MuleSoft Certified Developer – API Design Associate (RAML 1.0) Certification Exam

Summary

A *MuleSoft Certified Developer – API Design Associate* should be able to create well-designed, modular API definitions using RAML 1.0 and Anypoint Platform. The *MCD – API Design Associate (RAML 1.0)* exam validates that an API designer has the required knowledge and skills to:

- Translate design requirements into API resources and methods.
- Use RAML to define API resources, methods, parameters, and responses.
- Model data in APIs using data types.
- Minimize repetition in API definitions using resource types and traits.
- Modularize APIs using libraries, overlays, and extensions.
- Specify API security schemes.
- Version APIs.
- Document and test APIs and make them discoverable.

Format

- Format: Multiple-choice, open book, unproctored online or in a testing center
- Length: 47 questions
- Duration: 90 minutes
- Pass score: 75%
- Language: English

The exam can be taken a maximum of 5 times, with a 24 hour wait between each attempt.

Cost

The exam can be purchased with one of the following. Each includes a coupon for two free retakes.

- $125
- 0.5 Flexible Training Credit
- A voucher obtained by attending the instructor-led *Anypoint Platform: API Design* course

Validity

The certification expires two years from the date of passing.

Preparation

The best preparation for the exam is to take the instructor-led _Anypoint Platform: API Design_ course. Candidates should be familiar with all of the content in the course and be able to apply the concepts.

Topics

The exam validates that the candidate can perform the following tasks.

Note: API:DES is the acronym for the Anypoint Platform: API Design course.

Explaining RESTful API Design	Resources
• Describe the common web API formats including SOAP, RPC, and REST • Describe REST API architecture • List the rules for retaining REST principles in APIs • Describe design-first approach for REST APIs	• API:DES Module 1
Translating Functional Requirements for APIs	
• Identify different categories and actions for a REST API • Convert categories to resources • Select HTTP methods to support the actions on the categories	• API:DES Module 2
Describing API-Led Connectivity and the API Lifecycle	
• Describe the API development lifecycle • Explain MuleSoft's API-led connectivity approach • Describe the API design lifecycle with Anypoint Platform	• API:DES Module 3
Defining Resources and Methods	
• Use RAML 1.0 to create API definitions • Define resources and methods in RAML API definitions • Specify URI parameters for necessary resource methods	• API:DES Module 4
Specifying Responses	
• Describe response structure in HTTP methods • Use status codes in HTTP responses • Add error handling and caching information to HTTP responses • Select and specify the types of content returned in HTTP responses	• API:DES Module 5

Documenting and Testing APIs	
• Add documentation and description nodes to RAML definitions • Use the mocking service to create API endpoints • Use the API Console to test API endpoints	• API:DES Module 6
Making APIs Discoverable	
• Create API Portals for learning about and testing APIs • Customize API Portals with themes • Publish API definitions to the Anypoint Exchange for discovery • Gather feedback from API consumers	• API:DES Module 7
Modeling Data	
• Create datatypes and their properties for resources • Create examples for datatypes • Include datatypes and examples in resource methods • Create scenarios in API Notebook to manipulate data	• API:DES Module 8
Reusing Patterns	
• Create and reference resource types patterns for reusability • Use traits to modularize methods	• API:DES Module 9
Modularizing APIs	
• Use libraries for greater API composability • Use overlays to internationalize resources • Use extensions to promote portability to test APIs in multiple environments	• API:DES Module 10
Securing APIs	
• Define API security requirements • Use security schemes to apply resource and method level policies • Define custom security schemes for APIs • Apply an OAuth2.0 external provider policy to resource methods	• API:DES Module 11
Enhancing API Responses using Hypermedia	
• Describe hypermedia • Simplify API discoverability using hypermedia • Use hypermedia to enhance API responses • Modify API definitions to generate state-specific client responses in resource methods	• API:DES Module 12

Versioning APIs	
• Explain when and when not to version APIs • Describe the methods for versioning APIs • Document changes in new API versions using shared API Portals • Deprecate older versions of APIs	• API:DES Module 13

Delivery methods

The exam is administered via the Kryterion Webassessor testing platform. The exam can be taken in-person at a testing center or online using a web camera.

In-person at a Kryterion Testing Center:
- Over 1000 locations worldwide
- Onsite instructions
- Test-taker guide

Online using the Kryterion Webassessor testing platform:
- Requires a webcam - a laptop webcam can be used, an external camera is not required
- Requires internet connectivity with 1 Mbps upload, 1 Mbps download, jitter <50ms, ping <200ms
- Check internet speed and reliability
  - Note: Some candidates are expelled from the exam for an unstable connection even after checking reliability with the tool. If you think your connection could potentially be unreliable, we **strongly** recommend scheduling your exam at a test center.
- Online instructions
- Test-taker guide

Registration

To register for the exam:

- Go to https://training.mulesoft.com/webassessor.
- Create a user profile.
- Log in.
- Select Register for an Exam.
- Select the *MuleSoft Certified Developer – API Design Associate (RAML 1.0)* exam.
- Select either the Online Proctoring Option or the Kryterion Test Center option.
- On the payment screen, select to pay by credit card or enter a voucher/coupon code.

  Note: A fee applies if an exam is cancelled or rescheduled within 72 hours of its scheduled time, even if the exam was purchased with a voucher.

More information

For more information, visit http://help.learn.mulesoft.com.