



MuleSoft Certified Developer – Integration and  
API Associate (Mule 3.9)  
Exam Preparation Guide

Mule Runtime 3.9  
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# MCD – Integration and API Associate (Mule 3.9)

## Exam Preparation Guide

### Preparation guide purpose

The purpose of this guide is to help you understand what knowledge and skills are needed to successfully pass the proctored *MCD – Integration and API Associate (Mule 3.9)* exam. It does not provide that knowledge, but includes information on how to obtain that knowledge.

### Exam objective

A candidate qualified to meet the expectations of a credentialed individual is a new-to-MuleSoft developer (<6 months full-time) that can successfully work on MuleSoft projects with guidance and supervision. The candidate should be able to design, build, test and debug, deploy, and manage basic APIs and integrations: moving from Anypoint Platform to Anypoint Studio and back. They should be able to:

- Use Anypoint Platform to take a basic API through the essential steps of its complete lifecycle: design, build, deploy, manage, and govern.
- Use Anypoint Studio to build, test, and debug basic integrations and API implementations.
- Connect to a range of resources including databases, files, web services, SaaS applications, and JMS queues.
- Perform basic data transformations using DataWeave.
- Control message flow.
- Handle errors.
- Process batch records

In order to pass the exam, you need to have a strong programming background and be able to apply the concepts listed in the exam topics (the [Anypoint Platform Development: Fundamentals](#) outline) included in this guide. Note: the exam questions do not necessarily map exactly to the course content; you will need to apply the knowledge acquired in the course.

### Preparation recommendations

The best preparation for the exam is to attend the instructor-led *Anypoint Platform Development: Fundamentals* training course or to take the self-paced *MuleSoft.U Development Fundamentals* course. Data shows that people who take one of these courses usually pass the exam and people who do not take one of these courses are unlikely to pass unless they have months of hands-on Mule experience. If you do not take one of these courses, be sure to review the exam topics included in this guide and make sure that you have experience with all the topics.

## Required experience

The scenarios described in this exam might occur in a developer's first Mule project. No edge cases were used in the creation of this exam, and there are no trick questions. While the content of the exam is covered in *Anypoint Platform Development: Fundamentals* and *MuleSoft.U Development Fundamentals*, we've found that taking the exam immediately after the course is over does not usually lead to a successful pass on the first attempt. Instead, we recommend you digest the material and review the following blueprint to identify gaps in knowledge.

## Intended audience

The target audience for the developer courses and the exam are people that have:

- Experience with Java (preferred) or another object-oriented language.
- A basic understanding of data formats such as XML, CSV, and JSON.
- A basic understanding of typical integration technologies such as HTTP, JMS, JDBC, REST, and SOAP.

This typically maps to roles including:

- Developers (various languages)
- Project Managers
- Solution Consultants
- Technical Architects
- Program Managers
- System Integrators
- Business Architects

## Exam cost

The exam can be purchased for \$250, 1 Flexible Training Credit, OR using a voucher obtained by attending Anypoint Platform Development: Fundamentals. For more information, visit <http://help.learn.mulesoft.com>.

## Exam registration

The exam is administered via the Kryterion Webassessor testing platform. To register for the exam, go to <https://www.webassessor.com/home.do?page=PUBLIC&branding=MULESOFT>, create a user profile, log in, select Register for an Exam, and select the **MCD – Integration and API Associate (Mule 3.9)** exam. You will have the option of selecting either the Online Proctoring Option, or the Kryterion Test Center option. On the payment screen, you will have the option of paying by credit card and/or entering a voucher/coupon code.

## Exam format

Format:	Multiple-choice, closed book, proctored.
Questions:	60 multiple choice or multiple selection questions
Duration:	100 minutes (1 hr 40 min)
Language:	English

## Delivery methods

MuleSoft offers two different modalities for certification. When purchasing your proctored exam, both options will appear when you select MCD – Integration and API Associate (Mule 3.9). Note that a fee applies if you attempt to cancel or reschedule your exam within 72 hours of your scheduled time, even if you purchase your exam with a voucher.

- Local Kryterion Testing Center
  - [Over 1000 locations worldwide](#)
  - [Onsite instructions here](#)
  - [Test-taker guide here](#)
- Online using the Kryterion Webassessor testing platform
  - [Online instructions here](#)
  - [Test-taker guide here](#)
  - This exam allows the use of **any webcam**. That means you can use the webcam in your laptop, and do not need to purchase an external camera.
  - [Check your internet speed and reliability](#)
    - We've heard from students that even after checking reliability with the tool, they've been expelled from the exam for an unstable connection. If you think your connection could potentially be unreliable we **strongly** recommend scheduling your exam at a test center.

## Certification validity

The *MCD – Integration and API Associate (Mule 3.9)* certification expires two years from the date of passing.

## Certification enablement path

The MuleSoft Training team has released a robust enablement package in order to assist the candidate's preparation. The quiz and exercises are included automatically in both the instructor-led *Anypoint Platform Development: Fundamentals* and self-study *MuleSoft.U Development Fundamentals*.

- **Self-assessment quiz**
  - Identifies strengths and weaknesses
  - 65 multiple-choice questions
  - Comparable difficulty to the proctored exam
  - Covers all topic areas: some questions include flow and/or code screenshots
- **Do-it-yourself exercises**
  - 14 DIY exercises
  - Starting code and solutions provided
  - Standalone: can be done in any order
- **Open access to MuleSoft.U**
  - All videos are available immediately and forever upon enrollment
  - Go deep on any topic, any time.
- **Expanded instructor-led training**
  - Recommended option for all customers and those with a tight project deadline
  - Onsite Fundamentals: now 5 days
  - Online Fundamentals: Extra 2 hours/day, short Friday
  - Free certification voucher (\$250 value)
  - Automatic enrollment in MuleSoft.U

## **Exam topics**

**Creating Application Networks with Anypoint Platform**

**Calling Web Services**

**Designing APIs**

**Accessing and Modifying Mule Messages**

**Debugging and Testing Mule Applications**

**Structuring Mule Applications**

**Building APIs with APIkit**

**Connecting to Resources**

**Controlling Message Flow**

**Handling Exceptions**

**Transforming Data**

**Deploying and Managing APIs and Integrations**