

NEXT GEN AI SAAS PLATFORM

SUFIA



CONTENT

03	ABSTRACT	10	SYSTEM CONFIGURATION
04	EXISTING SYSTEM	11 – 26	OUTPUT SCREENS
05	PROPOSED SYSTEM	27	ADVANTAGES
06	SYSTEM ARCHITECTURE	28	DIS-ADVANTAGES
07	UML > USE CASE DIAGRAM	29	CONCLUSION
08	UML > SEQUENCE DIAGRAM	30	FUTURE SCOPE
09	UML > CLASS DIAGRAM	31	LITERATURE SURVEY

ABSTRACT

Software as a Service (SaaS) is a cloud computing model that revolutionizes software delivery, allowing users to access applications over the internet without the need for on-premises installation or maintenance. Typically, third-party providers host and manage the software, offering subscription-based access to users.

Our project introduces an innovative SaaS platform integrating five advanced AI tools: Conversation, video generation, image generation, code generation, and music generation. Powered by state-of-the-art technologies from OpenAI and Replicate AI, these tools offer a diverse range of capabilities to enhance business operations across various industries.

EXISTING SYSTEM

Users may need to switch between multiple applications or services to accomplish different tasks, leading to workflow fragmentation and productivity challenges to generate various forms of content such as conversations, images, music, and videos.

1

MANUALLY WRITTEN CODE:

Manual coding processes hinder innovation and productivity in software development. Developers spend significant time on routine coding task instead of focusing on higher-level problem solving and innovation.

2

AFTER EFFECTS AND BLENDR

Complexity and professional-oriented approach may pose challenges for beginners or casual users looking to enter the realm of motion graphics and animation.

3

PHOTOSHOP

Adobe Photoshop serves as a powerful yet specialised tool for image editing, its standalone nature and focus on image editing limit its versatility.

PROPOSED SYSTEM

our platform offers subscription and gives them access to AI tools. The platform offers flexible subscription plans tailored to users' needs, providing access to premium features. Seamless integration with third-party services such as Crisp enables real-time customer support. The proposed AI-powered SaaS platform revolutionizes content generation by offering a comprehensive suite of tools and services seamlessly integrated into a unified environment.

Conversation AI

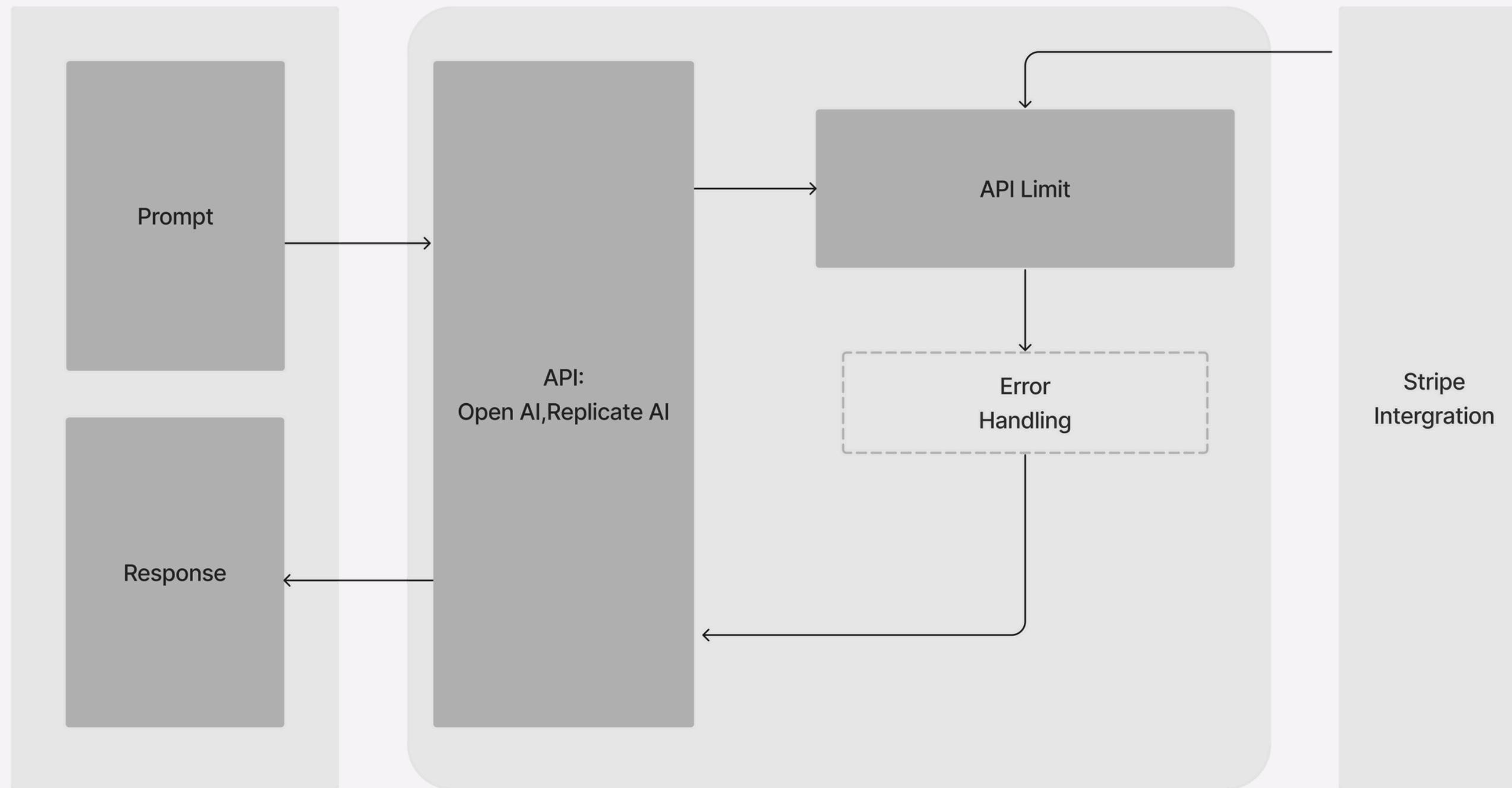
Image Generation AI

Code Generation AI

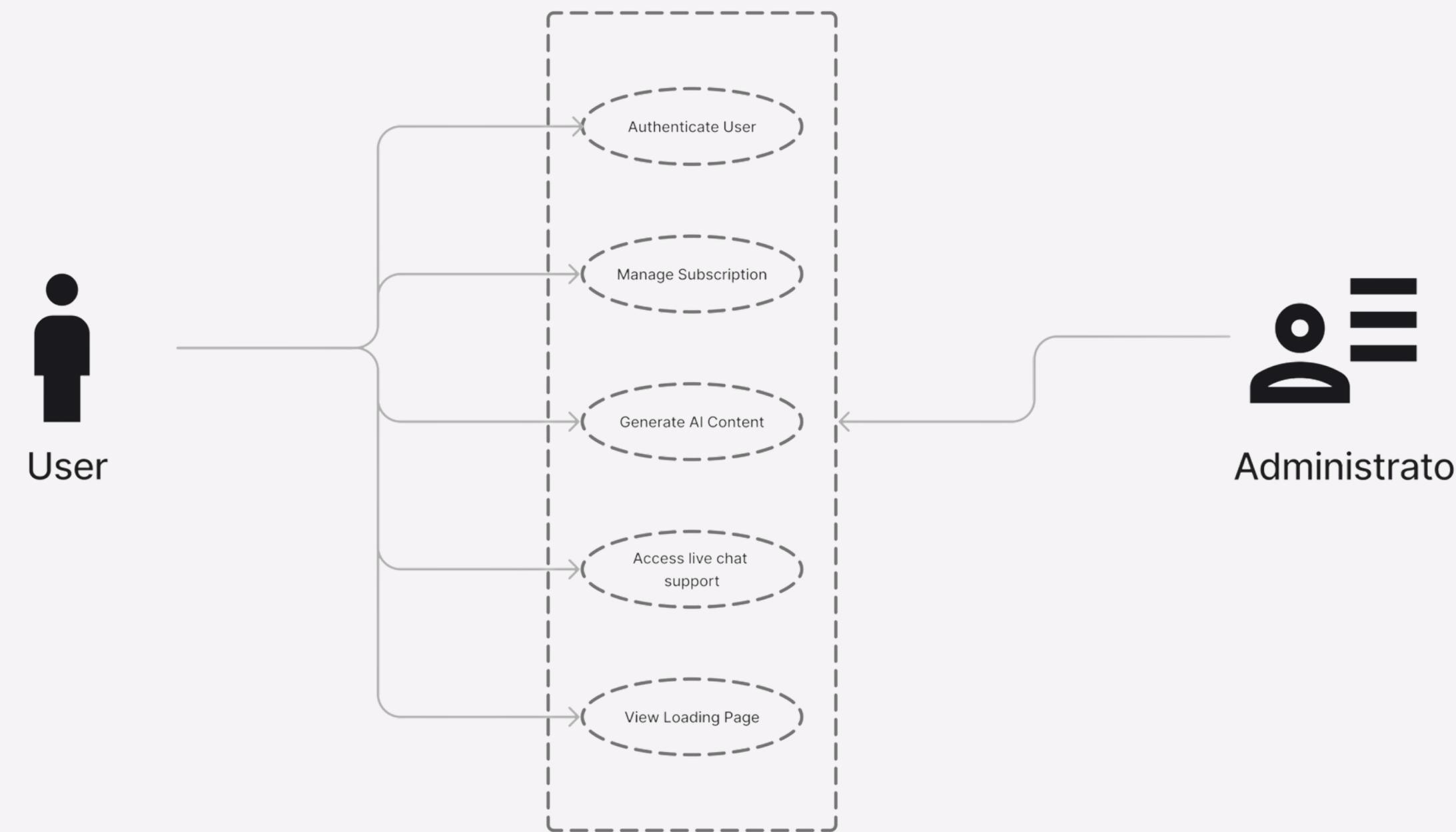
Music Generation AI

Video Generation AI

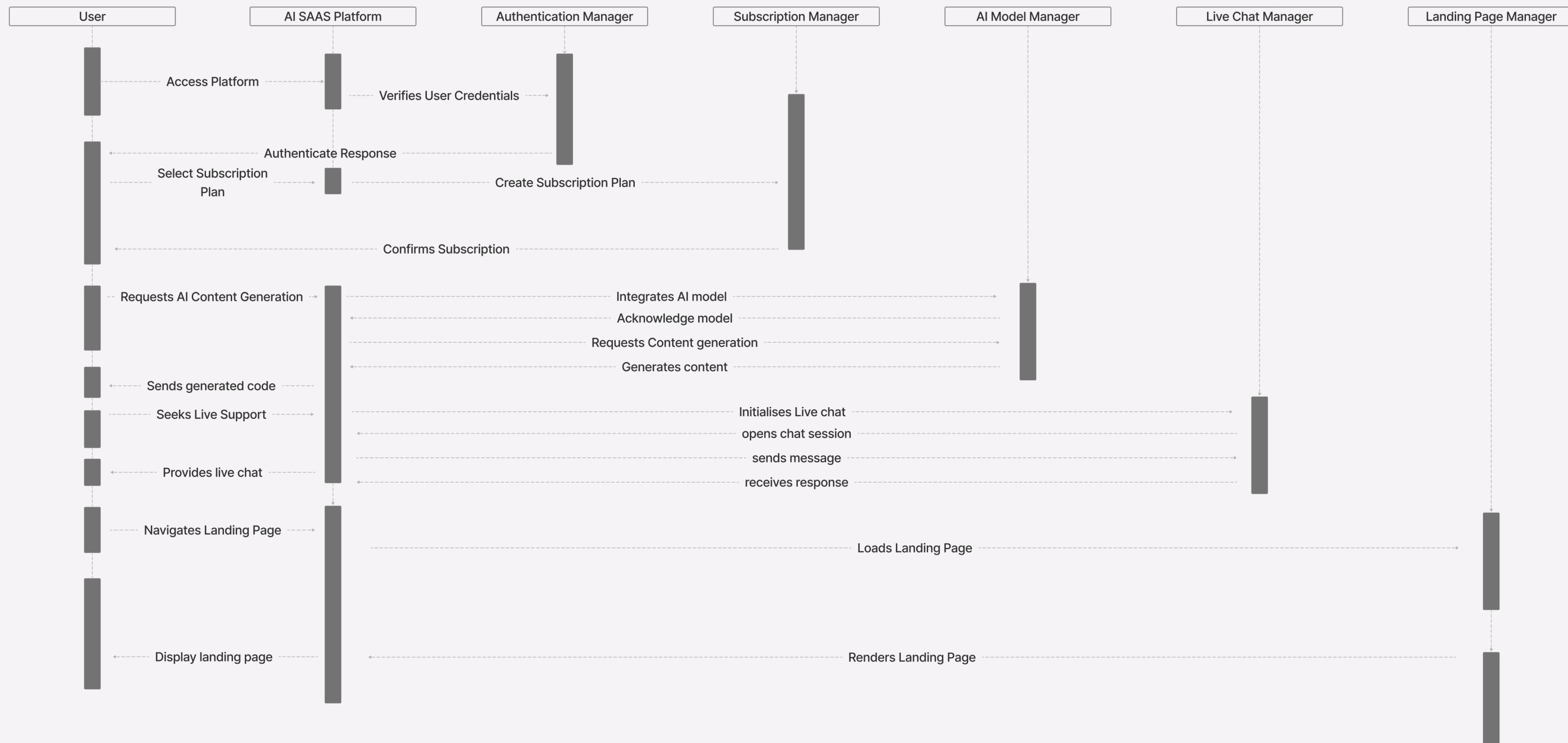
SYSTEM ARCHITECTURE



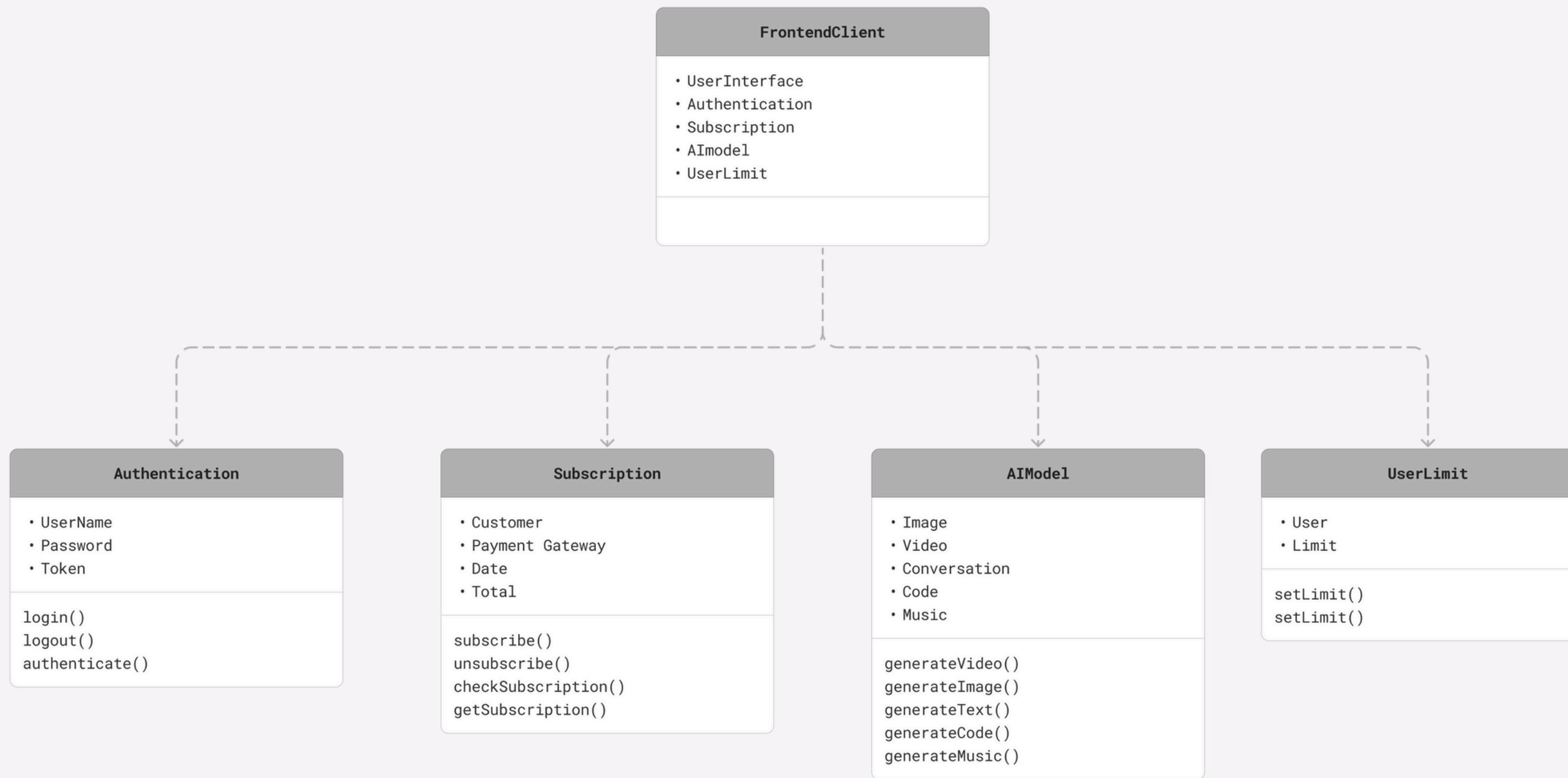
USE CASE DIAGRAM



SEQUENCE DIAGRAM

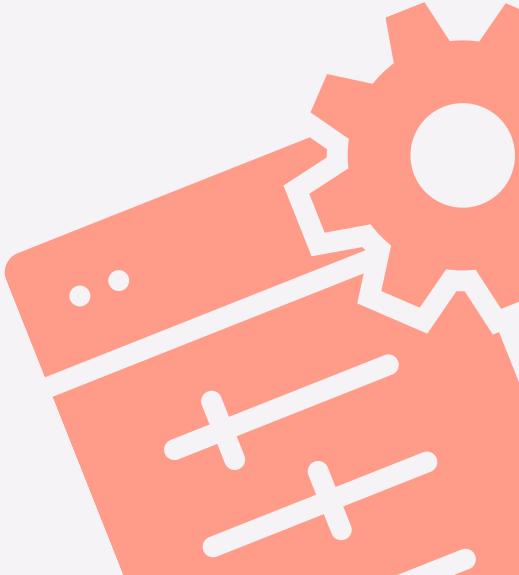


CLASS DIAGRAM



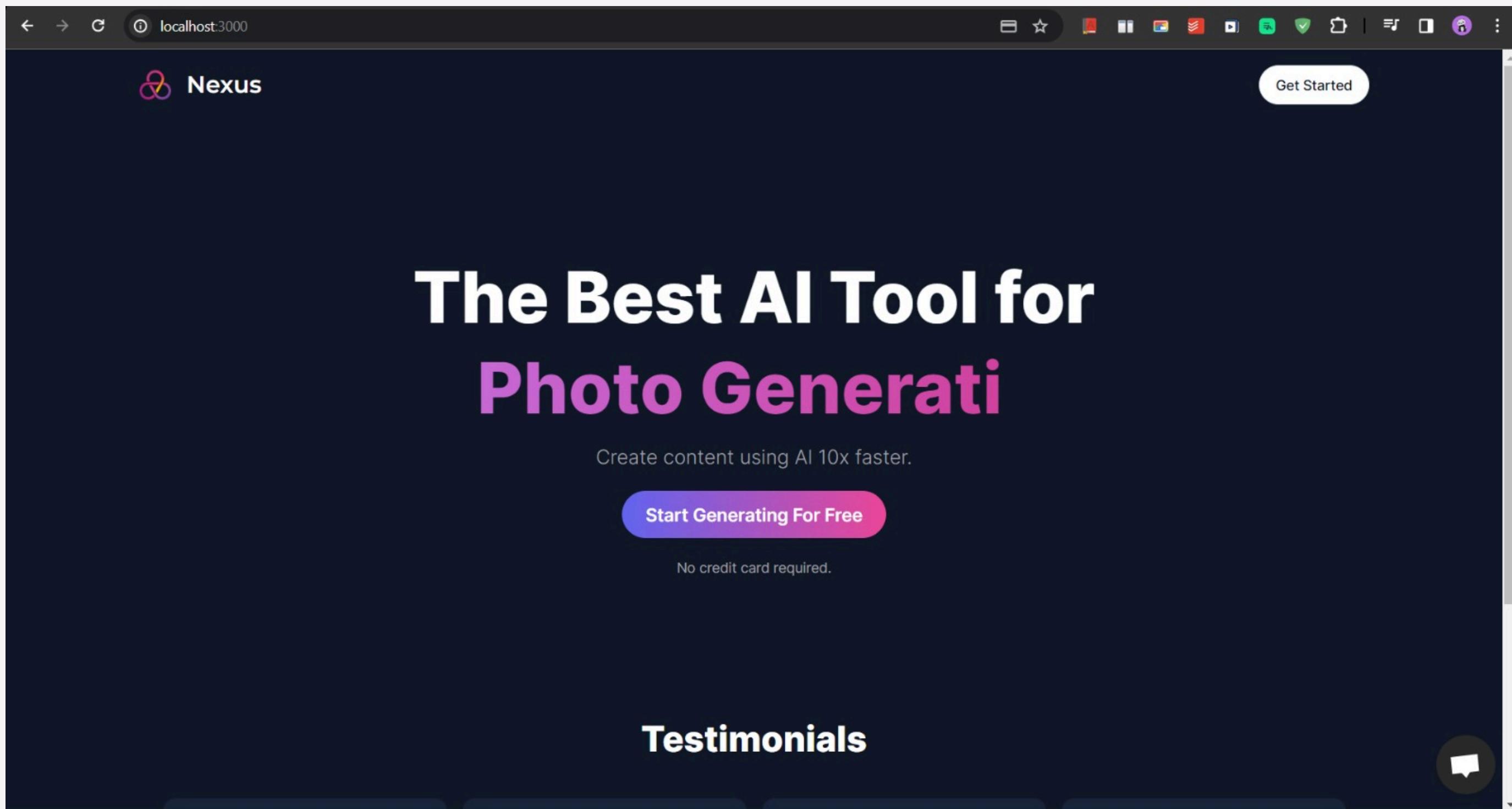
SYSTEM CONFIGURATION

- **Hardware:** Computer, Storage.
- **Software:**
 1. Development Tools: Integrated Development Environments (IDEs) like Visual Studio Code
 2. Programming Languages: Node.js for backend development. Frontend development may involve React.js
 3. Web Servers and Frameworks: APIs. Next.js for server-side rendering and routing.
 4. AI Frameworks and Libraries: OpenAI API and Replicate API for accessing AI capabilities.
 5. Payment Processing: Stripe for secure and efficient payment processing.
 6. Development Frameworks: Tailwind CSS for UI styling.

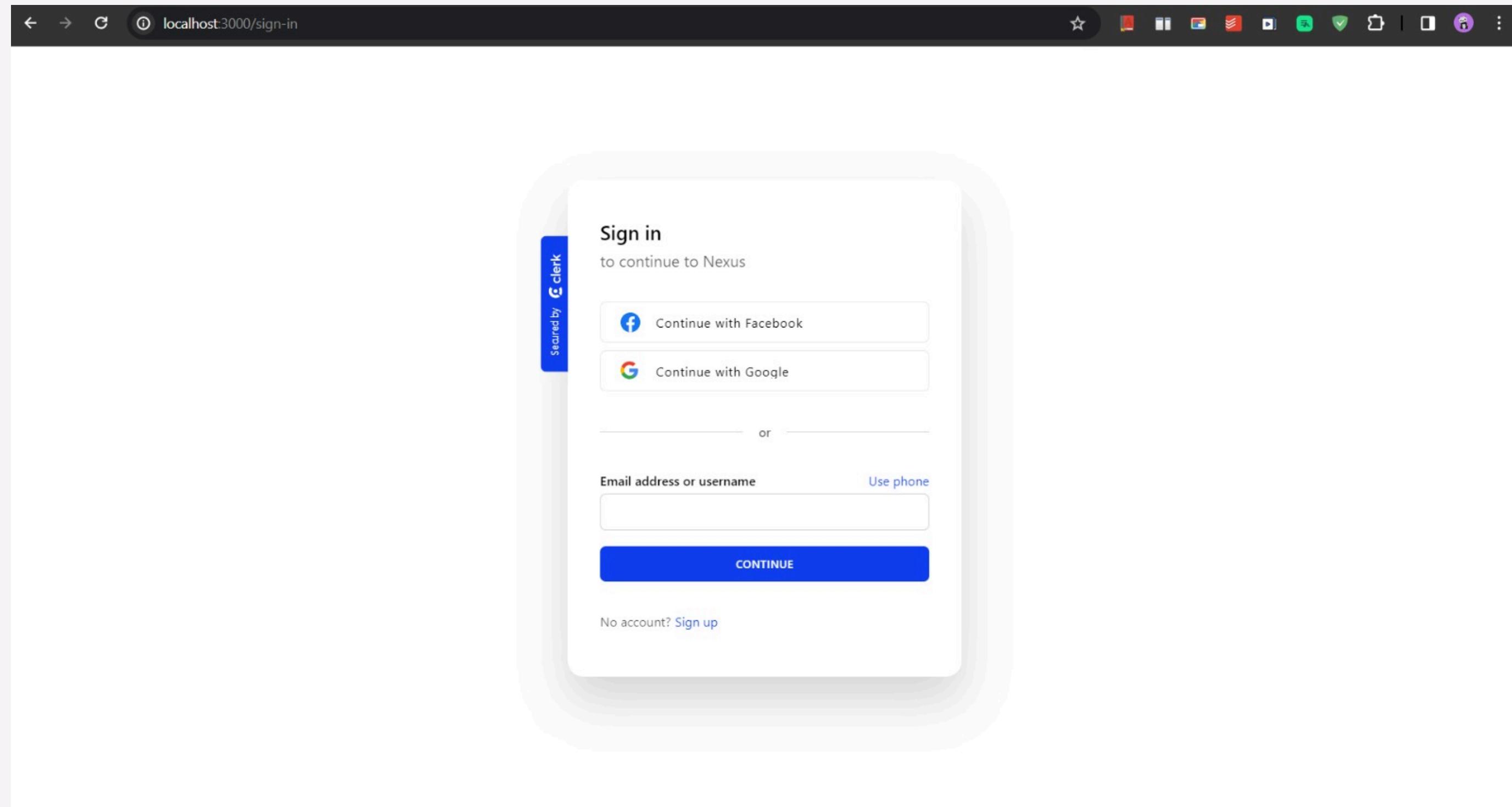


OUTPUT SCREENS

LANDING PAGE



SIGNIN/SINGUP



CLERK DATABASE

The screenshot shows the Clerk Dashboard interface. The top navigation bar includes links for "Personal account", "Nexus", and "Home". On the far right, there are several small icons for file operations like copy, paste, and refresh.

The main dashboard features a summary section with four cards:

- Total users**: All time (1)
- Active users**: March 2024 (1)
- Sign-ups**: March 2024 (1)
- Sign-ins**: March 2024 (6)

Below this, there are two sections: "Recent sign-ups" and "Recent sign-ins".

Recent sign-ups:

User	Date
20R11A05HO SUFIA 20r11a05h0@gcet.edu.in	Fri Mar 8, 15:12

Recent sign-ins:

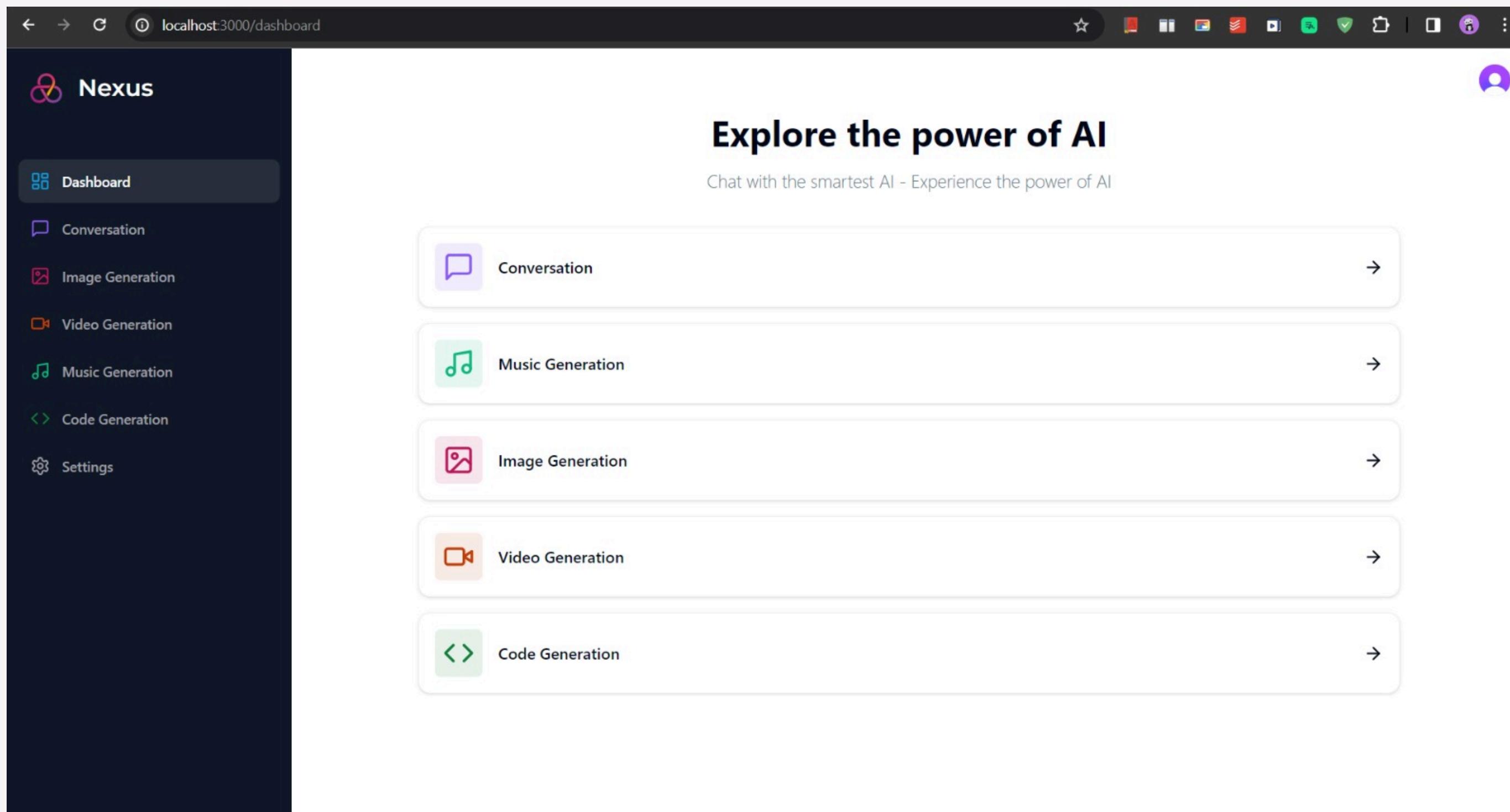
User	Date
20R11A05HO SUFIA 20r11a05h0@gcet.edu.in	Fri Mar 8, 22:03
20R11A05HO SUFIA 20r11a05h0@gcet.edu.in	Fri Mar 8, 17:37
20R11A05HO SUFIA 20r11a05h0@gcet.edu.in	Fri Mar 8, 15:46
20R11A05HO SUFIA 20r11a05h0@gcet.edu.in	Fri Mar 8, 15:46
20R11A05HO SUFIA 20r11a05h0@gcet.edu.in	Fri Mar 8, 15:33
20R11A05HO SUFIA 20r11a05h0@gcet.edu.in	Fri Mar 8, 15:19

The left sidebar contains a navigation menu with the following items:

- Personal account
- Nexus
 - Home
 - Users
 - Organizations
- Configure
 - User & Authentication
 - Organizations Settings
 - Sessions
 - Account Portal
 - Customization
 - Integrations
 - JWT Templates
 - Webhooks
- Developers
 - API Keys
 - Paths
 - Domains

A footer message at the bottom left reads: "20R11A05HO SUFIA".

DASHBOARD



CONVERSATION

The screenshot displays the Nexus AI platform interface. On the left, a dark sidebar menu lists several features: Dashboard, Conversation (which is selected and highlighted in blue), Image Generation, Video Generation, Music Generation, Code Generation, and Settings. The main content area is titled "Conversation" and describes it as "Our most advanced conversation model." It shows a user input field containing the question "How do I calculate the radius of a circle?" followed by a "Generate" button. Below this, the AI's response is shown: "The colors of the rainbow are red, orange, yellow, green, blue, indigo, and violet." At the bottom, another user input field contains the question "what are the colors of the rainbow".

CODE

The screenshot shows the Nexus AI application interface. On the left is a dark sidebar with the Nexus logo and several menu items: Dashboard, Conversation, Image Generation, Video Generation, Music Generation, Code Generation (which is highlighted with a green background), and Settings. The main area has a light gray background. At the top, there's a search bar containing the placeholder text "Simple toggle button using react hooks." To the right of the search bar is a "Generate" button. Below the search bar is a code editor window displaying the following React code:

```
import React, { useState } from 'react';

const ToggleButton = () => {
  const [isToggled, setIsToggled] = useState(false);

  const handleToggle = () => {
    setIsToggled(!isToggled);
  };

  return (
    <button onClick={handleToggle}>
      {isToggled ? 'ON' : 'OFF'}
    </button>
  );
};

export default ToggleButton;
```

At the bottom of the main area, there's a message card with a user icon and the text "simple toggle button using react hooks".

IMAGE

localhost:3000/image

Nexus

Dashboard

Conversation

Image Generation

Video Generation

Music Generation

Code Generation

Settings

Image Generation

Turn your prompt into an image.

A picture of a horse in Swiss alps

1 Photo

1024x1024

Generate

 Download

 Download

 Download

The screenshot shows a web interface for generating images. On the left is a sidebar with a dark background and white text, titled 'Nexus' with a logo. It includes links for Dashboard, Conversation, Image Generation (which is highlighted with a blue border), Video Generation, Music Generation, Code Generation, and Settings. The main content area has a light background. At the top, it says 'Image Generation' with a camera icon and the sub-instruction 'Turn your prompt into an image.' Below this is a search bar containing the prompt 'A picture of a horse in Swiss alps'. To the right of the search bar are dropdown menus for '1 Photo' and '1024x1024', and a large 'Generate' button. Below the search area are three generated images: a rainbow-colored popsicle, another rainbow-colored popsicle, and a swirl of rainbow-colored soft-serve ice cream. Each image has a 'Download' button at the bottom.

PRISMA STUDIO

The image displays two screenshots of the Prisma Studio interface, both running on localhost:5555.

Screenshot 1: Open a Model

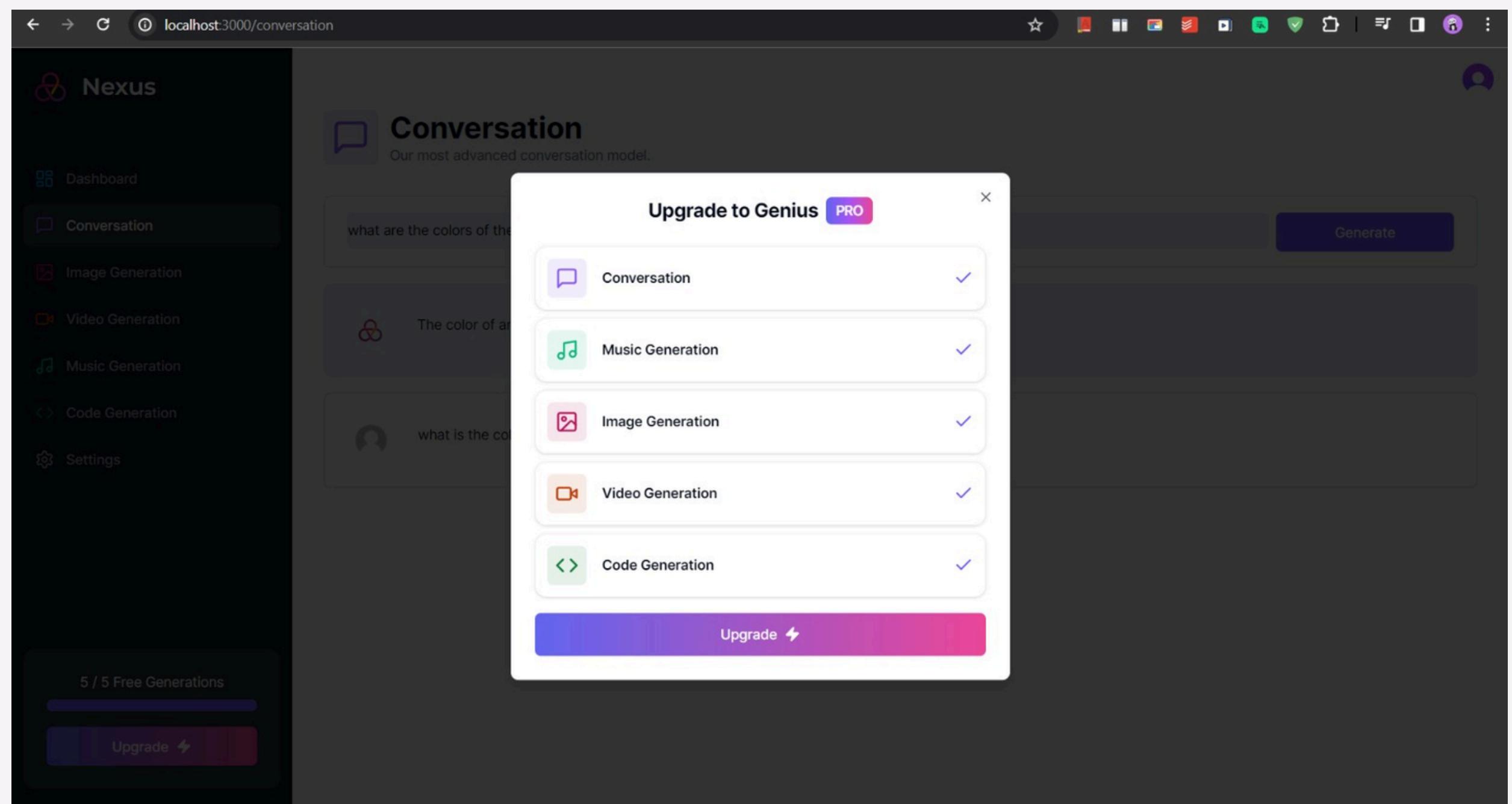
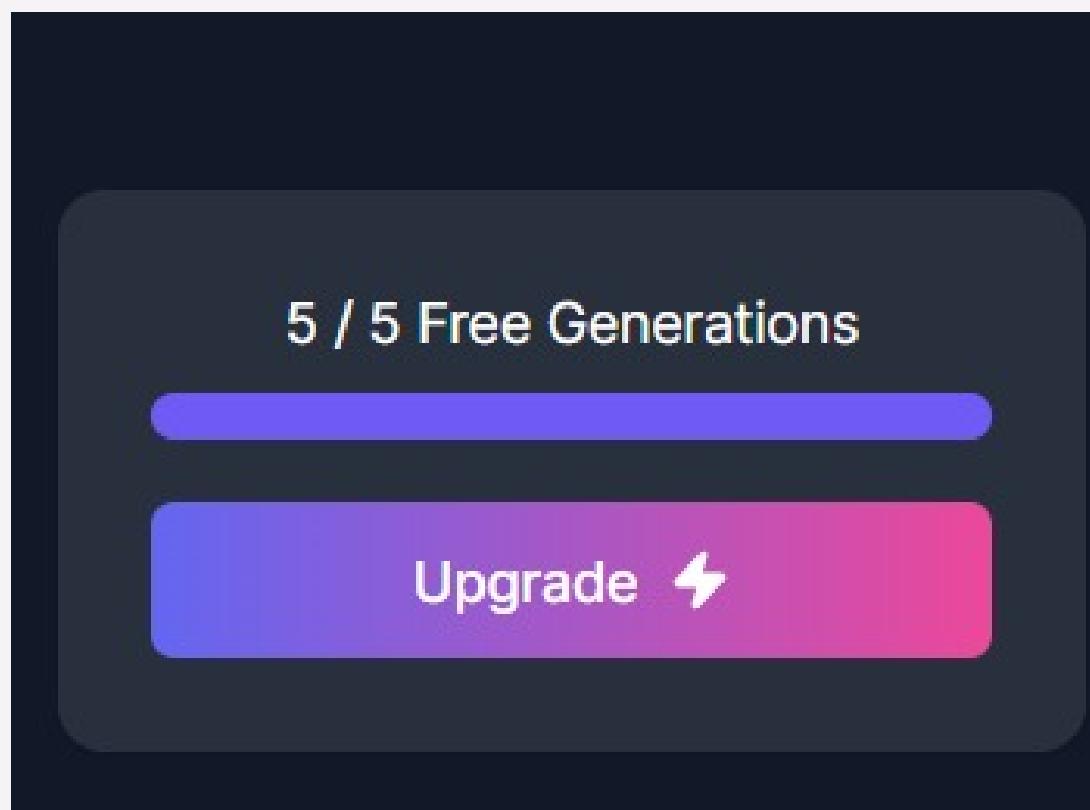
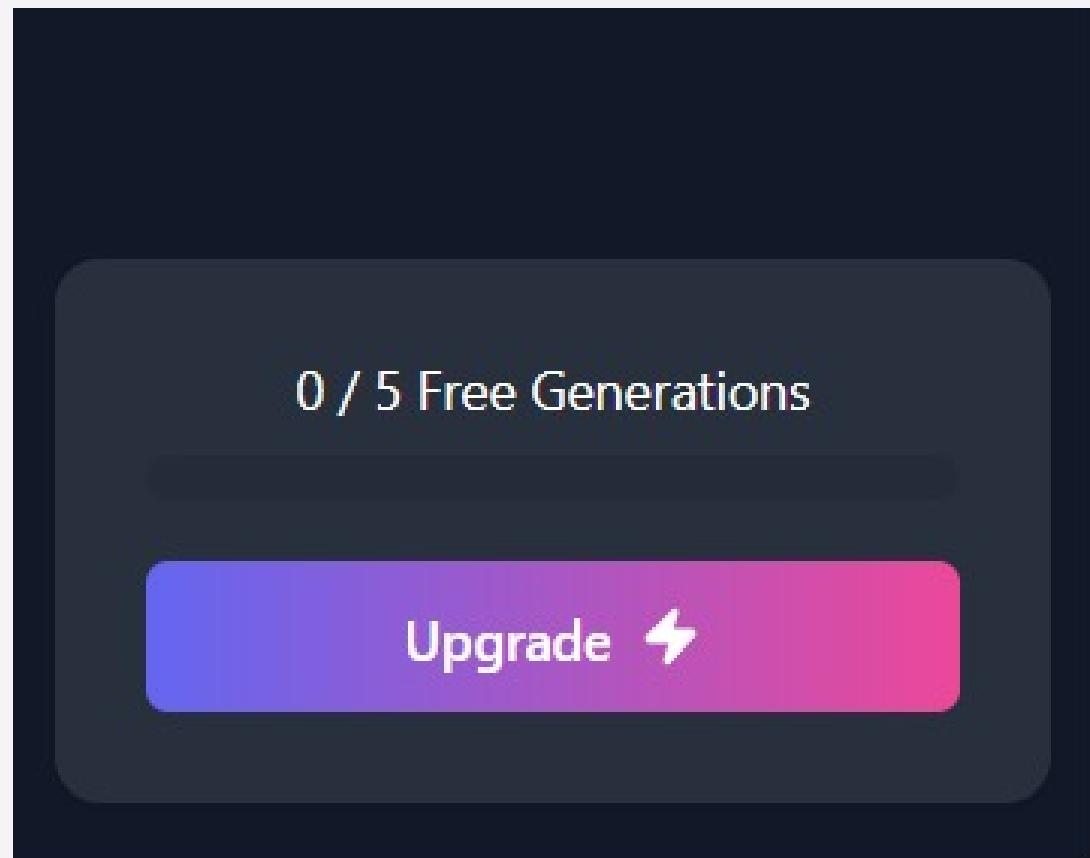
This screenshot shows the "Open a Model" dialog. At the top is a search bar labeled "Search". Below it is a section titled "All Models" with a single entry: "UserApiLimit" followed by the number "0".

Screenshot 2: UserApiLimit Record View

This screenshot shows the "UserApiLimit" model details. The top navigation bar includes tabs for "UserApiLimit" (selected), "Filters" (None), "Fields" (All), "Showing 1 of 1", and "Add record". The main area is a table with the following data:

	id	userId	count	createdAt	updatedAt
	cluksvxsv0000mlpt9asnsk...	user_2d0tTKRw5EJv4DNw3n...	1	2024-04-04T05:32:39.006Z	2024-04-04T05:32:39.006Z

UPGRADE



STRIPE(PAYMENT GATEWAY)

The screenshot shows a Stripe payment gateway interface for a subscription. On the left, there's a sidebar with a back arrow, a logo for 'my-app', and a 'TEST MODE' button. The main content area has a header 'Pay with card'. It includes fields for 'Email' (20r11a05h0@gcet.edu.in), 'Card information' (with placeholder card number 1234 1234 1234 1234 and logos for VISA, MasterCard, and American Express), 'MM / YY' (Month/Year), 'CVC', 'Cardholder name' (Full name on card), and 'Country or region' (set to India). A large blue 'Subscribe' button is at the bottom. Below it, a note states: 'By confirming your subscription, you allow my-app to charge you for future payments in accordance with their terms. You can always cancel your subscription.' At the bottom left, there are links for 'Powered by stripe', 'Terms', and 'Privacy'.

← my-app TEST MODE

Subscribe to Nexus Pro

₹20.00 per month

Unlimited AI Generations

Email 20r11a05h0@gcet.edu.in

Card information

1234 1234 1234 1234 VISA MasterCard American Express

MM / YY CVC

Cardholder name

Full name on card

Country or region

India

Subscribe

By confirming your subscription, you allow my-app to charge you for future payments in accordance with their terms. You can always cancel your subscription.

Powered by stripe | Terms | Privacy

SETTINGS

The screenshot shows the 'Settings' screen of the Nexus application. On the left, there is a dark sidebar with the 'Nexus' logo at the top. Below it are several menu items: 'Dashboard' (grid icon), 'Conversation' (speech bubble icon), 'Image Generation' (camera icon), 'Video Generation' (camera icon), 'Music Generation' (musical note icon), 'Code Generation' (code icon), and 'Settings' (gear icon). The 'Settings' item is highlighted with a dark gray background. At the bottom of the sidebar, a progress bar indicates '5 / 5 Free Generations' with a blue bar and a red 'Upgrade' button containing a lightning bolt icon.

The main content area has a light gray background. At the top, there is a 'Settings' section with a gear icon and the text 'Manage account settings.' Below this, a message states 'You are currently on a Pro plan.' followed by a purple 'Manage Subscription' button. In the top right corner of the main area, there is a small circular profile picture.

MANAGE SUBSCRIPTIONS > CURRENT PLAN

my-app Test mode

my-app partners with Stripe for simplified billing.

← Return to my-app

CURRENT PLAN

Nexus Pro
₹20.00 per month

Your plan renews on May 5, 2024.

Cancel plan

PAYMENT METHOD

Visa Visa 4242 Expires 11/2027 ...

+ Add payment method

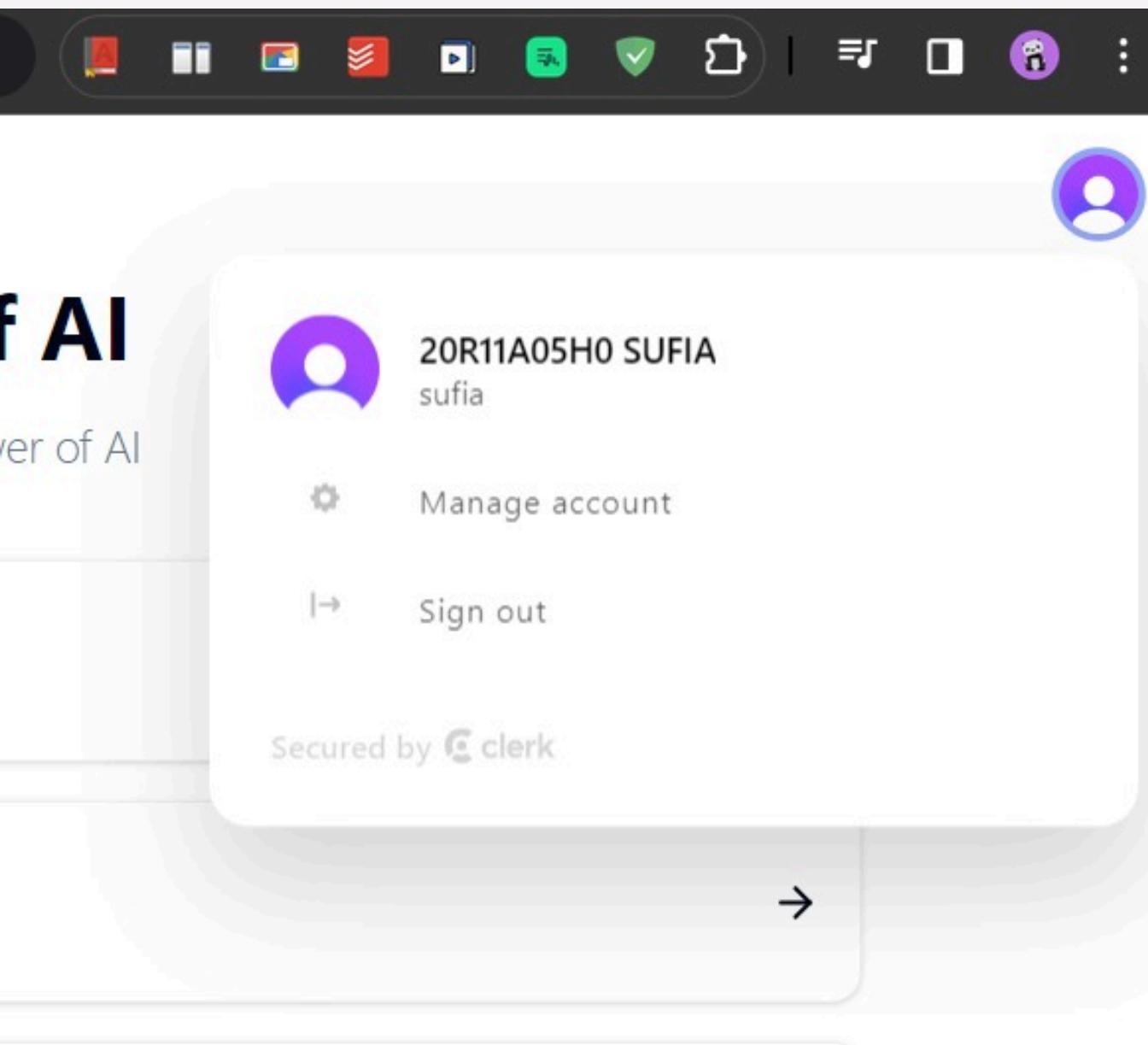
BILLING AND SHIPPING INFORMATION

Name	sufia
Email	20r11a05h0@gcet.edu.in
Billing address	385 Celestine Causeway South Dorothymouth, WY 82877 US

Update information

Powered by **stripe** | Privacy

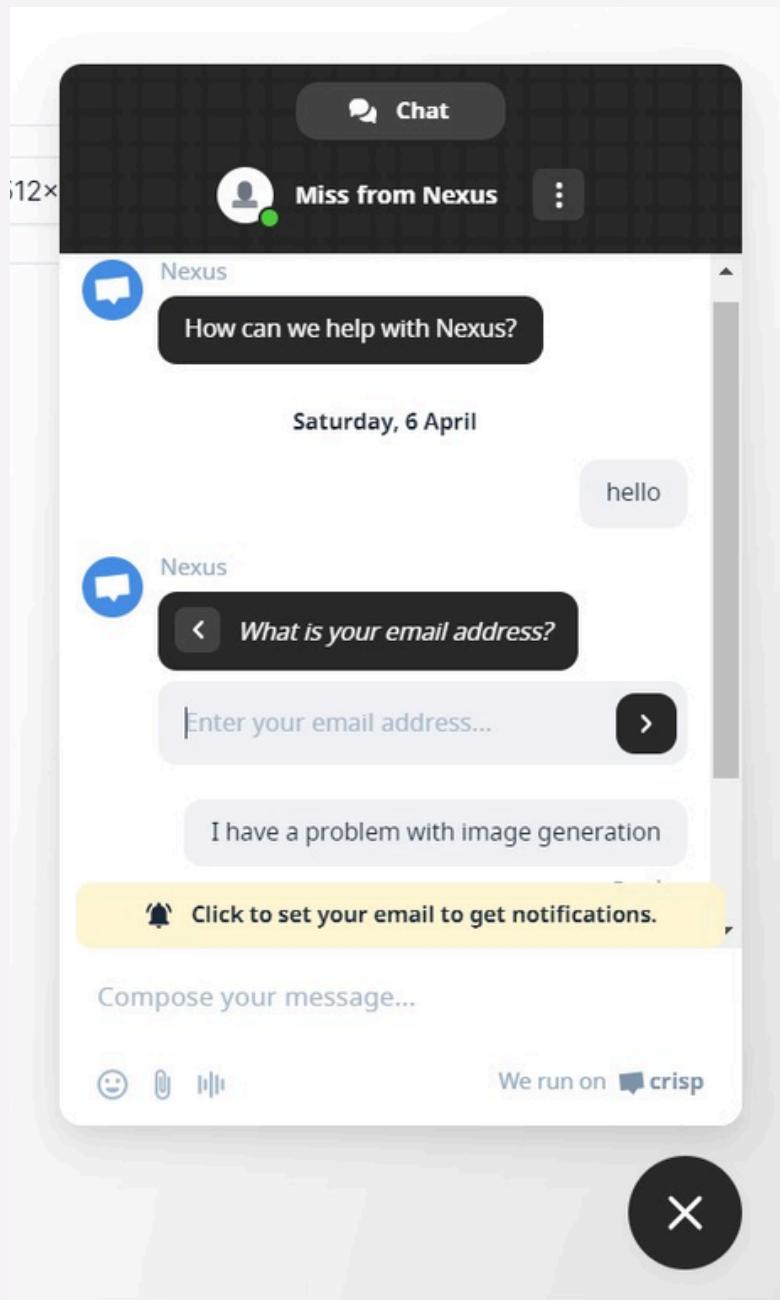
PROFILE



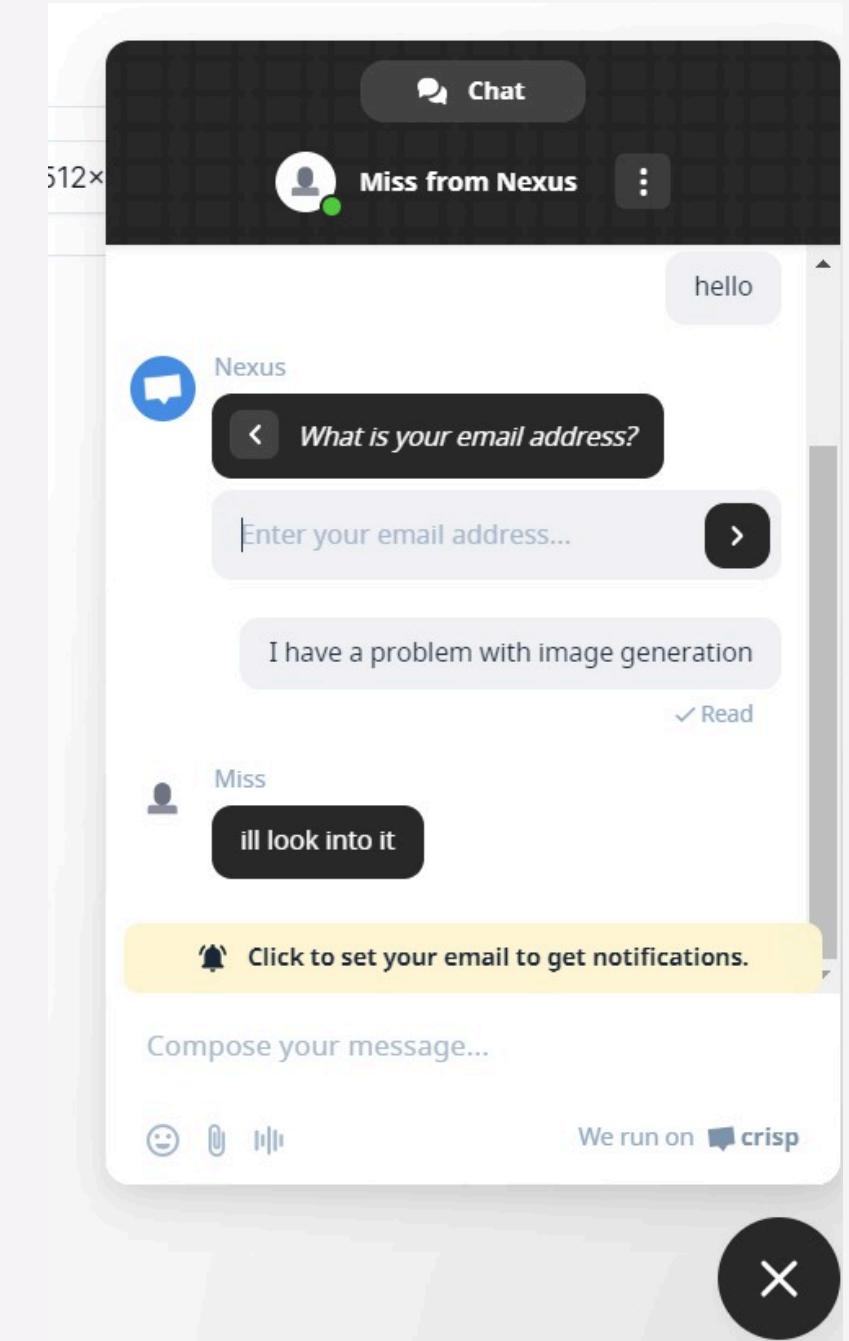
CHATBOT

CHATBOT(CUSTOMER SUPPORT)

CLIENT SIDE BOT



A screenshot of the Crisp customer support platform. It shows a list of conversations on the left. One conversation with "visitor2" is highlighted, showing messages like "hello" and "I have a problem with image generation". A red banner at the top right says "Mark this conversation as resolved." On the right side, there's a sidebar with visitor information ("visitor2, set email Hyderabad"), operator details ("Miss suf, reassign"), and visitor device info ("Chrome 123 on Windows"). A message input field at the bottom says "Send your message to visitor2 in chat...".



CRISP(SERVER SIDE)

ADVANTAGES

1. Streamlines content creation processes, increasing efficiency and productivity.
2. Offers a user-friendly interface and intuitive tools, making AI technology accessible to all users.
3. Provides scalability and flexibility with subscription management features and scalable infrastructure.
4. Enhances user experience with live chat support for real-time assistance and guidance.
5. Fosters innovation and creativity by leveraging cutting-edge AI models and technologies.



DISADVANTAGES

1. Users may become overly reliant on AI algorithms, limiting manual skills and creative intuition.
2. Platform complexity and learning curve may deter users unfamiliar with AI technology.
3. Integration with external services may raise privacy and security concerns.
4. Limitations of AI models may result in inaccuracies, biases, or lack of customization options.
5. Ongoing subscription costs and potential pricing changes may lead to dissatisfaction among users.



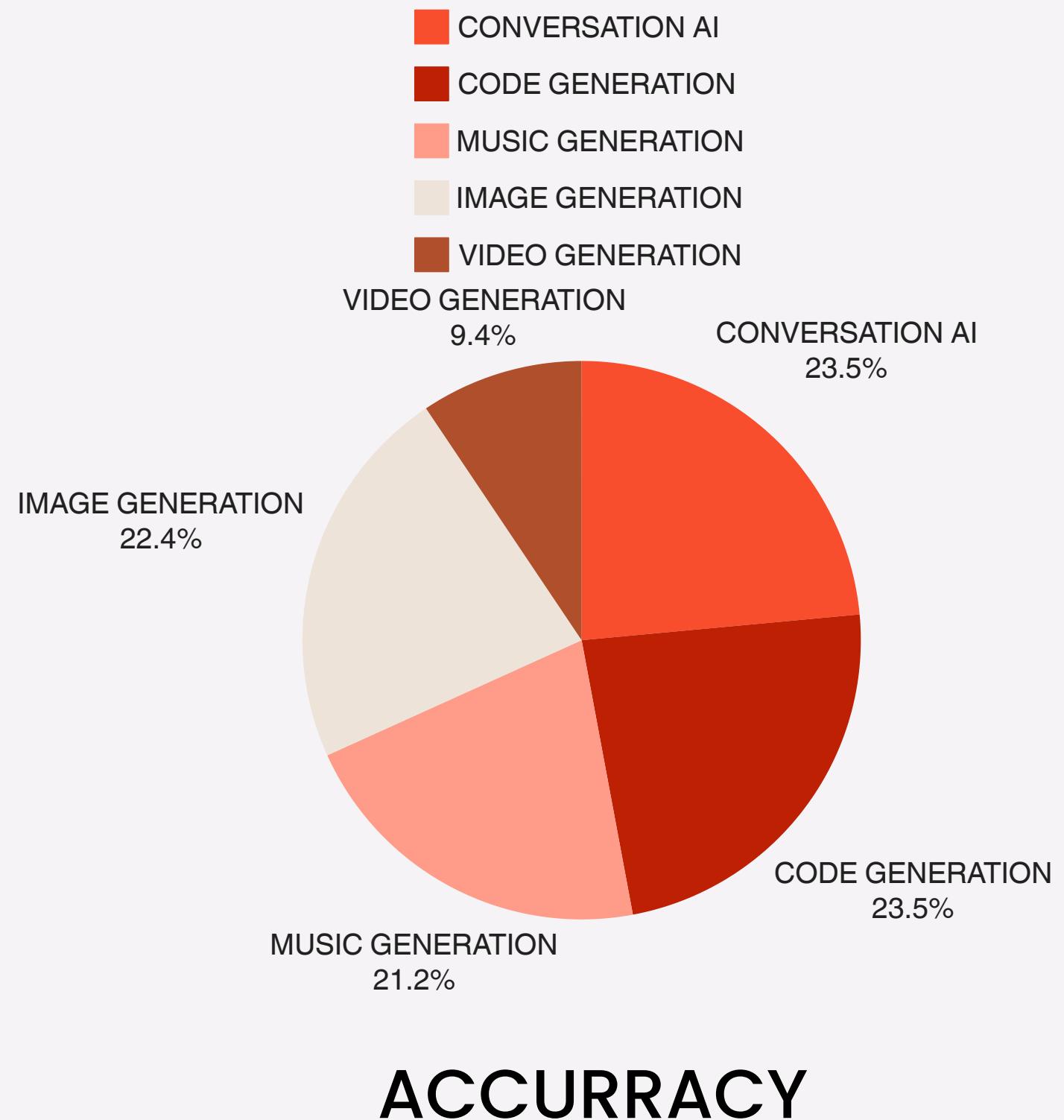


FUTURE SCOPE

1. Expansion of AI Model
2. Performance Optimization
3. Enhanced Security Measures
4. Multi-Language Support
5. Integration of Additional Third-Party Services

CONCLUSION

In conclusion, the development of the SaaS AI platform using Next.js 13, React, Tailwind, Prisma, and Stripe has been a comprehensive journey towards creating a robust and feature-rich application. Throughout the project, various objectives were achieved, including implementing user authentication, subscription management, AI model integration, live chat support, and a captivating landing page. The system architecture was carefully designed to ensure scalability, flexibility, and performance, leveraging technologies such as Next.js for server-side rendering and React for building dynamic user interfaces. The utilization of Prisma facilitated efficient database management, with the Neon database chosen for its reliability and scalability.



LITERATURE SURVEY

1. GPT-3 and the Future of AI-SaaS Applications

- Authors: John A. Smith, Sarah L. Johnson
- Description : This paper explores the transformative impact of GPT-3 on AI-SaaS platforms, discussing its applications in content generation, chatbots, and customer support. It also delves into the ethical considerations of AI-SaaS.

2. Evolution of AI in SaaS Platforms:

- Authors: Laura M. Davis, Robert S. Evans
- Description : This paper explores the historical development and evolution of AI within Software as a Service (SaaS) platforms. It discusses key milestones, challenges, and breakthroughs in integrating AI technologies into SaaS solutions. The author provides insights into how AI-driven SaaS platforms have transformed industries and enhanced user experiences.

LITERATURE SURVEY

- 3. Machine Learning Algorithms for Predictive Analytics in AI SaaS Platforms
- Authors: Emily Davis
- Description : Emily Davis investigates the various machine learning algorithms employed in AI SaaS platforms for predictive analytics. The paper discusses the advantages and limitations of different algorithms, their impact on decision-making processes, and their applications across diverse industries. It also addresses the importance of data quality and model interpretability.

- 4. Building Responsive and Adaptive UIs for AI SaaS Solutions with Next.js
- Authors: Emily R. Chen
- Description : Emily R. Chen's work focuses on the role of Next.js in creating responsive and adaptive user interfaces for AI-driven SaaS platforms. The paper provides a comprehensive review of Next.js features that facilitate the development of UIs capable of handling dynamic AI-generated content.

**THANK
YOU**

SUFIA

