DigitalT3 Hackathon

QuiZenius AI

Smart Learning, Enhanced by AI

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Problem Statement (Why?)

Most current platforms generate content without addressing the **LKG** (Learner Knowledge Gap), failing to consider the learner's Knowledge Level, Time Availability, or Specific Reference Materials.

This lack of personalized content generation leads to:

- Inefficient learning experiences
- Low engagement

Solution (What?)

QuiZenius AI is an AI driven learning tool that creates personalized lessons and quizzes based on your topic, familiarity level, and study time.

Key Features:

- **Customized Learning**: Generate lessons or quizzes tailored to your needs.
- **PDF Support**: Upload and extract content from PDFs.
- **User-Friendly**: Simple interface for easy use.

Why QuiZenius AI Matters (So What?)

- QuiZenius AI transforms learning by delivering personalized lessons and quizzes tailored to individual needs.

- It enhances study efficiency, saves time, and provides easy access to customized content.

- This tool addresses learning gaps effectively and boosts productivity through AI-driven content generation.

Prototype (How?)

QuiZenius AI collects details such as:

- **Topic**
- **Familiarity Level**
- **Learning Mode**
- **Time Availability**
- **Optional Preferred Languauge, Reference Materials or Instructions**

It then uses AI to generate customized lessons or quizzes, which can be downloaded as PDFs.

Maximizing Impact with RACE Prompts

Role: An experienced educator dedicated to delivering clear and engaging content.

Action: Crafting detailed prompts that guide the creation of lessons or quizzes. These prompts ensure content is well-structured, motivating, and tailored to the learner's level and time constraints.

Context: For topics ranging from beginner to advanced levels, within specified time limits, and incorporating any additional materials or instructions provided.

Example:
For a lesson:
"Explain the key concepts of '{topic}' to a {familiarity} level learner within {st.session_state.time_available} minutes. Use real-world examples and relatable storytelling. Recommend 2-3 high-quality online courses and relevant projects for hands-on practice."

For a quiz:
"Assess the learner's understanding of '{topic}' with a mix of question types. Provide immediate feedback and ensure the quiz fits within {st.session_state.time_available} minutes. Include any additional instructions to enhance effectiveness."

Reference

Prompt Engineering Fundamentals: How to Get Better Results with AI: [Link to the Resource](#)

Harnessing AI for Marketing Success: A Guide to Prompt Engineering and the RACE Framework - [Link to the Resource](#)

Now What & Future Work

With QuiZenius AI, you can:

- **Use the Tool**: Start generating personalized learning content.
- **Explore Features**: Experiment with different topics, learning modes, and time settings.

Future Enhancements:

- Enhance personalization by tailoring content to individual learning preferences through detailed user profiles.
- Expand flexibility in content generation by integrating multiple language models.
- Add compatibility for various file formats beyond PDFs, such as Word documents, to broaden the input options.
- Implement a real-time **chatbot** to assist users with immediate support on topics or concepts they find challenging.

Thank You