

Hackathon Preparation Template - Sample

1. Description of Use Case

<Please provide a brief description of the business use case>

To demonstrate how MuleSoft:

- Provides a user-friendly mechanism for the transformation of data prior to loading into Salesforce, using address data for our proof of concept.
- Makes the process of connecting to an API for live data exchange simple to set up and configure, waste API and Salesforce for our proof of concept.
- Provides a safe and secure mechanism for exchanging data between systems, for example Salesforce and SilverCloud as the two systems.
- Provides a unified management interface for a range of integrations and enables proactive monitoring of availability, error handling and reporting.

2. Systems Involved

<Please list the source and target systems>

Target system: Salesforce

Sources:

- Data extract (flat file)
- Waste management (API to Microsoft Dynamics)

3. Data & Flow between Systems

<Please list the fields (Approx. 10) from each source and the order of how that flows into the target>

Our scenario involves the following steps:

- MuleSoft will pick up an extract of address data in the standard DTF format, transform the address data into a more user-friendly structure and load it into an object in the Salesforce org.
- An address is selected from the Salesforce object (this could be just via a simple drop down for test purposes) and this triggers a call via MuleSoft to the Waste API using the Get method to fetch the waste collection services for that address for the next two weeks.

- On receiving the response, MuleSoft will extract the waste collection information, carry out some simple transformation steps and store it in a Salesforce object for display.

Salesforce Objects

We will need two objects in the Salesforce org to hold data.

1. The Property object should consist of the following fields:
 - UPRN
 - Property
 - Street
 - Town
 - Postcode
 - FullAddress
 - PropertyType
2. The WasteServices object should consist of the following fields (all text fields unless specified):
 - UPRN
 - ServiceDescription
 - CustomerServiceDescription
 - ServiceDate (date type: date)

SAMPLE

4. Transformation Rules

<Please describe any transformation rules to be applied on the data>

Field	Source Record type	Source field	Transformation	Examples	Further Documentation
UPRN	24	UPRN	None	100040141620	N/A
Property	24	ABC_TEXT, ABC_START_NUMBER, XYZ_TEXT	Concatenate into comma separated field if value is not null. But insert a space " " between ABC_START_NUMBER and XYZ_TEXT	The Flat, 10 The Apartments	N/A
Street	15, 24	XYZ_START_NUMBER, STREET_DESCRIPTOR	USRN used as join. If XYZ_START_NUMBER is not null insert space " " before STREET_DESCRIPTOR	20 High Street	N/A
Town	24	POST_TOWN	None	Chester	N/A
Postcode	24	POSTCODE	None	AB2 4XY	N/A

Waste management Transformation

- <UPRN/> will be stored in the UPRN field - no transformation
- <Name/> will be stored in the ServiceDescription field - no transformation
- <Name/> will also be transformed into a more customer friendly description and stored in the CustomerServiceDescription field. For example:
 - 'Empty Bin Recycling 240L Bin' will be transformed simply to 'Recycling bin'
 - 'Empty Bin Food Waste 23L' will be transformed simply to 'Food waste bin'
- <ScheduledStart/> will be stored in the <ServiceDate> field - no transformation unless required to hold it as a date.

5. Error Scenarios

<Please describe any error scenarios>

- Waste Management API unavailable - we would want a way of returning a sensible error message to Salesforce for display eg 'Sorry, our bin day data is temporarily unavailable. Please try again in a few minutes.'
- No UPRN found in Waste Management System - we'd want to display something to the customer like 'Sorry, we couldn't find bin days for that property' and it would be helpful if we could store the property for which the lookup failed and generate a notification to an admin.
- No services found for that UPRN - similar customer experience to the above and similar action, although we'd want to record a different error type.

Dependencies

1. We will send you an extract of the data in DTF format. The data can be saved locally for the purposes of the hackathon.
2. Salesforce and MS Dynamics details (IP, test user)
3. Waste Management API details

Endpoint details

MuleSoft Waste Management Call for Jobs

API used v 16

Endpoint is the same for test and production, database is determined by the username.

Username: test_username

STEP 1 - Authenticate and Get Token

Once Token is obtained use it as part of authenticating in subsequent calls.

STEP 2 - API Get Jobs Calls

Method Call: Jobs_Get