



Szkolenie: Google Cloud

Deploy multi-agent systems with Agent Development Kit and Agent Engine



Cel szkolenia:

In this course, you'll learn to use the Google Agent Development Kit to build complex, multi-agent systems. You will build agents equipped with tools, and connect them with parent-child relationships and flows to define how they interact. You'll run your agents locally and deploy them to Vertex AI Agent Engine to run as a managed agentic flow, with infrastructure decisions and resource scaling handled by Agent Engine.

What you'll learn

- Build an agent with tools using the Google Agent Development Kit.
- Establish interaction patterns between multiple agents with parent-child relationships and flows.
- Utilize features such as session memory, artifact storage, and callbacks.
- Deploy a multi-agent app to Agent Engine.
- Query an agent app running on Agent Engine.
- Evaluate agents within the Agent Development Kit.

Audience

This course is for:

- Machine learning engineers
- Gen AI engineers

Plan szkolenia:

- Get started with the Agent Development Kit
 - Topics
 - Basics of building an agent in the Agent Development Kit
 - Objectives
 - Explain how the Agent Development Kit compares to other tools such as the Google Gen AI SDK or LangChain.

- Describe the parameters used to build an agent in Agent Development Kit.
- Empower Agent Development Kit agents with tools
 - Topics
 - Enhance agents with tools and cover the growing breadth of available tools.
 - Objectives
 - Discuss the importance of structured docstrings and typing when writing tool functions for agents.
 - Demonstrate the ability to provide tools to an agent.
 - List common and useful tools available for the Agent Development Kit agents, including LangChain tools.
 - Activities
 - Lab: Get started with Agent Development Kit (ADK)
 - Lab: Empower ADK agents with tools
- Build multi-agent systems with Agent Development Kit
 - Topics
 - Manage communication and task-sharing between agents through parent-child relationships and flows to enable coordinated responses to queries.
 - Objectives
 - Describe the directory structure and naming conventions encouraged by the Agent Development Kit.
 - Demonstrate the ability to create multiple agents and relate them to one another with parent-child relationships.
 - Describe the different flow options and when you might use them.
 - Get responses that have passed through multiple agents.
 - Control content at different points with callbacks.
 - Activities
 - Lab: Build multi-agent systems with ADK
- Deploy Agent Development Kit agents to Agent Engine
 - Topics
 - Deploying agent apps to Agent Engine and querying responses.
 - Objectives
 - Describe the benefits of deploying agents, especially multi-agent systems, to Agent Engine over self-hosting, such as in Vertex AI online predictions.
 - Demonstrate deploying to Agent Engine.
 - Demonstrate querying a deployed agent app.
 - Activities
 - Lab: Deploy ADK agents to Agent Engine
- Evaluate agent systems



- Topics
 - Evaluate agents within the Agent Development Kit.
- Objectives
 - Evaluate agents within the Agent Development Kit.
 - Use the web interface to view evaluations.

Wymagania:

- Python, gen AI prompt engineering, gen AI tool use

Poziom trudności



Certyfikaty:

The participants will obtain certificates signed by Google Cloud (course completion).

Prowadzący:

Authorized Google Cloud Trainer