Google Cloud

Vertex AI Agent Builder

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 engineers and chat applications into your own applications. Finally, you learn how to manage the tools built in Vertex AI Agent Builder in production.

🕐 **DURATION**
1 day

📑 **LEVEL**
Intermediate

🔲 **FORMAT**
Instructor-led

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.

Overview	4 modules · 3 labs
Who this course is for	Customers
Products	• Vertex AI • Vertex AI Agent Builder • Vertex AI Conversation
Prerequisite	Google Cloud Fundamentals: Core Infrastructure or equivalent Google Cloud experience.

Module 01   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 02   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 03   Vertex AI Agents

Topics
- Dialogflow CX basic concepts
- Creating a chat app

Topics	• 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

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Module 04   **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 Agent Builder applications.
Activities	Lab: Maintaining Search Engines Using Vertex AI Search