# Quiz System API

## Overview

Welcome to the Quiz System API! This API provides endpoints to manage users, quizzes, questions, choices, results, and more for an interactive quiz platform.

## Getting Started

To start using the Quiz System API, follow these steps:

1. run `npm install` to install dependencies.

2. Configure your environment variables, including the database connection details.

3. Run the server with `npm start`.

**Student routes**

**Updating**

**Update a Student by ID**

**Route:** **/quizsystem/student/:id**  
**Method:** PUT  
**Description:** Update a student account.

**Request Body:**

* **Username** (string): Student's username.
* **Email** (string): Student's email address.
* **Password** (string): Student's password.

**Response:**

* 200 (OK): User updated successfully.
* 400 (Bad Request): If any of the fields are missing.
* 500 (Internal Server Error)

**Update a Student's Password**

**Route:** **/quizsystem/student-pass/:id**  
**Method:** PUT  
**Description:** Update a student's password.

**Request Body:**

* **Password** (string): Student's password.

**Response:**

* 200 (OK): Password updated successfully.
* 404 (Not Found): If the student’s ID is not found.
* 500 (Internal Server Error)

**Deleting**

**Delete a Student**

**Route:** **/quizsystem/student/:id**  
**Method:** DELETE  
**Description:** Delete a student.

**Response:**

* 200 (OK): Student deleted successfully.
* 404 (Not Found): If the student’s ID is not found.
* 500 (Internal Server Error)

**Retrieving**

**Get Student by ID**

**Route:** **/quizsystem/student/:id**  
**Method:** GET  
**Description:** Get a student by ID.

**Response:**

* 200 (OK): Student retrieved successfully.
* 404 (Not Found): If the student’s ID is not found.
* 500 (Internal Server Error)

**Get All Students**

**Route:** **/quizsystem/student**  
**Method:** GET  
**Description:** Get all students.

**Response:**

* 200 (OK): Students retrieved successfully.
* 404 (Not Found): No students found.
* 500 (Internal Server Error)

**Instructor Routes**

**Delete Instructor by ID**

**Route:** **/instruct/:id**  
**Method:** DELETE  
**Description:** Delete an instructor.  
**Response:**

* 200 (Update): Instructor deleted successfully.
* 404 (Not Found): If the instructor's id is not found.
* 500 (Internal Server Error): If there was an issue deleting the instructor.

**Update Instructor by ID**

**Route:** **/instruct/:id**  
**Method:** PUT  
**Description:** Update instructor details.  
**Response:**

* 200 (Update): Instructor updated successfully.
* 404 (Not Found): If the instructor's id is not found.
* 500 (Internal Server Error): If there was an issue updating the instructor.

**Update Instructor's Password**

**Route:** **/instruct-pass/:id**  
**Method:** PUT  
**Description:** Update instructor's password.  
**Response:**

* 200 (Update): Instructor password updated successfully.
* 404 (Not Found): If the instructor's id is not found.
* 500 (Internal Server Error): If there was an issue updating the password.

**Register Instructor**

**Route:** **/instruct**  
**Method:** POST  
**Description:** Register a new instructor.  
**Response:**

* 201 (Created): Instructor registered successfully.
* 400 (Bad Request): If the request body is invalid.
* 500 (Internal Server Error): If there was an issue creating the instructor.

**Get All Instructors Usernames**

**Route:** **/instructors**  
**Method:** GET  
**Description:** Get usernames of all instructors.  
**Response:**

* 200 (OK): Returns a JSON array of instructor usernames.
* 404 (Not Found): If no instructors are found.
* 500 (Internal Server Error): If there was an issue fetching instructors.

**Get Instructor by ID**

**Route:** **/instruct/:id**  
**Method:** GET  
**Description:** Get instructor details by ID.  
**Response:**

* 200 (OK): Returns detailed information about the instructor.
* 404 (Not Found): If the instructor's id is not found.
* 500 (Internal Server Error): If there was an issue fetching the instructor.

**Choice Routes**

**Create Choice**

**Route:** **/choices**  
**Method:** POST  
**Description:** Create a new choice.  
**Response:**

* 201 (Created): Choice created successfully.
* 400 (Bad Request): If the request body is invalid.
* 500 (Internal Server Error): If there was an issue creating the choice.

**Update Choice**

**Route:** **/choices/:choiceID**  
**Method:** PUT  
**Description:** Update choice details.  
**Response:**

* 200 (Update): Choice updated successfully.
* 404 (Not Found): If the choice's id is not found.
* 500 (Internal Server Error): If there was an issue updating the choice.

**Delete Choice**

**Route:** **/choices/:choiceID**  
**Method:** DELETE  
**Description:** Delete a choice.  
**Response:**

* 200 (Update): Choice deleted successfully.
* 404 (Not Found): If the choice's id is not found.
* 500 (Internal Server Error): If there was an issue deleting the choice.

**Question Routes**

**Get Question by ID**

**Route:** **/question/:questionId**  
**Method:** GET  
**Description:** Get question details by ID.  
**Response:**

* 200 (OK): Returns detailed information about the question.
* 404 (Not Found): If the question's id is not found.
* 500 (Internal Server Error): If there was an issue fetching the question.

**Update Question**

**Route:** **/question/:questionId**  
**Method:** PUT  
**Description:** Update question details.  
**Response:**

* 200 (Update): Question updated successfully.
* 404 (Not Found): If the question's id is not found.
* 500 (Internal Server Error): If there was an issue updating the question.

**Delete Question**

**Route:** **/question/:questionId**  
**Method:** DELETE  
**Description:** Delete a question.  
**Response:**

* 200 (Update): Question deleted successfully.
* 404 (Not Found): If the question's id is not found.
* 500 (Internal Server Error): If there was an issue deleting the question.

**Create Question**

**Route:** **/question**  
**Method:** POST  
**Description:** Create a new question.  
**Response:**

* 201 (Created): Question created successfully.
* 400 (Bad Request): If the request body is invalid.
* 500 (Internal Server Error): If there was an issue creating the question.

**Quiz Routes**

**Get Quiz by ID**

**Route:** **/quiz/:QuizID**  
**Method:** GET  
**Description:** Get quiz details by ID.  
**Response:**

* 200 (OK): Returns detailed information about the quiz.
* 404 (Not Found): If the quiz's id is not found.
* 500 (Internal Server Error): If there was an issue fetching the quiz.

**Get All Quizzes**

**Route:** **/quiz**  
**Method:** GET  
**Description:** Get a list of all quizzes.  
**Response:**

* 200 (OK): Returns a JSON array of quizzes.
* 404 (Not Found): If no quizzes are found.
* 500 (Internal Server Error): If there was an issue fetching quizzes.

**Get Quizzes by Instructor ID**

**Route:** **/quiz/instructor/:instructorID**  
**Method:** GET  
**Description:** Get quizzes by instructor ID.  
**Response:**

* 200 (OK): Returns a JSON array of quizzes.
* 404 (Not Found): If no quizzes are found for the given instructor.
* 500 (Internal Server Error): If there was an issue fetching quizzes.

**Get Questions for Quiz**

**Route:** **/quiz/questions/:QuizID**  
**Method:** GET  
**Description:** Get questions for a specific quiz.  
**Response:**

* 200 (OK): Returns a JSON array of questions for the specified quiz.
* 404 (Not Found): If no questions are found for the given quiz.
* 500 (Internal Server Error): If there was an issue fetching questions.

**Quiz Routes**

**Create Quiz**

**Route:** **/quiz**  
**Method:** POST  
**Description:** Create a new quiz.  
**Response:**

* 201 (Created): Quiz created successfully.
* 400 (Bad Request): If the request body is invalid.
* 500 (Internal Server Error): If there was an issue creating the quiz.

**Update Quiz**

**Route:** **/quiz/:QuizID**  
**Method:** PUT  
**Description:** Update quiz details.  
**Response:**

* 200 (Update): Quiz updated successfully.
* 404 (Not Found): If the quiz's id is not found.
* 500 (Internal Server Error): If there was an issue updating the quiz.

**Delete Quiz**

**Route:** **/quiz/:QuizID**  
**Method:** DELETE  
**Description:** Delete a quiz.  
**Response:**

* 200 (Update): Quiz deleted successfully.
* 404 (Not Found): If the quiz's id is not found.
* 500 (Internal Server Error): If there was an issue deleting the quiz.

**Result Routes**

**Get Results for Student**

**Route:** **/result-student/:StudentID**  
**Method:** GET  
**Description:** Get results for a specific student.  
**Response:**

* 200 (OK): Returns a JSON array of results for the specified student.
* 404 (Not Found): If no results are found for the given student.
* 500 (Internal Server Error): If there was an issue fetching results.

**Get Results for Quiz**

**Route:** **/result-quiz/:quizID**  
**Method:** GET  
**Description:** Get results for a specific quiz.  
**Response:**

* 200 (OK): Returns a JSON array of results for the specified quiz.
* 404 (Not Found): If no results are found for the given quiz.
* 500 (Internal Server Error): If there was an issue fetching results.

**Calculate Overall Score for Quiz**

**Route:** **/result/:quizID/overall-score**  
**Method:** GET  
**Description:** Calculate overall score for a quiz.  
**Response:**

* 200 (OK): Returns the overall score for the specified quiz.
* 404 (Not Found): If no results are found for the given quiz.
* 500 (Internal Server Error): If there was an issue calculating the overall score.

**Create Result**

**Route:** **/result**  
**Method:** POST  
**Description:** Create a new result.  
**Response:**

* 201 (Created): Result created successfully.
* 400 (Bad Request): If the request body is invalid.
* 500 (Internal Server Error): If there was an issue creating the result.

**Update Result**

**Route:** **/result/:ResultID**  
**Method:** PUT  
**Description:** Update result details.  
**Response:**

* 200 (Update): Result updated successfully.
* 404 (Not Found): If the result's id is not found.
* 500 (Internal Server Error): If there was an issue updating the result.

**Delete Result**

**Route:** **/result/:ResultID**  
**Method:** DELETE  
**Description:** Delete a result.  
**Response:**

* 200 (Update): Result deleted successfully.
* 404 (Not Found): If the result's id is not found.
* 500 (Internal Server Error): If there was an issue deleting the result.