

# Anypoint Platform Development: DataWeave 2.0 (Mule 4)

Learn to build complex, reusable DataWeave 2.0 transformations using functions, modules, mapping operators and recursion in Mule 4.

**2 Days**

DURATION

**5**

MODULES

**18**

TOPICS

2 days in-person or online

## COURSE OVERVIEW

This course covers transforming data using metadata, including configuring metadata and setting example input for DataWeave transformations. It then addresses organising DataWeave code with variables, functions, lambda expressions, modules and the match operator, followed by constructing and modifying arrays and objects with constructor syntax. Later modules cover iteratively transforming data with the map, mapObject, pluck and reduce operators, and recursively transforming complex nested structures using recursive functions and lookup objects.

## WHO THIS COURSE IS FOR

**Mule 4 developers or architects who want to advance their DataWeave 2.0 skills so that they can build complex transformations**

## PREREQUISITES

- Completion of one of the following courses or equivalent knowledge from 6+ months Mule development experience and passing of the MuleSoft Certified Developer - Level 1 (Mule 4) exam: Anypoint Platform Development: Fundamentals (Mule 4) instructor-led course; MuleSoft.U Development Fundamentals (Mule 4) self-study course; Anypoint Platform Development: Mule 4 for Mule 3 Users instructor-led course; MuleSoft.U Development Mule 4 for Mule 3 Users self-study course
- Note: If you have not taken one of these courses or passed the exam, you will be contacted to confirm your qualifications.
- If new to functional programming, read An introduction to functional programming in JavaScript.

## What You Will Learn

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

- Write generalized and reusable transformations using variables, functions, DataWeave modules and mappings, and dynamic evaluation components
- Build up complex transformations from smaller testable steps
- Build more robust and testable functions and expressions using strong typing, match operators, error handling, and logging
- Create, transform, filter, combine, shuffle, select from, and reduce complex data structures that include nested arrays, objects, and arrays of objects
- Recursively replace or format every element or a list of elements in a nested schema

### COURSE SYLLABUS

## 5 Modules, 18 Topics

01

### Transforming Data Using Metadata

#### TOPICS

- Apply DataWeave fundamentals as learned in the Development Fundamentals course
- Configure metadata for DataWeave transformation input and output
- Set example input for DataWeave transformations

02

### Organizing DataWeave Code with Variables and Functions

#### TOPICS

- Organize DataWeave code into variables and functions
- Pass functions and lambda expressions as parameters to other DataWeave functions
- Chain DataWeave functions together
- Create and use reusable DataWeave modules
- Write more robust functions using the match operator to test for data types

03

## Constructing Arrays and Objects

### TOPICS

- Add components to and remove elements from arrays and objects
- Construct objects from lists of DataWeave expressions using object constructor curly braces { }
- Troubleshoot common issues when using object constructor curly braces { }

04

## Iteratively Transforming Data Using Mapping Operators

### TOPICS

- Transform elements of arrays into a new array using the map operator
- Transform elements of objects into a new object using the mapObject operator
- Combine map and mapObject operators to transform complex schema
- Extract an array of keys and/or values from an object using the pluck operator
- Reduce and accumulate array elements to other output types using the reduce operator

05

## Recursively Transforming Complex Structures

### TOPICS

- Write recursive functions to transform complex schema
- Replace keys or values at any level of a nested data structure using a lookup object

#### 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

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Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

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