Day-7

Task 1: Verify HTTP Status Codes Using RestAssured
Topic: Understanding HTTP Status Response Codes
Description: Write a RestAssured test to GET a resource from a public API and verify the HTTP status code.
Steps:
Choose a public API endpoint for a GET request (e.g., https://api.publicapis.org/entries).
Write a RestAssured test using the GIVEN-WHEN-THEN methodology.
Use GIVEN to set up the RestAssured request.
Use WHEN to specify the GET method and the URL.
Use THEN to verify that the HTTP status code is 200.
Execute the test and confirm that the assertion passes.

Code:

```java
import io.restassured.RestAssured;
import io.restassured.response.Response;
import org.junit.Test;

import static io.restassured.RestAssured.*;
import static org.hamcrest.Matchers.*;

public class GetRequestTest {

    @Test
    public void verifyStatusCode() {
        given()
            .baseUri("https://api.publicapis.org")
        .when()
            .get("/entries")
        .then()
            .statusCode(200);
    }
}
```

Task 2: Create a POST Request with JSON Payload Using RestAssured
Topic: POST Requests with JSON Strings and POJO Classes
Description: Write a RestAssured test to POST a JSON payload to a public API and verify the response body content.
Steps:
Choose a public API that accepts POST requests and requires a JSON payload (e.g., https://jsonplaceholder.typicode.com/posts).
Create a simple POJO (Plain Old Java Object) class to represent the JSON payload structure.
Write a RestAssured test that uses the POJO class to create the JSON payload.
Use RestAssured to send the POST request with the JSON payload.
Verify the response body to ensure the correct data is returned (e.g., using JSONPath).
Confirm the status code is 201 (Created) or as appropriate for the API.

Code:

POJO Class:
```java
public class Post {
   private String title;
   private String body;
   private int userId;

   // Constructors, getters and setters
   public Post(String title, String body, int userId) {
      this.title = title;
      this.body = body;
      this.userId = userId;
   }

   public String getTitle() {
      return title;
   }

   public void setTitle(String title) {
      this.title = title;
   }

   public String getBody() {
      return body;
```

```java
    }

    public void setBody(String body) {
        this.body = body;
    }

    public int getUserId() {
        return userId;
    }

    public void setUserId(int userId) {
        this.userId = userId;
    }
}
```

RestAssured Test:
```java
import io.restassured.RestAssured;
import io.restassured.http.ContentType;
import org.junit.Test;

import static io.restassured.RestAssured.*;
import static org.hamcrest.Matchers.*;

public class PostRequestTest {

    @Test
    public void createPost() {
        Post post = new Post("foo", "bar", 1);

        given()
            .baseUri("https://jsonplaceholder.typicode.com")
            .contentType(ContentType.JSON)
            .body(post)
        .when()
            .post("/posts")
        .then()
            .statusCode(201)
            .body("title", equalTo("foo"))
            .body("body", equalTo("bar"))
            .body("userId", equalTo(1));
    }
}
```