



National Engineering College, K.R. Nagar, Kovilpatti – 628 503

(An Autonomous Institution, Affiliated to Anna University, Chennai)

Department of Artificial Intelligence and Data Science

DigitalT3 Hackathon

QuiZenius AI

Smart Learning, Enhanced by AI

Malaiarasu G,
Prompt Engineering,
Mentor - Mr. Naveen N.



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 Language, 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."

Ref. - <https://www.socialmediaexaminer.com/prompt-engineering-fundamentals-how-to-get-better-results-with-ai/>,

<https://www.linkedin.com/pulse/harnessing-ai-marketing-success-guide-prompt-race-framework-young-quf7e/>



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