

Using the DataPower Gateway with the IBM API Connect Developer Toolkit

ZD504 (Self-paced)

Course description

This course teaches the skills that are needed to create, assemble, and test APIs that use DataPower policies in API Connect.

There are no presentations in this course; it contains only hands-on lab exercises. You assemble APIs and test these APIs from the Developer Toolkit on a remote DataPower Gateway Docker image with the prerequisite software installed.

Student workstations for this course require connectivity to the internet. Students download the DataPower Gateway onto the course image during the exercises as a Docker image.

For information about other related courses, see the IBM Training website:

http://www.ibm.com/training

General information

Delivery method

Self-paced

Course level

ERC 2.0

Product and version

IBM API Connect version 5.0.7 Developer Toolkit

Audience

This course is designed for API developers who use the Developer Toolkit of the IBM API Connect product to define and test APIs on an embedded DataPower Gateway.

Learning objectives

After completing this course, you should be able to:

* Use API Connect Developer Toolkit terminal commands
* Work with the API Designer graphical user interface of the Developer Toolkit
* Create a REST API by importing an OpenAPI definition file
* Implement an API assembly that calls a backend REST service
* Import a Web Services Description Language (WSDL) file into a SOAP API
* Implement an API assembly that calls a backend SOAP service
* Include DataPower policies in an API assembly
* Test API operations on the DataPower gateway from the API Designer

Prerequisites

* You should understand the concepts of application programming interfaces (APIs), as described at https://developer.ibm.com/apiconnect/
* Some experience with the IBM API Connect Developer Toolkit is helpful.
* Some knowledge of Docker is helpful.

Duration

0.3 days

Skill level

Intermediate

Notes

The following unit and exercise durations are estimates, and might not reflect every class experience. If the course is customized or abbreviated, the duration of unchanged units will probably increase.

This course is a stand-alone course.

Course agenda

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| Exercise 1. Defining an API that calls a REST service with the Developer Toolkit DataPower gateway  Duration: 1 hour | |
| Overview | You start this exercise by reviewing the API Connect Developer Toolkit commands in the terminal interface. Next, you open the API Designer user interface of the Developer Toolkit and define an API interface by importing a set of API REST operations and data definitions in an OpenAPI document. You review an assembly in API Designer that calls REST operations through DataPower policies. You test the assembly from the API Designer user interface of the Developer Toolkit by calling the operation on the embedded DataPower gateway. You also define an API that uses DataPower policies in an API assembly.  The DataPower Gateway is downloaded transparently as a Docker image onto the course image during the exercises. The prerequisites for the download of the DataPower Gateway Docker image include the following software that is preinstalled on the image: Node.js, Node package manager (npm), Docker, Docker Compose, and the IBM API Connect Developer Toolkit. |
| Learning objectives | After completing this exercise, you should be able to:   * Run apic commands from the terminal interface * Create an API and import an OpenAPI definition * Edit the API definition in the API Designer user interface * Review an API assembly that calls a backend REST service * Test the API in the API Developer Toolkit by calling the API that runs on an embedded DataPower gateway that runs as a Docker image. |

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| Exercise 2. Defining an API that calls a SOAP service with the Developer Toolkit DataPower gateway  Duration: 1 hour and 15 minutes | |
| Overview | In this exercise, you define an API that calls an existing SOAP service. You define API paths and methods that map to SOAP web service operations, and map SOAP message types to API data types. You then test the SOAP API in the API Designer by calling the API. |
| Learning objectives | After completing this exercise, you should be able to:   * Review the contents of the WSDL document * Create an API definition with the API Designer web application * Review the proxy policy in the API assembly * Test the SOAP API from the API Designer test client by calling the API on the DataPower Gateway that runs as a Docker image. |

For more information

To learn more about this course and other related offerings, and to schedule training, see ibm.com/training

To learn more about validating your technical skills with IBM certification, see ibm.com/certify

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