Anypoint Platform Development: Advanced (Mule 3)

Summary
This course is for developers and architects interested in advancing their application development skills beyond those taught in the Anypoint Platform Development: Fundamentals (Mule 3) course.

Duration
3 days in-person or 4 days online

Objectives
At the end of this course, students should be able to:

• Manage Mule project development with Maven.
• Achieve continuous integration and use test driven development with MUnit.
• Develop custom elements.
• Implement design patterns and tune application performance.
• Work with state.
• Secure communication with SSL.

Prerequisites
• Experience developing Mule 3 applications as demonstrated by one of the following:
  o Passing the MuleSoft Certified Developer - Integration and API Associate (Mule 3) exam
  o Completion of the Anypoint Platform Development: Fundamentals (Mule 3) course
• Experience with Java or another object-oriented language
• Ability to navigate a command-line interface
• A solid understanding of essential Maven concepts

Note: If you are new to Maven (a build automation tool), you need to learn Maven fundamentals BEFORE taking this course. Suggested tutorials include Apache Maven Tutorial, Maven in 5 Minutes, and Maven Getting Started Guide.

Setup requirements
• A computer with:
  o At least 4GB available RAM, 2GHz CPU, and 4GB available storage
  o A minimum screen resolution of 1024x768
• Internet access to ports 80, 3306, and 61616 (with > 5Mbps download and > 2Mbps upload)
• The latest version of Chrome, Safari, Firefox, or Edge
• An Anypoint Platform account
• JDK 1.8
• Anypoint Studio 6.4 or later with embedded Mule 3.9 runtime
• Mule 3.9 standalone runtime
• Apache Maven 3.x
• Git
• A GitHub account

Get a detailed setup document here.

Outline

PART 1: Team development

Module 1: Managing Mule projects with Maven
• Use a software project management tool
• Manage dependencies

Module 2: Managing Mule code
• Maintain Mule source code
• Develop with best practices

Module 3: Achieving continuous integration
• Create a CI job
• Trigger the builds
• Automate deployments

Module 4: Driving development with MUnit
• Create acceptance criteria
• Fail and pass tests
• Refactor test cases
• Refactor Mule applications

PART 2: Advanced application development

Module 5: Developing custom elements
• Use the Mule API
• Create custom transformers, processors, and beans

Module 6: Implementing design patterns
• Enrich data with Mule
• Create scalable parallel processing in Mule
Module 7: Tuning application performance
- Understand SEDA architecture
- Analyze threading profiles

Module 8: Working with state
- Impact design with clustering
- Cache outbound requests
- Work with object stores

Module 9: Securing communication with SSL
- Implement one-way SSL
- Implement two-way SSL