

# Dataplex: Qwik Start - Console

## Objective

The goal of this lab is to familiarize users with **Dataplex Universal Catalog**, a tool that helps centralize the management, governance, and discovery of data across various data systems without requiring data movement. The lab simulates a data mesh setup where users create and manage lakes, zones, and assets via the Google Cloud Console.

## Task 1: Enable the Dataplex API

- Navigated to the **Dataplex API** in the Google Cloud Console.
- Enabled the API to access Dataplex services.

← API/Service Details ■ Disable API

**Cloud Dataplex API**  
Dataplex API is used to manage the lifecycle of data lakes.  
By Google

Service name	Type	Status	Documentation	Explore
dataplex.googleapis.com	Public API	Enabled	<a href="#">Learn more</a>	<a href="#">Try in API Explorer</a>

[Metrics](#) [Quotas & System Limits](#) [Credentials](#) [Cost](#)

## Task 2: Create a Lake

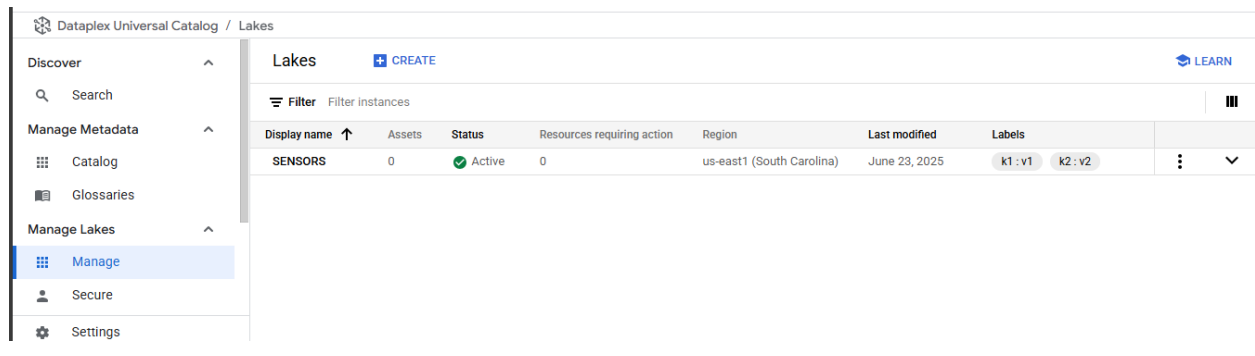
- Navigated to **Dataplex Universal Catalog** from the console.
- Created a **lake** named sensors with default ID and a selected region (e.g., us-central1).
- Verified lake creation after a short provisioning time.

Dataplex Universal Catalog / Lakes

**Lakes** CREATE LEARN

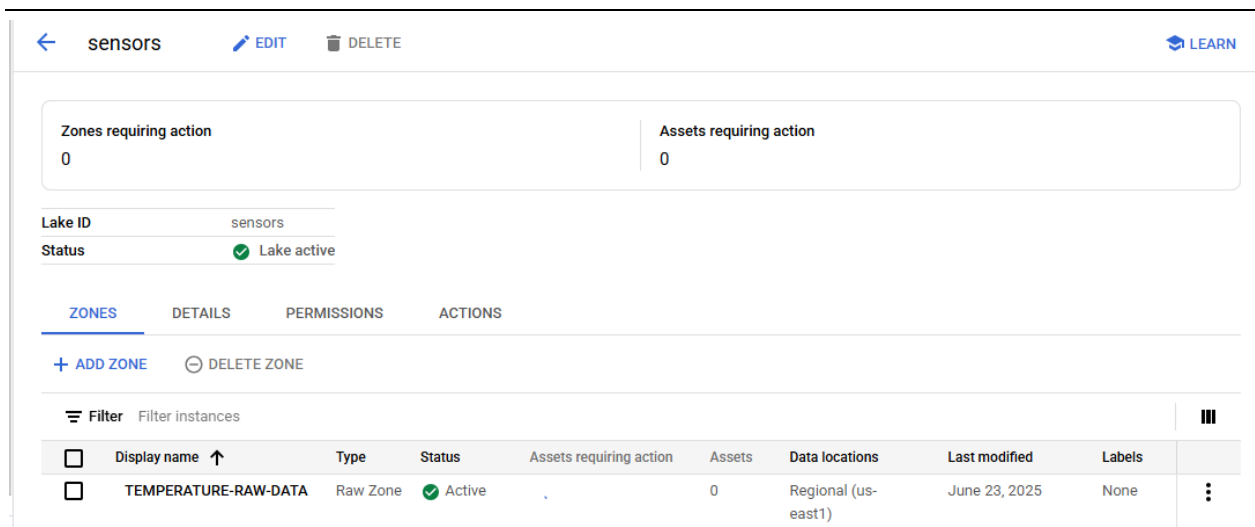
Filter Filter instances

Display name ↑	Assets	Status	Resources requiring action	Region	Last modified	Labels
sensors	0		0	us-east1 (South Carolina)	June 23, 2025	k1:v1 k2:v2



### Task 3: Add a Zone to the Lake

- Inside the sensors lake, created a **Raw Zone**:
  - **Name:** temperature raw data
  - **Type:** Raw zone
  - **Discovery settings:** Metadata discovery enabled by default
- Verified the zone was in an **Active** state before proceeding.



### Task 4: Attach a Storage Asset to the Zone

- In the temperature raw data zone, created and attached a new **Cloud Storage bucket**:
  - **Asset Name:** measurements
  - **Bucket Name:** Used the project ID
  - **Location:** Regional
  - **Discovery Setting:** Inherited from the zone

- Confirmed asset was attached without moving or copying data.

Buckets

Create

Refresh

Go to path

Learn

Filter

Filter buckets

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<input type="checkbox"/>	Name ↑	Created	Location type	Location	Default storage class <div>?</div>	Last modified	
<input type="checkbox"/>	<a href="#">qwiklabs-gcp-03-c149e14fc22c</a>	Jun 23, 2025, 12:37:56 PM	Region	us-east1	Standard	Jun 23, 2025, 1	<div>⋮</div>

## Task 5: Delete Resources

- Detached the asset** from the zone without deleting the underlying bucket data.
- Deleted the zone** (temperature raw data) from the sensors lake.
- Deleted the lake** after confirming removal of dependent components.

## Learnings and Key Concepts

### Dataplex Universal Catalog

- Provides a centralized catalog for **metadata** and governance without data duplication.
- Integrates with other GCP services like **BigQuery**, **Data Catalog**, and **Cloud Storage**.

### Data Mesh Architecture

- Promotes **domain-based data ownership**.
- Enables scalable and decentralized data management.

### Lakes, Zones, and Assets

- Lakes** group data domains (e.g., departmental data).
- Zones** classify data stages (e.g., raw, curated).
- Assets** are storage or datasets logically linked to zones

## Conclusion

This lab provided hands-on exposure to Google Cloud's Dataplex Universal Catalog. By creating a lake, raw zone, and attaching a storage bucket as an asset, users simulated a basic data mesh architecture. The lab demonstrated how data discovery and governance

can be implemented efficiently without moving data, a key advantage for scalable enterprise data solutions.