Profuse.

Team **SkyLine**

Context

- We are tackling the critical gap between standardized curriculum delivery and the need for **truly personalized student support**.
- Currently, this gap is a primary driver of performance challenges and deepens educational inequity. When students are stuck on homework, they have no support, leading to frustration and disengagement.

- Our solution leverages next-generation AI to create a learning experience that is not just academically adaptive, but also responsive to student confidence. It anticipates the future of education: a hybrid model where AI supports teachers by providing scalable, 24/7 personalized tutoring.

- It confronts the challenge by providing a complete ecosystem:
  - A "**Personal Mode**" with gamified lessons and an AI chatbot for students
  - A "**School Mode**" with the same capabilities as the "Personal Mode", but teachers can monitor progress, assign AI-generated tests, and manage schedules.
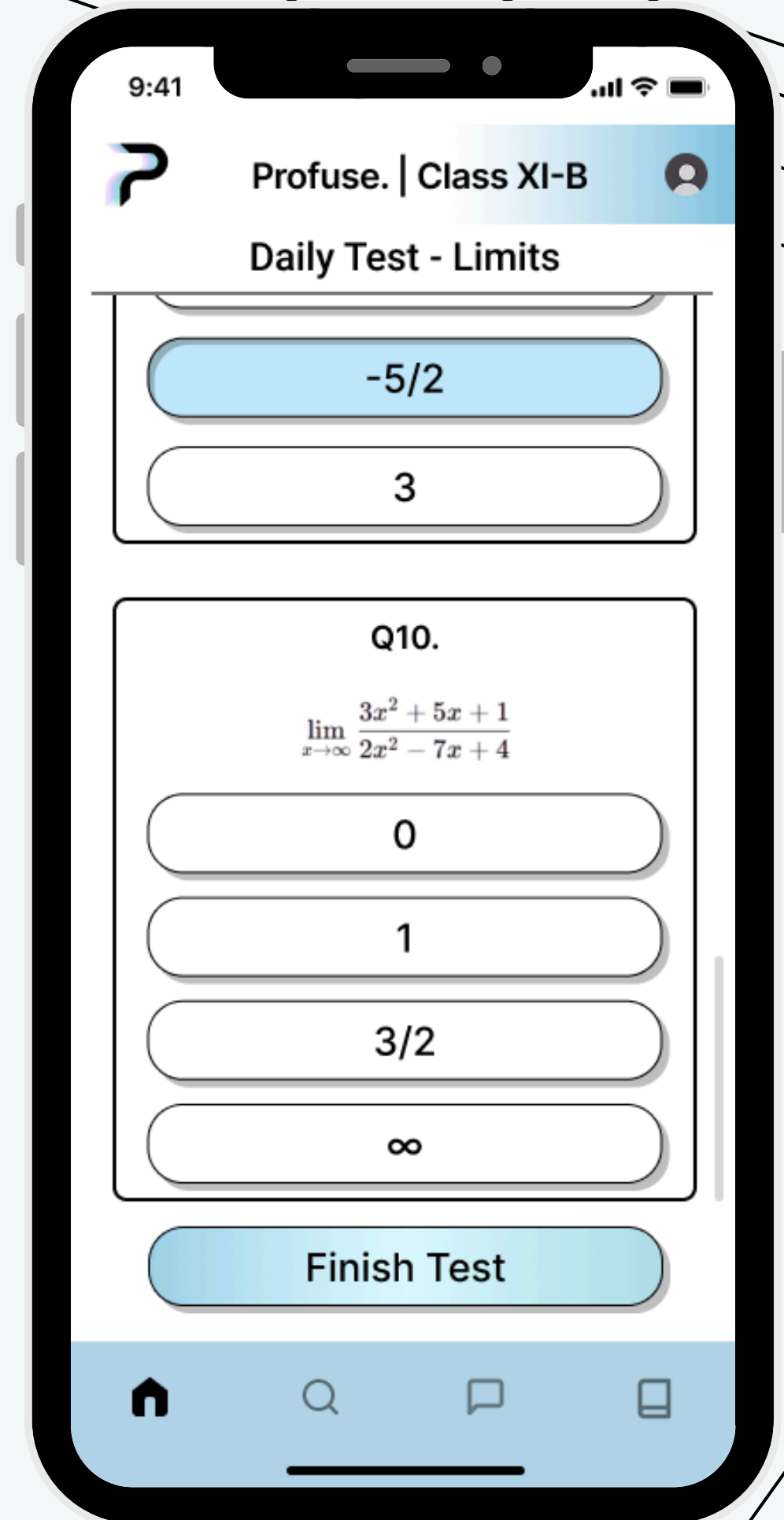
Innovativeness

The innovation lies in its 3-part integration:

1. **Gamified Learning**: Uses 'streaks' to motivate daily practice.
2. **Adaptive Engine**: Unlike others, our AI adapts not just to the student's knowledge level, but also their confidence (based on response time, hesitation), reducing anxiety.
3. **Integrated AI Chatbot**: This is the game-changer. It's a 24/7, curriculum-aware tutor that students can ask for help, in their own words.

What makes us unique?

Platforms like Duolingo (for language), Khan Academy (for content), and various Learning Management Systems (LMS) exist, but what makes our solution superior is that it connects all the dots. Duolingo is not for academic subjects. Khan Academy is not integrated with the school's curriculum. An LMS does not have an AI tutor. Profuse combines all three: the gamification of Duolingo, the academic rigor of Khan, and the classroom utility of an LMS, all powered by a personal AI chatbot.

9:41

Profuse. | Class XI-B

Daily Test - Limits

-5/2

3

Q10.

$$\lim_{x \to \infty} \frac{3x^2 + 5x + 1}{2x^2 - 7x + 4}$$

0

1

3/2

∞

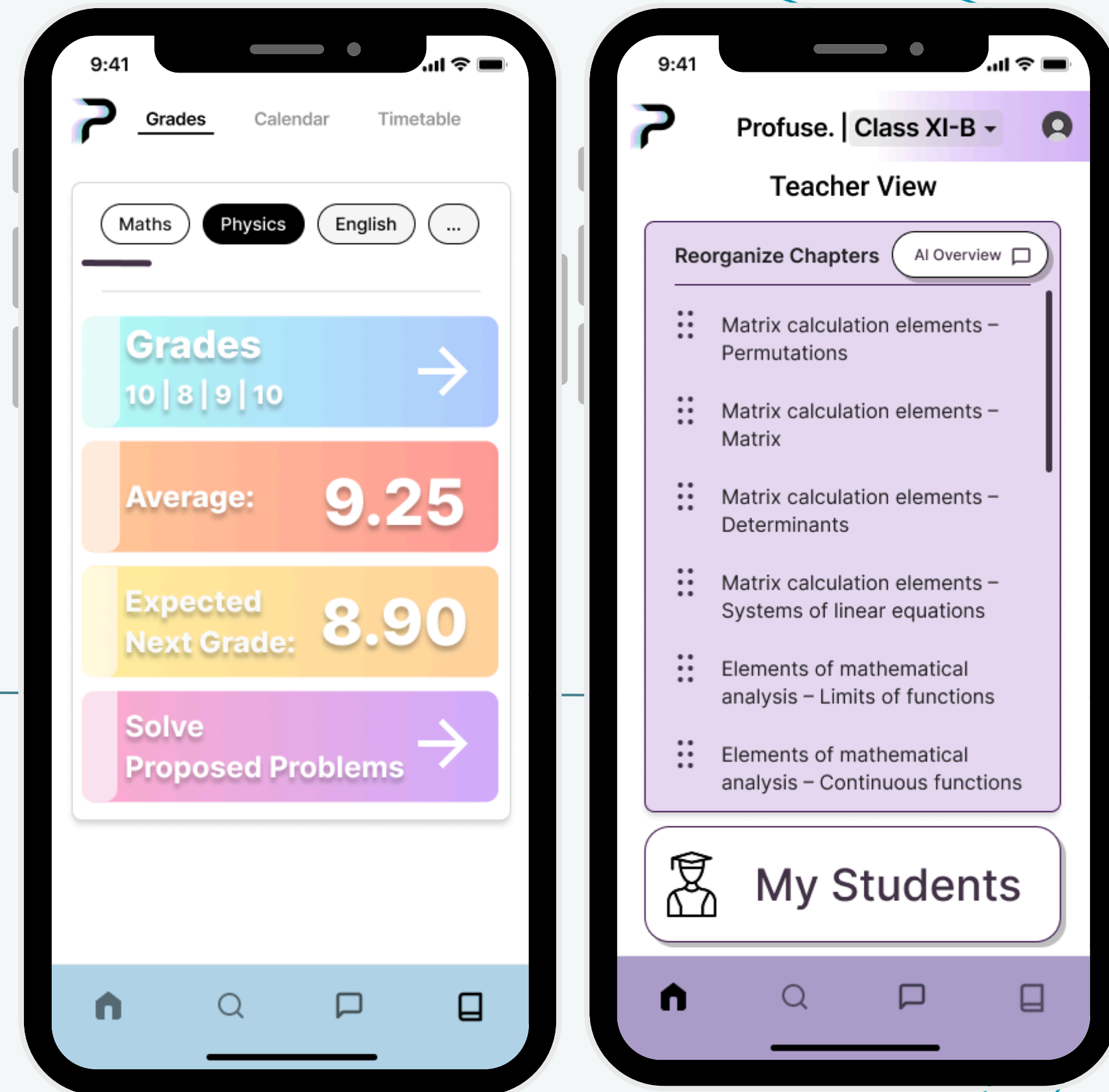Finish Test

Solution Description

The Main Elements are:

Student Module:
- Features gamified daily "streak" quizzes, adaptive lessons, and a Personalized AI Chatbot (powered by an LLM trained on the curriculum) for 24/7 homework help.

Teacher Admin Panel:
- Allows teachers to monitor real-time student progress, view analytics (e.g., "most common mistakes"), create and assign tests, and manage class schedules.

Additional features

Integrated Calendar:

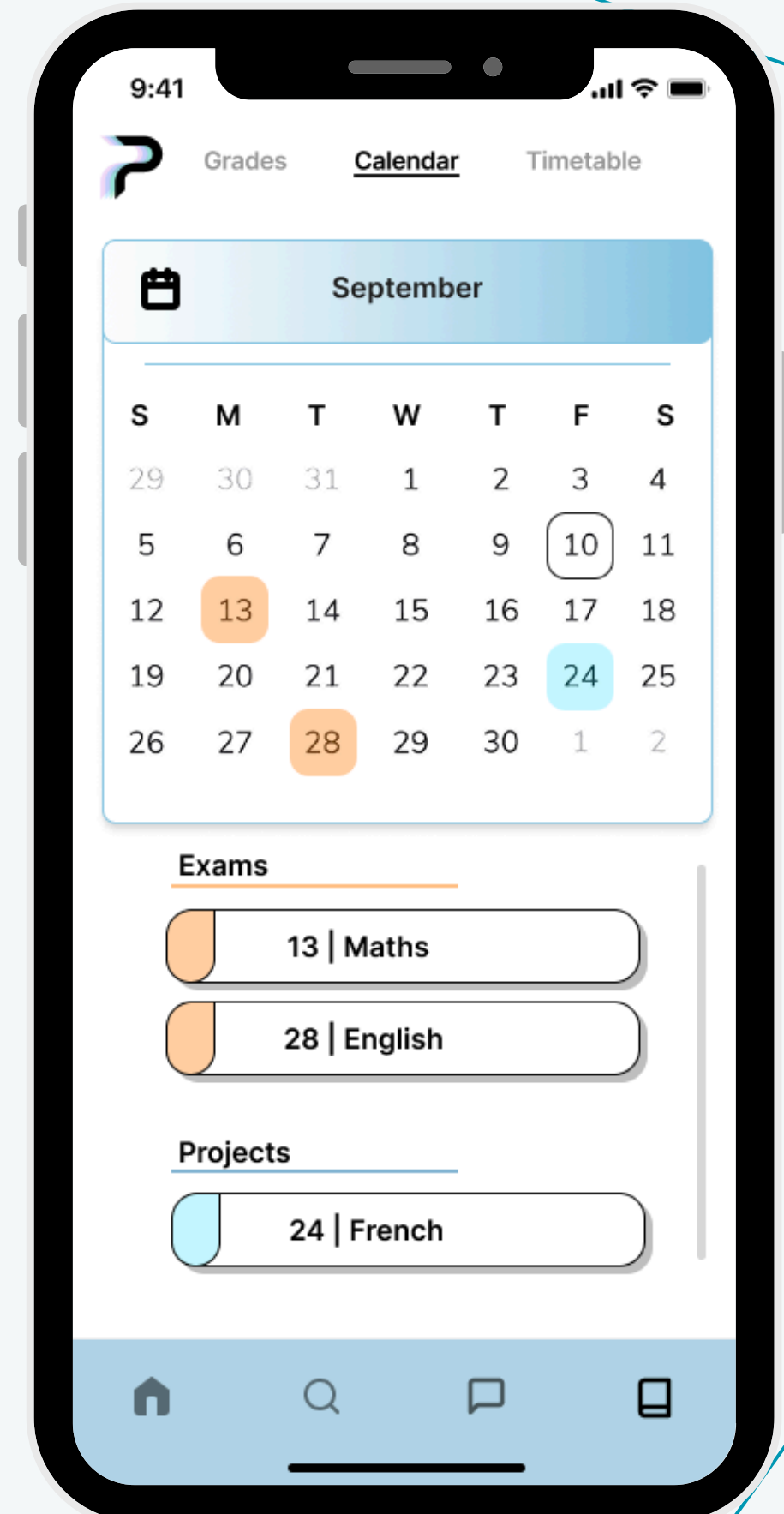- Syncs for both students and teachers, showing test dates, assignment deadlines, and lesson goals.
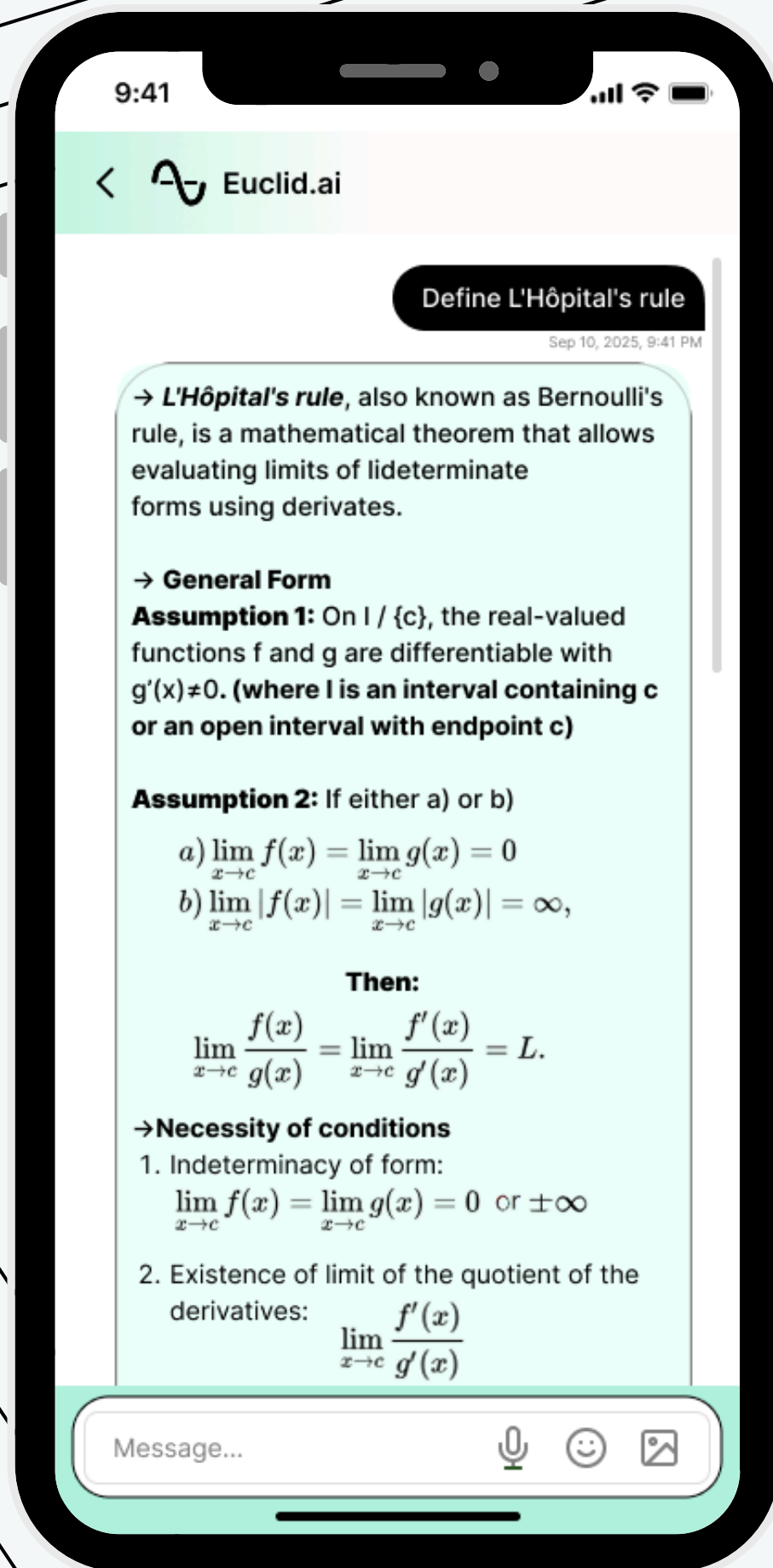
Technologies:

- Adaptive learning algorithms, Natural Language Processing (NLP) for the chatbot, sentiment/confidence analysis, cloud infrastructure.

Objectives

- To decrease student anxiety, increase daily engagement, provide 24/7 academic support, and save teachers administrative time.

Screenshot of Euclid.ai chat app:

9:41

< ⟿ Euclid.ai

Define L'Hôpital's rule

Sep 10, 2025, 9:41 PM

→ **L'Hôpital's rule**, also known as Bernoulli's rule, is a mathematical theorem that allows evaluating limits of lideterminate forms using derivates.

→ **General Form**
Assumption 1: On I / {c}, the real-valued functions f and g are differentiable with g'(x)≠0. **(where I is an interval containing c or an open interval with endpoint c)**

Assumption 2: If either a) or b)
a) $\lim_{x\to c} f(x) = \lim_{x\to c} g(x) = 0$
b) $\lim_{x\to c} |f(x)| = \lim_{x\to c} |g(x)| = \infty,$

Then:

$$\lim_{x\to c} \frac{f(x)}{g(x)} = \lim_{x\to c} \frac{f'(x)}{g'(x)} = L.$$

→**Necessity of conditions**
1. Indeterminacy of form:
$\lim_{x\to c} f(x) = \lim_{x\to c} g(x) = 0$ or $\pm\infty$

2. Existence of limit of the quotient of the derivatives: $\lim_{x\to c} \frac{f'(x)}{g'(x)}$

Message... 🎤 ☺ 🖼

Impact

Social Impact: The primary impact is democratizing private tutoring. By providing a free, high-quality AI chatbot, we give every student—regardless of family income or location (vulnerable communities, minorities)—the 24/7 support previously only available to the wealthy. This directly addresses and reduces educational inequity.

Environmental Impact: Fully digitizes the homework, practice, and testing process, significantly reducing paper consumption.

Scenario

A 13-year-old student is stuck on a math problem at 8 PM. Their parents can't help. Instead of giving up, they open "Profuse.", ask the AI chatbot "How would I solve this?", and get an instant, simple explanation. Their anxiety decreases, and they finish their homework.

Resources and Goals

Resources Required: Our existing development team (prototype complete), 1x AI/LLM Specialist (for chatbot), 1x UI/UX Designer, Cloud server costs.

Milestones (Post-Hackathon):
- **Month 1-3**: Develop and integrate the curriculum-aware AI Chatbot MVP.
- **Month 4-6:** Build & beta test the Teacher Admin Panel, including the Test & Calendar modules.
- **Month 7-9:** Launch a pilot program with a few partner schools.

Barriers Foreseen:
1. **AI Safety:** Ensuring the chatbot is safe and provides accurate information (Mitigation: Strict curriculum fine-tuning, safety guardrails).
2. **Teacher Adoption:** Overcoming resistance to new tech (Mitigation: Co-design workshops).

Success Metrics:
1. **Engagement:** Daily Active Users (DAUs) and "streak" retention rate.
2. **Support:** Number of daily queries to the AI chatbot.
3. **Academic Impact:** Measurable improvement in test scores in pilot schools.

Target group

1. **Primary: Secondary Students (Ages 12-18):** They benefit from a 24/7 AI tutor (the chatbot) that answers questions without judgment, and lessons that adapt to their confidence, reducing anxiety.
2. **Secondary: Teachers:** They benefit from a powerful 'AI assistant' that saves time by monitoring progress, highlighting struggling students, and managing schedules/tests via the calendar.

It is relevant because it solves their two biggest problems: lack of 24/7 support (for students) and lack of time (for teachers).

Engaging Students:
- The gamification ('streak') and the non-judgmental AI chatbot will be the primary engagement drivers.

Engaging Teachers:
- We will engage them via co-design workshops to ensure the Calendar and Test modules are genuinely useful and easy to use.

Transferability

The core framework (**Adaptive Engine + Chatbot + Admin Panel**) is highly transferable.

Example 1 (Higher Education):

- University students could use it to learn complex subjects like Law or Medicine, with the AI chatbot trained on their specific textbooks.

Example 2 (Corporate Training):

- A company can use it for employee onboarding. The "teacher" is the HR manager, the "students" are new hires, and the "curriculum" is the company's policy, with the chatbot answering all their questions.

Sustainability

The post-hackathon plan focuses on scaling through a **Freemium and B2B model**.

Freemium (B2C):
- The 'Personal Mode' (adaptive lessons, chatbot) will be free to build a large user base.

B2B (Subscription):
- The 'School Mode' (Teacher Panel, Calendar, Test Assignment) will be sold as a subscription license to schools.

Mid-term (1-2 years):
- Secure partnerships with 20 schools, funded by public or private budgets.

Long-term (3-5 years):
- To become the standard adaptive learning layer integrated with official Ministry of Education platforms, using our robust dataset to provide insights on national learning trends.

Team work

Our team is a dedicated and balanced unit, with each member covering a critical function necessary for success:

- **Oprea Vasile-Sebastian** (Team Leader): As our Team Leader, Sebastian provides the strategic vision, coordinates all development and research efforts, and ensures the entire team remains aligned and focused on our milestones.
- **Cojocaru David-Andrei** (Pitch Presenter): David C. is our voice. He is responsible for communicating our complex solution in a clear, compelling, and persuasive manner, ensuring our value proposition resonates with judges, users, and future partners.
- **Ene Andres-Ioan** (Research Analyst): Andres is our anchor to reality. He manages all market and research, analyzes user data, and ensures that every feature we develop is grounded in real-world educational needs and solves a verified problem.
- **Blidaru David-Ștefan** (Concept Developer): David B. is the architect of our solution. He leads the ideation, defines the user journey, and maps out the core features, ensuring our concept is innovative, coherent, and solves the challenge in a unique way.
- **Andrușcă Eric-Mihai** (Presentation Designer): Eric translates our vision into a tangible experience. He manages the entire visual identity of the project, from the pitch deck design to the UI/UX mockups, ensuring our solution is not only functional but also intuitive and visually engaging.

Why We Are the Perfect Team

We are the perfect team because we possess the essential complementary skills required to bring a solution from a mere idea to a fully-realized product. Our competencies are not isolated; they are deeply integrated. We combine strategic leadership (Sebastian) with data-driven validation (Andres) and innovative product design (David B). Crucially, we have the skills to make this vision understandable (Eric) and inspiring (David C). This 360-degree structure covers strategy, research, product, design, and communication—all essential pillars for a successful EdTech venture. Our expertise is in applying this multidisciplinary approach to the specific thematic field of digital education.

Our Future Commitment

Yes, we are absolutely planning to continue working as a team in the future. This is not just a one-time hackathon project for us; it is the foundation of a long-term startup. We formed this team based on a shared passion for solving critical inequities in education. Our strong, predefined roles and proven workflow demonstrate our cohesion and commitment. We are dedicated to scaling this solution beyond the hackathon to create a sustainable and impactful platform for students and teachers everywhere.