

# UPSERT RECORDS IN SALESFORCE

In this tutorial we will demonstrate how to Upsert Records In Salesforceusing Using Salesforce upsert operation.

Using the upsert operation, you can either insert or update an existing record in one call. To determine whether a record already exists, the upsert statement or Database method uses the record's ID as the key to match records, a custom external ID field, or a standard field with the idLookup attribute set to true.

- If the key is not matched, then a new object record is created.
- If the key is matched once, then the existing object record is updated.
- If the key is matched multiple times, then an error is generated and the object record is neither inserted or updated.

Ref: <https://docs.mulesoft.com/connectors/salesforce/salesforce-connector-reference#upsert>

Prepare the test data to upsert

```
[
  {
    "CUSTOMER_ID": "1",
    "CUSTOMER_NAME": "TEST1",
    "ADDRESS1": "Flat 101",
    "ADDRESS2": "Viman Nagar",
    "POSTALCODE": "201018",
    "CITY": "PUNE",
    "Phone": "8476539611"
  },
  {
    "CUSTOMER_ID": "2",
    "CUSTOMER_NAME": "TEST2",
    "ADDRESS1": "Flat 102",
    "ADDRESS2": "Viman Nagar 1",
    "POSTALCODE": "201019",
    "CITY": "PUNE",
    "Phone": "847653911"
  },
  {
    "CUSTOMER_ID": "3",
    "CUSTOMER_NAME": "TEST3",
    "ADDRESS1": "Flat 103",
    "ADDRESS2": "Viman Nagar",
    "POSTALCODE": "201018",
    "CITY": "PUNE",
    "Phone": "8476539611"
  },
  {
    "CUSTOMER_ID": "4",
    "CUSTOMER_NAME": "TEST4",
    "ADDRESS1": "Flat 104",
    "ADDRESS2": "Viman Nagar 4",
    "POSTALCODE": "201019",
    "CITY": "PUNE",
    "Phone": "847653911"
  },
  {
    "CUSTOMER_ID": "5",
    "CUSTOMER_NAME": "TEST5",
    "ADDRESS1": "Flat 104",
    "ADDRESS2": "Viman Nagar 4",
    "POSTALCODE": "201019",
    "CITY": "PUNE",
    "Phone": "847653911"
  }
]
```

Create a project in anypoint studio and configure the listener to trigger the request

Drag and drop upsert operation from mule palette and configure the connection detail

Global Element Properties

Salesforce Config

GeneralApexAdvancedNotesHelp

Name: Salesforce\_Config1

ConnectionBasic Username Password

GeneralAdvanced

Advanced reconnection paramsNone

Proxy

Host:fx

Port:fx

Username:fx

Password:

Mutual TLS

Mutual TLS Keystore Path:fx

Mutual TLS Keystore Password:fx

Connection

Username:fx

Password:fx

Security token:fxdhhGk080xNjQ2xYl2mdWSKW4T

Authorization URL:fxhttps://login.salesforce.com/services/Soap/u/46.0

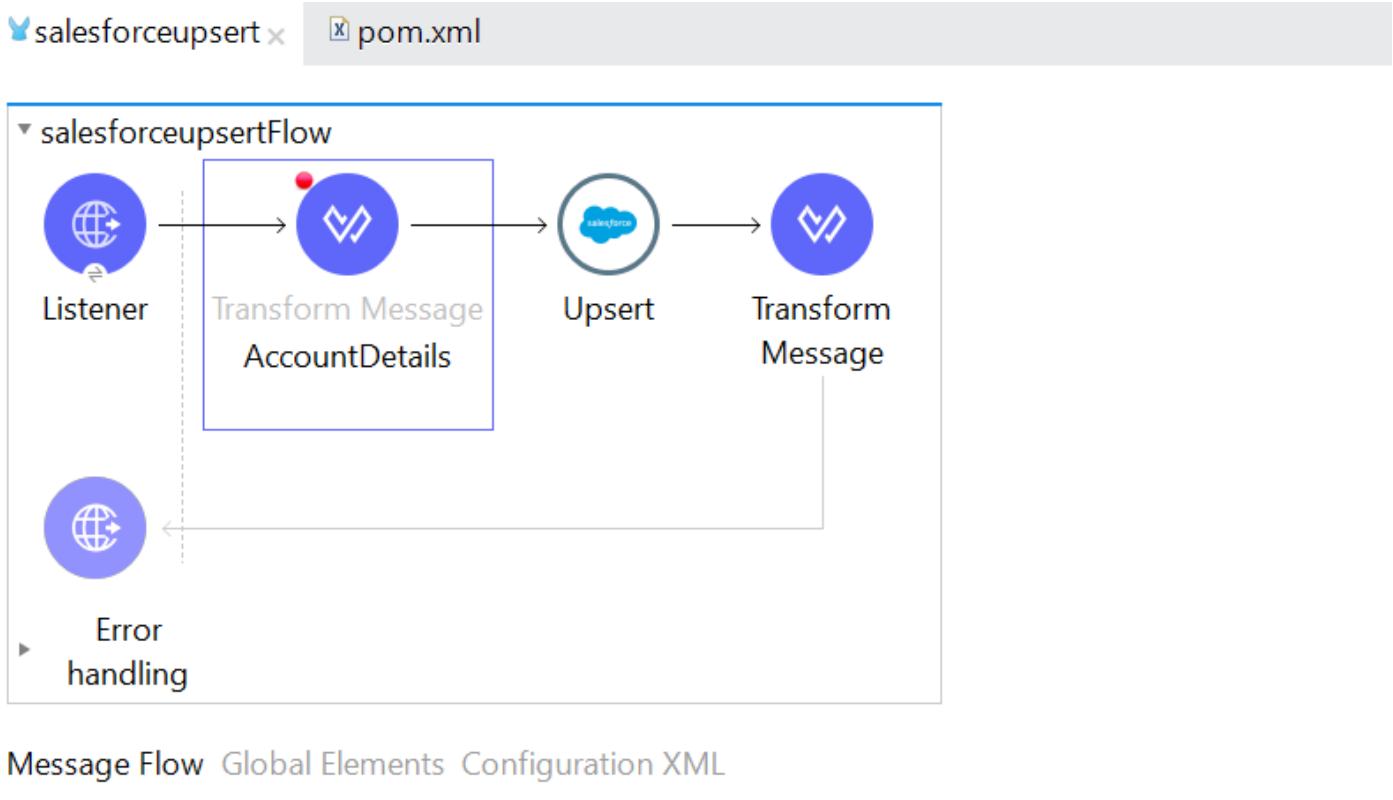
?

Test Connection...

OK

Cancel

Add the transformation



Update the transform message to upsert the data in salesforce

```
%dw 2.0
output application/java
---

payload map ((item,index) ->
{
  Name:item.CUSTOMER_NAME,
  Account_Number_c__c:item.CUSTOMER_ID,
  Phone:item.Phone
})
```

Provide the parameters under upsert operation

- External id field name:** Contains the name of the field on this object with the external ID field attribute for custom objects or the idLookup field property for standard objects.
- Type:** Type of record to be upserted.
- Records:** Records to be added to your organization.
- Note:** Please make sure external id field name is present, in our case we have created a custom field and provide as external id

Account

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Fields & Relationships

40 Items, Sorted by Field Label

Quick Find

New

Field Dependencies

Set History Tracking

Account Owner	OwnerId	Lookup(User)	✓
Account Site	Site	Text(80)	
Account Source	AccountSource	Picklist	
Account_Number_c__c	Account_Number_c__c	Text(20) (External ID)	✓
Active	Active__c	Picklist	
Annual Revenue	AnnualRevenue	Currency(18, 0)	

We can see below Account\_Number\_c\_c is configured as External id field name, on this basis of this field it would be decided either the record will be update or create a new record

salesforceupsertFlow

Listener

Transform Message  
AccountDetails

Upsert

Transform Message

Error handling

Message Flow Global Elements Configuration XML

Upsert x Problems Console Mule Debugger

General

Advanced

Error Mapping

Metadata

Notes

Help

There are no errors.

Display Name: Upsert

Basic Settings

Connector configuration: Salesforce\_Config

General

External id field name: Account\_Number\_c\_c

Type: Account

Records: 1 payload

Create the transform message to get the response

```
%dw 2.0
output application/json
---

payload
```

Deploy the project and test from soapui/postman  
Existing records are present in Salesforce

8	<input type="checkbox"/>	TEST1		(847) 653-9611	MSy	
9	<input type="checkbox"/>	TEST2		847653911	MSy	
10	<input type="checkbox"/>	TEST3		(847) 653-9611	MSy	
11	<input type="checkbox"/>	TEST4		847653911	MSy	
12	<input type="checkbox"/>	TEST5		847653911	MSy	

Test the project

Request 1

Method

POST

Endpoint

http://localhost:8081

Resource

/upsert

Parameters

Request

Name

Value

Style

Level

Required:

☐ Sets if parameter is required

Type:

Options:

Add

Edit

Remove

Description:

Media Type

application/json

☒ ☐ Post QueryString

```
[{"CUSTOMER_ID": "1", "CUSTOMER_NAME": "TEST1", "ADDRESS1": "Flat 101", "ADDRESS2": "Viman Nagar", "POSTALCODE": "401018", "CITY": "PUNE", "Phone": "8476539611"}, {"CUSTOMER_ID": "2", "CUSTOMER_NAME": "TEST2", "ADDRESS1": "Flat 102", "ADDRESS2": "Viman Nagar 1", "POSTALCODE": "401019", "CITY": "PUNE", "Phone": "847653911"}, {"CUSTOMER_ID": "3", "CUSTOMER_NAME": "TEST3", "ADDRESS1": "Flat 103", "ADDRESS2": "Viman Nagar", "POSTALCODE": "401018", "CITY": "PUNE", "Phone": "8476539611"}]
```

Raw HTML

JSON

XML

YAML

1

[

2

{

3

"created": false,

4

"success": true,

5

"id": "0013h000009gRtaAAE",

6

"errors": []

7

},

8

{

9

"created": false,

10

"success": true,

11

"id": "0013h000009gRtaAAE",

12

"errors": []

13

},

14

{

15

"created": false,

16

"success": true,

17

"id": "0013h000009gRtaAAE",

18

"errors": []

19

},

20

{

21

"created": false,

22

"success": true,

23

"id": "0013h000009gRtaAAE",

24

"errors": []

25

},

26

{

27

"created": false,

28

"success": true,

29

"id": "0013h000009gRtaAAE",

30

"errors": []

31

},

32

{

33

"created": true,

34

"success": true,

35

"id": "0013h000009gTIAAU",

36

"errors": []

37

}

38

]

5 records are updated and 1 record is inserted in Salesforce, we can see response also for the created record it return the true value and for updated records it returns false value

8	<input type="checkbox"/>	TEST1	(847) 653-9611	MSy	▼
9	<input type="checkbox"/>	TEST2	847653911	MSy	▼
10	<input type="checkbox"/>	TEST3	(847) 653-9611	MSy	▼
11	<input type="checkbox"/>	TEST4	847653911	MSy	▼
12	<input type="checkbox"/>	TEST5	847653911	MSy	▼
13	<input type="checkbox"/>	TEST6	847653911	MSy	▼

Sample mule application: [salesforceupsert sample application](#)

SOAP UI application: [SalesforceUpsert-soapui-project](#)