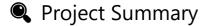
# Project Proposal for LehrKl.ch – Modern Al-Powered Education Platform

Tech Stack: React.js (Frontend), FastAPI (Backend), SQL, Stripe

**Date:** *July 2025* 



**LehrKl.ch** is envisioned as a multilingual, Al-powered platform that empowers **teachers and students** through intelligent tools like:

- Al-generated Parent Letters
- Quiz Creators
- Community Forums
- Knowledge Assessment Systems

The system also integrates:

- A persistent chatbot assistant
- Subscription-based premium features
- Multilingual support across German, French, Italian, and English

The initial proposal used **Laravel (PHP)** or **WordPress**, but we have re-evaluated and propose building LehrKl.ch using:

- React.js (frontend)
- FastAPI + Python (backend)
- **SQL** (MySQL/PostgreSQL)
- **Stripe** (for subscriptions)

This modern stack will ensure flexibility, high performance, scalability, and easier future upgrades.

## Why We Switched from Laravel/WordPress to React + FastAPI

Criteria	Old Stack (Laravel/PHP or WordPress)	New Stack (React + FastAPI)	Why the New Stack Wins
Performance	Medium (synchronous)	High (async-ready & dynamic)	Faster load, smoother navigation
Frontend Experience	Template-based, reloads	Modern SPA (React)	Seamless user experience
Al Integration	Complicated, plugin-heavy	Clean API integration via FastAPI	Easier GPT/n8n implementation

Criteria	Old Stack (Laravel/PHP or WordPress)	New Stack (React + FastAPI)	Why the New Stack Wins
Subscription Logic	Plugin-limited	Secure token system via Stripe + FastAPI	Full control and customization
Chatbot Embedding	Heavy, plugin-dependent	Lightweight + persistent widget	Works on every page seamlessly
Multilingual Support	Plugin or template-level	Native i18n with React + FastAPI	Faster, scalable multi- language UX
Extendability	Hard to modularize	Microservice-ready	Add tools/features easily in the future
Developer Maintenance	Complex, tied to plugins	Clean, documented codebase	Easy to maintain or hand over

This comparison clearly shows that our **new stack is a long-term investment**, reducing technical debt and ensuring smoother growth.

## Platform Features – Full Breakdown

#### Core Pages

- Landing page with Login/Register + Language Selector
- Public pricing/about pages
- User-specific dashboards:
  - Admin Dashboard
  - Teacher Dashboard
  - Student Dashboard

### Al Tools (Premium Enabled)

Parent Letter Generator ★ (n8n/GPT powered)
Quiz Creator
Assessment Center Limited Full access + feedback

### Persistent Support Chatbot

- Visible on every page (React floating widget)
- Handles:

- Tool suggestions
- Basic user support
- Multilingual responses
- Powered via n8n, Dialogflow, or GPT API

#### Community Section

- Role-aware internal forum or real-time chat
- Teachers & Students can share:
  - Quiz results
  - Al-generated outputs
  - Feedback & discussions

#### Role-Based User System

- Admin: Full control over users, tools, subscriptions
- Teacher (Premium): Can access full Al tools, create/store quizzes
- Student (Free): View quizzes, participate, limited tool access

#### Premium Subscriptions

- Stripe integration for secure payments
- Example model:
  - \$10/month = 1,000 tokens
  - Tokens deducted per AI interaction (adjustable)
- Token history and usage stats visible to user

### Multilingual Support

Languages Supported:

- DE German
- FR French
- IT Italian
- gb English

#### React i18n and FastAPI's backend localization ensure:

- Full translation of UI elements
- Language selection on login
- Chatbot & tool responses adapt to selected language

# **Operables**

Module	Description	
✓ UI/UX Design	Fully responsive, clean React interface	
✓ Role-Based Auth	JWT-based secure login + user roles	
✓ Al Tools Integration	GPT/n8n flows for parent letters, quizzes	
Persistent Chatbot	Multilingual chatbot on all pages	
✓ Stripe Subscription	Secure billing, token system	
✓ Admin Panel	Full management of users/tools	
✓ Community Feature	Forum or live chat component	
✓ Multilingual Setup	DE, FR, IT, EN support	
✓ SEO Optimization	Mobile-first & search-friendly markup	
✓ Deployment	Full deployment on Hetzner (your preferred host)	

### Future Roadmap – and Why the New Stack Makes It Easier

Feature	Laravel/WordPress	React + FastAPI	Why Our Stack Wins
🖇 Add new Al tools	Plugin-heavy setup	Just create a new API endpoint	No plugin restrictions
	Tough with Blade/PHP	React charting libraries + FastAPI endpoints	Real-time stats easily
■ Mobile App	Needs rebuilding	React Native shares logic	Easy mobile rollout
♥ Connect external bots	Hardcoded	FastAPI microservices	Seamless custom API connectors
Exporting letters/quizzes	Extra plugin/dev time	FastAPI with WeasyPrint	Native Python tools for PDF export

React + FastAPI gives you a **true platform** — not just a website — and is designed to evolve as you grow.

## Conclusion

By choosing **React + FastAPI**, we are building LehrKl.ch with:

- ☑ A future-proof foundation
- ☑ Lightning-fast performance
- ✓ Secure user & subscription system
- ☑ Easy integration with GPT/n8n
- ☑ Role-based, multilingual AI access

You are not investing in a website. You are investing in a **scalable, modern EdTech platform** designed to help educators and learners grow through AI.