KOENIG
step forward

KOENIG SOLUTIONS · COURSE OUTLINE

Anypoint Platform: API Design

Learn to design, document, secure and version modular REST APIs using RAML 1.0 and Anypoint Platform.

2 Days	13	46
DURATION	MODULES	TOPICS

2 days in-person or online

COURSE OVERVIEW

This instructor-led course is for API designers, developers, and architects who want to get hands-on experience creating well-designed, modular API definitions using RAML 1.0 and Anypoint Platform.

WHO THIS COURSE IS FOR

API Designers **API Developers**

Solution Architects **Integration Architects**

PREREQUISITES

- There are no course prerequisites.

LEARNING OBJECTIVES

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

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

COURSE SYLLABUS

13 Modules, 46 Topics

01

Introducing RESTful API Design

TOPICS

- 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

02

Translating Functional Requirements for APIs

TOPICS

- Identify different categories and actions for a REST API
- Convert categories to resources
- Select HTTP methods to support the actions on the categories

03

Introducing API-Led Connectivity and the API Lifecycle

TOPICS

- Describe the API development lifecycle
- Explain MuleSoft's API-led connectivity approach
- Navigate Anypoint Platform
- Describe the API design lifecycle with Anypoint Platform

04

Defining API Resources and Methods

TOPICS

- Use RAML 1.0 to create API definitions
- Define resources and methods in RAML API definitions
- Specify URI parameters for necessary resource methods

05

Specifying Responses

TOPICS

- 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

06

Documenting and Testing APIs

TOPICS

- Add documentation and description nodes to RAML definitions
- Use the mocking service to create API endpoints
- Use the API Console to test API endpoints

07

Making APIs Discoverable

TOPICS

- 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

08

Modeling Data

TOPICS

- 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 using datatypes and examples

09

Reusing Patterns

TOPICS

- Create and reference resource types patterns for reusability
- Use traits to modularize methods

10

Modularizing APIs

TOPICS

- Use libraries for greater API composability
- Use overlays to internationalize resources
- Use extensions to promote portability to test APIs in multiple environments

11

Securing APIs

TOPICS

- 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

12

Enhancing API Responses Using Hypermedia

TOPICS

- 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

13

Versioning APIs

TOPICS

- 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

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

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

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