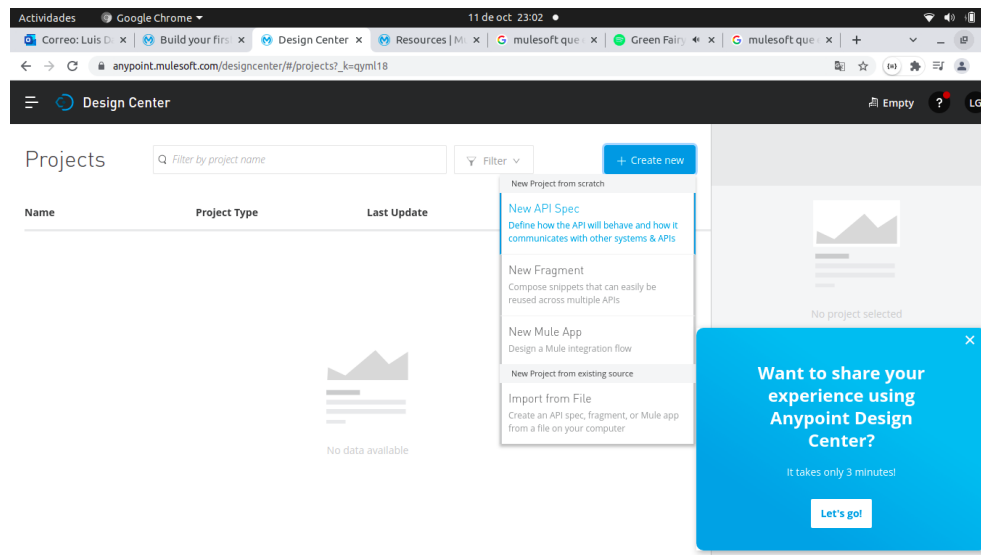


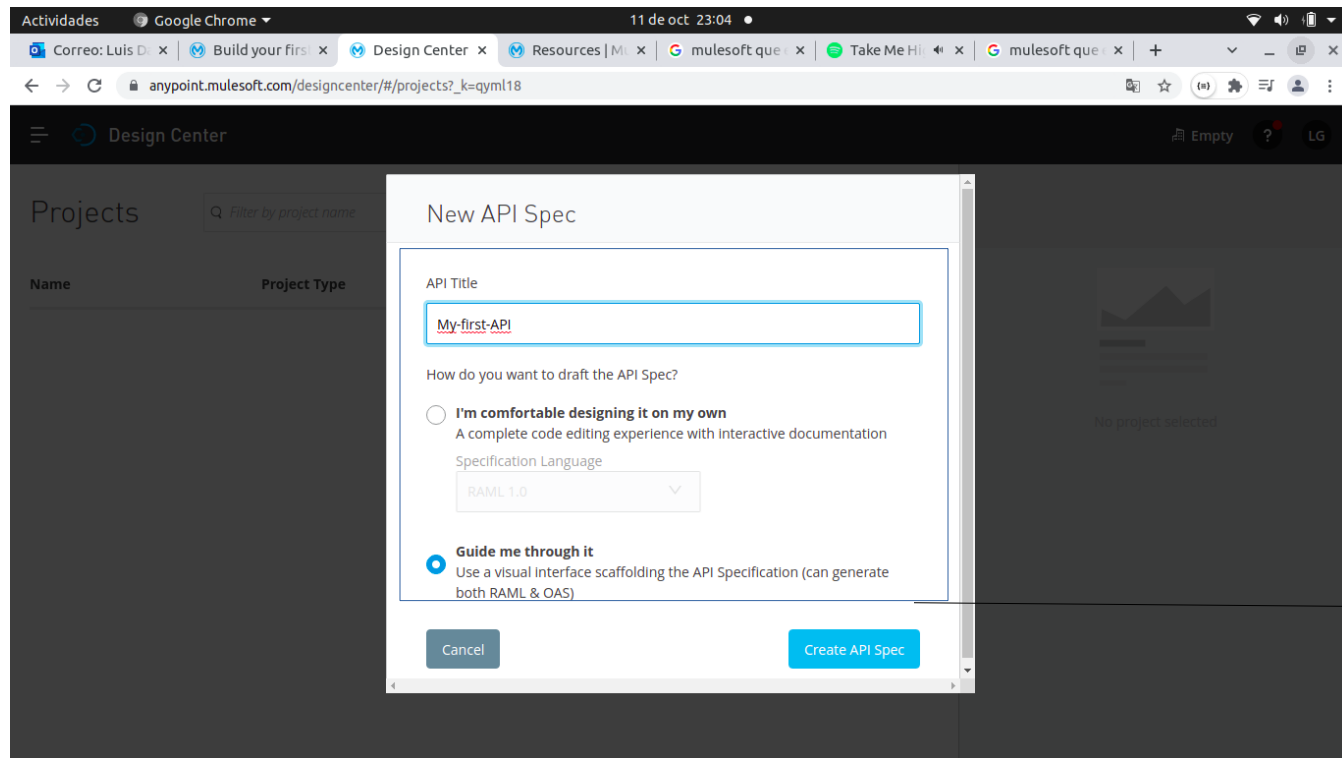
Reporte de prácticas e investigación Tecnología Mulesoft.

Luis Daniel Hernández Guevara Mulesoft

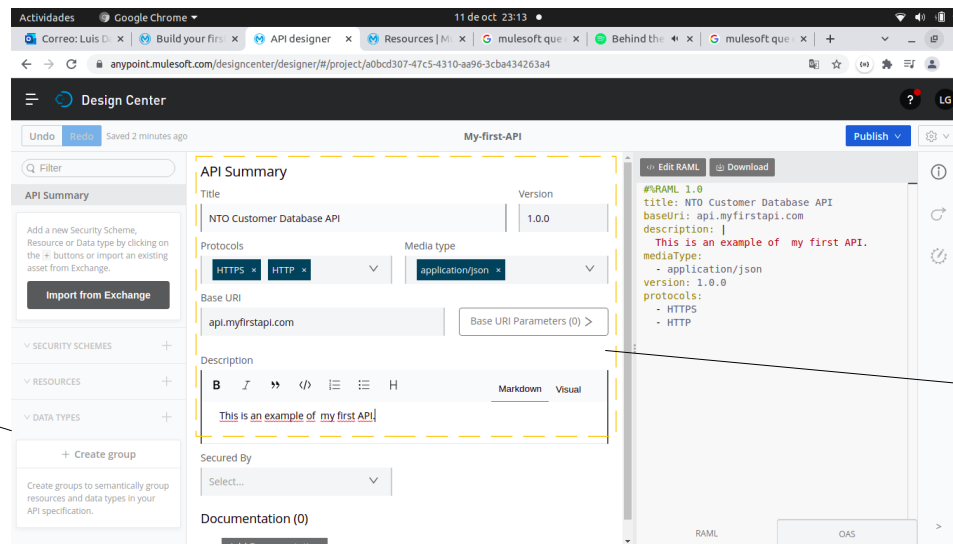
- Software de Integración
- Integración de Sistemas
- Las integraciones se van a hacer uniendo aplicaciones , datos y dispositivo mediante API.
- Es una solución híbrida.
-
- Anypoint Designer Center: Prueba API en entorno gráficos.
- Anypoint Management Center : Responsable de la implementación , gestión API e integración en la nube
- Anypoint Exchange; Conectores , plantillas.
- Mule: Motor de ejecución
- ESB: Vincular datos , aplicaciones y dispositivos.
- Anypoint Connectors; Herramientas y recursos de rápida disponibilidad.
- Mule Runtime; Conjunto de servicios (encargado seguridad y accesibilidad).

Creación de una especificación de API





Elegimos la opción guiarme a través de ello



En esta instancia nos permite ingresar los datos iniciales de la API

Al seleccionar la opción Crear una API especifica nos conducirá a la siguiente pantalla.

En esta área principal de trabajo elegimos los protocolos principales bajo los cuales trabajará nuestra API, una breve descripción y el medya/type(application/json).

Actividades Google Chrome 11 de oct 23:29

Correo: Luis Daniel Hern x Build your first API Spec x API designer x Resources | MuleSoft He x Bad Habits - David T x +

anypoint.mulesoft.com/designcenter/designer/#/project/a0bcd307-47c5-4310-aa96-3cba434263a4

Design Center

Undo Redo Saved a few seconds ago My-first-API Publish

Filter

API Summary

SECURITY SCHEMES

RESOURCES

DATA TYPES

address

contact

+ Create group

Create groups to semantically group resources and data types in your API specification.

Name Type

contact Object Union?

Description

Markdown Visual

Contact data type

Property Name	Type
firstName	Required? S... Union?
lastName	Required? S... Union?
phone	Required? S... Union?
email	Required? S... Union?

Edit OAS Download

```
{
  "openapi": "3.0.0",
  "info": {
    "title": "MTO Customer Database API",
    "description": "This is an example of my first API.\n",
    "version": "1.0.0"
  },
  "servers": [
    {
      "url": "api.myfirstapi.com"
    }
  ],
  "paths": {}
}
```

RAML OAS

El apartado de **DataTypes** nos permite notar tipos de datos de nuestra API.

El área marcada en color rojo representaa el marco principal para trabajar con las propiedades de nuestra API.

Cada propiedad remarcada , se plasma en un objeto json denotado a la derecha.

Endpoints

The screenshot displays the MuleSoft Design Center interface for an API named "My-first-API". The interface is divided into several sections:

- Left Sidebar:** Contains a search bar and a list of resources. The resource `/customers` is selected, showing a status of 200 and a green dot indicating it is active. Below this, there are data types `address` and `contact`, and a button to `+ Create group`.
- Top Bar:** Includes "Undo", "Redo", and "Saved a few seconds ago" buttons. The API name "My-first-API" is displayed, along with a "Publish" button and a settings icon.
- Method Selection:** A row of buttons for HTTP methods: GET (selected), POST, PUT, PATCH, DELETE, OPTIONS, and HEAD.
- Response Configuration:**
 - Summary:** Shows the status `200` and a description field.
 - Responses (1):** The selected tab, showing a response with status `200 - OK` and a description field.
 - Bodies (1):** A section for defining the response body, with a table for Media Type and Type, and an `Add Body` button.
- Right Panel:** A code editor showing the OpenAPI Specification (OAS) for the endpoint. The code defines the `/customers` path with a `GET` method, an `operationId` of `"Get list of customers"`, and a response with status `200` and a JSON body. The body is an array of objects with `example` and `type` fields. The `servers` array is defined with a `url` of `"api.myfirstapi.com"`.

Actividades Google Chrome 11 de oct 23:53

Correo: Luis Daniel Her... Build your first API Spe... API designer Resources | MuleSoft H... Come On Baby- Tre...

anypoint.mulesoft.com/designcenter/designer/#/project/a0bcd307-47c5-4310-aa96-3cba434263a4

Design Center

Undo Redo Saved 2 minutes ago My-first-API Publish

Filter

API Summary

SECURITY SCHEMES

RESOURCES

/customers

/customers/(customerId)

DATA TYPES

address

contact

+ Create group

Create groups to semantically group resources and data types in your API specification.

GET POST PUT PATCH DELETE OPTIONS HEAD

Summary Responses (1) Query Parameters (0) Headers (0)

Status 200 200 - OK

Description

Bodies (1)

Media Type Type

Default (appli... c- Union?

Add Body

Edit OAS Download

```
{
  "/customers/(customerId)": {
    "get": {
      "operationId": "GET Customer by ID",
      "parameters": [
        {
          "name": "customerId",
          "required": true,
          "in": "path",
          "schema": {
            "example": "Example",
            "type": "string"
          }
        }
      ],
      "requestBody": {
        "content": {}
      },
      "responses": {
        "200": {
          "description": "",
          "content": {
            "application/json": {
              "schema": {
                "$ref": "#/components/"
              }
            }
          }
        }
      }
    }
  }
}
```

RAML OAS

Actividades Google Chrome 11 de oct 23:55

Correo: Luis Daniel Her... Build your first API Spe... API designer Resources | MuleSoft H... Come On Baby- Tre...

anypoint.mulesoft.com/designcenter/designer/#/project/a0bcd307-47c5-4310-aa96-3cba434263a4

Design Center

Undo Redo Saved 4 minutes ago My-first-API Publish

Filter

API Summary

SECURITY SCHEMES

RESOURCES

/customers

/customers/(customerId)

DATA TYPES

address

contact

+ Create group

Create groups to semantically group resources and data types in your API specification.

URI Parameters (0)

Add URI Parameter

GET POST PUT PATCH DELETE OPTIONS HEAD

Summary Responses (1) Query Parameters (0) Headers (0)

Name Secured By

Get list of costumers Select...

Description

Try It

/customers GET

Select server

Mocking Service

api.myfirstapi.com

Mocking Service

Query parameters

Show optional parameters

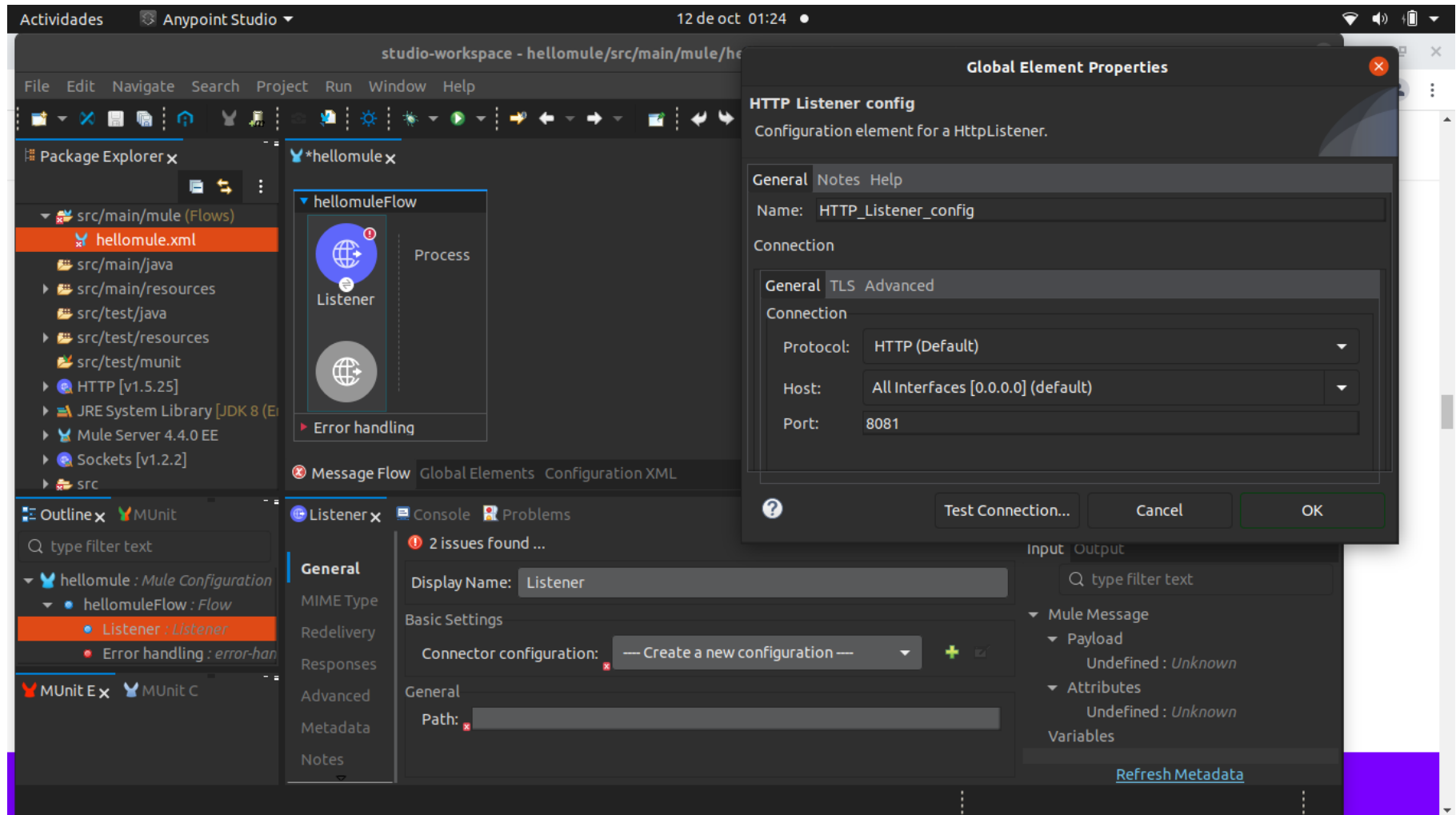
Add

Headers

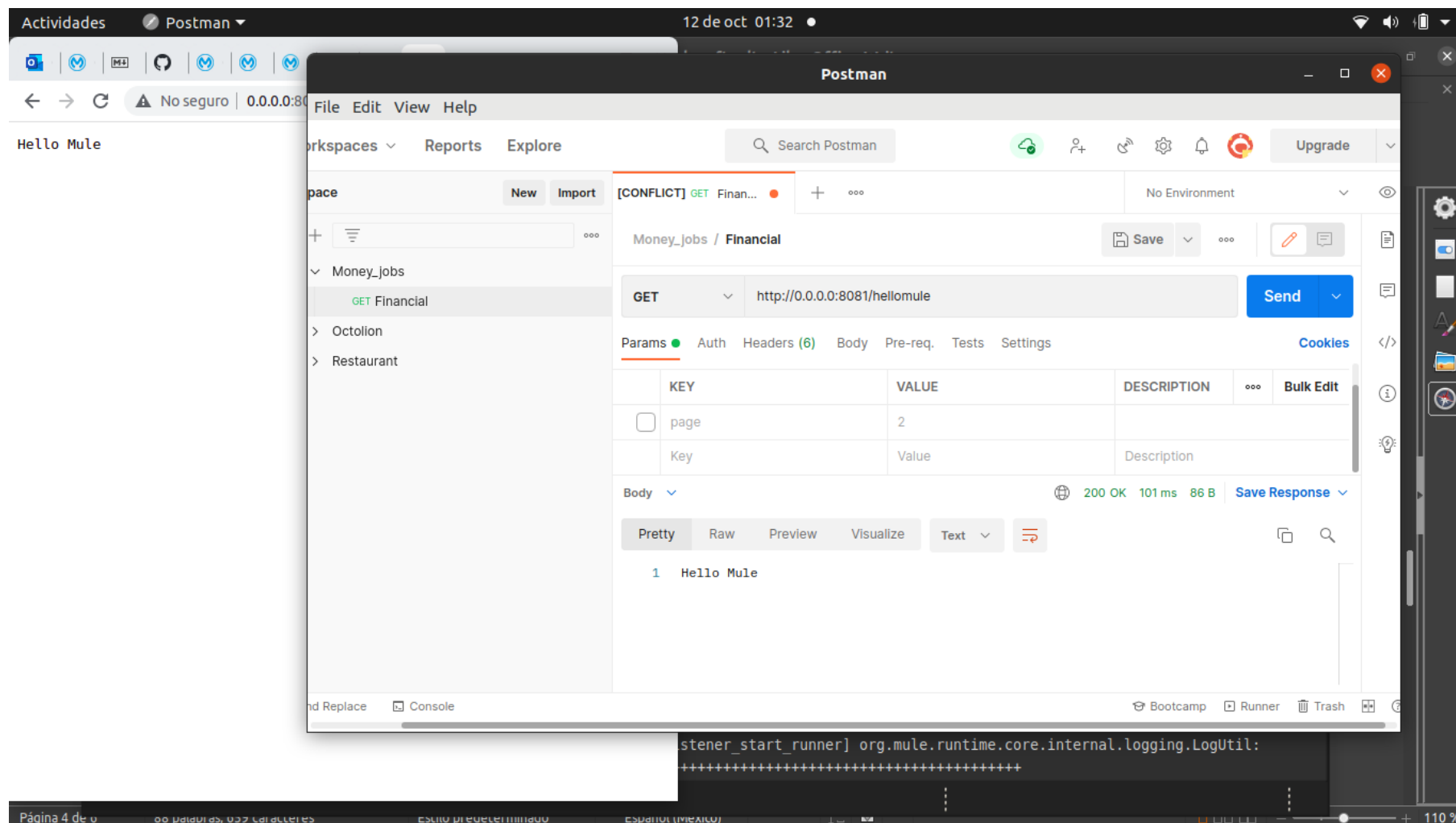
COPY Text editor

Add a header to the HTTP request.

PRIMERA API CON ANYPOINT STUDIO



<https://developer.mulesoft.com/tutorials-and-howtos/getting-started/hello-mule>



API TEST CON POSTMAN

NOTA: EL Deploy de la aplicación de ejemplo se omitió debido a un problema con las credenciales, sin embargo los pasos también se atendieron

Actividades

Anypoint Studio

12 de oct 02:05

Correo: L x

devel

Anyoint Platform

Empty LG

SANDBOX

Deploying Application

hellomuleDaniel12 ✓

Deployment Target

CloudHub

Application File

Runtime

Properties

Insight

Logging

Static IPs

Runtime version

4.4.0

Worker size

0.1 vCores

Workers

1

To use Monitoring and Visualizer with this version, you may need to enable the agent after deploying. [Learn how](#)

⚠️ Your current subscription allows only one worker per application

☒ Automatically restart application when not responding

☐ Persistent queues | ☐ Encrypt persistent queues

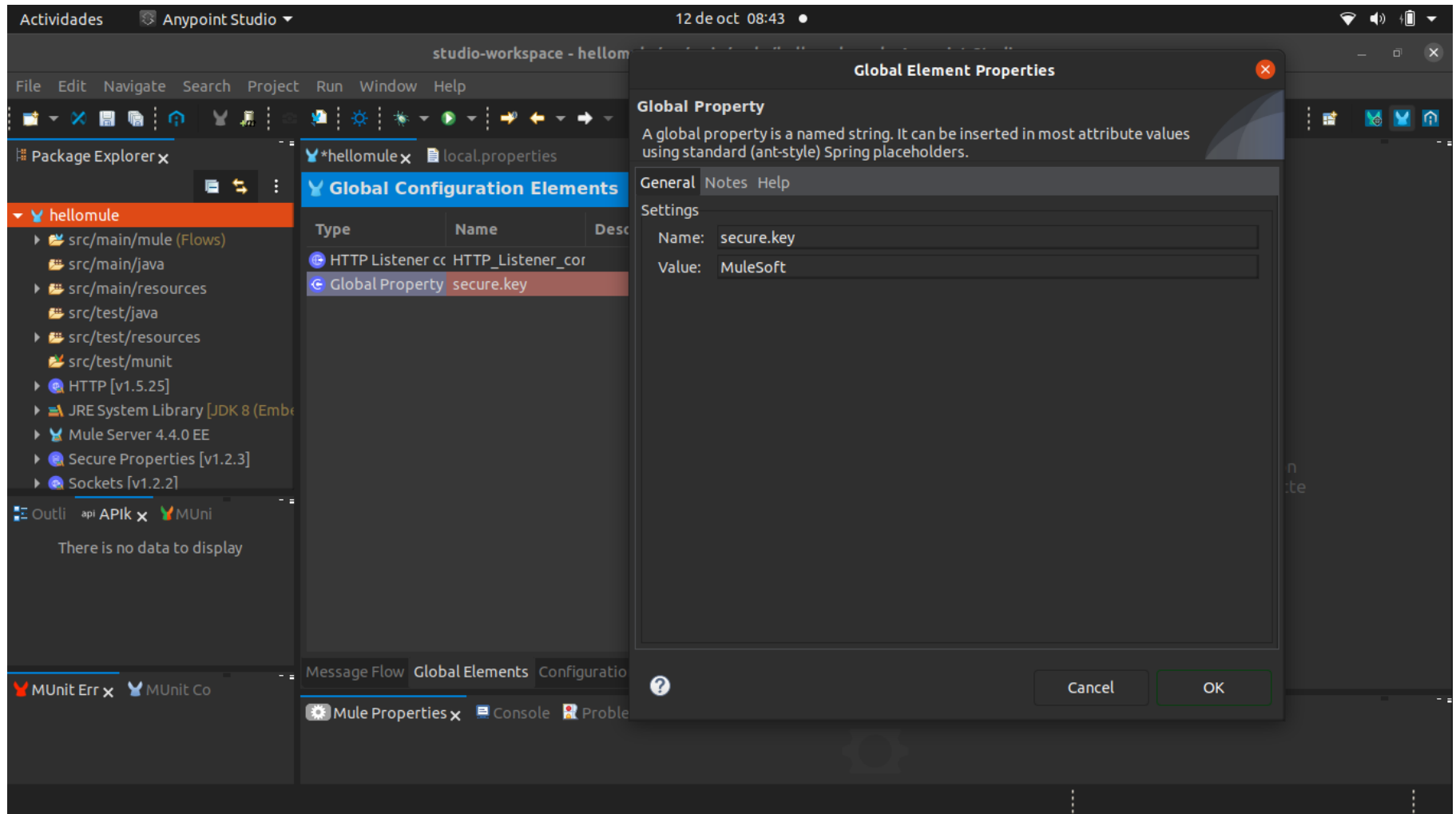
☒ Use Object Store v2

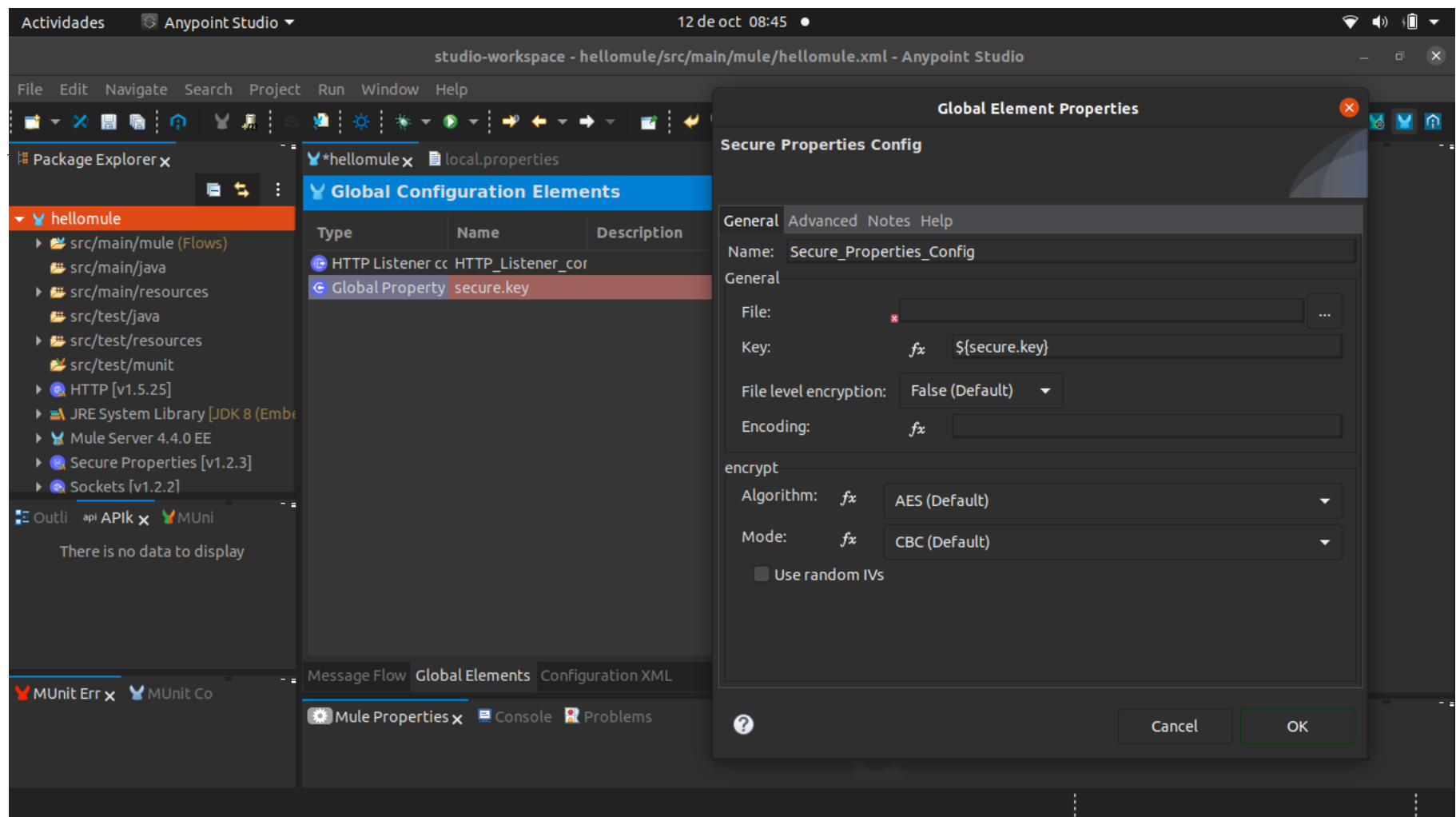
Cancel

Deploy Application

4 ways

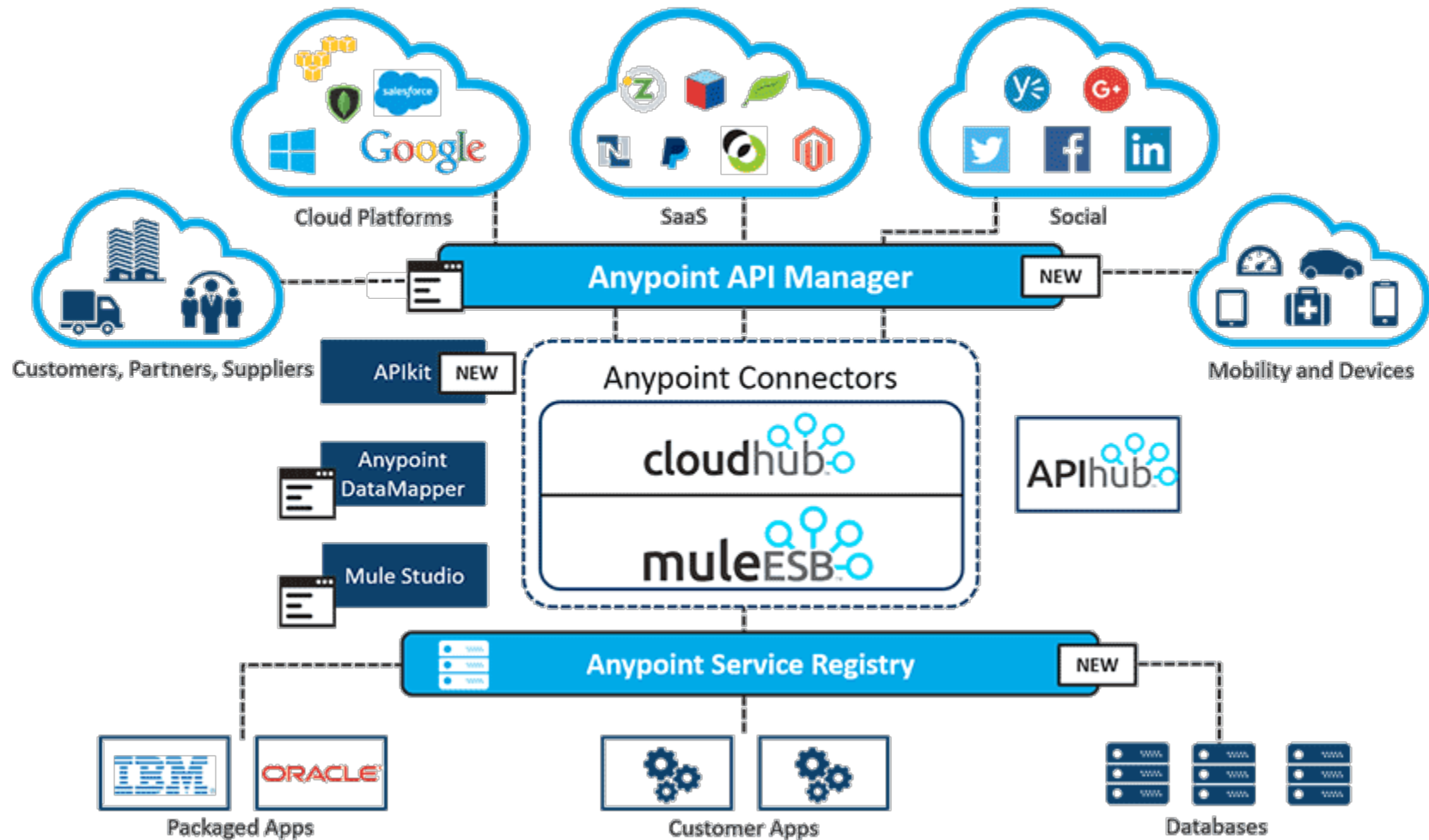
Añadiendo Secure Properties en una aplicación con Aypoint Studio.





```
anypoint.platform.client_id: CLIENT_ID  
anypoint.platform.client_secret: CLIENT_SECRET
```

Información adicional sobre la arquitectura de Mulesoft.



Nota: Se presentaron algunos inconvenientes en cuanto a la seguridad ya que las credenciales en el deploy de la aplicación no eran detectadas.

REFERENCIAS:

<https://developer.mulesoft.com/tutorials-and-howtos/quick-start/how-to-deploy-using-maven-anypoint-studio-mule-application>

<https://docs.mulesoft.com/connectors/introduction/intro-use-exchange>

<https://developer.mulesoft.com/tutorials-and-howtos/getting-started/how-to-secure-properties-before-deployment>