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CONFIGURING, DEPLOYING AND MONITORING WEBUI BASED SCENARIO USING SAP CLOUD PLATFORM INTEGRATION

Exercise08: SAP Cloud Platform Integration Components Used:

- SOAP Sender Adapter
- JMS Sender/Receiver Adapter
- SFTP Receiver Adapter
- Iterating Splitter
- Parallel Multicast
- Groovy Script
- Join
- Gather



INTEGRATION SCENARIO

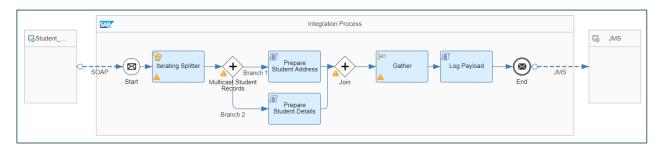
We will showcase the guaranteed delivery or quality of service capability of JMS adapter by processing student records with "Retry" option and moving them from JMS source to SFTP destination directory.

Use Case:

This Integration flow basically showcases simple scenario with 3 use cases:

1. Processing Student records with Iterating Splitter, Parallel Multicast, Join, Gather and moving records to JMS queue.

Here we persist records in to JMS queue with "Waiting" state, which may be queried later for further processing.



- 2. Moving Student records from JMS queue to SFTP destination:
 - 1. With wrong SFTP credentials.
 All records in JMS queue with "Waiting" state will be turned in to "Failed" state.
 - Try "Retry" option on JMS queue with correct SFTP credentials.
 All records in JMS queue with "Failed" state will be changed to "Waiting" state.
 Records will be processed again from JMS queue and will be moved to SFTP destination directory.



Welcome to the Integration Flow challenge!

In this exercise, your aim is to create an integration flow that solves a challenge (described in the Integration scenario).

And when you work your way through the exercise, our aim is that you learn:

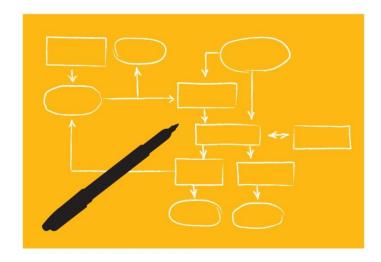
- How to access and work with the Cloud Platform Integration Web tooling
- 2. How to speed up your integration project by leveraging reference integration flows
- 3. How to customize a reference integration flow by configuring its connectivity and flow steps
- 4. Basic monitoring of an integration flow
- 5. Using Open-source tools to test your integration flow



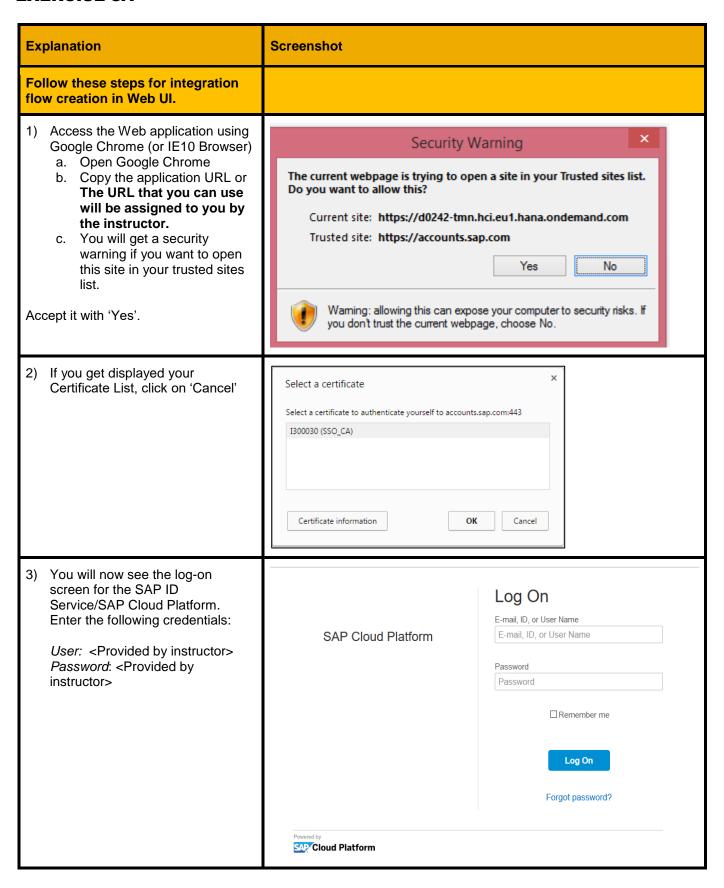
Exercise Files are provided by the session moderator. Download and Extract them into one of your local folders for use later in your exercises and setup:

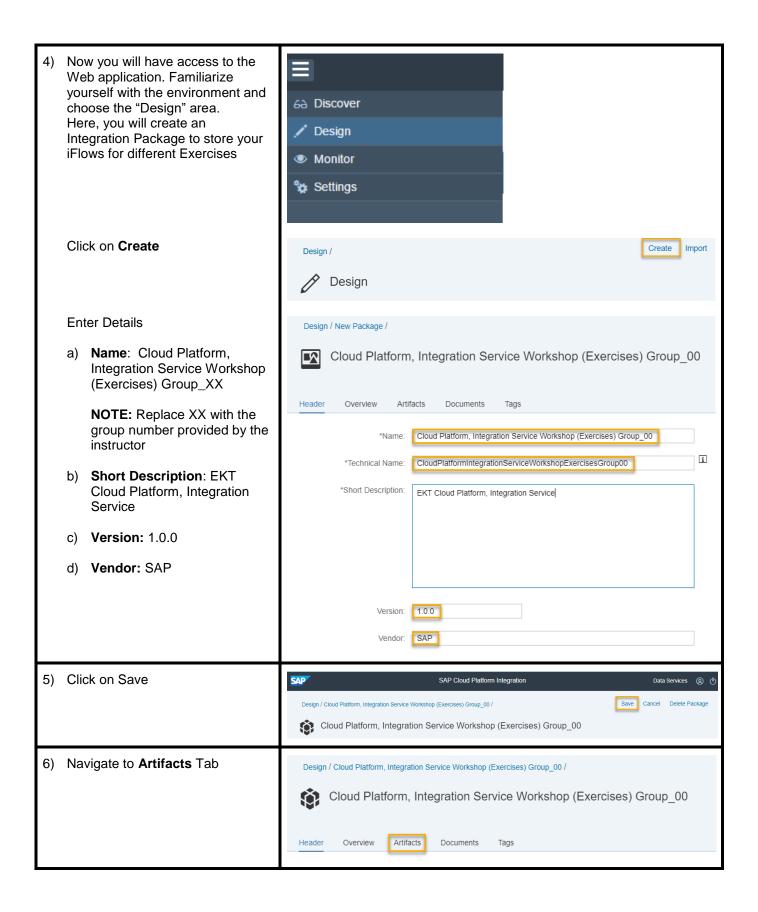
Note

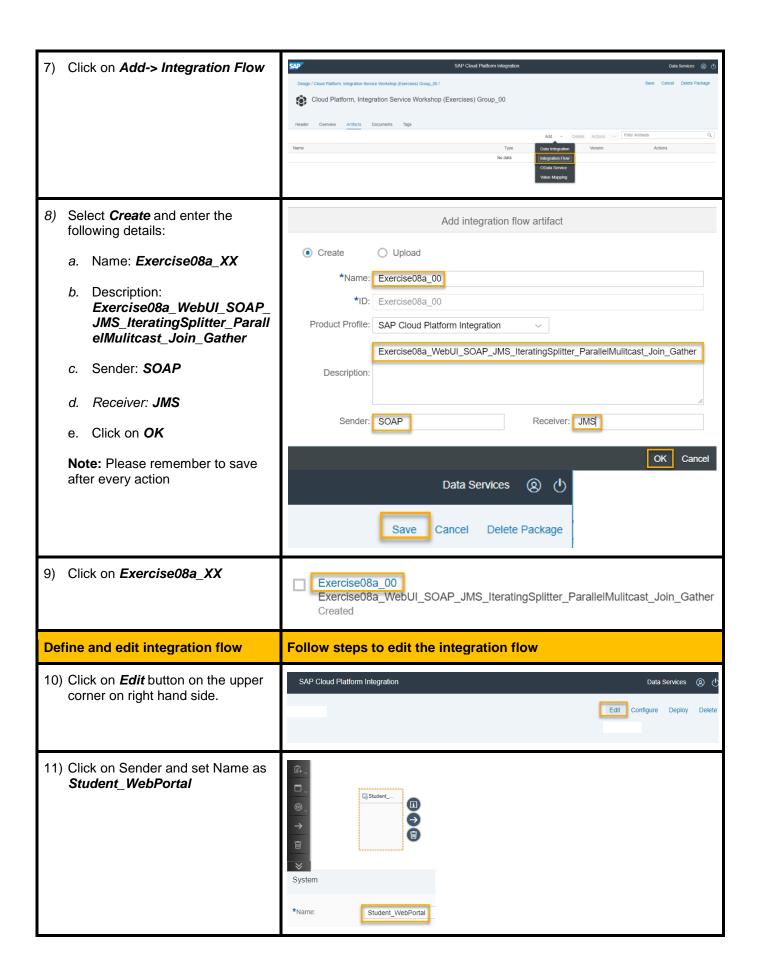
- 1. In the exercise, we have used the notation XX to refer to the content created by you or your group uniquely. The session moderator shall assist you with assigning you/group the unique ID that you can use to replace XX.
- 2. In the exercise, we have used *d0242/d0243* as the example tenants. The final tenant details shall be provided by the session moderator.
- 3. Please note that colours and other visual appearance might differ slightly from the screenshot screens, as the CPI editor might have received feature upgrades since production of this content.

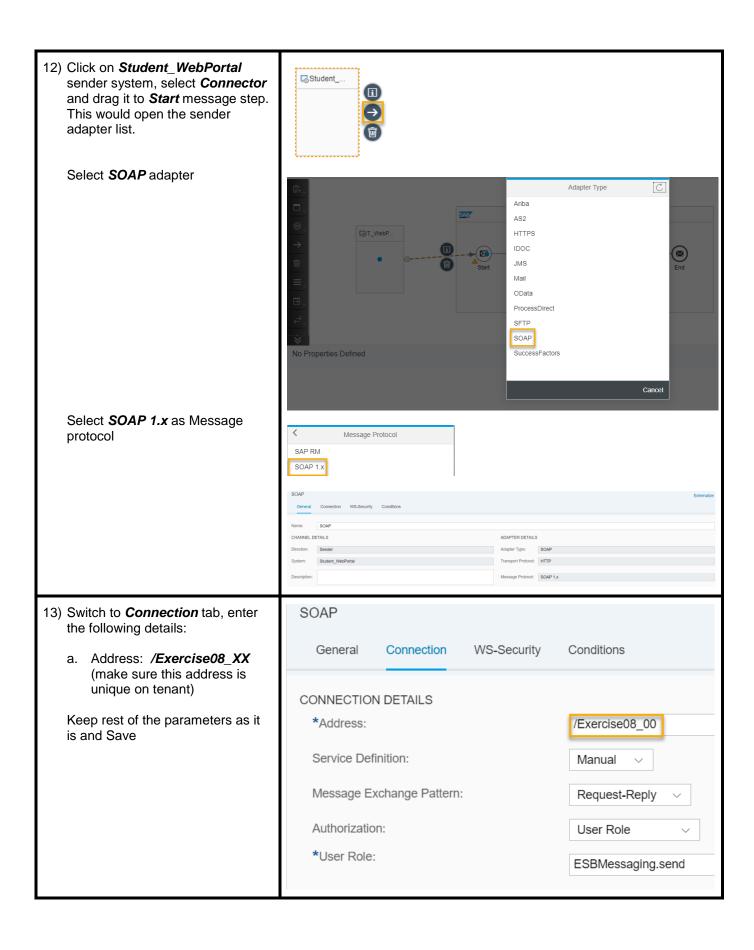


EXERCISE 8A







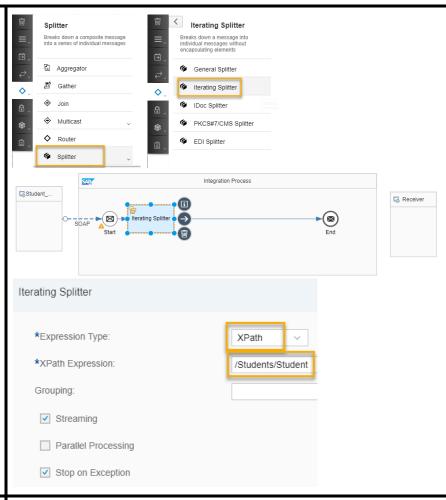


14) From the palette, select *Message Routing -> Splitter -> Iterating Splitter* and drop it on the connection between *Start* message and *End* message in the Integration flow. This would automatically create connections.

Provide the following properties:

- a. Expression Type: XPath
- b. XPath Expression: /Students/Student

Keep rest of the parameters as it is and Save

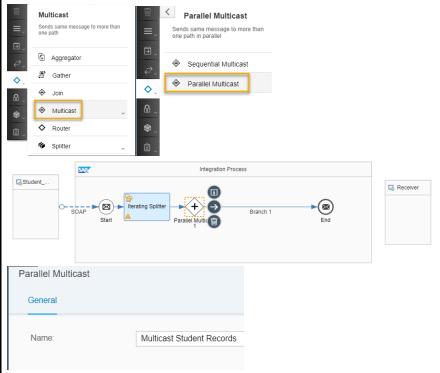


15) From the palette, select Message Routing -> Multicast -> Parallel Multicast and drop it on the connection between Iterating Splitter and End message in the Integration flow.

Provide following properties:

a. Name: Multicast Student Records

Save



- 16) A groovy script is provided which prepare student address. It need to be added on *Multicast Branch* 1 in iFlow using the following steps:
 - a. From palette, select Message
 Transformers -> Script ->
 Groovy Script and drop it on
 the connection between
 Multicast flow step and End
 message in the Integration
 flow.
 - b. Click on *Assign* icon 📵.
 - Upload
 Prepare_Student_Address.g
 sh file from file system
 provided by the instructor.
 - d. Rename the script as **Prepare Student Address**

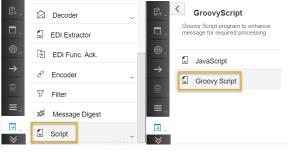
Save

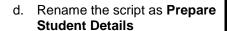
Groovy Script program to enhance message for required processing EDI Extractor EDI Func. Ack. JavaScript Encoder Groovy Script ₩ Message Digest \rightarrow Script ·**(** Processing Prepare Student Address Prepare_Student_Address.gsh import com.sap.gateway.ip.core.customdev.util.Message; import java.util.HashMap; import groovy.util.XmlSlurper; import groovy.util.XmlParser; import groovy.xml.MarkupBuilder; Message processData(Message message) { def body = message.getBody(java.lang.String) as String; def student = new XmlSlurper().parseText(body) def id=student.Id;
def studentClass=student.StudentClass;
def name=student.Name; def xmlWriter = new StringWriter(); def xmlMarkup = new MarkupBuilder(xmlWriter);
xmlMarkup.Student_Address {
xmlMarkup.Id(id)
xmlMarkup.Country("India")
xmlMarkup.State("Karnataka")
xmlMarkup.City("Bangalore") def xmlString = xmlWriter.toString(); message.setBody(xmlString);
return message;

GroovyScript

□ Decoder

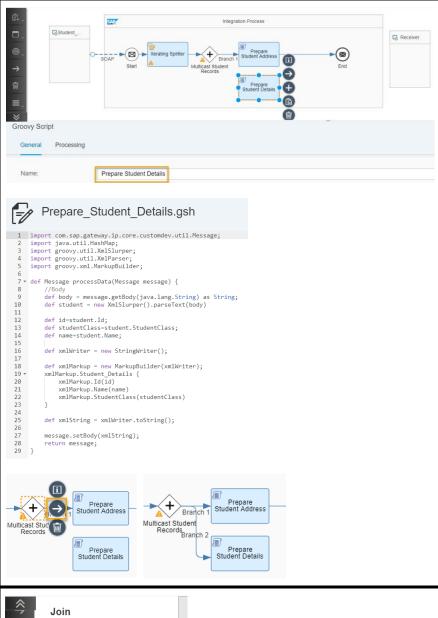
- 17) A groovy script is provided which prepare student other details like name and class. It need to be added on **Multicast Branch 2** in iFlow using following steps:
 - a. From palette, select Message Transformers -> Script -> Groovy Script and drop it inside the Integration Process.
 - b. Click on Assign icon 6.
 - c. Upload
 Prepare_Student_Details.gs
 h file from file system provided by the instructor.



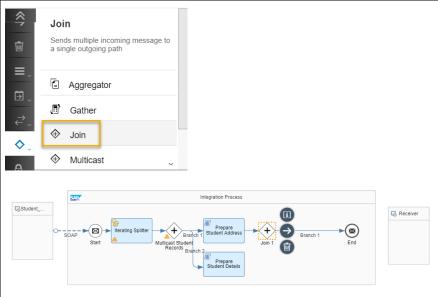


e. Draw the connection from Multicast Student Records to Prepare Student Details script step.

Save



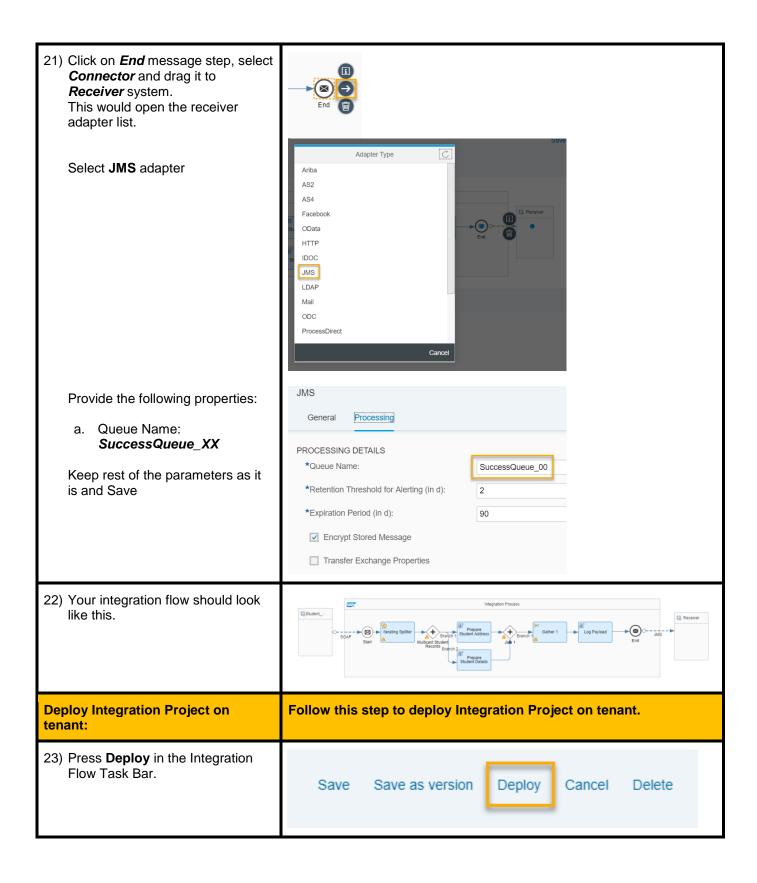
18) From the palette, select *Message Routing -> Join* and drop it on the connection between *Prepare Student Address* script step and *End* message in the Integration flow.

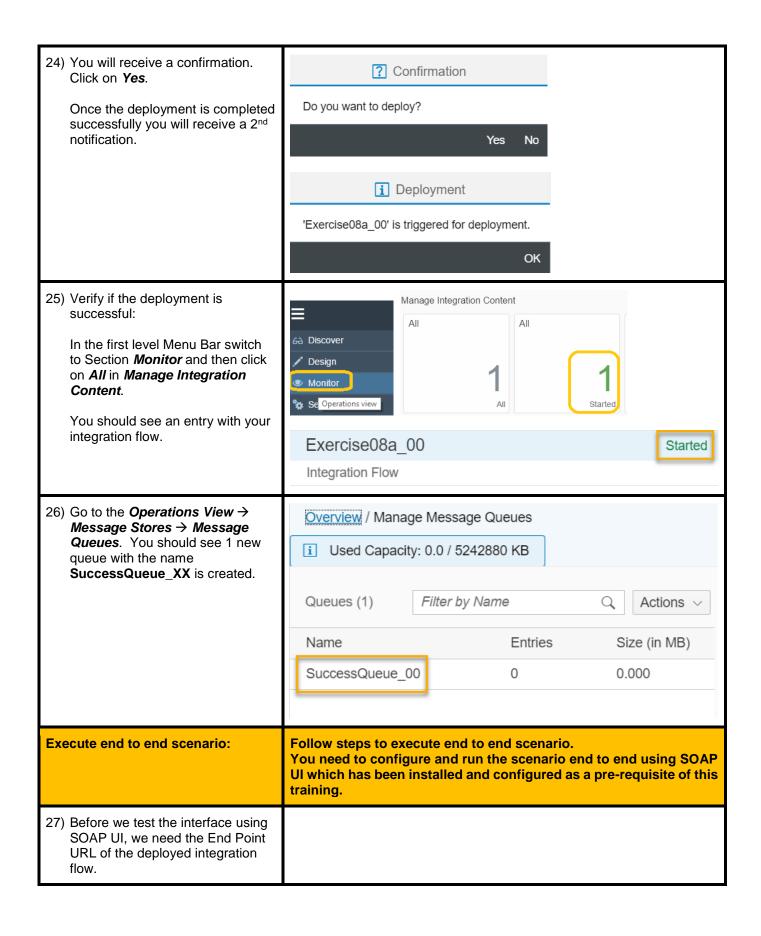


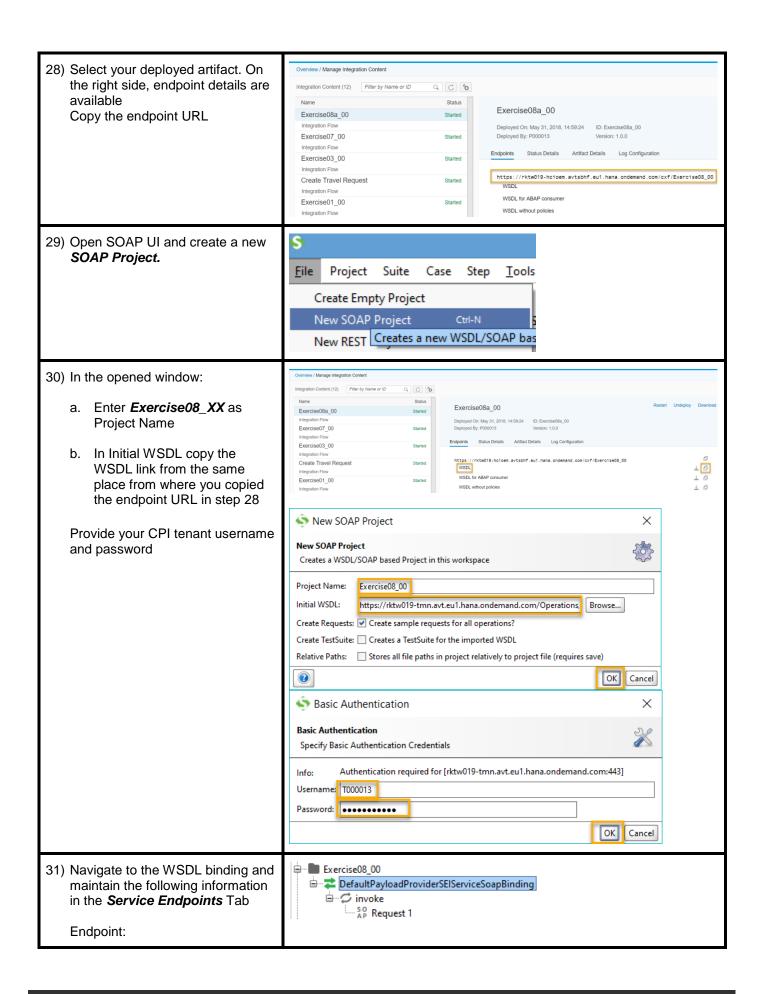
Also draw the connection from Prepare Student Details script step to Join flow step. Prepare Studer Details Save 19) From the palette, select *Message* Gather **Routing -> Gather** and drop it on Define the Aggregation Strategy the connection between Join flow step and End message in the Aggregator Integration flow. Gather Save \Leftrightarrow \Leftrightarrow Multicast Router Receiver 20) A groovy script is provided which GroovyScript □ Decoder writes payload in MPL which is EDI Extractor quite useful for debugging purpose. It need to be added after EDI Func. Ack. JavaScript Gather flow step in iFlow using Encoder Groovy Script the following steps: ∇ Filter ₩ Message Digest From palette, select **Message** ∌ Transformers -> Script -> Script Groovy Script and drop it on the connection after the Gather flow step in the Integration flow. Click on **Assign** icon @. c. Upload Log_Payload.gsh file from file system provided by the instructor. d. Rename the script as Log **Payload** Log_Payload.gsh Save import com.sap.gateway.ip.core.customdev.util.Message; import java.util.HashMap; 4 ▼ def Message processData(Message message) { def body = message.getBody(java.lang.String) as String; def messageLog = messageLogFactory.getMessageLog(message);
messageLog.addAttachmentAsString("Payload", body, "text/plain"); 8

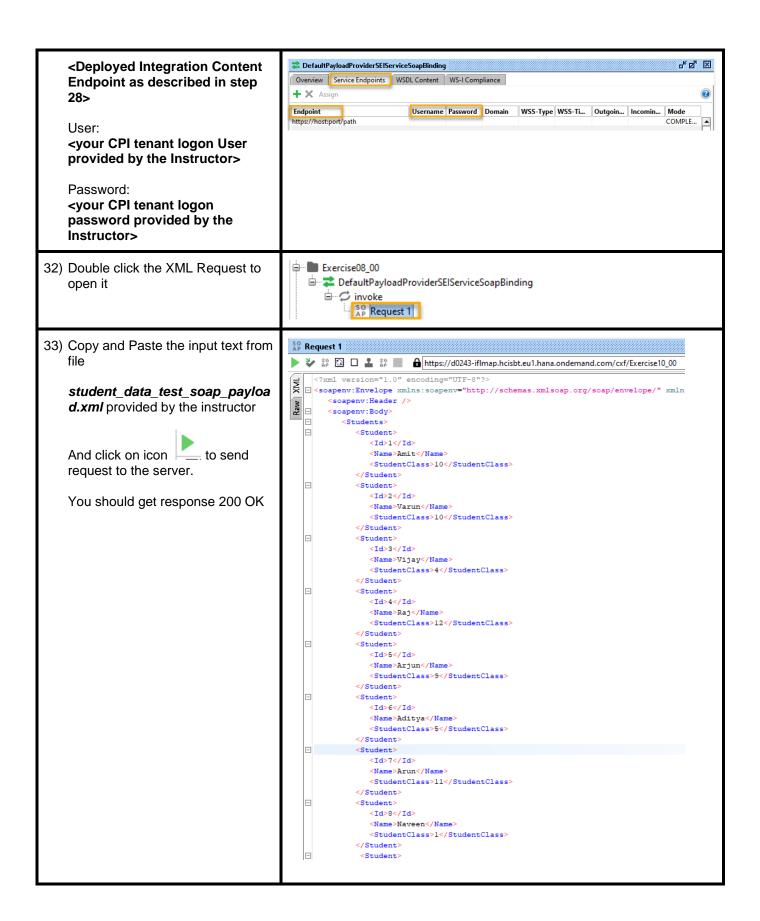
return message;

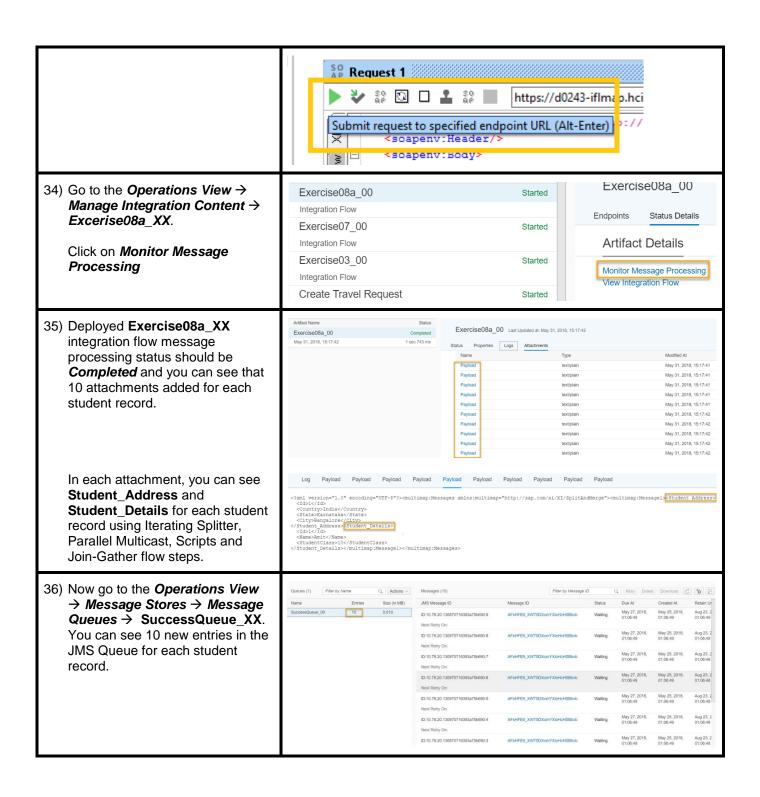
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EXERCISE 08B

