Handling the Test Data and Executing It in Multiple Environments for User Module of an Application

**Githublink:** **https://github.com/Utkarsh9991/Testing.git**

**Java code utilizes the Rest-Assured library to conduct API testing on the Reqres API. The code consists of four TestNG test methods, each focusing on different aspects of API testing.**

***Base URL Test (Priority 1):***

In the baseurl() method, the foundational step involves configuring the base URL using RestAssured.given().baseUri("https://reqres.in/api"). This establishes a consistent starting point for subsequent API requests. A GET request is then dispatched to this base URL using .when().get(). The test asserts the expected response status code of 404 with .then().statusCode(404). Remarkably, the code goes beyond mere assertion, logging all intricacies of both the request and response using .log().all(), facilitating thorough debugging and analysis.

***Registration URL Test (Priority 2):***

The RegsiterUrl() method is dedicated to the meticulous testing of the registration endpoint ("/register"). Employing a HashMap to articulate the JSON request payload with email and password parameters adds clarity to the code. The test intricately configures the base URL, sets the base path to "/register," specifies the content type, attaches the request body, and meticulously sends a POST request. The expected response status code is judiciously set to 200 with .then().statusCode(200). Comprehensive logging, employing .log().all(), ensures that every nuance of the request and response is captured for detailed scrutiny.

***Get User Test (Priority 3):***

The GetUser() method stands out in verifying the correctness of the "/api/users" endpoint by orchestrating a GET request. Leveraging Hamcrest matchers, the code performs granular validations on specific fields within the response body. This includes ensuring that the first user's email, first name, last name, and avatar align with the expected values. Such meticulous validation enhances the robustness of the test and ensures the integrity of the API endpoint.

***Logging Test (Priority 4):***

The Loggingtest() method is a testament to the logging capabilities of RestAssured. Initiating a GET request to the "/api/unknown" endpoint, the test asserts the response status code of 200 and meticulously logs all details of the request and response. Logging, in this context, serves as a potent debugging tool, providing developers with a comprehensive snapshot of the API interaction, aiding in the swift identification and resolution of potential issues.

***Conculsion***

Throughout the codebase, TestNG priorities are thoughtfully assigned to regulate the execution order of the tests, fostering a structured and predictable testing environment. The integration of RestAssured streamlines the complexity of making HTTP requests, while the inclusion of Hamcrest matchers enhances the readability of response validations. The strategic use of logging emerges as a valuable asset for debugging and troubleshooting, complementing the overall robustness of the testing framework.

This code serves as a foundation for automating API testing against the Reqres API and can be expanded to cover additional endpoints and scenarios