Triple Edge AI – Quiz Generator

- **Autonomous Knowledge Extractor & Quiz Builder**
- **Project Overview**
- Triple Edge AI – Quiz Generator is an autonomous AI-powered system that converts educational content into interactive quizzes.

- The system automatically extracts knowledge, generates questions, assigns difficulty, and validates user answers without manual intervention.

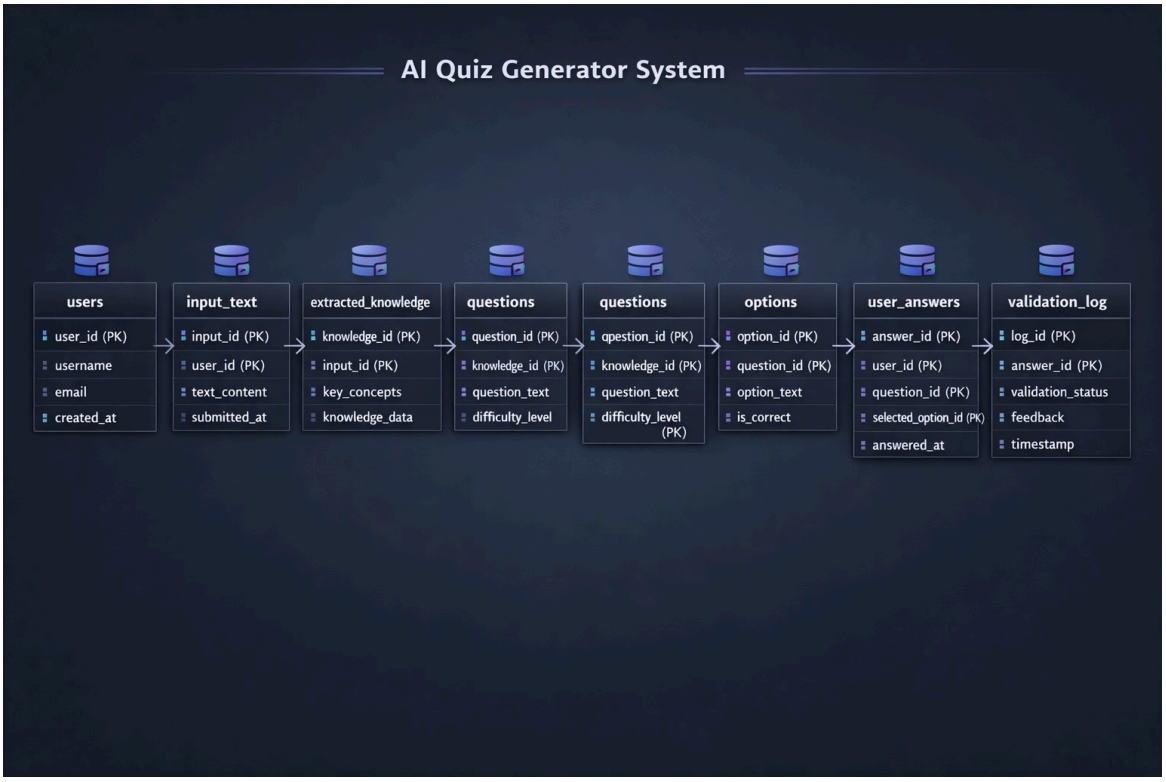
- This project demonstrates agentic AI behavior through decomposition, decision-making, and self-validation.

- **Problem Statement**
- Creating quizzes from large educational content is:
    - Time-consuming
    - Requires subject expertise
    - Difficult to scale
- Our solution automates this entire process using AI-driven logic.

- ## What This Program Does

- The program performs the following steps:
- Accepts input
    - User can provide:
        - Educational text
        - Topic or focus keyword
- Extracts key information
    - Important sentences and keywords are identified
    - Irrelevant content is ignored
- Generates quiz questions
    - Multiple-choice questions (MCQs)
    - Each question has 4 options
    - Correct answer is automatically selected
- Assigns difficulty levels
    - Easy – direct fact or definition
    - Medium – conceptual understanding
    - Hard – multi-concept reasoning
- Validates user answers
    - Checks if the selected option is correct
    - Provides feedback and explanation
- Displays results
    - User score
    - Correct / incorrect answers highlighted

- **System Architecture**



- **Why This Is an Agentic AI System**
- The system shows true agentic behavior because:
- ✔ Tasks are broken into independent agents
- ✔ Decisions are made autonomously
- ✔ Difficulty is logically assigned
- ✔ Answers are self-validated
- ✔ Feedback loop exists between user and system

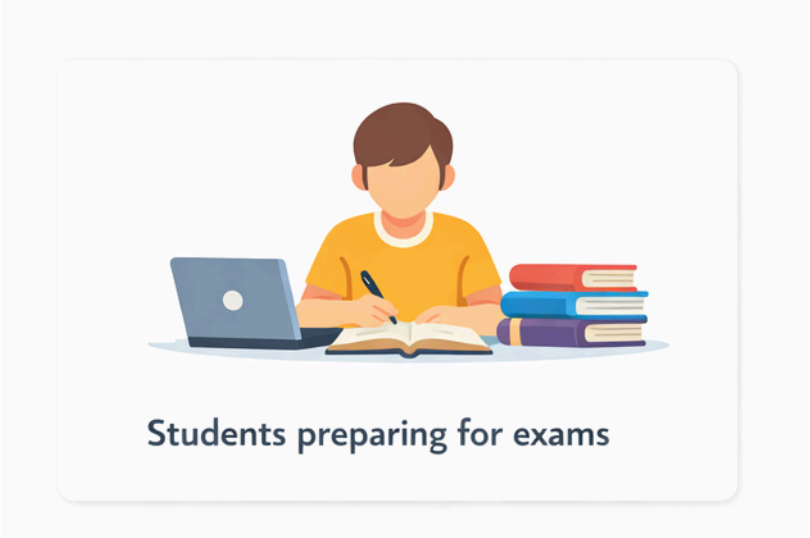
Technologies Used

- Frontend:
  - HTML
  - CSS
  - JavaScript
- Backend:
  - Python
  - Flask
  - Rule-based AI logic
- External Knowledge Source (Optional):
  - Wikipedia API

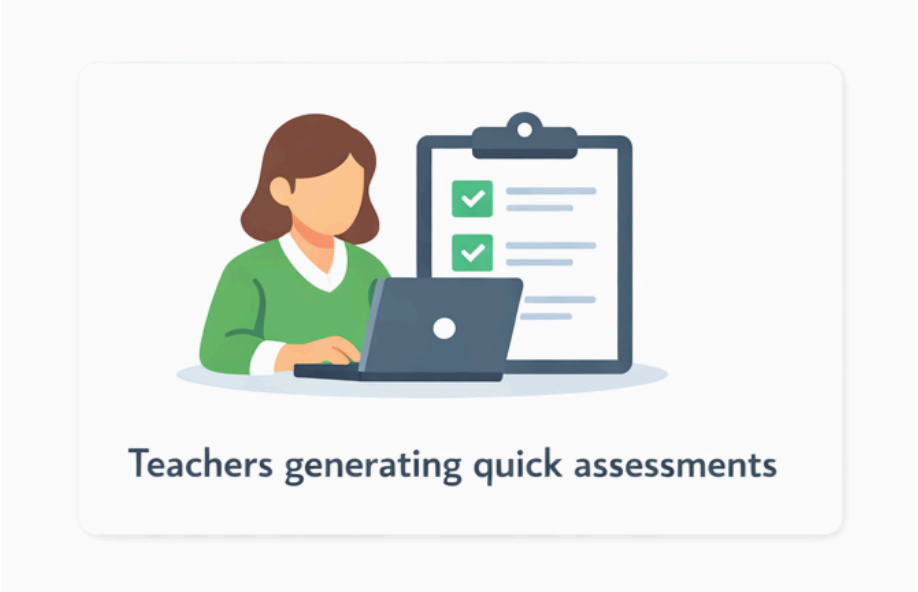
Team Contributions

- Hirak Bhatt
  - Backend architecture
  - Agent orchestration
  - System integration
- Diya
  - Knowledge extraction logic
  - Hierarchical structuring
- Rajan
  - Quiz generation
  - Difficulty validation

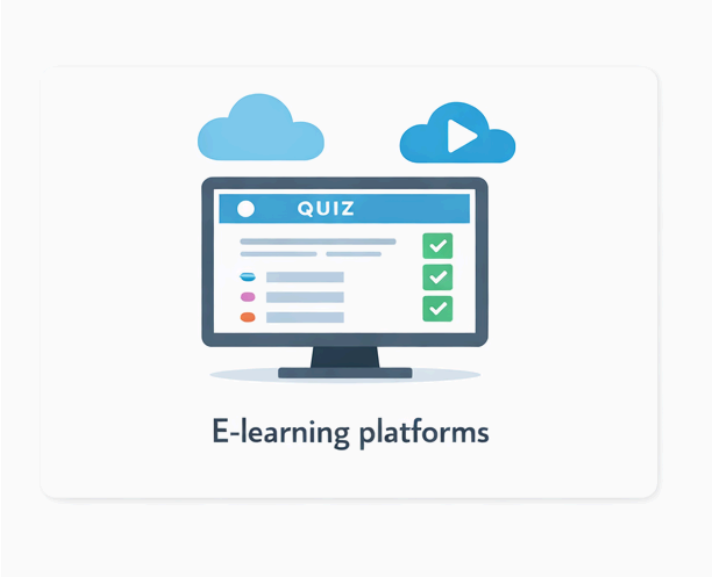
- **Use Cases**
- Students preparing for exams



- Teachers generating quick assessments



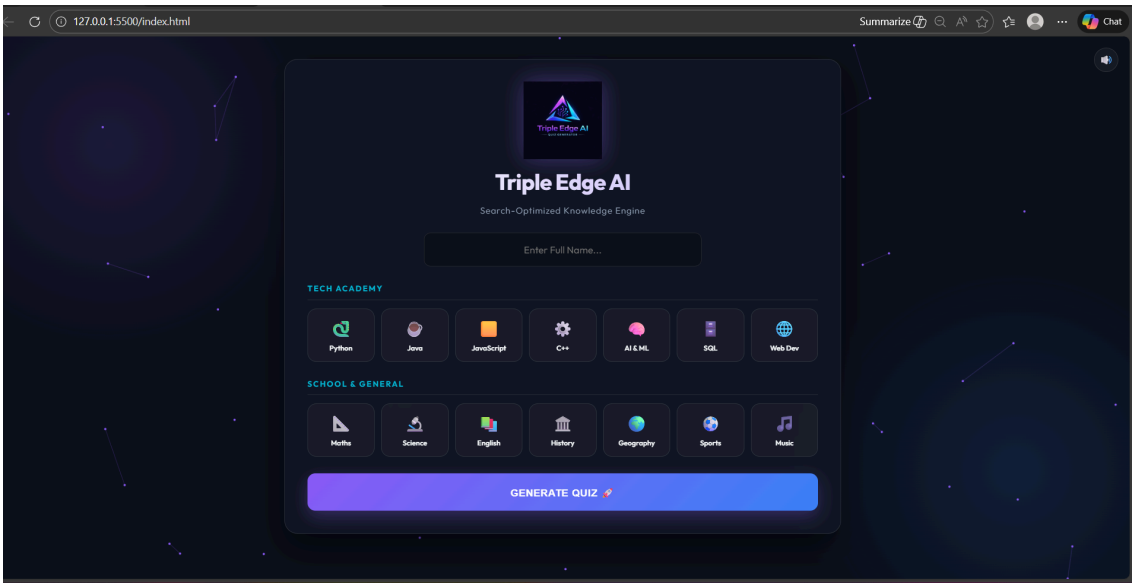
- E-learning platforms

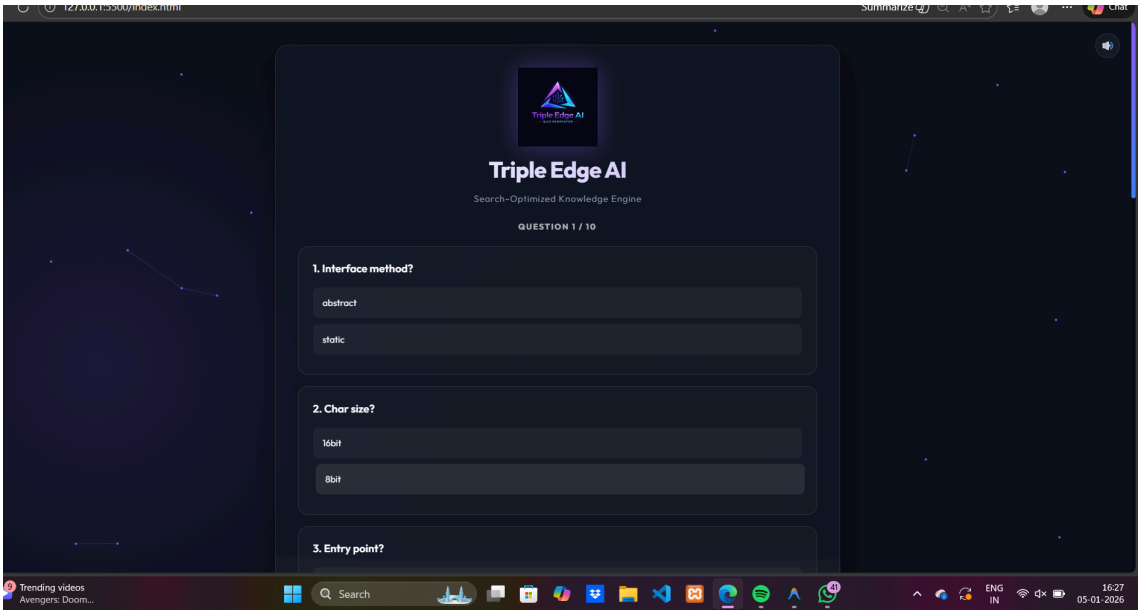


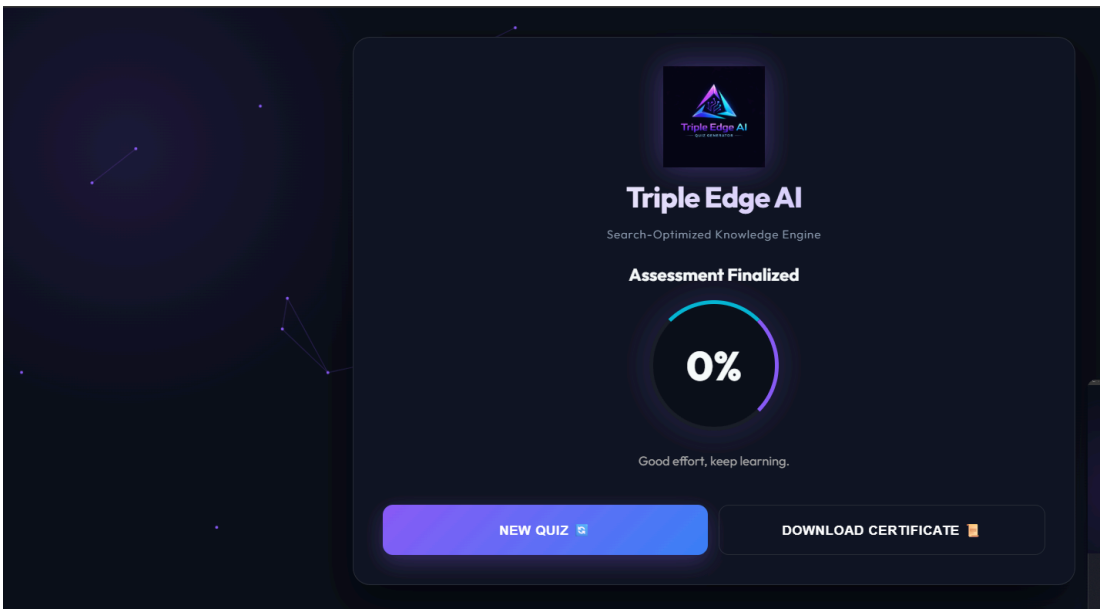
- Hackathons and AI demonstrations

- **Future Improvements**
- Integration with Large Language Models (LLMs)
- Adaptive difficulty based on user performance
- Topic-wise analytics
- Multi-language support

- **Screen Short from project**
- Home Page






Triple Edge AI
Search-Optimized Knowledge Engine
Assessment Finalized
0%
Good effort, keep learning.
NEW QUIZ
DOWNLOAD CERTIFICATE


Triple Edge AI
CERTIFICATE OF ACHIEVEMENT
This is to certify that
D
has successfully completed the assessment in
[Java]
Grade: D (Fair)
Date: 5/1/2026
Triple Edge Authority
Verified by Triple Edge Authority