

Training: Google Cloud  
Vertex AI Agent Builder

## TRAINING TERMS

2025-05-09 | 1 day | Virtual Classroom

## TRAINING GOALS:

Vertex AI Agent Builder lets developers, even those with limited machine learning skills, tap into the power of Google's foundation models, search expertise, and conversational AI technologies to create enterprise-grade generative AI applications. In this course, you learn how to use Vertex AI Agent Builder to create search engines and chat applications. You will then explore how to integrate these search engines and chat applications into your own applications. Finally, you learn how to manage the tools built in Vertex AI Agent Builder in production.

What you'll learn:

- Explore Vertex AI as a platform for enterprise-ready generative AI.
- Create a search engine using Vertex AI Search.
- Create a chat application by using Vertex AI Agents.
- Integrate Vertex AI Agent Builder into your applications.
- Productionize search engines and chat applications created in Vertex AI Agent Builder.

Audience

Application developers and others who wish to leverage Vertex AI Agent Builder for their applications

## CONSPECT:

- Module 1 - Introduction to Vertex AI Agent Builder
  - Topics:
    - Vertex AI
    - Vertex AI Agent Builder
    - Example use cases
  - Objectives:

- Explore Vertex AI as a platform for enterprise-ready generative AI.
- Describe example use cases of Vertex AI Agent Builder.
- Module 2 - Vertex AI Search
  - Topics:
    - Apps, engines and data stores
    - Data preparation
    - Creating a custom search engine
    - Configuration options
  - Objectives:
    - Understand the main concepts of apps, engines, and data stores.
    - Create a search engine using Vertex AI Search.
    - Configure and integrate custom search engines.
  - Activities:
    - Lab: Integrate Search in Applications Using Vertex AI Search
    - Lab: Grounding LLMs Using Vertex AI Search
- Module 3 - Vertex AI Agents
  - Topics:
    - Dialogflow CX basic concepts
    - Creating a chat app
    - Options deploying conversational agents
  - Objectives:
    - Understand the basic concepts of data store agents and Dialogflow CX.
    - Create a chat application by using Vertex AI Agents.
  - Activities:
    - Lab: Create a Generative Chat App with Vertex AI Agents
- Module 4 - Productionizing Vertex AI Agent Builder
  - Topics:
    - Refreshing data and schemas
    - Security and DLP
    - Monitoring and logging
    - Troubleshooting
  - Objectives:
    - Manage changing data and schemas in data stores.
    - Explain security features of Vertex AI Agent Builder.
    - Use monitoring and logging for Vertex AI Agent Builder apps.
    - Troubleshoot Vertex AI Builder applications.

- Activities:
  - Lab: Maintaining Search Engines using Vertex AI Search

## REQUIREMENTS:

Google Cloud Fundamentals: Core Infrastructure or equivalent Google Cloud experience.

## Difficulty level



## CERTIFICATE:

The participants will obtain certificates signed by Google Cloud

## TRAINER:

Authorized Google Cloud Trainer