

Course : Build Data Lakes and Data Warehouses with Google Cloud

Official Course: Preparation for Google Cloud Certifications

Practical course - 1d - 7h00 - Ref. GDL

Price : 990 € E.T.

NEW

In this course, you'll learn how to compare data architectures (data lake, data warehouse, data lakehouse) and implement a data lakehouse on Google Cloud using BigQuery, while incorporating governance, security, and advanced analytics.

Teaching objectives

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

- ✓ Compare data lake, data warehouse, and data lakehouse architectures.
- ✓ Evaluate the benefits of the lakehouse and choose the appropriate architecture.
- ✓ Build a data lakehouse using Cloud Storage, open formats, and BigQuery.
- ✓ Modernize data warehouses with BigQuery and BigLake.
- ✓ Implement data governance and security on a unified platform.

Intended audience

Data engineers, data analysts, data architects.

Prerequisites

Basic knowledge of data engineering, SQL, and programming (Python preferred), as well as familiarity with Google Cloud services, along with a good understanding of 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, data architects.

PREREQUISITES

Basic knowledge of data engineering, SQL, and programming (Python preferred), as well as familiarity with Google Cloud services, along with a good understanding of 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 Fundamentals of Data Architectures

- Data lake vs. data warehouse vs. data lakehouse.
- Use Cases and Architecture Selection.
- Introduction to Google Cloud Data Services.

2 Building a Data Lake

- Storage with Cloud Storage.
- Data formats (Parquet, Avro, JSON).
- Data organization and ingestion.
- Introduction to BigLake.

3 Data Warehouse with BigQuery

- Data modeling.
- SQL Queries and Performance.
- Partitioning and clustering.
- Cost Optimization.

4 Governance, Security, and Operations

- Data Governance and IAM.
- Security and Access Management.
- Monitoring and Optimization.
- Analytics use cases and pipeline integration.

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 : 7 Dec.

2027 : 24 Mar., 22 June, 16 Sep., 8 Dec.

PARIS LA DÉFENSE

2027 : 24 Mar., 22 June, 16 Sep., 8 Dec.