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# Google Cloud Run training

2 days (14 hours)

#### Presentation

Our Google Cloud Run (GCP) training course will teach you how to use this computing platform, which runs containers that can be accessed via events or requests made directly on the Gogole infrastructure.

During our course, you'll learn how to create a Cloud Run job and deploy it from a source that automatically puts your code into a container image, which is then deployed in Cloud Run.

You can build an application using all your usual tools, accessing an SQL database to create dynamic HTML pages.

Learn how to implement Cloud Run's security best practices to protect your personal data, and how to use all GCP's features to meet your security requirements.

The training will be presented with the <u>latest version</u> of Google Cloud Run, released on September 21, 2023.

### **Objectives**

- Be able to store data and files with different storage options
- Master the use of the Cloud Run tool
- Monitoring and optimizing service performance
- Acquire networking and security management skills
- Deploy and manage web services

# Target audience

- Developments
- Network administrator
- Cloud Engineer
- DevOps

# Prerequisites

- Knowledge of the Cloud
- Experience in IT development

### Google Cloud Run training program

#### Tool introduction

- Product presentation
- Cloud Run resource model
- Container performance contract
- Find out if your service is right for Cloud Run

#### First steps

- Explore quick start guides
  - Creating and deploying a sample Web service
  - Create and run a sample job
- Setting up your environment
- Planning and preparing your service
- Compiling and testing

### **Broadcast HTTP requests**

- Deploying services
- Distribute Web traffic
- Manage services
- Configuring services
- Call and trigger services
- Best practices

### Running jobs in the background

- Create tasks
- Execute tasks
  - Execute tasks according to a schedule
  - Execute jobs from workflows
- Setting up jobs

Manage job offers

#### Configuring networking

- Setting up a private network
- Send traffic to a standard VPC network
- Sending traffic to a shared VPC network
- Static outgoing IP address
- Network security
  - Restrict entry (services)
  - Use VPC Service Controls (VPC SC)

### Security

- Introduction to safety
- Query authentication
- Securing your resources

#### Storing persistent data and files

- Storage options
- Connecting to a Cloud SQL instance
- Network file systems

#### Monitoring and logging

- Monitor status and performance
- Logging and displaying logs
- Audit logs
- Error Reporting
- Using distributed tracing for services
- Customized metrics using an OpenTelemetry sidebar

### Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

### Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is confirmed, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives with regard to the training to come, within the limits imposed by the format selected. This

The questionnaire also enables us to anticipate any internal connection or security problems (intra-company or virtual classroom) that could be problematic for the follow-up and smooth running of the training session.

# Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

# Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

#### Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

#### Sanction

A certificate will be issued to each trainee who completes the course.