

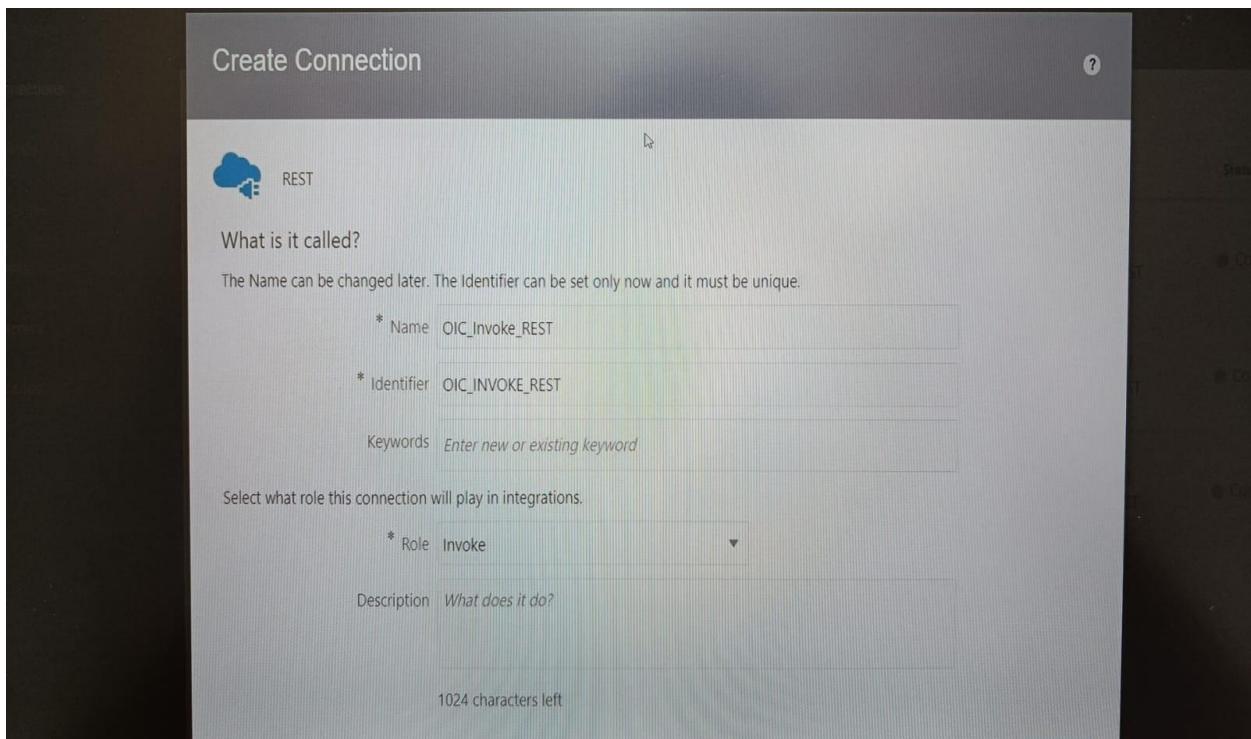
INVOKE THE 'REQRES.IN' API FROM ORACLE INTEGRATION CLOUD AND PROCESS THE RESPONSE:

To invoke an external REST API such as 'reqres.in' using Oracle Integration Cloud (OIC), follow these steps. reqres.in is a free API that provides mock data for testing, which is perfect for demonstrating how to integrate with a REST API.

WE NEED TWO CONNECTIONS FOR THIS ONE TO TRIGGER AND ONE TO INVOKE

CREATE REST CONNECTION (TO INVOKE):

CONNECTIONS>CREATE>REST>



NOW THIS connection WILL INVOKE THE EXTERNAL API>THE EXTERNAL API WILL BE USED FROM '<https://reqres.in/>' > 'POST SUCCESSFUL'

 OIC Integration

OIC_Invoke_REST Draft

Connection Properties

Connection to specify information to connect to your application/endpoint and process requests.

Connection Type

REST API Base URL

TLS Version OPTIONAL

< Please select an item from the list >

* Connection URL

`https://reqres.in`

Enable two way SSL for outbound connections (Optional) OPTIONAL

< Please select an item from the list >

Identity keystore alias name (Optional) OPTIONAL

Name of alias to use for establishing identity during two way SSL communication

Security

Security to specify the login credentials to access your application/endpoint.

Security Policy

No Security Policy

NOW CREATE INTEGRATION:

INTEGRATIONS>CREATE>APP DRIVEN>

Create New Integration

Triggered By Application Event or Business Object

What is it called?

* Name: Test_Invoke_REST_INT

* Identifier: TEST_INVOKE_REST_INT

* Version: 01.00.0000

Documentation URL: Enter Documentation URL

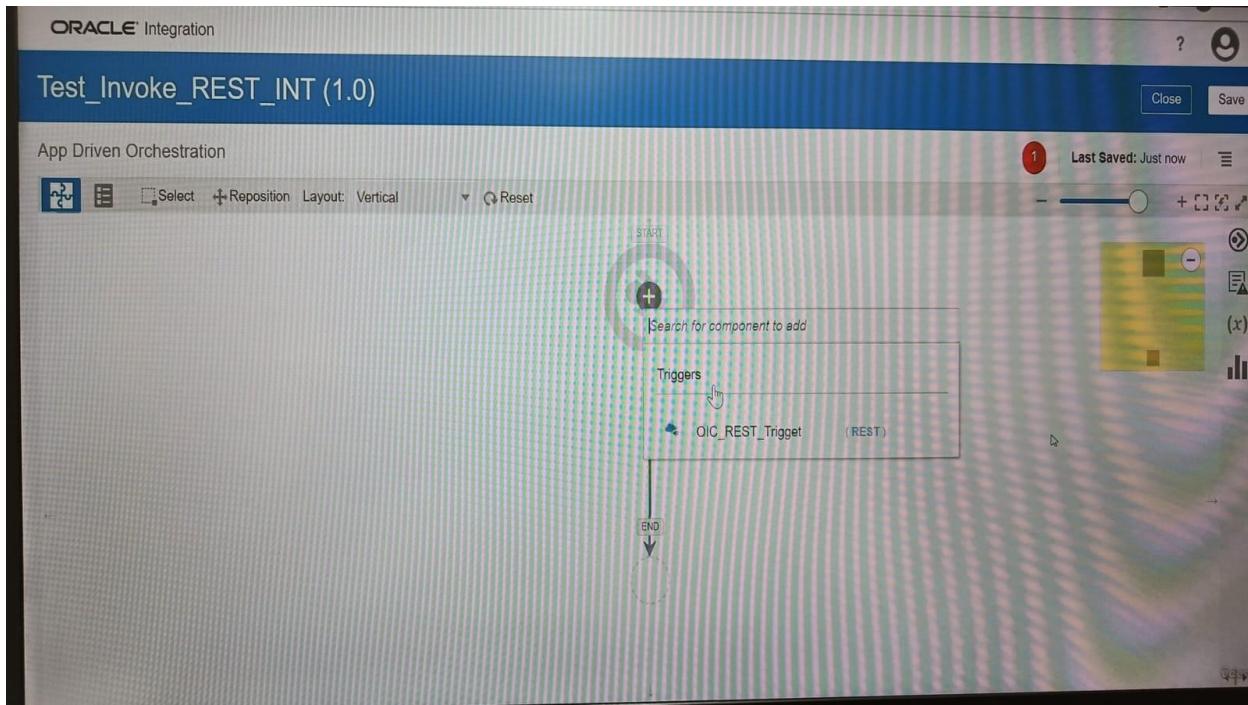
Keywords: Enter new or existing keyword

Package: test.rest

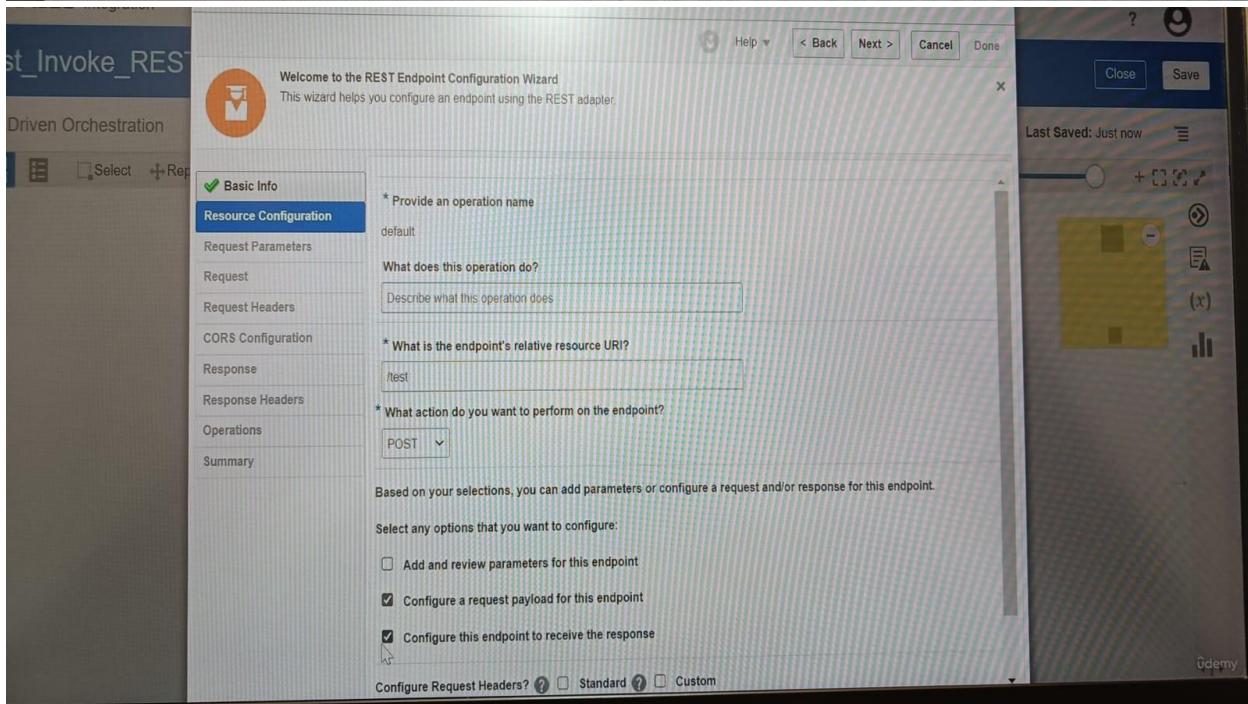
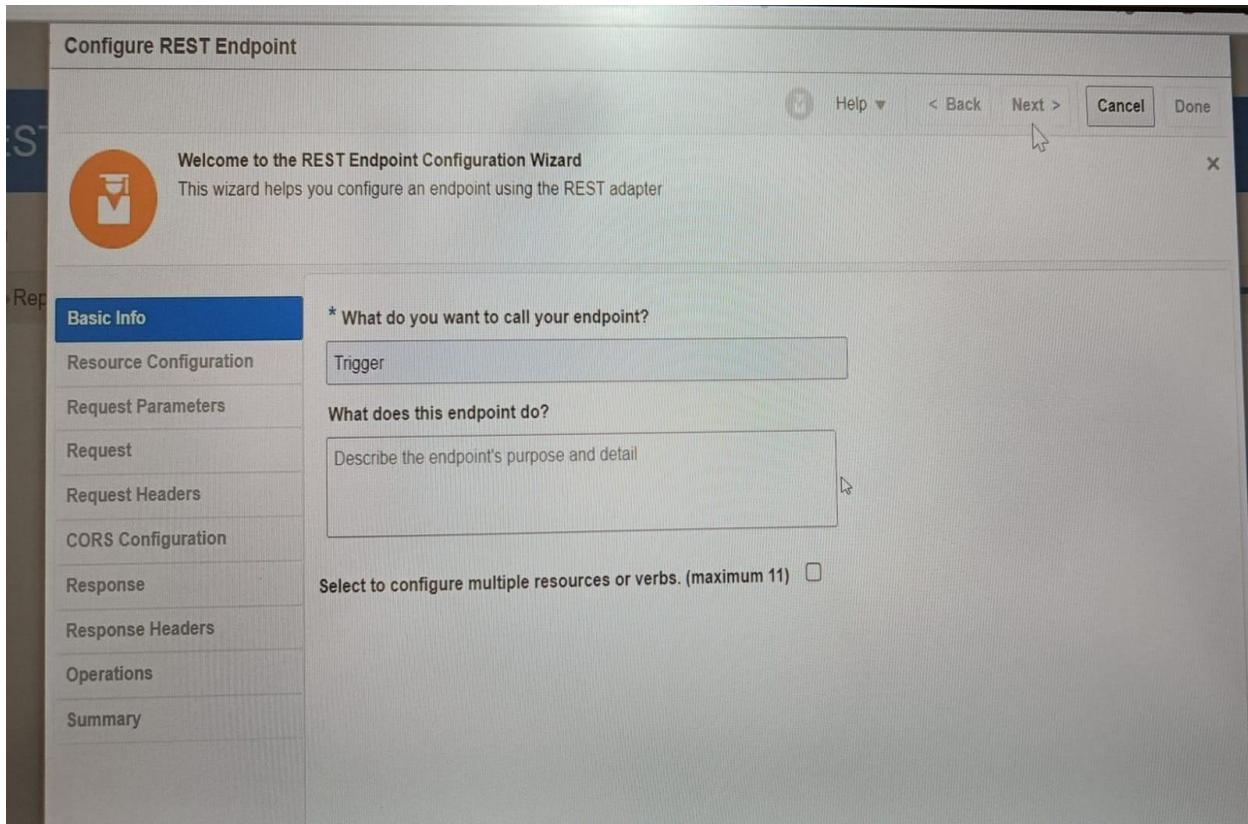
Description: What does it do?

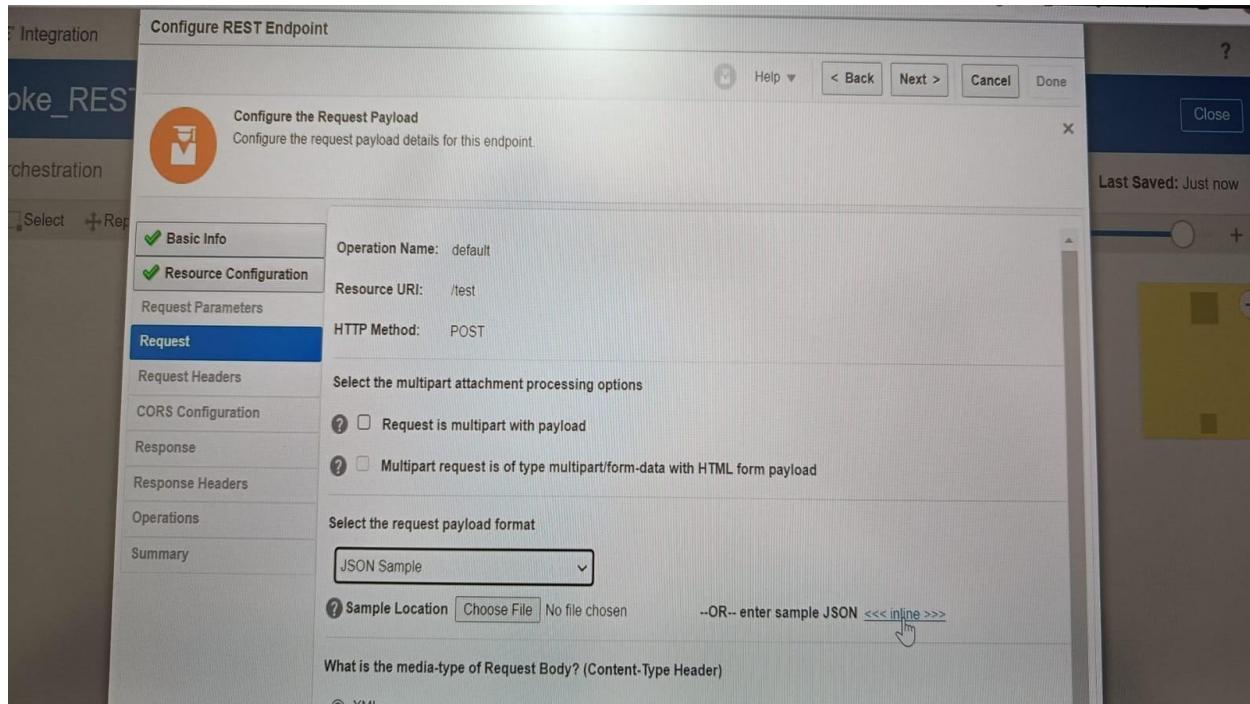
Enter a name using letters (A-Z a-z), numbers (0-9) and special characters (_ - .), for example, com.company.pkg.test. It cannot be longer than 50 characters, can't have a pattern *(ba|xba|ta|r).* and must start with letters (A-Z). For example com.ba.pkg, com.ta.pkg, com.r.pkg are invalid names since they have reserved word ba/ta/r in the name.

NOW WE ALREADY HAVE ONE REST BASED CONNECTION TO TRIGGER THE INTEGRATION PROCESS:



Configuring a **REST endpoint** in OIC is about setting up a connection between OIC and an external service or API. It involves defining the endpoint URL, HTTP method, request/response formats, and any necessary authentication. This allows OIC to send or receive data automatically, making your integration efficient and seamless.





FROM 'REQRES.IN':

The screenshot shows the Reqres API documentation interface. It displays various endpoints and their responses. The 'Request' column shows methods like GET, POST, and PUT, and the 'Response' column shows status codes like 200, 201, and 204. A large JSON response example is shown for the /api/register endpoint, which includes fields for email, password, id, and token.

Request	Response
GET /api/register	200
LIST USERS	{ "email": "eve.holt@reqres.in", "password": "pistol" }
SINGLE USER	{ "id": 4, "token": "QpwL5tke4Pnpja7X4" }
SINGLE USER NOT FOUND	
LIST <RESOURCE>	
SINGLE <RESOURCE>	
SINGLE <RESOURCE> NOT FOUND	

Configure REST Endpoint

Request Sample Json Payload
Enter the sample JSON that describes the HTTP message payload.

Basic Info

Resource Configuration

Request Parameters

Request

Request Headers

CORS Configuration

Response

Response Headers

JSON value entered here will be used to define the payload type for this service.

```
{ "email": "eve.holt@reqres.in", "password": "pistol" }
```

Configure the Response Payload

Specify the response payload details for this integration.

Basic Info

Resource Configuration

Request Parameters

Request

Request Headers

CORS Configuration

Response

Response Headers

Operations

Summary

Operation Name: default

Resource URI: /test

HTTP Method: POST

Select the multipart attachment processing options

Response is multipart with payload

Multipart response is of type multipart/form-data with HTML form payload

Select the response payload format

JSON Sample

Sample Location Choose File No file chosen -OR-- enter sample JSON <<< inline >>>

What is the media-type of Response Body? (Accept Header)

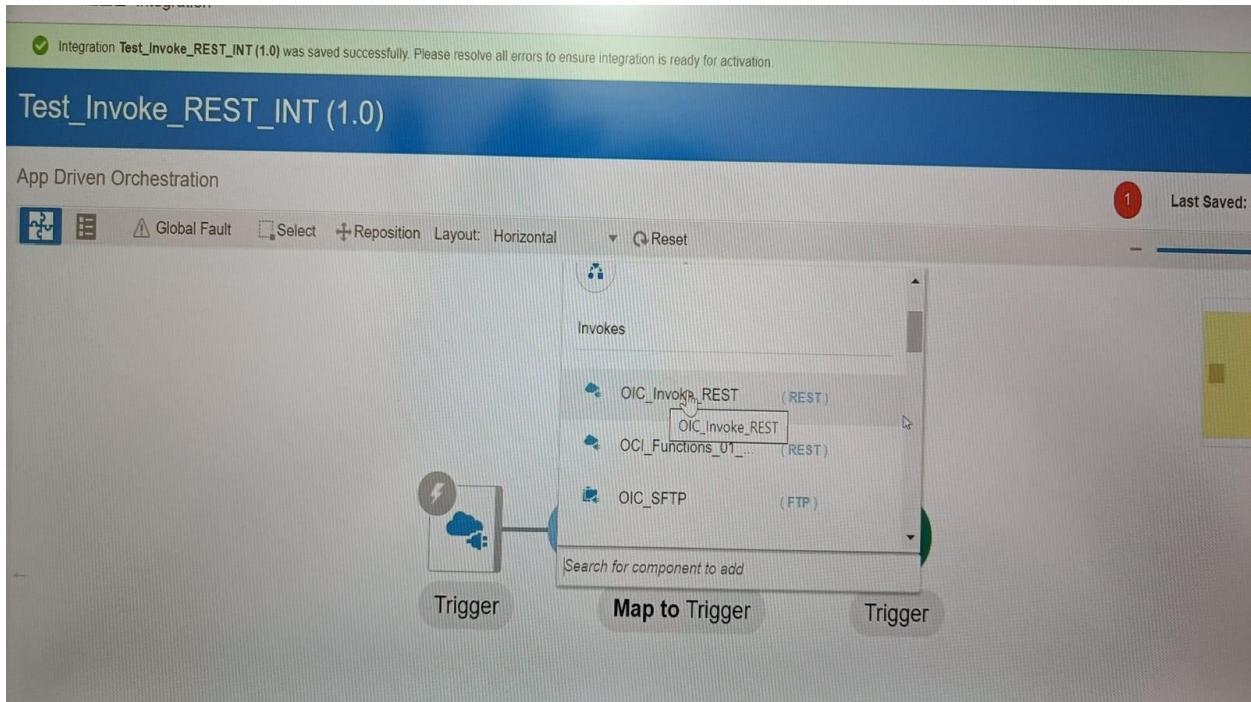
The image shows two overlapping Oracle Integration Service interfaces. The top window is titled "Response Sample Json Payload" and displays a JSON configuration panel. The sidebar on the left lists configuration tabs: Basic Info (selected), Resource Configuration, Request Parameters, Request, Request Headers, CORS Configuration, Response, Response Headers, Operations, and Summary. The main area contains a JSON editor with the following content:

```
{  
    "id": 4,  
    "token": "QpwL5tke4Pnpja7X4"  
}
```

A tooltip above the editor states: "JSON value entered here will be used to define the payload type for this service." The bottom window is titled "Test_Invoke_REST_INT (1.0)" and shows an "App Driven Orchestration" diagram. The diagram consists of three nodes connected sequentially: a "Trigger" node (represented by a cloud icon), a "Map to Trigger" node (represented by a circle with a double-headed arrow), and another "Trigger" node (represented by a green circle with a white arrow). The toolbar at the top of the orchestration screen includes icons for "Global Fault", "Select", "Reposition", "Layout: Horizontal", "Reset", and a "Last Saved: 1 minute ago" timestamp.

NOW WE HAVE EXPOSED OUR INTEGRATION AS REST API.

NOW WE NEED TO CALL 'REQRES.IN' API USING OUR REST CONNECTION FROM ABOVE:



FROM API 'REQRES.IN':

Welcome to the REST Endpoint Configuration Wizard
This wizard helps you configure an endpoint using the REST adapter.

Basic Info

* What do you want to call your endpoint?
Invoke_ReqRes_API

What does this endpoint do?
Describe the endpoint's purpose and detail

* What is the endpoint's relative resource URI?
/apiregister

* What action do you want to perform on the endpoint?
POST

Based on your selections, you can add parameters or configure a request and/or response for this endpoint.

Select any options that you want to configure:

- Add and review parameters for this endpoint
- Configure a request payload for this endpoint
- Configure this endpoint to receive the response

Configure REST Endpoint

Welcome to the REST Endpoint Configuration Wizard
This wizard helps you configure an endpoint using the REST adapter.

Basic Info

* What do you want to call your endpoint?
Invoke_ReqRes_AP

What does this endpoint do?
Describe the endpoint's purpose and detail

* What is the endpoint's relative resource URI?
/api/register

* What action do you want to perform on the endpoint?
POST

Based on your selections, you can add parameters or configure a request and/or response for this endpoint.

Select any options that you want to configure:

Add and review parameters for this endpoint

Configure a request payload for this endpoint

Configure this endpoint to receive the response

Configure REST Endpoint

Configure the Request Payload
Configure the request payload details for this endpoint.

Basic Info

Resource URI: /api/register
HTTP Method: POST

Request

Select the multipart attachment processing options

Request is multipart with payload

Multipart request is of type multipart/form-data with HTML form payload

Select the request payload format

JSON Sample

Sample Location Choose File No file chosen —OR— enter sample JSON <<<intra>>>

What is the media-type of Request Body? (Content-Type Header)

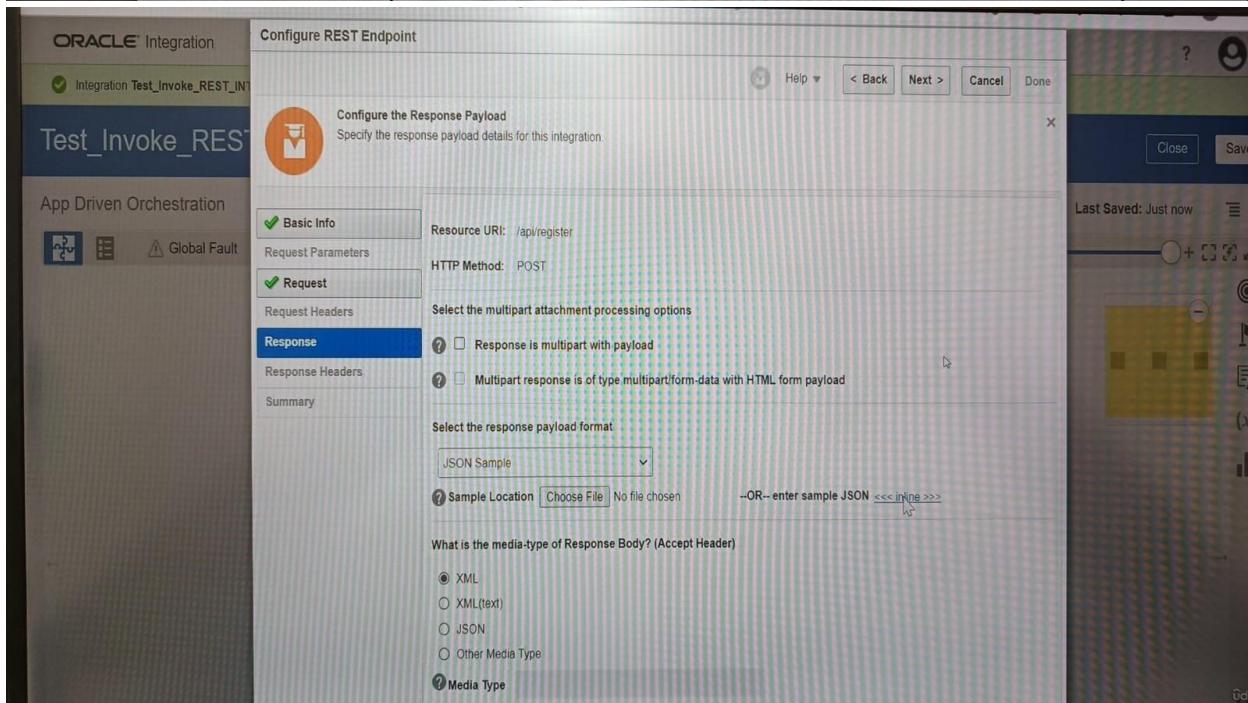
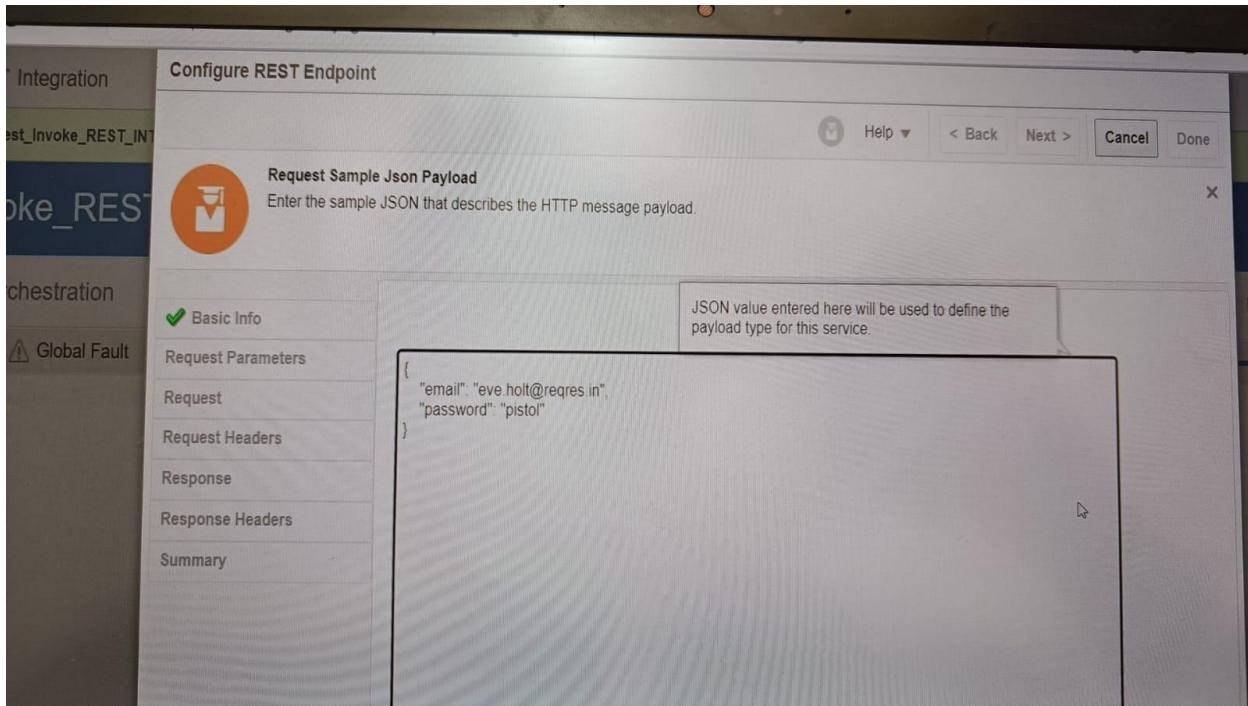
XML

XML(text)

JSON

URL-encoded

Other Media Type



Configure REST Endpoint

Response Sample Json Payload
Enter the sample JSON that describes the HTTP message payload.

Basic Info ✓
Request Parameters
Request ✓
Request Headers
Response
Response Headers
Summary

Enter Sample JSON

```
{
  "id": 4,
  "token": "QpwL5tke4Pnpja7X4"
}
```

Test_Invoke_REST_INT (1.0)

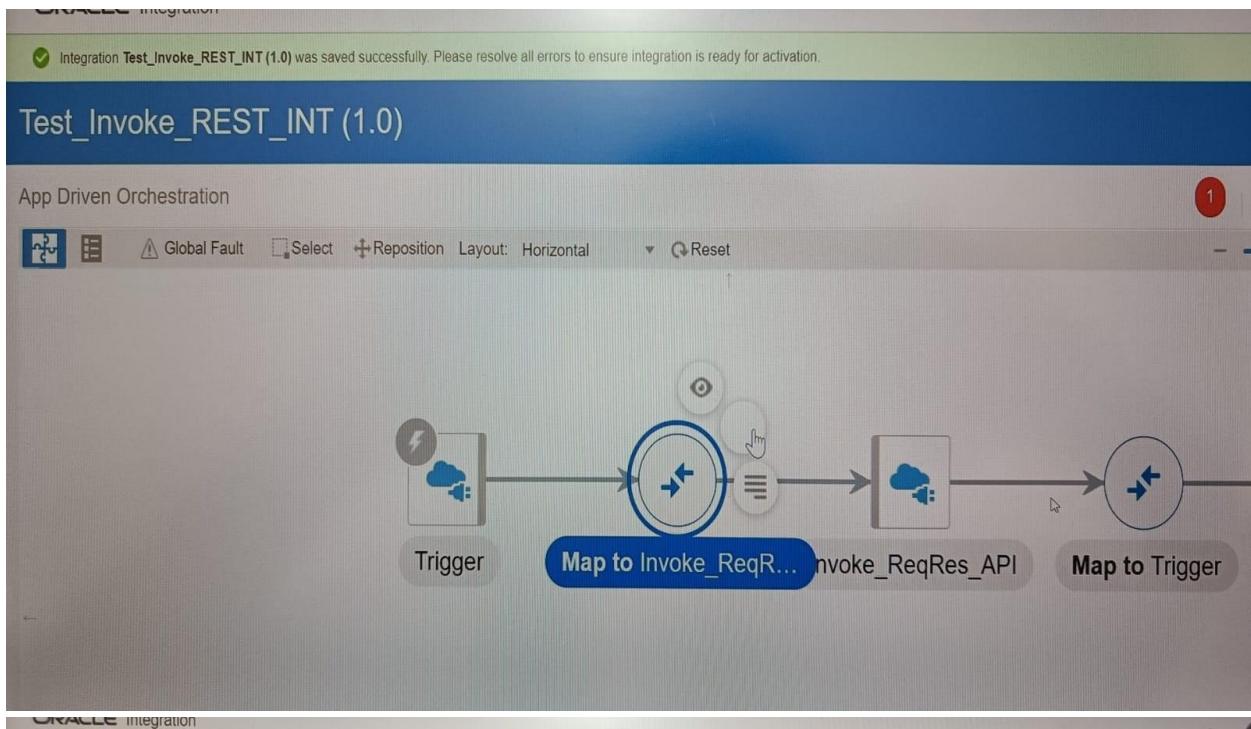
App Driven Orchestration

Trigger → Map to Invoke_ReqR... → Invoke_ReqRes_API → Map to Trigger → Trigger

1 Last Saved: Just now

The top window shows the 'Configure REST Endpoint' dialog with a sample JSON payload. The bottom window shows the 'Test_Invoke_REST_INT (1.0)' integration in the 'App Driven Orchestration' view, featuring a sequence of nodes: Trigger -> Map to Invoke_ReqR... -> Invoke_ReqRes_API -> Map to Trigger -> Trigger.

**NOW WE NEED TO MAP WHAT WE GOT FROM USER REQUEST TO API
(INVOKE_REQRES_API):**



ORACLE Integration

Map to Invoke_ReqRes_API Test_Invoke_REST_INT (1.0)

Map

Designer Code Test Recommend Developer XSLT View Filter

Sources Mapping Canvas Target

Sources:

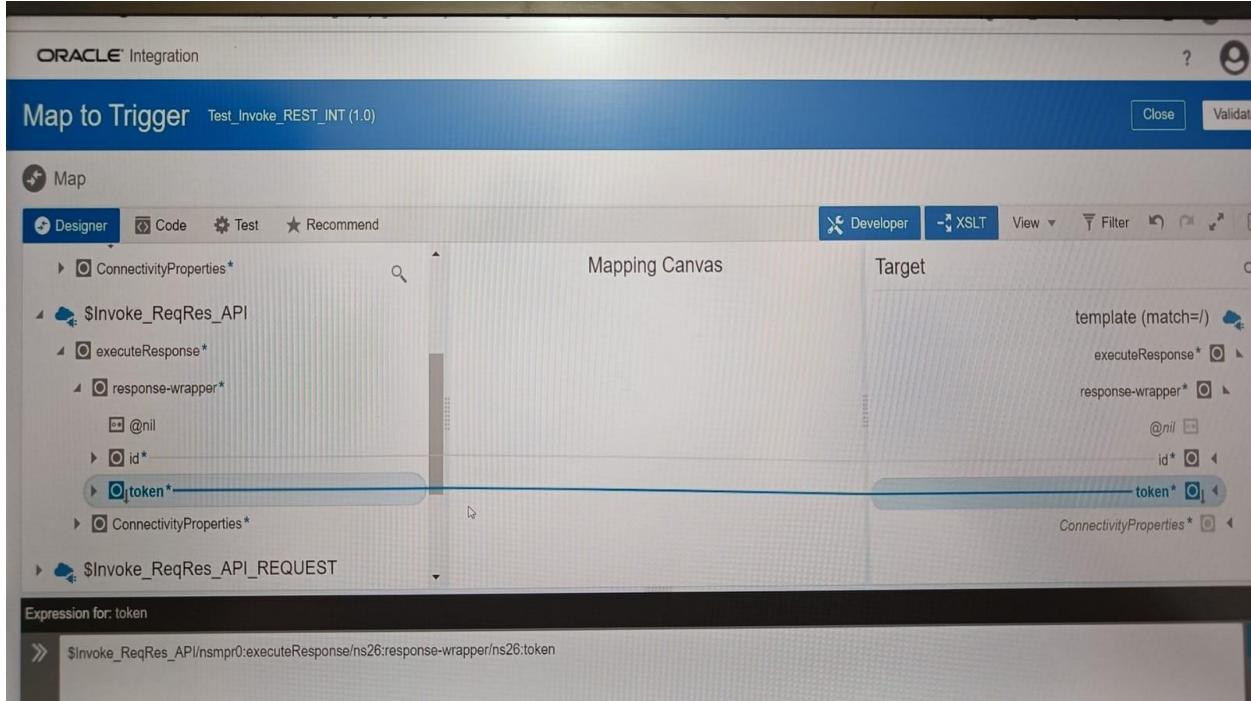
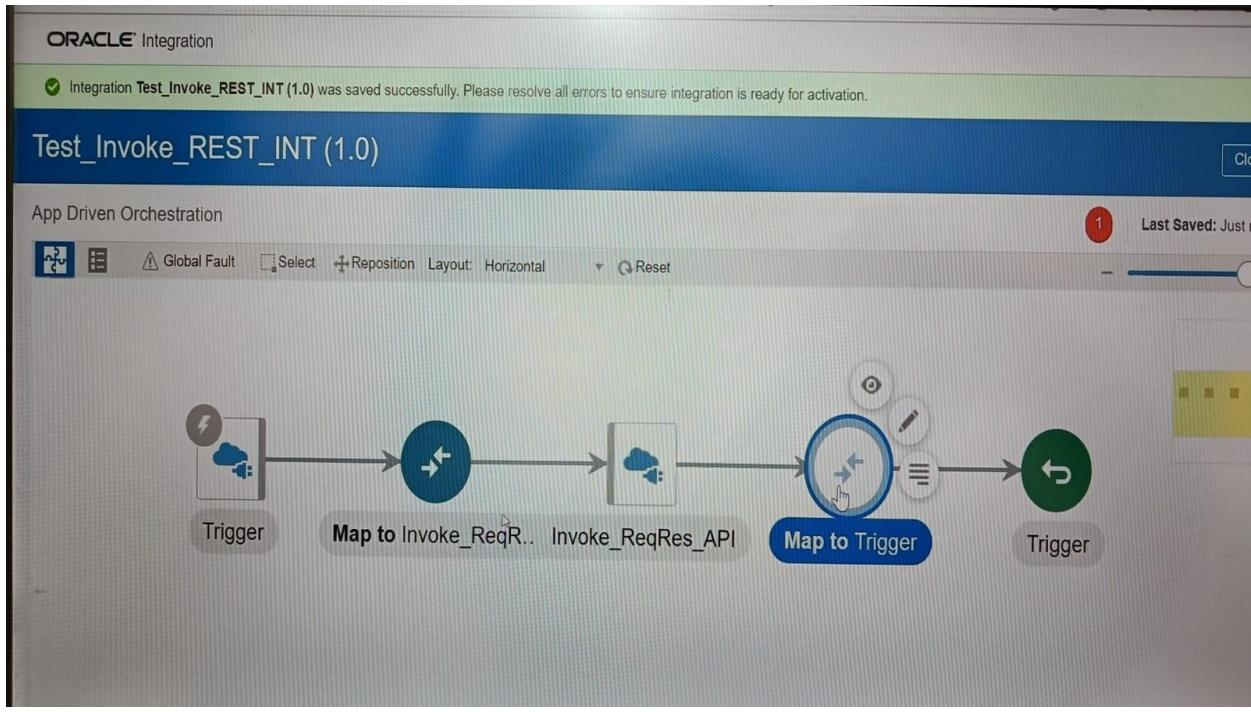
- execute*
- request-wrapper*
 - @nil
 - email*
 - password*
 - ConnectivityProperties*
- \$self
 - \$tracking_var_1
 - \$tracking_var_2
 - \$tracking_var_3

Mapping Canvas:

template (match=/) execute*

Target:

- execute*
- request-wrapper*
 - @nil
 - email*
 - password*
 - ConnectivityProperties*



oke_REST_INT (1.0) was saved successfully. Please resolve all errors to ensure integration is ready for activation.

REST_INT (1.0)

Last Saved: Just now

Action

Global Fault Select Reposition Layout: Horizontal Reset

Errors

Integration Errors

Actions

- Tracking
- Export
- Regenerate Endpoints
- Primary Info
- Delete

Trigger → Map to Invoke_ReqR... → Invoke_ReqRes_API → Map

Business Identifiers For Tracking

View ▾ Filter Detach

Source Find...

*execute

- *request-wrapper
 - *email ✓
 - *password
- *ConnectivityProperties
- RestAPI

Business identifiers enable runtime tracking on messages. Specify up to three tracking fields. A primary identifier is required. It enables you to track fields across integration flows and is always available.

Additional business identifier fields are optional. At runtime, they are available for tracking only when this integration flow is selected.

Primary	Tracking Field	Tracking Name	Tracking Variable	Help Text
✓	email	email	tracking_var_1	How to track it? Delete
	Drag a trigger field here	tracking_var_2	tracking_var_2	
	Drag a trigger field here	tracking_var_3	tracking_var_3	

NOW ACTIVATE INTEGRATION AND TEST IT

☰ ORACLE Integration

◀ Test_Invoke_REST_INT (1.0.0)

Configure request properties, then Test your endpoint and verify the response.

Track Instances | Show Endpoint Metadata | ?

POST /ic/api/integration/v1/flows/rest/TEST_INVOKE_REST_INT/1.0/test

▲ Request

URI Parameters Headers Body cURL Integration Properties

Text File

```
1 v {  
2   "password": "pistol",  
3   "email": "eve.holt@reqres.in"  
4 }
```

☰ ORACLE Integration

◀ Test_Invoke_REST_INT (1.0.0)

Activity Stream

Instance Id: 4800002

Click refresh to fetch latest tracing data and payload

Ascending

Sat, Apr 2nd, 2022 07:28:39.008 AM IST

Message received: Instance created

07:28:39.736 AM Message processed by Trigger Trigger

07:28:39.778 AM Data Mapping completed from Message to Message

07:28:39.872 AM Message received by Invoke_ReqRes_API

Message sent to Invoke_ReqRes_API

Request: 'Call External REST API: Post /api/register/' completed successfully in 301 ms - JSON: /api/register/

Message received from Invoke_ReqRes_API

07:28:40.946 AM Data Mapping completed from Message to Message

07:28:41.007 AM Reply to Trigger completed with Message

▲ Response

Body Headers Status: 200 OK

```
1 v {  
2   "id" : 4,  
3   "token" : "QpwL5tke4Pnpja7X4"  
4 }
```