Purpose:

**This document gives the steps in order to execute Web Services using GET and POST Method and also Connect to Database by giving Query for Comparison using aTAF Grid framework.**

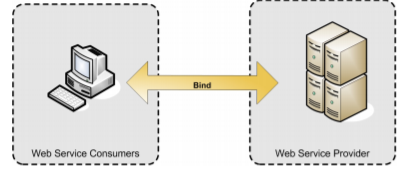
**Pre-requisites:**

aTAF Execute Web Service script, SoapUI tool and also connects to different databases using java JDBC, so you need to add the corresponding dependency to the pom.xml.

Definition

A Web Service is a standards-based, language-agnostic software entity, which accepts specially formatted requests from other software entities on remote machines via vendor and transport neutral communication protocols, producing application specific responses.

**Web Services Architecture**

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The simplest Web service system has two participants:

* A service producer (provider)
* A service consumer (requester).

Provider presents the interface and implementation of the service, and the requester uses the Web service.

**Overview on Webservices**

To Execute Web services using aTAF framework need to have Valid URL to Get the Response of it and Here, service consumer request for the Response Code using URL if status code is 200 with Displaying Data then confirming that your Response is Correct else it is error without any Data in the Form of JSON and XML,HTML Format etc.

**Web Service Automation:**

Please follow below steps to Execute Web services using SoapUi. Tool and Compare Data with Database.

1. Create or Set Up a Web Service Project using aTAF Grid Framework.
2. Create a TestScript for GET method with appropriate name used GetMethod\_TS
3. Write
4. To connect Database using aTAF framework, jdbc URL need to be constructed based on the Database type. Please refer below for the format of the jdbc URL for various Databases
   1. DB2:            jdbc:db2://<hostname>:<portnumber>/<databaseName>
   2. Oracle:        jdbc:oracle:thin:@<hostname>:<portnumber>:<SID>
   3. SQL Server: jdbc:sqlserver://<hostname>:<portnumber>
   4. MySQL:         jdbc:[mysql://<hostname>:<portnumber>/<](mysql://localhost:3306/dbname)databaseName>
   5. Terradata :    jdbc:teradata://<server-name>:<server-port>/<database-server-name>
5. Need user credentials which will be used to Login to DB. Use the below steps to get the user credentials from the DB profile ".properties" file.
   1. String[] userInfo = getLoginInfo(dbProfile);
   2. String password = userInfo[1];
   3. String username = userInfo[0];
6. Connect to DB by using the below method call and store the connection object.
   1. Connection conn = DatabaseUtils.getConnection(DatabaseName, dbURL, username, password);
   2. Note:  Please use DatabaseConstants interface to get the database name
7. Save the query that needs to be execute in string
   1. Eg: select \* from tableName
8. Execute the query using aTAF method DatabaseUtils.executeQuery(conn, query);. Please pass connection object from step 2 and query from step 4 as the parameters
9. The method will return the Result set which can iterated to get the column values. Please refer to the sample script attached.

**Sample DBscript:**

[SampleDemo\_TS.java](https://confluence.anthem.com/download/attachments/358351753/SampleDemo_TS.java?version=1&modificationDate=1563312091000&api=v2)