
AI-Powered Quiz Generator

— Automated MCQ Generation —

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Problem Statement & Motivation

- **Problem:** Manually creating quizzes is time-consuming, and inefficient.
- **Solution:** An AI-based system that automatically generates multiple-choice question (MCQ) from textual content.
- **Benefits:**
 - Saves time for educators.
 - Ensures consistency in question quality.
 - Provides an interactive way to learn.

Solution Approach

1. **Named Entity Recognition (NER)**
 - Extracts key terms from input text using spaCy.
2. **AI-Powered Question Generation**
 - Uses OpenAI's GPT model to generate MCQs.
 - Structured prompt ensures clear question formatting.
3. **User Interaction via Gradio**
 - Input text -> MCQ generated.
 - Users select answers & receive instant feedback.

Technology Stack & Implementation

- **Technologies Used:**

- **Libraries:** OpenAI, Gradio, spaCy, re (Regex)
- **Model:** GPT-4o-mini for question generation
- **Framework:** Gradio for UI

- **Implementation Steps:**

- Extract key terms using spaCy and NER.
- Generate MCQs with OpenAI API.
- Present options using Gradio UI.
- Validate user responses & provide feedback.

Demo of the code: [Demo video](#)