Google Cloud Platform for Systems Operations Professionals (CPO 200)

Duración: 4 Días   Código del Curso: GO8328

Temario:

Learn about the implementation of application environments and public cloud infrastructure using Google Cloud Platform.
In this course, you will learn about the implementation of application environments and public cloud infrastructure using Google Cloud Platform.
Through a combination of instructor-led presentations and hands-on labs, you will learn how to deploy cloud infrastructure components such as networks, systems, and applications. This course is designed to give you a robust hands-on experience and is primarily lab-focused.

Dirigido a:

Systems operations professionals and systems administrators using Google Cloud Platform to create or migrate application environments and infrastructure

Objetivos:

- In this course you will learn:

- Core tenants to be considered when designing and deploying to a public cloud environment

- Use the Google Developers Console to create and manage multiple projects

- Use service accounts and permissions to share view-level access between projects

- Create Google Compute Engine instances

- Create a non-default network and review your network configuration

- Compare default and non-default networks

- Create firewall-rules with and without tags

- Create and use a customized Compute Engine image

- Set authorization scopes for a Compute Engine instance

- Reserve an external IP address for an instance

- Snapshot a Compute Engine instance

- Snapshot a data disk

- Create an image using a boot persistent disk

- Upload an image to Google Container Registry

- Create a Compute Engine instance group with instances

- Create a Cloud SQL instance using the Cloud SDK

- Deploy and test a web application

- Add instance and project metadata

- Query instance and project metadata using the Cloud SDK

- Create an instance using a startup script in metadata and Google Cloud Storage

- Create an instance with a shutdown script and install the Cloud Logging agent

- Use the API Explorer to query an API request

- Run sample code that uses the Google API Client Library

- Test and build a container that uses the Cloud SQL APIs

- Create an instance template and managed instance group

- Configure a managed instance group for autoscaling

- Create multiple autoscaled managed instance groups

- Configure fault-tolerant HTTP load balancing

- Test health checks for use with HTTP load balancing

- Manage application deployment using Jinja and Python templates with Google Cloud Deployment Manager

- Delete Google Cloud Platform projects and resources

Prerequisitos:

- Have attended Google Cloud Platform Fundamentals (CP100A) (or equivalent experience)
- Basic proficiency with command-line tools and linux operating system environments
- Prior systems operations experience, either on-premises or in a public cloud environment

Contenido:

1. Google Cloud Platform Projects

- Project resources and quotas
- Purpose of Google Cloud Resource Manager and Identity and Access Management
- Use the Google Developers Console to create and manage multiple projects
- Use service accounts and permissions to share view-level access between projects

2. Instances

- How to create and move instances
- How to connect to and manage instances
- Create an instance using the Google Developers Console
- Configure the Cloud SDK on the Compute Engine instance
- Initialize Cloud Source Repositories using Git

3. Networks

- How to create and manage networks in projects
- How to create and manage firewall rules, routes, and IP addresses
- Create a non-default network
- Compare default and non-default networks
- Create firewall-rules with and without tags
- Review network configuration in Google Cloud Monitoring

4. Disks and Images

- How to create and manage persistent disks
- How to create and manage disk images
- Create an instance and install the Java 7 JRE from OpenJDK
- Create a customized Compute Engine image
- Launch and test a Compute Engine instance based on your image

5. Authorization

- Purposes of and use cases for Google Compute Engine service accounts
- Types of service account scopes
- Set authorization scopes for a Compute Engine instance
- Reserve the external IP address for the new instance
- Install and configure Jenkins on a Compute Engine instance

6. Snapshots

- Purpose of and use cases for disk snapshots
- Process of creating a snapshot
- Prepare and snapshot a Compute Engine instance
- Restore and test the snapshot to a different zone
- Snapshot a data disk without shutting down an instance

7. Google Cloud Storage

- Purpose of and use cases for Google Cloud Storage
- Methods for accessing Google Cloud Storage buckets and objects
- Security options available for Google Cloud Storage buckets and objects
- Create and configure Nearline and DRA buckets
- Modify the lifecycle management policy for a bucket
- Copy data to a bucket using the Cloud SDK
- Review, modify, and test bucket ACLs
- Configure Jenkins to perform a backup to Cloud Storage
- Test and verify that the backups are working
- Create a customized Jenkins build node instance
- Create an image using the instance's boot persistent disk
- Create a test build node instance based on the new image
- Test uploading images to Google Container Registry

8. Instance Groups

- Purpose of and use cases for instance groups
- Process of creating and using instance groups
- Create a Compute Engine instance group with instances
- Define Jenkins build tasks and run them
- Run the build tasks to create a guestbook image

9. Google Cloud SQL

- How to create and administer Cloud SQL instances
- How to access Cloud SQL instances from Compute Engine instances
- Create a Cloud SQL instance using the Cloud SDK
- Create a Compute Engine instance from a custom image
- Deploy and test the Guestbook web

11. Startup and Shutdown Scripts

- Purpose of and use cases for startup and shutdown scripts
- Create an instance with a startup script in metadata
- Create an instance with a startup script from Cloud Storage
- Create an instance with a shutdown script and install the Cloud Logging agent
- Use the API Explorer to query an API request
- Run sample code that uses the Google API Client Library
- Test and build a container that uses the Cloud SQL APIs
- Create a new Compute Engine image

12. Autoscaling

- Use cases for autoscaling and how autoscaling functions
- purpose of autoscaling policies
- Create an instance template and managed instance group
- Configure the managed instance group for autoscaling
- Generate an artificial load to trigger scaling of your cluster

13. Load Balancing

- Differences between network load balancing and HTTP load balancing
- Purpose of and use cases for cross-region and content-based load balancing
- Create multiple autoscaled managed instance groups
- Configure fault-tolerant HTTP load balancing
- Test health checks for use with HTTP load balancing
- Create a Guestbook deployment using a plain YAML format
- Manage a Guestbook deployment using a Jinja template
- Create a Guestbook deployment using Python templates
- Delete Google Cloud Platform resources
- Test dependencies between resources
- Delete Google Cloud Platform project

---

www.globalknowledge.com/es-es/ info.cursos@globalknowledge.es (34) 91 425 06 60

application

10. Metadata

- Purpose of metadata and identify the use cases for project and instance metadata
- How to set and query metadata
- Add instance and project metadata
- Query instance and project metadata using the Cloud SDK
- Query metadata from inside a Compute Engine instance

Más información:

Para más información o para reservar tu plaza llámanos al (34) 91 425 06 60

info.cursos@globalknowledge.es

www.globalknowledge.com/es-es/

Global Knowledge Network Spain, C/ Retama 7, 6ª planta, 28045 Madrid