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

Exercise04: SAP Cloud Platform Integration Components Used:

- Timer Event
- SFSF(SOAP) Receiver Adapter with Delta Sync
- Dynamic SFAPI Parameters
- Message Mapping with Custom Functions
- Content Enricher
- SFTP Receiver Adapter



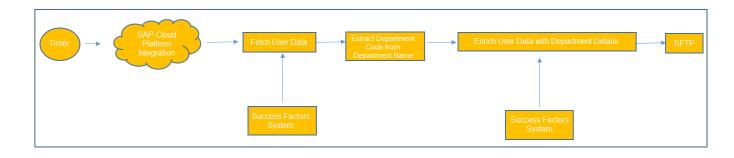
INTEGRATION SCENARIO

Use Case: Employee data of Income Tax department needs to be fetched from the Success Factors system and put it on to the SFTP server.

As user data is fetched from **User** entity which has only department name but no department details, so it needs to be enriched with department data as well.

The process should be a scheduled process.

Additionally, we should transfer the data for updated users only (Delta Sync).



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:

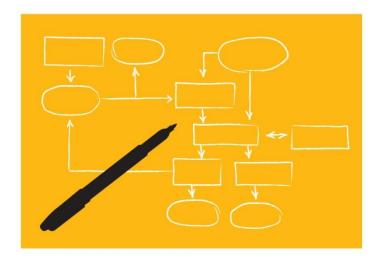
- How to access and work with the Cloud Platform Integration Web tooling
- 2. How to speed up your integration project by leveraging reference integration flows
- 3. How to customize a reference integration flow by configuring its connectivity and flow steps
- 4. Basic monitoring of an integration flow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



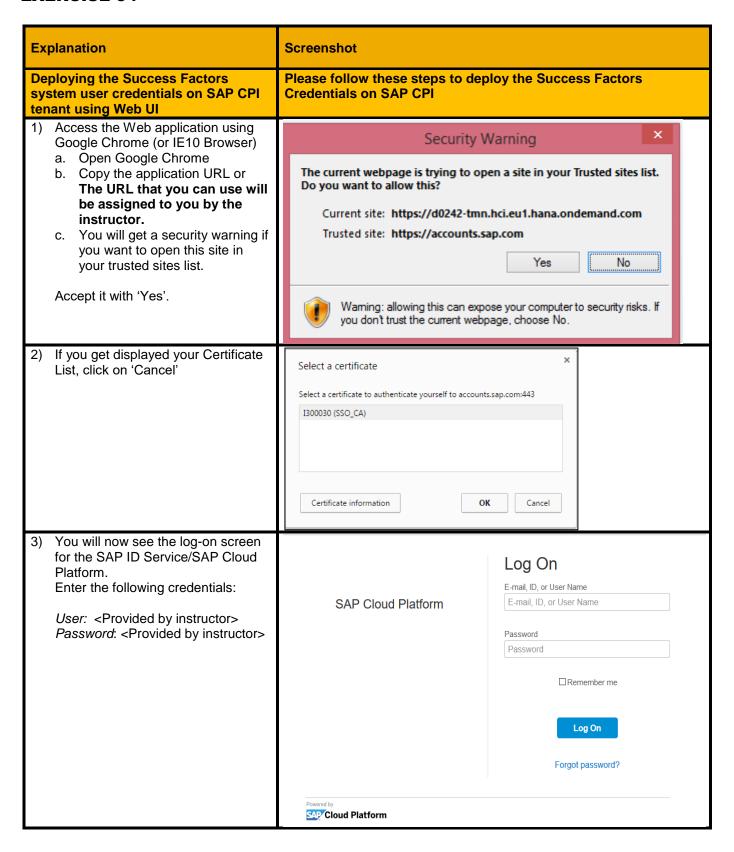
Exercise Files are provided by the session moderator. Download and Extract them into one of your local folders for use later in your exercises and setup:

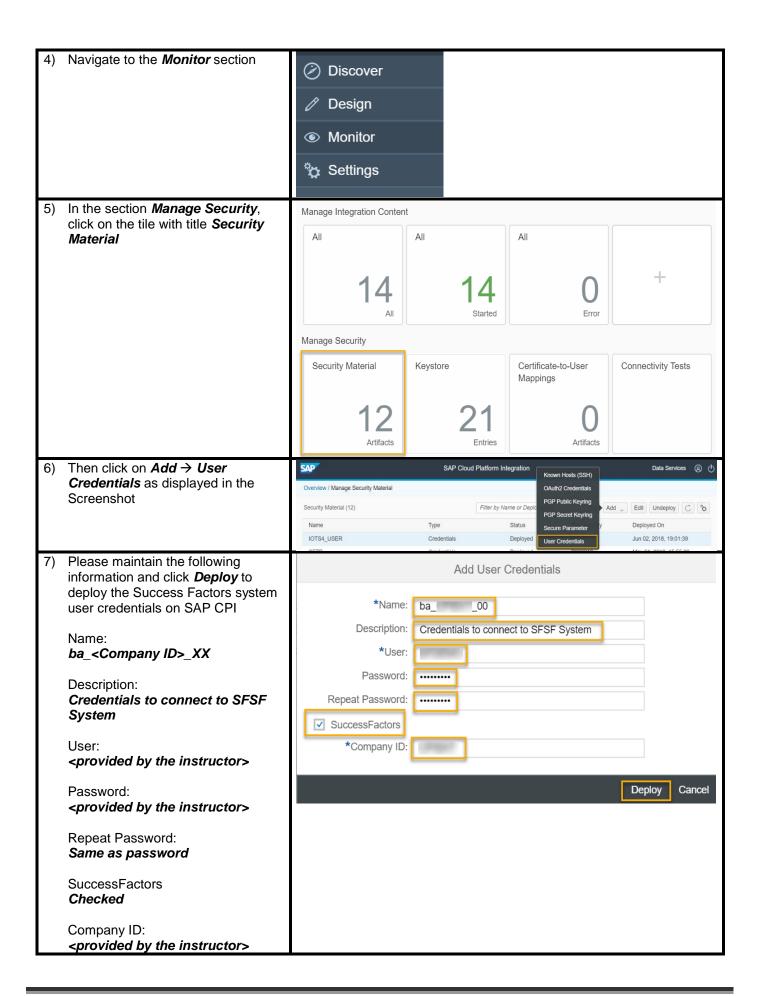
Note

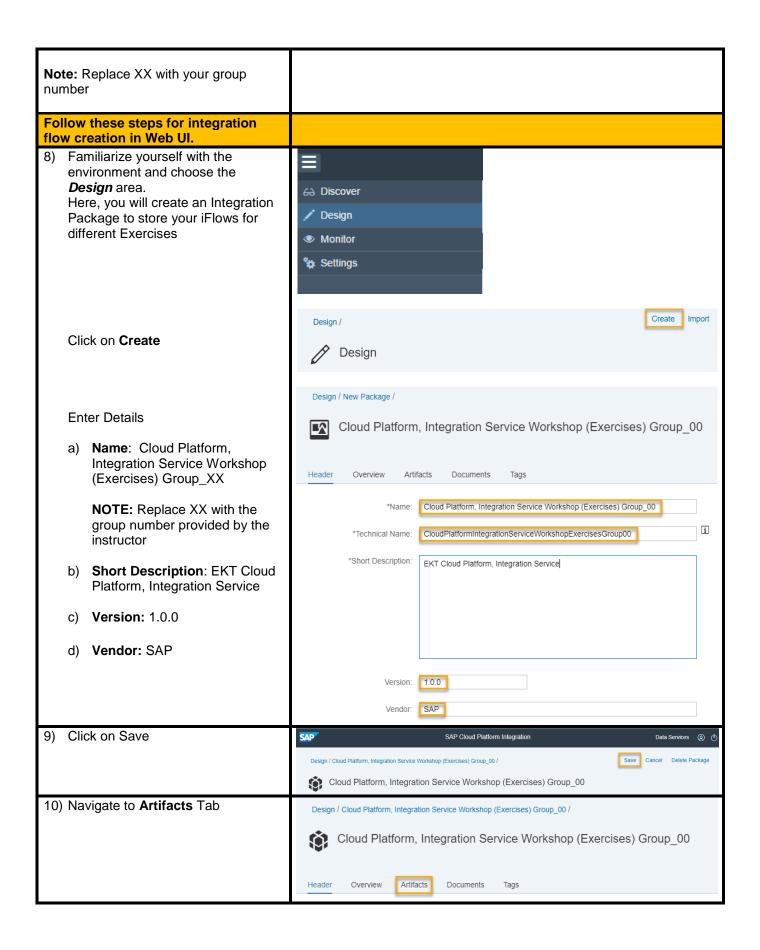
- 1. In the exercise, we have used the notation XX to refer to the content created by you or your group uniquely. The session moderator shall assist you with assigning you/group the unique ID that you can use to replace XX.
- 2. In the exercise, we have used *d0242/d0243* as the example tenants. The 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.

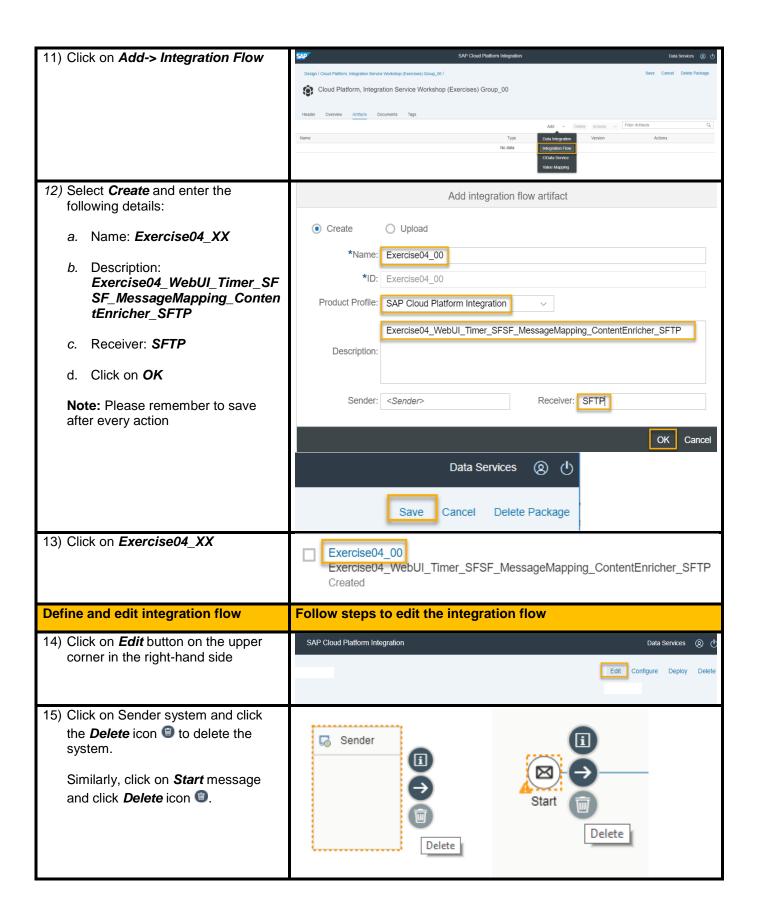


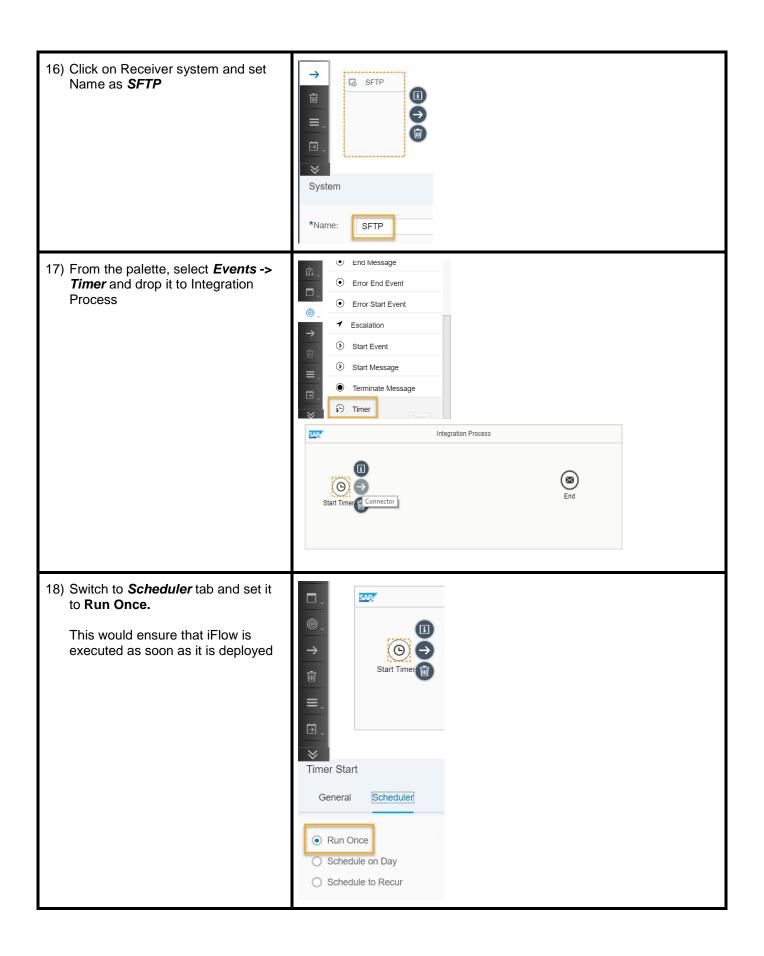
EXERCISE 04

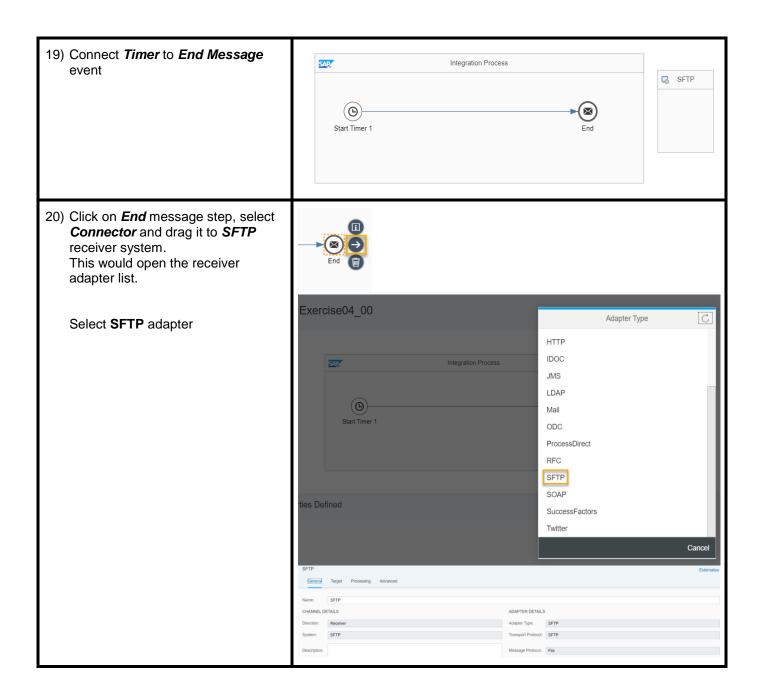


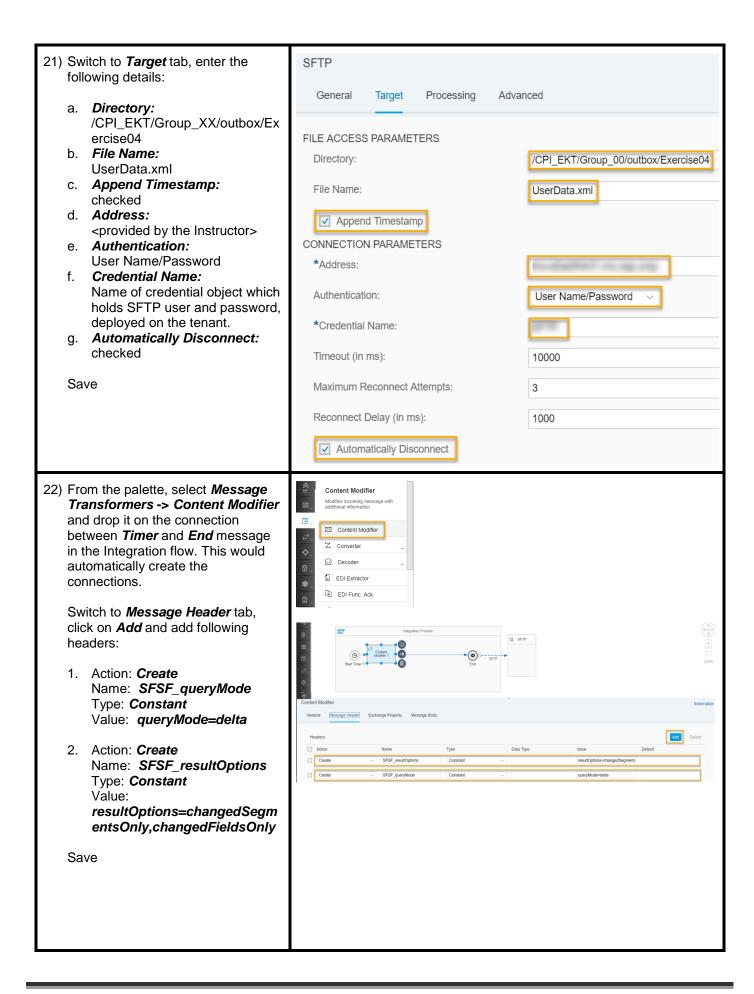


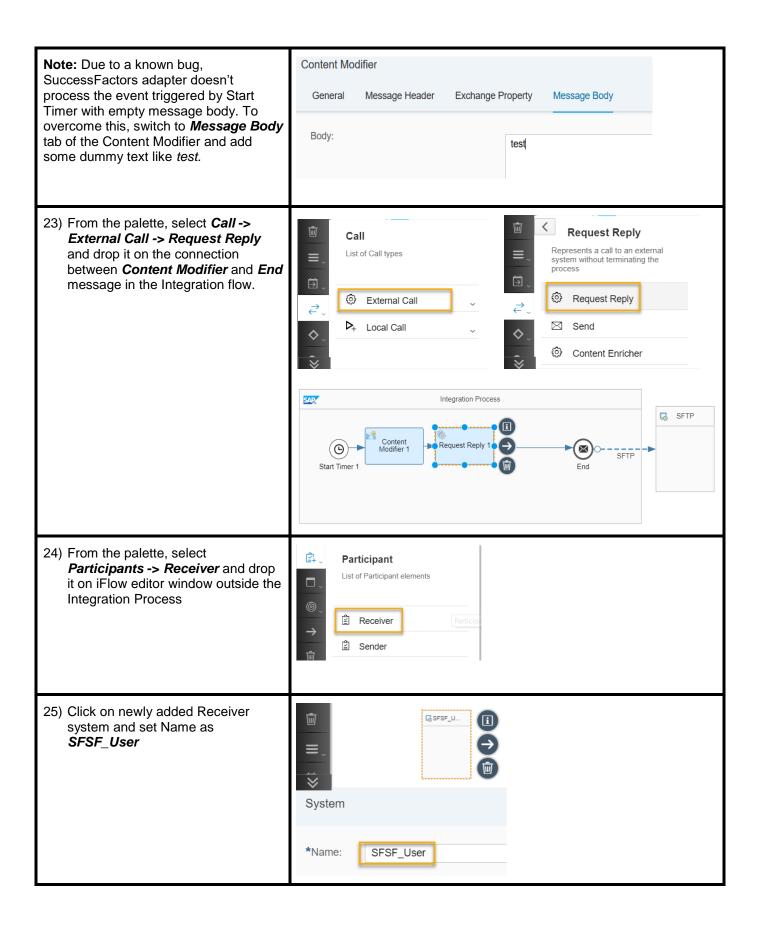


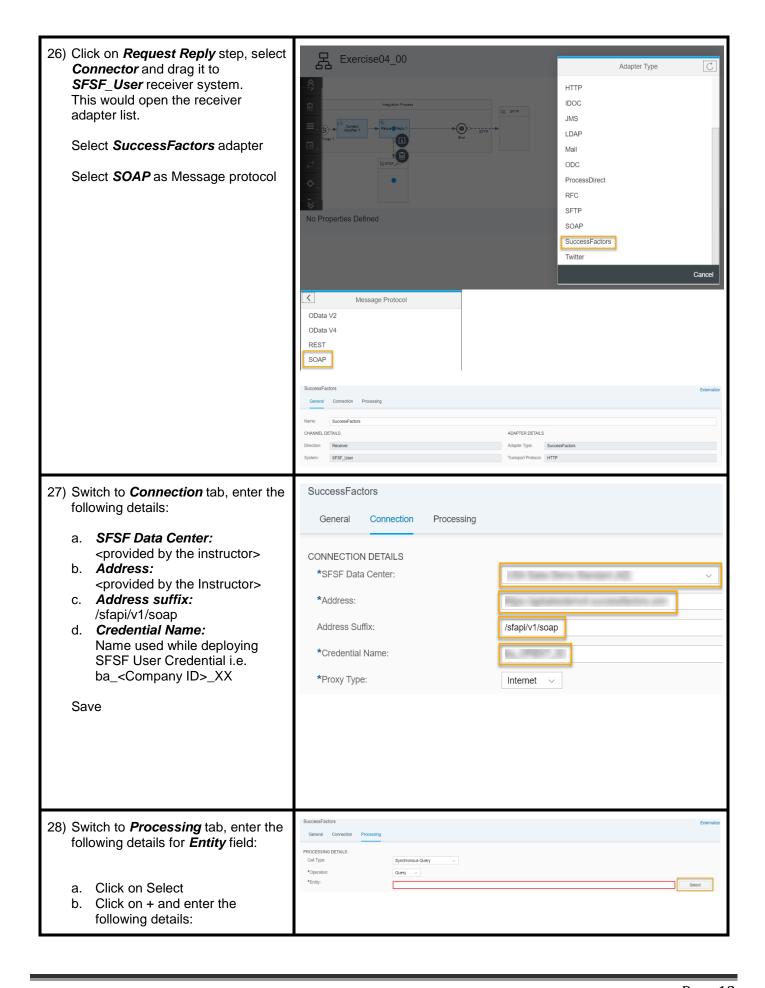


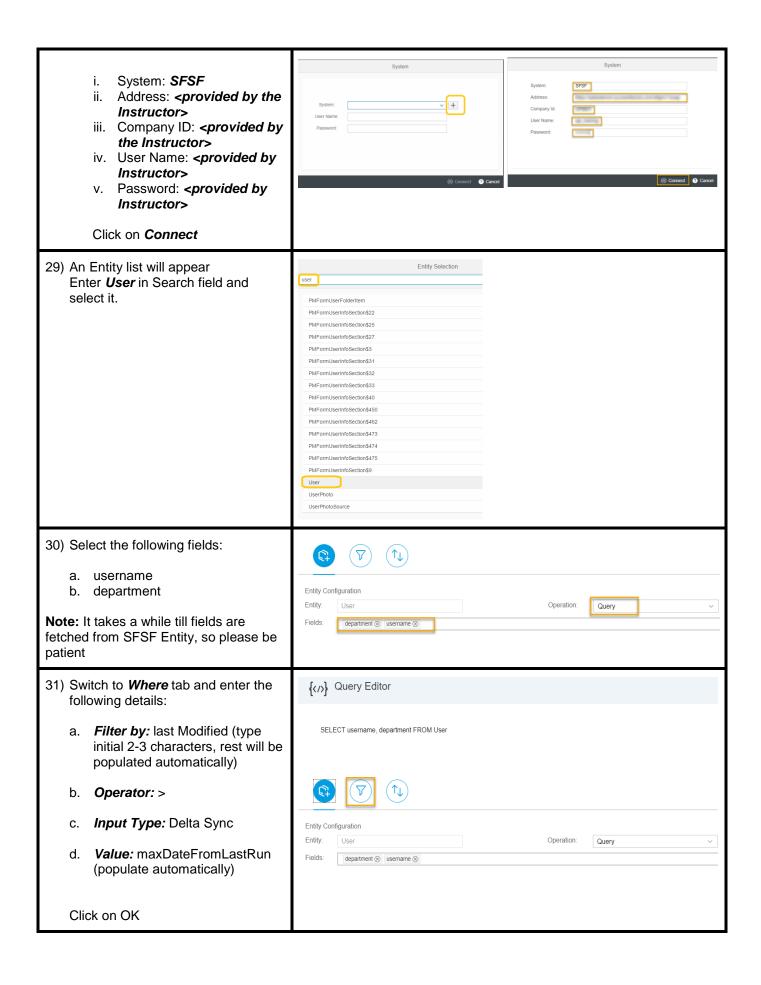












OK Cancel Note: Delta Sync feature ensures that in Design / Cloud Platform, Integration Service Workshop (Exercises) Group_00 / Exercise04_00 / Query Editor / case of scheduled iFlows, only changed {</>/>
Query Editor data (data changed between last run and current run) is transferred in subsequent runs and not full data. SELECT username, department FROM User WHERE lastModified > to_datetime('\${deltasync.maxDateFromLastRun}') Operator Input Type Filter by lastModified Delta Sync 32) In Query text area, manually edit SELECT username, department, astModified FROM User WHERE lastModified > to_datetime('\${deltasync.maxDateFromLastRun}') the guery and add lastModified in SELECT statement as shown. SuccessFactors 33) In *Parameters* field, enter the following: General Connection PROCESSING DETAILS \${header.SFSF_queryMode};\${he ader.SFSF_resultOptions} Note: These are the headers defined in step 22. \${header.SFSF_queryMode};\${header.SFSF_resultOptions} Explanation: With Delta Sync, we get full data for changed users. With SFSF parameters queryMode and resultOptions, we can further optimize the query to fetch only changed data/segments/fields for changed Users.

Dynamic parameters for SFSF adapter

You can define SFAPI operation parameters that you want to include in the operation (which has been modeled using the operations modeler wizard), dynamically

Code Syntax

key1=value1;key2=value2

Note

You can specify the custom parameters in following ways:

- <Key>=<value>;<key>=<value>
- <header/property variable>=value;<header/property variable>=value
- <header/property variable>;<header/property variable> here, the variable contains both the key and its value.

Example

\${property.ECERP_PARAMETERS};\${header.ECERP}, which contains the key-value pair

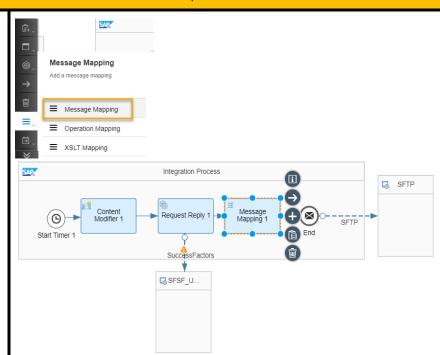
Example

\${property.ECERP_PARAMETERS}=processinactiveEmployees=true;resultOptions=allJobChangesPerDay Here, you are specifying multiple key-value pairs in one property parameter.

Important: Source of these headers and properties used to define dynamic parameters, could be a third-party service(external call) or a configurable parameter (property/header of type **External Parameter** defined in a Content Modifier)

To simplify iFlow, we have defined it as a constant header in above step

34) From the palette, select Mapping -> Message Mapping and drop it on the connection between Request Reply and End message in the integration flow



35) Click on *Create* icon ⊕.

Create Message Mapping dialog will open, enter the *Name* of your mapping.

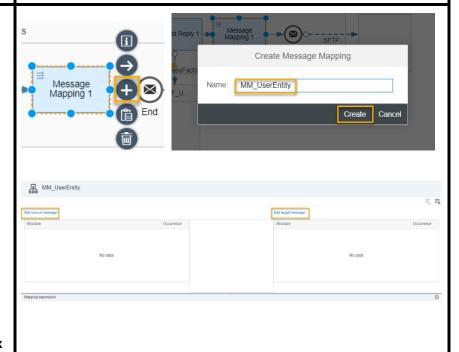
E.g. MM_UserEntity

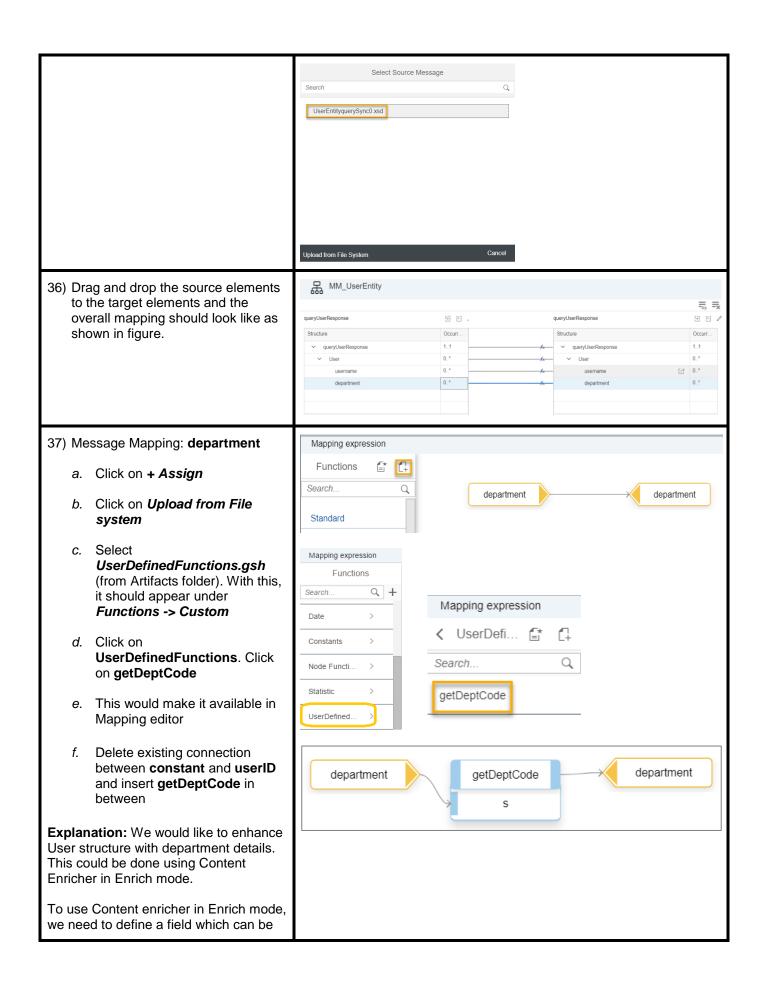
Click on Create button

Mapping editor screen will open as shown in the screenshot.

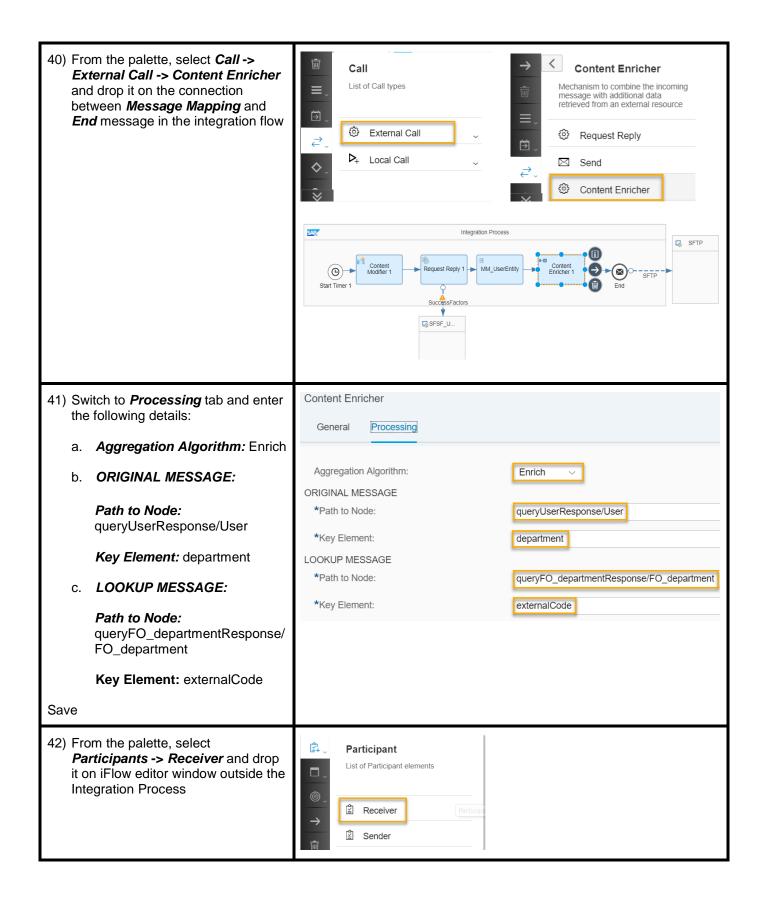
Click on *Add source message*, then select the **UserEntityquerySync<counter>.x sd** for source message.

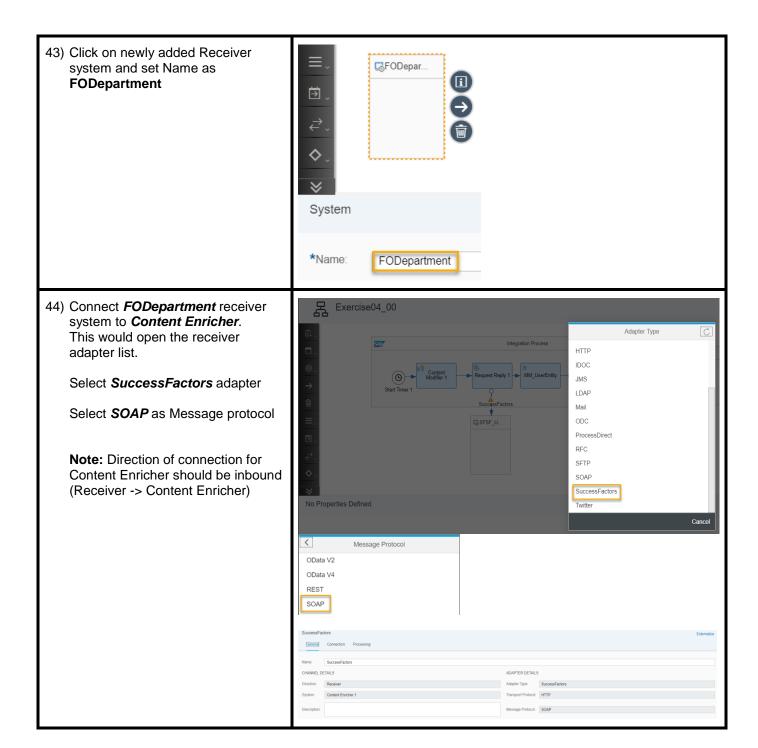
Click on Add Target message, then select the UserEntityquerySync<counter>.x sd for target message.

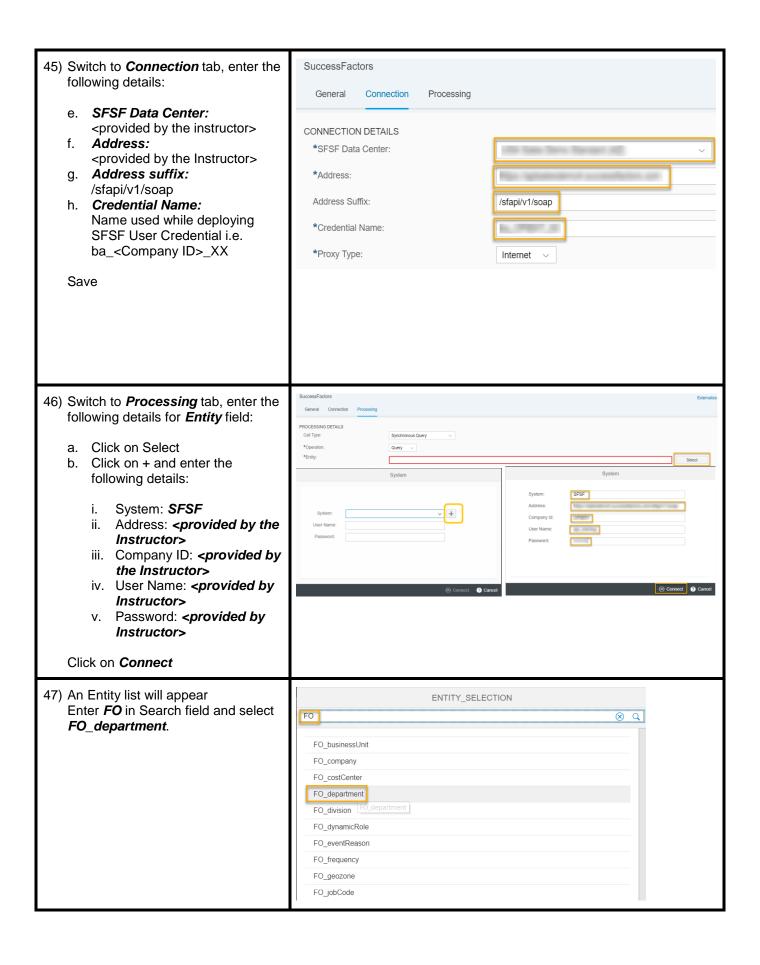


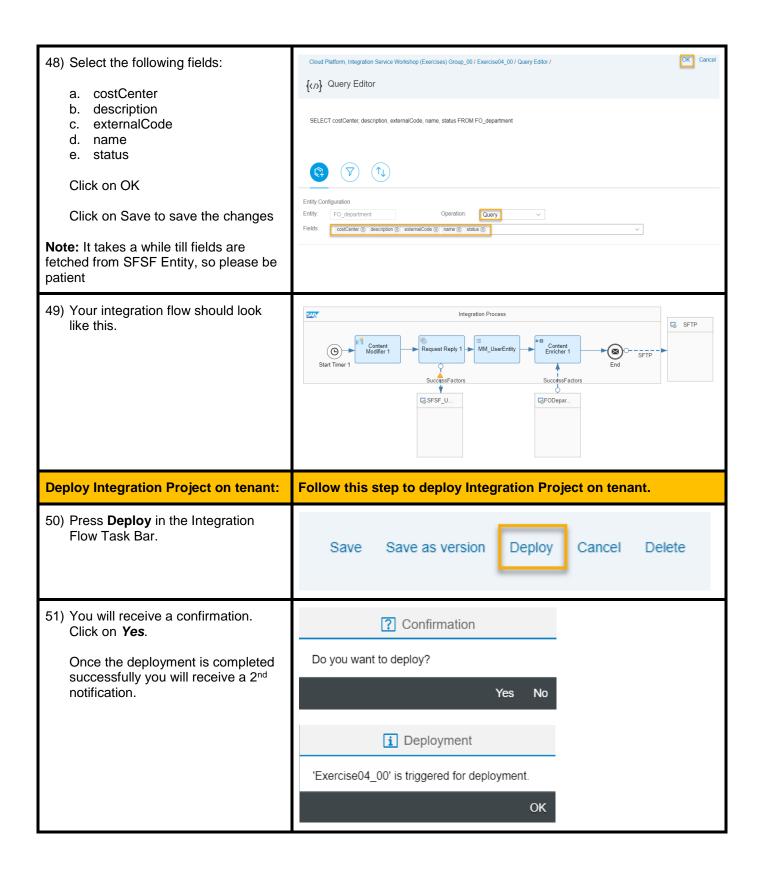


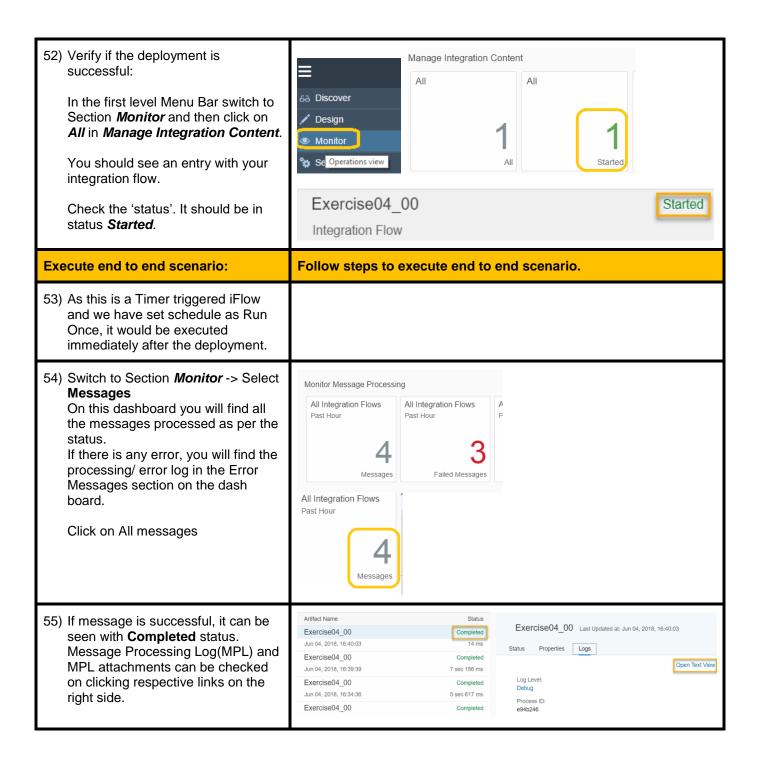
used as a key (common value) in both entities. In this case, for User Entity, department field has a value in following format: **Talent Management (TALENT)** and in Department entity, field externalCode has a value for example: **TALENT** Hence, we need to extract string enclosed within () and use this as a key(corresponding field in department is externalCode) To extract string enclosed within (), we would create a mapping with user defined function getDeptCode 38) Click on the **OK** button to save the Simulate OK Cancel mapping changes 39) Select Mapping, give your mapping Integration Process a meaningful name as shown in the □ SFTP screenshot. (0) Eg. MM_UserEntity SFSF_U. Message Mapping Processina General MM_UserEntity Name **Data Services** Save Save as version Deploy Cancel Delete Click on Save to save the changes









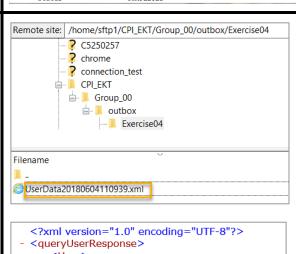


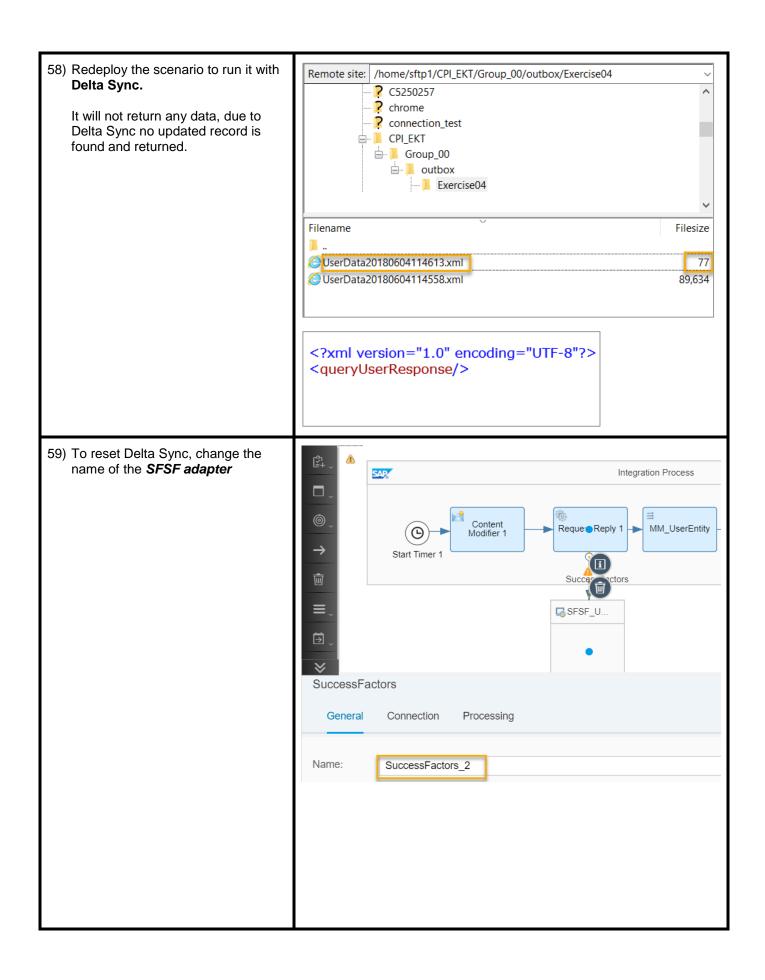
56) Go to the Message Details and check the log for successful processed message.

57) To check the output file, connect to the SFTP server using FileZilla client and drill down to your target directory

/CPI_EKT/Group_XX/outbox/Exer cise04

Open output file using Notepad and view the output





MPL Attachments Optional: Check payload after/before any step in iFlow 60) A groovy script is provided which GroovyScript □ Decoder writes payload in MPL which is quite Groovy Script program to enhance message for required processing EDI Extractor useful for debugging purpose. It can be added before/after any step in EDI Func. Ack. JavaScript iFlow using the following steps: Groovy Script a. From palette, select Message ₩ Message Digest Transformers -> Script -> \rightarrow Groovy Script and drop it on Script ⊗ the connection after the flow step in the Integration flow where you want to log the payload. b. Click on Assign icon @. c. Upload *Log_Payload.gsh* file from file system provided by the instructor. Log_Payload.gsh d. Rename the script as Log 1 import com.sap.gateway.ip.core.customdev.util.Message; **Payload** import java.util.HashMap; Save 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 9 return message; 10 61) Redeploy the scenario