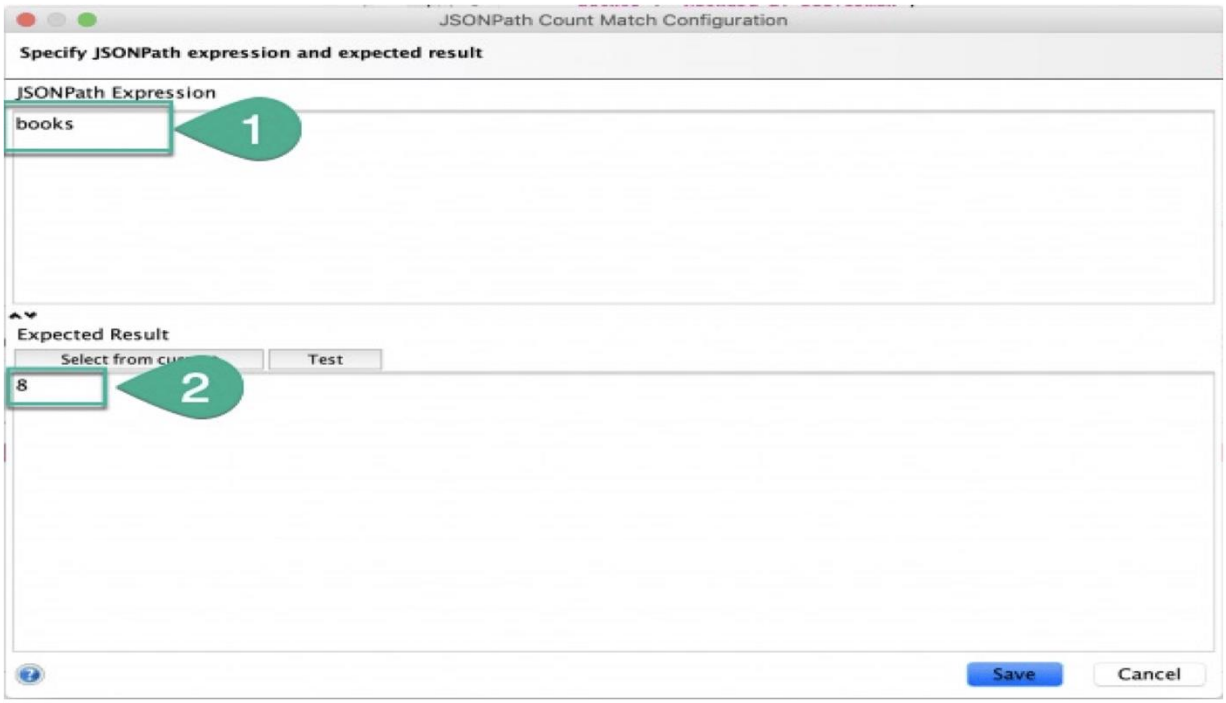
Assertions : Script Assertion for JSON Response

There are specific assertions in SoapUI which are applicable only to the REST services. All of these assertions are the validations specific to the response of the REST service, which will always be JSON.

What is JsonPath Count Assertion in SoapUI?

The JsonPath Count assertion helps in counting the occurrence of a string in the response. It applies to all the responses which return a *JSON* as output.

Consider a scenario where we want to validate the number of books in the response of bookstore service. It should be "***8***" every time, which we can ascertain from the response of the target service. Additionally, we can put the assertion on this count, and the assertion shouldn't fail if the count returned by the service is 8.

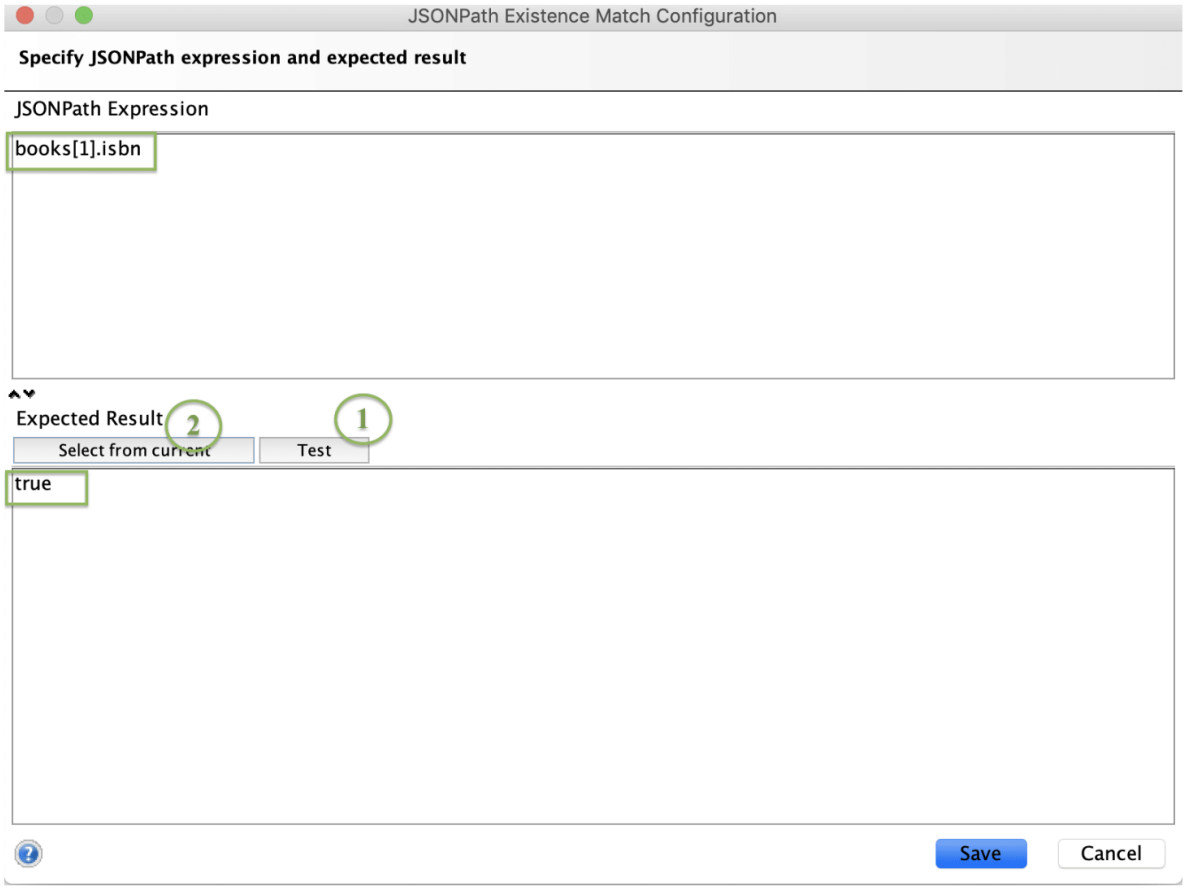


3. Thirdly, in the "***JSONPath Expression***", specify the string "***books***"(*as shown by marker 1*) and in the "***Expected Result***" section specify "***8***" (*as indicated by marker) 2*). Click the "***Save***" button to save the assertion. Consequently, it will show the result of assertion as passed, as designated below:

What is JsonPath Existence Match Assertion in SoapUI?

The ***JsonPathExistence Match assertion*** helps us to find the ***existence of the key*** in the Response JSON.

Consider a scenario where we want to validate the existence of the key "***isbn***" in the response of bookstore service. It should return "***true***" as the key exists in the response of the bookStore service mentioned above. Therefore, it can ascertain by using the ***JsonPath Existence Match*** assertion in SoapUI.

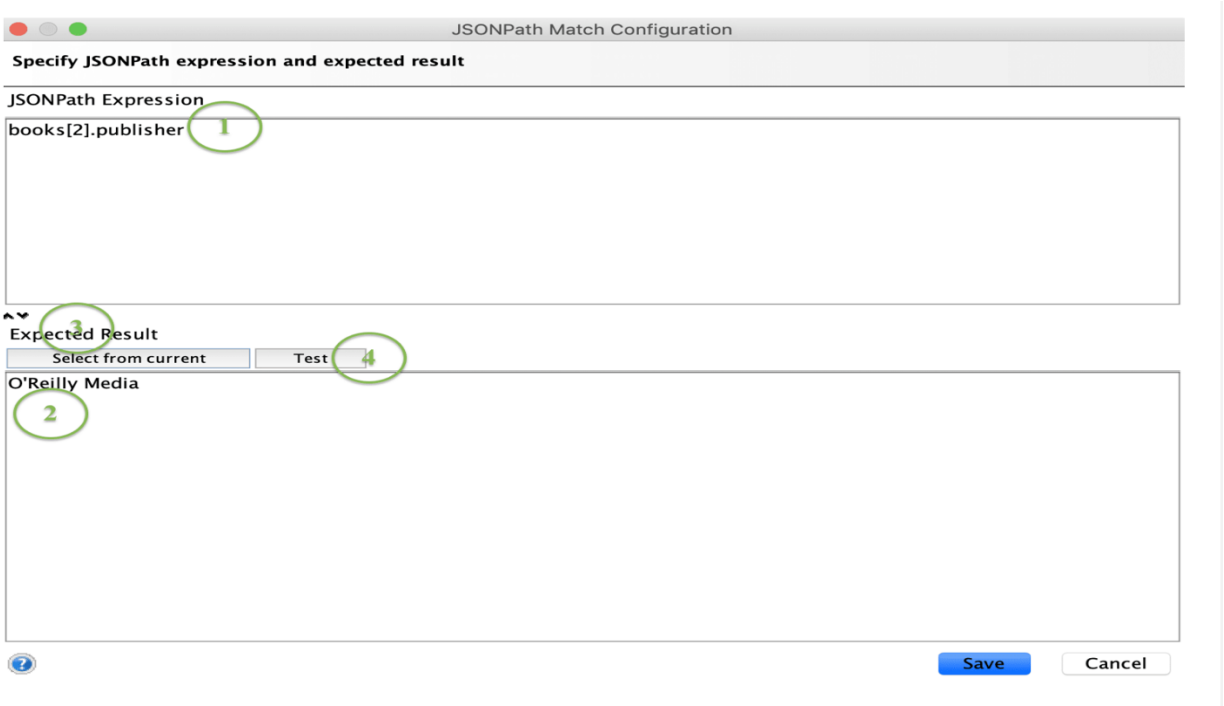


3. Thirdly, in the "***JsonPath Expression***" section, specify "***books[1].isbn***" this will check for the existence of the "***isbn***" key in the 2nd element of the array response. Additionally, the result which you are expecting should be in "***boolean (True/False)***"in the "***Expected Result***" section. You must be seeing two buttons in this section:

What is JsonPath Match Assertion in SoapUI?

The ***JSONPath Match assertion*** uses a JSONPath expression to check the presence of any node and compare it to the value you expect.

Consider a scenario that we want to validate the value of the "***publisher***" field in the response of BookStore API mentioned above. As we can see from the code snippet showing the response of the REST service, there exists a "***publisher***" node in every object of the ***books array***.



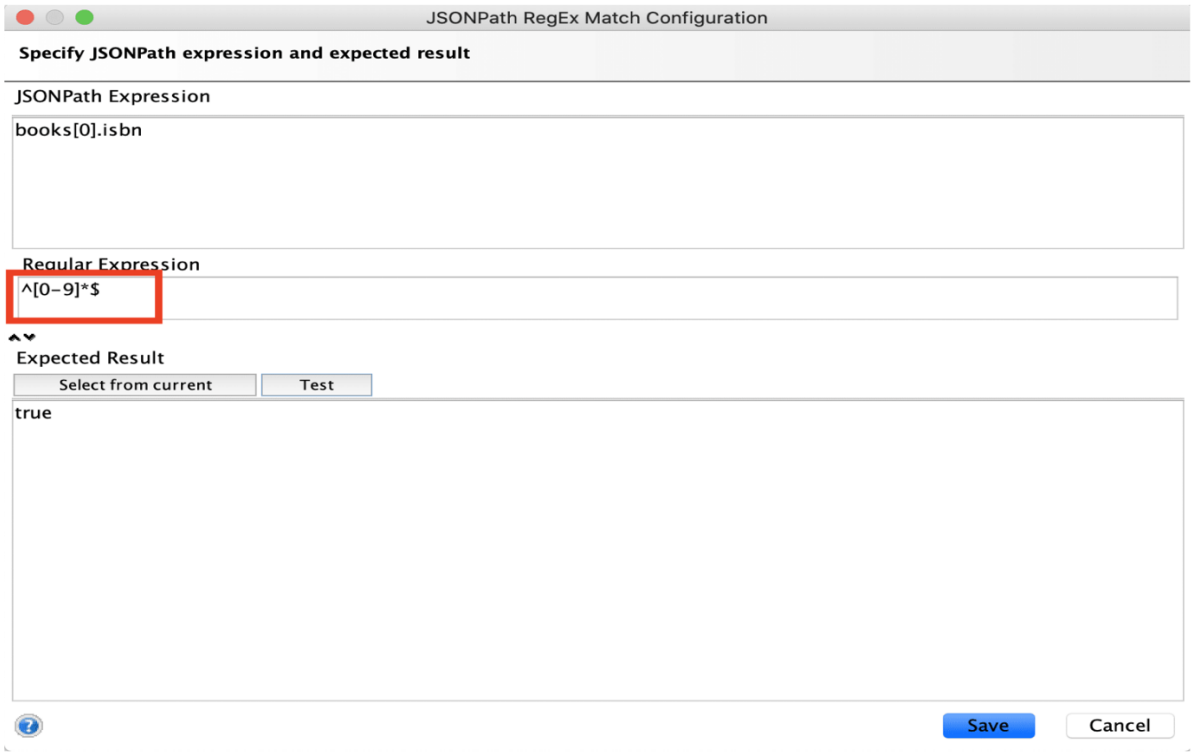
Where,

1. *You need to specify the "**JsonPath Expression**," in our case, we will check the publisher of the book, which appears on the third number in the Array so that we will write the Json path as "**books[2].publisher**".*
2. *You can specify the "**Expected Result**" as "**O'Reilly Media**".*
3. ***Select from Current**: Once you are sure that the JSONPath mentioned above is correct, you can select the current value from the response by clicking on the button labeled as "**3**" in the screenshot. So, instead of specifying the value manually in Step 2, we can click on this button to auto-populate the expected value.*

What is JsonPath RegEx Match Assertion in SoapUI?

The ***JsonPath Regex Match*** assertion works similarly to the ***JSONPath Match*** assertions. It helps us to verify the existence of the value of the particular node by using a regular expression instead of a fixed value.

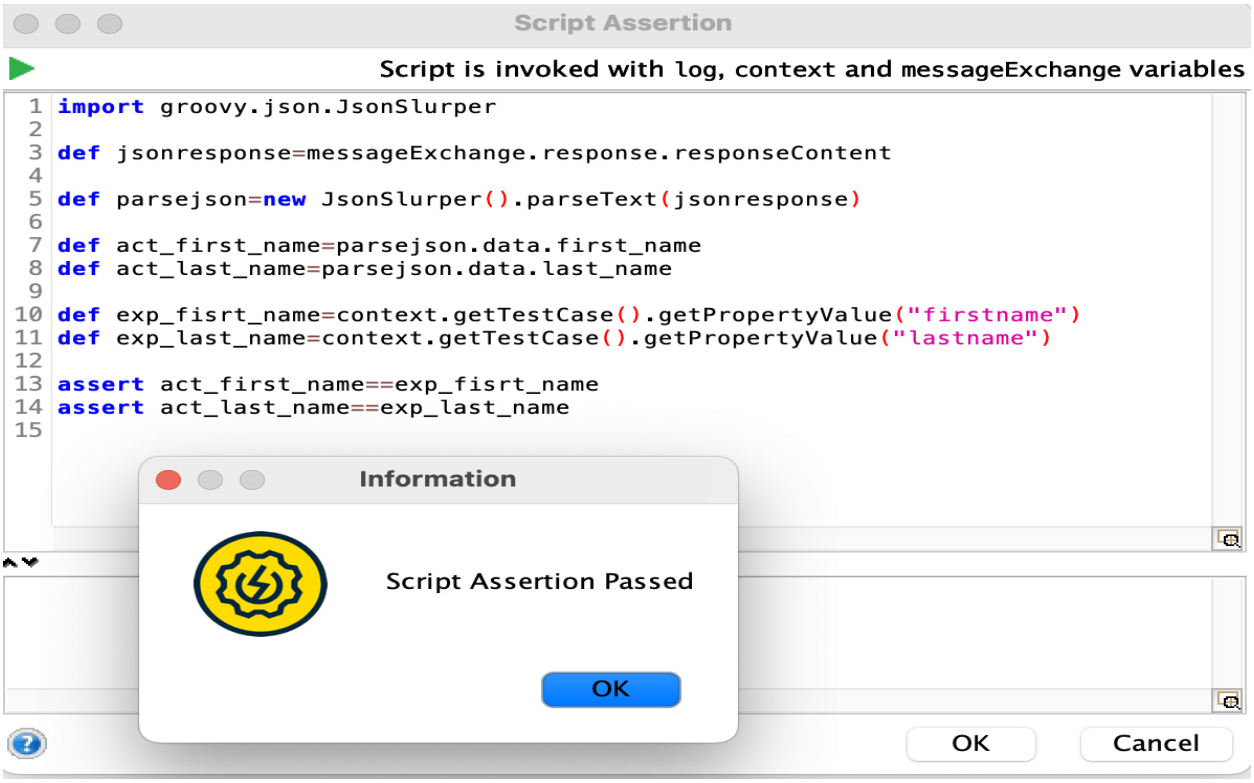
Consider a scenario that you want to verify whether the first node of the Books Store API contains ***isbn*** and that *isbn* contains numbers only from ***0-9***.



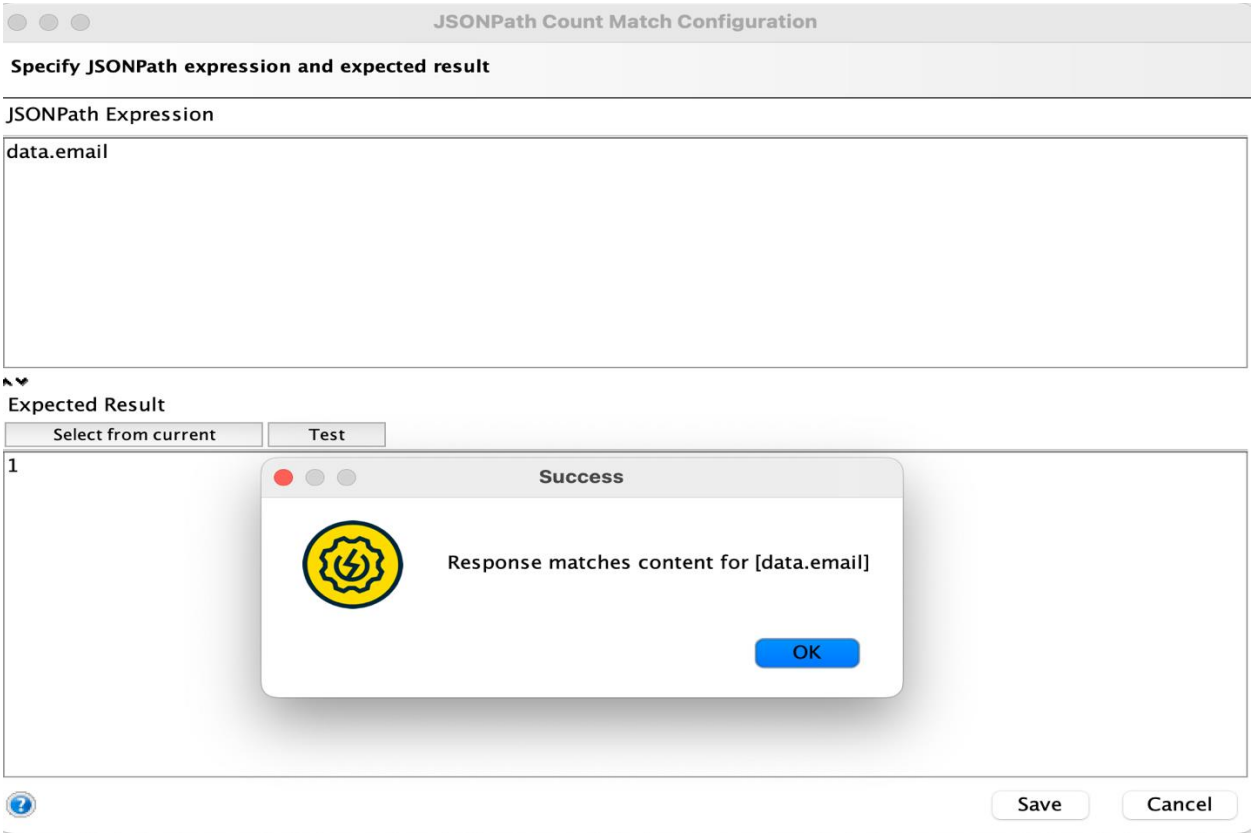
3. Here we will verify whether the "***books[0].isbn***" node contains the value from (*0-9*) ***Numerals*** only. So will put RegEx as "***^[0-9]$****". It verifies that the value of the node in the JSON response is between ***0-9 numbers***. The specified regex verifies the following values:

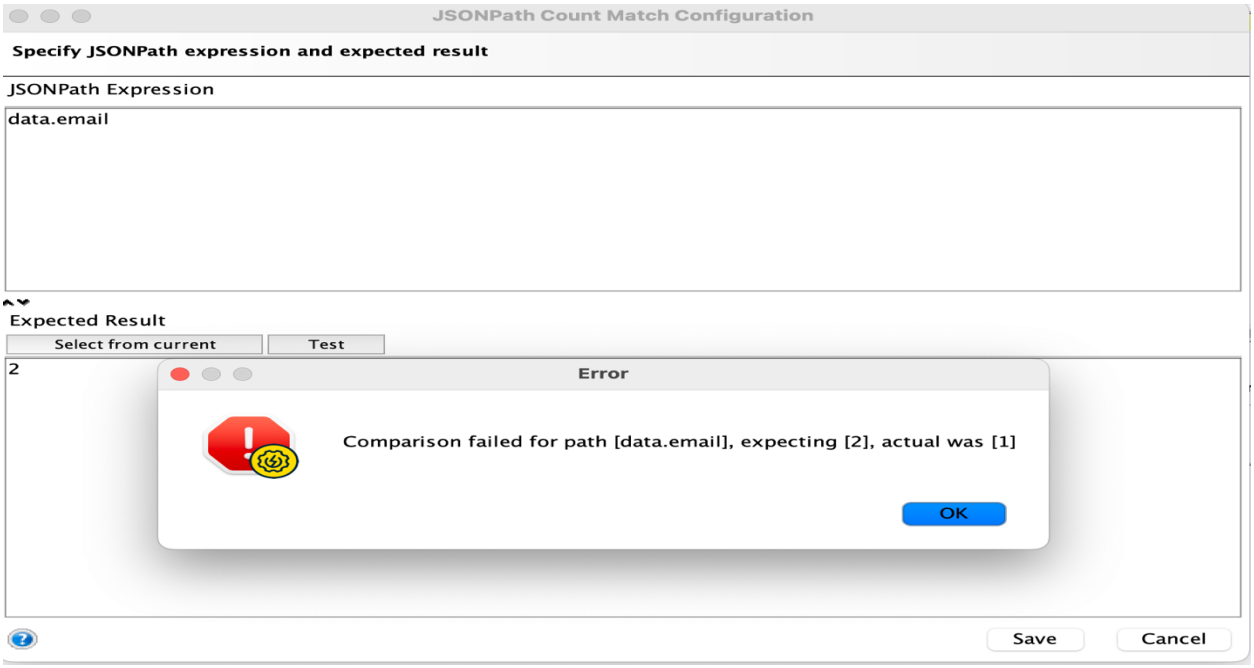
- *^ Indicates the start of the expression.*
- *[0-9] Indicates the range of integers.*
- ** Indicates the number of characters (n in this case).*
- *$ Indicates the end of the expression.*

4. Again, you can choose the expected result, either using the "***Select from current***" button or specifying the "***true***" value manually.

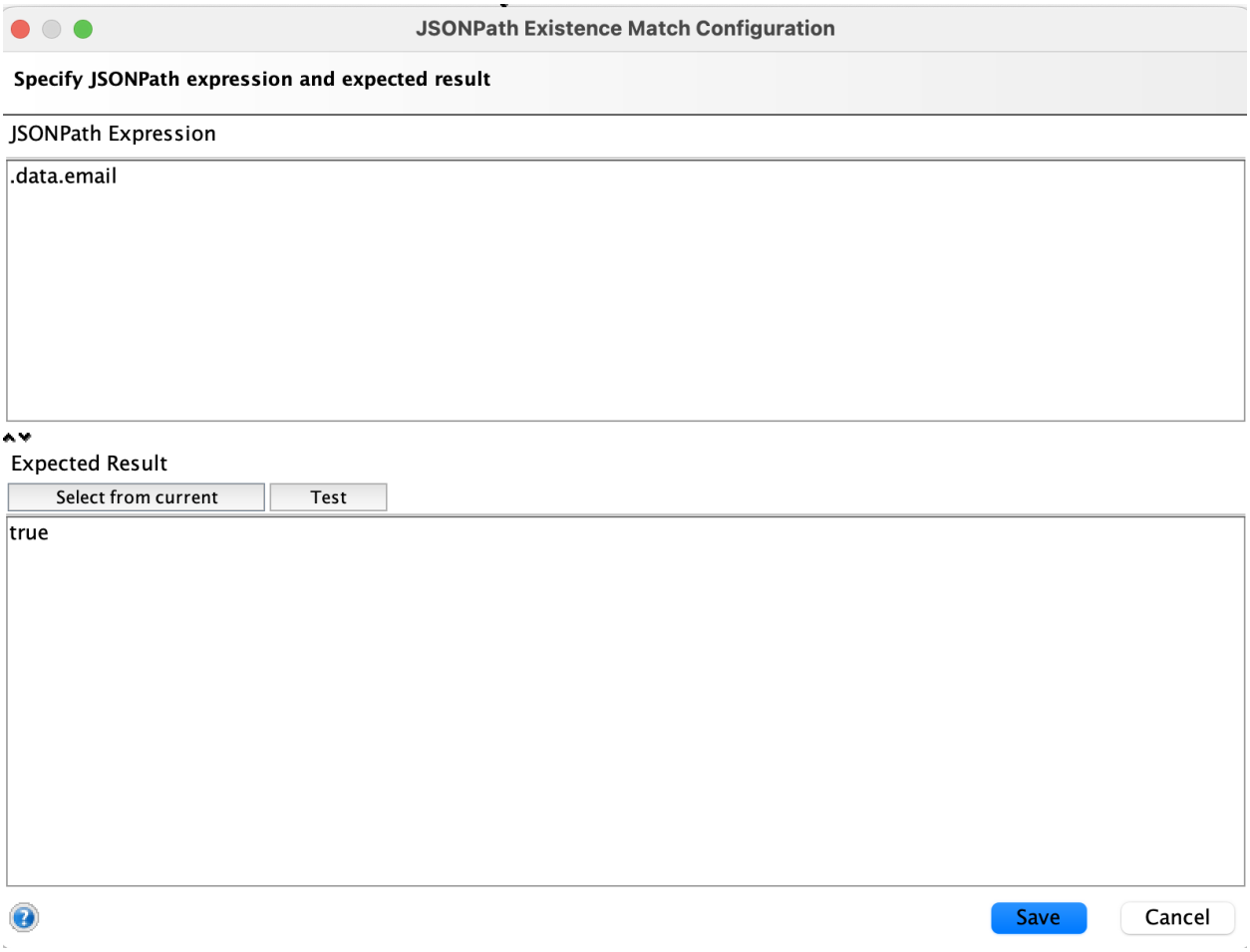

Script Assertion
Script is invoked with log, context and messageExchange variables
import groovy.json.JsonSlurper
def jsonresponse=messageExchange.response.responseContent
def parsejson=new JsonSlurper().parseText(jsonresponse)
def act_first_name=parsejson.data.first_name
def act_last_name=parsejson.data.last_name
def exp_fisrt_name=context.getTestCase().getPropertyValue("firstname")
def exp_last_name=context.getTestCase().getPropertyValue("lastname")
assert act_first_name==exp_fisrt_name
assert act_last_name==exp_last_name
Information
Script Assertion Passed
OK
OK
Cancel

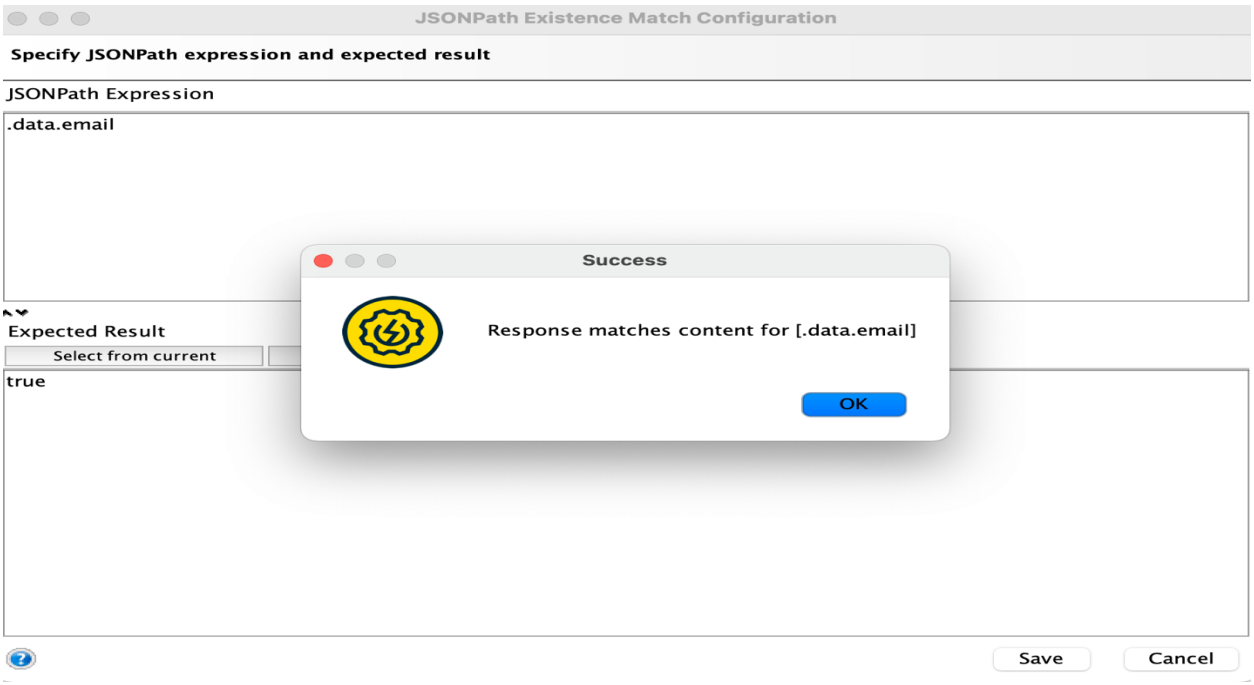
Count Match


JSONPath Count Match Configuration
Specify JSONPath expression and expected result
JSONPath Expression
data.email
Expected Result
Select from current
Test
1
Success
Response matches content for [data.email]
OK
Save
Cancel

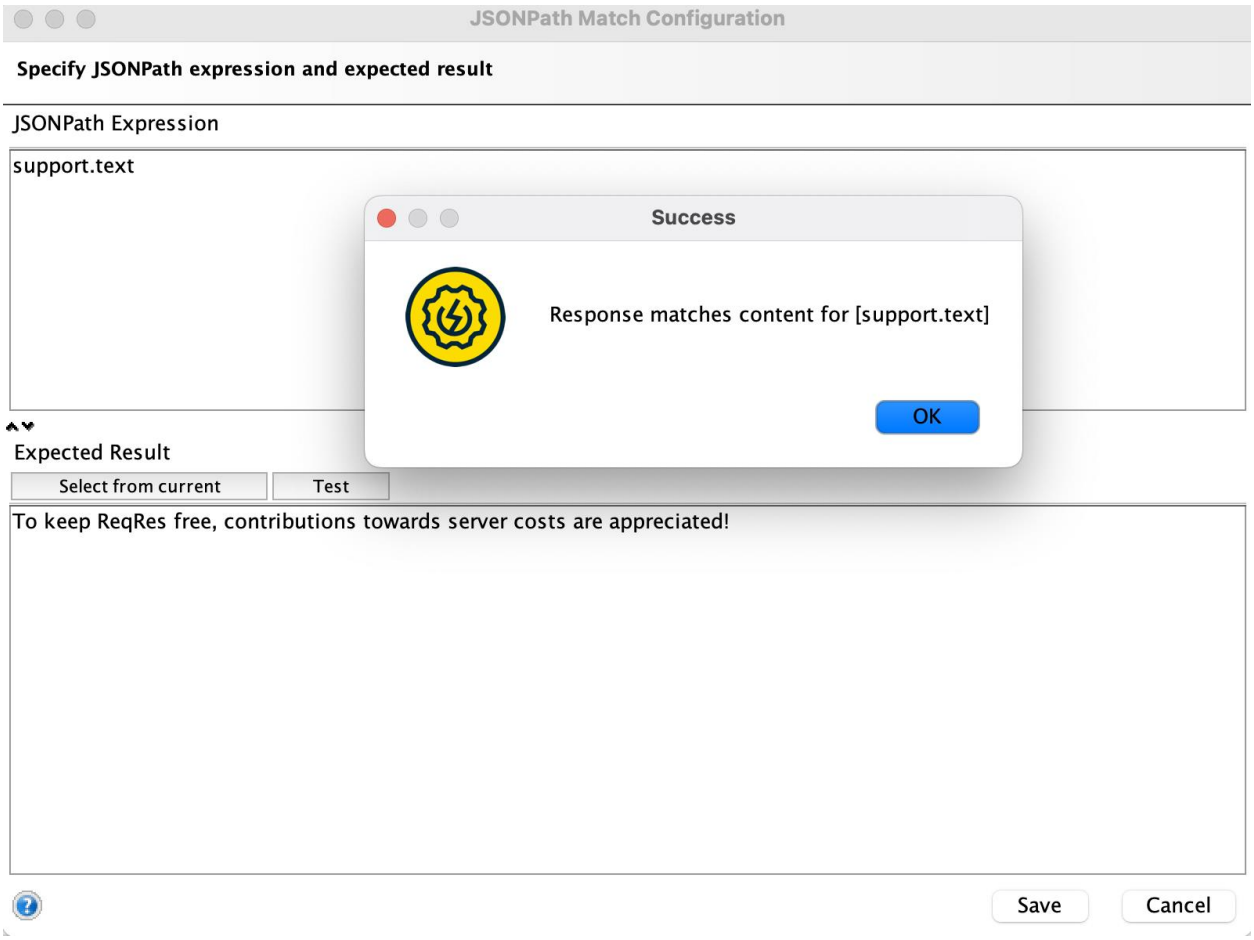


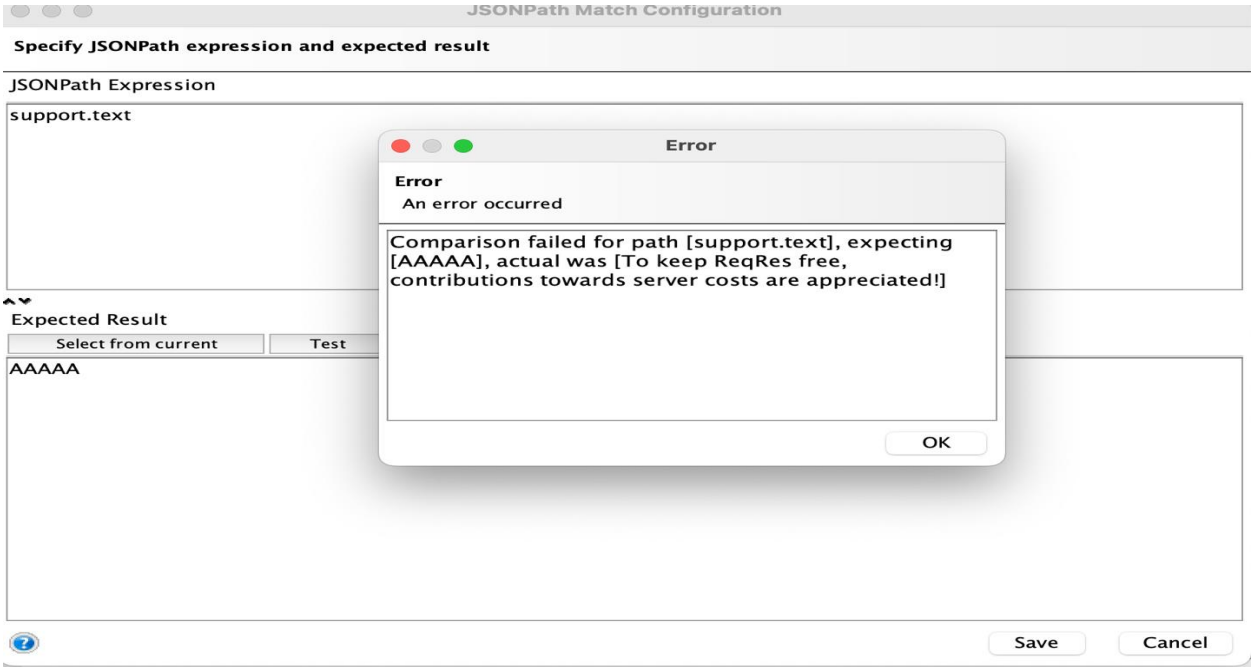
Existence Match



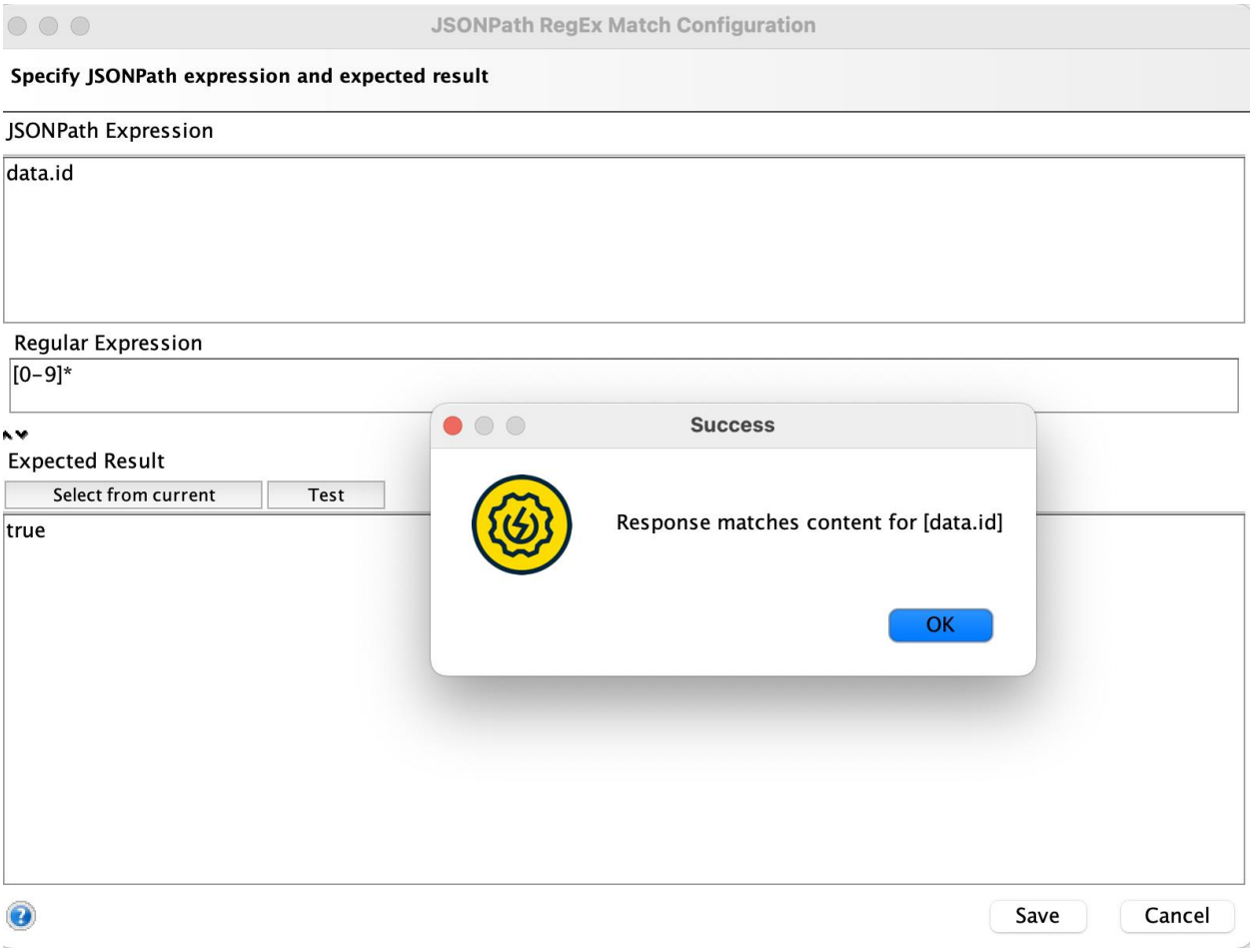

JSONPath Existence Match Configuration
Specify JSONPath expression and expected result
JSONPath Expression
.data.email
Success
Response matches content for [.data.email]
OK
Expected Result
Select from current
true
Save
Cancel

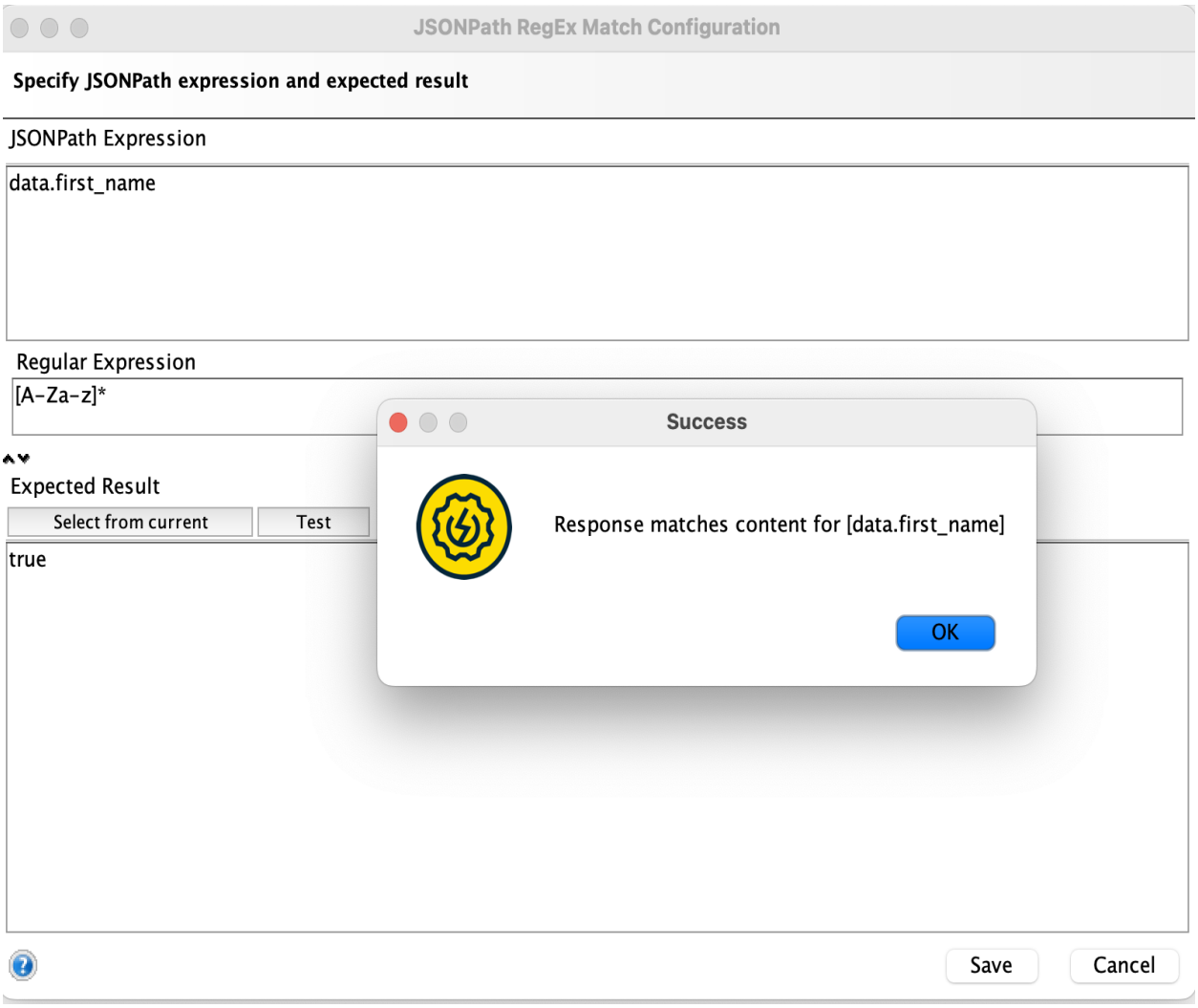
Match


JSONPath Match Configuration
Specify JSONPath expression and expected result
JSONPath Expression
support.text
Success
Response matches content for [support.text]
OK
Expected Result
Select from current
Test
To keep ReqRes free, contributions towards server costs are appreciated!
Save
Cancel


JSONPath Match Configuration
Specify JSONPath expression and expected result
JSONPath Expression
support.text
Error
Error
An error occurred
Comparison failed for path [support.text], expecting [AAAAA], actual was [To keep ReqRes free, contributions towards server costs are appreciated!]
OK
Expected Result
Select from current
Test
AAAAA
Save
Cancel

RegEx Match


JSONPath RegEx Match Configuration
Specify JSONPath expression and expected result
JSONPath Expression
data.id
Regular Expression
[0-9]*
Success
Response matches content for [data.id]
OK
Expected Result
Select from current
Test
true
Save
Cancel


JSONPath RegEx Match Configuration
Specify JSONPath expression and expected result
JSONPath Expression
data.first_name
Regular Expression
[A-Za-z]*
Expected Result
Select from current
Test
true
Save
Cancel
Success
Response matches content for [data.first_name]
OK