

Online Examination System Documentation

1. Introduction

This document provides a comprehensive overview of the Online Examination System. It includes the system's design, data structure, and functionalities for three user roles (Admin, Teacher, and Student).

The documentation also specifies the types of exams, question formats, and the relationships between database entities.

2. System Overview

The Online Examination System allows the creation and management of exams by teachers, administration of users by the admin, and participation in exams by students. It supports dynamic roles and functionalities.

3. Roles and Permissions

1. Teacher: Creates and manages exams and questions.
2. Student: Attempts exams and views results.

4. Data Design

Entities Scratch

Users

1. id: Unique identifier for each user (Primary Key).
2. name: Full name of the user.
3. email: Email address (used for login).
4. password: Encrypted password.
5. role: Specifies whether the user is an admin, teacher, or student.
6. created_at: Timestamp of when the user was created.

Exams

1. id: Unique identifier for each exam (Primary Key).
2. Subject: Title or name of the exam.
3. exam_type: Type of exam (mid, final, quiz).
4. created_by: Foreign Key referencing Users.id.
5. total_questions: Total number of questions in the exam.
6. total_score: Score of the whole Exam
7. duration_minutes: Duration of the exam in minutes.
8. created_at: Timestamp of when the exam was created.

Questions

1. id: Unique identifier for each question (Primary Key).
2. exam_id: Foreign Key referencing Exams.id.
3. question_header: The Header of the question.
4. question_text: The actual question text.
5. question_type: The type of the question (MCQ, True/False).
6. points: Marks for a correct answer.
7. answer_id: Key referencing Answer.id.
8. right_answer: indicates the Right answer.
9. created_at: Timestamp of when the question was created.

Answers

1. id: Unique identifier for each answer (Primary Key).
 2. answer_text: The actual answer text.
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Mapping Relationships:

Users

1. id
2. name
3. email
4. password
5. role
6. created_at

Exams

1. id
2. title
3. exam_type
4. created_by
5. total_questions
6. total_score
7. duration_minutes
8. created_at

Questions

1. id
2. exam_id
3. question_header
4. question_text
5. question_type
6. points
7. answer_id
8. right_answer
9. created_at

Answers

1. id
 2. answer_text
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Class Diagram with Inheritance

User (Abstract)

1. Teacher
2. Student

Exam (Abstract)

1. MidExam
2. FinalExam
3. Quiz

Question (Abstract)

1. MCQ
 2. TrueFalse
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