

STARS GPT (AI-Based Tutoring Chatbot)

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1. Summary of the Platform:

In an educational landscape increasingly intertwined with artificial intelligence, the STARS GPT platform emerges as a revolutionary tool designed to enrich the learning process for students at Florida International University. As AI becomes more adept at providing quick answers, the risk of bypassing the learning journey for the ease of immediate results grows. Our platform stands as a bulwark against this trend, offering not just answers but educationally-oriented guidance. Built upon a model fine-tuned with subject-specific data, it prompts students to engage deeply with material, ensuring comprehension and retention. By integrating the personal assistance of a STARS tutor with our AI's 24/7 availability, we craft a learning environment that teaches, tests, and tailors itself to individual student needs, preparing them for both academic success and lifelong learning in the age of AI.

2. Front-End Development Overview:

The user interface of the STARS GPT platform is the gateway through which students interact with our AI, making its design crucial to the user experience. Entrusted with this task, I employed React and the Shadow DOM encapsulation capabilities of Shaden to craft intuitive and aesthetically pleasing Login and Account Creation pages that resonate with the university's theme. Prioritizing accessibility and user engagement, I implemented a verification system ensuring that only those with an@fiu.edu address could register, promoting a secure and student-focused community. I also meticulously programmed error handling for both the Login and Create Account pages, providing clear and immediate feedback to users. This attention to detail in the front-end development underpins a seamless and supportive user journey, from first login to daily interaction with our educational AI.

3. Problem Statement

As the frontier of education evolves, the integration of artificial intelligence in learning environments presents both unparalleled opportunities and significant challenges. One pressing concern is the tendency for students to become reliant on AI for quick answers, inadvertently sidestepping the essential processes of critical thinking and deep learning. This reliance not only threatens the integrity of educational outcomes but also undermines the development of problem-solving skills vital for academic and professional success. Recognizing this, our team has crafted the STARS GPT platform with a focus on teaching rather than merely telling. By ensuring that our AI-powered chatbot provides guided learning experiences, we aim to cultivate a more robust educational experience that harnesses the power of AI to reinforce, not replace, the foundational elements of learning.

Login and Account Creation Interface:

The front-end features meticulous error handling, robust authentication checks, and clear error messaging, ensuring that every login and account creation attempt is secure, intuitive, and user-friendly, enhancing the overall user experience.

Login

Email

Email

Password

Password

Forgot Password?

Login

Sign Up

Login

Email

random@gmail.com

Password

.....

Forgot Password?

Login

Sign Up

✖ Error
Invalid login credentials

Create Account

Email

Email

Confirm Email

Confirm Email

Password

Password

Confirm Password

Confirm Password

☐ Confirm that you agree to the terms and conditions.

Back

Submit

Create Account

Email

random@gmail.com

You must use an @fiu.edu email

Confirm Email

random@gmail.com

Password

.....

Confirm Password

.....

undefined

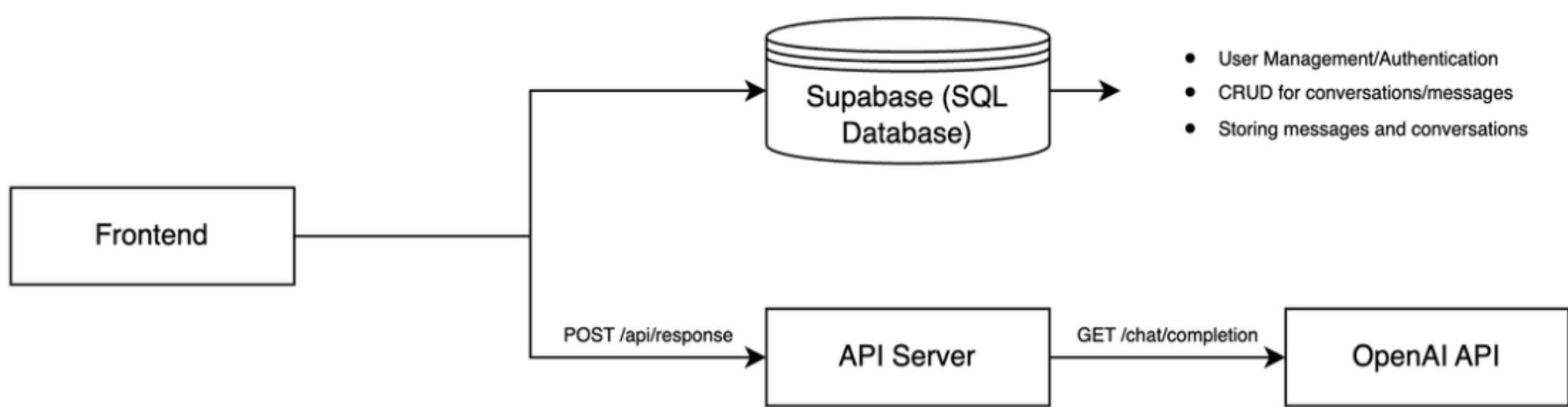
☒ Confirm that you agree to the terms and conditions.

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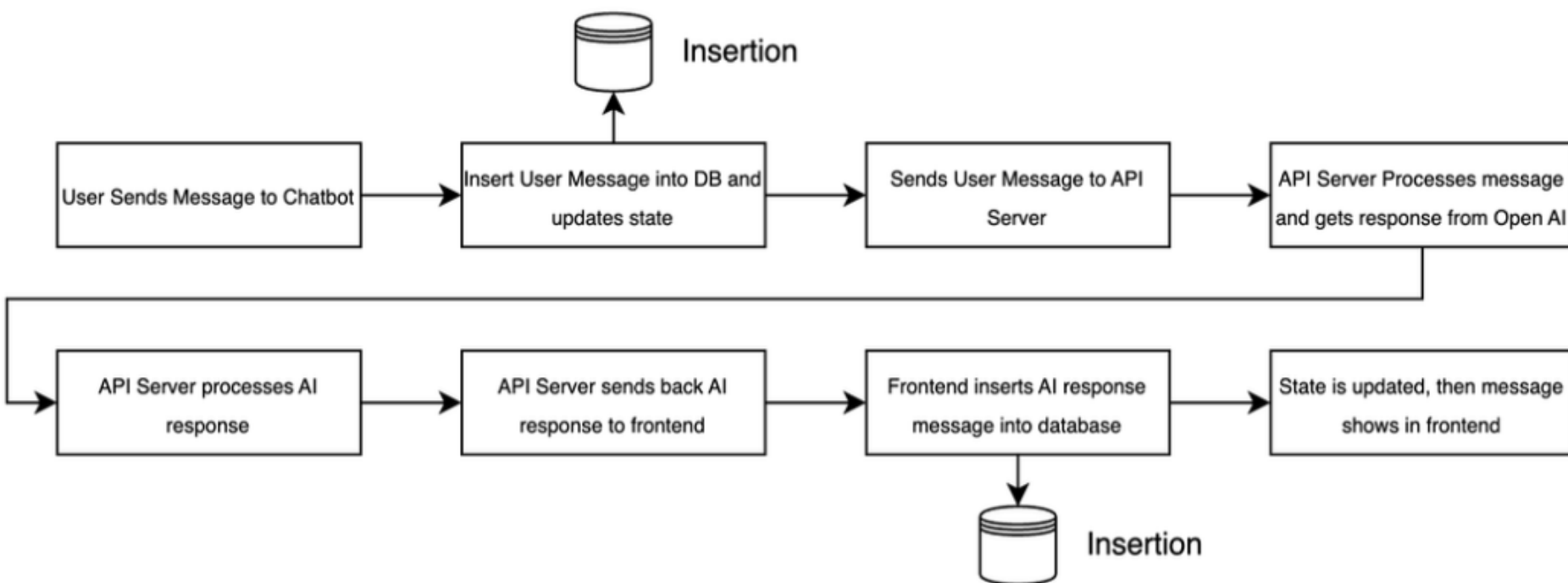
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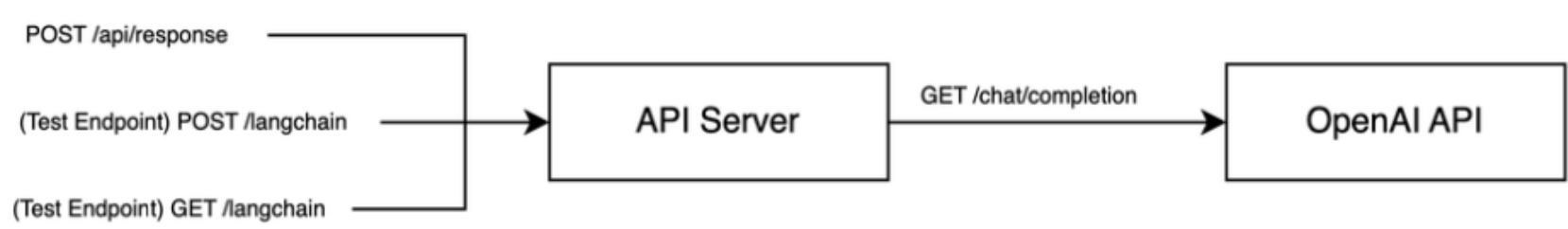
System Architecture:



AI Messaging System:



API Server Design



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