Course : Build Streaming Data Pipelines on Google Cloud

Official Course: Preparation for Google Cloud Certifications

Practical course - 1d - 7h00 - Ref. GS0
Price : 990 € E.T.

NEW

In this course, you'll learn how to create and manage streaming data pipelines on Google Cloud. You'll work with real-time data and use tools such as Pub/Sub, Dataflow, and BigQuery through hands-on, real-world exercises.

Teaching objectives

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

- Understand the concepts and challenges of streaming data pipelines.
- Ingest and manage data in real time with Pub/Sub and Kafka.
- Build and deploy pipelines with Dataflow.
- Implement real-time analytics solutions using BigQuery and Bigtable.
- Identify use cases and architectures suitable for streaming (ETL, AI/ML, applications).

Intended audience

Data engineers, data analysts, and data architects who want to work with streaming data on Google Cloud.

Prerequisites

Basic knowledge of Python, SQL, and data engineering, as well as familiarity with Google Cloud, along with a good understanding of written English.

Practical details

Teaching methods

The training session will be conducted in French. Official course materials are available in English and in digital format.

Course schedule

PARTICIPANTS

Data engineers, data analysts, and data architects who want to work with streaming data on Google Cloud.

PREREQUISITES

Basic knowledge of Python, SQL, and data engineering, as well as familiarity with Google Cloud, along with a good understanding of written English.

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.

1 Streaming Basics

- Concepts of streaming data pipelines.
- Real-Time Issues and Challenges.
- Role in data engineering.

2 Use Cases and Architectures

- Streaming ETL.
- AI/ML Streaming.
- Real-time applications.
- Reverse ETL and typical architectures.

3 Deployment on Google Cloud

- Pub/Sub and Apache Kafka (ingestion).
- Dataflow (processing).
- BigQuery and Bigtable (analysis).
- Pipeline construction and deployment.

4 Summary and Practical Application

- Summary of Key Concepts.
- Integration of GCP services.
- Best Practices for Robust Pipelines.
- Final Case Study.

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.

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Dates and locations

REMOTE CLASS

2026 : 11 Dec.

2027 : 30 Mar., 21 June, 2 Sep., 14 Dec.

PARIS LA DÉFENSE

2027 : 30 Mar., 21 June, 2 Sep., 14 Dec.