Hackathon question

Title: Al Online Course Questionnaire Generator Challenge

Description:

Welcome to the Al Online Course Questionnaire Generator Challenge! In this hackathon, participants will develop an Al-powered system capable of generating unique questionnaires based on topics covered in an online course. The goal is to create a tool that can assess students' comprehension and skills after completing the course.

Criteria:

1. Question Generation Algorithm: Participants must design and implement an algorithm that generates diverse and relevant questions based on the topics covered in the online course. The questions should vary in difficulty and format (e.g., multiple-choice, short answer, etc.).

2. Natural Language Processing (NLP): Utilize NLP techniques to ensure the questions are grammatically correct, coherent, and well-structured. The Al should be capable of understanding and analyzing the course content to formulate meaningful questions.

3. Personalization: Develop mechanisms to personalize the questionnaires for each student based on their learning progress and preferences. The system should adaptively adjust the difficulty level of questions and focus on areas where the student needs improvement.

4. Evaluation and Skill Rating: Implement a mechanism to evaluate students' responses to the generated questions accurately. The Al should assess the depth of understanding, analytical skills, and problem-solving abilities demonstrated by the students. Additionally, provide a comprehensive skill rating or proficiency score for each student based on their performance.

5. User Interface (Ul): Create a user-friendly interface for students to interact with the system. The Ul should allow students to access questionnaires, submit answers, receive feedback, and view their skill ratings clearly and intuitively.

6. Scalability and Efficiency: Ensure the system is scalable and capable of handling a large volume of users and courses. Optimize the algorithms and processes to minimize computational resources and response times.

7. Integration with Learning Management Systems (LMS): Provide seamless integration service availability with existing Learning Management Systems (LMS) to facilitate the deployment and usage of the Al-powered questionnaire generator within educational platforms.

8. Ethical Considerations: Address ethical concerns related to data privacy, bias in question generation, and transparency in skill evaluation. Ensure that the system maintains integrity and fairness in assessing students' abilities.

Participants are encouraged to leverage cutting-edge Al technologies, such as machine learning, deep learning and reinforcement learning, to create innovative solutions. The winning solution will be judged based on its complete, accuracy in generating relevant questions, effectiveness in evaluating student skills, usability, and potential impact on online education, technical excellence, innovative new ideas, viability, presentation and demo materials.