Training: Google Cloud
Managing Google Cloud's Apigee API Platform for Hybrid Cloud

Google Cloud

TRAINING GOALS:

Learn how to install and manage Google Cloud's Apigee API Platform in a hybrid cloud. This course uses lectures and a lab to show you how to install, manage, and scale your Apigee hybrid API Platform.

What you'll learn

- Identify the purpose and value of Apigee API Platform.
- Describe basic concepts and capabilities of Google Cloud, Kubernetes, REST, and Anthos.
- Discuss Apigee API Platform architecture and recommended practices for topology design.
- Explain Apigee terminology and logical organizational structures.
- Install Apigee hybrid on Google Kubernetes Engine.
- Discuss infrastructure security, user access management, data storage, and encryption practices used in Apigee hybrid.
- Manage environments in Apigee hybrid.
- Discuss capacity planning and scale runtime components in the hybrid runtime plane.
- Describe the upgrade and rollback process used for the Apigee hybrid installation.
- Troubleshoot and monitor the hybrid runtime plane components using logs, metrics, and analytics.

Audience

This course is primarily intended for Cloud Architect, Cloud Engineer

Products

- Apigee hybrid

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CONSPECT:

- Fundamentals
  - Topics
  - Apigee overview
  - Introduction to Google Cloud
  - Introduction to Kubernetes and Anthos
  - REST concepts
  - Objectives
    - Describe the Apigee API management platform, and the services and features it provides.
    - Describe basic concepts and the capabilities of Google Cloud, Kubernetes, REST, and Anthos.
  - Activities
    - 1 quiz
- Architecture
  - Topics
    - Terminology and organizational structure
    - Architecture
    - Networking
    - Apigee API
  - Objectives
    - Describe the architecture and networking used in Apigee hybrid, and the various components that are used to operate the runtime plane.
    - Describe the terminology, organizational structure, and the management API used in Apigee hybrid.
  - Activities
    - 1 quiz
- Installation and platform operation
  - Topics
    - Installation process
    - Platform operation
    - Backup and restore
  - Objectives
    - Describe the process involved in installing Apigee hybrid.
    - Describe the tools and commands used to configure and manage the components of the hybrid runtime plane.

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        - Perform an installation of the Apigee hybrid runtime plane in a Kubernetes cluster on GKE.
        - Configure the Apigee hybrid runtime plane.
        - Configure Apigee hybrid environments and environment groups by using the Apigee hybrid UI.
        - Deploy simple API proxies to the Apigee hybrid environments.
        - Validate Apigee hybrid environments by testing API proxies.
    - Activities
        - 1 lab and 1 quiz
- Deployment and environment management
    - Topics
        - Building and deploying API proxies
        - Debugging
        - Developer portal solutions
        - Managing environments
    - Objectives
        - Manage environments and API proxy deployments in Apigee hybrid.
    - Activities
        - 1 quiz
- Security
    - Topics
        - Infrastructure security
        - Data storage and encryption
        - RBAC
    - Objectives
        - Determine how hybrid runtime components communicate securely within the runtime plane and with the hybrid management plane in Google Cloud.
        - Describe how data is encrypted and how you can use role-based access control to manage user access in Apigee hybrid.
    - Activities
        - 1 quiz
- Capacity planning and scaling
    - Topics
        - Capacity planning
        - Scaling
    - Objectives
        - Determine how to plan capacity for the Apigee hybrid runtime plane.

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- Scale the Apigee hybrid runtime components.
- Activities
  - 1 quiz

- Upgrade
  - Topics
    - Upgrade process
    - Rollback process
  - Objectives
    - Upgrade an Apigee hybrid installation to a new release.
    - Discuss the steps to roll back an upgraded Apigee hybrid installation.
  - Activities
    - 1 quiz
- Logging and monitoring
  - Topics
    - Logging
    - Metrics
    - Analytics
    - Monitoring and troubleshooting
    - Apigee support
  - Objectives
    - Explain how the Apigee runtime plane generates logs, metrics, and analytics data.
    - Monitor the health of Apigee hybrid runtime plane components.
    - Troubleshoot issues with the runtime components, using logs and metrics data.
  - Activities
    - 1 quiz

REQUIREMENTS:

- Familiarity with Linux commands and command line interface
- Basic understanding of Google Cloud
- Basic understanding of GKE
- Basic understanding of networking
- Basic understanding of shell scripts, XML, JSON, HTTP, REST, and TLS

Difficulty level

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CERTIFICATE:

The participants will obtain certificates signed by Google Cloud (course completion).

TRAINER:

Authorized Google Cloud Trainer

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