**Online Quiz Portal Using REST APIs**

**Algorithm :**

* Start the Online Quiz Portal application.
* User Login:a. Receive user login credentials (email and password) from the client.b. Validate the credentials by calling the userLogin method in the UserSer service.c. Return the appropriate response to the client based on the login result.
* User Registration:a. Receive user registration details (email, password, and phone number) from the client.b. Create a new User object with the provided details.c. Call the userRegister method in the UserSer service to register the user.d. Return the appropriate response to the client based on the registration result.
* Admin Login:a. Receive admin login credentials (username and password) from the client.b. Validate the credentials by calling the adminLogin method in the AdminSer service.c. Return the appropriate response to the client based on the login result.
* Admin Update:a. Receive updated admin details (username and password) from the client.b. Create a new Admin object with the updated details.c. Call the adminupdate method in the AdminSer service to update the admin information.d. Return the appropriate response to the client based on the update result.
* Add Questions:a. Receive a new question object from the client, including the question, options, and correct answer.b. Create a new Question object with the provided details.c. Call the addQuestion method in the AdminSer service to add the question to the database.d. Return the appropriate response to the client based on the addition result.
* Add Quiz:a. Receive a new quiz object from the client, including the quiz title, quiz number, subject, and associated questions.b. Create a new Quiz object with the provided details.c. Call the addQuiz method in the AdminSer service to add the quiz to the database.d. Return the appropriate response to the client based on the addition result.
* View All Quiz:a. Retrieve all quiz records from the database by calling the viewAllQuiz method in the AdminSer service.b. Return the list of quizzes to the client.
* Quiz Info:a. Retrieve statistics about the quizzes and users by calling the quizInfo method in the AdminSer service.b. Return the statistics object to the client.
* View Quiz:a. Retrieve all available quizzes from the database by calling the viewAllQuiz method in the UserSer service.b. Return the list of quizzes to the client.
* Take Test:a. Receive a test object from the client, including the user, quiz, question, and selected answer.b. Create a new Test object with the provided details.c. Call the takeTest method in the UserSer service to save the test result.d. Return the appropriate response to the client based on the test result.
* Get All Test:a. Retrieve all test records from the database by calling the getTestList method in the UserSer service.b. Return the list of tests to the client.
* Get Result:a. Retrieve all test results from the database by calling the result method in the UserSer service.b. Return the list of test results to the client.
* Exit the Online Quiz Portal application