CREATING OF WEB SERVICES AND CONSUMING IN SAP

Create a simple RFC which takes two integers as import parameters and returns the sum of it as an export parameter. Create a function module ZTESTSUM which is RFC enabled.

```plaintext
* Function Module

** ZTESTSUM

*** Local Interface:

** IMPORTING

** VALUE(A) TYPE I OPTIONAL

** VALUE(B) TYPE I OPTIONAL

** EXPORTING

** VALUE(C) TYPE I

C = a + b.

endfunction.
```

Now create a web service from the function module, to do it follow the path Utilities/more utilities/create webservice/from function module.
It will open the wizard for creating the webservice, enter the name of the webservice and the description and continue.
Choose the end point of the webservice which in our case is function module which is automatically proposed and continue.
Choose a profile for the security settings from the drop down and select the check box deploy service, here it was chosen as medium.
It will prompt for the package and request number or it can be saved as local object, enter the appropriate package and the request number in which it is to be saved.

Choose a profile for Security Settings.

Remember that the service does not have any runtime configuration and therefore cannot be used. Create the Web service configuration in the NetWeaver Administrator (transaction WSADMIN2).

Profile: PRF_DT_IF_SEC_MEDIUM

☑ Deploy Service
The complete webservices screen is prompted just press complete button, the service is created and activated. It may prompt to enter the login details of the service registry just enter the logon details with user id password of the system in which webservice is created. We can check in the package under service definitions and our web service is displayed.
The Web Service **ztestweb** will be created.

Transaction WSADMIN (Administration Web Services for SOAP Runtime) supports you with the UDDI registration of the Web Service.

Enter your user name and ID

<table>
<thead>
<tr>
<th>Resource</th>
<th>/ESRegistryWS/BasicAuthConfig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>8888</td>
</tr>
<tr>
<td>User name</td>
<td><strong>Redacted</strong></td>
</tr>
<tr>
<td>Password</td>
<td><strong>Redacted</strong></td>
</tr>
<tr>
<td>Language</td>
<td>EN</td>
</tr>
</tbody>
</table>

[OK] [Cancel]
Now the webservice has been created and it can be consumed in different r/3 system. To consume this webservice we have to get the wsdl file of the web service. To get the wsdl file for the service go to transaction SOAMANAGER from the initial screen of SOA management under business administration tab select webservice administration.

Under web service administration search for our webservice, in the search by drop down specify it as service and search pattern as ZT* and search, all the webservices starting with the initials are displayed.
Then press apply selection to display the details of the webservice, we get the details of service definition screen, under overview tab we get three links of the services one is for port type, one is for binding and one is for service navigator. We have to select the second one wsdl for binding, this opens the wsdl file, from the browser url we can pick the wsdl file for the webservice.

<table>
<thead>
<tr>
<th>Internal Name</th>
<th>External Name</th>
<th>Namespace</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZTEST</td>
<td>ztest</td>
<td>urn:sap-com.document:sap:soap:functions:mc-style</td>
<td>So</td>
</tr>
<tr>
<td>ZTESTWEB</td>
<td>ztestweb</td>
<td>urn:sap-com.document:sap:soap:functions:mc-style</td>
<td>So</td>
</tr>
<tr>
<td>ZTEST_DEEP</td>
<td>ztest_deep</td>
<td>urn:sap-com.document:sap:soap:functions:mc-style</td>
<td>So</td>
</tr>
<tr>
<td>ZTEST_DEEP1</td>
<td>ztest_deep1</td>
<td>urn:sap-com.document:sap:soap:functions:mc-style</td>
<td>So</td>
</tr>
</tbody>
</table>

Details of Service Definition: ZTESTWEB

Object Status:
Porttype Namespace:
Porttype Name:
Internal Name:
SOAP Applikation:
Package Name:

Open porttype WSDL document
Open WSDL document for selected binding
Open Web Service navigator for selected binding

Services: 1 / Endpoints: 1
ZTESTWEB
URN: SAP-COM.SOAP.RUNTIME.APPLICATION:RF
ZWEBTEST

ZTESTWEB: ztestweb
From the address bar we get the link of the wsdl file, just copy the link and this is the wsdl file which is used to consume in the proxy. Now we can consume this webservice using client proxy in other r/3 system and we have wsdl file in our hand. To consume a proxy in r/3 we have to create a client proxy, it can be created in transaction SE80.click the edit object button in SE80 and select the enterprise services tab under it select the radio button client proxy, give any name and click create.
It will open a wizard for creating client proxy and in service consumer tab select URL/HTTP destination as we have url of wsdl file and continue.
Enter the URL of the service which we got form SOAMANAGER, select the url radio button under URL/HTTP and continue.
Enter the package and prefix and the request number or it can be saved as local object and continue.
In the next screen you get the message that the client proxy is created just press complete. It will prompt for user id and password for the webservice enter the logon details of host and ok it will show a message to save and activate save and activate the proxy.
Now a client proxy with name ZTECO_TESTWEB is created and activated.

On completion of the wizard the Proxy for Object, http://mysap4us.sap.com/ag/sap/bc/srt/wsdl/bndg_DE3BC34D53B8D1F194 will be generated and displayed in the Proxy Editor.

Do not forget to save or activate the result.

Enter Logon Data

Enter your user name and ID

<table>
<thead>
<tr>
<th>Resource</th>
<th>SAP Web Application Server [CE]</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>User name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Password</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>EN</td>
<td></td>
</tr>
</tbody>
</table>

Now a client proxy with name ZTECO_TESTWEB is created and activated.
The proxy can be tested from SE80, but before that a logical port has to be created. To create a logical port go to transaction soamanmger and under business administration select webservice administration, and search for client proxy with zte*, all the client proxies will be displayed. Select our proxy and apply selection. Under details of proxy definition select the configuration tab.

Here we have a create logical port button, it will prompt for the SOA management give the new service name, logical port name, and select it as default port, give the wsdl url, user and password of the host and apply settings.
Save the configuration.
Now we can test the proxy. From SE80 display the client proxy we created, double click on the proxy name it will display the class and its methods.
Now it can be tested using test button of Se80. It will open a screen for instantiation the proxy class, enter the logical port name which we created TESTPORT and instantiate. The method is displayed and it can be executed from execute button beside the method name.
It will display the input parameters which can be entered.

Return back and enter execute the output will be displayed as below.
The sum of two integers is returned in export params output.

<table>
<thead>
<tr>
<th>CONTROLLER</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Entries</td>
<td>32</td>
</tr>
</tbody>
</table>