LAB- Error Handling

STEP1

1) Import **01-exceptions-start.jar** given to you in the same folder as this document

Open exceptions-demo.xml

2) Observe that there are 3 flows in it with names MainFlow, ValidateAndTransform, and getproductsbyname

In ValidateAndTransform flow, there is "IsTrue" validator which validates the expression `#[['Hp','Mac'] contains  vars.productname]` and throws exceptions if the value of query param productname is not Hp or Mac .

The error message thrown by "IsTrue" is " Invalid ProductName!!!!"

In postman, give a request to http://localhost:8081/error with out passing queryparameter productname

You will see "Invalid ProductName!!" as Response ans status code is 500

This is because in Http Listener, error response body is configured with

```
output text/plain --- error.description
```

Now, Click on responses tab in properties of HttpListener and change the error response body as

```
output application/json --- error.errorType
```

Now give a request to http://localhost:8081/error with out passing queryparameter productname

You should see the error type displayed on browser as

```
{
  "parentErrorType": {
    "parentErrorType": {
      "parentErrorType": {
        "parentErrorType": null,
        "namespace": "MULE",
        "identifier": "ANY"
      },
      "namespace": "MULE",
      "identifier": "VALIDATION"
    },
    "namespace": "VALIDATION",
    "identifier": "VALIDATION"
  },
  "namespace": "VALIDATION",
  "identifier": "INVALID_BOOLEAN"
}
```

By seeing the error type above we can understand that the error thrown is “VALIDATION:INVALID_BOOLEAN” . Its parent is “VALIDATION:VALIDATION” whose parent is “MULE:VALIDATION” and its parent is “MULE:ANY”.

3) Now, we want to handle exception in “ValidateAndTransform” flow.

Drag and drop “On Error Continue” inside error handling block of “ValidateAndTransform” flow. Drag a Logger inside it and configure it to log “Inside on Error continue of ValidateAndTransform flow”

Using postman, Now give a request to http://localhost:8081/error with out passing queryparameter productname

Now observe the console for the log message from ValidateAndTransform flow and also the log message from main flow. Observe that status code is 200.

Now Delete “On Error Continue” from “ValidateAndTransform” flow.

Drag and drop “On Error Propagate” into ValidateAndTransform flow. Drag a logger into it and configure it to log “Inside on error propagate of ValidateAndTransform”.

Start the application.

From postman, give a GET request to http://localhost:8081/error with out passing queryparameter productname

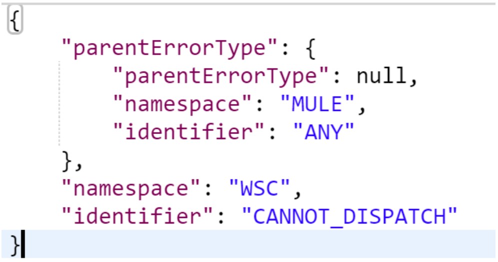
You should observe that Logger is not executed in mainflow and error type is displayed on the browser.

observe the status code is 500

Now make sure that soap.bat is running.

In postman, give a request to http://localhost:8081/error?productname=Hp observe that you get proper response from Soap Webservice

Now, Stop the Soap Webservice and give a request to http://localhost:8081/error?productname=Hp you should see the error.type displayed as shown below:

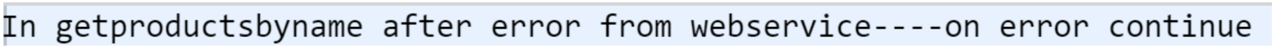


```
{
    "parentErrorType": {
        "parentErrorType": null,
        "namespace": "MULE",
        "identifier": "ANY"
    },
    "namespace": "WSC",
    "identifier": "CANNOT_DISPATCH"
}
```

Now Drag “On Error Continue ” inside errorhandling block of getproductsbyname flow. Drag “Setpayload” transformer inside it and set the payload as `'In getproductsbyname after error from webservice----on error continue'`

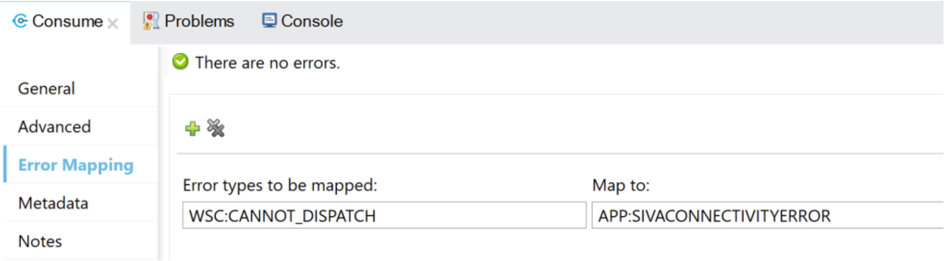
Drag a logger after “SetPayload” and configure it to log “In getproductsbyname after error from webservice----on error continue”

Now, Give a request to http://localhost:8081/error?productname=Hp you should see the following output



```
In getproductsbyname after error from webservice----on error continue
```

Now, Double click on Consume component, click on “Error Mapping” and configure as shown below(**Make sure that error identifier(SIVACONNECTIVITYERROR in this case) is given in capitals only**)



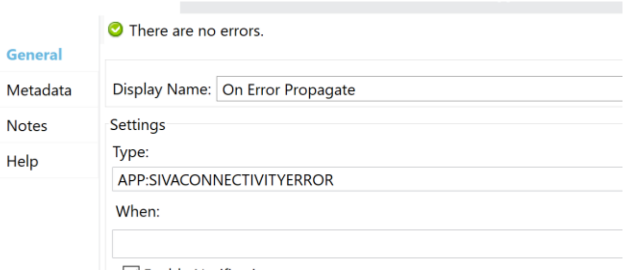
There are no errors.

Error types to be mapped: WSC:CANNOT_DISPATCH

Map to: APP:SIVACONNECTIVITYERROR

Now Drag “On Error Propagate” above “On Error Continue”.

Now Double click on “On Error Propagate” and configure it as shown below:



There are no errors.

Display Name: On Error Propagate

Settings

Type:

APP:SIVACONNECTIVITYERROR

When:

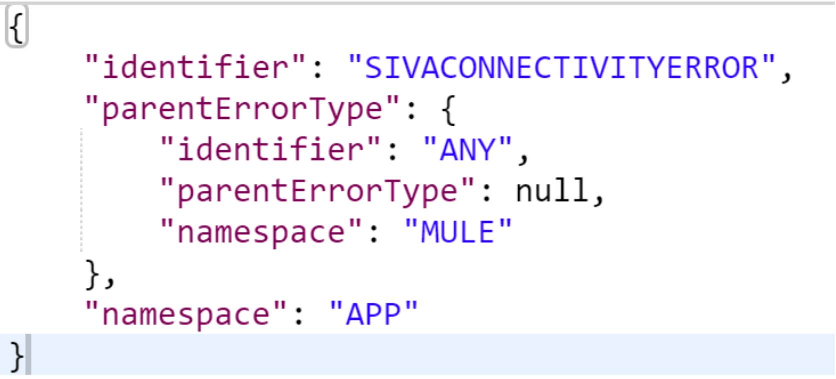
Drag “Set Payload” inside “On Error Propagate” and configure it with below payload:

```
'In getproductsbyname after error from webservice----on error Propagate error type:
APP:SIVACONNECTIVITYERROR'
```

Drag a logger after “SetPayload” and configure it to log following:

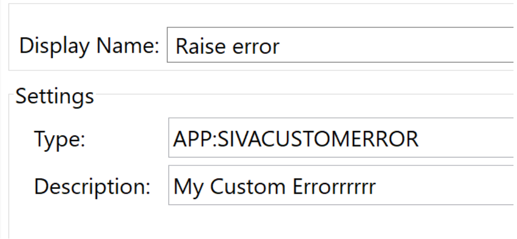
'In getproductsbyname after error from webservice----on error Propagate'

Now run the application and Give a request to http://localhost:8081/error?productname=Hp you should see the following output



```
{
    "identifier": "SIVACONNECTIVITYERROR",
    "parentErrorType": {
        "identifier": "ANY",
        "parentErrorType": null,
        "namespace": "MULE"
    },
    "namespace": "APP"
}
```

Drag “Raise Error” after logger and configure it as shown below:



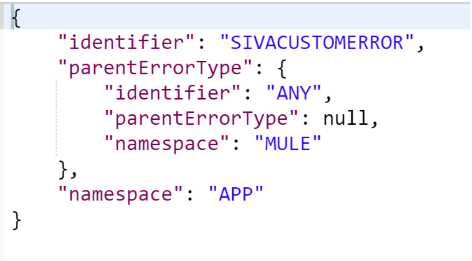
Display Name: Raise error

Settings

Type: APP:SIVACUSTOMERROR

Description: My Custom Errorrrrrr

Now run the application and Give a request to http://localhost:8081/error?productname=Hp you should see the following output



```
{
    "identifier": "SIVACUSTOMERROR",
    "parentErrorType": {
        "identifier": "ANY",
        "parentErrorType": null,
        "namespace": "MULE"
    },
    "namespace": "APP"
}
```

Now we want to configure a Global Error Handler.

Drag Error Handler on the top of all the flows.

Now drag “On Error Continue” inside it.

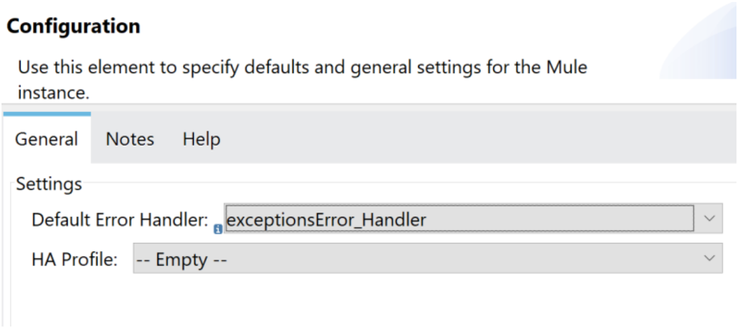
Drag a logger inside “On Error Continue” and configure it to log “In Global Error Handler”
Also Drag “Set Payload” inside it and set payload as “In Global Error Handler”

We want to make it default Error Handler for all flows.

Now click on Global Elements tab on the xml

Click on Create. Select “Configuration” under “Global Configurations”

Select your Exception handler as default error handler



Configuration

Use this element to specify defaults and general settings for the Mule instance.

Settings

Default Error Handler: exceptionsError_Handler

HA Profile: -- Empty --

Now restart the application and give request to
http://localhost:8081/error?productname=Hp

Observe that u get the response payload what ever has been set in global error handler

This is the end of the Exercise