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Web Service + Soap UI Basics

1. Can you create a SOAP project without a WSDL File?

No.

2. What are the different options available in Soap UI to create Project from WSDL?

- Directly use the WSDL URL from server and import interfaces or
- Get the WSDL from developers/leads, store it on disk and import it into Soap UI to create Project.

3. What is XML?

XML stands for eXtensible Markup Language. It is platform independent language and easily understood by any application/program.

It is used in web service communication.

Web services takes request in XML message and respond back with XML message (basically XML in SOAP format).

4. What is WSDL, what it contains ?

WSDL stands for Web Service Description Language. It contains technical information of a web service. Like,

- Available operations, and their input and output message formats.
- Binding to be used SOAP or HTTP.
- End point of the web service (address of the web service, we also call it as SEI- Service Endpoint Interface)

5. What does a SOAP document contain?

Envelope, Header, Body and XML payload(message inside the <Body></Body> tag).

Here, *Header* is *optional* element, the rest are mandatory.

6. What will happen if you send a normal XML request to web services (without using SOAP message)?

Web service will reject the request. Because it accepts only SOAP message format.

7. What is the difference between SOAP and REST ?

- **SOAP:** Soap stands for Simple Object Access Protocol and it is a protocol used for sending and receiving data over HTTP as XML message.
- **REST:** It is a way of designing a web services and communicates through either XML or JSON data.

8. What programming languages does SoapUI support?

SOAP UI supports two languages, Groovy, and JavaScript. Predominantly we use Groovy.

9. Which versions of SoapUI you used?

SoapUI open source version (latest 5.3.0) and SoapUI Pro (5.1.1), Latest version is called ReadyAPI .

10. What are the major observations you made in Pro version when compared to free version?

In Pro version, we have additional features like

- DataSources (for data driven testing),
- DataGen to produce sample data sets like (Numbers, List of values, etc..)
- Produce Reports (JUnit Style, PDF)

Follow up questions:

A. Then How can you perform data driven testing in Free version?

We can achieve this using Groovy .

Using groovy we can

- a. Read data from excel sheets, Files, Databases etc
- b. Make calls to web services
- c. Assert responses ,using assert statements

B. How you read data from Excel sheets?

Used JXL library classes like Workbook, Sheet.

C. How you read data from File?

We have inbuilt class like "File" from "java.io" library.

Properties

11.Explain properties in SoapUI

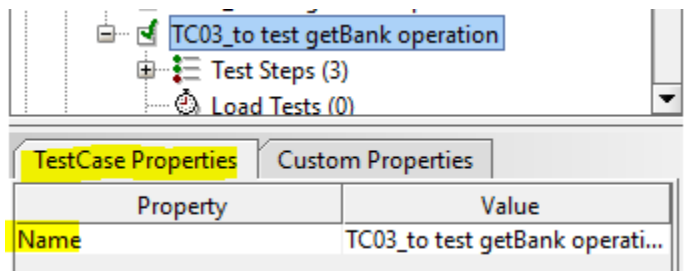
Properties in SOAPUI is like a place holder to store data at runtime. They are used to retrieve and store data. The data is stored as key, value or format.

12.What are the different properties in SoapUI?

- Implicit/Default properties - Defined by SoapUI.
- Custom properties (user defined) - These properties will be created by us (testers/developers)

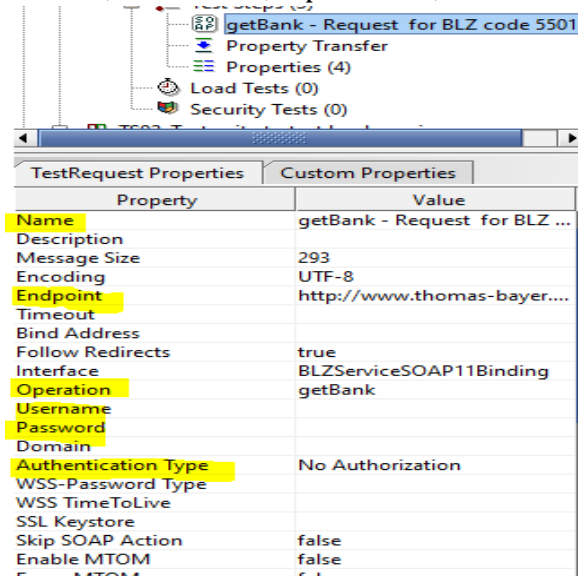
13.Any examples of implicit properties ?

For Test Suite & Test Cases , "Name" is implicit property.



For Test Step: SOAP request test step (here "getBank" is SOAP Request)

"Name","EndPoint","Operation","Username","Password",etc....



14. Can you brief me about custom properties ?

Yes, we can create custom properties at,
Global , Project, Test Suite ,Test Case levels.

15. I created a custom property at Test Case Level, Can you access that property from other test case?

No. Only "Test steps" defined under that test case can access them.

16. I want to use a property in multiple test cases, where should you define them?

Yes, we can achieve it by creating Property at Project level or Test Suite level.

When you create property at "**Project**" level, it can be accessed by all the TestSuites, Test Cases, Test Steps created under that Project.

If you create a property at "**Test Suite**" level, it can be accessed by all the test cases /test steps defined under that test suite.

17. Can you give me any examples on what properties you created?

We have created properties at project level like
"Username", "Password", "SecurityTokens" which are used across all web service requests.

What are they used for?

Our SOAP Services required Authentication, for that purpose we used username, password properties for all test requests.

For REST services, they required security "token" for all rest calls. For that purpose we used it.

18. What is property expansion ?

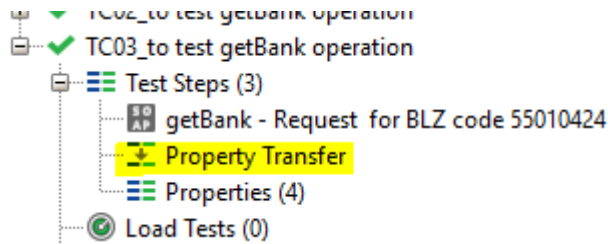
Using property expansion expressions , we can access "property" values.

How?

To access a property , for e.g "token" from
Test suite, {#TestSuite#token}
Test case, {#TestCase#token}
Project, {#Project#token}

19. What is property transfer ?

Property transfer is a "test step", which is used to transfer property values from one test step to other test step.



20. Can you explain a scenario where you used property transfer?

You can give multiple examples, Here I am just giving one example.

In our project, to make requests to my REST service operations, we need to send security "token" in each and every call.

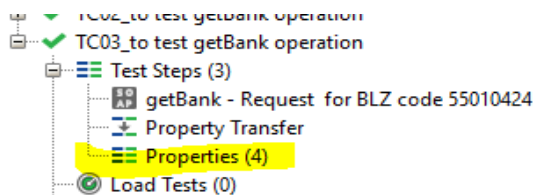
We need to make a call to authentication web service, which gives this token when we pass valid credentials.

Later we transferred this "token", to a property at "test suite" level.

Later this token is used for other requests as input value /passed in header.

21. Can you add property at test step level ?

Yes, we can create a "test step" called "Properties" and use it.



22. Can you add "custom" property for "SOAP Request" test step?

NO. We can't. By default Soap UI provides custom properties specific to that SOAP request.

The screenshot shows the 'TestRequest Properties' dialog box with the 'Custom Properties' tab selected. It displays a table with properties for the 'getBank - Request for BLZ code 55010424' test step.

Name	Value
RawRequest	
Domain	
Password	
Username	
Response	
Request	<soapenv:Envelope xmlns:soap...
Endpoint	http://www.thomas-bayer.com/...