

IT8303

AI & HUMAN

INTERFACE

Lab 6: Explore Google Dialogflow Platform



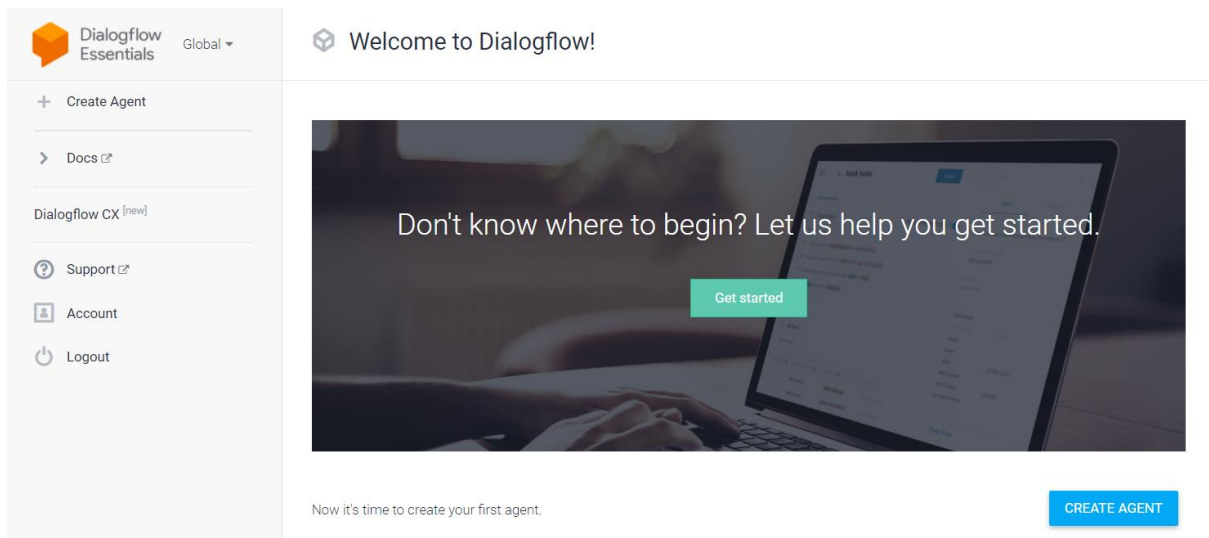
In this exercise, you'll have a chance to explore the Google Dialogflow Console.

The exercises are ordered as follows:

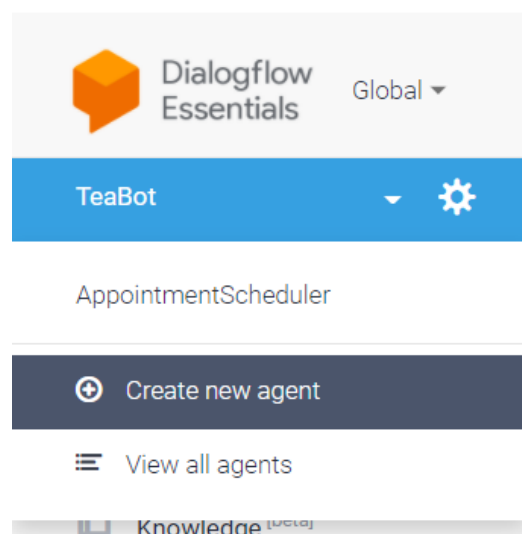
1. Create and manage Dialogflow agent.
2. Prebuilt agents
3. Versions and Environments.
4. Multilingual agents.

Exercise 1. Create and manage agents

1. Go to the Dialogflow console at <https://console.dialogflow.com/api-client/> and log in with your Google account.
2. Sign in. If you're a first-time user, then use your email to sign up.
3. Accept the terms and conditions, and you'll be in the Dialogflow console.



4. Click **Create Agent** in the left menu. (If you already have other agents, click the agent name, scroll to the bottom and click **Create new agent**.)



5. Enter your agent's name, default language, default time zone and GCP project, then click the **Create** button. (You can change the agent edition after creation.)

test-agent-1

CREATE

DEFAULT LANGUAGE ⓘ

DEFAULT TIME ZONE

English — en

(GMT+8:00) Asia/Hong_Kong

Primary language for your agent. Other languages can be added later.

Date and time requests are resolved using this timezone if not provided in the API requests.

GOOGLE PROJECT

Create a new Google project

Enables Cloud functions, Actions on Google and permissions management.

AGENT TYPE

☒ Set as Mega Agent

Combine multiple Dialogflow agents (i.e. sub agents) into a single agent (i.e. [mega agent](#)).

Exercise 2. Delete an agent

1. You must have a **role with full access or edit access** in order to delete an agent in the Dialogflow Console.
2. Before deleting an agent, you must remove access for all users besides yourself:
 - If you are the only user with the Owner/Admin role, you can use the Dialogflow Console to remove other users.
 - If more than one user has the Owner/Admin role, you must use the GCP Console to remove other users.
3. To delete an agent:
 - Go to the Dialogflow Console: <https://dialogflow.cloud.google.com/>
 - Select the agent you wish to delete.
 - Click on the **settings** button next to the agent's name.
 - Select the **General** tab, and scroll down to the bottom.
 - Click **Delete this agent**. If you do not see the Delete this agent button, it is because you do not have the required Owner/Admin role.
 - Enter **DELETE** in the text field.
 - Click **Delete**.

test-agent-1 SAVE

General Languages ML Settings Export and Import Environments Speech Share Advanced

GOOGLE PROJECT

Project ID test-agent-1-oeem

BETA FEATURES

☐ Enable beta features and APIs
Be the first to get access to the newest features and latest APIs. ([Full V2-beta API reference](#))

LOG SETTINGS

☒ Log interactions to Dialogflow
Collect and store user queries. Logging must be enabled in order to use Training, History and Analytics.

☐ Log interactions to Google Cloud
Write user queries and debugging information to [Operations](#).

! DANGER ZONE

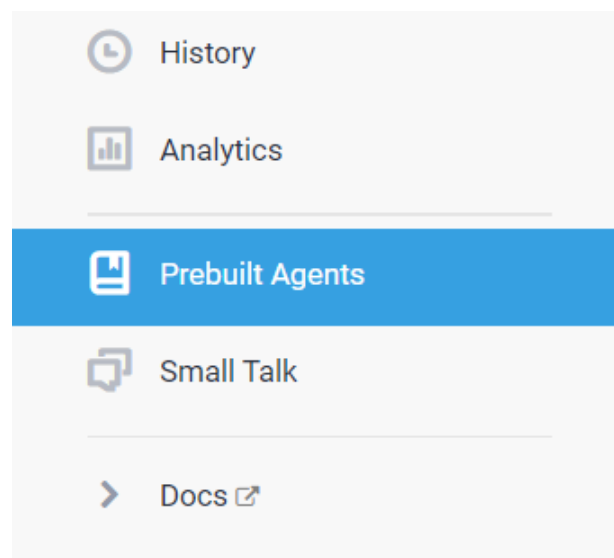
Delete Agent
Are you sure you want to delete agent **test-agent-1**? This will destroy the agent with all corresponding data and **cannot be undone!** DELETE THIS AGENT

Exercise 3. Prebuilt agents

Prebuilt agents are a collection of agents provided by Dialogflow for common use cases. These agents can be used to establish a base for building conversations for dining out, hotel booking, navigation, etc.

Prebuilt agents include intents and entities for their use cases, but you need to provide intent responses. Responses often depend on your specific scenario or need to be retrieved via fulfillment.

1. Go to the Dialogflow ES Console: dialogflow.cloud.google.com
2. Click **Prebuilt agents** in the left sidebar menu.



- Find the Agent "Banking", and click **View Details**. It will show some examples of possible user inputs or user queries.



Banking
Banking operations

IMPORT

The agent handles requests about transfers, balances and credit card payment due dates.

Examples

User: Transfer \$100 from my checking to my savings account.
User: Check my credit card balance.
User: How much money did I spend on shopping in Amazon in December?
User: Where was my last deposit from?

- Click **IMPORT**, in the new window, name the agent as "Banking", and choose "Create a new Google project" from the drop-down menu, then click **CREATE AGENT FROM TEMPLATE**.



Create an agent from a template

New agent name

Banking

Google Cloud project

Create a new Google project

Enables Cloud functions, Actions on Google and permissions management.

CREATE AGENT FROM TEMPLATE

5. Try to talk to the pre-built agent in the "Try it now". Try asking the following questions and see how the chatbot replies you.

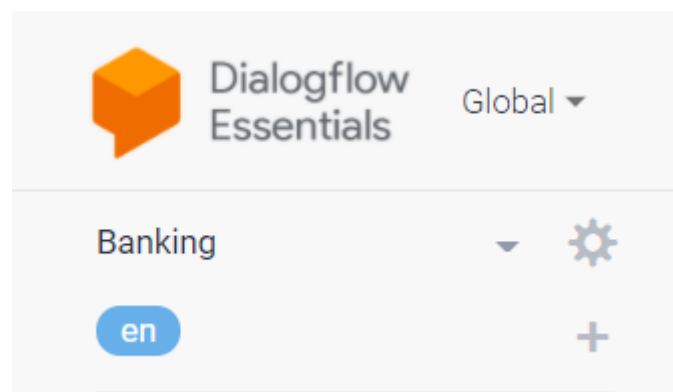
- Hello
- Transfer \$100 from my checking to my savings account.
- can you check my balance
- I want to open a new account
- when was my last transfer?

Exercise 4. Small Talk

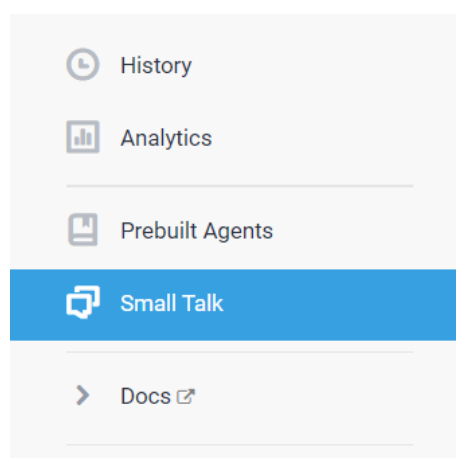
Small talk is used to provide responses to casual conversation. This feature can greatly improve the end-user experience by answering common questions outside the scope of your agent.

Enable built-in small talk for an agent

1. Go to the Dialogflow Console: <https://dialogflow.cloud.google.com/>
2. Choose the "Banking" agent that you just created.



3. Click **Small talk** in the left sidebar menu.



4. Toggle **Enable** on, then click **Save**.

Now try to talk to your agent with the following input, and see how it replied to you.

- How are you?
- You look so nice!
- I don't like your service!
- I hate your service
- Who are you?

Exercise 5. Agent Settings

Through this exercise, you will understand the various settings you can apply to an agent. To access these settings:

1. Go to Dialogflow Console: <https://dialogflow.cloud.google.com/>
2. Select your banking agent near the top of the left sidebar menu.
3. Click the settings icon next to the agent name.

To access general settings, click the **General** tab. The following settings are available:

- **Description:** Description of the agent.
- **Default Time Zone:** Default time zone for the agent. Date and time requests are resolved using this timezone if the time zone is not provided in the API requests.
- **Agent Avatar URI:** A URI for your agent's avatar used by some integrations.
- **Google Project:** GCP project linked to the agent.
- **Beta Features:** Toggle to enable beta features for the agent.
- **Log Settings:** Both of the following log settings are only visible to agent owners:
 - Log interactions to Dialogflow: Indicates whether Interaction logging is enabled for the agent.
 - Log interactions to Google Cloud: Indicates whether Cloud logging is enabled for the agent. This option is only available if Log interactions to Dialogflow is enabled. Disabling Dialogflow's logging will also disable this setting. You can also click the Open logs link to open your agent's logs in Cloud logging.
- **Delete Agent:** Completely deletes the agent and cannot be undone. If the agent is shared with other users, those users must be removed from the agent before you can delete it. See Agent management.

ML settings (machine learning)

To access the machine learning settings, click the **ML Settings** tab.

Dialogflow agents use machine learning algorithms to understand end-user expressions, match them to intents, and extract structured data. An agent learns from **training phrases** that you provide and the language models built into Dialogflow. Based on this data, it builds a model for making decisions about which intent should be matched to an end-user expression. This model is unique to your agent.

By default, Dialogflow updates your agent's machine learning model every time you make changes to intents and entities, import or restore an agent, or train your agent.

The following settings are available:

- **ML Classification Threshold:** To filter out false positive results and still get variety in matched natural language inputs for your agent, you can tune the machine learning classification threshold. This setting controls the minimum intent detection confidence required for an intent match.
- **Automatic Spell Correction:** If this is enabled and user input has a spelling or grammar mistake, an intent will be matched as though it was written correctly. The detect intent response will contain the corrected user input. For example, if a user enters "I want an aple", it will be processed as though the user entered "I want an apple". This also applies to matches involving both system and custom entities.
- **Automatic Training:** Enable or disable automatic agent training each time the agent is modified.

Export and Import

To access the export and import settings, click the **Export and Import** tab. This feature allows you to export/import an agent to/from a zip file for backing up agents or transferring them from one account to another. While you can edit the JSON files directly and re-import them, editing should be done using the Dialogflow Console or API. This ensures that changes are validated by the system and keeps troubleshooting to a minimum.

The following options are available:

- **Export as ZIP:** Exports the agent as a zip file.
- **Restore from ZIP:** Overwrites the current agent with the supplied zip file.
- **Import from ZIP:** Adds intents and entities to the current agent from the supplied zip file. If any existing intents or entities have the same name as those in the zip file, they will be replaced.

Speech

To access the speech settings, click the **Speech** tab. These are the settings for speech recognition and speech synthesis. The following settings are available:

- **Improve Speech Recognition Quality**
 - Enable Enhanced Speech Models and Data Logging: See Data logging and enhanced speech models.
 - Enable Auto Speech Adaptation: See Auto speech adaptation.
- **Text to Speech**
 - Enable Automatic Text to Speech: Automatically convert default text responses to speech in all conversations. See Detect intent with audio output.
 - Voice Configuration:
 - Agent Language: Choose the default language for voice synthesis.
 - Voice: Choose a voice synthesis model.
 - Speaking Rate: Adjusts the voice speaking rate.
 - Pitch: Adjusts the voice pitch.
 - Volume Gain: Adjust the audio volume gain.
 - Audio Effects Profile: Select audio effects profiles you want applied to the synthesized voice. Speech audio is optimized for the devices associated with the selected profiles (for example, headphones, large speaker, phone call).

Congratulations

You built a simple chatbot and now you're a chatbot developer!