

## Create, Secure, and Publish APIs with IBM API Connect V5 (WD500G)

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### Course Summary

#### Description

This course teaches you how to create, publish, and secure APIs with IBM API Connect V5. You learn how to use the Developer Toolkit to define an API interface according to the OpenAPI specification. You assemble message processing policies in the API Designer web application and define client authorization schemes, such as OAuth 2.0, in the API definition. You build a Node.js API application with the LoopBack framework. You also package, stage, and publish an API with product and plan.

#### Objectives

After taking this course, students will be able to:

- Create APIs with the API Connect toolkit
- Implement APIs with the LoopBack Node.js framework
- Validate, filter, and transform API requests and responses with message processing policies
- Authorize client API requests with security definitions
- Enforce an OAuth flow with an OAuth 2.0 Provider API
- Stage, publish, and test APIs on the API Connect cloud

#### Topics

- Course introduction
- IBM API Connect V5 overview
- API Connect developer toolkit
- Creating an API definition
- Creating and publishing an API in API Designer
- Defining APIs that call REST and SOAP services
- Defining an API that calls an existing SOAP service
- Implementing APIs with the LoopBack framework
- Creating a LoopBack application
- LoopBack models, properties, and relationships
- Defining data sources with connectors
- Defining LoopBack data sources
- Implementing remote methods and event hooks
- Implementing event-driven functions with remote and operation hooks
- Assembling message processing policies
- Declaring client authorization requirements
- Creating an OAuth 2.0 provider
- Declaring an OAuth 2.0 provider and security requirement
- Deploying an API to a Liberty collective
- Deploying an API implementation to a Liberty collective
- Staging, publishing, and deploying an API product
- Defining and publishing an API product
- Subscribing and testing APIs
- Troubleshooting
- Course summary

#### Audience

This course is designed for API developers: software developers who define and implement API operations.

#### Prerequisites

Before taking this course, you should successfully complete course Developing REST APIs with Node.js for IBM Bluemix (VY102G).

#### Duration

Four days