

Google Cloud Development

Audience Course Google Cloud Development

The course Google Cloud Development is intended for developers who want to use Google Cloud to develop and deploy cloud applications.

Prerequisites Course Google Cloud Development

Experience with a modern programming language such as C#, Java, Python or PHP is required to participate in this course.

Realization Training Google Cloud Development

The theory is treated on the basis of presentation slides and demos. During the course theory and exercises are interchanged. The course material is in English. Course times are from 9.30 to 16.30.

Certification Course Google Cloud Development

After successful completion of the course participants receive a certificate Google Cloud Development.



Content Course Google Cloud Development

In the course Google Cloud Development participants learn to use the Google Cloud Platform for developing and deploying Cloud Applications and Services. With the Google Cloud platform you can create and manage applications in the cloud. The applications are then hosted in a network of Google data centers and it is no longer necessary to purchase and manage a local server.

Google Cloud Intro

The Google Cloud Development course starts with an overview of the services and the Zones and Regions that the Google Cloud Platform has to offer. The Pay as you Go pricing model and renting services are discussed as well.

Compute Engine

Next Google's Compute Engine is covered with which virtual machines can be created and loaded into Google's Cloud infrastructure. Attention is also paid to Google's App Engine with which web and mobile applications can be made in various programming languages and which are the executed on a managed and serverless platform.

Cloud Data Access

The various forms of storage that the Google Cloud has to offer are also on the program of the course. Treated are Object Storage, Cache and

Persistent Storage. Cloud SQL for accessing relational databases and NoSQL data access in the Google Cloud will also be discussed.

Networking

Attention is also paid to networking with Google Cloud, including setting up a Virtual Private Cloud and Virtual Private Networks. This also includes the configuration of Cloud DNS and setting up Load Balancing.

Cloud Functions

Next it is explained how Google Cloud supports serverless computing with Cloud Functions. With serverless computing, servers run in the cloud without the need to configure them. The function lifecycle, the Cloud Functions Dashboard and HTTP Triggers are covered.

Kubernetes

Finally attention is paid to how a Kubernetes cluster can be set up in Google Cloud. Explained are containers orchestration, managing nodes and pods and monitoring a Kubernetes Cluster.

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Modules Course Google Cloud Development

Module 1 : Google Cloud Intro	Module 2 : Compute Engine	Module 3 : Cloud Data Access
What is Google Cloud?	Virtual Machine Images	Types of Storage
Types of Cloud Services	VM Projects	Object Storage
Compute Resources	VM Configuration	Cache
Storage Services	Preemptible VM's	Persistent Storage
Networking Services	Custom Machine Types	Storage Data Models
Specialized Services	VM Creation	Cloud SQL
Elastic Resource Allocation	Network Access	Relational Databases
Developer Tools	Monitoring VM's	Connecting to MySQL
Zones and Regions	Instance Groups	Importing Data
Cloud Shell	Computing with App Engine	Exporting Data
Cloud SDK	App Engine Components	Backing Up MySQL
Pay as You Go Pricing	Deploying an App	Managing Cloud Storage
Renting Resources	Scaling App Engine Apps	NoSQL Datastore
Module 4 : Networking	Module 5 : Cloud Functions	Module 6 : Kubernetes
Module 4 : Networking Virtual Private Cloud	Module 5 : Cloud Functions What are Cloud Functions?	Module 6 : Kubernetes Intro Kubernetes Engine
Module 4 : Networking Virtual Private Cloud VPC with Subnets	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules Virtual Private Network	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers Event Object	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture Deploying Clusters
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules Virtual Private Network VPC with Cloud Console	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers Event Object Runtime Environments	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture Deploying Clusters Kubernetes Objects
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules Virtual Private Network VPC with Cloud Console Configuring Cloud DNS	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers Event Object Runtime Environments Function Lifecycle	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture Deploying Clusters Kubernetes Objects Nodes and Pods
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules Virtual Private Network VPC with Cloud Console Configuring Cloud DNS DNS Managed Zones	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers Event Object Runtime Environments Function Lifecycle Deploying Cloud Functions	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture Deploying Clusters Kubernetes Objects Nodes and Pods Containers
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules Virtual Private Network VPC with Cloud Console Configuring Cloud DNS DNS Managed Zones Types of Load Balancers	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers Event Object Runtime Environments Function Lifecycle Deploying Cloud Functions Cloud Functions Dashboard	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture Deploying Clusters Kubernetes Objects Nodes and Pods Containers Deploying Pods
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules Virtual Private Network VPC with Cloud Console Configuring Cloud DNS DNS Managed Zones Types of Load Balancers Configuring Load Balancers	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers Event Object Runtime Environments Function Lifecycle Deploying Cloud Functions Cloud Functions Dashboard Event from Storage	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture Deploying Clusters Kubernetes Objects Nodes and Pods Containers Deploying Pods Monitoring Kubernetes
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules Virtual Private Network VPC with Cloud Console Configuring Cloud DNS DNS Managed Zones Types of Load Balancers Configuring Load Balancers Managing IP Addresses	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers Event Object Runtime Environments Function Lifecycle Deploying Cloud Functions Cloud Functions Dashboard Event from Storage Events from Pub/Sub	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture Deploying Clusters Kubernetes Objects Nodes and Pods Containers Deploying Pods Monitoring Kubernetes Managing Nodes
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules Virtual Private Network VPC with Cloud Console Configuring Cloud DNS DNS Managed Zones Types of Load Balancers Configuring Load Balancers Managing IP Addresses Expanding CIDR Blocks	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers Event Object Runtime Environments Function Lifecycle Deploying Cloud Functions Cloud Functions Dashboard Event from Storage Events from Pub/Sub HTTP Triggers	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture Deploying Clusters Kubernetes Objects Nodes and Pods Containers Deploying Pods Monitoring Kubernetes Managing Nodes Managing Pods
Module 4 : Networking Virtual Private Cloud VPC with Subnets Creating Firewall Rules Virtual Private Network VPC with Cloud Console Configuring Cloud DNS DNS Managed Zones Types of Load Balancers Configuring Load Balancers Managing IP Addresses Expanding CIDR Blocks Reserving IP Addresses	Module 5 : Cloud Functions What are Cloud Functions? Serverless Computing Events and Triggers Event Object Runtime Environments Function Lifecycle Deploying Cloud Functions Cloud Functions Dashboard Event from Storage Events from Pub/Sub HTTP Triggers Using gcloud	Module 6 : Kubernetes Intro Kubernetes Engine Kubernetes Clusters Kubernetes Architecture Deploying Clusters Kubernetes Objects Nodes and Pods Containers Deploying Pods Monitoring Kubernetes Managing Nodes Managing Pods Kubernetes Services

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