**Phase 3 Final Project Assessment Name: Prajwal Diwakar**

**Non-Functional Testing Using Postman, REST Assured, and JMeter.**

**Source Code:**

**Postman**

**Assignment 1:**

**Post Method: Create petID and PetName**

pm.test("Status code is 200", **function** () {

    pm.response.to.have.status(200);

});

pm.test("Response body contains 'available'", **function** () {

    pm.expect(pm.response.json().status).to.eql('available');

});

**Get Method: Validate petID:**

pm.test("Status code is 200", **function** () {

    pm.response.to.have.status(200);

});

**Delete Method:Delete petID:**

pm.test("Status code is 200", **function** () {

    pm.response.to.have.status(200);

});

Assignment 2

**Put Method: Validate status value**

pm.test("Response to have 'id' property", **function** () {

**var** jsonData = pm.response.json();

    pm.expect(pm.response.json()).to.have.property('id');

    pm.expect(jsonData.category.id).to.eql(20021);

});

pm.test("Status code to have 200", **function**(){

    pm.response.to.have.status(200);

});

pm.test("Validate status value in response", **function** () {

    pm.expect(pm.response.json()).to.have.property('status');

});

**Assignment 3**

**find user by username**

pm.test("Status code is 200", **function** () {

    pm.response.to.have.status(200);

});

pm.test("Validate username in response", **function** () {

    pm.expect(pm.response.json().username).to.eql(pm.environment.**get**("username"));

});

pm.test("Validate email in response", **function** () {

    pm.expect(pm.response.json().email).to.eql("Positive@Attitude.com");

});

pm.test("Validate userStatus in response", **function** () {

    pm.expect(pm.response.json().userStatus).to.eql(1);

});

**Assignment 4**

**Find pet by status=available**

// Validate id = 20021 in response

pm.test("Check id in response", **function**() {

pm.expect(pm.response.json().category.id).to.eql(20021);

});

// Validate response = 200

pm.test("Check response code", **function**() {

pm.response.to.have.status(200);

});

// Validate status value in JSON response based on environment

pm.test("Check status value in response", **function**() {

pm.expect(pm.response.json().status).to.eql(pm.environment.**get**("status"));

});

**Find pet by status=pending**

// Check if the response status code is 200

pm.test("Status code is 200", **function** () {

pm.response.to.have.status(200);

});

// Check if all pet details have status = pending

**var** jsonData = pm.response.json();

jsonData.forEach(**function** (pet) {

pm.expect(pet.status).to.equal("pending");

});

**Find pet by status=sold**

// Check if the response status code is 200

pm.test("Status code is 200", **function** () {

pm.response.to.have.status(200);

});

// Check if all pet details have status = sold

**var** jsonData = pm.response.json();

jsonData.forEach(**function** (pet) {

pm.expect(pet.status).to.equal("sold");

});

**user Logout**

// Check if the response status code is 200

pm.test("Status code is 200", **function** () {

pm.response.to.have.status(200);

});

// Parse the response JSON

**var** jsonData = pm.response.json();

// Check if the 'code' field in the response is equal to 200

pm.test("Code is 200", **function** () {

pm.expect(jsonData.code).to.equal(200);

});

// Parse the response JSON

**var** jsonData = pm.response.json();

// Check if the 'message' field in the response is equal to "OK"

pm.test("Message is OK", **function** () {

pm.expect(jsonData.message).to.equal("ok");

});

**RestAssured:**

**Phase3.Assignment01\_RestAssured.PostRequest**

**package** Phase3.Assignment01\_RestAssured;

**import** **static** org.hamcrest.CoreMatchers.*equalTo*;

**import** io.restassured.RestAssured;

**import** io.restassured.http.ContentType;

**import** org.testng.annotations.Test;

**import** org.apache.log4j.Logger;

**public** **class** PostRequest {

**private** **static** **final** String ***Base\_Url*** ="https://petstore.swagger.io/v2";

**static** **final** Logger ***logger***=Logger.*getLogger*(PostRequest.**class**);

@Test(description = "Post request method with the rest assured")

**public** **void** testPostPet() {

// Base URL for the API

***logger***.info("START:: POST method to create the PET details");

// JSON Body

String requestBody = "{ \"id\": 344, \"category\": { \"id\": 0, \"name\": \"string\" }, \"name\": \"Doggie\", " +

"\"photoUrls\": [ \"string\" ], \"tags\": [ { \"id\": 0, \"name\": \"string\" } ], " +

"\"status\": \"available\" }";

**try** {

// Send POST request

RestAssured.*given*().baseUri(***Base\_Url***)

.contentType(ContentType.***JSON***)

.body(requestBody)

.when()

.post("/pet")

.then().statusCode(200)

.and()

.assertThat()

.body("id",*equalTo*(344))

.and().body("status", *equalTo*("available"));

***logger***.info("Request Body is " +requestBody);

}

**catch** (Exception e) {

***logger***.error("Exception Object :: " + e.toString());

***logger***.error("End Exception :: "+e.getLocalizedMessage());

}

String response= RestAssured.*given*().baseUri(***Base\_Url***)

.contentType(ContentType.***JSON***)

.body(requestBody)

.when()

.post("/pet").getBody().asPrettyString();

***logger***.info("Response is" + response);

***logger***.info("END:: POST method to create the PET details");

}

}

**Phase3.Assignment01\_RestAssured. GetRequest**

**package** Phase3.Assignment01\_RestAssured;

**import** io.restassured.RestAssured;

**import** io.restassured.http.ContentType;

**import** org.testng.annotations.Test;

**import** org.apache.log4j.Logger;

**public** **class** GetRequest {

**private** **static** **final** String ***Base\_Url*** ="https://petstore.swagger.io/v2";

**static** **final** Logger ***logger***= Logger.*getLogger*(GetRequest.**class**);

@Test(description="Get request method to get PET details using the petID")

**public** **void** testGetPet() {

**int** petID= 344;

***logger***.info("START::GET method for the PET test");

***logger***.info("POST: URL" +***Base\_Url***+ "/pet/" +petID);

**try** {

RestAssured.*given*().baseUri(***Base\_Url***)

.contentType(ContentType.***JSON***)

.when().get("/pet/" +petID)

.then().assertThat().statusCode(200);

}

**catch**(Exception e) {

***logger***.error("Exception Object :: " + e.toString());

***logger***.error("End Exception :: "+e.getLocalizedMessage());

}

String response= RestAssured.*given*().baseUri(***Base\_Url***)

.when().get("/pet/" +petID).getBody().asPrettyString();

***logger***.info("Response is " +response);

***logger***.info("END:: GET method for the PET test");

}

}

**Phase3.Assignment01\_RestAssured.DeleteRequest**

**package** Phase3.Assignment01\_RestAssured;

**import** io.restassured.RestAssured;

**import** org.testng.annotations.Test;

**import** org.apache.log4j.Logger;

**public** **class** DeleteRequest {

**private** **static** **final** String ***Base\_Url*** ="https://petstore.swagger.io/v2";

**static** **final** Logger ***logger***= Logger.*getLogger*(DeleteRequest.**class**);

@Test(description="Delete request method for the PET")

**public** **void** testGetPet() {

***logger***.info("START::Delete method for the PET test");

**int** petID= 344;

***logger***.info("DELETE: URL" +***Base\_Url***+ "/pet/" +petID);

**try** {

RestAssured.*given*().baseUri(***Base\_Url***)

.when().delete("/pet/" +petID)

.then().statusCode(200);

}

**catch**(Exception e) {

***logger***.error("Exception Object :: " + e.toString());

***logger***.error("End Exception :: "+e.getLocalizedMessage());

}

// String response = RestAssured.given().baseUri(Base\_Url)

// .when().delete("/pet/" +petID)

// .getBody().asPrettyString();

String response= RestAssured.*given*().baseUri(***Base\_Url***)

.when().delete("/pet/" +petID).getBody().asPrettyString();

}

}

**Phase3.Assignment02\_RestAssured.putRequestMethod1**

**package** Phase3.Assignment02\_RestAssured;

**import** java.util.ArrayList;

**import** java.util.Iterator;

**import** java.util.List;

**import** **static** org.hamcrest.CoreMatchers.*equalTo*;

**import** org.apache.log4j.Logger;

**import** org.testng.annotations.DataProvider;

**import** org.testng.annotations.Test;

**import** io.restassured.RestAssured;

**import** io.restassured.http.ContentType;

**public** **class** putRequestMethod1 {

**private** **static** **final** String ***BASE\_URL*** = "https://petstore.swagger.io/v2";

**static** **final** Logger ***logger***= Logger.*getLogger*(putRequestMethod1.**class**);

@DataProvider(name = "statusValues")

**public** Iterator<Object[]> statusValues() {

**final** List<Object[]> statusValues = **new** ArrayList<Object[]> ();

statusValues.add(**new** Object[] {"available\_DEV"});

statusValues.add(**new** Object[] {"available\_QA"});

statusValues.add(**new** Object[] {"available\_PROD"});

**return** statusValues.iterator();

}

@Test(description="put request method ",dataProvider = "statusValues")

**public** **void** putCallTesting(**final** String statusValue) {

***logger***.info("START::PUT method for the PET test");

***logger***.info("POST: URL" +***BASE\_URL***+ "/pet/");

// Prepare JSON request body with dynamic status field

String requestBody = "{ " +

"\"id\": 9223372016900013000, " +

"\"category\": {\"id\": 20021, \"name\": \"string\"}, " +

"\"name\": \"doggie\", " +

"\"photoUrls\": [\"string\"], " +

"\"tags\": [{\"id\": 0, \"name\": \"string\"}], " +

"\"status\": \"" + statusValue + "\" " +

"}";

**try** {

***logger***.info("Request body is" +requestBody);

RestAssured.*given*().baseUri(***BASE\_URL***)

.contentType(ContentType.***JSON***)

.body(requestBody)

.when().put("/pet") // Send PUT request

.then().statusCode(200) // Validate response code

.and().assertThat()

.body("category.id", *equalTo*(20021)) // Validate id in response

.and().body("status", *equalTo*(statusValue)); // Validate status value in response

}

**catch**(Exception e) {

***logger***.error("Exception Object :: " + e.toString());

***logger***.error("End Exception :: "+e.getLocalizedMessage());

}

String response= RestAssured.*given*().baseUri(***BASE\_URL***)

.contentType(ContentType.***JSON***)

.body(requestBody)

.when().put("/pet").getBody().asPrettyString();

***logger***.info("Response is " +response);

***logger***.info("END:: PUT method for the PET test");

}

}

**Phase3.Assignment02\_RestAssured.putRequestMethod2**

**package** Phase3.Assignment02\_RestAssured;

**import** **static** org.hamcrest.CoreMatchers.*equalTo*;

**import** java.util.HashMap;

**import** org.apache.log4j.Logger;

**import** org.testng.annotations.Parameters;

**import** org.testng.annotations.Test;

**import** io.restassured.RestAssured;

**import** io.restassured.http.ContentType;

**public** **class** putRequestMethod2 {

**private** **static** **final** String ***BASE\_URL*** = "https://petstore.swagger.io/v2";

**static** **final** Logger ***logger***= Logger.*getLogger*(putRequestMethod2.**class**);

**private** **static** **final** HashMap<String, String> ***ENVIRONMENT\_VALUES*** = **new** HashMap<>();

**static** {

***ENVIRONMENT\_VALUES***.put("DEV", "available\_DEV");

***ENVIRONMENT\_VALUES***.put("QA", "available\_QA");

***ENVIRONMENT\_VALUES***.put("PROD", "available\_PROD");

}

@Parameters("environment")

@Test // (description="put request method ",dataProvider = "statusValues")

**public** **void** putCallTesting(String environment) {

***logger***.info("START::PUT method for the PET test");

***logger***.info("POST: URL" +***BASE\_URL***+ "/pet/");

String statusValue = ***ENVIRONMENT\_VALUES***.get(environment);

// Prepare JSON request body with dynamic status field

String requestBody = "{ " +

"\"id\": 9223372016900013000, " +

"\"category\": {\"id\": 20021, \"name\": \"string\"}, " +

"\"name\": \"doggie\", " +

"\"photoUrls\": [\"string\"], " +

"\"tags\": [{\"id\": 0, \"name\": \"string\"}], " +

"\"status\": \"" + statusValue + "\" " +

"}";

**try** {

***logger***.info("Request body is" +requestBody);

RestAssured.*given*().baseUri(***BASE\_URL***)

.contentType(ContentType.***JSON***)

.body(requestBody)

.when().put("/pet") // Send PUT request

.then().statusCode(200) // Validate response code

.and().assertThat()

.body("category.id", *equalTo*(20021)) // Validate id in response

.and().body("status", *equalTo*(statusValue)); // Validate status value in response

}

**catch**(Exception e) {

***logger***.error("Exception Object :: " + e.toString());

***logger***.error("End Exception :: "+e.getLocalizedMessage());

}

String response= RestAssured.*given*().baseUri(***BASE\_URL***)

.contentType(ContentType.***JSON***)

.body(requestBody)

.when().put("/pet").getBody().asPrettyString();

***logger***.info("Response is " +response);

***logger***.info("END:: PUT method for the PET test");

}

}

**Phase3.Assignment03\_RestAssured.GetRequestUserName**

**package** Phase3.Assignment03\_RestAssured;

**import** org.testng.annotations.Test;

**import** io.restassured.RestAssured;

**import** org.apache.log4j.Logger;

**import** **static** org.hamcrest.CoreMatchers.*equalTo*;

**public** **class** GetRequestUserName {

**private** **static** **final** String ***base\_url*** ="https://petstore.swagger.io/v2/user/Uname001";

**static** **final** Logger ***logger***= Logger.*getLogger*(GetRequestUserName.**class**);

@Test(description=" Get request method with rest assured")

**public** **void** TestGetMethod() {

***logger***.info("START::GET method for the PET test");

***logger***.info("POST: URL" +***base\_url***);

**try** {

RestAssured.*given*()

.when().get(***base\_url***)

.then().statusCode(200);

.and().assertThat()

.body("username", equalTo("Uname001"))

.and().body("email", equalTo("Positive@Attitude.com"))

.and().body("userStatus", equalTo(1));

}

**catch**(Exception e) {

***logger***.error("Exception Object :: " + e.toString());

***logger***.error("End Exception :: "+e.getLocalizedMessage());

}

String response= RestAssured.*given*().baseUri(***base\_url***)

.when().get("/user/Uname001")

.getBody().asPrettyString();

***logger***.info("Response is " +response);

***logger***.info("END:: GET method for the PET test");

}

}

**Phase3.Assignment04\_RestAssured.GetRequestAuthentication**

**package** Phase3.Assignment04\_RestAssured;

**import** **static** org.hamcrest.CoreMatchers.*notNullValue*;

**import** org.apache.log4j.Logger;

**import** org.testng.annotations.Test;

**import** Phase3.Assignment03\_RestAssured.GetRequestUserName;

**import** io.restassured.RestAssured;

**import** io.restassured.http.ContentType;

**public** **class** GetRequestAuthentication {

**private** **static** **final** String ***BASE\_URL*** = "https://petstore.swagger.io/v2";

**static** **final** Logger ***logger***= Logger.*getLogger*(GetRequestUserName.**class**);

@Test(description = "Test Authentication with rest assured")

**public** **void** testAuthenticationToken() {

***logger***.info("START::GET method for the PET Authenticaton Login");

***logger***.info("POST: URL" +***BASE\_URL***);

// create user post data

User user = **new** User("Uname001" ," @tt!tude");

***logger***.info("user object is" +user );

**try** {

RestAssured.*given*().baseUri(***BASE\_URL***).when()

.contentType(ContentType.***JSON***)

.body(user)

.log().uri() // request logs

.get("/user/login").then()

.log().body() // response logs

.assertThat().statusCode(200).and()

.assertThat().body ("code", *notNullValue*()).and()

.assertThat().body ("type", *notNullValue*()).and()

.assertThat().body ("message", *notNullValue*());

}

**catch**(Exception e) {

***logger***.error("Exception Object :: " + e.toString());

***logger***.error("End Exception :: "+e.getLocalizedMessage());

}

String response = RestAssured.*given*().baseUri(***BASE\_URL***).when()

.contentType(ContentType.***JSON***)

.body(user)

.get("/user/login").getBody().asString();

***logger***.info("Response is " +response);

***logger***.info("END::GET method for the PET Authenticaton Login");

}

}

**class** User {

**public** String username;

**public** String password;

**public** User(String username, String password) {

**super**();

**this**.username = username;

**this**.password = password;

}

}

**Phase3.Assignment05.RestAssured.TestPetStoreFindByStatus**

**package** Phase3.Assignment05.RestAssured;

**import** io.restassured.RestAssured;

**import** io.restassured.http.ContentType;

**import** org.testng.annotations.Test;

**import** **static** org.hamcrest.Matchers.\*;

**import** org.apache.log4j.Logger;

**public** **class** TestPetStoreFindByStatus {

**private** **static** **final** String ***base\_url*** = "https://petstore.swagger.io/v2/pet/findByStatus";

**static** **final** Logger ***logger***= Logger.*getLogger*(TestPetStoreFindByStatus.**class**);

@Test

**public** **void** findPetsByAvailableStatus() {

***logger***.info("START::GET method for the find PET by status=available");

***logger***.info("GET: URL" +***base\_url***);

// Make GET call with status=available

RestAssured.*given*()

.contentType(ContentType.***JSON***)

.queryParam("status", "available")

.when()

.get(***base\_url***)

.then()

.statusCode(200)

.body("status", *everyItem*(*equalTo*("available")));

String response= RestAssured.*given*()

.contentType(ContentType.***JSON***)

.queryParam("status", "pending")

.when()

.get(***base\_url***).getBody().asPrettyString();

***logger***.info("Response is " +response);

***logger***.info("END:: GET method for the find PET by status=available");

}

@Test

**public** **void** findPetsByPendingStatus() {

***logger***.info("START::GET method for the find PET by status=pending");

***logger***.info("GET: URL" +***base\_url***);

// Make GET call with status=pending

RestAssured.*given*()

.contentType(ContentType.***JSON***)

.queryParam("status", "pending")

.when()

.get(***base\_url***)

.then()

.statusCode(200)

.body("status", *everyItem*(*equalTo*("pending")));

String response= RestAssured.*given*()

.contentType(ContentType.***JSON***)

.queryParam("status", "pending")

.when()

.get(***base\_url***).getBody().asPrettyString();

***logger***.info("Response is " +response);

***logger***.info("END:: GET method for the find PET by status=pending");

}

@Test

**public** **void** findPetsBySoldStatus() {

***logger***.info("START::GET method for the find PET by status=sold");

***logger***.info("GET: URL" +***base\_url***);

// Make GET call with status=sold

RestAssured.*given*()

.contentType(ContentType.***JSON***)

.queryParam("status", "sold")

.when()

.get(***base\_url***)

.then()

.statusCode(200)

.body("status", *everyItem*(*equalTo*("sold")));

String response= RestAssured.*given*()

.contentType(ContentType.***JSON***)

.queryParam("status", "pending")

.when()

.get(***base\_url***).getBody().asPrettyString();

***logger***.info("Response is " +response);

***logger***.info("END:: GET method for the find PET by status=sold");

}

}

**Phase3.Assignment06.RestAssured.UserLogout**

**package** Phase3.Assignment06.RestAssured;

**import** org.testng.annotations.Test;

**import** io.restassured.RestAssured;

**import** io.restassured.http.ContentType;

**import** **static** org.hamcrest.CoreMatchers.*notNullValue*;

**import** org.apache.log4j.Logger;

**public** **class** UserLogout {

**private** **static** **final** String ***Base\_url***= "https://petstore.swagger.io";

**static** **final** Logger ***logger***= Logger.*getLogger*(UserLogout.**class**);

@Test(description=" userLogout get method with the rest assured")

**public** **void** TestUserLogout() {

***logger***.info("START::GET method for the PET test");

***logger***.info("POST: URL" +***Base\_url***);

**try** {

RestAssured.*given*().baseUri(***Base\_url***)

.contentType(ContentType.***JSON***)

.when().get("/v2/user/logout")

.then().assertThat().statusCode(200)

.and().assertThat().body("code", *notNullValue*())

.and().assertThat().body("message", *notNullValue*());

}

**catch**(Exception e) {

***logger***.error("Exception Object :: " + e.toString());

***logger***.error("End Exception :: "+e.getLocalizedMessage());

}

String response =RestAssured.*given*().baseUri(***Base\_url***)

.contentType(ContentType.***JSON***)

.when().get("/v2/user/logout").getBody().asPrettyString();

***logger***.info("The response is" +response);

***logger***.info("END::GET method for the PET test");

}

}