributes and constraints of a system. Here are the main non-functional requirements for our system.

Performance

a. The system must ensure high-speed video processing.

Availability

a. The system must ensure high availability, with minimal downtime to allow users continuous access.

b. The AI-powered chatbot must be available at all times to assist users with platform features and provide support.

Security

a. The system must protect user data and content from unauthorized access and breaches.

b. The system must ensure secure management of workspaces, including secure invitation and role assignment for collaborators.

Usability

a. The system must have an easy-to-use and intuitive design to provide a smooth user experience.

2.4 Modeling

With the help of UML diagrams, we will describe how a system can be used to accomplish user needs by outlining the interactions between actors, using the use case diagram. After that, we will illustrate the chronology of some use cases with sequence diagram, showing the sequence of interactions between objects. We will finish with a class diagram, detailing the structure of the system in terms of its classes, attributes, operations, and associations.

2.4.1 Modeling and Diagramming Tools

We utilized these tools for modeling and diagramming purposes, as illustrated in Figure 2.1 below.

Figure 2.1: List of Modeling and Diagramming Tools

Modelio: Modelio is a modeling solution offering a wide range of functionality based on commonly used standards for Enterprise Architecture, Process Modeling, Software Development, and Systems Engineering.[9]

Lucidchart: Lucidchart is a web-based diagramming application that allows users to visually collaborate on drawing, revising, and sharing charts and diagrams, as well as improve processes, systems, and organizational structures. It is produced by Lucid Software Inc.[10]

2.4.2 UseCase diagram

As shown in the figure 2.3 below, there are two actors: Content Creator and Content Editor. Where content editor has less privileges than the content creator.

The **Content Editor** can perform the following actions:

- **Engage with AI Assistant:** Use AI tools to assist in managing and generating content.
- **Edit Projects:** Modify existing projects, including updating the project description or content.
- **Edit Video Captions:** Adjust or rewrite captions for videos.
- **Generate Video Descriptions & Titles:** Automatically generate suitable titles and descriptions for the video content.
- **Customize Caption Templates:** Create or modify predefined caption templates.
- **Manage Ideas:** Access the workspace for managing various ideas associated with a project.
- **Create Ideas:** Initiate new ideas and add them to the workspace.
- **Edit Ideas:** Make changes to existing ideas in the workspace.
- **Delete Ideas:** Remove ideas from the workspace when they are no longer needed.
- **Export Video:** Finalize and export the video content for use on external platforms.

On the other hand, the **Content Creator** has additional capabilities including but not limited to:

- **Manage Projects:** Full control over creating, editing, and deleting projects.
- **Create Projects By Uploading Videos:** Initiate new projects by uploading video content.
- **Manage Profile:** Adjust and manage their user profile and account settings.
- **Manage Collaborators:** Invite or remove collaborators from the workspace.
- **Manage Subscription Plans:** Upgrade or cancel subscription plans for their account.

- **Link Social Media Accounts:** Integrate social media accounts for seamless sharing.
- **Auto Generate Captions:** Automatically generate captions for videos using AI.
- **Share Video on Social Media:** Post video content directly to social media platforms.

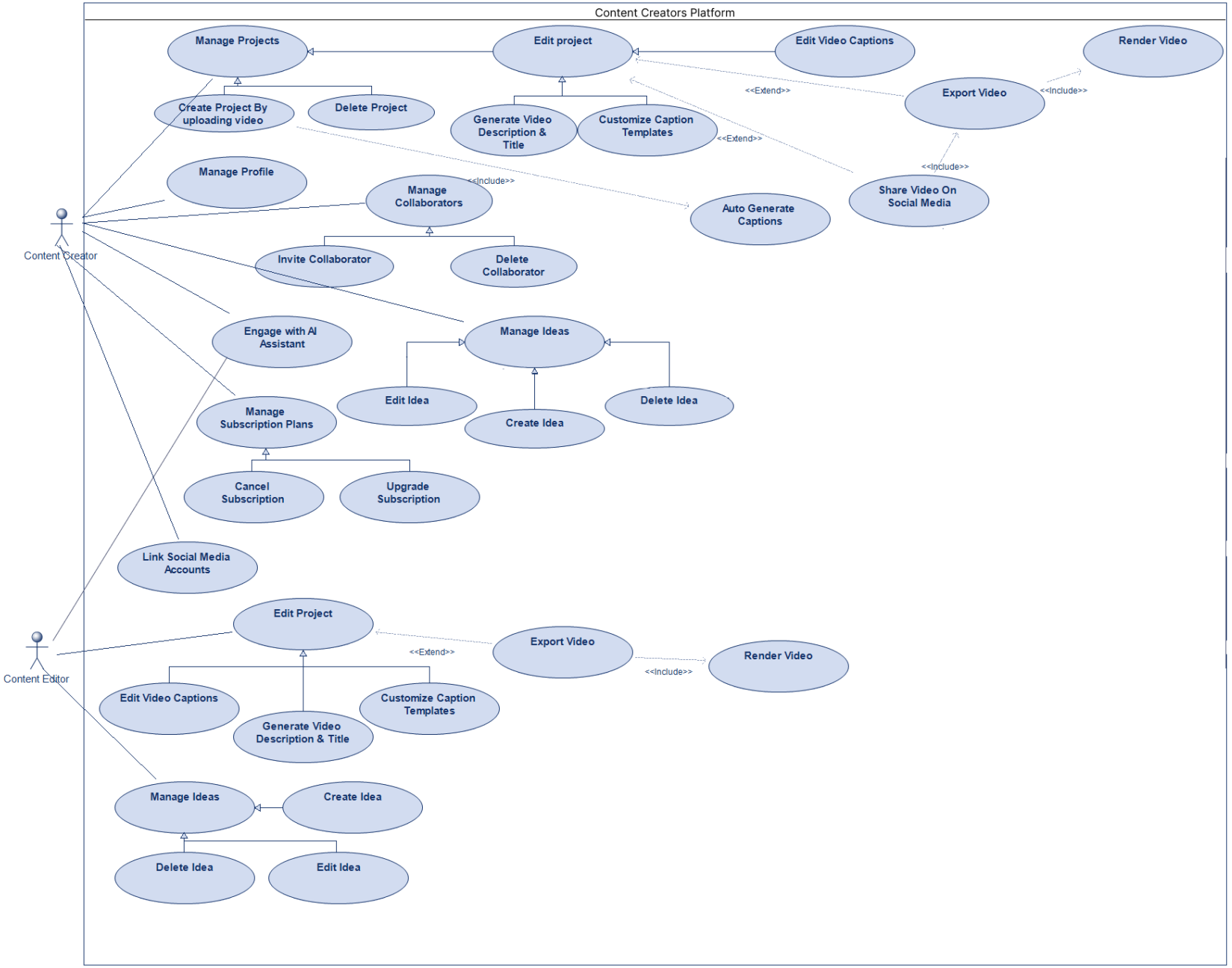

Figure 2.2: UseCase diagram

2.4.3 Sequence diagrams

In this section, we will focus on the following use cases: Video Export, Video Transcription, and Video Sharing on Social Media, as illustrated in Figures 2.4, 2.5, and 2.6, respectively. The client references both the content creator and the content editor, as both roles have access to the same functionalities.

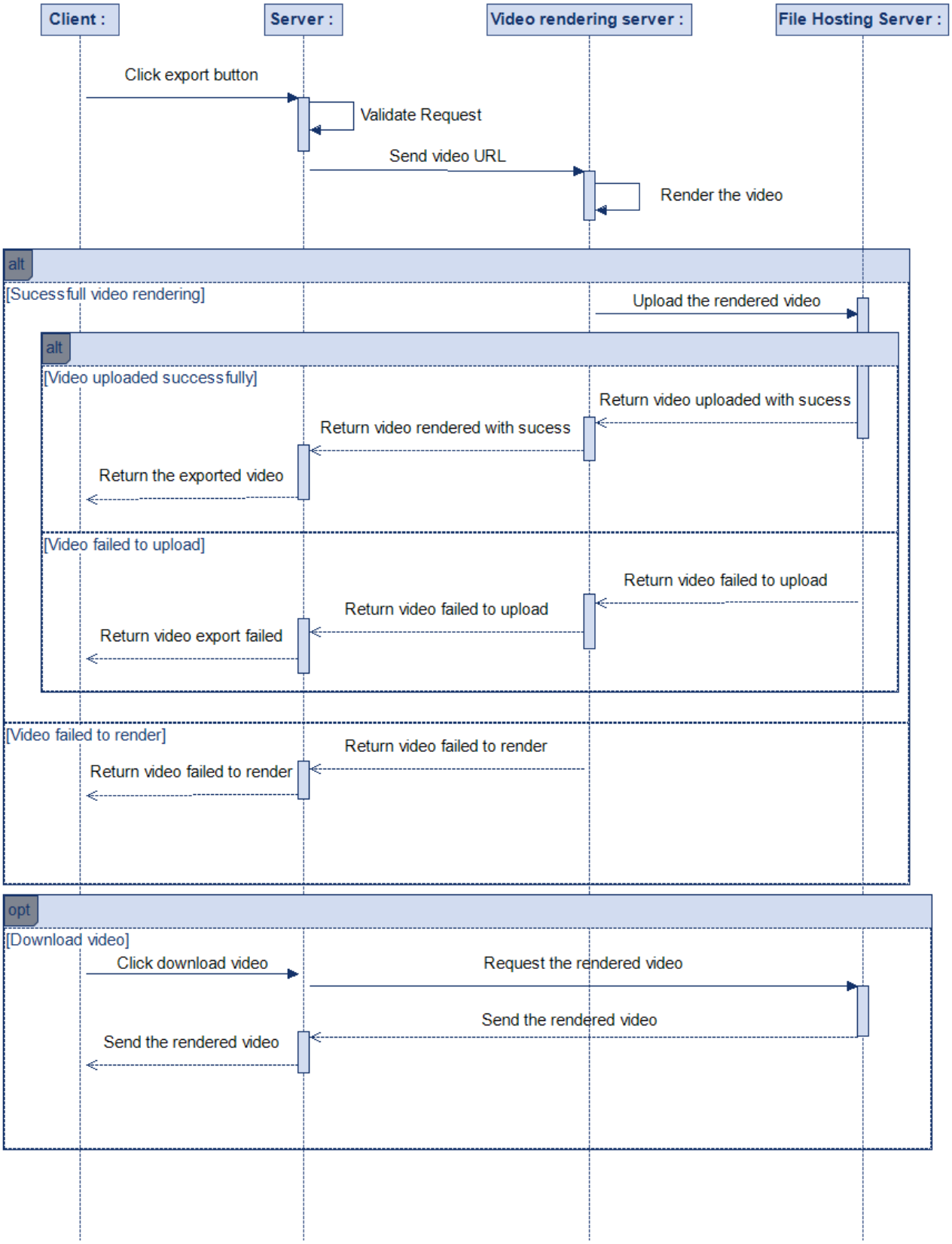

Figure 2.3: Video Export Sequence diagram

The Figure 2.4 illustrate the process of exporting a video. It starts with a client clicking the "export" button, which triggers a request validation on the server. If successful, the video URL is then sent to the rendering server. The rendering server renders the video and sends back the url to the main server after uploading it on the the file hosting server, which then returns the rendered video to the client. If there are any errors during the process, appropriate error messages are returned throughout the flow.

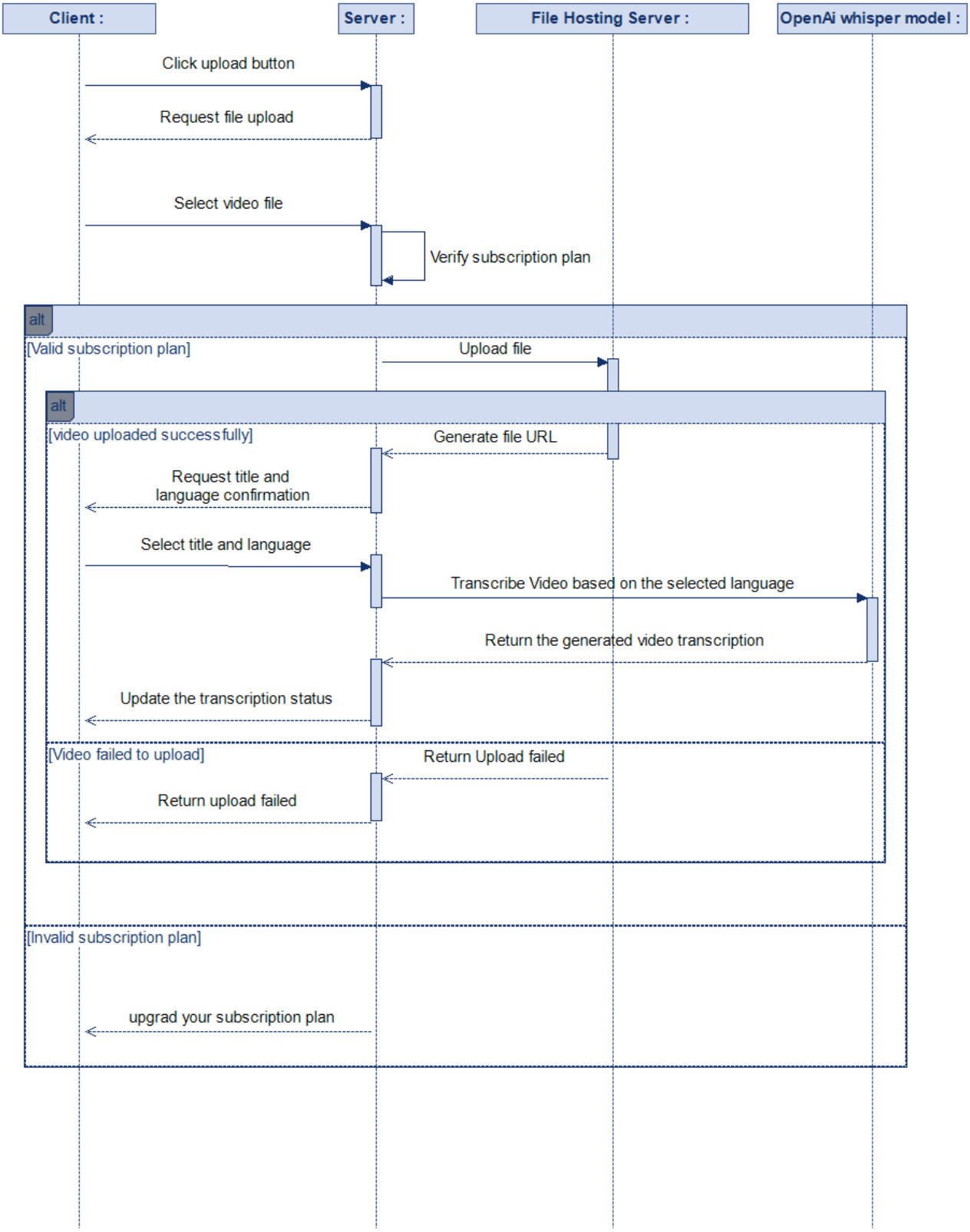

Figure 2.4: Video Transcribe Sequence diagram

This Figure 2.5 illustrates the process of transcribing videos using OpenAI Whisper. It starts with the user clicking "upload" to select a video file. The system then verifies if the user's subscription plan allows video transcription. If valid, the user provides a title and selects the spoken language in the video. The server acknowledges the upload and utilizes OpenAI Whisper to generate a text transcript based on the chosen language. Finally, the server delivers the generated transcript to the user. Error messages are displayed throughout the process, indicating potential issues during upload or transcription.

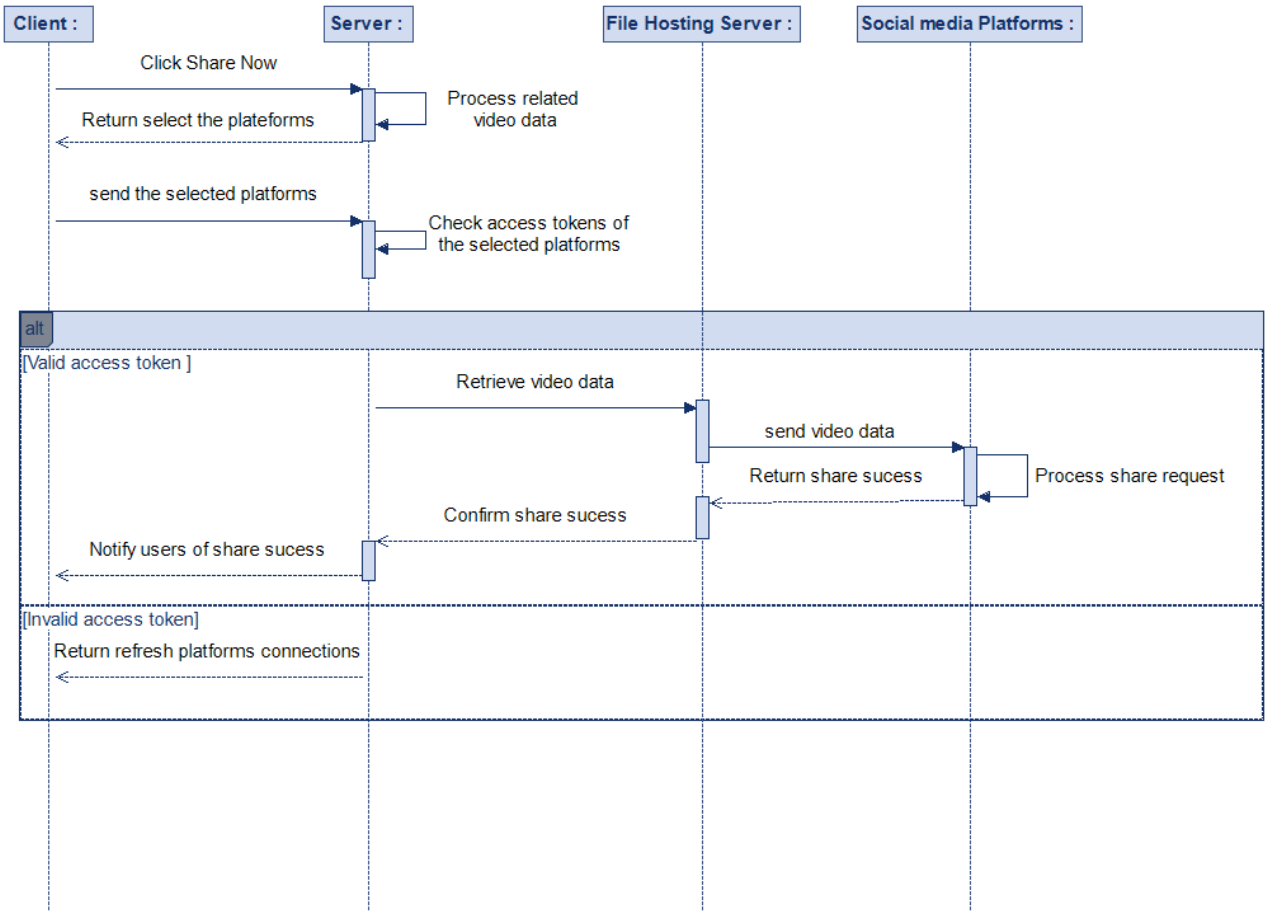

Figure 2.5: Video social media Share Sequence diagram

This Figure 2.6 illustrates the process of sharing a video on social media platforms. It starts with the user clicking the "Share Now" button. The user then selects the social media platforms where they want to share the video. The server verifies the user's access tokens for each chosen platform. If the access tokens are valid, the server retrieves and prepares the video data for sharing. Finally, the server sends the video data to the chosen platforms. Upon successful sharing, the user receives "Share successful" message. Conversely, any errors encountered during the process trigger "Share failed" messages.

2.4.4 Class diagram

The classes in the figure 2.2 below describe the entities structure of the system, also the relations between them.

- A workspace owner can have multiple subscriptions.
- A subscription is linked to a single user and a single price.
- A user can have one profile.
- Prices are linked to products (subscription plan).
- Users can have multiple projects, and projects are linked to a workspace.
- Workspaces can have multiple members and projects.
- Workspace members are linked to both users and workspaces.
- Invitations are linked to workspaces and users.
- A platform can be linked to multiple channels, and channels are associated with a workspace.
- Projects can contain videos, captions, and transcriptions.
- An idea belongs to a workspace and can be linked to a project.

Notes : We only reference the Content Editors as the Workspace Members, and the users for both, also the workspace owner for the Content Creator.

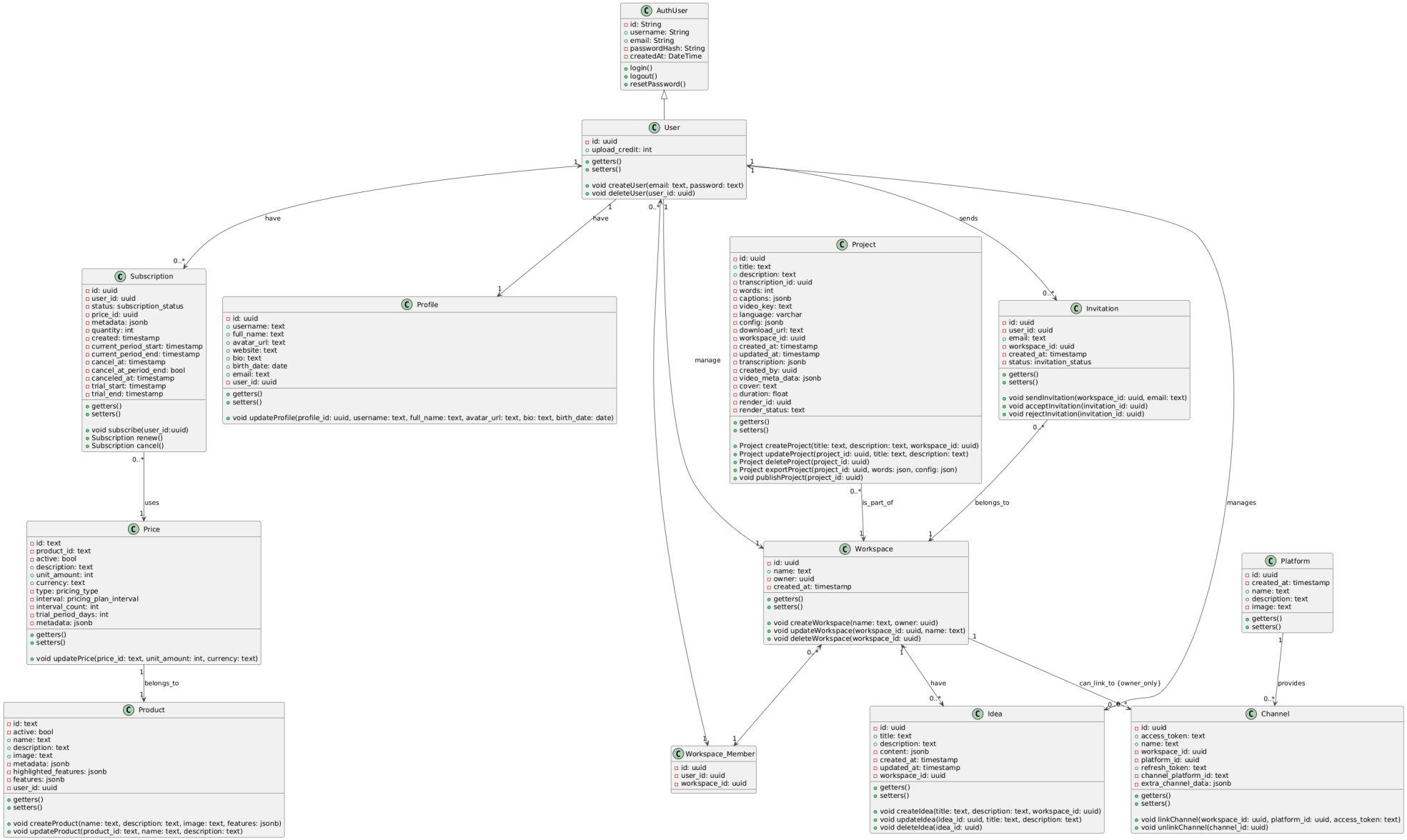

Figure 2.6: Class diagram

2.5 Conclusion

In this chapter, we conducted a thorough Requirements Analysis and Design, outlining the key actors and system requirements essential for our project. We utilized modeling tools such as Modelio and Lucidchart, along with UML diagrams, including class diagrams, sequence diagrams, and use case diagrams, to enhance our understanding of the system's architecture.

In the next chapter, we will focus on the development process and the system presentation.

Chapter 3

Developement and Software Presentation

3.1 Introduction

This chapter focuses on the development of our system, QuickCap, which is an acronym for "quick captions." QuickCap is a content creation tool that aims at making the process of creating, modifying, and managing captions easier. First of all, we will describe the tools and technologies chosen for this project, and then we will briefly discuss the architecture of the system. Last but not least, the chapter will discuss the interfaces created for user interaction and will show the main features of this plateforme.

3.2 Development Environment and Tools

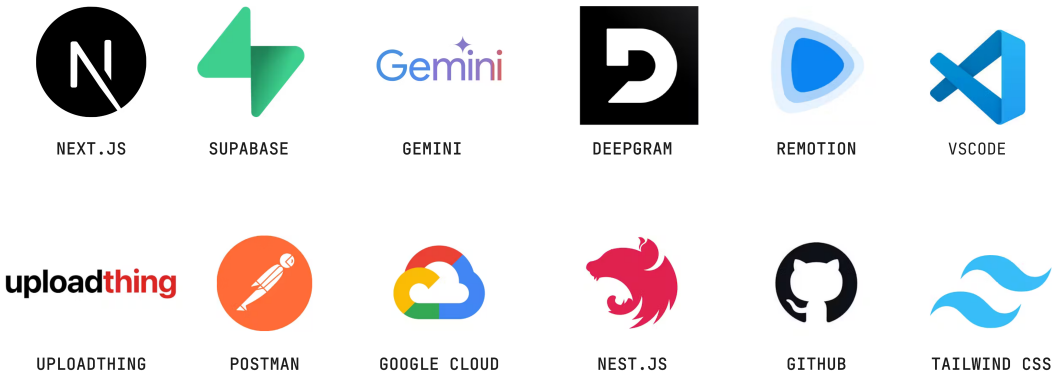

Figure 3.1: List of tools and programming languages used in our system

3.2.1 NextJS

Next.js is a flexible React framework that gives you building blocks to create fast, full-stack web applications.[21] Next.js has a lot of key advantages, such as

- Enhanced Performance : by offering features, such as server side rendering (SSR) and server side generation (SSG) . SSR enhances the SEO capability and loading time of the dynamic part of a site, and SSG pre-renders static HTML at the build time for blazing-fast page speed.
- Improved Developer Experience : it provides features like hot reloading that almost immediately displays code changes to the browser. It also consists of an integrated file-based routing mechanism that helps in navigation within the application.

- Scalability: Next's architecture enables applications to easily scale as the user base increases.

3.2.2 Supabase

Supabase is an open-source database infrastructure built on PostgreSQL. Using Supabase's simple setup and user interface, users can quickly build a complete web and mobile backend to really focus on building their product within minutes, without getting caught up in overly complex data structures.[20] Here's a breakdown of Supabase's key features

- Authentication and Authorization : Supabase provides all the tools for implementing user Sign-in/Sign-up and managing permissions for the data by its usage of email/password authentication, social logins, (Google, GitHub,) etc. .
- Real-time Features : It also uses WebSockets for real-time capabilities in its application. This way, your application is capable of altering data as well as the user interface in actual-time, which contributes to a better user experience.
- Storage and File Management : Supabase has object storage to store many different kinds of files like images, videos and documents. These files can be managed directly from the Supabase console or API access keys.
- Client-Side SDK: It offers client-side libraries for common frontend frameworks including the React and Vue. js, and Angular. These SDK's provide easy access to work with the databases, authentication and storage of Supabase within the application code.

3.2.3 Google Gemini

Google Gemini is a family of AI models, like OpenAI's GPT. They're all multimodal models, which means they can understand and generate text like a regular large language model (LLM), but they can also natively understand, operate on, and combine other kinds of information like images, audio, videos, and code. [15]

3.2.4 Deepgram

Deepgram is a foundational AI company providing the speech-to-text(STT), text-to-speech(TTS), text-to-text and language intelligence capabilities you need to make your data

readable and actionable by human or machines.[16]

3.2.5 Remotion

Remotion is a framework for creating videos programmatically using React.[22]

3.2.6 Visual Studio Code

Visual Studio Code is a streamlined code editor with support for development operations like debugging, task running, and version control. It aims to provide just the tools a developer needs for a quick code-build-debug cycle and leaves more complex workflows to fuller featured IDE's, such as Visual Studio IDE. [14]

3.2.7 UploadThing

UploadThing emerges as a solution designed to simplify file uploads in full stack TypeScript applications. Distinguishing itself from other services attempting to build a "better S3", UploadThing offers a unique blend of ownership, flexibility, and safety. This platform addresses three critical aspects for a seamless experience: File Hosting, Server-side Authorization, and Client Experience. [17]

3.2.8 Postman

Postman is a popular collaboration platform for development that allows users to design, test, and document API's. [18]

3.2.9 Google Cloud Platform

Google Cloud Platform (GCP) is a suite of cloud computing services offered by Google that provides a series of modular cloud services including computing, data storage, data analytics, and machine learning, alongside a set of management tools. [19]

3.2.10 Nest.js

Nest (NestJS) is a framework for building efficient, scalable Node.js server-side applications. It uses progressive JavaScript, is built with and fully supports TypeScript (yet still

enables developers to code in pure JavaScript) and combines elements of OOP (Object Oriented Programming), FP (Functional Programming), and FRP (Functional Reactive Programming). [12] Some of it advantages are :

- Community and Support : Growing community and active support resources.
- Scalability : Well-suited for building large and complex server-side applications.
- Faster Development : Built-in features and integration with popular tools streamline development.

3.2.11 Github

GitHub is an online software development platform. It's used for storing, tracking, and collaborating on software projects. It makes it easy for developers to share code files and collaborate with fellow developers on open-source projects. GitHub also serves as a social networking site where developers can openly network, collaborate, and pitch their work. [13]

3.2.12 Tailwind

Tailwind is a unique utility-first CSS framework useful for website designs such as graphics, browser interactions, animations and more. [23] Here's a breakdown of its key characteristics:

- Utility-First Approach : Unlike traditional frameworks like bootstrap that provide pre-built components, Tailwind offers a collection of low-level utility classes.
- Rapid development: : You can build User Interfaces (UI)'s fast with pre-defined utility classes.
- Responsiveness Built-in : Easily to adapt styles for different screen sizes.
- Integration with Existing Tools : Tailwind integrates perfectly with popular JavaScript frameworks like React, Vue.js, and Svelte.

3.3 System Architecture

3.3.1 Platform Architecture Overview

In our system, we have utilized a variety of environments to ensure robust functionality. Here's a detailed breakdown of each component and how they contribute to the architecture, which is visually represented in Figure 3.2.

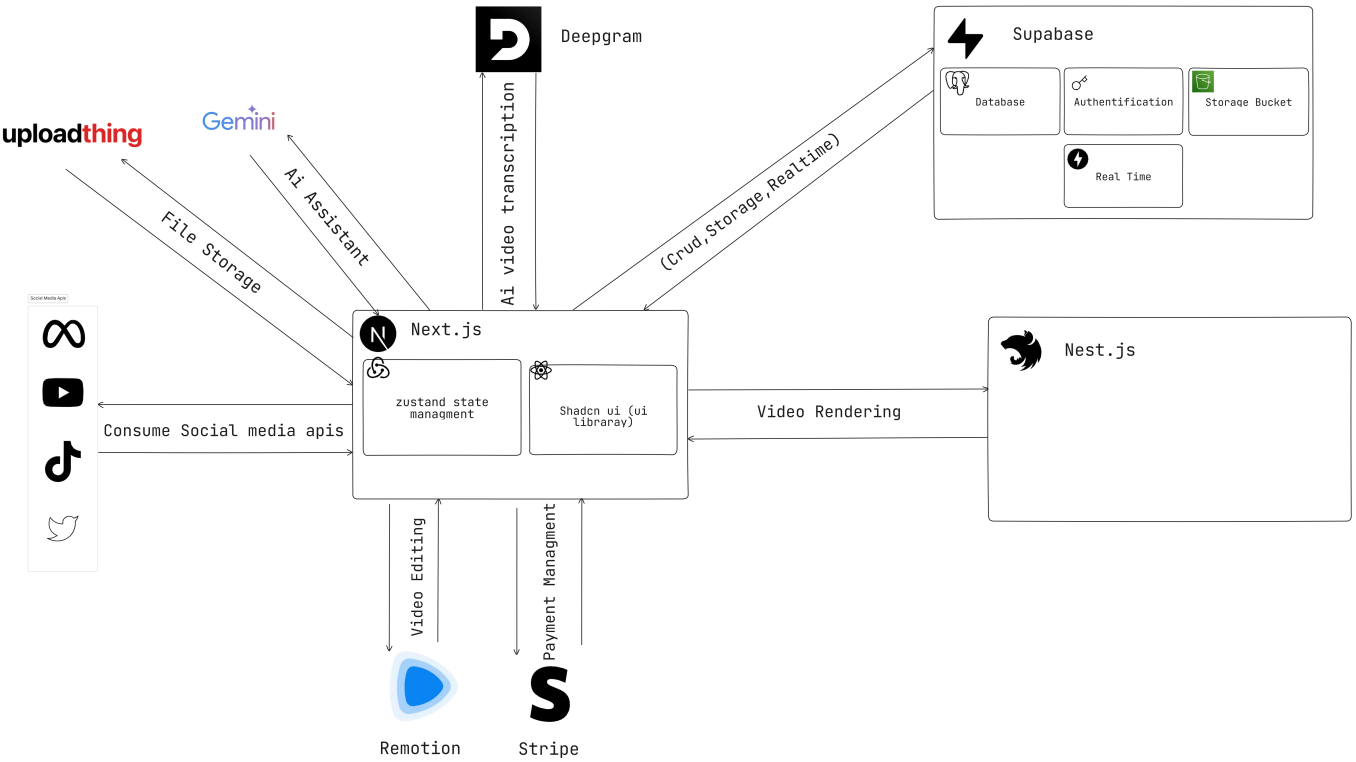

Figure 3.2: Quickcap High Level Architecture

Core Framework: Next.js

a. **Framework Environment**: We chose Next.js as our core framework because of its full-stack capabilities, allowing us to handle both SSR and client-side functionality efficiently. Next.js provides a unified environment for building scalable web applications.

b. **Zustand State Management**: Integrated with Next.js, Zustand provides a lightweight state management environment that ensures smooth data flow and state synchronization across components.

c. **ShadcnUI (UI Library)**: Employed as a UI component library, Shadcn enhances the environment with pre-built UI elements that help build an attractive and

user-friendly interface.

Backend Logic: Nest.js

We integrated Nest.js to handle our video export functionality using Remotion. Nest.js provides a modular framework built with TypeScript, simplifying backend development by offering a structured approach for building API's. Its seamless integration capabilities allow us to efficiently manage video exports

AI Video Transcription: Deepgram

Deepgram was selected for its highly accurate AI-powered transcription services. We needed an STT solution that could handle large volumes of video content and convert spoken language into text.

Video Editing: Remotion

Remotion was chosen for video editing because it allows for programmatic video creation within React, aligning with our use of Next.js. Remotion offers flexibility in video rendering, making it possible to create custom animations, transitions, and effects using code.

Payment Management: Stripe

We included payment management through Stripe since the company is the most renowned in the industry and scalable payment processing. Stripe enables us to manage subscription easily.

Social Media API's Integration

In the current state of our platform, we focus exclusively on integrating with YouTube for video publishing. This integration allows users to link their YouTube accounts and publish videos directly from our platform, providing a simple and efficient way to distribute content.

File Storage: Uploadthing

Uploadthing was chosen as file management service since it is easy to use and efficiently handles large files upload. The integration of Uploadthing with our system is seamless and the users are able to upload video files using the tool within a short span of time.

AI Assistant: Gemini

We integrated Gemini as an AI assistant to enhance user productivity by offering intelligent suggestions and insights. Besides its features, the reason for selecting Gemini over other API'S is that it is relatively cheaper, thus minimizing the total cost.

3.3.2 Database and Data Management

Supabase and the Choice of SQL over NoSQL

For our platform, we selected Supabase as the database solution, which is built on PostgreSQL, a relational SQL database. The choice of SQL over NoSQL was driven by several factors:

a. **Structured Data**: Our application deals with structured, relational data, making SQL a natural fit. SQL databases like PostgreSQL allow for complex queries and transactions, which are essential for managing relationships between various entities (e.g., users, videos, captions).

b. **Data Integrity**: SQL databases provide ACID (Atomicity, Consistency, Isolation, Durability) properties, ensuring the integrity of our data. This is crucial for use cases such as managing payments and social media interactions, where data consistency is paramount.

c. **Flexibility and Scalability**: While NoSQL databases like MongoDB are often considered for scalability, PostgreSQL offers horizontal scaling through partitioning and replication, making it suitable for large-scale applications.

3.3.3 Using AI for Video Transcription: Deepgram and OpenAI's Whisper

In our platform, QuickCap, we have integrated Deepgram to handle the transcription of videos by automatically generating subtitles. Deepgram offers OpenAI's Whisper Speech Recognition Model through its API, utilizing models that are trained on a broad and diverse distribution of audio and evaluated in a zero-shot setting[24]—the ability of a model to accurately transcribe speech in a new language or accent without having been specifically trained on that particular data.

This integration provides numerous benefits, including improved transcription accuracy and the ability to support multiple languages.

3.3.4 Security Considerations

When designing the platform, ensuring data security was a top priority. Since we handle user data, payments, and media files, we needed a solution that provided robust, customizable security features. Supabase, with its foundation in PostgreSQL, offers several advantages in this area, most notably through its implementation of Row-Level Security (RLS).

One of the key security features that influenced our decision to use Supabase is its support for RLS. RLS allows fine-grained control over which rows of data a user can access, providing a high level of data protection at the database level. This is particularly important for our platform, where users may only have permission to view or modify specific records, such as their own content.

3.4 Platform Interfaces

3.4.1 Sign In / Sign Up

The Figure 3.3 displays the Sign In and Sign Up pages of the QuickCap platform.

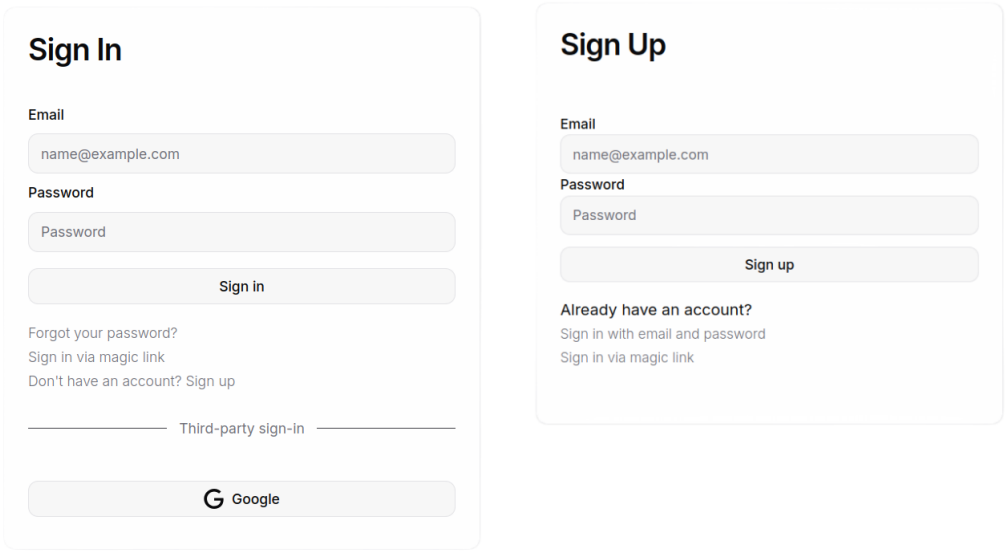

Figure 3.3: SignIn page

- **Sign In Page**: Allows users to log in with their email and password. Additional options include:
  - Password recovery.
  - Sign in via a magic link.
  - Third-party sign-in using Google.
- **Sign Up Page**: Enables new users to create an account by entering their email and password.

3.4.2 Dashboard

The Dashboard page, as shown in Figure 3.4, provides an overview of the user's activities and subscription status on the QuickCap platform.

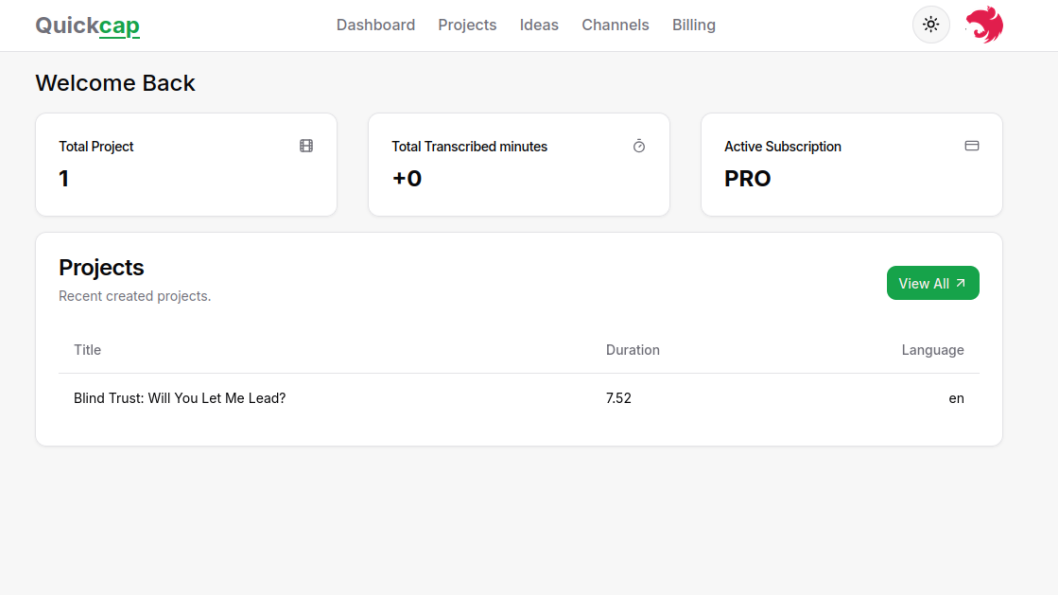

Figure 3.4: Dashboard Interface of the QuickCap Platform

- **Total Projects**: Displays the number of projects the user has created.
- **Total Transcribed Minutes**: Shows the total duration of the transcribed videos across all projects.
- **Active Subscription**: Indicates the current subscription plan the user is on.
- **Projects Section**: Lists recent projects with details such as:
  - **Title**: The name of each project.
  - **Duration**: The length of the video.
  - **Language**: The language of the transcribed content (e.g., English, Arabic).
- The user can click on **View All** to see more projects.

3.4.3 Projects

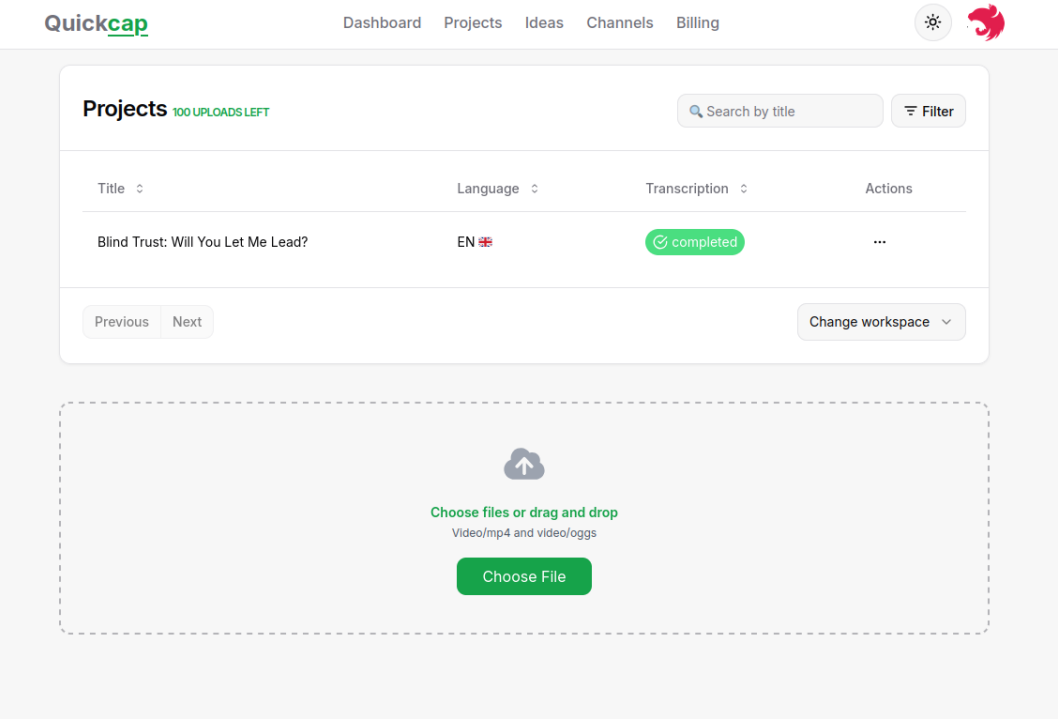

Figure 3.5: Projects Interface of the QuickCap Platform

The Projects page, illustrated in Figure 3.5, offers a detailed view of all the user's projects on the QuickCap platform. It includes the following features:

- **Project List**: Displays all projects along with their relevant details:
  - **Title**: The name of each project.
  - **Language**: The language of the transcribed content, indicated with both text and flag icons.
  - **Transcription Status**: Indicates whether the transcription process is completed or still in progress.
  - **Actions**: Users can edit or delete projects through the action menu.
- **File Upload**: At the bottom, users can upload new projects by dragging and dropping files or selecting them manually.
- **Search and Filter**: A search bar and filter options allow users to easily find specific projects by title.
- **Workspace Switching**: Users have the ability to switch between different workspaces.

3.4.4 Project Studio

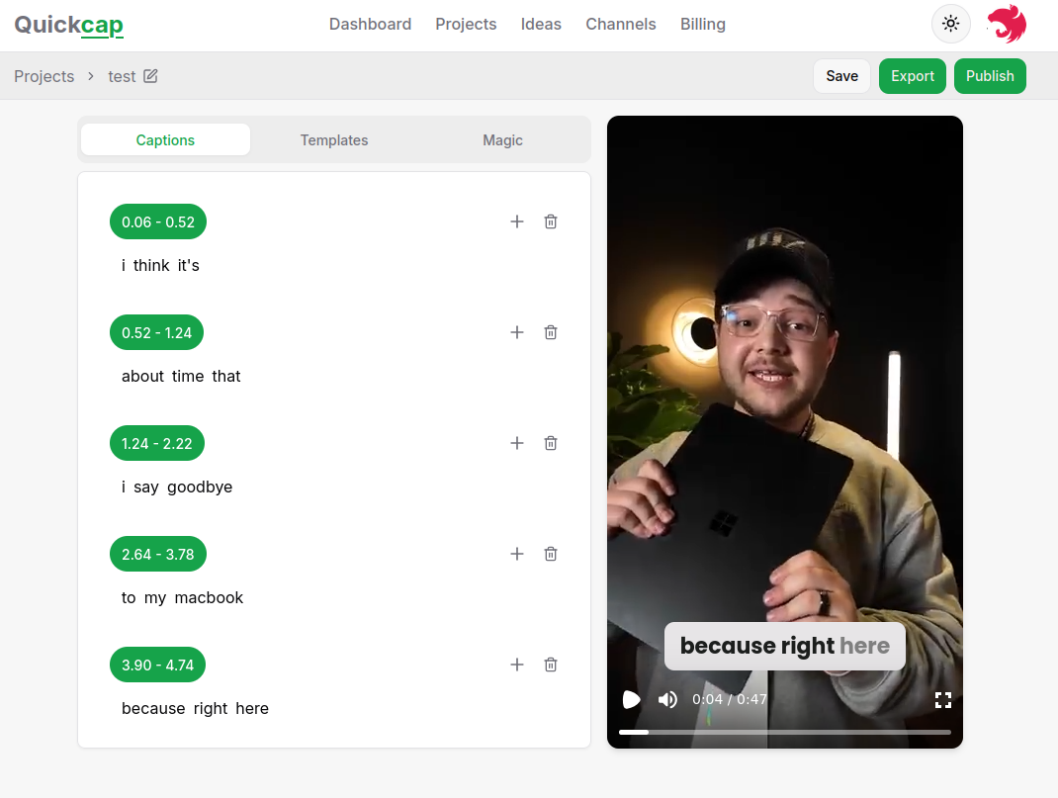

Figure 3.6: Caption Editing Interface of the QuickCap Platform

The Caption Editing page, illustrated in Figure 3.6, provides an intuitive and efficient interface for managing video captions on the QuickCap platform. It includes the following features:

- **Caption List**: Displays all captions along with their corresponding timestamps:
  - **Timestamps**: The start and end times for each caption.
  - **Text**: The text content for each caption.
  - **Actions**: Users can edit, delete, or add new captions using the action buttons next to each entry.
- **Video Preview**: On the right side of the interface, users can view a real-time video preview with captions overlaid.
- **Save and Export**: Provides options to save the current captioning progress or export the video with the captions embedded.

3.4.5 Ideas List

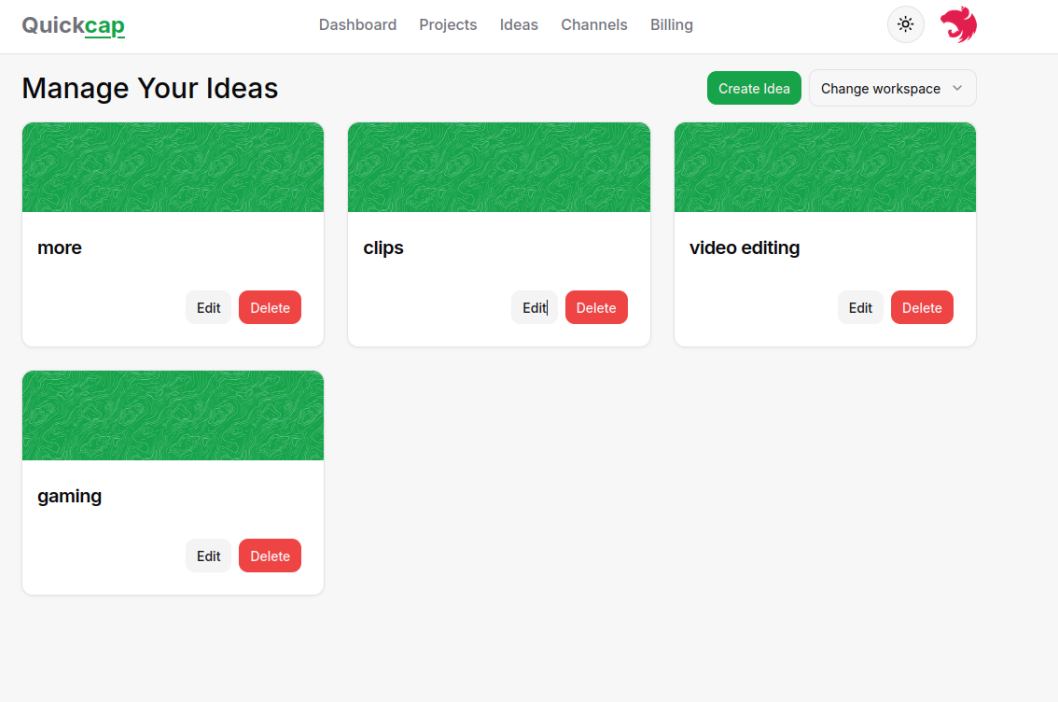

Figure 3.7: Manage Ideas Interface of the QuickCap Platform

The Ideas List page, as illustrated in Figure 3.7, provides a streamlined interface for users to organize their project ideas on the QuickCap platform. It includes the following features:

- **Idea Cards**: Displays all the user's ideas in a card format, with the following details:
  - **Title**: The name of the idea.
  - **Description**: A brief summary of the idea.
  - **Actions**: Users can edit or delete each idea through the action buttons available on the card.
- **Create Idea**: A prominent button located at the top-right corner allows users to quickly add new ideas.
- **Load More**: If the user has many ideas, a "Load More" button is available at the bottom to display additional ideas.

3.4.6 Ideas Editor

The Ideas Editor page, as illustrated in Figure 3.8, allows users to edit and manage details of their ideas using built-in commands on the QuickCap platform. The main features include:

- **Idea Title**: Displays the title of the idea being edited prominently at the top.
- **Idea Description**: A section for users to add or modify the description of their idea, providing a concise summary or relevant details.
- **Content Blocks**: Users can add multiple types of content by using the slash commands such as:
  - **Text**: For adding paragraphs or lists to describe the idea.
  - **Media Embeds**: Allows embedding multimedia such as tweets, images, or videos to enrich the idea.
  - **Checklists**: Users can create task lists to outline key points or steps.
- **Edit Button**: A green “Edit Idea” button on the right enables users to switch between viewing and editing modes.
- **Auto-Save Feature**: An indicator notifies users when changes to the idea have been automatically saved.

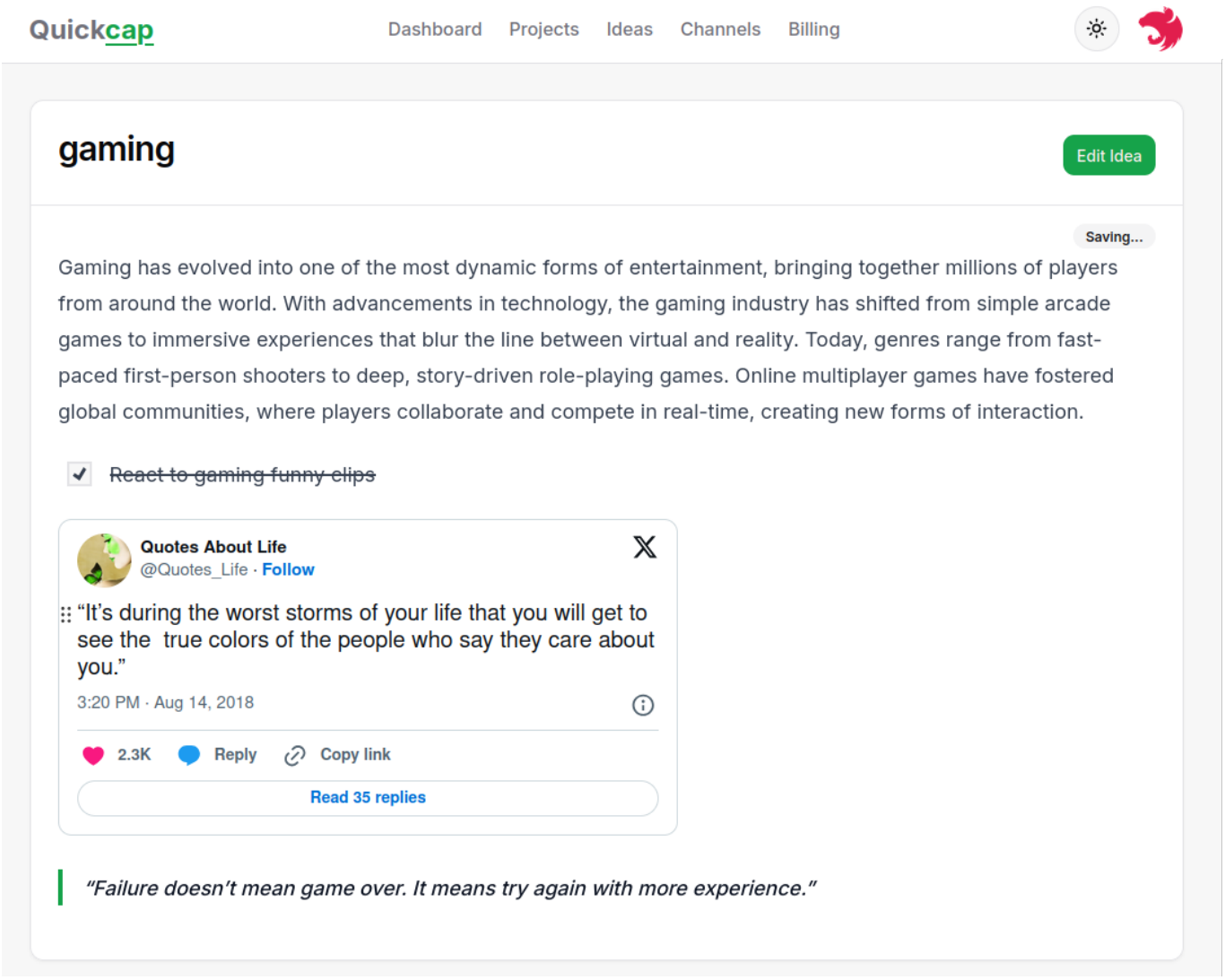

Figure 3.8: Ideas Editor Interface of the QuickCap Platform

3.4.7 Billing Page

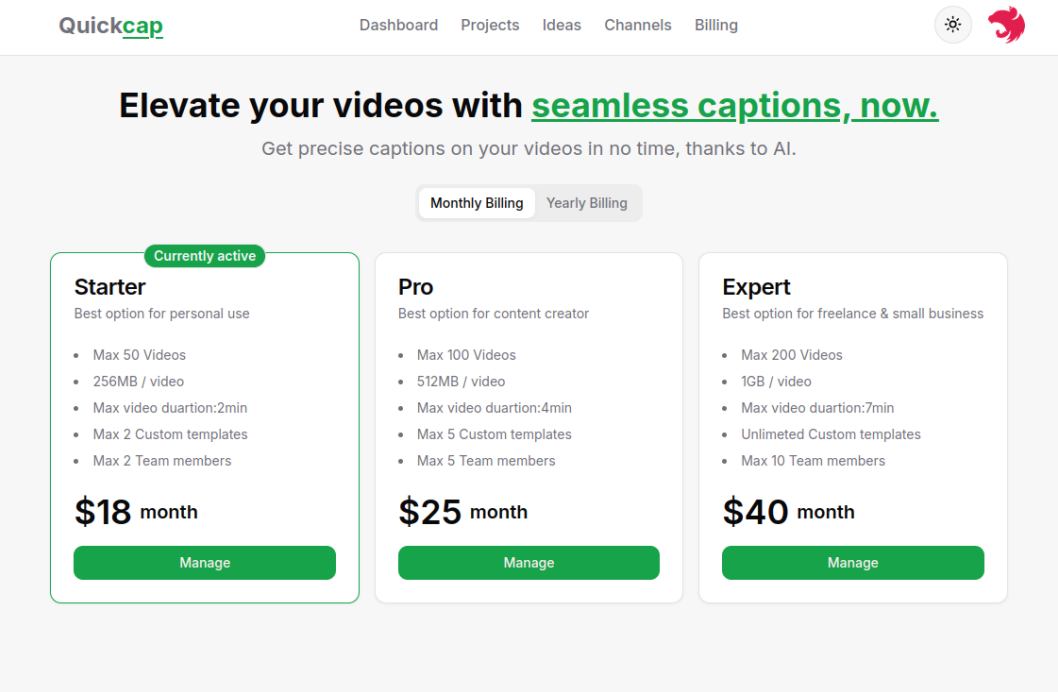

Figure 3.9: Billing Interface of the QuickCap Platform

The Billing Page, as illustrated in Figure 3.9, presents the subscription plans available on the QuickCap platform. The page allows users to easily manage their billing options and select the plan that best suits their needs. Key features include:

- **Subscription Plans**: Users are provided with three subscription tiers: starter, pro, expert.
- **Plan Management**: Each plan has a green "Manage" button allowing users to select or modify their subscription. The currently active plan is clearly indicated with a green banner.
- **Billing Frequency**: Users can toggle between monthly and yearly billing options using a switch located above the subscription plans.

3.4.8 Dashboard Page - Dark Mode

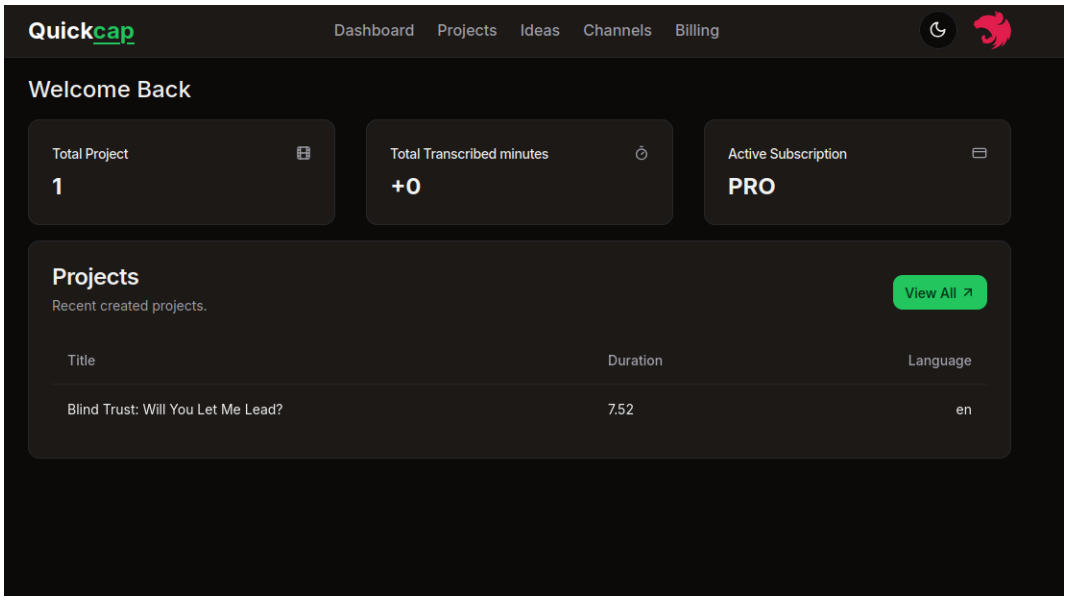

Figure 3.10: Dark Mode Interface of the QuickCap Dashboard

The Dashboard Page in dark mode, as shown in Figure 3.10, displays the user's project in dark theme.

- **Dark Mode Toggle**: A moon icon is located in the top right corner of the interface, allowing users to toggle between light and dark modes.

3.4.9 Settings

The Settings Page, as shown in Figure 3.11, allows users to manage their account settings and customize the appearance of the platform. The settings page is divided into key sections:

- **Profile**: Users can update their public profile, including their profile picture, username, display name, email, and website. The profile section ensures that users can manage how others see them on the platform.
- **Appearance**: This section allows users to switch between light, dark, and system themes for the platform's interface. Users can select their preferred theme and update their preferences using the green "Update preferences" button.

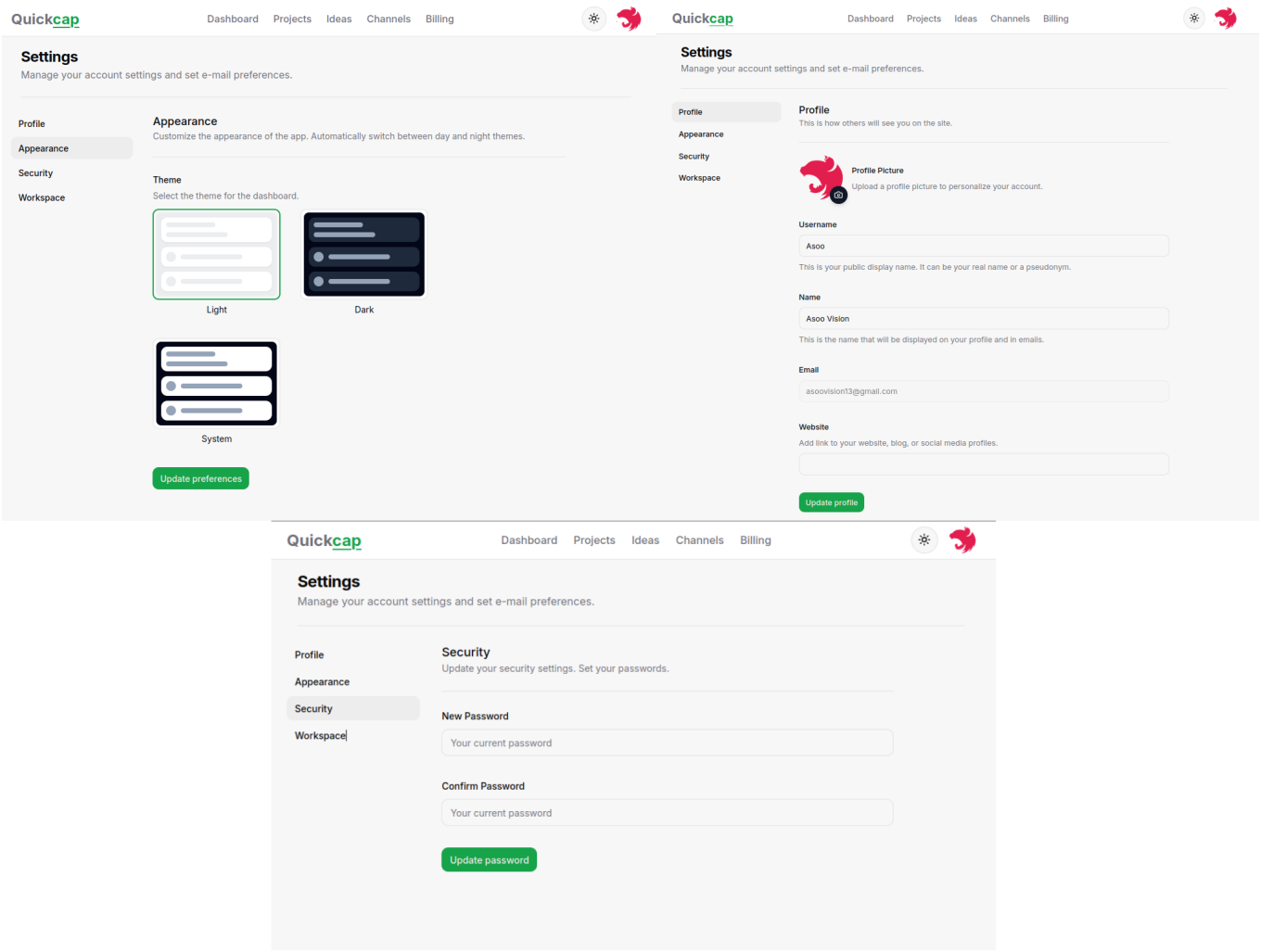

Figure 3.11: Settings Interface of the QuickCap Platform: Profile, Appearance, and Security

- **Security**: In this section, users can update their password by entering their current and new passwords. The section include a "Update password" button for secure management of account access.

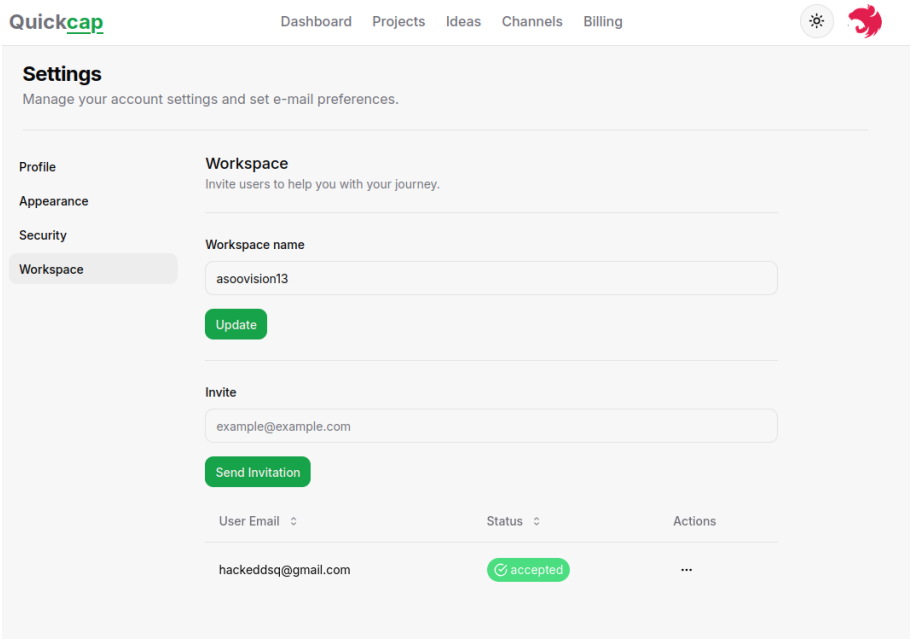

Figure 3.12: Workspace Settings Interface of the QuickCap Platform

The Workspace Settings page, as shown in Figure 3.12, allows users to manage their workspace settings and collaborate with team members on the QuickCap platform.

- **Workspace Name**: Users can update the name of their workspace to reflect its purpose or team, such as "Gaming," by entering a new name and clicking the **Update** button.
- **Invite Section**: Users can invite others to join their workspace by entering an email address in the provided field and clicking **Send Invitation**. This allows for seamless collaboration within the workspace.
- **Workspace Members**: The page lists the email addresses of all members in the workspace along with their current status. For example:
  - **Status**: Indicates whether the invitation has been accepted or is pending.
  - **Actions**: Users can manage the members (e.g., remove permission) via the actions menu.

3.4.10 AI Assistant

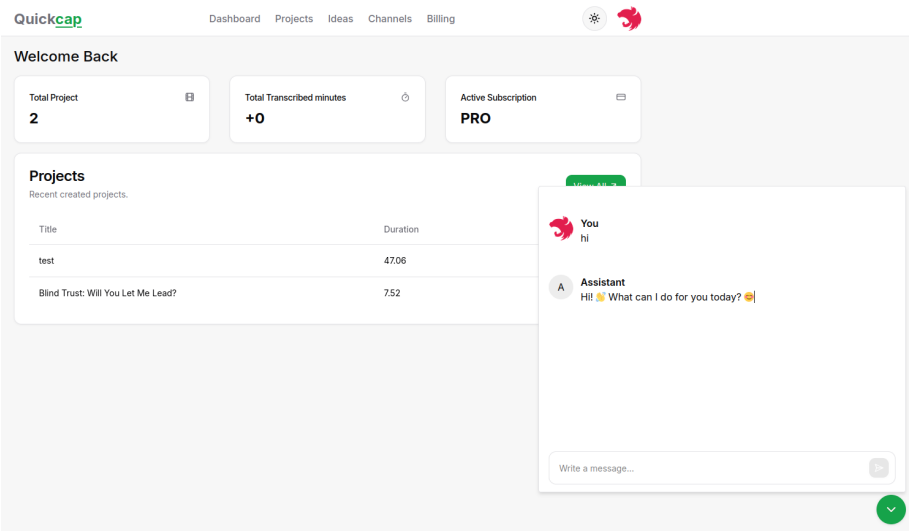

Figure 3.13: AI Assistant Interface of the QuickCap Platform

The AI Assistant interface, as shown in Figure 3.13, enables users to interact with a chatbot for assistance and support on the QuickCap platform.

- **User Interaction**: Users can type messages in the provided input field, and the chatbot will reply with helpful information and suggestions.

3.4.11 Social Media Accounts Management

The social media channels and the connect platforms pages, as shown in Figure 3.14, allow users to manage their social media accounts connected to the QuickCap platform and add new accounts based on their current plan.

- **Channels Connected**: Users can view the social media channels they have already connected.
  - **Actions Menu**: Each connected channel has a menu where users can either refresh the connection or remove the channel.
- **Connect Channel Button**: Users can click the **Connect Channel** button to add new social media channels to their workspace.
- **Available Platforms**: The connect page provides users with the option to connect new social media platforms. We only support youtube for this moment.

– Each platform has a green **Connect** button, which allows the user to link their account.

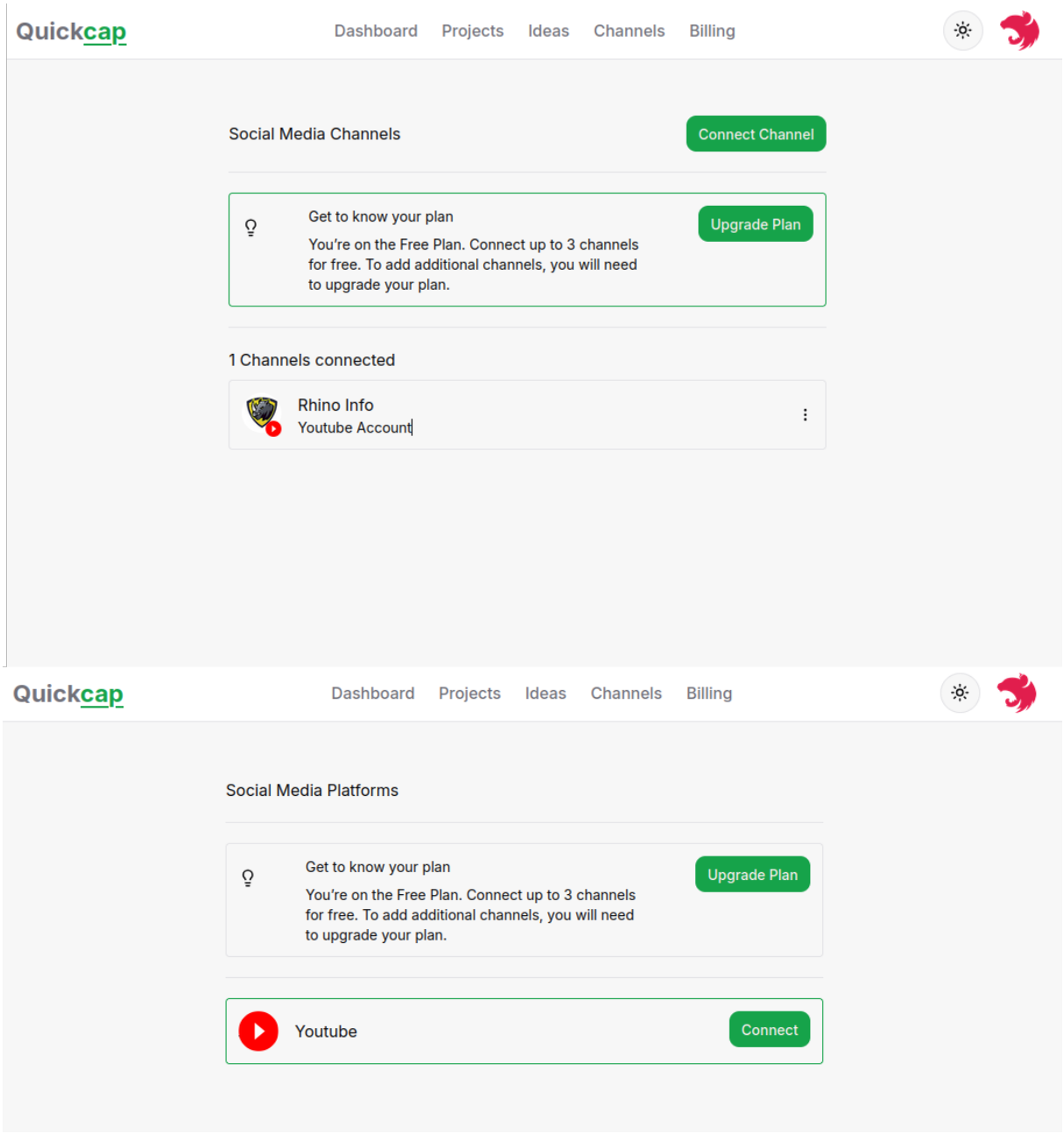

Figure 3.14: Social Media Channels and Platforms Interface of the QuickCap Platform

3.5 Conclusion

In conclusion, this chapter has outlined the development process of QuickCap, design and implementation decisions that shaped the platform. We discussed the tools and technologies employed and why specific decisions were made to make the system effective and sustainable. Furthermore, the system architecture and the main interfaces were described in detail to show how QuickCap fulfills its functional and non-functional specifications.

In the next chapter, we will explore the Business Model Canvas (BMC), outlining our business model through its nine key components: customer segments, value propositions, channels, customer relationships, revenue streams, key resources, activities, partnerships, and cost structure. This analysis will highlight the project's economic viability and growth potential for our platform.

Chapter 4

Business Model Canvas

4.1 Introduction

In this chapter, we will expand on the BMC that is the most popular tools for the visualization and analysis of business models invented by Alex Osterwalder. This framework is built around nine key elements that together provide a comprehensive view of how a business creates, delivers, and captures value. We will explore each of these nine elements —value propositions, customer segments, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure — one by one, to have a clearer understanding of this business model and possible innovations.

Business Model Canvas covers most industry domains, managers and organizations, since it is easy to implement and provides great results in innovation, effectiveness, and internal alignment towards strategic objectives. From this analysis, we will be able to understand the key strategies that we can apply to improve the business model and the manner in which the company can be positioned for success in a highly competitive market.

4.2 Business Model Canvas Components

4.2.1 Value Proposition

At the core of our value proposition is a technological solution that addresses the various challenges our users face. These challenges include the complexity of video production, the time-consuming of manual transcription, and the difficulties of distributing content across multiple social media platforms. Additionally, users often struggle to organize and develop their content ideas without a dedicated tool for brainstorming and planning. Our solution aims to simplify these processes.

Our platform meets these needs by providing:

- **Automatic Transcription:** Providing automatic video transcription of speech to text.
- **Real-Time Video Enhancements:** Offering a variety of options, such as substitle customization and automatic effects.
- **Multi-Platform distribution:** Simplifies content distribution across social media platforms.
- **Ideas Editor and Team Collaboration:** Facilitates content creation with collaborative features and an integrated ideas editor.
- **AI Assistant:** Provides intelligent suggestions and content generation.

Our platform distinguishes itself from competitors with unique features such as the ideas editor, AI assistant and subtitle customization, along with competitive support for transcription languages.

In summary, we offer an all-in-one tool for automatic transcription, social media distribution, real-time video enhancements, team collaboration, and an AI assistant, all integrated with an ideas editor to streamline the content creation process.

4.2.2 Customer Segment

Our clients fall into two main segments: B2B and B2C, each with its own specific needs.

B2C Clients:

- **Content Creators:** Content creators often struggle with the complexities of video production and the time-consuming process of manual transcription. They also need a streamlined way to distribute their content and organize their ideas.
- **Influencers:** Influencers require tools that help them engage their audience and maintain a strong presence across social media. They need easy content distribution and content generation support.

B2B Clients:

- **Businesses:** Businesses need efficient tools to create professional video content for marketing, training, or internal communication. They benefit from features that support team collaboration and streamline video production.
- **Marketing Agencies:** Marketing agencies handle multiple client projects and need robust tools for content production and distribution. They require efficient workflows and multi-platform management.
- **Educational Institutions:** Educational institutions need accessible tools to create and manage educational videos, including automatic transcription for accessibility.

4.2.3 Consumer Relationships

Each customer segment expects us to provide a relationship that includes self-service options with support, as well as community engagement through feedback and support forums. Currently, we maintain relationships with our customers through active customer support and regular updates and improvements to our features. To enhance our relationship with customers, we can implement the following strategies:

- **Loyalty Programs:** Establish loyalty programs to reward regular customers.
- **Personalized Support:** Offer customer support based on user preferences and history.

- **Regular Feedback:** Actively solicit customer feedback through surveys and polls.
- **Proactive Engagement:** Organize webinars and QA sessions to directly address customer needs.

4.2.4 Distribution Channels

We connect with our clients through tailored channels that suit their unique needs and preferences.

B2C Clients:
Social Media: To Keep our users updated on our new features.
Email : Sends e-mails with target offers, and new features that might interest the user.
B2B Clients:
Email: Provides service updates, and tailored communications.
Meetings: Provides one-on-one sessions.

To improve the user experience, we can integrate these channels by synchronizing information shared across social media and email

4.2.5 Key Partnerships

Social Media Platforms: These platforms are essential for video content distribution and user engagement. They allow us to reach a wide audience.

Website Hosting Services: They ensure the availability, performance, and security of our online platform.

AI Companies for Captioning Technology: These partnerships enable us to leverage advanced technologies for automating captioning and transcription.

Content Creation Tools: Integrations with video editors and design platforms: Working with content creation tools enhances the features offered by our platform. This includes advanced editing options and customization tools, providing a better UX.

Incubators: These collaborations provide valuable support in the form of mentorship, funding, and access to networks of experts and investors.

4.2.6 Key Activities

To effectively deliver our value proposition, we must undertake several key actions:

- **Marketing and Promotion:** Plan and execute marketing campaigns.
- **Monitoring and Performance Analysis:** Track application performance and analyze data for continuous improvements.
- **Research and Development:** Innovate and enhance product features.
- **Customer Support:** Provide technical support via email and social media.

Essential operations for our business include continuously enhancing UX through improvements to the UI and overall experience. We also aim to streamline internal processes to improve operational efficiency and reduce costs.

To create the most value for our customers, we facilitate easy content delivery on social media platforms. Additionally, we prioritize providing accurate and timely subtitles to enhance accessibility. Our AI assistant offers real-time support, helping users streamline their workflows, while the ideas editor allows users to plan and organize their ideas .

4.2.7 Key Resources

Material Resources: Two PCs,Two desks,Two chairs,Rent,Two phones,Wifi modem,Printer.

Development Team: Our development team is a team of professionals who are responsible for designing and managing the current and future features of the platform.

Marketing Team: Our marketing team consists of experts in digital strategy, communication, and public relations. They are responsible for promoting our platform, developing advertisement campaigns, and managing our brand's reputation.

4.2.8 Costs

1. **Personnel Costs:**
    - **1st year:**
        - Application marketing: 90,000 DA/year
    - **2nd year:**
        - 50,000 DA/month for a developer
        - For 2 developers: 100,000 DA/month $\Rightarrow$ 1,200,000 DA/year

  - Marketing: 20,000 DA/month ⇒ 240,000 DA/year (integration of a marketing employee on contract for the second year)
  - **Total: 1,440,000 DA/year**

2. **General Expenses:**

   - **1st year:**
     - **Fixed costs:**
       * 2 laptops: 180,000 DA
       * Laser printer: 39,000 DA
       * Chairs: 24,000 DA
       * Desks: 30,000 DA
       * Wifi Modem: 5,000 DA
       * Heating: 40,000 DA
       * Air conditioner: 80,000 DA
     - **Total: 398,000 DA/year**
     - **Variable costs:**
       * Rent: 15,000 DA/month ⇒ 180,000 DA/year
       * Electricity: 10,000 DA/year
       * Internet: 27,000 DA/year
       * Gas: 18,000 DA/year
     - **Total: 235,000 DA/year**
   - **2nd year:**
     - Rent: 17,000 DA/month ⇒ 204,000 DA/year
     - Electricity: 11,000 DA/year
     - Internet: 28,000 DA/year
     - Gas: 19,000 DA/year
   - **Total: 262,000 DA/year**

3. **Logistics Costs:**

   - Hosting: 34 dollars/year ⇒ 4,500 DA/year
   - Gemini Service: 22 dollars/year ⇒ 2,650 DA/year

- Supabase (Backend as a service) : 300 dollars/year ⇒ 39,708 DA/year
- Uploading (file storage): 120 dollars/year ⇒ 15,883 DA/year
- Deepgram (Video transcription Service): 516 dollars/year ⇒ 68,297 DA/year
- **Total: 131,038 DA/year**

Summary of Total Costs

- Total cost for 1st year: 854,038 DA/year
- Total cost for 2nd year: 1,833,038 DA/year
- Total cost for 3rd year: 2,000,000 DA/year

4.2.9 Revenues

1. **1st year:**
   - Assumption: 30 users of the Starter pack at 18 dollars/month ⇒ 2,383 DA/month
   - Annual revenue: $2383 \times 30 \times 12 = 857,880$ DA/year
2. **2nd year:**
   - Assumption: 50 users of the Starter pack at 18 dollars/month and 50 users of the Pro pack at 25 dollars/month
     - Revenue from Starter pack: $18 \times 50 = 900$ dollars/month ⇒ 118,560 DA/month
     - Revenue from Pro pack: $25 \times 50 = 1,250$ dollars/month ⇒ 165,221 DA/month
   - Annual revenue from Starter pack: $118,560 \times 12 = 1,422,720$ DA/year
   - Annual revenue from Pro pack: $165,221 \times 12 = 1,982,652$ DA/year
   - **Total: 3,405,372 DA/year**
3. **3rd year:**
   - Assumption: 50 users of the Starter pack, 50 users of the Pro pack, and 10 users of the Expert pack at 40 dollars/month
     - Revenue from Starter pack: $18 \times 50 = 900$ dollars/month ⇒ 118,560 DA/month

  - Revenue from Pro pack: $25 \times 50 = 1,250$ dollars/month $\Rightarrow$ 165,221 DA/month
  - Revenue from Expert pack: $40 \times 10 = 400$ dollars/month $\Rightarrow$ 52,871 DA/month
- Annual revenue from Starter pack: $118,560 \times 12 = 1,422,720$ DA/year
- Annual revenue from Pro pack: $165,221 \times 12 = 1,982,652$ DA/year
- Annual revenue from Expert pack: $52,871 \times 12 = 634,452$ DA/year
- **Total: 4,039,824 DA/year**

Business Model Canevas : BMC

Relation clients
Consumer Relationship
علاقة مع العملاء

Each customer segment expects us to provide a relationship that includes self-service options with support, as well as community engagement through feedback and support forums.

To enhance our relation-ship with customers we provide:

Loyalty Programs: Establish loyalty programs to reward regular customers.
Personalized Support: Offer customer support based on user preferences and his-tory.
Regular Feedback: Actively solicit customer feedback through surveys and polls.
Proactive Engagement: Organize webinars and QA sessions to directly address cus-tomer needs.

Activités clés
Key Activities
الأنشطة الرئيسية

Activities To deliver our proposition
-Marketing and Promotion
-Monitoring and Performance Analysis
-Research and Development
- Customer Support

Activities That creates more value to our customers
-accurate and timely subtitles
- easy content management and delivery

Partenaires clés
Key Partnerships
الشراكة الرئيسية

- Social media platforms: Facebook,YouTube,TikTok, etc.
- Website hosting services
-AI-companies for captioning technology
- Content creation tools
- Incubators

Proposition de valeur
Value Proposition
القيمة المقترحة

At the core of our value proposition is a technological solution that addresses the various challenges our users face. These challenges include the complexity of video production, the time-consuming of manual transcription, and the difficulties of distributing content across multiple social media platforms. Additionally, users often struggle to organize and develop their content ideas without a dedicated tool for brainstorming and planning.

Our platform meets these needs by providing: Automatic Video Transcription, Tools forVideo Enhancements, Multi-Platform distribution,Ideas Editor ,AI Assistant

Ressources clés
Key resources
الموارد الرئيسية

Material Resources:
Two PCs,Two desks,Two chairs,Rent,Two phones,Wifi modem,Printer
Human Resources:-Skilled development team,Marketing team

Revenus
Revenue
مصادر الدخل

Tiered pricing based on access to features :
18 dollars/month for Starter 25 dollars/month for Pro and 40 dollars/month for expert

- Total cost for 1st year : **857 880 DA/year**
- Total cost for 2nd year : **3 405372 DA/year**
- Total cost for 3rd year : **4 039 824 DA/year**

Canaux de distribution
Channels
قنوات التوزيع

B2C Clients:
-Social Media: To Keep our users updated on our new features.
-Email : Sends e-mails with target offers, and new features that might interest the user.

B2B Clients:
- Email: Provides service updates, and tailored communications.
-Meetings: Provides one-on-one sessions.

Coûts
Coste sructure
التكاليف

Personnel costs:
1st year: Marketing : 90 000 DA/year
2nd year : Marketing+developers salary : 1 440 000 DA
General expenses:
1- fixed costs :2 pc : 180 000DA+chairs : 24 000DA+fourniture desks :30 000DA+ Wifi Modem :5000DA+heating :40 000DA+air conditioner :80 000DA=> total cost : 398 000 DA/year.
2-changeable fees :rent : 15 000DA+electricity bill : 10 000DA+Internet bill :27 000DA+GAZ bill :18 000DA
Logistic costs:
1-Hosting costs: - Hosting 34 dollars/an=> 4 500 DA/an+ Gemini service 22 dollars/an=>2650 DA/an+Supabase 300 dollars/an=> 39 708 DA/an+Uploading (file storage) 120 dollars/an=> 15 883 DA/an+Deepgram 516 dollars/an=> 68 297 DA/an

- **Total cost of 1st year : 854 038 DA/year**
- **Total cost of 2nd year : 1 833 038 DA/ year**
- **Total cost of 3rd year : 2 000 000 DA/ year**

Segment client
Customer Segment
انواع العملاء

B2C Clients:
Content Creators : They need a streamlined way to distribute their content and organize their ideas.
Influencers: They need easy content distribu-tion and content generation support.

B2B Clients:
Businesses: Businesses need efficient tools to create professional video content for marketing, training, or internal communication. They benefit from features that sup-port team collaboration and streamline video production.
Marketing Agencies: Marketing agencies handle multiple client projects and need robust tools for content production and distribution. They require efficient work-flows and multi-platform management.
Educational Institutions: Educational institutions need accessible tools to create and manage educational videos, including automatic transcription for accessibility.

4.3 Conclusion

Analyzing the Business Model Canvas allowed us to discover the strategic and operational aspects of the project. The BMC has offered us a clear perspective and a deeper understanding of our business strategy. This chapter has played an important role in pointing us in the right direction toward a better solution for the problem and establishing the foundation for the next phases of our project.

General Conclusion

Currently, the content creation industry is experiencing a significant shift as new platforms emerge to change how content creators and companies interact with their target markets. Our project directly responds to the increasing need for better and more advanced systems for content creation for various purposes.

Our main focus is to help content creators who want to get the most out of their online business and optimize the process. To achieve this, our platform focuses on several key areas:

- **Optimizing Content Production:** By offering tools that automatically generate captions, idea editor, and provide customizable editing options, our platform significantly reduces the time and effort required to produce high-quality content.
- **Streamlining Content Distribution:** It is very easy to share your content directly on the major social media paltforms and to export your content for any further changes you may wish to make. This is a very smooth integration which allows you to handle and optimize the content in a perfect way.
- **Supporting Professional Growth:** The platform's user-friendly interface and advanced features empower both novice and experienced creators to produce professional-quality content. By providing tools and templates that cater to current trends, we support users in staying relevant and competitive in the content creation industry.

Looking ahead, we plan to expand our platform's capabilities further. We will introduce features such as calendar scheduling for video content, an integrated image editor, and tools for managing social media accounts. Additionally, we are exploring ways to enhance collaboration among content creators and adding analytics for more effective content strategies.

We certainly believe that our platform will have a tremendous effect on the content creation space. It is our mission to help creators and businesses advance and expand, offering

solutions for the future of the online content by constantly innovating and adjusting to the demands and needs of the users.

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Abstract

This platform is designed to empower content creators by providing a set of tools and services to produce and manage their content. The platform caters to a diverse range of creators offering them advanced content editing and seamless content sharing on social media. The platform aims to support creativity and shortcut the time for them, leading to increased productivity.

ملخص

تم تصميم هذه المنصة لتمكين منشئي المحتوى من خلال توفير مجموعة من الأدوات والخدمات لإنتاج المحتوى الخاص بهم وإدارته. تلبي المنصة احتياجات مجموعة متنوعة من المبدعين وتقدم لهم تحريرًا متقدمًا للمحتوى ومشاركة سلسة للمحتوى على وسائل التواصل الاجتماعي. وتهدف المنصة إلى دعم الإبداع واختصار الوقت لديهم مما يؤدي إلى زيادة الإنتاجية.

Résumé

Cette plateforme est conçue pour autonomiser les créateurs de contenu en leur fournissant un ensemble d'outils et de services pour produire et gérer leur contenu. La plateforme s'adresse à une gamme diversifiée de créateurs en leur offrant une édition de contenu avancée et un partage de contenu sans faille sur les médias sociaux. Elle vise à soutenir la créativité et à raccourcir le temps pour eux, ce qui conduit à une productivité accrue.