



FINAL YEAR PROJECT REPORT

QUICKQUIZ:AI DRIVEN ALGEBRA QUIZ GENERATOR USING LLM INTEGRATION

**In fulfillment of the requirement
For degree of
BS (COMPUTER SCIENCES)**

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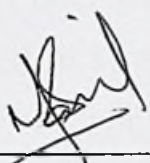
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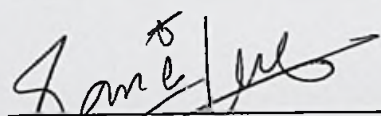
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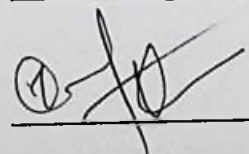
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QUICKQUIZ:AI DRIVEN ALGEBRA QUIZ GENERATOR USING LLM INTEGRATION

ABSTRACT

Typical practice tools are not flexible and keep offering the same problems, not changing with the student's results or what they need help with. While many people are using e-learning nowadays, there are still not many options for Ai generated and customized math quizzes focused on algebra. Making quizzes the conventional way is tedious and usually left unchanged, making it hard for teachers and students to update content based on their skills and subjects. In addition, basic question banks do not evaluate understanding in real time or provide enough variety for students to be challenged.

As a result, QUICKQUIZ was developed as an AI-based system to create and assess quizzes in algebra on its own. The primary goal is to make math practice more engaging, available to all and simpler for everyone involved in learning. As an important topic in math, algebra needs consistent practice and QUICKQUIZ provides this by generating intelligent exercises automatically.

The system was built using Flask on the backend which gave users a fast and interactive web page. An LLM was included to build algebra quizzes in three types: MCQs, Fill-in-the-Blanks and True/False questions. To maintain topic relevance, prompt engineering was applied to remove anything that did not involve mathematics. The system checks how users react quickly and helps them with instant feedback. Users were given a new feature making it easier to see how accurate GPT's generated content was. As a result, users can interact with the program, their data is managed properly, and feedback is checked on the backend to give them a smooth and informative experience. The system was released as a web application which proved its value in creating quizzes, checking user inputs and engaging users.

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