

Building Solutions with Apigee X

Modernize your APIs for the cloud with Apigee X

3 jours / 21h

What you'll learn

- Secure the backend of your legacy application using mutual TLS
- Design applications with an API first design using the OpenAPI specification
- Integrate your API proxy with the Cloud Data Loss Prevention (DLP) API
- Best practices for site reliability with Apigee using monitoring and logging
- Modernize application deployment using Cloud Run and Cloud Build
- Authentication using API Keys and Firebase Authentication with Apigee
- Harden APIs using Apigee Policies and Cloud Armor
- Mitigate external threats with reCAPTCHA Enterprise
- Leverage Apigee Analytics to show custom data capture and reporting
- Leverage Cloud Code in your development environment to locally emulate Apigee
- Use Apigee Integration to improve connectivity with other services in Google Cloud

Target audience

Customers

Prerequisites

Completion of the “Developing APIs with Google Cloud’s Apigee API Platform” course or equivalent experience with Google Cloud and Apigee.

Course Outline

Module 01: Why Apigee X

Topics

- Why Apigee X
- Introduction to use case – Who are you?
- One/Two-Way TLS
- Getting Started

Objectives

- Review Apigee X concepts
- Review difference between one-way and two-way TLS

Activities

- Lab: The Journey (Parts 1 and 2)

Module 02: The Target

Topics

- Implement a mTLS gateway
- API Keys
- Control your API's Response

Objectives

- Implement a mTLS gateway
- Control your API's Response

Activities:

- Lab: The Journey (Parts 3 and 4)

Module 03: API First Design with OpenAPI

- API First Design
- The Show Me Now Rest API
- What is OpenAPI
- Apigee Debugging

Objectives

- Understand API first design
- Build an OpenAPI specification
- Debug your API proxies

Activities

- Lab: API First Design with OpenAPI

Module 04: Integrating External Services

Topics

- Cloud Data Loss Prevention (DLP) API
- Apigee ServiceCallout Policy
- Message Logging/Cloud Logging
- Uptime Checks
- Alerting Policies

Objectives

- Explore the use of the Data Loss Prevention API
- Interface Apigee with external services
- Implement uptime checks and alerting policies

Activities

- Lab: Integrating External Services

Module 05 : Consuming Apigee Resources

Topics

- Introducing the Client Application
- Application Build Tools
- Firebase Authentication
- Apigee Security Policies

Objectives

- Build and host a client application
- Implement Firebase authentication
- Work with Apigee security policies

Activities

- Lab: Integrating a Client Application

Module 06 : Hardening your API

Topics

- API security vulnerabilities
- JSON threat protection policies
- Cloud Armor
- The Hacker Tools

Objectives

- Resolve common API security vulnerabilities
- Mitigate JSON threats
- Protect your API with Cloud Armor
- Investigate API security

Activities

- Lab: Hardening your API

Module 07 : External Threat Mitigation

Topics

- reCAPTCHA Enterprise
- Apigee Data Collection
- Apigee Custom Reports

Objectives

- Implement reCAPTCHA Enterprise in Apigee
- Build Apigee custom reports for analytics

Activities

- Lab: External Threat Mitigation with reCAPTCHA Enterprise

Module 08 : Expand your Apigee Toolset

Topics

- The Apigee management API

- API Proxy Deployment Options
- Local development using Cloud Code
- Apigee emulator
- Development workflow

Objectives

- Implement the Apigee management API
- Deploy an API proxy using different options
- Develop API proxies locally
- Plan your Apigee development workflow

Activities

- Lab: Developing for Apigee using Cloud Code

Module 09 : Application Integration

Topics

- Introduction to Application Integration
- Triggers
- Tasks
- Apigee Integration Policies

Objectives

- Use Application Integration with Apigee
- Create triggers and tasks in Application Integration
- Call integrations within Apigee

Activities

- Lab: Expanding your API with Apigee Integrations

Module 09 : Consuming Apigee Resources

Topics

Objectives

Activities

Module 10 : Summary

Topics

- Course Debrief
- Apigee X or Apigee Hybrid
- What's next?

Objectives

- Discuss differences between Apigee X and Apigee Hybrid