Google Develop Search and Agents with AI Applications

Duration: 1 Day **Course Code: GO8337** **Delivery Method: Company Event**

Overview:

In this course, you learn how to use Vertex AI Search and Conversational Agents to create search engines and chat applications.

You will learn how to leverage Vertex AI Search for grounding your gen AI-powered applications. You will then explore how to integrate these search engines and chat applications into your own applications. Finally, you learn how to use the agents built in AI Applications in multi agent workflows

Products:
- Gemini
- AI Applications
- Vertex AI

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Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

Target Audience:

- Customers

Objectives:

- **After this course participants should be able to:**
- Explore the options in Vertex AI for generative AI.
- Identify the role of AI Applications: Search, Recommendations, and Agents.
- Examine use cases for Vertex AI Search and Agents.
- Create enterprise-grade generative AI applications with AI Applications.
- Choose the appropriate engine for a search or conversation app.
- Import data into a data store.
- Create and configure a custom search app.
- Identify why grounding is important.
- Leverage Retrieval-Augmented Generation (RAG).
- Use grounding options on Google Cloud.
- Test grounding using the Vertex AI Studio and SDK.
- Create conversational agents.
- Manage conversations with playbooks.
- Use examples to improve a playbook's response.
- Leverage data store tools to perform grounding for your playbook's responses.
- Explore the features and benefits of the Agent Development Kit (ADK).
- Accelerate agent development with Agent Garden.
- Use ADK to build multi-agent applications.
- Leverage a Data Store tool from an ADK agent.

Prerequisites:

Knowledge of generative AI basic concepts and programming knowledge (Python)

Testing and Certification

None

Follow-on-Courses:

None

Content:

Module 1: Vertex AI and AI Applications

- Vertex AI for generative AI
- AI Applications: Search, Recommendations, and Agents
- Use cases for Vertex AI Search and Agents

Module 2: Vertex AI Search

- Basic concepts: apps, engines, and data stores
- Data sources and preparing data
- Creating a data store
- Configuring Vertex AI Search
- Deploy Vertex AI Search

Module 3: Grounding Applications

- Why is grounding important?
- Retrieval Augmented Generation (RAG)
- Grounding options on Google Cloud
- Testing grounding in Vertex AI Studio
- Grounding using the Vertex AI SDK

Module 4: Conversational Agents

- Customer Engagement Suite (CES)
- Deterministic vs. generative agents
- Playbooks
- Data store tools

Module 5: Multi-agent Applications on Vertex AI

- Multi-agent applications and agentic AI
- Introduction to Agent Developer Kit (ADK)
- Vertex AI Agent Garden
- Vertex AI Agent Engine
- Putting it all together with AI Applications

Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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