**Kindred Group – REST API Test Assignment**

Development Tools

1. Eclipse IDE
2. Testing Framework – Junit 4
3. JAVA Libaries

* Rest-Assured
* Jackson
* org.json
* org.apache.http
* org.apache.log4j

Assumptions

Following things are taken into consideration for developing REST API test cases.

1. Fixing REST API URL and Validation of request Parameters.
2. Fixing REST API URL

For Question 1 -> A

* Given URL :

<https://www.unibet.co.uk/kambi-rest-api/gameLauncher2.json>

* Corrected URL with all the parameters:

<https://www.unibet.co.uk/kambi-rest-api/gameLauncher2.json?_=1663081308152&useRealMoney=false&brand=unibet&jurisdiction=UK&locale=en_GB&currency=GBP&deviceGroup=desktop&clientId=polopoly_desktop&deviceOs=&marketLocale=en_GB&loadHTML5client=true&enablePoolBetting=false>

* Corrected URL with only mandatory parameters:

<https://www.unibet.co.uk/kambi-rest-api/gameLauncher2.json?brand=unibet&locale=en_GB>

1. Validating Request Parameters

For Question 1 -> B

The REST API URL is to be specified in external config file called i.e., restapiURLConfig.config as below.



Java test case will retrieve URL from here and perform validation on request parameters and response to validate if mandatory parameters are passed in request and response contains HTTP status 200 with JSON response containing expected data for e.g. endpointUrl.

1. Enhancing Solution to test Multi-Domain REST API Endpoints.

For e.g.

* <https://www.unibet.co.uk/sportsbook-feeds/views/sports/a>
* <https://www.unibet.se/sportsbook-feeds/views/sports/a-z>
* <https://www.unibet.com/sportsbook-feeds/views/sports/a-z>

For Question 2 -> A & B

1. Using JSON config for REST API Endpoints.

All the baseURL for each domain and its respective apiPath should be added in a JSON config file as below which will be used by the JAVA solution to set REST API endpoints.

Filname: rest\_endpoints\_config.json

Abosulute Path : $PROJECT\_ROOT\\resources\\config\\rest\_endpoints\_config.json

Graphical user interface, text, application

Description automatically generated

When new REST API endpoints are to be tested for given validation then the REST API endpoint details viz. baseURI and apiPath must be added in JSON format with new map/dictionary in endpoints[] in above file.

1. For deserialization of JSON entries of REST API endpoints - for conversion into JAVA objects, I have used Jackson library to convert JSON array into JAVA objects of class RestAPIEndpoint with following schema.

Text

Description automatically generated

1. Failure of test cases for multi-domain REST API

Since all the multi-domain endpoints refer to same REST API path and retrieve data in same format, I have written a separate method for validating each parameter from sports[] fields for e.g., name, boCount, iconURL etc. and each method performs the validation for all the multi-domain REST API endpoints.

Therefore, a validation failure for any specific attribute/parameter for e.g., boCount for any one domain will result into AssertionFailure and subsequent validation of same parameter of remaining for REST API endpoints of different domains will be omitted.