

Creación de un agente conversacional en la nube con RAG

Octubre 2024

Descripción del problema

Creación de un asistente para agentes humanos - teleoperadores

- Obtener rápidamente la información que necesitan a partir de la pregunta del cliente
- Conocer el documento de referencia del que se ha obtenido la respuesta
- Para ello: Retrieval-Augmented Generation (RAG)
- Información actualizada, no dependiente de entrenamiento previo
- Consideración del contexto de la conversación con el cliente para proporcionar respuestas o sugerencias coherentes y precisas
- Creación de varios recursos en Google Cloud para simplificar el proceso de creación del asistente
- Valor diferencial del entorno de nube para la aplicación de la IA

Entorno Cloud Skills Boost

Preparación del entorno

- Inicio de sesión en Cloud Skills Boost
- Elección del laboratorio
- Click en “Start lab”
- Click “Open Google Cloud console” – abrir en ventana de incógnito
- Utilizar las credenciales facilitadas por Cloud Skills Boost

Setting up Generative Knowledge Assist in the Agent Assist console

🏠 Lab ⌚ 1 hour 30 minutes 💳 5 Credits 📈 Intermediate



📘 This lab may incorporate AI tools to support your learning.

End Lab 01:09:44

Caution: When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. [Learn more.](#)

[Open Google Cloud console](#)

Username

student-03-34e857336be!

Password

maHzFUsQgCoe

Project ID

qwiklabs-gcp-01-2b6492f

Data Stores

Conceptos generales

- Un Data Store es un corpus de documentos del que se extrae conocimiento para que el *chatbot* sea capaz de responder de forma precisa a las preguntas del usuario
- Estos documentos pueden ser:
 - Páginas web
 - **Ficheros de documentos – almacenados en un Cloud Storage Bucket**
 - Datos almacenados en BigQuery

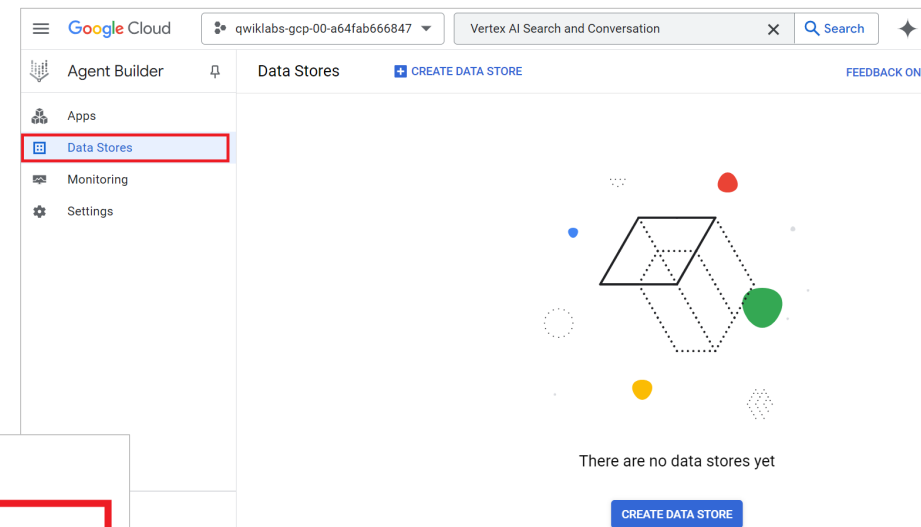
What kind of data are you importing?

For more information, see [Prepare data for ingesting](#).



☒ Unstructured documents (PDF, HTML, TXT and more)
Supported file formats: PDF, HTML, TXT (CSV for FAQ, DOCX and PPTX are available in Preview)

Select a folder or a file you want to import

gs:// *
☒ cloud-samples-data/dialogflow-cx/google-store




Data Store Agents - Apps

Apps + CREATE APP							FEEDBACK ON AGENT BUILDER ↗	LEARN
<div>Filter ? ⋮</div>								
Name ↑	App type	Connected data stores	Created	ID	Location			
gka-test-agent ↗	 Chat	 view	Oct 8, 2024	gka-test-agent_1728402504234	global		⋮	

- Data Store Agent o App conecta Data Store con modelo LLM pre-entrenado

Select app type


Select the type of application you want to create



Search

Get quality results out-of-box and easily customize the engine

[SELECT](#)



Chat

Answer complex questions out-of-the-box

[SELECT](#)

Agent configurations

Company name *
Fictitious Company ABC

Providing your company name helps the model provide higher-quality responses

[SHOW TIME ZONE AND LANGUAGE](#)

Your agent name

Agent name *
gka-test-agent

ID: gka-test-agent_1728043593719. It cannot be changed later. [EDIT](#)

Conversation profiles

- El perfil de conversación es un conjunto de parámetros que determina el comportamiento del agente creado en el paso anterior

The screenshot displays the 'Agent Assist' web application. The top navigation bar includes a hamburger menu, the 'Agent Assist' logo, a 'Project' dropdown, and utility icons (help, timer, chat, user profile). The left sidebar is divided into four sections: 'Overview' (active), 'FEATURES' (listing Summarization, Knowledge assist, Article suggestion, Smart reply), 'TEST' (listing Simulator), and 'DATA' (listing Conversation profiles, Models, Knowledge bases, Datasets). The main content area is titled 'Agent Assist' and 'Empower agents with continuous support'. It contains a paragraph explaining that the tool uses machine learning to provide suggestions based on uploaded data. Below this is a 'Key features' section with the instruction 'Select a feature to start, and test it using the simulator'. Three feature cards are presented: 'Summarization' (AI summarizes calls), 'Knowledge assist' (AI provides applicable knowledge), and 'Smart reply' (AI suggests custom responses). Each card has a 'Get started' button. A 'Show all features' link is located at the bottom right of the feature cards.

Conversation profiles

☒ Generative knowledge assist
Query your knowledge base and receive LLM-generated answers

Data store agent*

gka-test-agent X ?

- Seleccionamos el agente creado en el paso anterior como base para el perfil de conversación

- Marcamos la opción que permite considerar el contexto de la conversación para generar respuestas apropiadas que contemplan dicho contexto

☒ Generative knowledge assist
Query your knowledge base and receive LLM-generated answers

Data store agent*

gka-test-agent X ?

- ☒ Disable agent search query logging in Agent Assist ⓘ
- ☒ Enable conversation augmented query ⓘ
- ☐ Show all suggested queries for conversation ⓘ
- ☐ Load proactive answers asynchronously ⓘ

Google will no longer collect and store redacted queries for potential quality improvement.

☒ Generative knowledge assist
Query your knowledge base and receive LLM-generated answers

Data store agent*

gka-test-agent X ?

- ☒ Disable agent search query logging in Agent Assist ⓘ
- ☒ Enable conversation augmented query ⓘ
- ☐ Show all suggested queries for conversation ⓘ
- ☐ Load proactive answers asynchronously ⓘ

Manual knowledge searches will be augmented based on the conversational context to add relevant information.

- Marcamos la opción que evita que Google monitorice nuestra interacción con el *chatbot* con propósitos de calidad

Conversation profiles

☰

Agent Assist

Project

qwiklabs-gcp-01-2b6492...

Location

global (Global servin...

🏠 Overview

FEATURES

📄 Summarization

📄 Knowledge assist

📄 Article suggestion

🗨️ Smart reply

TEST

🧪 Simulator

DATA

🔗 Conversation profiles

📊 Models

📚 Knowledge bases

📄 Datasets

Conversation profiles [+ Create](#)

Conversation profiles surface real-time, relevant information to agents while they talk to customers. [Learn more](#)

🔍 Search profiles



Name	Integration ID		Created on
test-gka-profile	I006MfpdSOCUUQJovMOI7w	📄	Just now

Conversation profiles



- Documentos importados (RAG) para alimentar de conocimiento al *chatbot*

Apps > gka-test-agent > Data stores > gka-test-ds

[FEEDBACK ON AGENT BUILDER](#) [LEARN](#)





 **gka-test-ds** 

Your agent can use the content in this datastore to generate responses.

Data store ID	gka-test-ds_1728402289338		
Type	Unstructured data		
Region	global		
Language	N/A		
Number of documents	121		
Last document import	 Oct 8, 2024, 5:47:10 PM		
	VIEW DETAILS		

[DOCUMENTS](#) [ACTIVITY](#) [PROCESSING CONFIG](#) [PREVIEW](#)

[+ IMPORT DATA](#) [PURGE DATA](#)

ID	URI	Actions
0855fb504869077cce7d2d06209f57df	gs://cloud-samples-data/dialogflow-cx/google-store/https-store-google-com-category-nest-thermostats-588d0b93.html	
0bc26ae09323336255bcb7f790368e65	gs://cloud-samples-data/dialogflow-cx/google-store/https-store-google-com-product-pixel-fold-32e8396d.html	
0c0e6058c7555bd1d3210188ffc54f	gs://cloud-samples-data/dialogflow-cx/google-store/https-store-google-com-config-nest-protect-2nd-gen-e2f7e014.html	
0de18b23968be467c31a34e62e3362a3	gs://cloud-samples-data/dialogflow-cx/google-store/https-store-google-com-us-product-usb-c-30w-charger-016c58f5.html	

Conversation profiles



- Comprobamos que ha finalizado el proceso de importación de documentos

Apps > gka-test-agent > Data stores > gka-test-ds

FEEDBACK 0



 gka-test-ds 

Your agent can use the content in this datastore to generate responses.

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VIEW DETAILS	

DOCUMENTS [ACTIVITY](#) PROCESSING CONFIG [PREVIEW](#)

Activity  [+ IMPORT DATA](#)

Filter				
Status	Detail	Items succeeded	Operation name	Last updated ↓
 Import completed	No errors	121	import-documents-13357919944208290863	Oct 8, 2024, 6:05:38 PM
 Schema update completed	No errors	0	update-schema-15658363497368930988	Oct 8, 2024, 5:48:48 PM

Pruebas del chatbot

- Consultamos los documentos para formular preguntas relacionadas con el contenido proporcionado al chatbot

Shop smart thermostats that help you save.

Nest thermostats keep you cozy, help save energy, and fit into your home. And you can save even more with rebates and incentives.

Nest Learning Thermostat

Advanced comfort and energy-savings.

[Learn more](#)

Nest Thermostat

Energy-saving essentials at a cozy price.

[Learn more](#)

Agent

Type an agent's message

Agent Assist

Project
qwiklabs-gcp-01-2b6492...
Location
global (Global servin...
⚙️ ? ⏸️ 💬 S

← Chat conversation simulator: test-gka-profile Options Start over End conversation ⓘ

which are the benefits of a Nest Thermostat?
07:25

Generative Knowledge Assist

🔍 Ask a question or search for content

🕒 Describe the benefits of a Nest Thermostat 📄 🗨️

Nest thermostats can help you save energy and money on your energy bills. They can also help you monitor your HVAC system and detect hard-to-spot issues. Additionally, Nest thermostats can be controlled remotely using the app, and they can be programmed to adjust the temperature of your home based on your schedule.

3 Sources

[Nest Thermostats - Stay Comfortable and Save Energy - Google Store](#)
[Save energy and live comfortably with Nest thermostat savings](#)
⌵ Show all

Pregunta #1

Hemos usado datos no estructurados.

¿Qué columnas obligatorias deben tener los datos estructurados?

Pregunta #2

Si utilizamos un DataStore con metadatos,
¿Qué diferencia hay entre el dato de URI y el de URL?

Pregunta #3

Además de la respuestas referidas a los documentos indexados,
¿Qué otro tipo de preguntas (*intents*) soporta por defecto un Data Store Agent?

Pregunta #4

Hemos utilizado el LLM por defecto para el Data Store Agent.
¿Entre qué otras opciones de LLMs podemos elegir para nuestro Data Store Agent?

Pregunta #5

¿Para qué sirve el *placeholder* \$conversation en la especificación de un *prompt* de generación de resúmenes?