

Google Cloud Skills Boost for Partners

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Deploying Search and Chat Apps using Agent Builder

Course · 4 hours 33%
15 minutes complete

Course overview

Challenge Labs

Build and deploy a Website Search Application: Challenge Lab
Deploy a Chatbot using AI Applications: Challenge Lab
Create a Custom Search App using the Discovery API: Challenge Lab

Your Next Steps

Course Badge

Course > Deploying Search and Chat Apps using Agent Builder >

Quick tip: Review the prerequisites before you run the lab

[End Lab](#)

01:15:33

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-00-cdeca73a085b6

Password

r4HjmUJV55Yw

GCP Project ID

qwiklabs-gcp-04-d1918381

Deploy a Chatbot using AI Applications: Challenge Lab

 Lab
 1 hour 30 minutes
 No cost
 Intermediate
 ★★★☆☆
 This lab may incorporate AI tools to support your learning.

Lab Instructions and tasks

100/100

Challenge Lab Overview

Objective

Setup and requirements

Challenge Scenario

Task 1. Deploy a Chatbot using AI Applications

Task 2. Deploy the Chat Widget to a Web page

Congratulations!

Challenge Lab Overview

This lab will challenge you to perform actions and automation across products. Instead

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system (shown on this page) provides feedback on whether you have completed your tasks correctly.

When you take a Challenge Lab, you will not be taught Google Cloud concepts. You will need to use your skills to assess how to build the solution to the challenge presented. This lab is only recommended for students who have those skills. Are you up for the challenge?

Objective

This lab will test your ability to create Chatbots using AI Application and Conversation and Dialogflow.

Setup and requirements

For each lab, you get a new Google Cloud project and set of resources for a fixed time at no cost.

1. Make sure you signed into Qwiklabs using an **incognito window**.
2. Note the lab's access time (for example, **02:00:00**) and make sure you can finish in that time block.

There is no pause feature. You can restart if needed, but you have to start at the beginning.

4. Note your lab credentials. You will use them to sign in to the Google Cloud

[Open Google Console](#)

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.](#)

Console.

Username	google2876526_student@qwiklabs.n	
Password	TG959yrKDX	
GCP Project ID	qwiklabs-gcp-0855e773352d3560	

New to labs? View our introductory video!

or click Open Google Cloud...

6. Click **Use another account** and copy/paste credentials for **this lab** into the prompts.

If you use other credentials, you'll get errors or incur charges.

7. Accept the terms and skip the recovery resource page.

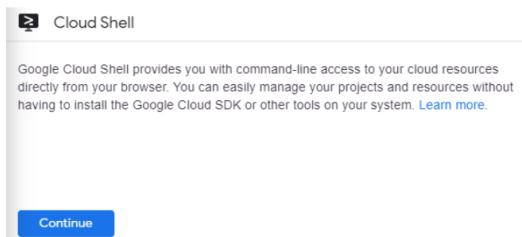
Do not click **End Lab** unless you are finished with the lab or want to restart it. This clears your work and removes the project.

Activate Cloud Shell

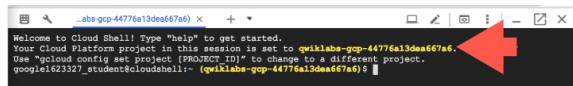
Cloud Shell is a virtual machine that is loaded with development tools. It offers a persistent 5GB home directory and runs on the Google Cloud. Cloud Shell provides command-line access to your Google Cloud resources.



Click **Continue**.



You are already authenticated, and the project is set to your Cloud Shell. For example:

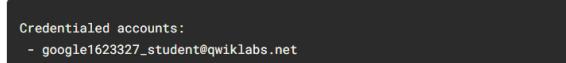


gcloud is the command-line tool for Google Cloud. It comes pre-installed on Cloud Shell and supports tab-completion.

You can list the active account name with this command:



(Output)



You can list the project ID with this command:

```
gcloud config list project
```



(Output)

```
[core]
project = <project_ID>
```

(Example output)

```
[core]
project = awiklabs-gcp-44776a13dea667a6
```

For full documentation of `gcloud` see the [gcloud command-line tool overview](#).

Challenge Scenario



Here is a company overview as provided on the Cymbal Shops's website.

homeware, electronics, and clothing.

Founded in 1974, Cymbal Shops started out as Cymbal Air, selling AC systems manufactured by Cymbal Group in Minnesota and neighboring states. The company quickly expanded into domestic merchandise in order to satisfy the need for quality products at an affordable price in the midst of a recession.

Cymbal Shops' broad product assortment was once a benefit - capturing planned purchases and last minute splurges. In recent years, however, the company has struggled to adapt to the acceleration in e-commerce. Digitally native companies are on the rise and Cymbal Shops must implement significant changes in order to keep pace and maintain relevance. Today, Cymbal Shops operates 714 stores across North America and reported \$15 billion in revenue in 2019. They currently employ 80,400 employees across the United States and Canada.

Cymbal Shops is a digitally transforming legacy retailer.

It is inspired by clients like: Bed Bath & Beyond, Best Buy, Home Depot, Nordstrom.

Cymbal Shops is looking for proficiency in creating and deploying search applications and chatbots using AI Applications Search, Conversation, and Dialogflow. You work with Cymbal Shops, and are tasked with developing a custom search app utilizing the Dialogflow API to interact with a AI Applications Data Store and present search results to users.

Key technologies and Google Cloud services to be utilized include:

- AI Applications
- Agents
- Gemini

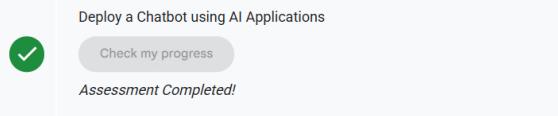
Task 1. Deploy a Chatbot using AI Applications

In this section, you will utilize AI Applications to develop a custom Chatbot capable of comprehending unstructured data. The objective is to configure and deploy a chat application that can effectively assist customers, with a particular emphasis on handling diverse and unstructured information.

Therefore in this task, you should;

1. Enable [AI Applications API](#) and [Dialogflow API](#).
2. In [AI Applications](#) create a new app of type [Conversational agent](#) in [global](#) region and name it as [Cymbal Store Agent](#).
3. Add a data store tool named [Cymbal Store](#) to the [Cymbal Store Agent](#) agent for asking questions about products from the Google Store. This Data Store tool is utilized by a generative agent to provide answers to end-users' questions from the data stores. Configure the data store to point to unstructured data hosted in the following Cloud Storage bucket: [cloud-samples-data/dialogflow-cx/google-store](#). For the company name, use [Cymbal Shops](#).

Click [Check my progress](#) to verify the objectives.



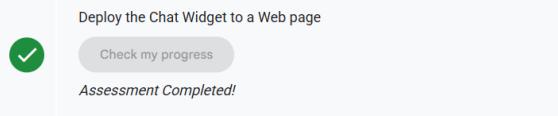
Task 2. Deploy the Chat Widget to a Web page

In this section, we'll focus on deploying the Chat Widget to a web page. This will make the application accessible online.

[04-d191838b3c39](#).

2. Conversational Agents offers built-in integrations with conversation platforms like chat widgets. These integrations provide a user interface and handle API calls to Conversational Agents. Choose the [Conversational Messenger](#) integration. It provides a customizable chat dialog you can embed in your website.
3. Enable unauthenticated end-user agent query access. This allows users to interact with the chat widget without needing to log in. Restrict allowed domains to send requests to Conversational Messenger. Set the restriction to [storage.googleapis.com](#). This ensures only your chat widget can interact with Conversational Agents.
4. Once configured, the Messenger integration will generate code for your agent. Use Cloud Shell to create a new file named `index.html`. Copy and paste the generated code into the `index.html` file.
5. In [us-central1](#), create a Cloud Storage bucket named [qwiklabs-gcp-04-d191838b3c39](#), and upload the `index.html` file you created in previous step.
6. Grant access to `allUsers` with the role `Storage Object Viewer` on the

Click [Check my progress](#) to verify the objectives.



Congratulations!

Congratulations! You've successfully completed the challenge lab, adeptly demonstrating your ability to use AI Applications to deploy chatbots using agents.

Manual Last Updated April 04, 2025

Lab Last Tested April 04, 2025

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