



MuleSoft®

Anypoint Platform Development: Fundamentals



Student introductions



- Your name
- Company, role, and location
- Experience with
 - Object-oriented programming / Java
 - Eclipse
 - Anypoint Platform (if any)
- Whether you plan on deploying to MuleSoft-hosted (CloudHub) or customer-hosted runtimes
- What you want to get out of class

- Time
 - Class is for 5 days
 - 1 hour lunch/mid-class break
 - 15 minute break each morning and afternoon
- We know you have two jobs to do this week!
 - If you have scheduled meetings, please let me know
 - We can try to schedule breaks around them

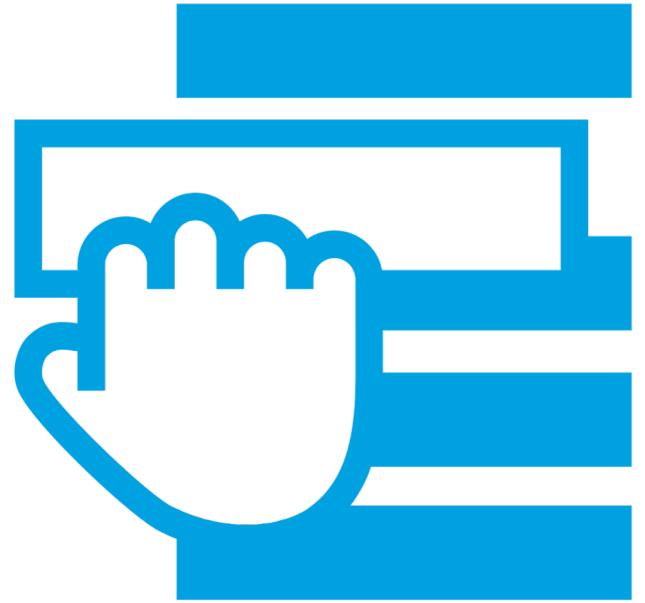
Introducing the course



- **Build an application network using API-led connectivity and Anypoint Platform**
- **Use Anypoint Platform**
 - As a central repository for the discovery and reuse of assets
 - To build apps to consume assets and connect systems
 - To take an API through its complete development lifecycle
- **Use Anypoint Studio to build & debug integrations and API implementations**
 - Connect to databases, files, web services, SaaS apps, JMS queues, & more
 - Transform data using DataWeave, the transformation language
 - Add application logic and handle errors
 - Structure applications to facilitate development and deployment
 - Handle batch data processing

How the course will work

- Is primarily hands-on
- Consists of
 - Short lectures (PPT) to introduce a concept
 - Walkthroughs
 - The bulk of class
 - Exercises we do together to learn the content



Course materials



- Available on MuleSoft Learning Management System
 - training.mulesoft.com/login.html
- **Student files (ZIP)**
 - Starting files needed to complete some of the exercises
 - Solution files
- **Student manual (PDF)** with steps for walkthroughs
- **Course slides (ZIP of PDFs)**

The screenshot shows a course page on the MuleSoft Learning Management System. At the top, there's a navigation bar with links for Dashboard, Classes, Catalog, and Support. On the right side of the header, there are icons for Cart, Inbox, and a user profile. A green button labeled 'Confirmed' is visible. Below the header, a large blue banner features the course title 'Anypoint Platform Development: Fundamentals (Mule 4)' in white text. It also includes a 'Virtual Class' icon and the dates 'Jan 1, 9:00 AM - Jan 5, 4:00 PM PST (5 days)'. To the right of the banner, there's a sidebar with sections for 'INSTRUCTORS' (which is currently empty), 'MATERIALS' (listing 'APDevFundamentals4.1 Student Slides (ZIP)', 'APDevFundamentals4.1 Student Manual (PDF)', and 'APDevFundamentals4.1 Student Files (ZIP)'), and a note about a voucher for a new MuleSoft Certified Developer exam.

This instructor-led course is for developers and architects who want to get hands-on experience using Anypoint Platform to build APIs and integrations. In the first part, students use Anypoint Platform discover, consume, design, build, deploy, manage, and govern APIs. In the second part, students focus on using Mule and Anypoint Studio to build applications for use as API implementations and/or integrations.

The course includes a voucher to take a new MuleSoft Certified Developer exam for Mule 4 to be released later this year.

A downloadable data sheet for the course can be found [here](#).

Supplemental course materials



- **Enroll yourself today!**

- *MCD – Level 1 / Development: Fundamentals (Mule 4) Self-Assessment Quiz & DIY Exercises*
- training.mulesoft.com/fundamentals4-quiz-diy

- **Self-assessment quiz**
 - 5+ questions per module

- **DIY exercises**
 - 10+ Do-It-Yourself exercises for each module to get experience with and apply the knowledge gained in class

Course
MCD - Level 1 / Development Fundamentals

DIY Exercise 3-1: Create an API specification with RAML

Time estimate: 1 hour

Objectives

In this exercise, you create an API specification using RAML. You will:

- Appropriately specify GET and POST methods.
- Appropriately define URI parameters, query parameters, and headers.
- Restrict possible values using an enumeration.

Scenario

Your company needs to expose a customer accounts database as a System API for the rest of the organization. The first step is to create the RAML specification and post it to your company's private Anypoint Exchange so all stakeholders can review and provide feedback. This RAML

- Self-assessment quiz
- Download course resources
- Ask questions in the forum
- DIY Exercise 3-1: Create an API specification with RAML**
- DIY Exercise 4-1: Implement a REST API using APIkit
- DIY Exercise 5-1: Deploy and secure an API
- DIY Exercise 5-2: Deploy and secure an API
- DIY Exercise 6-1: Troubleshoot and refactor a Mule application
- DIY Walkthrough: Install a Mule application as a Maven dependency
- DIY Exercise 7-1: Track data through a Mule application
- DIY Exercise 7-2: Define and use application properties
- DIY Exercise 8-1: Orchestrate web services
- DIY Exercise 9-1: Use validators to validate response schemas
- DIY Exercise 10-1: Handle errors

At the end of this course, you should get certified!



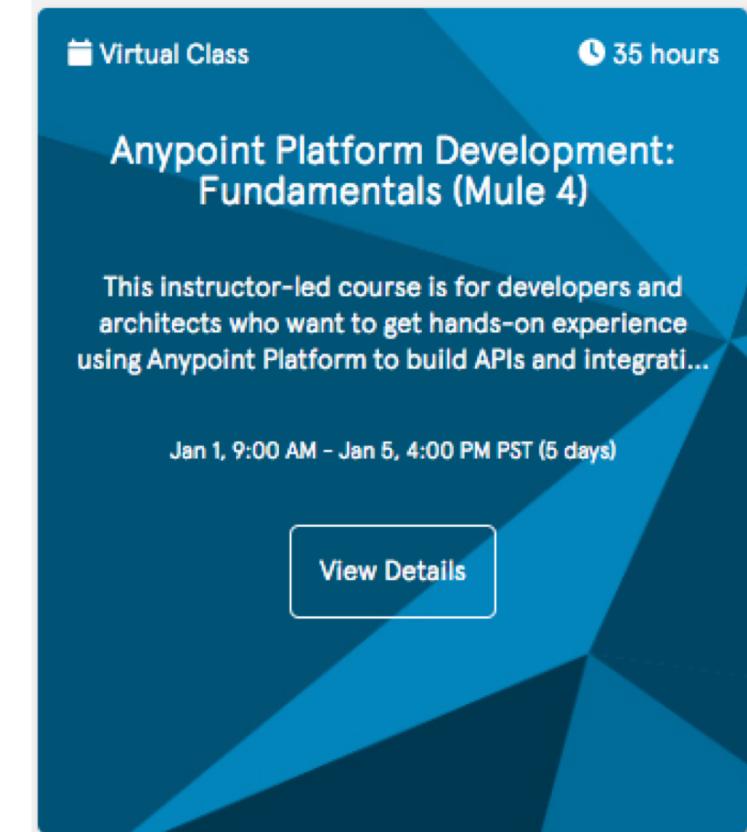
- After you learn & master the content in this course, get the **MuleSoft Certified Developer – Level 1** certification!
- This class comes with a voucher for two attempts for the exam
 - You will receive an email on the last day of class with a voucher code and instructions to take the exam



Walkthrough: Set up your computer for class



- Download the course files from the MuleSoft Training Learning Management System
- Make sure you have JDK 1.8 and that it is included in your PATH environment variable
- Make sure Anypoint Studio starts successfully
- Install Advanced REST Client (if you did not already)
- Make sure you have an active Anypoint Platform account
- Make sure you have a Salesforce developer account and an API security token



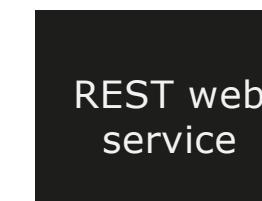
Introducing the course use case: Mule United Airport



Mule United Airport (MUA)



- Mule United Airport is a flight hub to multiple locations
- They host three different airlines in their terminals
- Their current architecture has many information silos



United
flight info



Delta
flight info



American
flight info



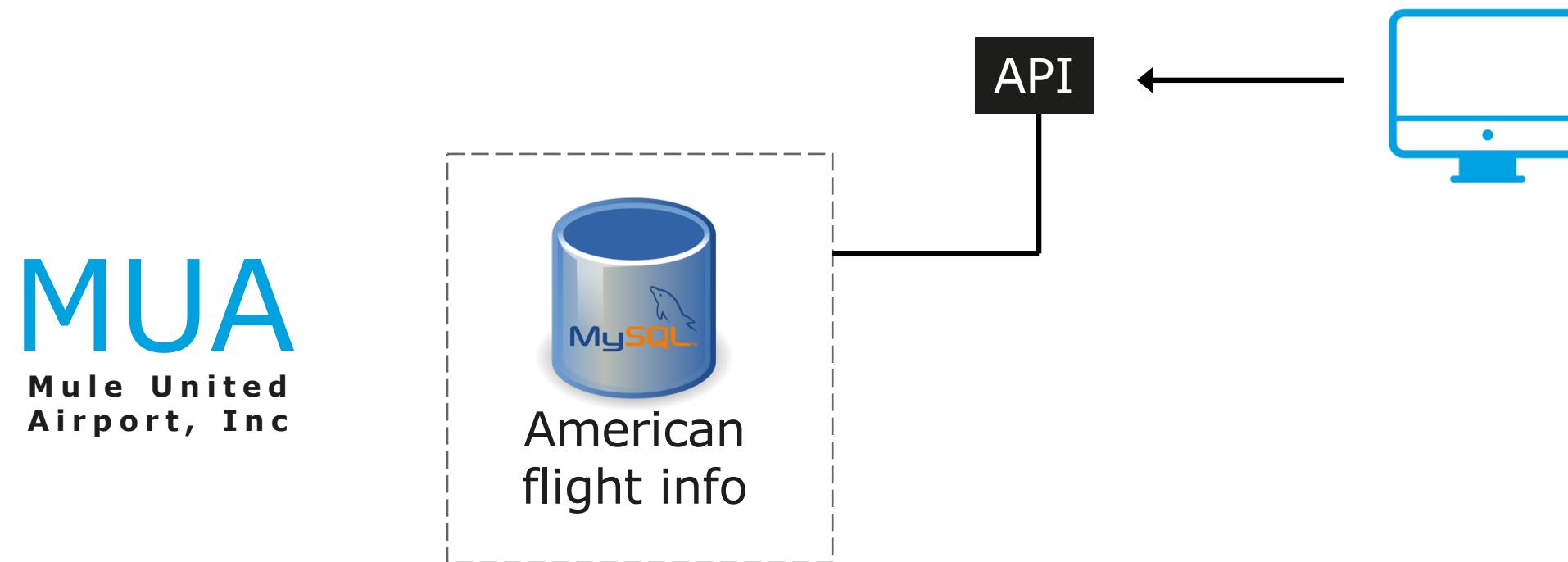
Accounts



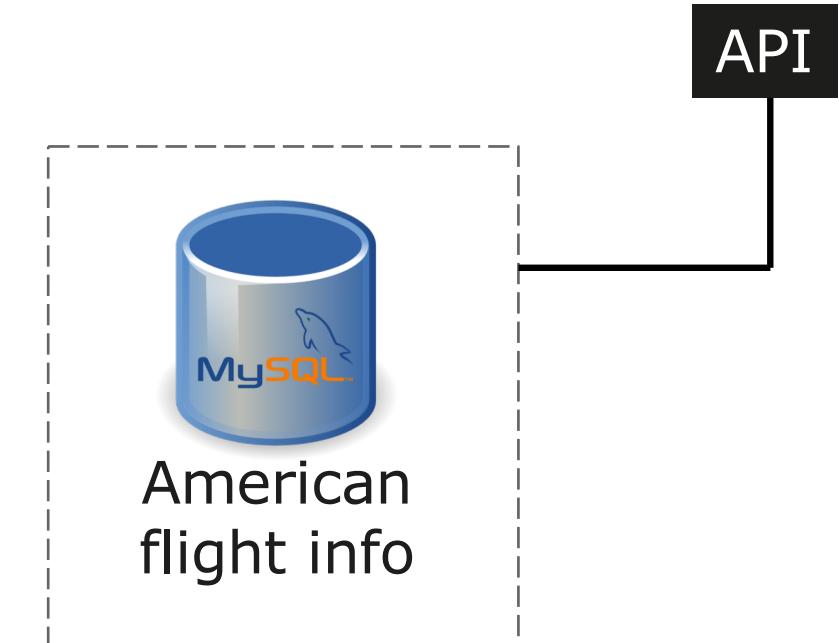
Accounts

First course goal

- Build an application that consumes a RESTful API for the American flight data

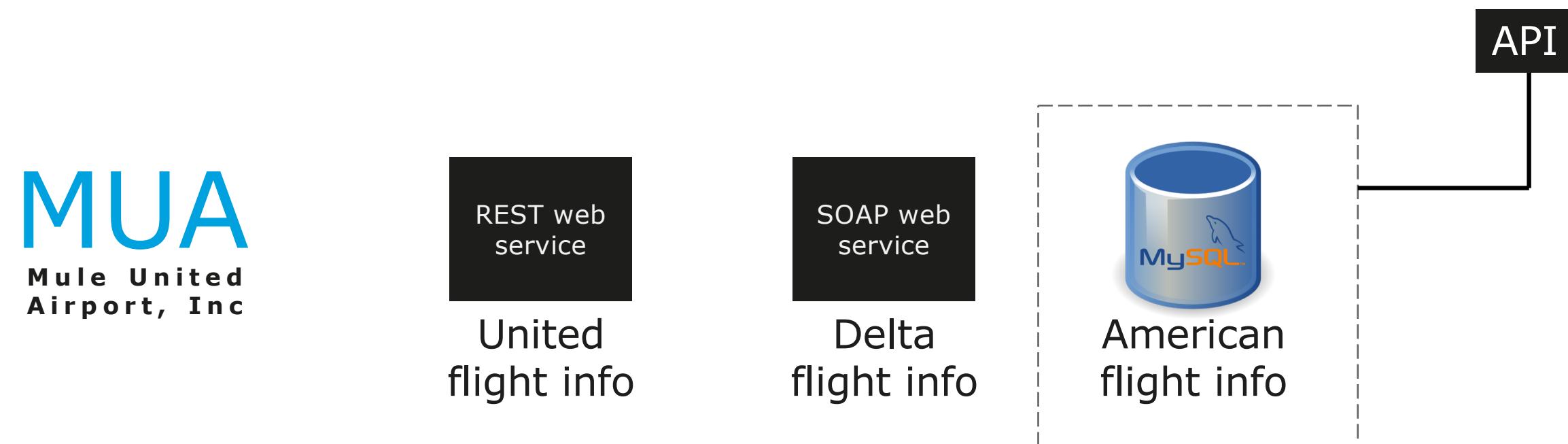


- PART 1: Building Application Networks with Anypoint Platform
 - Module 1: Introducing Application Networks and API-Led Connectivity
 - Module 2: Introducing Anypoint Platform

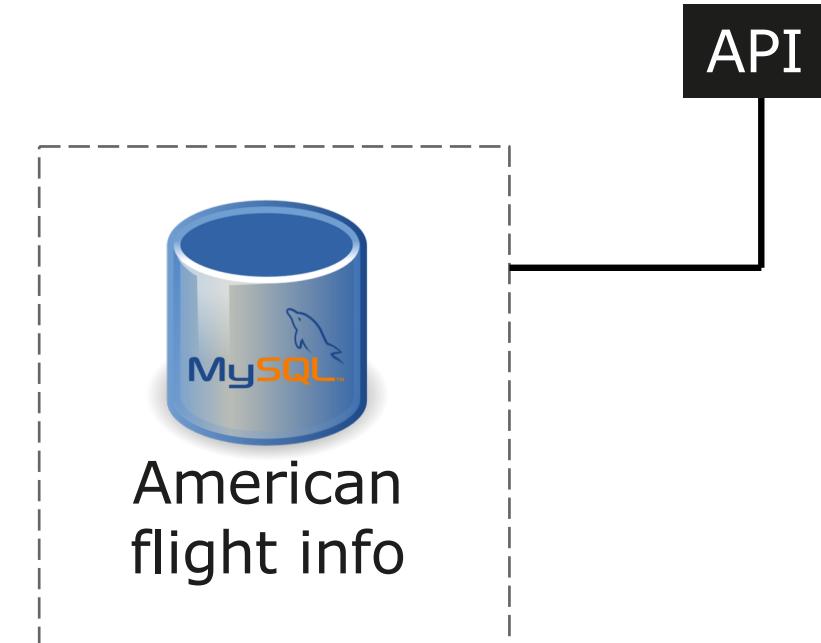


Second course goal

- Build the RESTful API for the American flight data

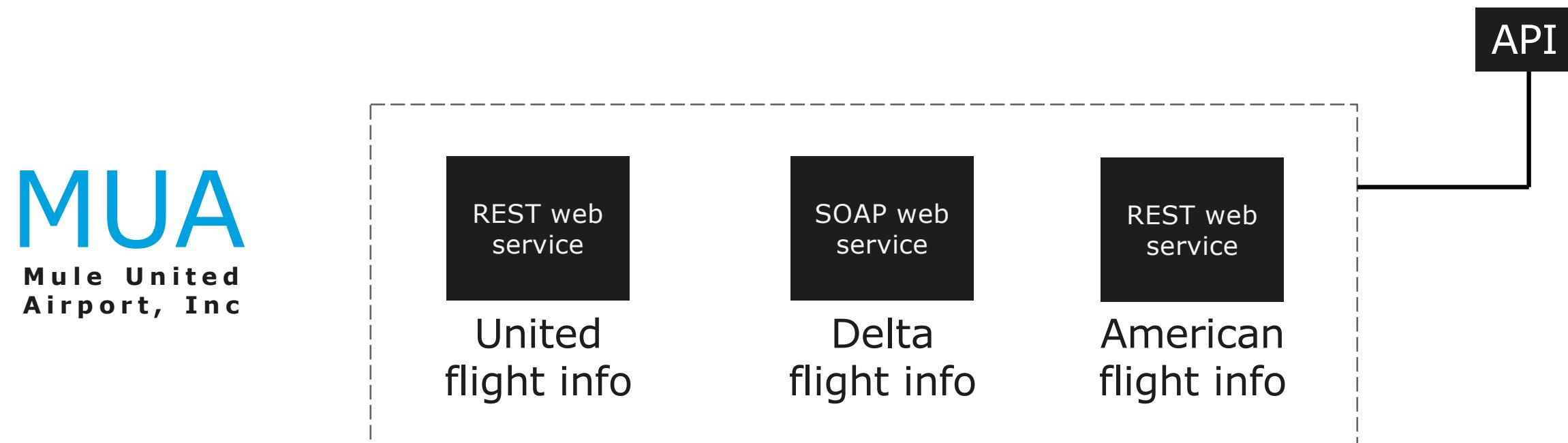


- PART 1: Building Application Networks with Anypoint Platform (cont)
 - Module 3: Designing APIs
 - Module 4: Building APIs
 - Module 5: Deploying and Managing APIs



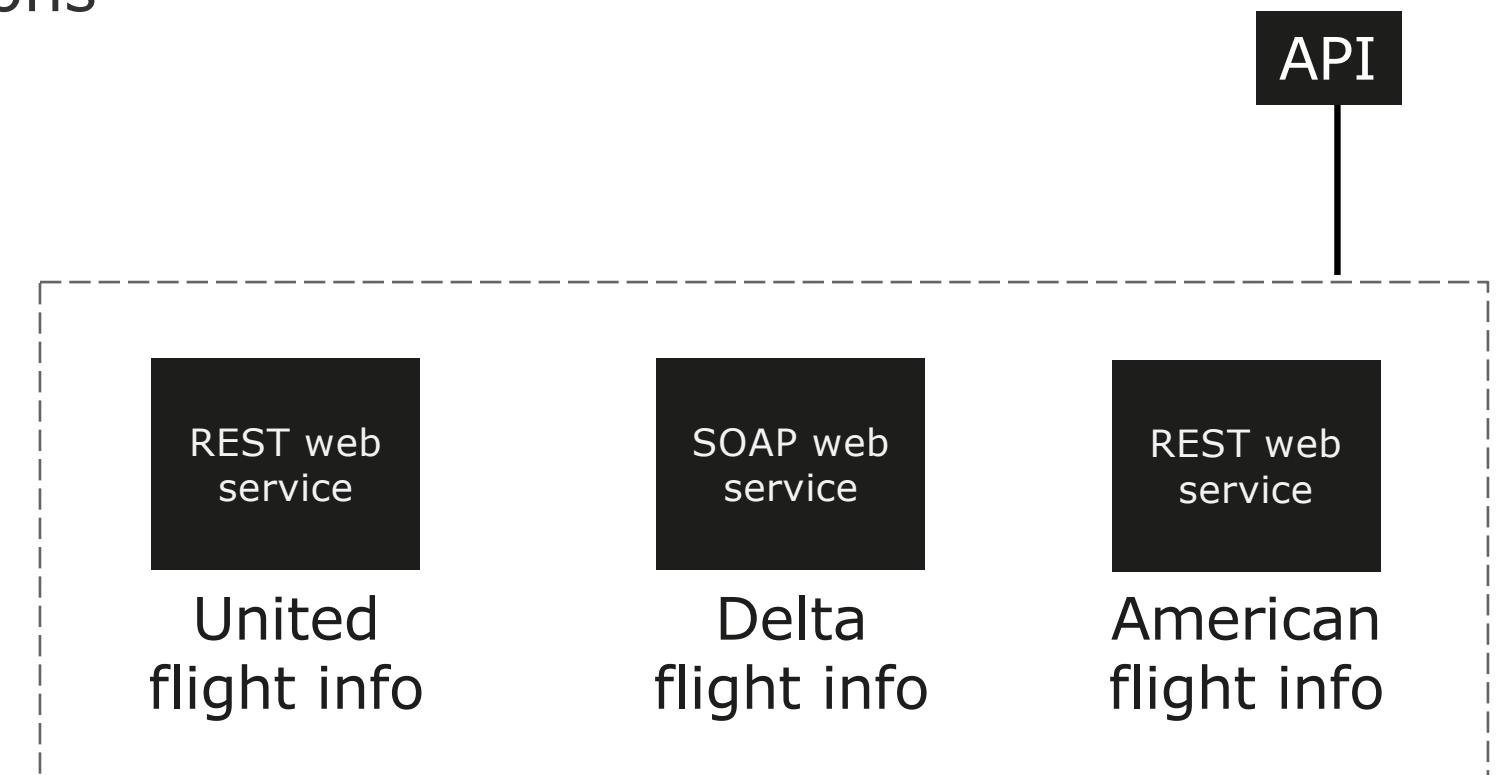
Third course goal

- Build an API for all the flight data



- PART 2: Building Applications with Anypoint Studio

- Module 6: Accessing and Modifying Mule Events
- Module 7: Structuring Mule Applications
- Module 8: Consuming Web Services
- Module 9: Controlling Event Flow
- Module 10: Handling Errors
- Module 11: Writing DataWeave Transformations



Fourth course goal

- Synchronize on-prem account data to the cloud



- PART 3: Building Applications to Synchronize Data
 - Module 12: Triggering Flows
 - Module 13: Processing Records

