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## Test Suites, Test Cases & Test Steps

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### 1. What is a Test Suite?

A test suite is a collection of Test cases, which can be used to test a specific scenario/process, which involves multiple operations.

#### Can you give any example?

Typically, the answer depends on the projects you kept in your resume/profile.

I can give following scenario.

Let us, say I want to test "Customer Creation" Process, it involves

Create Customer -> Update Customer Info -> Delete Customer (typically we don't delete in database, but will set flag 'status' as 'Inactive')

You can test all this operations in a sequence to test the customer process starting from creation till deletion.

### 2. What is a test case?

A test case is a collection of test steps, typically to test a specific "operation".

Examples:

"login" operation – return session token when we send valid credentials.

"getBank" operation – returns bank details for the given bank code.

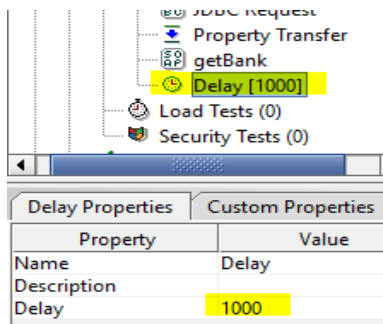
### 3. What are the different test steps available/you used in Soap UI?

- SOAP Request, REST Request
- JDBC Request
- Properties, Property transfer
- DataSource, DataSource Loop, DataSink, DataGen (available in Pro)
- Most importantly, "Groovy Script" test step.

### 4. Have you ever used "Delay" test step in Soap UI?

Yes/No based on your experience.

"Delay" step can be used to pause the execution for specific duration between two test steps. You can mention the duration in milli seconds (1000 m. secs = 1 sec)



### 5. Have you ever used "Manual Test Step" in test steps?

Yes/No, based on your experience.

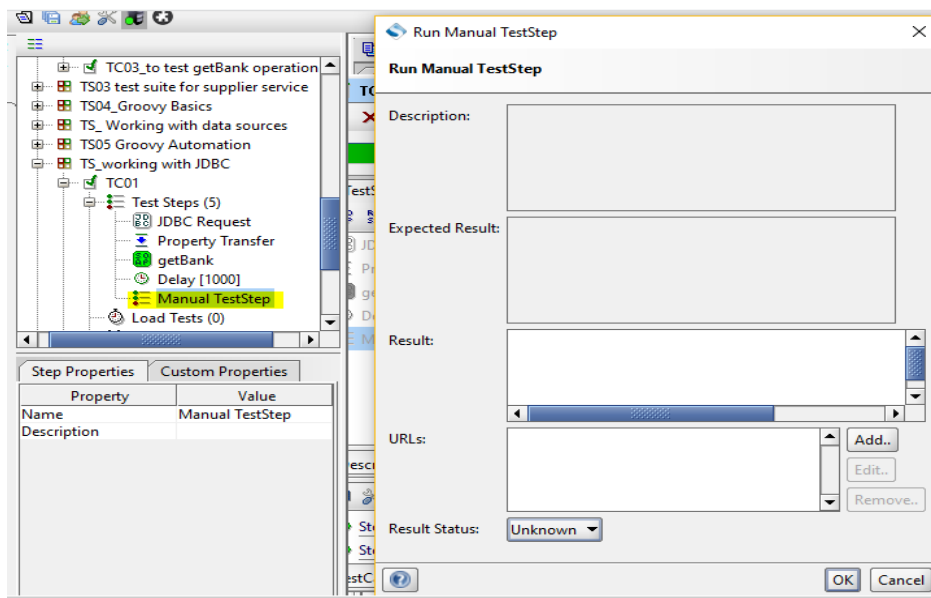
This step is used if you need to verify the response of a "test step" manually (where assertions are not possible).

For example, let us say you have an operation called "create account", once the account is created, the server will send an email/SMS after successfully creating the account. Soap UI can't verify/assert them during test step execution.

So, as a tester you need to check the inbox for email and check the SMS on mobile. If receive them mark the "Manual test step" as passed. If not mark the "test step" as failed with appropriate "comments".

Note: Usually we don't use this feature, as manual intervention will defeat the purpose of automation (when you are running from 3<sup>rd</sup> party build tools like Jenkins)

Note: Add this test step and Run the test case to see the following dialog box.



### 6. Have you ever used JDBC Test step?

Yes/No depends.

*If yes, how will connect to database, what are the basic configuration steps/tasks?*

**In Free version,**

- Download the driver file (jar file) and keep it in Soap UI "lib" directory.
- Configure following parameters in JDBC Test Step
  - o Driver class
  - o Connection string

**In Pro Version,**

- No need to download any driver files, by default Soap UI Pro comes with these libraries.
- In JDBC test step,
  - o Choose "data base type", MySQL/Oracle/MSSQL
  - o Enter "host","port","username","password" and "database name"

**Or**

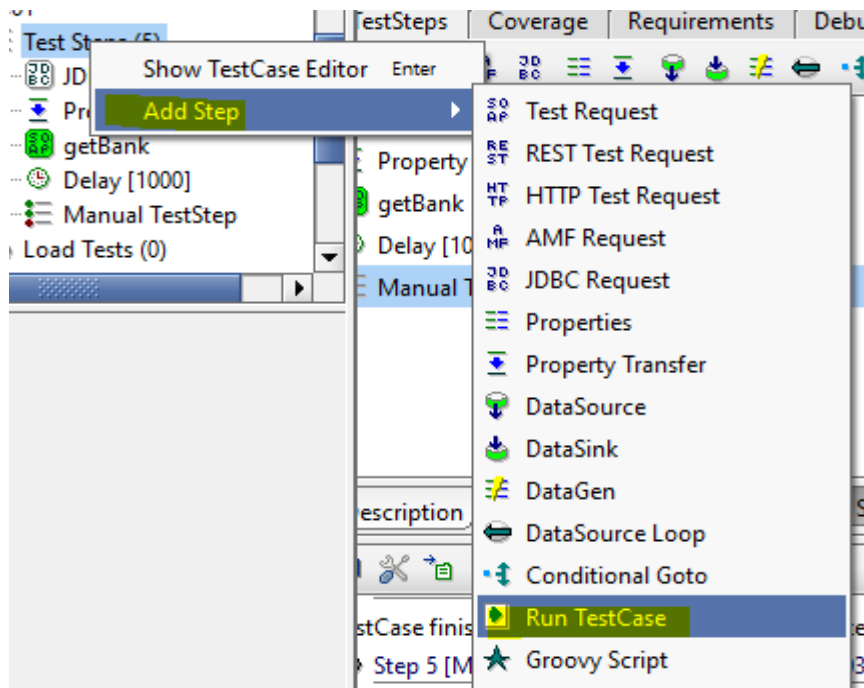
- Configure "JDBC Connections" at "*Project*" level, and re-use it across JDBC Test Steps.

**7. What kind of databases Soap UI supports?**

Soap UI supports multiple databases like Oracle, MSSQL, MySQL, PostgreSQL etc.

**8. Can you call a test case from other Test Suites?**

Yes, we can use "Run Test Case" test step for this purpose. Please go and explore this feature.



**9. What are the different strategies available in Test Suite to run test cases? Or Can you run test cases parallelly in a Test Suite?**

Yes, there are 2 strategies

- Sequence – By default Soap UI uses this option. It will run all the test cases in a sequential manner. (Fig 9-1)
- Parallel – When we use this option you can run test cases parallelly, thus reducing the execution time of Test Suite. (Please use this option, when there are no dependencies between test cases) (Fig 9-2)

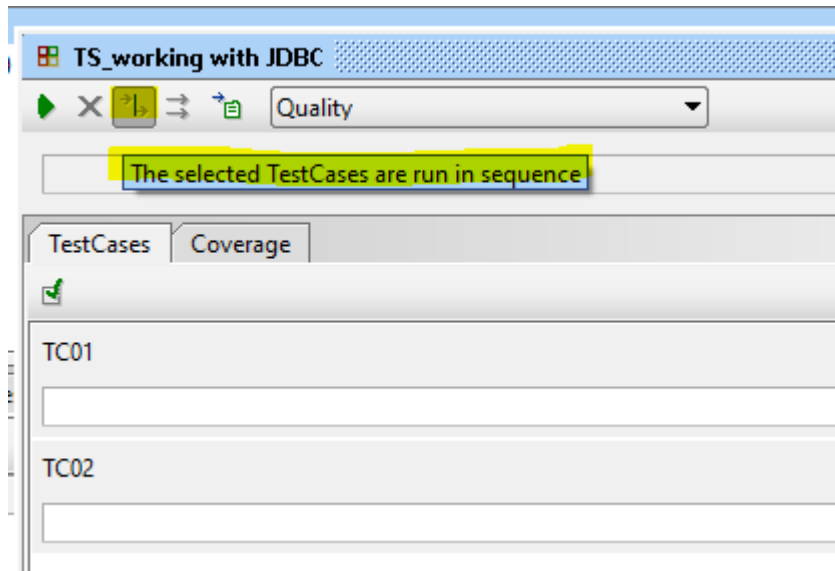


Fig 9-1

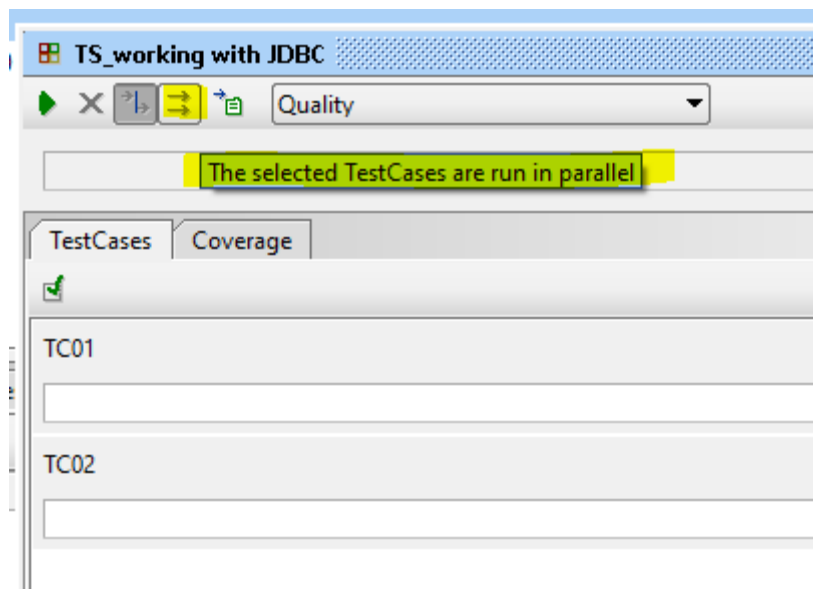


Fig 9-2

**10. Can you have multiple “DataSource” test step in a test case?**

Yes.

**11. What is a “DataSource” test step? Have you used it?**

A “DataSource” step is used to configure a data source (like Grid, Excel, Database, etc.) to perform Data Driven testing.

**12. Can I create a “DataSource” test step without “Data Source Loop” test step?**

Yes. But the “test step” (E.g.: SOAP/REST Operation), which is using the “DataSource” will be executed only once during execution of Test Case.

If you use, “Data Source Loop” along with “DataSource”, then the SOAP/REST operation will be called multiple times (depends on number of entries in DataSource).

**13. What will you configure in “Data Source Loop” Step?**

- Data Source
- Target Step

**14. How will you map values from “DataSource” test step to “SOAP/REST” requests?**

In this step, we will add “custom properties”, based the data we read from Grid/Excel/Database.

Later, we use “property expansion” expressions to bind these values to web service request test steps.

Here is the expression:

```
{<data source test step name>#<property name>}
```

For example,

```
{Bank Data#blz_code} , here
```

“Bank Data” is DataSource step name and “blz\_code” is custom property.

In Soap UI Pro, we can use “Get Data” option, to map the property from “DataSource” test step, which automatically writes expression for us.

**15. What is the use of “DataGen” test step?**

This step is also acts as a “Data Source”, by producing small sets of sample data. This feature is available in Soap UI Pro.

**16. What are the different generation strategies available in DataGen?**

**Number** – to produce numerical values, for e.g. sequence numbers

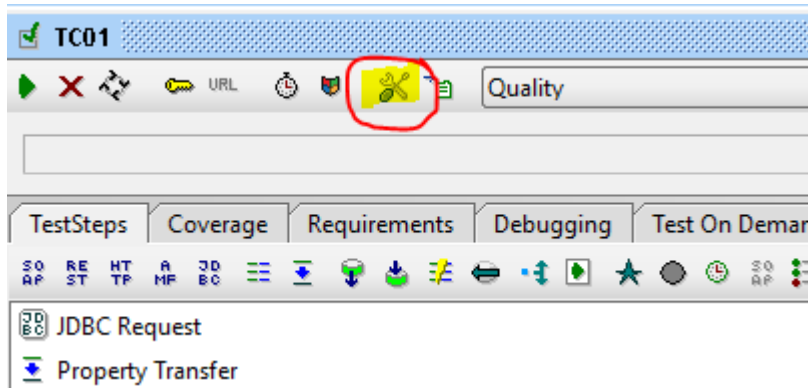
**Lists** – to produce list of values, at runtime we can use randomly generated value form this list. For e.g., list of zip codes, list of countries etc....

**Groovy** - To return some value using groovy scripts.

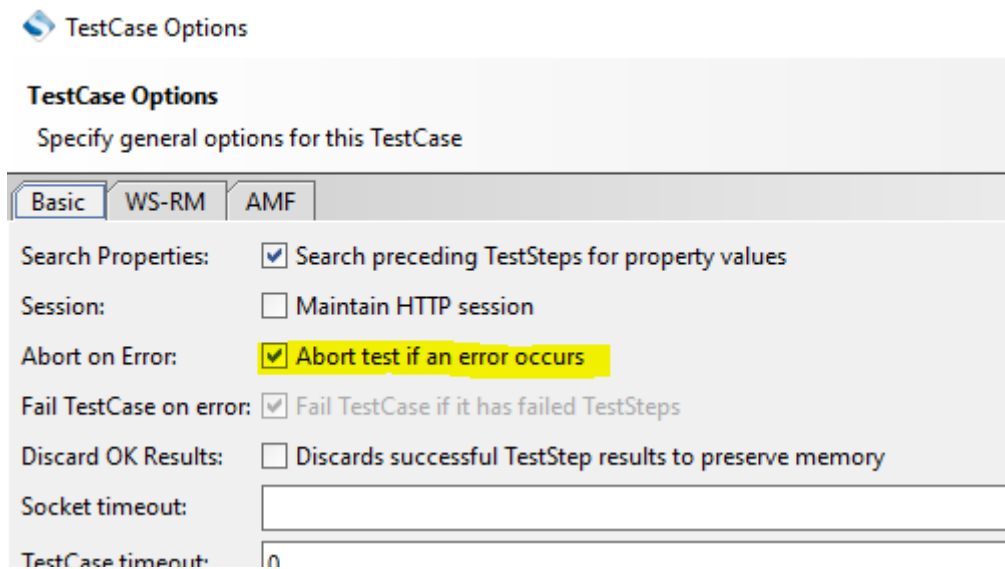
**Template** – to produce templates.

**17. What is the use of "DataSink" test step?**

It is used to store the responses of web service requests in to local disk, in the form of Excel, File or in to a Database.

**18. What is "Abort on Error" in Test Case window?**

On test case, when you click on "options" icon, you can see below screen



By default, this checkbox is checked, means if any one of the "test step" fails , then Test Case execution will be terminated.

But, if you want to continue the execution of test case , though any of the test step fails, please uncheck the check box (Abort test if an error occurs).