KOENIG SOLUTIONS · COURSE OUTLINE

# Anypoint Platform Development: Mule 4 for Mule 3 Users

Learn to build, debug and transform Mule 4 applications in Anypoint Studio, from event handling and web services to error handling and batch processing.

| 3 Days | 8 | 41 |
| --- | --- | --- |
| DURATION | MODULES | TOPICS |

3 days in-person or online

## COURSE OVERVIEW

This course covers accessing and modifying Mule 4 events, including logging, debugging and working with variables and the DataWeave expression language. It then addresses structuring applications across flows and subflows, consuming RESTful and SOAP web services, and controlling event flow through multicasting, routing and validation. Further modules cover handling errors at different levels, writing DataWeave 2.0 transformations for complex data structures, triggering flows from files, databases, schedules and JMS messages, and processing records using the For Each and Batch Job scopes.

## WHO THIS COURSE IS FOR

**Mule 3 users who have mastery of the content covered in the Anypoint Platform Development: Fundamentals (Mule 3) course**

## PREREQUISITES

Experience developing Mule 3 applications as demonstrated by one of the following:

- Passing of the MCD - Integration and API Associate (Mule 3) exam
- Completion of the instructor-led Anypoint Platform Development: Fundamentals (Mule 3) course or the self-study MuleSoft.U Development Fundamentals (Mule 3) course
- Passing of the MCD - Integration Professional (Mule 3) exam

LEARNING OBJECTIVES

# What You Will Learn

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

- Build, configure, and debug Mule 4 applications using Anypoint Studio 7
- Use and apply the new Mule 4 event model with the new reactive, self-tuning, streaming, and nonblocking Mule 4 runtime
- Apply new Mule 4 connector operations and features anywhere in a flow and configure new Mule 4 connector listeners as flow triggers
- Apply new DataWeave 2.0 code everywhere as the new Mule 4 expression language
- Transform complex data schema using DataWeave 2.0
- Use the new Mule 4 error handling framework and the new Try scope
- Use the new Batch Job and Batch Aggregator scopes inline in flows

### CERTIFICATION

This course includes a voucher for two attempts for the **MuleSoft Certified Developer** - Level 1 (Mule 4) DELTA exam or the **MuleSoft Certified Developer** - Level 1 (Mule 4) exam.

### TRAINING APPROACH

“This instructor-led course is for experienced Mule 3 developers who want to quickly uplevel their skills to Mule 4. The course is hands-on and focuses on what’s new and/or different in Mule 4 and Studio 7.”

COURSE SYLLABUS

# 8 Modules, 41 Topics

01

## Accessing and Modifying Mule 4 Events

TOPICS

- Log event data
- Debug Mule applications
- Read and write event properties
- Write expressions with the DataWeave expression language
- Create variables

02

## Structuring Mule 4 Applications

TOPICS

- Create applications composed of multiple flows and subflows
- Pass events between flows using asynchronous queues
- Encapsulate global elements in separate configuration files
- Specify application properties in a separate properties file and use them in the application
- Describe the purpose of each file and folder in a Mule project
- Define and manage application metadata

03

## Consuming Web Services in Mule 4

TOPICS

- Consume web services that have an API (and connector) in Anypoint Exchange
- Consume RESTful web services
- Consume SOAP web services
- Pass parameters to SOAP web services using the Transform Message component
- Transform data from multiple services to a canonical format

04

## Controlling Event Flow in Mule 4

TOPICS

Multicast events · Route events based on conditions · Validate events

05

## Handling Errors in Mule 4

TOPICS

- Handle messaging errors at the application, flow, and processor level
- Handle different types of errors, including custom errors
- Use different error scopes to either handle an error and continue execution of the parent flow or propagate an error to the parent flow
- Set the success and error response settings for an HTTP Listener
- Set reconnection strategies for system errors

06

## Writing DataWeave 2.0 Transformations

TOPICS

- Write DataWeave expressions for basic XML, JSON, and Java transformations
- Write DataWeave transformations for complex data structures with repeated elements
- Define and use global and local variables and functions
- Use DataWeave functions
- Coerce and format strings, numbers, and dates
- Define and use custom data types
- Call Mule flows from DataWeave expressions
- Store DataWeave scripts in external files

07

## Triggering Flows in Mule 4

TOPICS

- Read and write files
- Trigger flows when files are added, created, or updated
- Trigger flows when new records are added to a database table
- Schedule flows to run at a certain time or frequency
- Persist and share data in flows using the Object Store
- Publish and consume JMS messages

08

## Processing Records in Mule 4

TOPICS

- Process items in a collection using the For Each scope
- Process records using the Batch Job scope
- Use filtering and aggregation in a batch step

WHAT IS INCLUDED

## Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

## Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

## Learn the Way That Suits You

Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

### Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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