Google Cloud - Customer Experiences with Contact Center AI - Dialogflow ES

Code:	GCP-CUST-EXP-AI-ES
Length:	4 days
URL:	View Online

In this course, learn how to design customer conversations using Contact Center Artificial Intelligence (CCAI). You'll use Dialogflow ES to create virtual agents and test them using the simulator. Learn to add functionality to access data from external systems, making virtual agents conversationally dynamic. You'll be introduced to testing methods, connectivity protocols, APIs, environment management, and compliance measures. Learn best practices for integrating conversational solutions with your existing contact center software and implementing solutions securely and at scale.

Skills Gained

- Define Google CCAI.
- Explain how Dialogflow can be used in Contact Center applications.
- Implement a virtual agent using Dialogflow ES.
- Read and write data from Firestore using Cloud Functions.
- Use Dialogflow tools and cloud logging for troubleshooting.
- Describe how to manage virtual agent environments.
- Identify general best practices for virtual agents.
- Identify key aspects such as security and compliance in the context of contact centers.
- Analyze audio recordings using the Speech Analytics
- Framework (SAF).
- Recognize use cases where Agent Assist adds value.

Who Can Benefit

This is a beginner to intermediate course, intended for learners with the following types of roles:

- Conversational designers: Designs the user experience of a virtual assistant. Translates the brand's business requirements into natural dialog flows.
- Citizen developers: Creates new business applications for consumption by others using high level development and runtime environments.
- Software developers: Codes computer software in a programming language (e.g., C++, Python, Javascript) and often using an SDK/API.
- Operations specialists: Monitors system operations and troubleshoots problems. Installs, supports, and maintains network and system tools.

Prerequisites

Completed GCP Fundamentals or have equivalent experience

Course Details

Course Outline

Module 1: Overview of Contact Center AI

- Define what Contact Center AI (CCAI) is and what it can do for contact centers.
- Identify each component of the CCAI Architecture: Speech Recognition, Dialogflow, Speech Synthesis, Agent Assist, and Insights AI.
- Describe the role each component plays in a CCAI solution.

Module 2: Conversational Experiences

- List the basic principles of a conversational experience.
- Explain the role of Conversation virtual agents in a conversation experience.
- Articulate how STT (Speech to Text) can determine the quality of a conversation experience.
- Demonstrate and test how Speech adaptation can improve the speech recognition accuracy of the agent.
- Recognize the different NLU (Natural Language Understanding) and NLP (Natural Language Processing) techniques and the role they play on conversation experiences.

Module 3: Fundamentals of Designing Conversations

- Identify user roles and their journeys.
- Write personas for virtual agents and users.
- Model user-agent interactions.

Module 4: Dialogflow Product Options

- Describe two primary differences between Dialogflow Essentials (ES) and Dialogflow Customer Experience (CX).
- Identify two design principles for your virtual agent which apply regardless of whether you implement in Dialogflow ES or CX.
- Identify two ways your virtual agent implementation changes based on whether you implement in Dialogflow ES or CX.
- List the basic elements of the Dialogflow user interface.

Module 5: Course Review

- Review what was covered in the course as relates to the objectives.

Module 6: Fundamentals of building conversations with Dialogflow ES

- List the basic elements of the Dialogflow CX User Interface.
- Build a virtual agent to handle identified user journeys.

- Train the NLU model through the Dialogflow console.
- Define and test intents for a basic agent.
- Train the agent to handle expected and unexpected user scenarios.
- Recognize the different types of entities and when to use them.
- Create entities.
- Define and test entities on a basic agent.
- Implement slot filling using the Dialogflow UI.
- Describe when Mega Agent might be used.
- Demonstrate how to add access to a knowledge base for your virtual agent to answer customer questions straight from a company FAQ.

Module 7: Maintaining Context in a Conversation

- Create follow-up intents.
- Recognize the scenarios in which context should be used.
- Identify the possible statuses of a context (active versus inactive context).
- Implement dialogs using input and output contexts.

Module 8: Moving From Chat to Voice Virtual Agent

- Describe two ways that the media type changes the conversation.
- Configure the telephony gateway for testing.
- Test a basic voice agent.
- Modify the voice of the agent.
- Show how the different media types can have different responses.
- Consider the modifications needed when moving to production.
- Be aware of the telephony integration for voice in a production environment.

Module 9: Course Review

- Review what was covered in the course as relates to the objectives.

Module 10: Testing and Logging

- Use Dialogflow tools for troubleshooting.
- Use Google Cloud tools for debugging your virtual agent.
- Review logs generated by virtual agent activity.
- Recognize ways an audit can be performed.

Module 11: Taking Actions with Fulfillment

- Characterize the role of fulfillment with respect to Contact Center AI.
- Implement a virtual agent using Dialogflow ES.
- Use Cloud Firestore to store customer data.
- Implement fulfillment using Cloud Functions to read and write Firestore data.

- Describe the use of Apigee for application deployment.

Module 12: Integrating Virtual Agents

- Describe how to use the Dialogflow API to programmatically create and modify the virtual agent.
- Describe connectivity protocols: gRPC, REST, SIP endpoints, and phone numbers over PSTN.
- Describe how to replace existing head intent detection on IVRs with Dialogflow intents.
- Describe virtual agent integration with Google Assistant.
- Describe virtual agent integration with messaging platforms.
- Describe virtual agent integration with CRM platforms (such as Salesforce and Zendesk).
- Describe virtual agent integration with enterprise communication platforms (such as Genesys, Avaya, Cisco, and Twilio).
- Explain the ability that telephony providers have of identifying the caller and how that can modify the agent design.
- Describe how to incorporate IVR features in the virtual agent.

Module 13: Course Review

- Review what was covered in the course as relates to the objectives.

Module 14: Environment Management

- Create Draft and Published versions of your virtual agent.
- Create environments where your virtual agent will be published.
- Load a saved version of your virtual agent to Draft.
- Change which version is loaded to an environment.

Module 15: Drawing Insights from Recordings with SAF

- Analyze audio recordings using the Speech Analytics Framework (SAF).

Module 16: Intelligence Assistance for Live Agents

- Recognize use cases where Agent Assist adds value.
- Identify, collect and curate documents for knowledge base construction.
- Describe how to set up knowledge bases.
- Describe how FAQ Assist works.
- Describe how Document Assist works.
- Describe how the Agent Assist UI works.
- Describe how Dialogflow Assist works.
- Describe how Smart Reply works.
- Describe how Real-time entity extraction works.

Module 17: Compliance and Security

- Describe two ways security can be implemented on a CCAI integration.
- Identify current compliance measures and scenarios where compliance is needed.

Module 18: Best Practices

- Convert pattern matching and decision trees to smart conversational design.
- Recognize situations that require escalation to a human agent.
- Support multiple platforms, devices, languages, and dialects.
- Use Diagflow’s built-in analytics to assess the health of the virtual agent.
- Perform agent validation through the Dialogflow UI.
- Monitor conversations and Agent Assist.
- Institute a DevOps and version control framework for agent development and maintenance.
- Consider enabling spell correction to increase the virtual agent's accuracy.

Module 19: Implementation Methodology

- Identify the stages of the Google Enterprise Sales Process.
- Describe the Partner role in the Enterprise Sales Process.
- Detail the steps in a Contact Center AI project using Google’s ESP.
- Describe the key activities of the Implementation Phase in ESP.
- Locate and understand how to use Google's support assets for Partners.

Module 20: Course Review

- Review what was covered in the course as relates to the objectives.

Schedule (as of 2)

Date	Location	
Aug 6, 2024 – Aug 9, 2024	Live Virtual	**Enroll**

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