OSM Orchestration Exercise

Lab 2-0 - Introduce Order Request Processor

In this lab we will expand the incoming order to a more complex structure and submit it to the new **Order Request Processor (ORP)** via a new OSM Web Service called **'CreateOrder'**.

To enable OSM to process this unstructured XML order we need to create an '**Order Recognition Rule**' to identify the incoming order and pass it to a conventional OSM order type.

This Lab will be built upon the previously created cartridge produced as part of Lab 1.

Work through the following steps.

Before we create the Rule we need to create an XML data dictionary item to hold the incoming order.

1. In your Data Dictionary create a new '**Structure**'
   - Name : **xmlData**
   - Minimum Cardinality : **0**

2. Create a second structure called **xmlOrderData**
   - Minimum Cardinality '**0**'.
   - Under the 'Details' tab use the 'Select' button to set the '**Type**' to '**xmlData**' (previously created)
   - Save.

3. Update the Order Template to include this new '**xmlOrderData**' structure.

4. Remove the '**OrderID**' object from the Order Template.

   - This will remove data from your manual tasks automatically

5. Update both manual tasks to use the new '**xmlOrderData'** structure.

   - Save all open editors

Before we create the Order Recognition Rule, let's take a look at the SOAP message we will send to OSM for the lab.

In design studio select the 'Package Explorer' and naviagate to the samples folder. Double click on the file named '**OSM7-DD-Lab2.xml**', this will open it in the XML editor, select the 'source' tab.

Directly under the '**CreateOrder**' tag you will see '**ServicesOrder**' line. In that line there is a Namespace reference that reads '**http://www.example.org/osm7Order1**'. This is the entry that we will use in the Order Recognition Rule to detect this particular order type.

Switch back to the design studio perspective.

6. In Studio, under your cartridge create an '**Order Recognition Rule**'

   - Named : **ORR-Order**
   - Namespace : **osm7Order1.com**
   - Ensure that the '**Folder**' field is blank.

The 'Input Message' field is used to select the destination Data Dictionary object to place the incoming order data in if the recognition rule evaluates to true.

7. Right-click in the 'Input Message' window
   - Click '**Select Input Message**'
   - Select '**xmlOrderData**' and click OK.

8. Select the '**Target Order**' field
   - Click the 'Select' button and choose your 'Order' type e.g '**L3-DD-xxxOrder**'.

** **NOTE:** Against 'Relevancy' you may see a warning '!', this is because other Order Recognition Rules also have a value of 5. Relevancy determines the order in which the OSM server evaluates the order recognition rules at run time. At run time, OSM uses the first order recognition rule that evaluates to true. Rules with lower relevancy values are evaluated first. The default is 5.

9. Looking at the '**Recognition Rule**' section you will see several tabs, selecting the the Xquery tab, you to enter a statement that will match the incomming order. Click the 'Edit' button and type in the following line.

```
fn:namespace-uri(.) = 'http://www.example.org/osm7Order1'
```

*** **Note** if you still have an error against the field, try re-typing the ' signs, the problem is caused by copy-paste.

10. Switch to the 'Transformation' tab

11. Expand the '**Order Priority**' section (if it is not already)
    - Select the '**Expression'** radio button
    - Set the value to : '**5'**

*** **Note** you must include the ' characters around the 5.

12. Expand the '**Order Reference'** section (if it is not already)
    - Select the '**Expression'** radio button
    - Set the Xquery value to : **'ORP-1'**

13. Expand the '**Order Data Rule'** section (if it is not already).

    To map the incomming order data to a standard OSM order we need to add a Xquery expression.

    Add the following text

```
declare namespace ex= "http://www.example.org/osm7Order1";
<_root></_root>
```

** **Note**: The structure in the 'Input Message' field will be inserted between the root tags automatically by OSM.

*** **Note** if you still have an error against the field, try re-typing the " signs, the problem is caused by copy-paste.

These are the only changes we need to implement to bring the Order Processor into action.

14. Redeploy the modified cartridge
    - Select **Project > Clean**
    - Ensure that **Project > Build Automatically**
    - Deploy the cartridge using the methods explained in previous labs.
15. Select your project and right mouse click
    - Select **Submit Test > VM_ENV > OSM7-DD-Lab2.xml**
    - A response will be sent back from OSM providing the order ID
16. Log into the OSM UI using Internet Explorer
    - **http://<ip assigned to your vm>:7001/oms**
    - Use the username/password provided by the instructor.
17. Locate your order, and view it.
    - You should see that the XML data element contains the whole of the incoming order.
18. Complete the order

This is the end of **Lab 2** and you should now have extended your base cartridge to accept an incoming complex XML order without having to define all the matching data elements. If you have any problems, ask you instructor for assistance.

END OF LAB