

Course : Application Development with Cloud Run

Official course, preparation for Google Cloud certification exams

Practical course - 3d - 21h00 - Ref. ADY

Price : 2890 € E.T.

With this training course, you'll discover the fundamentals, practices, features and tools applicable to the development of modern native cloud applications using Google Cloud Run. Through a combination of lectures, hands-on workshops and supplementary materials, you'll learn how to design, implement, deploy, secure, manage and scale applications on Google Cloud using Cloud Run.

Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Understanding Cloud Run in detail to rapidly deploy and scale containerized applications
- ✓ Write, migrate and execute code in various languages (Go, Python, Java, Ruby, Node.js)
- ✓ Securing communications between services with service identities
- ✓ Design highly available, low-latency applications
- ✓ Connect to managed databases and benefit from simplified infrastructure

Intended audience

Cloud developers, API developers, customers and partners.

Prerequisites

Familiarity with Linux commands and command-line interface. Basic understanding of Google Cloud, networks, a programming language and shell scripts, YAML, JSON, etc.

Certification

We recommend you take this course if you want to prepare for the [Google Cloud Professional Cloud Developer " certification.

[Comment passer votre examen ?](#)

PARTICIPANTS

Cloud developers, API developers, customers and partners.

PREREQUISITES

Familiarity with Linux commands and command-line interface. Basic understanding of Google Cloud, networks, a programming language and shell scripts, YAML, JSON, etc.

TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS

Assessment of targeted skills prior to training.

Assessment by the participant, at the end of the training course, of the skills acquired during the training course.

Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.

At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.

An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

Practical details

Teaching methods

Training in French. Official course material in digital format and in English. Good understanding of written English.

Course schedule

1 Introduction to Cloud Run

- Discover the role and principles of Cloud Run.
- Identify the challenges: availability, latency, productivity.
- Explore the benefits of serverless on Google Cloud.

2 How Cloud Run works

- Develop with the language and libraries of your choice.
- Store your images in the Artifact Registry.
- Enable autoscaling and understand pay-per-use billing.
- Manage ephemeral containers without internal storage.
- Exploit container portability via Knative.

Hands-on work

3 Building container images

- Analyze the structure of a container image.
- Create images with Buildpacks or Docker.
- Choose between source-based or image-based workflow.
- Apply good safety practices.

Hands-on work

4 Lifecycle and revision management

- Understand and master the container life cycle.
- Configure CPU/RAM limits and minimum instances.
- Deploy new revisions and manage traffic.

Hands-on work

5 Configuring identity and authorizations

- Handle Cloud IAM: roles, policies, service accounts.
- Secure your services with the least privilege.
- Avoid the risks of default account service.
- Call other APIs via client libraries.

Hands-on work

TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: psh-accueil@orsys.fr so that we can assess your request and its feasibility.

6 Processing requests

- Associate a personalized domain with your service.
- Configure Global Load Balancer and advanced routing.
- Distribute traffic between several regions.
- Accelerate your apps with Cloud CDN.

Hands-on work

7 Control incoming and outgoing accesses

- Filter and secure outgoing traffic.
- Define Ingress rules and apply Cloud Armor.
- Authenticate requests via IAM and OIDC.
- Connect your services via VPC and private access.

Hands-on work

8 Managing persistent data

- Store your data in external services.
- Connect Cloud Run to Cloud SQL via managed proxy.
- Optimize competition to avoid blockages.
- Deploy multi-regional architectures.
- Access Memorystore, Storage, Firestore and Spanner.

Hands-on work

9 Implement inter-departmental communication

- Send and consume messages via Pub/Sub.
- Manage retries, DLQ and idempotence.
- Choose Cloud Tasks for targeted tasks.
- Receive events via EventArc and Scheduler.

10 Orchestrating serverless workflows

- Build workflows with steps, jumps and variables.
- Call authenticated HTTPS endpoints and Cloud Run services.
- Visualize, execute and link your workflows.

11 Concepts not covered in this course

- KubeRun / Cloud Run for Anthos in detail.
- In-depth CI/CD.
- Google Cloud development tools in detail.
- API development and management with Apigee.

Dates and locations

REMOTE CLASS

2026: 17 Mar., 23 June, 6 Oct., 8 Dec.

PARIS LA DÉFENSE

2026: 17 Mar., 23 June, 6 Oct., 8 Dec.