Bonus Task 4

For the Bonus Challenge, I successfully built a Conversational Agent using Google Cloud AI Applications. The objective of this task was to create an intelligent agent that could answer citizen questions about Aurora Bay using a connected Vertex AI Data Store while preventing hallucinations and ensuring responses were grounded in official FAQ content.

I began by navigating to **AI Applications** in the Google Cloud Console and selecting **Create App → Conversational Agent**. I configured the application with the name **Aurora Bay Agent**, selected the region **us-central1**, and set the language to English. This created the foundation for the conversational interface.

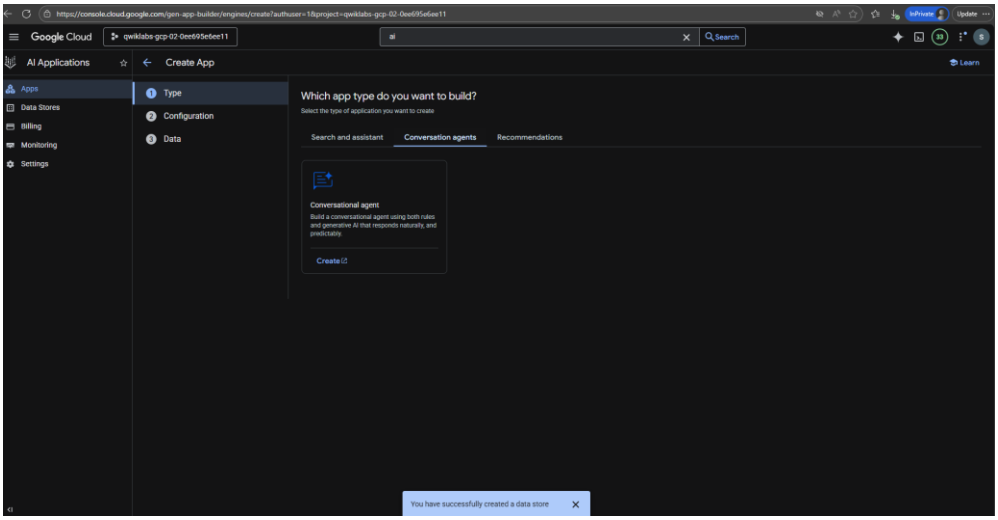
Next, I created a **Vertex AI Data Store** using Cloud Storage as the source. I connected the data store to the required bucket:

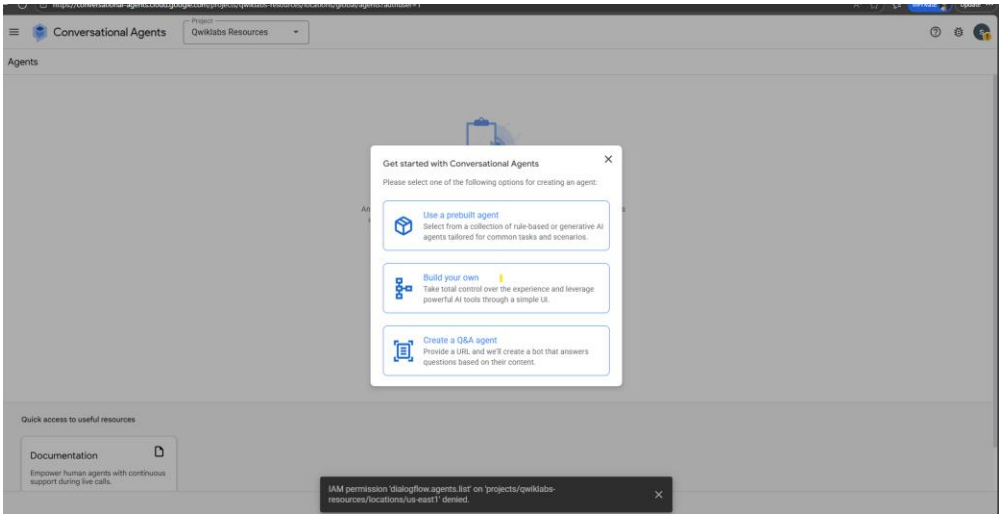
```
gs://labs.roitraining.com/aurora-bay-faqs
```

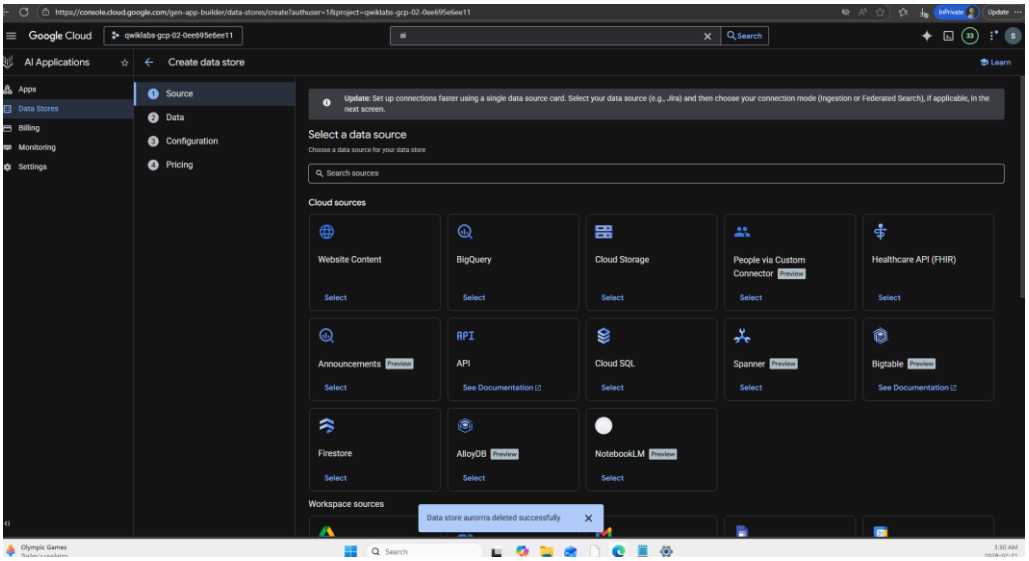
I ensured that the data store was created in the same region (us-central1) as the agent to avoid compatibility issues. After initiating the data store creation process, I waited for the indexing process to complete. Once the status showed "Ready," I verified that the documents were successfully ingested and searchable. I then connected this data store to the Aurora Bay Agent under the agent's settings. This enabled Retrieval-Augmented Generation (RAG), allowing the agent to generate responses based strictly on the indexed FAQ documents.

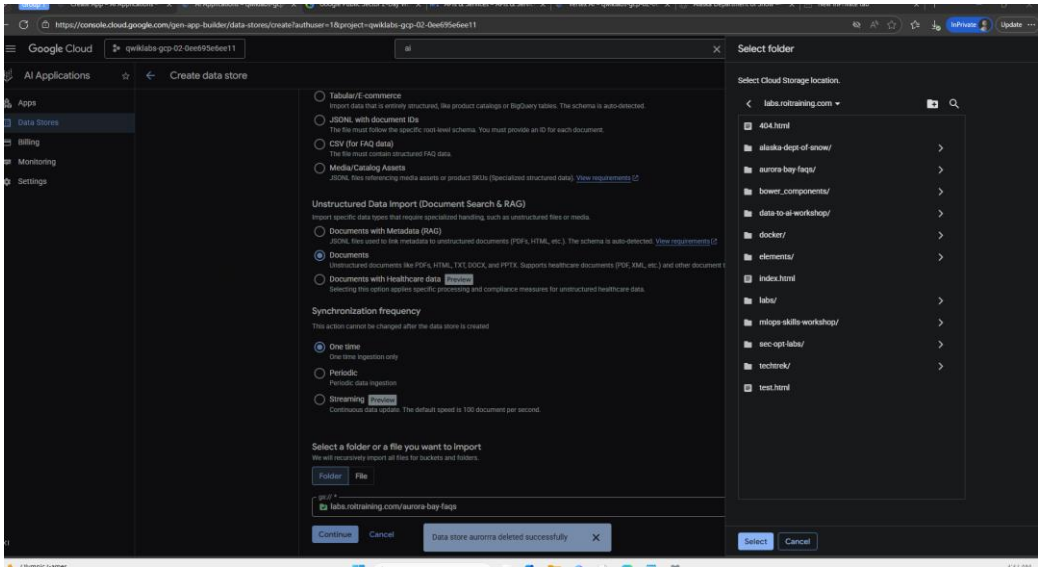
After connecting the data store, I configured the **Default Generative Playbook**. I updated the Goal section to clearly define the agent's purpose: to provide accurate and helpful answers to citizen questions using only the connected Aurora Bay FAQ data store. I then replaced the default instructions with structured guidance to enforce grounded responses. The instructions required the agent to greet users politely, identify their question, retrieve relevant information from the data store, and answer using only that information. I also explicitly instructed the agent not to guess or generate unsupported content. If the requested information was not available in the FAQ documents, the agent was required to respond with: "I don't have enough information in the Aurora Bay FAQs to answer that." Additionally, I instructed the agent to keep responses concise and professional and provide next steps when appropriate.

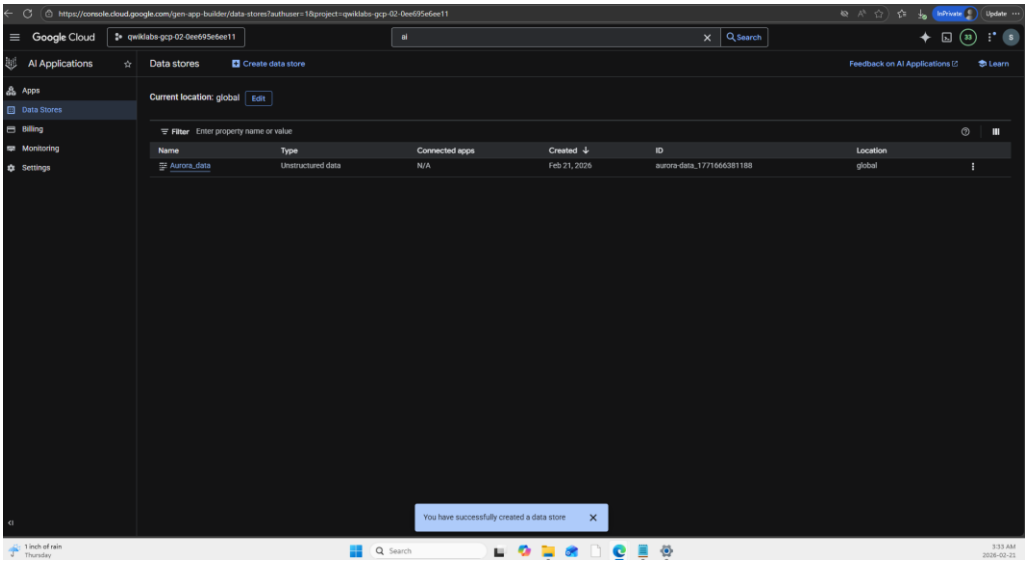
To validate the configuration, I tested the agent with several questions. For example, when I asked, "Where is Aurora Bay Town Hall located?" the agent correctly retrieved and presented information from the data store. When I asked an out-of-scope question such as, "What is the mayor's favorite movie?" the agent correctly responded that it did not have enough information in the Aurora Bay FAQs. This confirmed that the data store connection was functioning correctly and that hallucination prevention was successfully implemented.

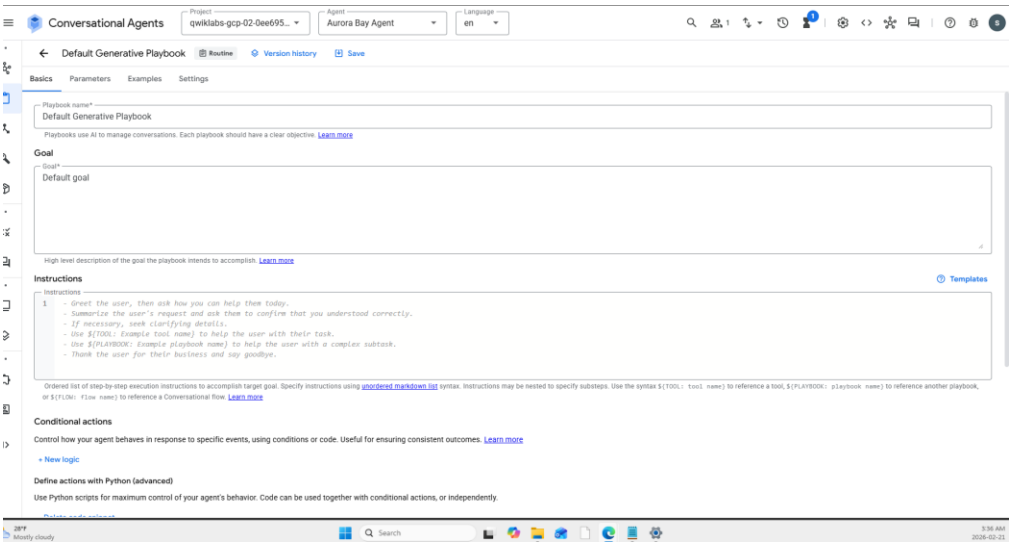

Google Cloud
qwiklabs-gcp-02-0ee695e6ee11
ai
Search
AI Applications
Create App
Learn
Apps
Data Stores
Billing
Monitoring
Settings
1 Type
2 Configuration
3 Data
Which app type do you want to build?
Select the type of application you want to create
Search and assistant
Conversation agents
Recommendations
Conversational agent
Build a conversational agent using both rules and generative AI that responds naturally, and predictably
Create
You have successfully created a data store

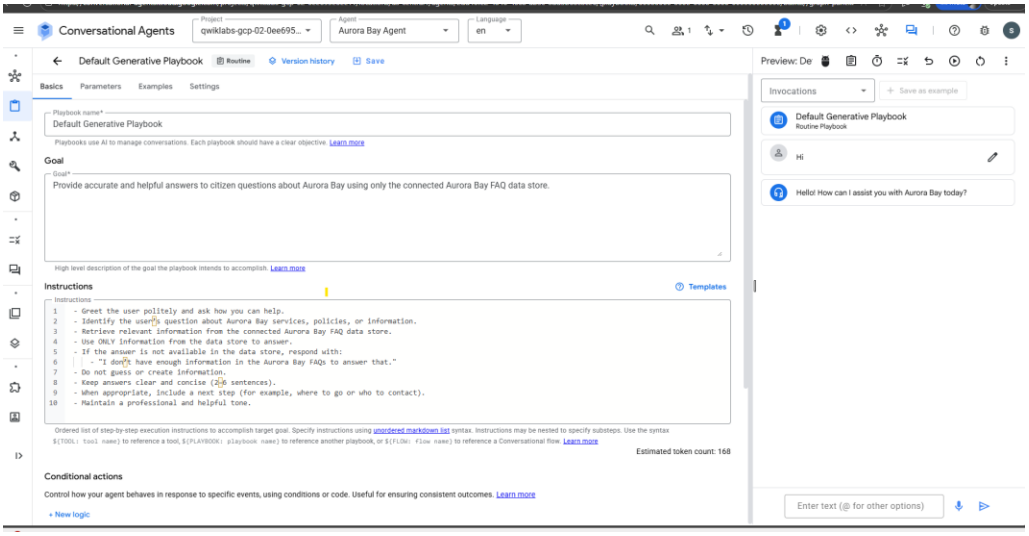

Conversational Agents
Project
Qwiklabs Resources
Agents
Get started with Conversational Agents
Please select one of the following options for creating an agent:
Use a prebuilt agent
Select from a collection of rule-based or generative AI agents tailored for common tasks and scenarios.
Build your own
Take total control over the experience and leverage powerful AI tools through a simple UI.
Create a Q&A agent
Provide a URL and we'll create a bot that answers questions based on their content.
Quick access to useful resources
Documentation
Empower human agents with continuous support during live calls.
IAM permission 'dialogflow.agents.list' on 'projects/qwiklabs-resources/locations/us-east1' denied.


Google Cloud
qwiklabs-gcp-02-0ee695e6ee11
ai
Search
AI Applications
Create data store
Learn
Apps
Data Stores
Billing
Monitoring
Settings
1 Source
2 Data
3 Configuration
4 Pricing
Update: Set up connections faster using a single data source card. Select your data source (e.g., Jira) and then choose your connection mode (Ingestion or Federated Search), if applicable, in the next screen.
Select a data source
Choose a data source for your data store
Search sources
Cloud sources
Website Content
BigQuery
Cloud Storage
People via Custom Connector
Preview
Healthcare API (FHIR)
Select
Announcements
API
See Documentation
Cloud SQL
Spanner
Bigtable
Firestore
AlloyDB
NotebookLM
Workspace sources
Data store aurorrra deleted successfully


Google Cloud
qwiklabs-gcp-02-0ee695e6ee11
AI Applications
Create data store
Apps
Data Stores
Billing
Monitoring
Settings
Tabular/E-commerce
JSONL with document IDs
CSV (for FAQ data)
Media/Catalog Assets
Unstructured Data Import (Document Search & RAG)
Documents with Metadata (RAG)
Documents
Documents with Healthcare data
Synchronization frequency
One time
Periodic
Streaming
Select a folder or a file you want to import
Folder
File
labs.roitraining.com/aurora-bay-faqs
Continue
Cancel
Data store aurorra deleted successfully
Select folder
Select Cloud Storage location.
labs.roitraining.com
404.html
alaska-dept-of-snow/
aurora-bay-faqs/
bower_components/
data-to-ai-workshop/
docker/
elements/
index.html
labs/
mlops-skills-workshop/
sec-opt-labs/
techtrek/
test.html
Select
Cancel


Google Cloud
qwiklabs-gcp-02-0ee695e6ee11
Search
AI Applications
Data stores
Create data store
Feedback on AI Applications
Learn
Apps
Data Stores
Billing
Monitoring
Settings
Current location: global
Edit
Filter
Enter property name or value
Name
Type
Connected apps
Created
ID
Location
Aurora_data
Unstructured data
N/A
Feb 21, 2026
aurora-data_1771666381188
global
You have successfully created a data store


Conversational Agents
Project
qwiklabs-gcp-02-0ee695...
Agent
Aurora Bay Agent
Language
en
Default Generative Playbook
Routine
Version history
Save
Basics
Parameters
Examples
Settings
Playbook name*
Default Generative Playbook
Playbooks use AI to manage conversations. Each playbook should have a clear objective. Learn more
Goal
Goal*
Default goal
High level description of the goal the playbook intends to accomplish. Learn more
Instructions
Templates
Instructions
1 - Greet the user, then ask how you can help them today.
- Summarize the user's request and ask them to confirm that you understood correctly.
- If necessary, seek clarifying details.
- Use ${TOOL: Example tool name} to help the user with their task.
- Use ${PLAYBOOK: Example playbook name} to help the user with a complex subtask.
- Thank the user for their business and say goodbye.
Ordered list of step-by-step execution instructions to accomplish target goal. Specify instructions using unordered markdown list syntax. Instructions may be nested to specify substeps. Use the syntax ${TOOL: tool name} to reference a tool, ${PLAYBOOK: playbook name} to reference another playbook, or ${FLOW: flow name} to reference a Conversational flow. Learn more
Conditional actions
Control how your agent behaves in response to specific events, using conditions or code. Useful for ensuring consistent outcomes. Learn more
+ New logic
Define actions with Python (advanced)
Use Python scripts for maximum control of your agent's behavior. Code can be used together with conditional actions, or independently.


Conversational Agents
Project
qwiklabs-gcp-02-0ee695...
Agent
Aurora Bay Agent
Language
en
Default Generative Playbook
Routine
Version history
Save
Basics
Parameters
Examples
Settings
Playbook name*
Default Generative Playbook
Playbooks use AI to manage conversations. Each playbook should have a clear objective. Learn more
Goal
Goal*
Provide accurate and helpful answers to citizen questions about Aurora Bay using only the connected Aurora Bay FAQ data store.
High level description of the goal the playbook intends to accomplish. Learn more
Instructions
Templates
Instructions
1 - Greet the user politely and ask how you can help.
2 - Identify the user's question about Aurora Bay services, policies, or information.
3 - Retrieve relevant information from the connected Aurora Bay FAQ data store.
4 - Use ONLY information from the data store to answer.
5 - If the answer is not available in the data store, respond with:
6 - "I don't have enough information in the Aurora Bay FAQs to answer that."
7 - Do not guess or create information.
8 - Keep answers clear and concise (2–6 sentences).
9 - When appropriate, include a next step (for example, where to go or who to contact).
10 - Maintain a professional and helpful tone.
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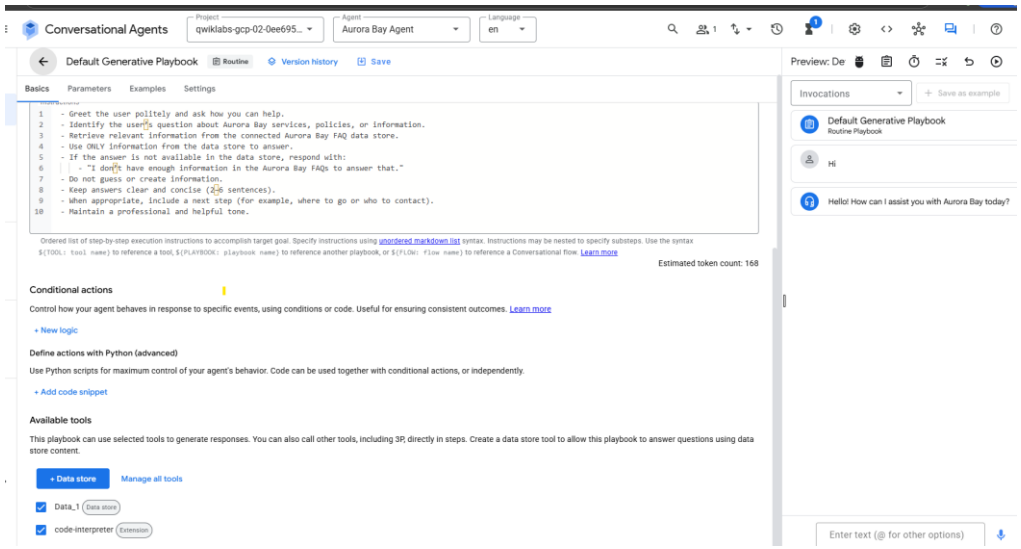
Estimated token count: 168
Conditional actions
Control how your agent behaves in response to specific events, using conditions or code. Useful for ensuring consistent outcomes. Learn more
+ New logic
Preview: De
Invocations
Save as example
Default Generative Playbook
Routine Playbook
Hi
Hello! How can I assist you with Aurora Bay today?
Enter text (@ for other options)


Conversational Agents
Project
qwiklabs-gcp-02-0ee695...
Agent
Aurora Bay Agent
Language
en
Default Generative Playbook
Routine
Version history
Save
Basics
Parameters
Examples
Settings
1 - Greet the user politely and ask how you can help.
2 - Identify the user's question about Aurora Bay services, policies, or information.
3 - Retrieve relevant information from the connected Aurora Bay FAQ data store.
4 - Use ONLY information from the data store to answer.
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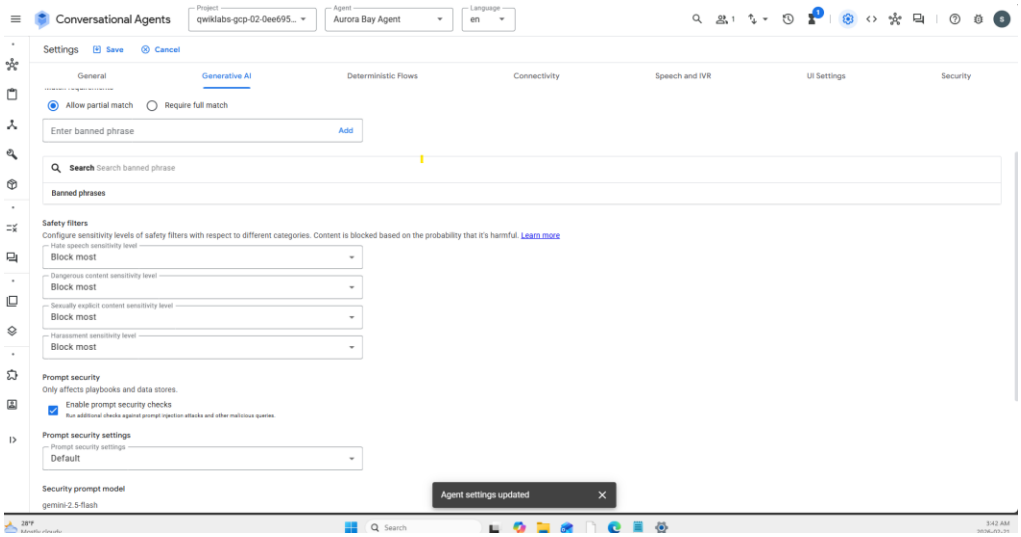
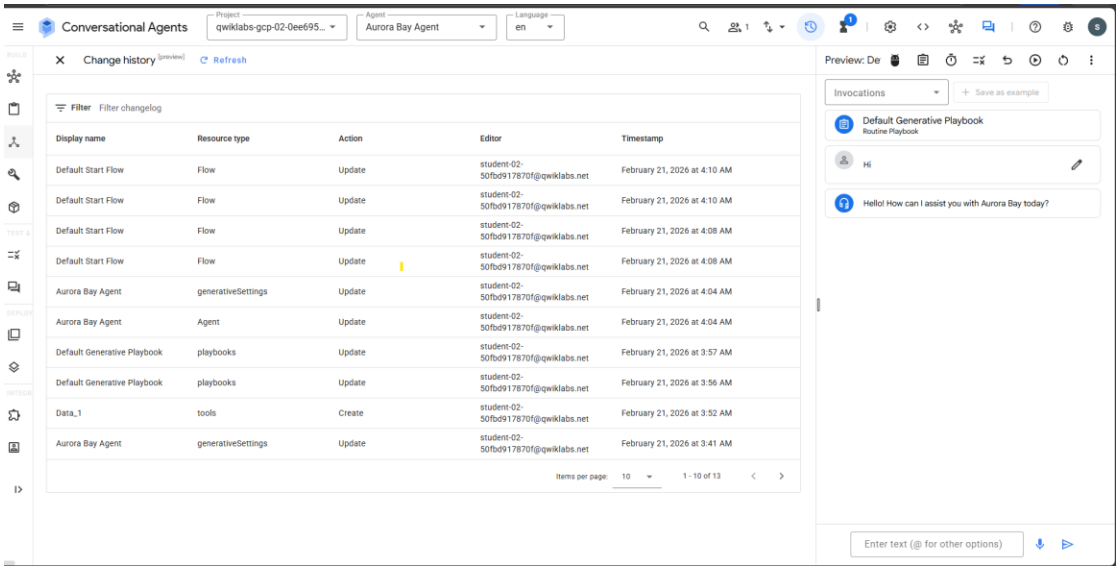
Estimated token count: 168
Conditional actions
Control how your agent behaves in response to specific events, using conditions or code. Useful for ensuring consistent outcomes. Learn more
+ New logic
Define actions with Python (advanced)
Use Python scripts for maximum control of your agent's behavior. Code can be used together with conditional actions, or independently.
+ Add code snippet
Available tools
This playbook can use selected tools to generate responses. You can also call other tools, including 3P, directly in steps. Create a data store tool to allow this playbook to answer questions using data store content.
+ Data store
Manage all tools
Data_1
Data store
code-interpreter
Extension
Preview: De
Invocations
Save as example
Default Generative Playbook
Routine Playbook
Hi
Hello! How can I assist you with Aurora Bay today?
Enter text (@ for other options)


Conversational Agents
Project
qwiklabs-gcp-02-0ee695...
Agent
Aurora Bay Agent
Language
en
Settings
Save
Cancel
General
Generative AI
Deterministic Flows
Connectivity
Speech and IVR
UI Settings
Security
Allow partial match
Require full match
Enter banned phrase
Add
Search
Search banned phrase
Banned phrases
Safety filters
Configure sensitivity levels of safety filters with respect to different categories. Content is blocked based on the probability that it's harmful. Learn more
Hate speech sensitivity level
Block most
Dangerous content sensitivity level
Block most
Sexually explicit content sensitivity level
Block most
Harassment sensitivity level
Block most
Prompt security
Only affects playbooks and data stores.
Enable prompt security checks
Run additional checks against prompt injection attacks and other malicious queries.
Prompt security settings
Prompt security settings
Default
Security prompt model
gemini-2.5-flash
Agent settings updated


Conversational Agents
Project
qwiklabs-gcp-02-0ee695...
Agent
Aurora Bay Agent
Language
en
Change history [preview]
Refresh
Filter
Filter changelog
Display name
Resource type
Action
Editor
Timestamp
Default Start Flow
Flow
Update
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 4:10 AM
Default Start Flow
Flow
Update
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 4:10 AM
Default Start Flow
Flow
Update
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 4:08 AM
Default Start Flow
Flow
Update
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 4:08 AM
Aurora Bay Agent
generativeSettings
Update
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 4:04 AM
Aurora Bay Agent
Agent
Update
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 4:04 AM
Default Generative Playbook
playbooks
Update
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 3:57 AM
Default Generative Playbook
playbooks
Update
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 3:56 AM
Data_1
tools
Create
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 3:52 AM
Aurora Bay Agent
generativeSettings
Update
student-02-50fbd917870f@qwiklabs.net
February 21, 2026 at 3:41 AM
Items per page:
10
1 - 10 of 13
Preview: De
Invocations
Save as example
Default Generative Playbook
Routine Playbook
Hi
Hello! How can I assist you with Aurora Bay today?
Enter text (@ for other options)