**Rest Assured** enables you to test REST APIs using java libraries and integrates well with Maven.

For the testing community, API Automation Testing is still new and niche. The JSON complexities keep API testing unexplored. But that does not make it less important in the testing process. Rest Assured.io framework has made it very simple using core java basics, making it a very desirable thing to learn.

 Using Rest Assured, automation testing of APIs, sending simple https requests with user-friendly customizations is simple if one has a basic background of java. It is needed to understand API testing, and integration testing, but post that automation Rest Assured gives very good confidence on the backend while front-end testing can just focus on the UI and client-side operations. Rest Assured is a open source with a lot of additional methods and libraries being added has made it a great choice for API automation.

To work with Rest Assured API, we need to have Java, Eclipse and Maven being preinstalled.

To include the Rest Assured API, need to add the below code onto POM.XML

<dependency>

<groupId>io.rest-assured</groupId>

<artifactId>json-path</artifactId>

<version>4.2.0</version>

<scope>test</scope>

</dependency>

<dependency>

<groupId>io.rest-assured</groupId>

<artifactId>xml-path</artifactId>

<version>4.2.0</version>

<scope>test</scope>

</dependency>

<dependency>

<groupId>io.rest-assured</groupId>

<artifactId>json-schema-validator</artifactId>

<version>4.2.0</version>

<scope>test</scope>

</dependency>

**Out of curiosity to know on the Web services, what is SOAP? What is REST?**

[Learn Web Services Tutorial - javatpoint](https://www.javatpoint.com/web-services-tutorial)

The objective of REST Assured is to simplify the process to test and validate [RestAPI](https://blog.vsoftconsulting.com/blog/how-to-conduct-automation-testing-of-restful-web-services). The Rest Assured is a Java-based library used to validate HTTP responses received from the server. For example, we can verify the Status Code, Status Message, Headers and the Body of the response. This flexibility of the [REST Assured](https://blog.vsoftconsulting.com/blog/api-testing-process-using-postman-and-rest-assured?hs_preview=RDMOzPRx-12837394196) library can be used for API testing.

The Rest Assured is a Java-based library used to validate HTTP responses received from the server. For example, we can**verify the Status Code, Status Message, Headers and the Body of the response**. This flexibility of the REST Assured library can be used for API testing. Comparing Operations in Rest-Assured and Manual API testing in POSTMAN

**Examples**:

[REST Assured API testing. -With sample requests and tests for… | by Chaya Thilakumara | Chaya Thilakumara | Medium](https://medium.com/chaya-thilakumara/rest-assured-api-testing-part-1-e96a2f284a6e)

Validating status code using Rest Assured API:

[Rest Assured API Automation # 2 | How to Verify Status Code in Rest Assured | NATASA Tech - Bing video](https://www.bing.com/videos/search?q=validating+status+code+using+Rest+Assured&docid=607997885579489146&mid=B6E3BFD1A18068AD93BBB6E3BFD1A18068AD93BB&view=detail&FORM=VIRE)

**Payload in Rest Assured:**

[Rest Assured tutorial - Multiple ways of creating payload in Rest (selenium-tutorial.com)](https://www.selenium-tutorial.com/blog/151996/multiple-ways-of-creating-payload-in-rest-assured-api-tutorial)

In APIs, the payload is the **data contained within a request**.

 In simple words, the payload means**body in the HTTP request and response message.**

It is a two-way process. **Payload** as request and **payload** as a response. Request **payload** is sent from client to server and response **payload** is sent from server to client. There are many ways of providing **payload** to an **API**. It may be a JSON, XML, HTML, TEXT, etc but all serve the purpose of giving instruction to an **API** with different representations.

Validating Response Body using Rest Assured:

[Rest Assured ApI Testing - Response body validation - YouTube](https://www.youtube.com/watch?v=5V7Tm23QzBU)

**oauth 1&2:**

**OAuth** is an open-standard authorization protocol or framework that provides applications the ability for secure designated access. For example, you can tell Facebook that its OK for ESPN.com to access your profile or post updates to your timeline without having to give ESPN your Facebook password.

OAuth (Open Authentication) is**an open-standard authorization protocol or framework that provides applications the ability for “secure designated access.”**

Difference between oauth 1 and 2:

[What’s the difference between OAuth 2.0 and OAuth 1.0? | Synopsys](https://www.synopsys.com/blogs/software-security/oauth-2-0-vs-oauth-1-0/)

Example:

[OAuth2 0 Authorization with Postman - YouTube](https://www.youtube.com/watch?v=pxD9e2fk9fE)

POJO – Plain Old Java Objects – BO – Business Object – Getter/Setter class.

**SBA8**: Check on how to create JSON to POJO w.r.t ‘Rest Assured / Postman’? --------------

Serialization and Deserialization in REST Assured:

[Rest Assured API Testing Tutorial | Serialization and Deserialization in RestAssured | by Pramod Dutta | Medium](https://scrolltest.medium.com/rest-assured-api-testing-tutorial-serialization-and-deserialization-in-restassured-2e6895c85efc)

Example:

[Rest assured API automation framework - Serialization in Rest assured - YouTube](https://www.youtube.com/watch?v=q5jrBrvOrRo)