AI-powered MCQ Generation

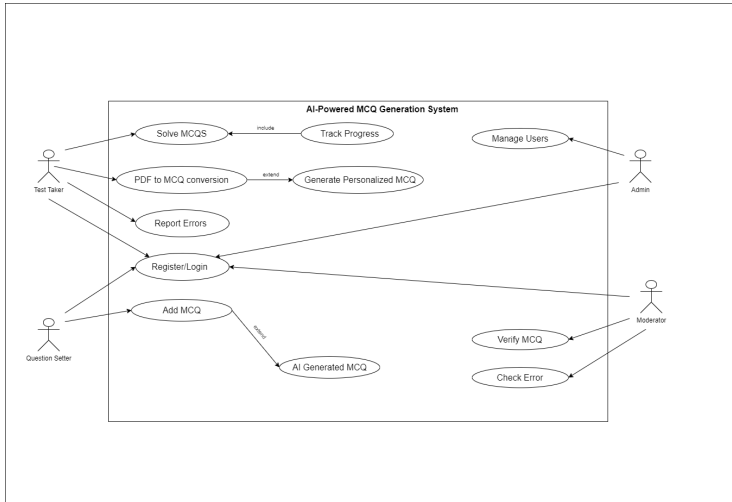Vishnu Prasad C P
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Introduction

- Provide a free educational tool that enhances study experiences for students preparing for entrance exams.
- Designed to facilitate the creation and practice of (MCQs).
- Question setters can easily add questions including options and answers, or let AI generate them.
- It includes a feature for test takers to create personalized question banks.
- Use Case Diagram, Class Diagram, Tables and Schema, Wireframe model

Use Case Diagram

Use Case Scenarios

- Solve MCQs
    - Actor: Test Taker
    - Description: The Test Taker solves multiple-choice questions provided by the system.
    - Precondition: The Test Taker must be logged in to the system.
    - Postcondition: The Test Taker's answers are recorded, and their progress is updated.

- Track Progress
    - Actor: Test Taker
    - Description: The Test Taker tracks their progress and performance over time.
    - Precondition: The Test Taker must have solved at least one set of MCQs.
    - Postcondition: The Test Taker views a summary of their performance metrics and progress.

Use Case Scenarios contd

- Generate Personalized MCQs
    - Actor: Test Taker
    - Description: The system generates personalized MCQs based on the Test Taker's performance and preferences.
    - Precondition: The Test Taker must have solved some MCQs or set preferences.
    - Postcondition: A new set of MCQs tailored to the Test Taker's needs is generated and made available for practice.

- Report Errors
    - Actor: Test Taker
    - Description: The Test Taker reports errors or issues with specific MCQs.
    - Precondition: The Test Taker encounters an error or incorrect information in an MCQ.
    - Postcondition: The reported issue is logged for review by the Moderator.

Use Case Scenarios (contd..)

- Add MCQs
    - Actor: Question Setter
    - Description: The Question Setter adds new MCQs to the system.
    - Precondition: The Question Setter must be logged in and have the necessary permissions to add questions.
    - Postcondition: New MCQs are added to the system and await verification.
- Verify MCQs
    - Actor: Moderator
    - Description: The Moderator verifies the accuracy and quality of newly added MCQs.
    - Precondition: New MCQs must be submitted by the Question Setter and pending verification.
    - Postcondition: Verified MCQs are approved and published to the global pool; incorrect ones are flagged or corrected.

Use Case Scenarios (contd..)

- Register AND Login
  - Actor: Test Taker, Question Setter, Moderator, Admin
  - Description: Users register for a new account AND log into the system.
  - Precondition: The user must not be logged in to register or must have valid credentials to log in.
  - Postcondition: The user gains access to their respective dashboard and functionalities.

- Manage Users
  - Actor: Admin
  - Description: The Admin manages user accounts, including adding, editing, or removing users.
  - Precondition: The Admin must be logged in with appropriate privileges.
  - Postcondition: User accounts are successfully created, modified, or deleted as needed.

Class Diagram

classdiagra.jpg

Tables and Schema

table_schem.jpg

WireFrame model

- **Register and Login** :https://bit.ly/mcq_gen

Thank you!