Evaluation Test 1 - Weather Info & Forecast Bot using Google Dialogflow ES
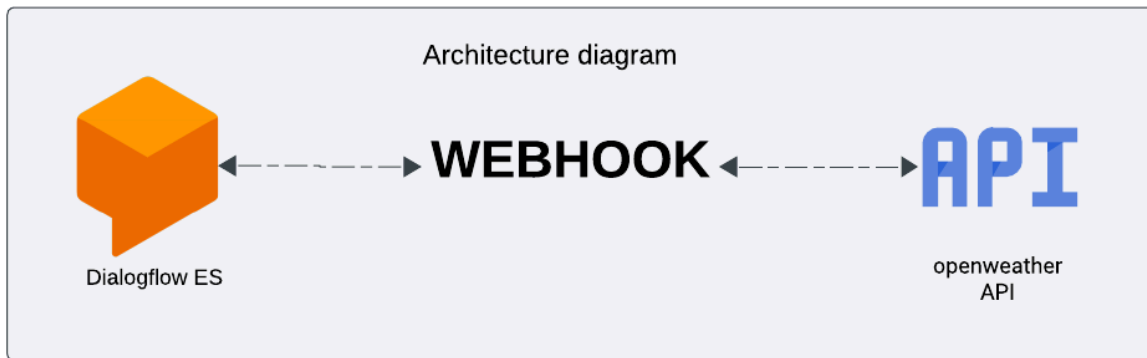
Use Case

You are required to build a chatbot using Google Dialogflow ES that can provide current and forecasted global weather information to its users.

- The bot will be able to provide current weather information for a specific city.
- The bot will be able to provide forecasted weather information for up to the next 8 days from the current date for a specific city.
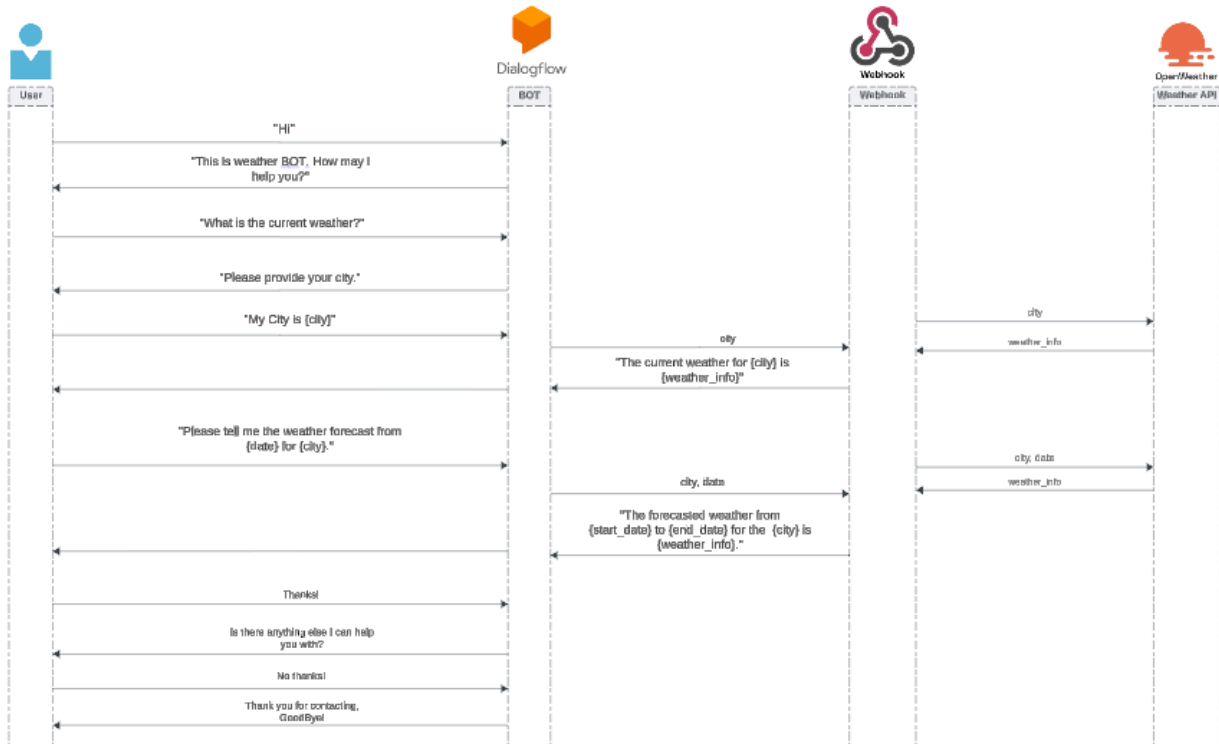
Objectives

1. Setup and configure [Dialogflow ES](#):
   a. Build the conversational flow as shown in the sequence diagram provided below.
   b. Configure fulfillment webhook. (URL of your hosted code on any hosting service i.e [ngrok](#))
2. Build a REST API that can receive a webhook request from the Weather bot that you've built in Step 1. (Use backend language/framework of your choice)
   a. Receive the WebhookRequest from the bot and fetch the location (`city`) and date that the user has provided.
      i. Time should be fetched automatically from chat session details.
      ii. If no date is provided, current weather information will be relevant based on the chat session date.
      iii. From the start date calculate 8 days ahead to provide the forecasted weather.
   b. Use [this](#) resource and its APIs to fetch the data.
   c. Return the response back to the bot and show it in the Dialogflow Chat interface

Architecture Diagram:

Architecture diagram

WEBHOOK

Dialogflow ES

openweather API

Conversational Flow Diagram:

User — **Dialogflow BOT** — **Webhook** — **OpenWeather Weather API**

"Hi"

"This is weather BOT. How may I help you?"

"What is the current weather?"

"Please provide your city."

"My City is {city}"

city

city

weather_info

weather_info

"The current weather for {city} is {weather_info}"

"Please tell me the weather forecast from {date} for {city}."

city, date

city, date

weather_info

weather_info

"The forecasted weather from {start_date} to {end_date} for the {city} is {weather_info}."

Thanks!

Is there anything else I can help you with?

No thanks!

Thank you for contacting, GoodBye!

Submission Criteria

1. Record a demo video for the functioning DialogFlow ES bot which will show the interaction documented in the task above.
   a. A voiceover is required that explains the contents of the video (suggested utility is OBS Studio to record Audio & Video)
2. Upload the code for the REST API created in step 2 in objectives on a public GitHub repository for your GitHub account.
3. Email the zip file for the DialogFlow ES agent and the repository link to submissions@interactcx.com

- *Test timeline is 7 days from the date of receipt acknowledgement.*
- *You are allowed to use resources publicly available on the internet.*
- *For any queries that you might encounter, contact us at* candidatequeries@interactcx.com