

1. Student

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the student
name	String	Full name of the student
email	String (Unique)	Unique email address of the student
password	String	Encrypted password for authentication
joinedClasses	Array of ObjectId	List of class IDs the student has joined

2. Teacher

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the teacher
name	String	Full name of the teacher
email	String (Unique)	Unique email address of the teacher
password	String	Encrypted password for authentication
createdClasses	Array of ObjectId	List of class IDs the teacher has created

3. Admin

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the admin
name	String	Full name of the admin
email	String (Unique)	Unique email address of the admin
password	String	Encrypted password for authentication

4. Classroom

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the class
name	String	Name of the class
uniqueID	String (Unique)	Unique identifier for students to join the class

teacherID	ObjectId	Reference to the teacher who owns the class
studentIDs	Array of ObjectId	List of student IDs who have joined the class
sections	Array of ObjectId	List of sections within the class

5. Section

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the section
title	String	Title of the section
resources	Array of ObjectId	List of resource IDs
assignments	Array of ObjectId	List of assignment IDs
quizzes	Array of ObjectId	List of quiz IDs
polls	Array of ObjectId	List of poll IDs

6. Resource

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the resource
title	String	Title of the resource
file	String (File Path)	Path to the uploaded PDF file

7. Assignment

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the assignment
title	String	Title of the assignment
questionFile	String (File Path)	Path to the uploaded PDF with questions
submissions	Array of ObjectId	List of student submission IDs

8. Submission

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the submission

studentID	ObjectId	Reference to the student who submitted
answerFile	String (File Path)	Path to the submitted PDF file
submittedAt	DateTime	Date and time of submission

9. Quiz

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the quiz
title	String	Title of the quiz
questions	Array of ObjectId	List of quiz question IDs
attempts	Array of ObjectId	List of student quiz attempts

10. Question

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the question
text	String	The question text
options	Array of String	List of multiple-choice options
correctAnswer	String	Correct answer to the question

11. QuizAttempt

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the quiz attempt
studentID	ObjectId	Reference to the student who attempted the quiz
answers	Array of String	List of selected answers
score	Integer	Final score of the attempt

12. Poll

Attribute	Data Type	Description
id	ObjectId	Unique identifier for the poll
title	String	Title of the poll

options Array of String List of possible answers

responses Array of ObjectId List of student response IDs

13. Response

Attribute	Data Type	Description
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id	ObjectId	Unique identifier for the response
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studentID	ObjectId	Reference to the student who responded
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selectedOption	String	The chosen option by the student
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Relationships

1. Students, Teachers, and Admins are stored in separate tables.
2. **Students** can join multiple **Classes** (Many-to-Many).
3. **Teachers** can create multiple **Classes** (One-to-Many).
4. **Classes** contain multiple **Sections** (One-to-Many).
5. **Sections** include **Resources, Assignments, Quizzes, and Polls** (One-to-Many).
6. **Assignments** collect multiple **Submissions** (One-to-Many).
7. **Quizzes** consist of multiple **Questions and Attempts** (One-to-Many).
8. **Polls** collect multiple **Responses** (One-to-Many).