

Heritage Bookshop Sales Integration using Mulesoft

Author

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1. Solution Overview

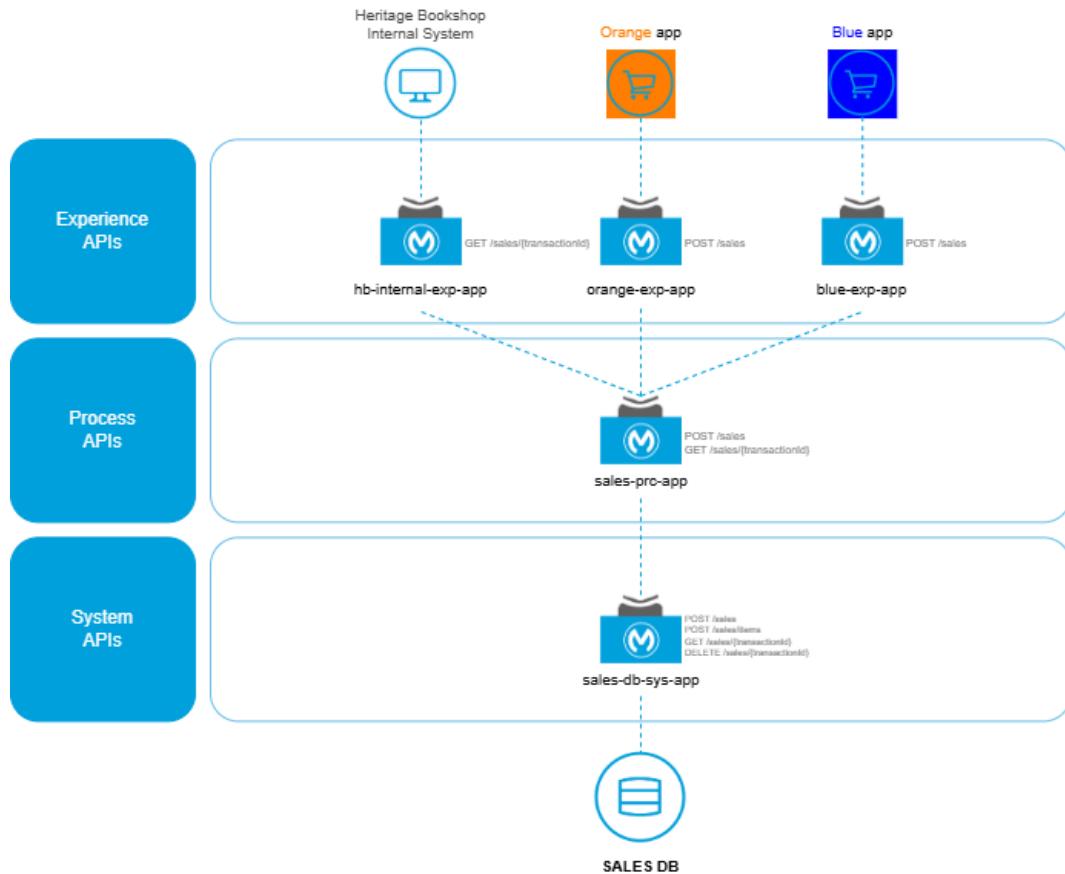
This solution follows Mulesoft's API-Led Connectivity approach, organizing integration logic into three key layers: Experience APIs, Process APIs, and System APIs.

The overall objective is to expose sales-related capabilities from the **Sales Database** to multiple consuming channels, including

- Heritage Bookshop's internal system
- **Orange app**
- **Blue app**

2. Architecture Overview

API-Led Connectivity: Diagram



Created using draw.io

Experience layer: orange-exp-app, blue-exp-app, hb-internal-exp-app

Process layer: sales-prc-app

System layer: sales-db-sys-app

3. Experience APIs

Experience APIs provide consumer-specific representations of the underlying business data. They tailor the data format, orchestration, and logic to meet the needs of each consuming application.

hb-internal-exp-app

- Consumer: Heritage Bookshop internal system
- Exposes: `GET /sales/{transactionId}`
- Purpose: Retrieves sales information to support internal business process

orange-exp-app

- Consumer: *Orange* app
- Exposes: `POST /sales`
- Purpose: Allows *Orange* app to create new sales to Heritage Bookshop's database

blue-exp-app

- Consumer: *Blue* app
- Exposes: `GET /sales/{transactionId}`
- Purpose: Allows *Blue* app to create new sales to Heritage Bookshop's database

Remarks: Created one experience API for each consumer as each consumer sends different payload formats. By isolating them, in the event of changes for one consumer, the other consumers won't be affected. This follows Mulesoft's API-led best practice wherein Experience APIs must be consumer-specific.

4. Process API

Process APIs centralizes business logic across channels/consumers. It coordinates data flows between the Experience APIs and System APIs.

sales-prc-app

- Exposes:
 - `POST /sales`
 - `GET /sales/{transactionId}`
- Responsibilities:
 - Transform experience API payloads into internal or standard data sales structure
 - Validate and route incoming sales data
 - Invoke the system API to interact with the Sales Database

Remarks: This process API ensures consistency across all channels.

5. System API

System APIs provide direct and reusable access to backend systems, i.e. database for this project.

sales-db-sys-app

- Exposes:
 - POST /sales
 - POST /sales/items
 - GET /sales/{transactionId}
 - DELETE /sales/{transactionId}
- Responsibilities:
 - Perform CRUD operations against the **Sales Database**
 - POST /sales - insert new sales transactions into *sales Table*
 - POST /sales/items - insert new sales transactions into *sales_items Table*
 - GET /sales/{transactionId} - retrieves a single sales detail from the **Sales Database**
 - DELETE /sales/{transactionId} - deletes a transaction from the *sales Table*

Remarks: This layer ensures security, reusability, and controlled access to backend systems.

6. Database

6.1 Sales Database Overview

The **Sales Database** serves as the system of record for all sales-related information in the Heritage Bookshop ecosystem.

As per requirements, there are 2 tables created:

- Sales Table
- Sales Items Table

6.2 Setup

- Created a free database account here: <https://www.freesqldatabase.com/>
- Created the tables directly in the database using the provided SQL for table creation

6.3 Sales Table

The screenshot shows the phpMyAdmin interface for the 'sales' table. The table has 24 rows of data. The columns are: transaction_id, source, customer_name, delivery_address, customer_contact, customer_age, customer_gender, total_amount, payment_type, and transaction_date. The data includes various customers like Ben Blue, Clara Dizon, Gerald Tan, Karen Uy, Marco De Vera, Samantha Lee, Patrick Chua, Andrea Tieng, Stephen Cabral, Juliet Bojra, Jasmine Lee, Christian Yu, Ana Morales, Ronald Chua, Ella Garcia, Carillo Ramos, Samantha Cruz, Jonathan Yu, Melissa Chan, Timothy Lao, Vincent Dy, Diana Ponce, and Marron Almora. Payment types include Cash, GCash, Debit Card, Credit Card, and Gcash.

| transaction_id | source | customer_name | delivery_address | customer_contact | customer_age | customer_gender | total_amount | payment_type | transaction_date |
|----------------|----------|----------------|-------------------------------|------------------|--------------|-----------------|--------------|--------------|---------------------|
| B100001 | Blue App | Ben Blue | 1 St. Barangay 123, Manila | +639999111222 | 29 | NULL | 799.00 | Cash | 2025-10-03 10:20:00 |
| B100002 | Blue App | Clara Dizon | Sta. Ana, Manila | +639887777111 | 34 | F | 1100.00 | GCash | 2025-10-05 12:00:00 |
| B100003 | Blue App | Gerald Tan | San Mateo Rizal | +639198877665 | 41 | M | 1419.00 | Credit Card | 2025-10-07 15:44:00 |
| B100004 | Blue App | Karen Uy | Naga City | +639177700111 | 25 | F | 499.00 | Debit Card | 2025-10-10 09:00:00 |
| B100005 | Blue App | Marco De Vera | Digos City | +639187771199 | 37 | M | 900.00 | Cash | 2025-10-12 20:15:00 |
| B100006 | Blue App | Samantha Lee | Iloilo City | +639199911233 | 32 | F | 399.00 | GCash | 2025-10-15 16:00:00 |
| B100007 | Blue App | Patrick Chua | General Santos City | +639167556677 | 22 | M | 749.00 | Credit Card | 2025-10-17 11:40:00 |
| B100008 | Blue App | Andrea Tieng | Cagayan de Oro City | +63917771234 | 30 | F | 1560.00 | Debit Card | 2025-10-20 14:12:00 |
| B100009 | Blue App | Stephen Cabral | Pasay City | +639188881255 | 27 | M | 600.00 | Cash | 2025-10-23 07:33:00 |
| B100010 | Blue App | Juliet Bojra | Las Piñas City | +639188881999 | 36 | F | 999.00 | GCash | 2025-10-25 10:00:00 |
| B2001 | Blue App | Jasmine Lee | 12 Pearl St. Makati | +639551112222 | 29 | F | 499.00 | Cash | 2025-01-09 08:15:00 |
| B2002 | Blue App | Christian Yu | 45 Hillcrest, QC | +639552223333 | 31 | M | 1398.00 | Gcash | 2025-01-10 10:40:00 |
| B2003 | Blue App | Ana Morales | 103 Greenpark, Pasig | +639553344444 | 27 | F | 620.00 | Credit Card | 2025-02-05 14:20:00 |
| B2004 | Blue App | Ronald Chua | 7 Riverside, Mandaluyong | +639554445555 | 40 | M | 1698.00 | Cash | 2025-02-22 11:55:00 |
| B2005 | Blue App | Ella Garcia | Bld 4 Lot 2 Fairview, QC | +639555555666 | 24 | F | 750.00 | Gcash | 2025-03-01 09:35:00 |
| B2006 | Blue App | Carillo Ramos | 88 Laguna Bay, Sta. Rosa | +639566667777 | 36 | M | 2550.00 | Credit Card | 2025-03-19 15:10:00 |
| B2007 | Blue App | Samantha Cruz | 23 Manila Ave, Manila | +639577788888 | 28 | F | 998.00 | COD | 2025-04-02 06:05:00 |
| B2008 | Blue App | Jonathan Yu | Southbay Village, Paranaque | +639588889999 | 33 | M | 1996.00 | Cash | 2025-04-27 14:25:00 |
| B2009 | Blue App | Melissa Chan | Aurora Blvd, QC | +639559990000 | 22 | F | 900.00 | Gcash | 2025-05-18 12:10:00 |
| B2010 | Blue App | Timothy Lao | Gatchalian Village, Las Piñas | +639560001111 | 29 | M | 550.00 | Credit Card | 2025-05-29 17:50:00 |
| B2012 | Blue App | Vincent Dy | Buenavista St, Cebu City | +639562223333 | 41 | M | 600.00 | Gcash | 2025-06-26 18:45:00 |
| B2013 | Blue App | Diana Ponce | Tambo, Paranaque | +639563334444 | 34 | F | 480.00 | Credit Card | 2025-07-04 11:30:00 |
| R2014 | Blue App | Marron Almora | Greenwoods, Pasig | +639564445555 | 23 | M | 1398.00 | COD | 2025-07-23 16:15:00 |

6.4 Sales Items Table

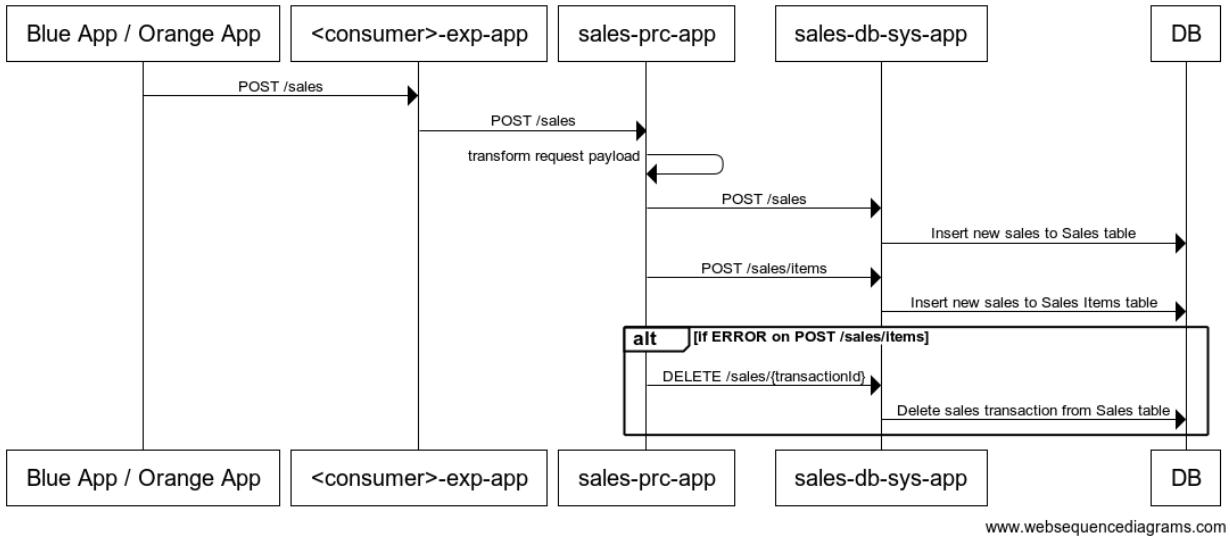
The screenshot shows the phpMyAdmin interface for the 'sales_items' table. The table has 24 rows of data. The columns are: item_id, transaction_id, product_name, price, and quantity. The data includes various books like The Chronicles of Narnia, The Witcher, The Subtle Art of Not Giving a F*ck, The Hunger Games, Catching Fire, Norwegian Wood, Rich Dad Poor Dad, Tuesdays With Morrie, The Little Prince, The Old Man and The Sea, The Maze Runner, The Girl on the Train, Stephen King IT, The Art of War, Narnia: Prince Caspian, Narnia: Silver Chair, The Silent Patient, Dune, Dune Messiah, The Hobbit, LOTR: Fellowship, and LOTR: Two Towers.

| item_id | transaction_id | product_name | price | quantity |
|-------------|----------------|---|---------|----------|
| B987654-001 | B100001 | The Chronicles of Narnia: The Lion, The Witch and ... | 1499.00 | 1 |
| B100001-001 | B100001 | The Witcher: Blood of Elves | 799.00 | 1 |
| B100002-001 | B100002 | The Subtle Art of Not Giving a F*ck | 550.00 | 2 |
| B100003-001 | B100003 | The Hunger Games | 699.00 | 1 |
| B100003-002 | B100003 | Catching Fire | 720.00 | 1 |
| B100004-001 | B100004 | Norwegian Wood | 499.00 | 1 |
| B100005-001 | B100005 | Rich Dad Poor Dad | 450.00 | 2 |
| B100006-001 | B100006 | Tuesdays With Morrie | 399.00 | 1 |
| B100007-001 | B100007 | The Little Prince | 399.00 | 1 |
| B100007-002 | B100007 | The Old Man and The Sea | 350.00 | 1 |
| B100008-001 | B100008 | The Maze Runner | 520.00 | 3 |
| B100009-001 | B100009 | The Girl on the Train | 600.00 | 1 |
| B100010-001 | B100010 | Stephen King IT | 999.00 | 1 |
| B2001-001 | B2001 | The Art of War | 499.00 | 1 |
| B2002-001 | B2002 | Narnia: Prince Caspian | 699.00 | 1 |
| B2002-002 | B2002 | Narnia: Silver Chair | 699.00 | 1 |
| B2003-001 | B2003 | The Silent Patient | 620.00 | 1 |
| B2004-001 | B2004 | Dune | 899.00 | 1 |
| B2004-002 | B2004 | Dune Messiah | 799.00 | 1 |
| B2005-001 | B2005 | The Hobbit | 750.00 | 1 |
| B2006-001 | B2006 | LOTR: Fellowship | 850.00 | 1 |
| B2006-002 | B2006 | LOTR: Two Towers | 850.00 | 1 |

7. Sequence Diagrams

7.1 Create New Sales

Heritage Bookshop Create New Sales



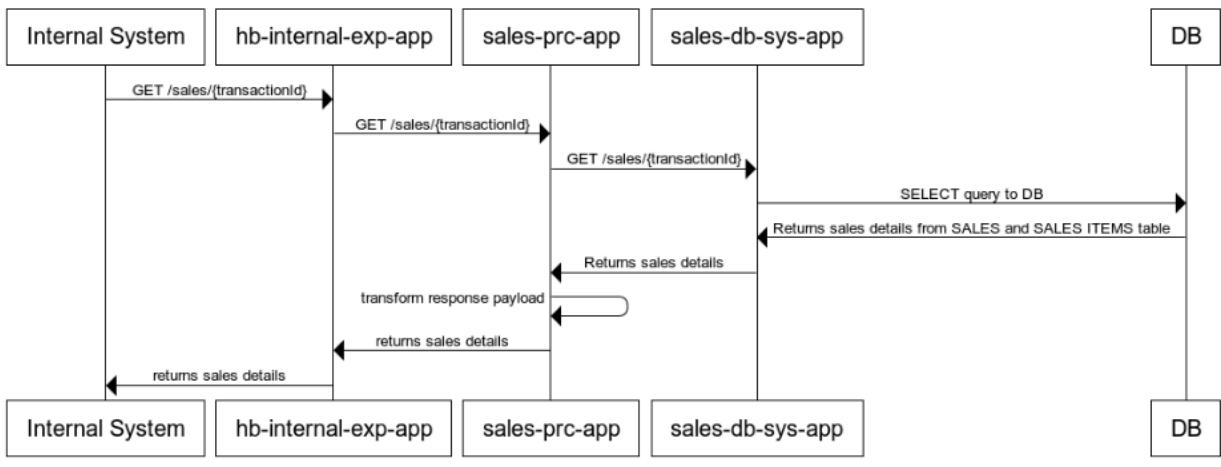
www.websequencediagrams.com

Remarks: Due to time constraints, DELETE operation has been implemented as a short-term solution to prevent “orphan” sales and maintain database consistency.

In the current setup, the Sales record and Sales items record are inserted through separate operations. If the step on inserting sales items fails, the system would create partial or inconsistent data. Since we do not have yet failed-state handling mechanism, DELETE provides a simple and reliable way to clean up incomplete transactions and ensure the database remains consistent.

7.2 Retrieve Sales Details

Heritage Bookshop Retrieve Sales by Transaction ID



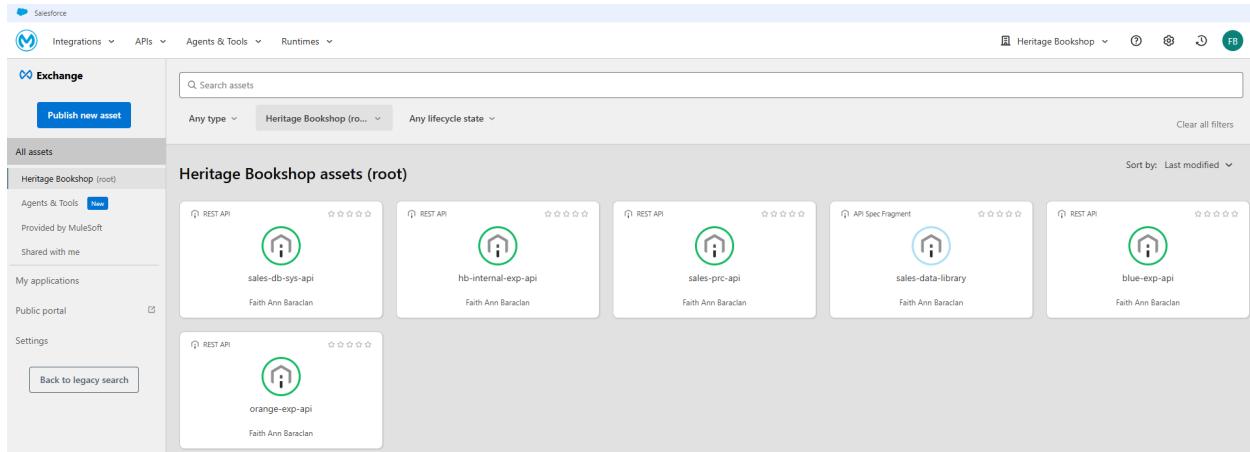
www.websequencediagrams.com

Remarks: This retrieves sales details from both Sales table and Sales Items table returning a single sales details from the database based on the transaction ID.

8. Anypoint Platform

8.1 Anypoint Exchange

Below are the assets published to Anypoint Exchange.

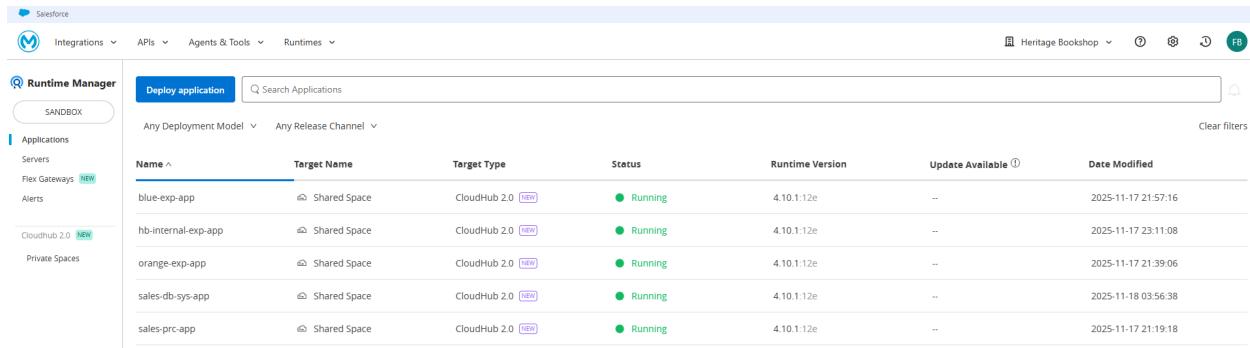


The screenshot shows the Anypoint Exchange interface. On the left, there's a sidebar with options like 'Publish new asset', 'All assets', and 'Heritage Bookshop (root)'. The main area displays a grid of assets under 'Heritage Bookshop assets (root)'. Each asset card includes a thumbnail, name, description, and a star rating. The assets listed are:

- sales-db-sys-api (REST API)
- hb-internal-exp-api (REST API)
- sales-prc-api (REST API)
- sales-data-library (API Spec Fragment)
- blue-exp-api (REST API)
- orange-exp-api (REST API)

8.2 Runtime Manager

All Mulesoft APIs are deployed in Cloudhub 2.0 with Runtime version 4.10.



The screenshot shows the Runtime Manager interface. On the left, there's a sidebar with sections like 'Applications', 'Cloudhub 2.0', and 'Private Spaces'. The main area is a table listing deployed applications. The columns include Name, Target Name, Target Type, Status, Runtime Version, Update Available, and Date Modified. All applications are listed as 'Running' in Cloudhub 2.0 with runtime 4.10.1:12e.

| Name | Target Name | Target Type | Status | Runtime Version | Update Available | Date Modified |
|---------------------|--------------|--------------|---------|-----------------|------------------|---------------------|
| blue-exp-app | Shared Space | CloudHub 2.0 | Running | 4.10.1:12e | -- | 2025-11-17 21:57:16 |
| hb-internal-exp-app | Shared Space | CloudHub 2.0 | Running | 4.10.1:12e | -- | 2025-11-17 23:11:08 |
| orange-exp-app | Shared Space | CloudHub 2.0 | Running | 4.10.1:12e | -- | 2025-11-17 21:39:06 |
| sales-db-sys-app | Shared Space | CloudHub 2.0 | Running | 4.10.1:12e | -- | 2025-11-18 03:56:38 |
| sales-prc-app | Shared Space | CloudHub 2.0 | Running | 4.10.1:12e | -- | 2025-11-17 21:19:18 |

sales-db-sys-app - env: SANDBOX

Application status: ● Running
Configuration: ef02a2
Last updated: 2025-11-18 3:56:38AM
Replicas: 1 / 1 started

Public Endpoint: <https://sales-db-sys-app.yabc0e.5sc6y6-2.usa-e2.cloudhub.io>
Target name: Cloudhub-US-East-2
Target type: Shared Space

Configuration ef02a2 >

Applying changes will create a new configuration for your application [Apply Changes](#)

Application File: sales-db-sys-app.jar | Choose file ▾

Version 1.0.8

Deployment Target | Ingress | Properties | Monitoring | Firewall Rules

Runtime version | Release Channel | Runtime Version

Edge | 4.10.1.12e

This channel releases a new minor version every four months. It has the latest features and shorter support windows. [Learn more](#)

Java Version | Using Java 17 may require a different application resource profile. [Learn more](#)

Java 8 | Java 17

Runtime properties

Application status: ● Running
Configuration: ef02a2
Last updated: 2025-11-18 3:56:38AM
Replicas: 1 / 1 started

Public Endpoint: <https://sales-db-sys-app.yabc0e.5sc6y6-2.usa-e2.cloudhub.io>
Target name: Cloudhub-US-East-2
Target type: Shared Space

Configuration ef02a2 >

Applying changes will create a new configuration for your application [Apply Changes](#)

Application File: sales-db-sys-app.jar | Choose file ▾

Version 1.0.8

Deployment Target | Ingress | Properties | Monitoring | Firewall Rules

Table view | Text view

Use properties to change the way your app behaves. [Learn more](#)

| Property | Value | Actions |
|---------------------------------|----------------------------------|---------------|
| anypoint.platform.client_id | c5c5cf6c1f144e52a69592c98cc5bb94 | Protect ... |
| anypoint.platform.client_secret | 47f141719df348d68A1f202be2cdE68A | Protect ... |
| env | SANDBOX | Protect ... |
| key | [Placeholder value] | Protect ... |

sales-prc-app - env: SANDBOX

The screenshot shows the Runtime Manager interface for the 'sales-prc-app' application in the 'SANDBOX' environment. Key details include:

- Application status:** Running (e0b179)
- Last updated:** 2025-11-19 1:15:48AM
- Replicas:** 1 / 1 started
- Public Endpoint:** <https://sales-prc-app.yacB0e5sc6y6-3.usa-e2.cloudhub.io>
- Target name:** CloudHub-US-East-2
- Target type:** Shared Space

The configuration page shows the 'sales-prc-app.jar' file selected as the application file. A 'Choose file' button is available if needed. The properties tab is active, displaying environment variables:

| | | |
|---------------------------------|----------------------------------|---------|
| anypoint.platform.client_id | c5d5cf6c11f44e52a69592c98cc5bb94 | Protect |
| anypoint.platform.client_secret | 47f141719df348d68a1F202be2cdE68A | Protect |
| env | SANDBOX | Protect |
| key | protected value | ⋮ |

8.3 API Manager

For demonstration purposes, **sales-db-sys-app** & **sales-prc-app** has API instances, and only **sales-db-sys-app** has policy applied, that is, Client ID Enforcement policy.

The screenshot shows the API Manager interface listing two API instances:

| Name | Runtime | Label | Version | Instance | Endpoint Type | Error Rate | Total Requests | Client Applications | Creation Date | Actions |
|------------------|---------|-------|---------|----------|---------------|------------|----------------|---------------------|------------------|---------|
| sales-prc-api | Mule 4 | - | v1 | 20608851 | raml | 24% | 79 | 0 | 11-19-2025 00:32 | ⋮ |
| sales-db-sys-api | Mule 4 | - | v1 | 20605700 | raml | 15% | 147 | 1 | 11-16-2025 22:38 | ⋮ |

A notification bar at the top indicates 3 notifications need action, related to Flex Gateway capability:

- New Flex Gateway capability: Protect your MCP and Agent servers for secure Agent-to-API and Agent-to-Agent communications.
- Effective October 7, 2025, Mule Runtime 4.10 Edge and later will no longer support TLS 1.0 and 1.1. Update all API dependencies to TLS 1.2 or 1.3 before upgrading.
- Effective October 31, 2025, Flex Gateway 1.11 and later will no longer support TLS 1.0 and 1.1. Update all API dependencies to TLS 1.2 or 1.3 before upgrading.

sales-db-sys-app - env: SANDBOX

API Instances / sales-db-sys-api

| Type | Asset Version | Implementation URI | API Label | API Version |
|----------|----------------|--------------------|-----------|-------------|
| RAML/OAS | 1.0.3 (Latest) | N/A | - | v1 |

| API Status | Consumer Endpoint | API Instance ID | Mule Version | Java Version |
|------------|-------------------|-----------------|--------------|--------------|
| Active | N/A | 20605700 | 4.10.1 | 17 |

| Instance Conformance | Not Validated |
|----------------------|---------------|
|----------------------|---------------|

| Tags |
|-------------------------------|
| Add New Tag + |

Key Metrics

If Key Metrics charts are not rendered correctly, make sure that Anypoint Monitoring is enabled. For more information, refer to this article: [Key Metrics charts in API Manager](#)

[View more metrics in Anypoint Monitoring dashboard](#)

Last 24 hours

Salesforce

API Instances / sales-db-sys-api / Policies

Apply policies to manage security, control traffic, and improve adaptability. [Learn more about policies.](#)

Automated policies

No automated policies applied

Instance policies

[+ Add policy](#)

Client ID Enforcement

Methods: All API methods Resource: All API resources

Salesforce

API Instances / sales-db-sys-api / Contracts

Any Status

Api instance contracts (1) Group contracts (0)

| Application | Current SLA Tier | Requested SLA Tier | Status | Actions |
|------------------------|------------------|--------------------|----------|------------------------|
| internal-sales-prc-app | - | - | Approved | Revoke |

Owners: Faith Ann Baracan fbaracan@gmail.com

Client ID: c6c3d17209a047cbfed938a8388bc7

URL: -

Redirect URIs: -

Submitted: 2 hours ago

Approved: 2 hours ago

Rejected: -

Revoked: -

sales-prc-app - env: SANDBOX

The screenshot shows the Anypoint Platform API Manager interface. On the left, there's a sidebar with 'API Manager' selected. Under 'API Instances', 'Sandbox' is chosen. The main content area is titled 'API Instances / sales-prc-api'. It displays details for a single API instance:

| Type | Asset Version | Implementation URI | API Label | API Version |
|------------|-------------------|--------------------|--------------|--------------|
| RAML/QAS | 1.0.4 (Latest) | N/A | - | v1 |
| API Status | Consumer Endpoint | API Instance ID | Mule Version | Java Version |
| Active | N/A | 20600851 | 4.10.1 | 17 |

Below this, there's a section for 'Instance Conformance' and 'Tags' (with a 'Add New Tag' button). A 'Key Metrics' section follows, containing a note about monitoring and a link to the Anypoint Monitoring dashboard, along with a refresh icon and a time range selector set to 'Last 24 hours'.

8.24 Design Center

API specifications are created in the Design Center, and then published to Anypoint Exchange.

The screenshot shows the Anypoint Platform Design Center interface. The top navigation bar includes 'Salesforce', 'Integrations', 'APIs', 'Agents & Tools', 'Runtimes', and social sharing icons. The left sidebar has 'Design Center' selected, with 'Create +' and 'API Projects' (which is currently selected) buttons. Below the sidebar is a search bar and a 'Filter' dropdown. The main content area is titled 'API Projects' and lists the following projects:

| Name | Project Type | Updated | Owner |
|-------------------------------------|-------------------|---------------------|-------------|
| sales-db-sys-api | API specification | November 17th, 2025 | hb-fbaracan |
| orange-exp-api | API specification | November 17th, 2025 | hb-fbaracan |
| hb-internal-exp-api | API specification | November 17th, 2025 | hb-fbaracan |
| sales-prc-api | API specification | November 17th, 2025 | hb-fbaracan |
| sales-data-library | API fragment | November 17th, 2025 | hb-fbaracan |
| blue-exp-api | API specification | November 16th, 2025 | hb-fbaracan |

A 'Details' panel on the right is currently empty, showing the message 'Select a project to see details'.

9. Secure Properties Generator

Used secure properties generator to encrypt/decrypt passwords and client credentials.

Link: <https://secure-properties-api.us-e1.cloudhub.io/>

Secure Properties Generator

Use this tool to generate MuleSoft secure configuration properties for your application. The tool currently only supports *.yaml files.
For more details, click [here](#).

String

| | | | |
|------------------|---------------|---------------|---|
| Operation | Algorithm | State | <input type="checkbox"/> Use random IVs |
| Encrypt | AES (default) | CBC (default) | <input type="checkbox"/> |
| Key | Value | | |
| heritage12345678 | ptRZCVHZ3P | | |

Generate

Result

```
x1TF6s1pJG9FF4C1UrzKiA==
```

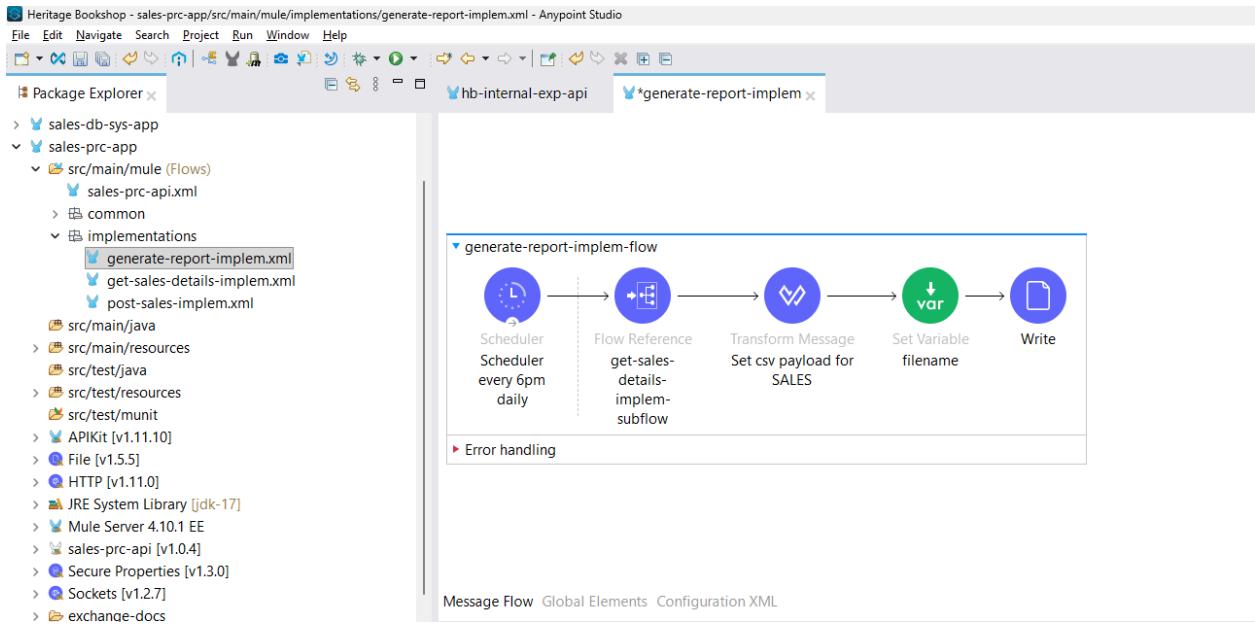
© 2023 MuleSoft

10. End-to-End Flow Summary

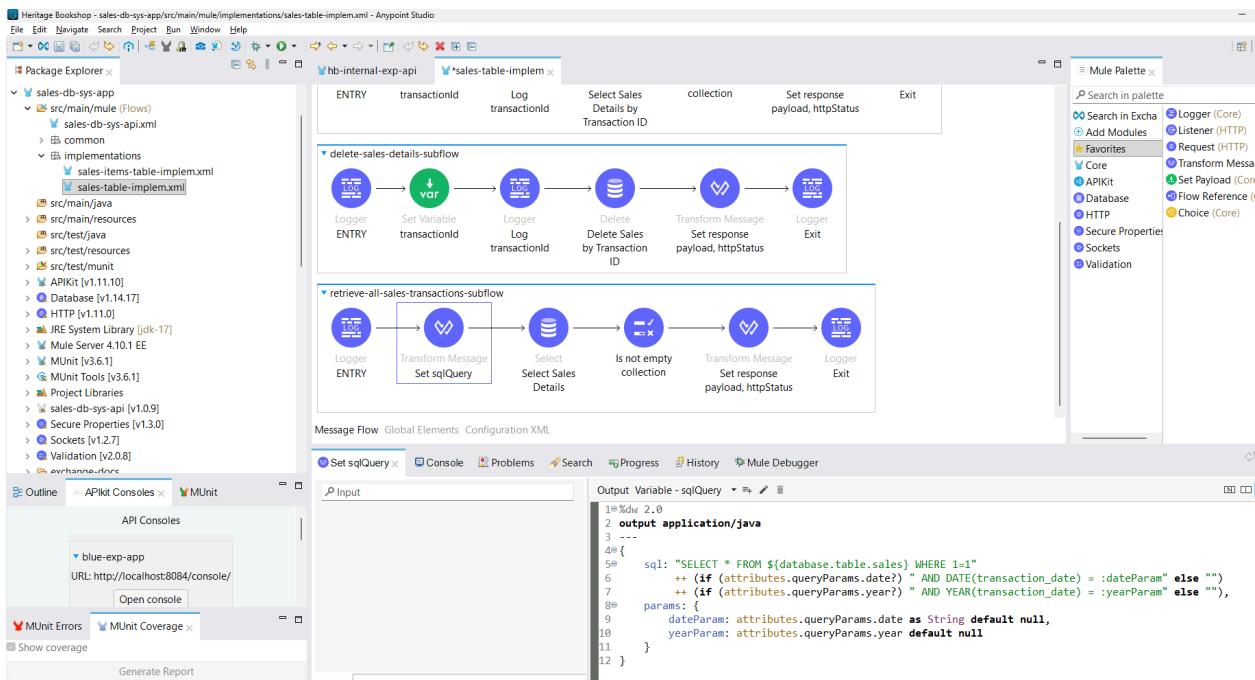
1. A client application (**Orange** app, **Blue** app, or internal system) submits a request to its dedicated **Experience API**.
2. The Experience API validates request format and calls the **sales-pro-app**.
3. The Process API handles business logic, applies transformations, and calls the **sales-db-sys-app**.
4. The System API interacts with the **Sales DB**, returns the result, and propagates it back up through the Process and Experience layers to the client.

11. Data Pipeline

A data pipeline is a series of processes that moves raw data to a destination. The most common or the one I'm familiar with is the ETL (Extract, Transform, Load) model. While I haven't fully deployed a complete solution yet, I have created a flow using Mulesoft that extracts data from the database and writes it as a CSV file to a designated directory.



This flow is designed to run on a scheduler, for example every day at 6PM, to generate daily sales reports from the **Sales** table in Sales Database.

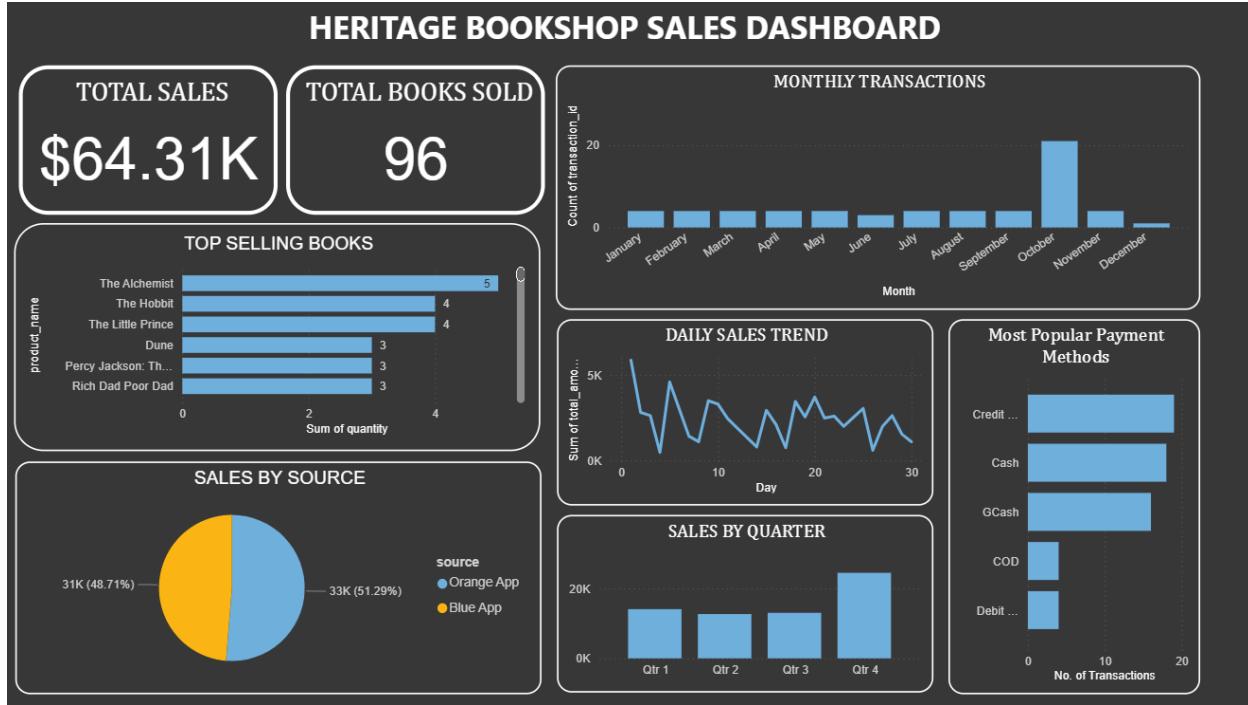


Additionally, I have implemented a partial flow in the sales-db-sys-app to retrieve sales transactions using query parameters such as **date** or **year**. For instance, calling the endpoint /api/sales?date=2025-11-02, it is expected to return all sales transactions for that specific date (or year).

Based on my research, there are other different tools available to build data pipelines. I may not be familiar with all of them, but I believe Mulesoft can fulfill the requirements of a data pipeline as per its standard definition.

Currently, no CSV files have been generated, as this is only a partial implementation.

12. Reports



Remarks: The data used for this dashboard comes from the extract of **Sales** table and **Sales items** table of the Sales database. The data was manually exported from the database server.

This dashboard has been created using Power BI. This is my first time working with Power BI, and I was able to use it to visualize sales data and generate insights for reporting. My background in Mathematics has helped me approach the data logically and create visualizations. Given more time to explore the tool, I hope to further enhance the dashboard and utilize other features.

13. Role of AI in the Solution

Artificial intelligence (or AI) played a supporting role in the development of this integration solution and its documentation. AI did not generate or implement the technical system itself;

rather it provided descriptive support to refine communication and structuring the documentation. Specifically, AI support was used in the following areas:

- Documentation Generation
 - assisted in creating documentation from scratch by providing documentation template with heading and subheadings
 - generated clear and professional descriptions
 - Standardized responsibilities of endpoints
- Testing
 - Generated sample payloads used for testing

Future Enhancements

If given the luxury of time, the following enhancements can be done but not limited to:

- Anypoint Exchange Documentation for all API specs created
- Proper logging on all the APIs, masking personally identifiable information (PII) - preferably with JSON logger
- Munit for ALL APIs
- Additional security for the APIs by applying additional policies