Getting started with Google Kubernetes Engine

Course code: GCPSGKE

This course will teach you how to containerize workloads in Docker containers, deploy them to Kubernetes clusters provided by Google Kubernetes Engine, and scale those workloads to handle increased traffic. You'll also learn how to continuously deploy new code in a Kubernetes cluster to provide application updates.

Who is the course for

Application developers, Cloud Solutions Architects, DevOps Engineers, IT managers

Individuals using Google Cloud to create new solutions or to integrate existing systems, application environments, and

infrastructure with the Google Cloud.

What we teach you
- Understand how software containers work.
- Understand the architecture of Kubernetes.
- Understand the architecture of Google Cloud.
- Understand how pod networking works in Google Kubernetes Engine.
- Create and manage Kubernetes Engine clusters using the Google Cloud Console and gcloud/kubectl commands.

Required skills
- Basic proficiency with command-line tools and Linux operating system environments, as well as Web server technologies such as Nginx
- Systems Operations experience including deploying and managing applications, either on-premises or in a public cloud environment
- **It is highly recommened to have attended the Architecting with Google Compute Engine (**
- **GCPACE**
- **)**

Course outline
- Use the Google Cloud Console
- Use Cloud Shell
- Define Cloud Computing
- Identify Google Cloud compute services
- Understand Regions and Zones
- Understand the Cloud Resource Hierarchy
- Administer your Google Cloud Resources

Module 2: Containers and Kubernetes in Google Cloud
- Create a Container Using Cloud Build
- Store a Container in Container Registry
- Understand the Relationship Between Kubernetes and Google Kubernetes Engine (GKE)
- Understand how to Choose Among Google Cloud Compute Platforms

Module 3: Kubernetes Architecture
- Understand the Architecture of Kubernetes: Pods, Namespaces
- Understand the Control-plane Components of Kubernetes
- Create Container Images using Cloud Build
- Store Container Images in Container Registry
- Create a Kubernetes Engine Cluster

Module 4: Introduction to Kubernetes Workloads
- The kubectl Command
- Introduction to Deployments

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- Pod Networking
- Volumes Overview