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Assertions

1. What is an assertion?

Assertions are used to validate the content in web service responses.

Can you give any example?

For example, if a call web service operation "getCompanyInfo" for the given company code.

In response, we can validate the field "Company Name" for a specific value.


GOOG > expected company name "Google Inc."

YHOO > expected company name "Yahoo Inc."

2. What are the different assertions available in Soap UI?

Most commonly used assertions are,

- Property Content
- Compliance, Status & Standards
- Script
- SLA

 Add Assertion

Add Assertion

Select the source property and which a

Assertions

Recently used

Property Content

Compliance, Status and Standards

Script

SLA

JMS

JDBC

Security

3. What kind Property content assertions you used/available in Soap UI?

Most commonly used is "XPath Match" assertion. We will write "XPath" expressions to extract the value from response and compare with expected value.

the other types are

- Contains
- Not Contains
- XQuery

4. Let us say, I want to count a specific element in response, can you do it?

Yes,. We can use XPath function "count"

count(//ns1:getProductData/ns1:product)

this function will count the "product" elements in web service response.

5. I want to write an assertion to validate the "email" field in response, whether it is a valid email address or not, how can you do it?

Soap UI supports "Regular expressions" patterns. We can do this using "XPath" function "matches".

matches(//ns1:customer/ns1:email/text(), '<regular expression>')

For this you need have some knowledge on "regular expressions", anyways you can take help from the leads/developers for complex patterns.

6. What are Compliance assertions?

- SOAP Message ,
- SOAP Fault,
- Valid/Invalid HTTP Status Code,
- Schema Compliance

7. Explain SOAP Message and SOAP Fault?

SOAP Message:

Validates weather the response message is as a valid SOAP message.

Means, it must contain Envelope, Body

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xml
  <soapenv:Body>
    <ns1:getBankResponse xmlns:ns1="http://thoma
      <ns1:details>
        <ns1:bezeichnung>Postbank (Giro)</ns1:
        <ns1:bic>PBNKDEFF200</ns1:bic>
        <ns1:ort>Hamburg</ns1:ort>
        <ns1:plz>22280</ns1:plz>
      </ns1:details>
    </ns1:getBankResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

SOAP Fault:

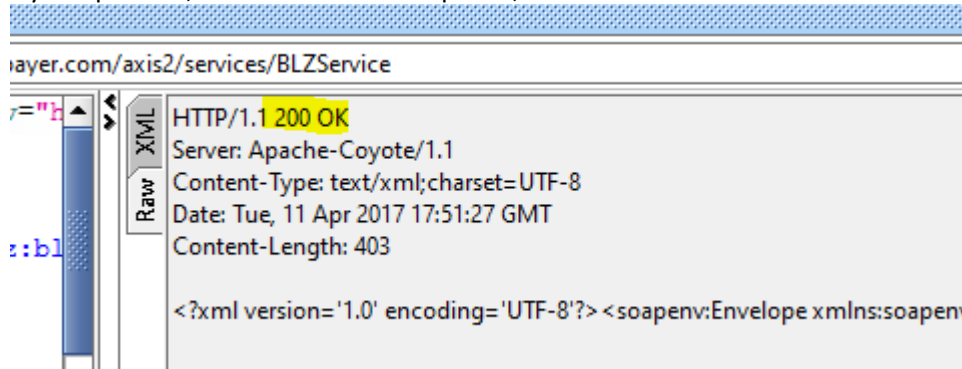
For a given scenario if you are expected a SOAP Fault , use this assertion.

Validates whether the response message is as a valid SOAP Fault message.

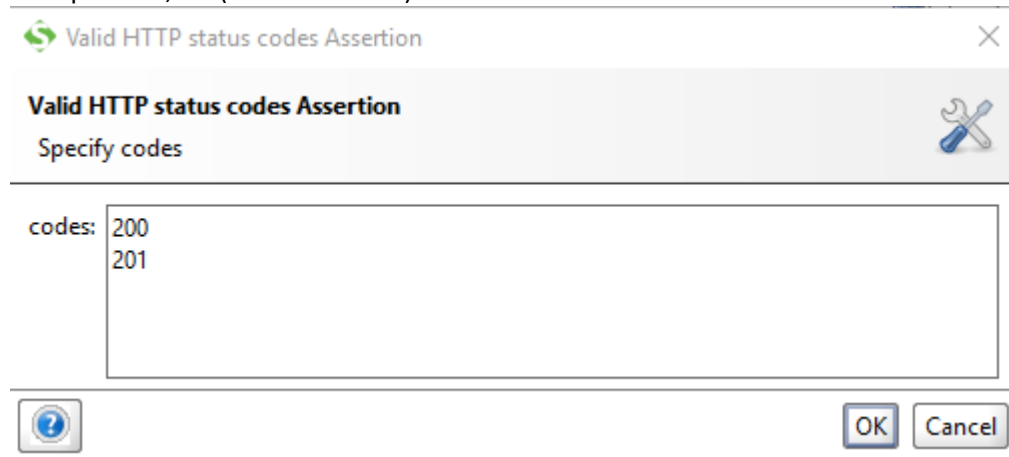
8. What is "Valid HTTP Status Codes" assertions?

Validates the HTTP Status code received for the response is in the defined valid HTTP Status codes or not.

If you open the, Raw tab in SOAP response, we can see the HTTP Status code.



Example: 200,201(for rest service)



9. What is schema compliance assertion?

Validates that the received response message is as per the defined XML schema(structure) in WSDL document.

In WSDL document's "types" section, we will define the schema(structural information of XML elements) which can appear in Request & Response messages of web service operations.

Usually , developers design XSD(XML Schema Definition) files and include/refer them in WSDL types section.

10. Can we use XPath and XQuery expressions for REST service Responses?

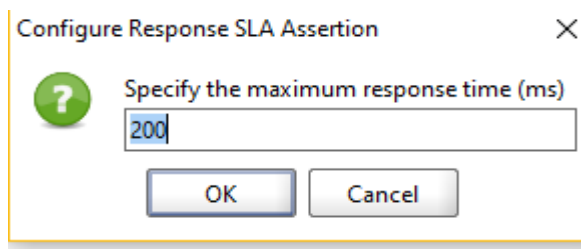
Yes, when the rest service is responding back with XML (REST service can produce XML/JSON).

11. What is "Script" assertion?

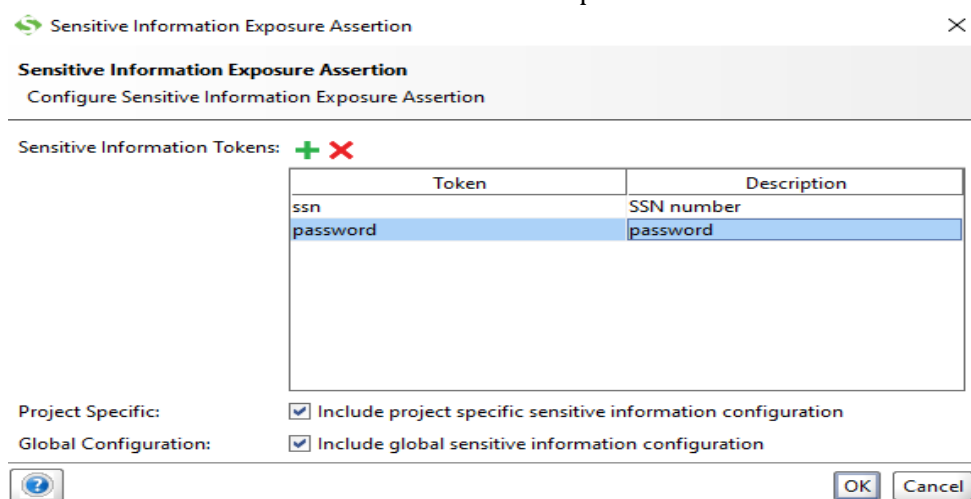
Script assertion is nothing but writing assertions in Groovy to validate web service responses. We can use either XmlParser/JsonParser classes to validate XML or JSON responses.

12. What is "Response SLA " assertion?

Validates the web service is responding within the given time limit (in m.secs)



Checks whether the web service response contains any sensitive information. If response contains sensitive information like "ssn" and "password" elements the assertion will fail.



13. Do you have any idea about JDBC assertions?

There are couple of assertions available under JDBC. They can be used only with JDBC test step.

- JDBC Status - validates the jdbc test step executed successfully.
- JDBC Timeout - checks jdbc response is within specified time limit.