

Course : Deploy multi-agent systems using the Agent Development Kit and Agent Engine

Official Course: Preparation for Google Cloud Certifications

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

NEW

In this course, you'll learn how to use the Google Agent Development Kit to create multi-agent systems, connect agents to each other, run them locally, and deploy them to the Vertex AI Agent Engine with automated infrastructure and resource management.

Teaching objectives

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

- ✓ Create an agent with tools using the Google Agent Development Kit.
- ✓ Set up interactions between multiple agents using parent-child relationships and flows.
- ✓ Use features such as session memory, artifact storage, and callbacks.
- ✓ Deploy a multi-agent application on Agent Engine.
- ✓ Query an agent application running on Agent Engine.
- ✓ Evaluating agents in the Agent Development Kit.

Intended audience

Machine learning engineers, generative AI engineers.

Prerequisites

A solid foundation in Python, an understanding of generative AI and prompt engineering, experience using AI tools, a basic understanding of cloud computing and Vertex AI, and a good command 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.

PARTICIPANTS

Machine learning engineers,
generative AI engineers.

PREREQUISITES

A solid foundation in Python, an understanding of generative AI and prompt engineering, experience using AI tools, a basic understanding of cloud computing and Vertex AI, and a good command 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.

Course schedule

1 Introduction to the Google Agent Development Kit

- An Introduction to ADK Architecture.
- Creating the first agent.
- Comparison with LangChain and the Google Gen AI SDK.
- Parameters and Structure of an ADK Agent.

Hands-on work

Creating and running a simple agent.

2 Add tools to agents

- Development and integration of tools.
- Typing, docstrings, and best practices.
- Using LangChain Tools with ADK.
- Tool Call Management.

Hands-on work

Development of an agent using multiple tools.

3 Building Multi-Agent Systems

- Parent-child relationships among agents.
- Workflows and Interaction Orchestration.
- Callbacks, session memory, and artifact storage.
- Communication and coordination among staff members.

Hands-on work

Creation of a comprehensive multi-agent workflow.

4 Deployment and Evaluation on Agent Engine

- Deployment on the Vertex AI Agent Engine.
- Execution and Queries for Multi-Agent Applications.
- Infrastructure and scaling management.
- Evaluation and monitoring of ADK agents.

Hands-on work

Deployment and testing of a multi-agent application on Agent Engine.

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 : 4 Dec.

PARIS LA DÉFENSE

2027 : 1 Apr., 27 May, 1 July, 9 Sep., 18 Nov.,

2027 : 1 Apr., 27 May, 1 July, 9 Sep., 18 Nov.,
16 Dec.

AIX-EN-PROVENCE

2027 : 1 Apr., 27 May, 9 Sep., 18 Nov.

NANTES

2027 : 1 Apr., 27 May, 9 Sep., 18 Nov.

TOULOUSE

2027 : 1 Apr., 27 May, 1 July, 18 Nov.

GENÈVE

2027 : 1 Apr., 27 May, 9 Sep., 18 Nov.

16 Dec.

LYON

2027 : 1 Apr., 27 May, 1 July, 18 Nov.

LILLE

2027 : 1 Apr., 27 May, 1 July, 18 Nov.

STRASBOURG

2027 : 1 Apr., 27 May, 1 July, 16 Dec.

BRUXELLES

2027 : 1 Apr., 27 May, 1 July, 16 Dec.

LUXEMBOURG

2027 : 1 Apr., 27 May, 1 July, 16 Dec.