Google Developers

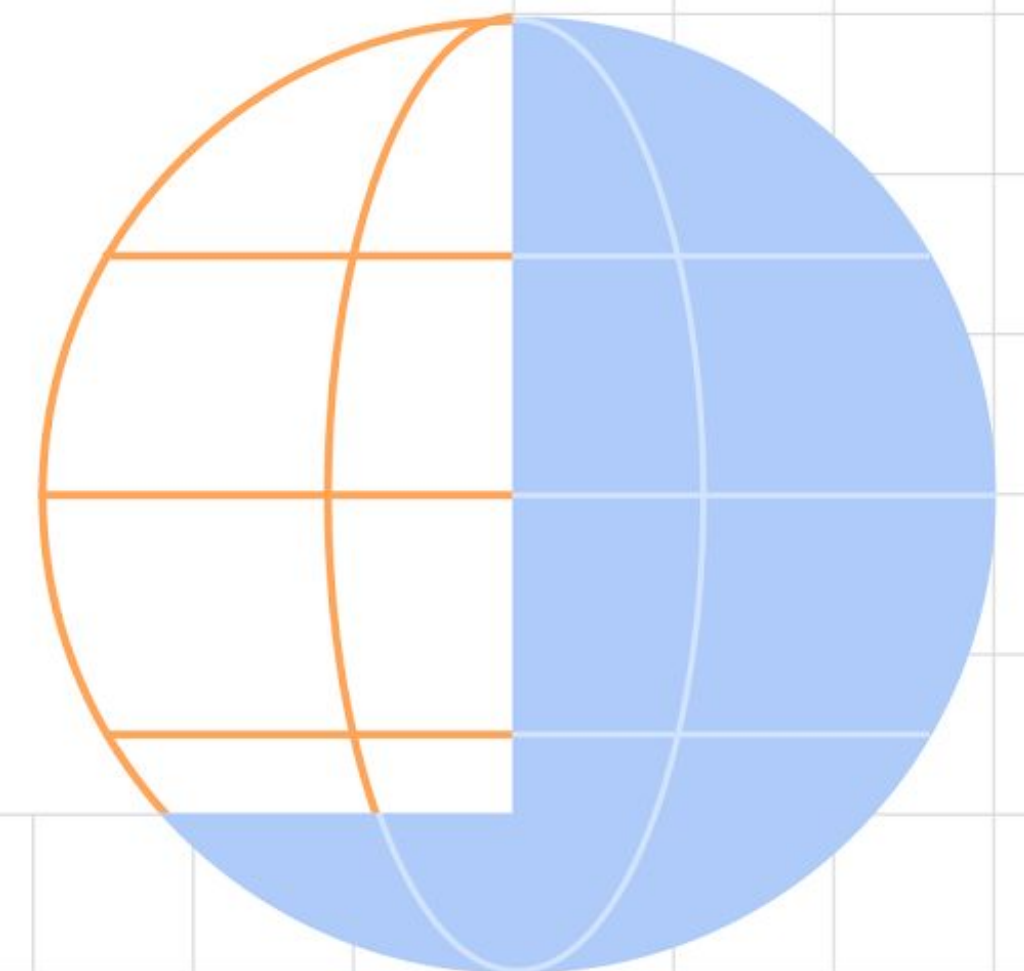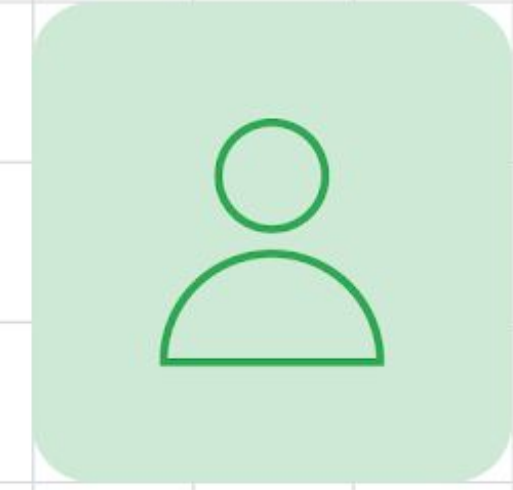# GDG Galway

Chatbots and Intro to Google Cloud Serverless

Julien Garrigues
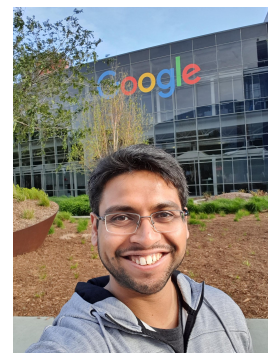Swapnil Parashar
Shadab Ansari

[Slack](), [Meetup](), [Facebook](), [Twitter]()

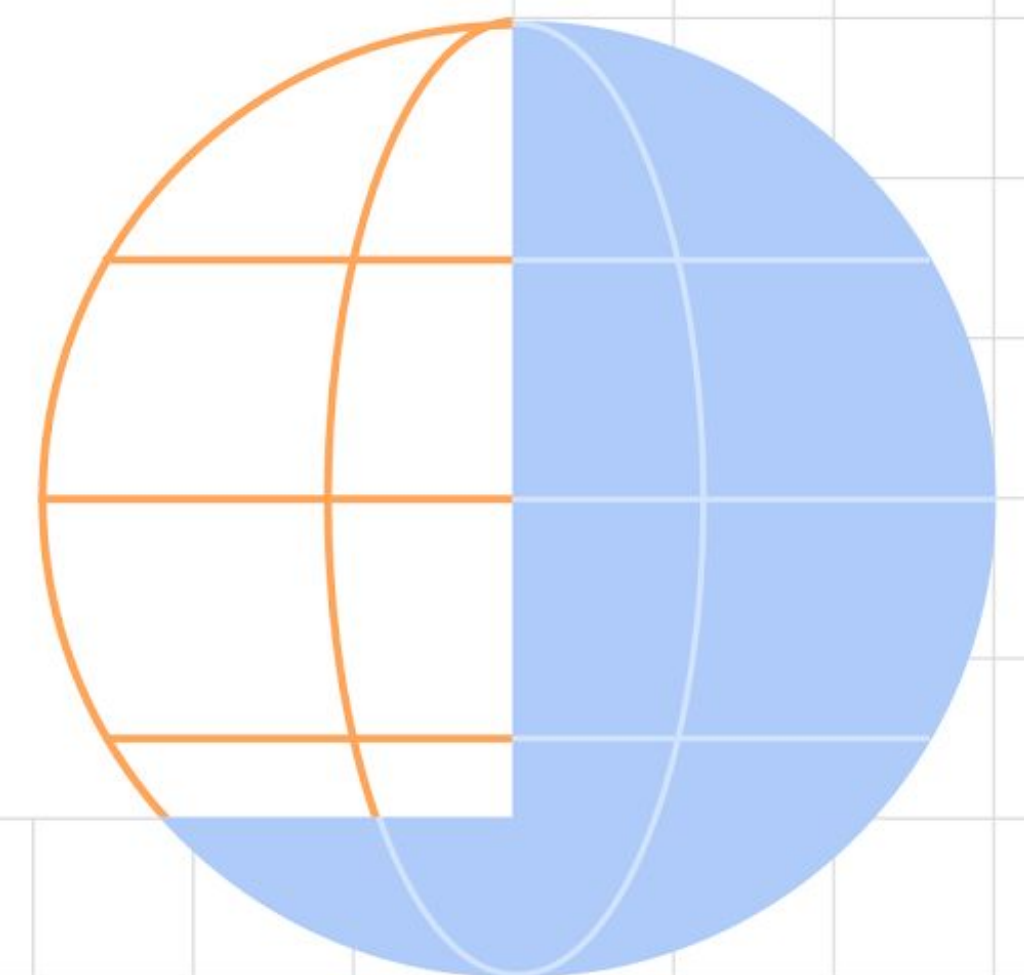Google Developers

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GDE program

Chatbots and Intro to Google Cloud Serverless

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Chatbots

Dialogflow

Give users new ways to interact with your product by building engaging voice and text-based conversational interfaces, such as voice apps and chatbots, powered by AI. Connect with users on your website, mobile app, the Google Assistant, Amazon Alexa, Facebook Messenger, and other popular platforms and devices.

Contact Center AI

Serve customers better with AI that talks, understands, and interacts

https://youtu.be/uHrwV1SZLEo

- **Features**
    - Virtual Agent
    - Agent Assist
    - Insights - sentiment analysis

- **Contact Center AI partners**
    - Genesys
    - Avaya
    - Cisco
    - Mitel

Experts

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Dialogflow

Basics - 1: Agent - Handles conversations with end-users.

- **Intents** - categorizes user intention and accordingly decides the closest action or response to be provided back to the user.
  - Training Phrase - User's input phrases - powered by ML
  - Action - Action to be taken
  - Parameters - Extract useful information/ values from the user's input phrase
 - Response - Text, speech or visual response returned back to the end-user

Dialogflow

Basics-2

- **Entities** - dictates exactly how data from an end-user expression is extracted.
  - System Entities - date, time, location etc.
  - Custom Entities - your own classification
- **Context** - the context of the conversation in follow up conversations
  - Input - input of the context.
  - Output - output for the context
- **Follow-up Intents** - automatically set up context for a pair of intents

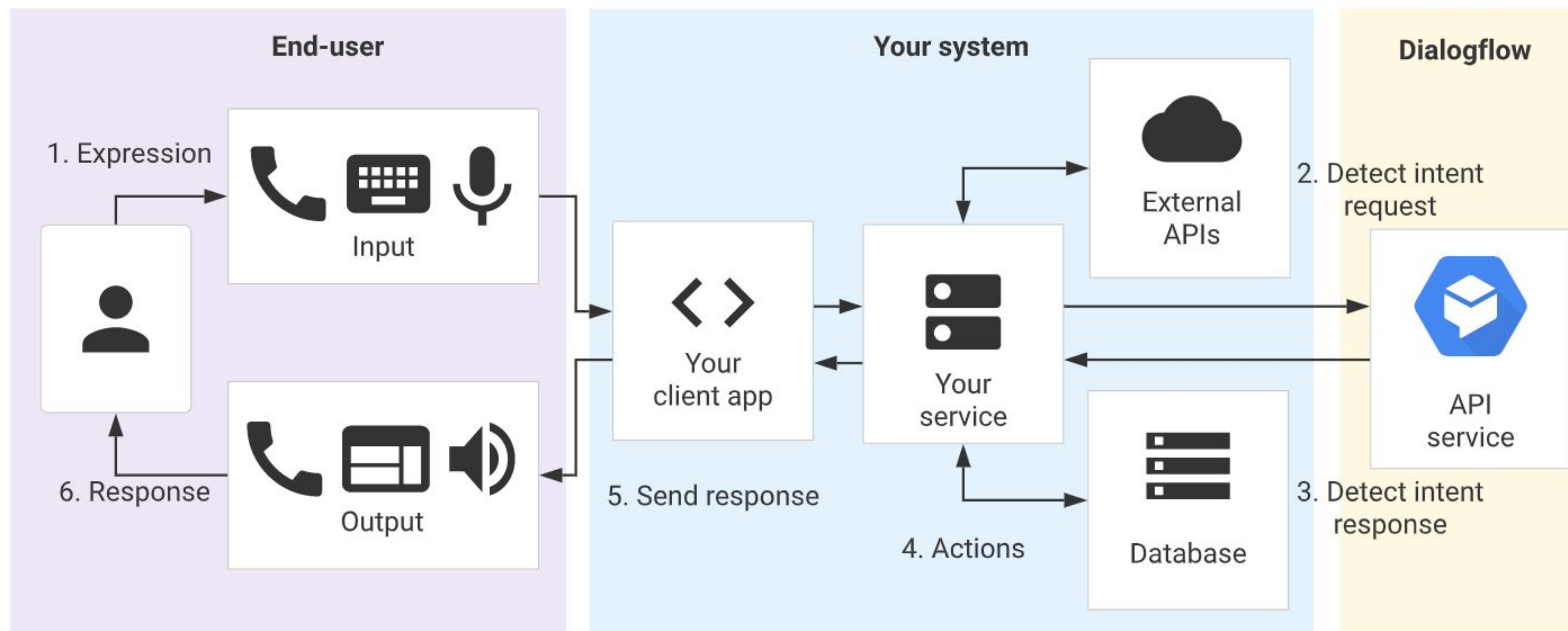# Dialogflow

Fulfillment for integrations - 1
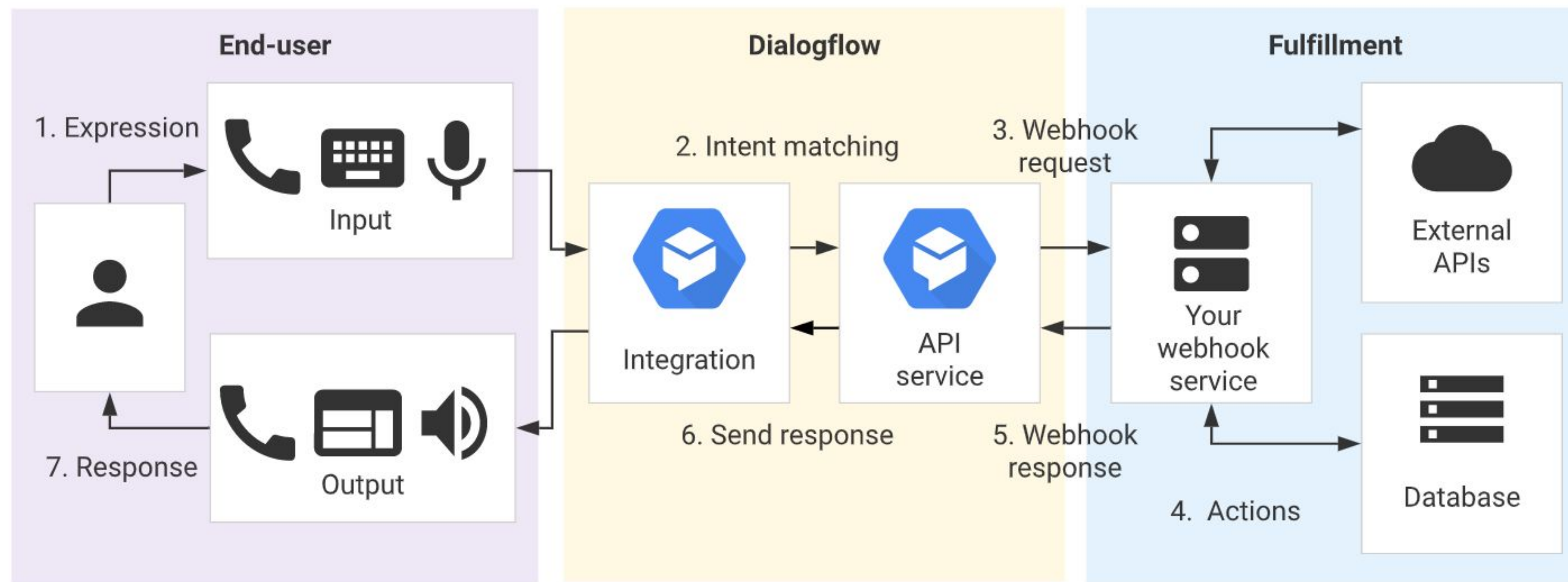
Dialogflow

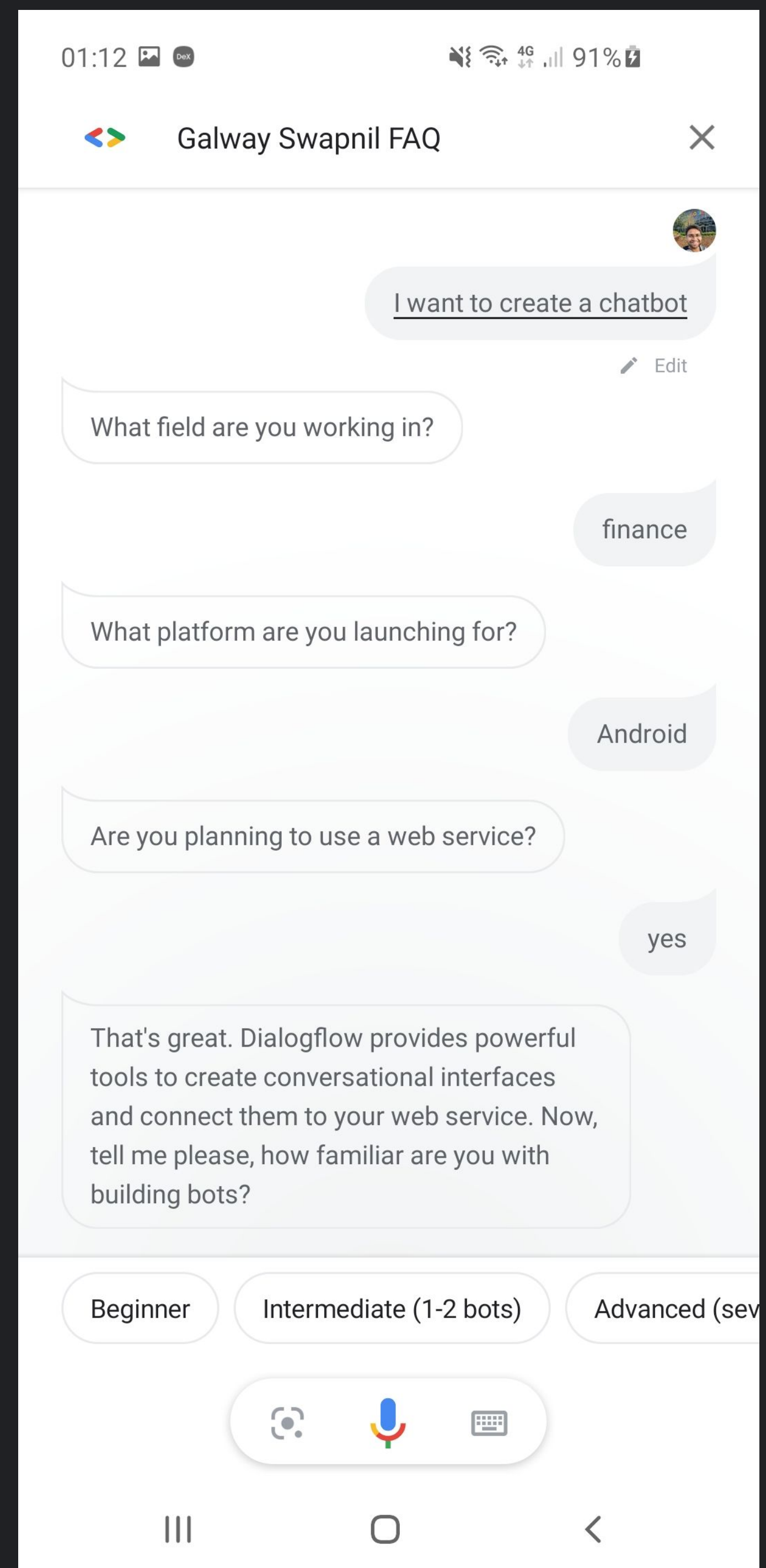## Fulfillment for integrations - 2

Dialogflow

Built-in Integrations

These integrations are fully supported by Dialogflow and are configured with the Dialogflow console. The following are available:

- Google Assistant
- Dialogflow Messenger
- Dialogflow Phone Gateway
- Dialogflow Web Demo
- Hangouts Chat
- Facebook Messenger
- LINE
- Slack
- Telegram

Google Assistant

Galway Swapnil FAQ Agent

Intent and follow up intents with required parameters - Industry and Platform..

01:12

Galway Swapnil FAQ

I want to create a chatbot

Edit

What field are you working in?

finance

What platform are you launching for?

Android

Are you planning to use a web service?

yes

That's great. Dialogflow provides powerful tools to create conversational interfaces and connect them to your web service. Now, tell me please, how familiar are you with building bots?

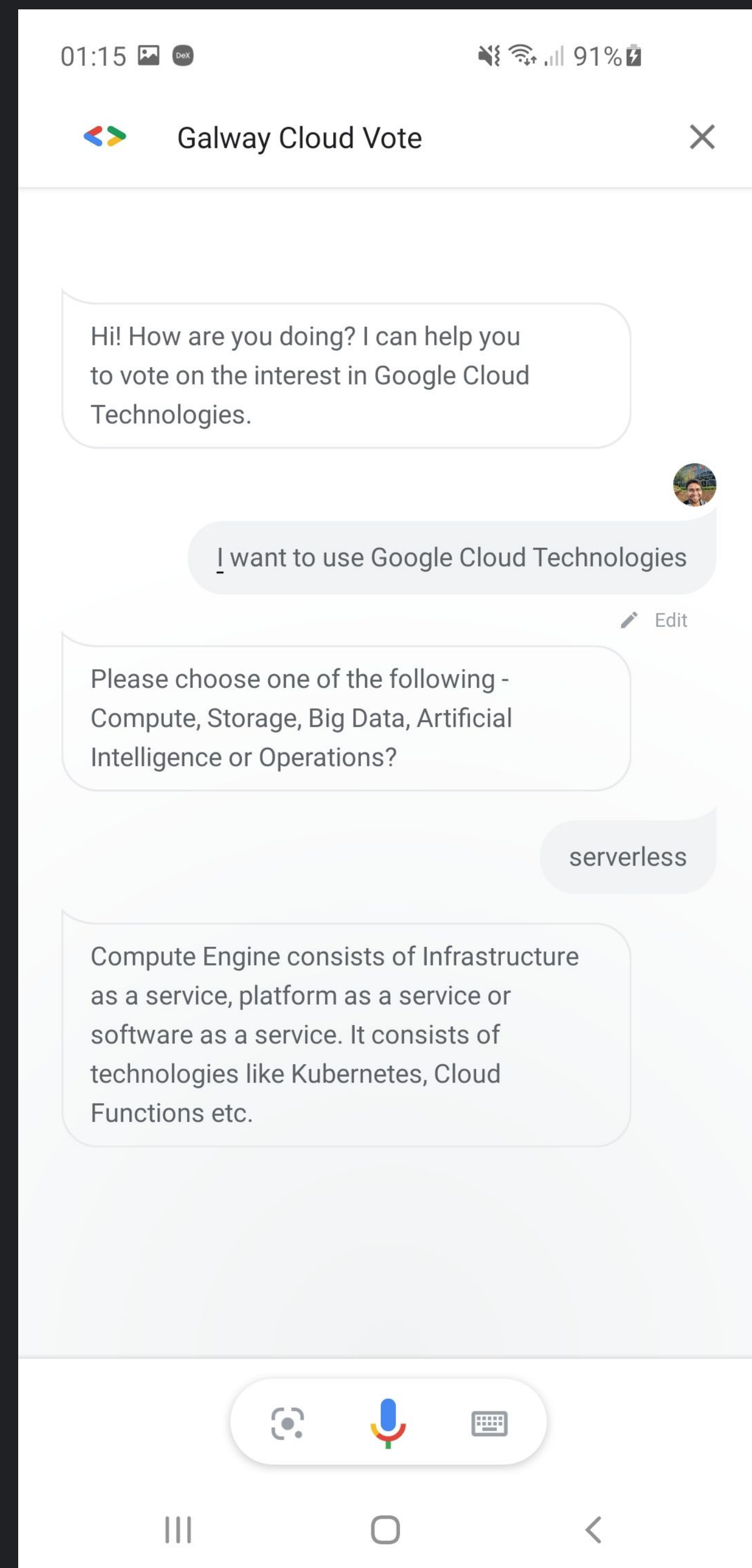Beginner | Intermediate (1-2 bots) | Advanced (sev

Google Assistant

Galway Cloud Vote Agent

Intent and follow up intent with parameter to use Entity (serverless belonging to Compute).
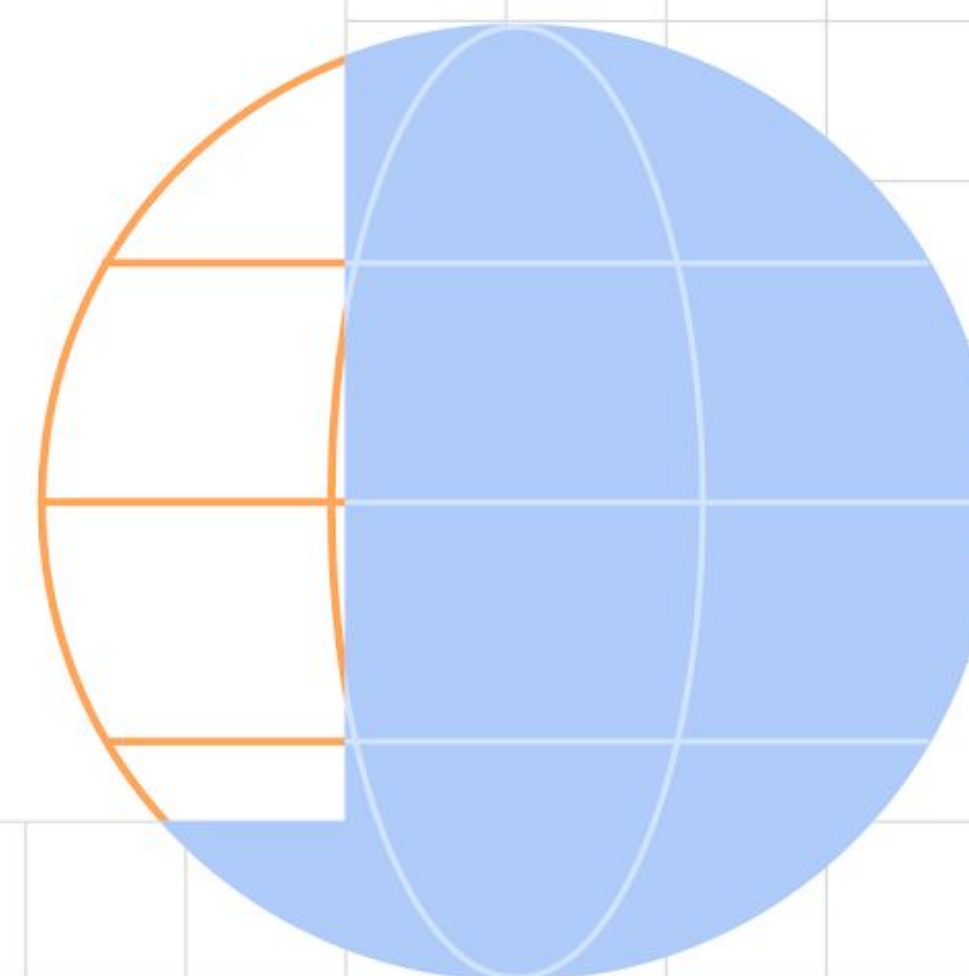Ability to use Cloud Functions and Firestore Database

Experts

Google Cloud Platform

Serverless - PaaS (Platform as a Service)

Google Cloud Serverless

Serverless Computing

Google Cloud's serverless platform lets you write code your way without worrying about the underlying infrastructure. Deploy functions or apps as source code or as containers. Build full stack serverless applications with Google Cloud's storage, databases, machine learning, and more. Easily extend applications with event-driven computing from Google or third-party service integrations. You can even choose to move your serverless workloads to on-premises environments or to the cloud.

GCP Serverless options

SERVERLESS FUNCTIONS &
EVENTS

Cloud Functions

An event-driven compute
platform to easily connect
and extend Google and
third-party cloud services
and build applications that
scale from zero to planet
scale.

Learn more →

SERVERLESS HTTP
APPLICATIONS

App Engine
standard
environment

A fully managed serverless
application platform for
web and API backends.
Use popular development
languages without
worrying about
infrastructure
management.

Learn more →

SERVERLESS CONTAINERS

Cloud Run

A serverless compute
platform that enables you
to run stateless containers
invocable via HTTP
requests. Cloud Run is
available as a fully
managed, pay-only-for-
what-you-use platform and
also as part of Anthos.

Learn more →

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```javascript
function readFromDb (agent) {
   // Get the database collection 'dialogflow' and document 'agent'
   const dialogflowAgentDoc = db.collection('dialogflow').doc('agent');

   // Get the value of 'entry' in the document and send it to the user
   return dialogflowAgentDoc.get()
      .then(doc => {
        if (!doc.exists) {
          agent.add('No data found in the database!');
        } else {
          agent.add(doc.data().entry);
        }
        return Promise.resolve('Read complete');
      }).catch(() => {
        agent.add('Error reading entry from the Firestore database.');
        agent.add('Please add a entry to the database first by saying, "Write <your phrase> to the
database"');
      });
  }
```

Read from Database

```javascript
function writeToDb (agent) {
 // Get parameter from Dialogflow with the string to add to the database
 const databaseEntry = agent.parameters.technology;

 // Get the database collection 'dialogflow' and document 'agent' and store
 // the document  {entry: "<value of database entry>"} in the 'agent' document
 const dialogflowAgentRef = db.collection('dialogflow').doc('agent');
 return db.runTransaction(t => {
   t.set(dialogflowAgentRef, {entry: databaseEntry});
   return Promise.resolve('Write complete');
 }).then(doc => {
   agent.add(`Wrote "${databaseEntry}" to the Firestore database.`);
 }).catch(err => {
   console.log(`Error writing to Firestore: ${err}`);
   agent.add(`Failed to write "${databaseEntry}" to the Firestore database.`);
 });
}
```

Write to Database

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Thank You!

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