Week 2 Unit 4: **Splitter/Gather – Working with Lists**

Splitter/Gather – Working with Lists

Expected messages

Goals

Split a list into individual items, process items individually, and collect results for final reply message

Input Message

```
<soapenv:Envelope xmlns:soapenv="http://sche
    <soapenv:Header/>
    <soapenv:Body>
        <demo:OrderList_MT>
            <!--Zero or more repetitions:-->
            <orders>
                <orderNumber>10248</orderNumber>
                <customerName>?</customerName>
                <orderAmount>?</orderAmount>
                <currency>?</currency>
                <taxAmount>?</taxAmount>
            </orders>
            <orders>
                <orderNumber>10249</orderNumber>
                <customerName>?</customerName>
                <orderAmount>?</orderAmount>
                <currency>?</currency>
                <taxAmount>?</taxAmount>
            </orders>
            <orders>
                <orderNumber>10250</orderNumber>
                <customerName>?</customerName>
                <orderAmount>?</orderAmount>
                <currency>?</currency>
                <taxAmount>?</taxAmount>
```

Output Message

```
<soap:Envelope xmlns:soap="http://schemas.xmls
    <soap:Body>
        <multimap:Messages xmlns:multimap="http:
            <multimap:Message1>
                <orderDetails>10248</orderDetails>
                <orderDetails>10249</orderDetails>
                <orderDetails>10250</orderDetails>
            </multimap:Message1>
        </multimap:Messages>
    </soap:Body>
</soap:Envelope>
```
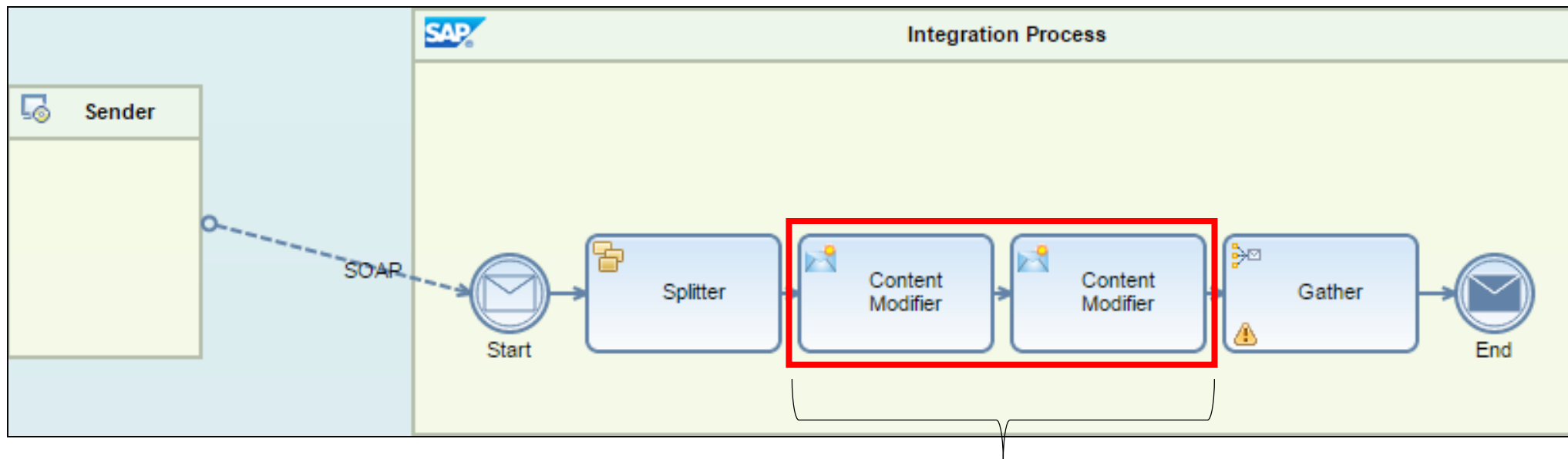
Splitter/Gather – Working with Lists
Integration flow with Splitter/Gather steps

Goals

Split a list into individual items, process items individually, and collect results for final reply message
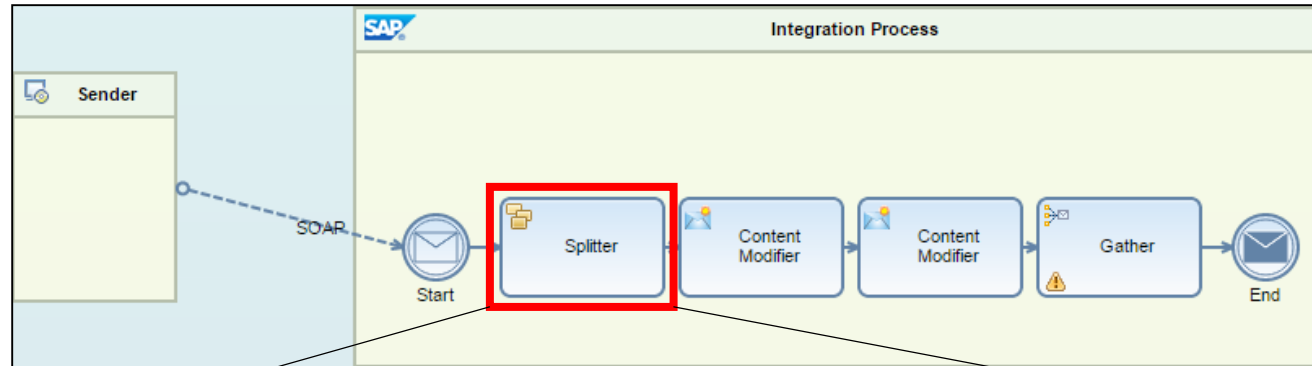

Important: Steps between "Splitter" and "Gather" are always executed as many times as the list has entries!

Splitter/Gather – Working with Lists
Configuration of the Splitter/Gather integration flow (1)

Goals

Split a list into individual items, process items individually, and collect results for final reply message

Splitter/Gather – Working with Lists
Configuration of the Splitter/Gather integration flow (2)

Goals

Split a list into individual items, process items individually, and collect results for final reply message
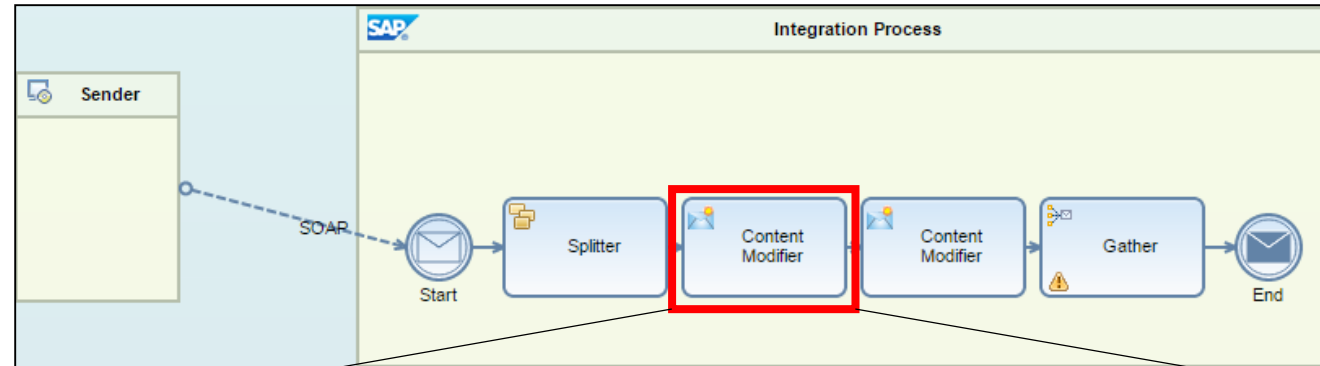
Splitter/Gather – Working with Lists
Configuration of the Splitter/Gather integration flow (3)

Goals

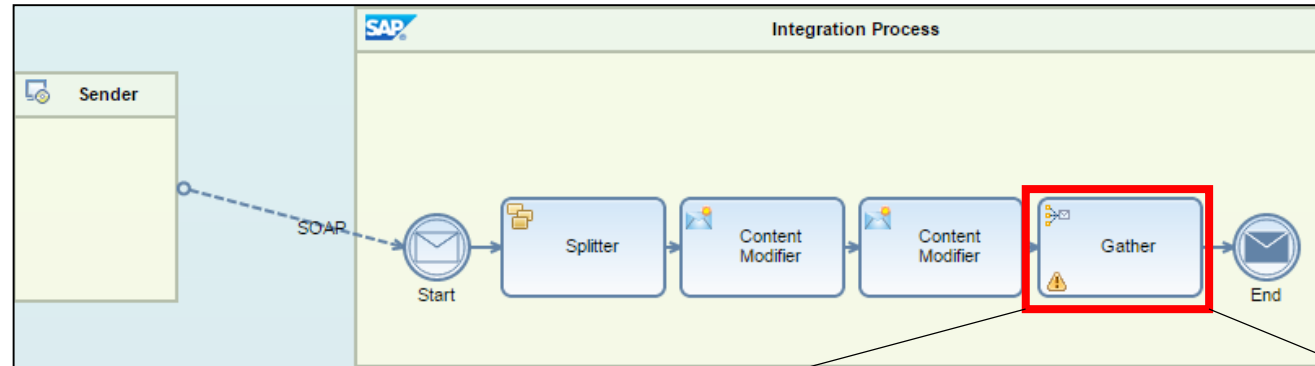Split a list into individual items, process items individually, and collect results for final reply message
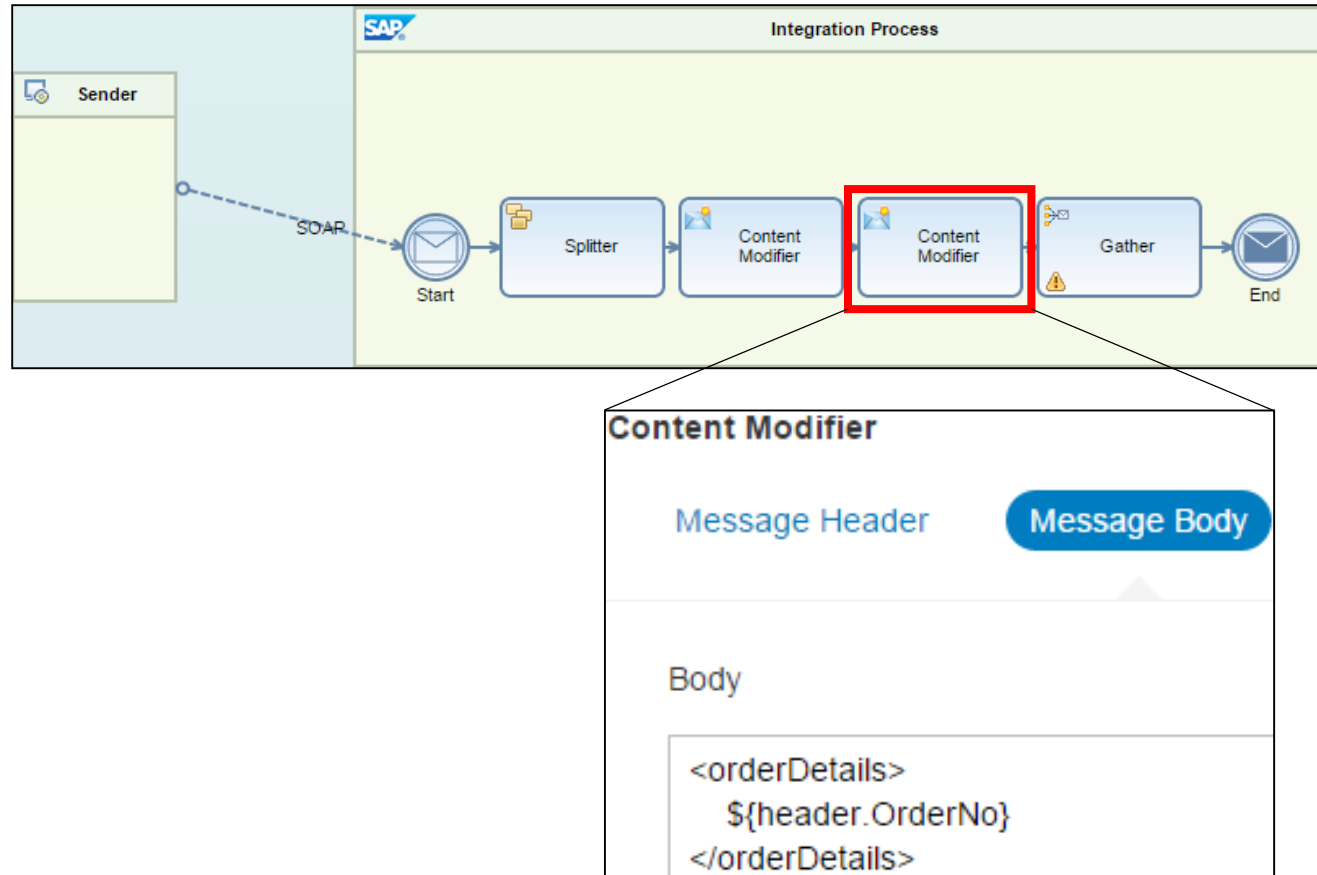
Splitter/Gather – Working with Lists
Configuration of the Splitter/Gather integration flow (4)

Goals

Split a list into individual items, process items individually, and collect results for final reply message

Splitter/Gather – Working with Lists
Enriching each item with real data (1)

Goals

Split a list into individual items, **enrich with real data**, and collect results for final reply message

Input Message

Output Message

```
<soapenv:Envelope xmlns:soapenv="http://sche
    <soapenv:Header/>
    <soapenv:Body>
        <demo:OrderList_MT>
            <!--Zero or more repetitions:-->
            <orders>
                <orderNumber>10248</orderNumber>
                <customerName>?</customerName>
                <orderAmount>?</orderAmount>
                <currency>?</currency>
                <taxAmount>?</taxAmount>
            </orders>
            <orders>
                <orderNumber>10249</orderNumber>
                <customerName>?</customerName>
                <orderAmount>?</orderAmount>
                <currency>?</currency>
                <taxAmount>?</taxAmount>
            </orders>
            <orders>
                <orderNumber>10250</orderNumber>
                <customerName>?</customerName>
                <orderAmount>?</orderAmount>
                <currency>?</currency>
                <taxAmount>?</taxAmount>
```

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelo
    <soap:Body>
        <multimap:Messages xmlns:multimap="http://sap.com/xi/XI/Spl
            <multimap:Message1>
                <Orders>
                    <Order>
                        <ShipPostalCode>51100</ShipPostalCode>
                        <ShippedDate>1996-07-16T00:00:00</ShippedDate>
                        <OrderID>10248</OrderID>
                        <ShipCity>Reims</ShipCity>
                        <ShipAddress>59 rue de l'Abbaye</ShipAddress>
                        <ShipCountry>France</ShipCountry>
                        <ShipName>Vins et alcools Chevalier</ShipName>
                    </Order>
                </Orders>
                <Orders>
                    <Order>
                        <ShipPostalCode>44087</ShipPostalCode>
                        <ShippedDate>1996-07-10T00:00:00</ShippedDate>
                        <OrderID>10249</OrderID>
                        <ShipCity>Münster</ShipCity>
                        <ShipAddress>Luisenstr. 48</ShipAddress>
                        <ShipCountry>Germany</ShipCountry>
                        <ShipName>Toms Spezialitäten</ShipName>
                    </Order>
```
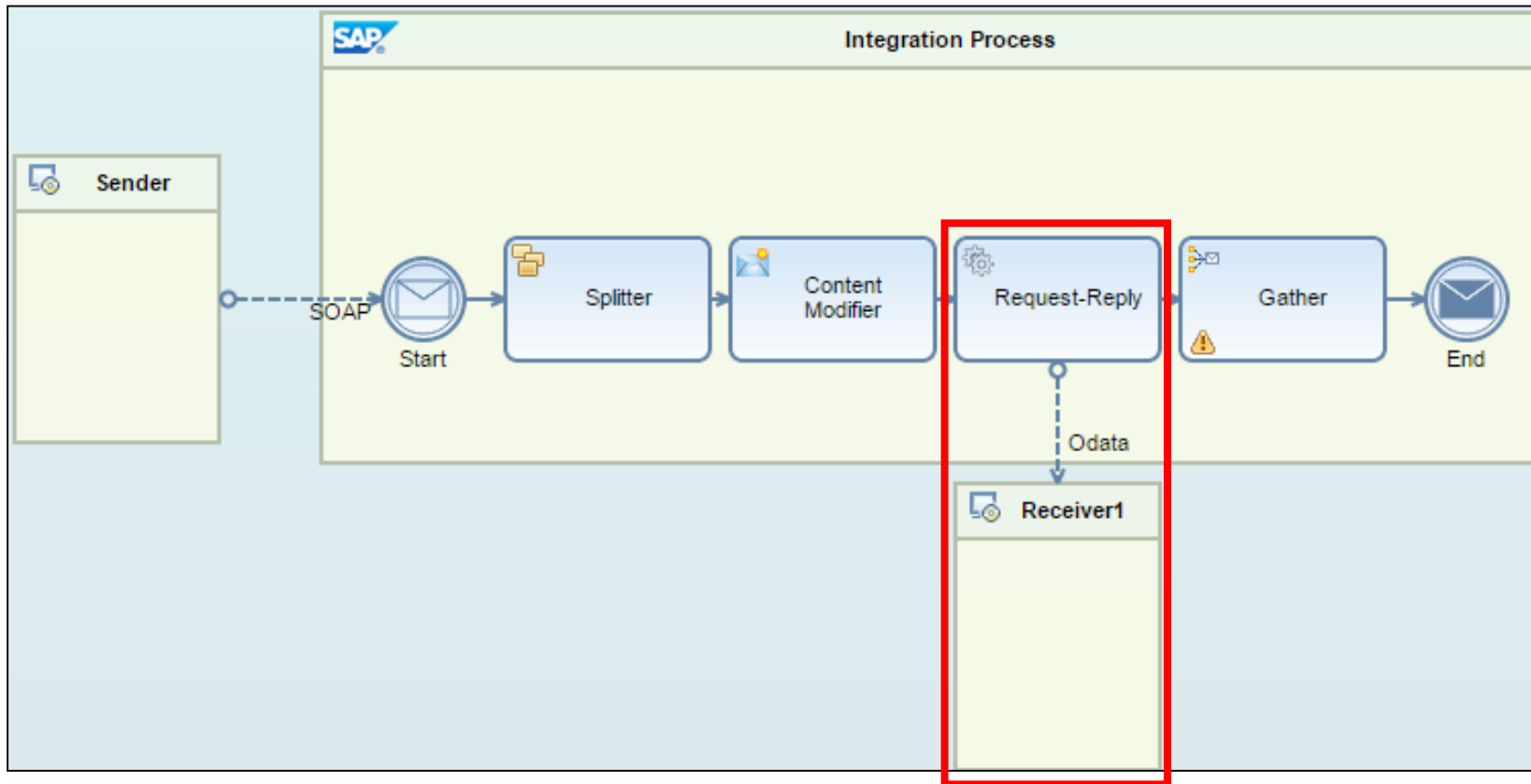
Splitter/Gather – Working with Lists
Enriching each item with real data (2)

Goals

Split a list into individual items, **enrich with real data**, and collect results for final reply message

Splitter/Gather – Working with Lists
Demo

DEMO

Splitter/Gather – Working with Lists

Splitter/Gather – Working with Lists
What you've learned in this unit

- How to apply list handling in your
  SAP HANA Cloud Integration-based scenarios

- What is necessary to configure the Splitter
  and Gather steps in your message processing
  chain correctly

- How Splitter and Gather form a pair,
  where all steps in-between the pair are
  executed for every single item (iteration over
  the list)

- How the Splitter/Gather pattern can be used
  to enrich each individual list item with data
  coming from an external data source

Thank you

Contact information:

open@sap.com

openSAP

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