Viet's Dialogflow Manual - Volume 2

Step-by-step Guide on intents and custom payloads

Written at 2pm on 18th of March, 2020

Author's note:
This instruction manual aims to cover the necessary details on Dialogflow's intents and its response - text and custom payloads. It briefly discusses the role of custom payload in current and future development. The target audience is new team members who just newly joined the chatbot team. Programming knowledge is not needed but some knowledge of JSON is welcomed as I will not cover the technical details of them here. Instead we will be focused on building them and make sure they work on the platform intended.

Now...Let's start.

Content Structure
1. **Intents - What are they?**
2. **How to create a simple intent**
3. **Custom payload and rich messages**
4. **Issues on Maintenance and Portability**

1. Intents - What are they?

If you are new to Dialogflow, then you need to know that every question - answer pair is grouped under this thing called "intent". In this context, the question refers to the thing that the end-user says to the bot. In official Google's documents, you can see the same thing under different names: utterance, usersays , etc… . It all means the same thing, and in this manual I will stick with "*question*" until we can introduce more sophisticated terms. The answer refers to the thing that the bot says in response to the question given. This can be a simple text answer, an external link to some websites, an image. (More on this in Section 3.) For now, let's refer to this simple example below for a typical exchange between an end-user and the chatbot:
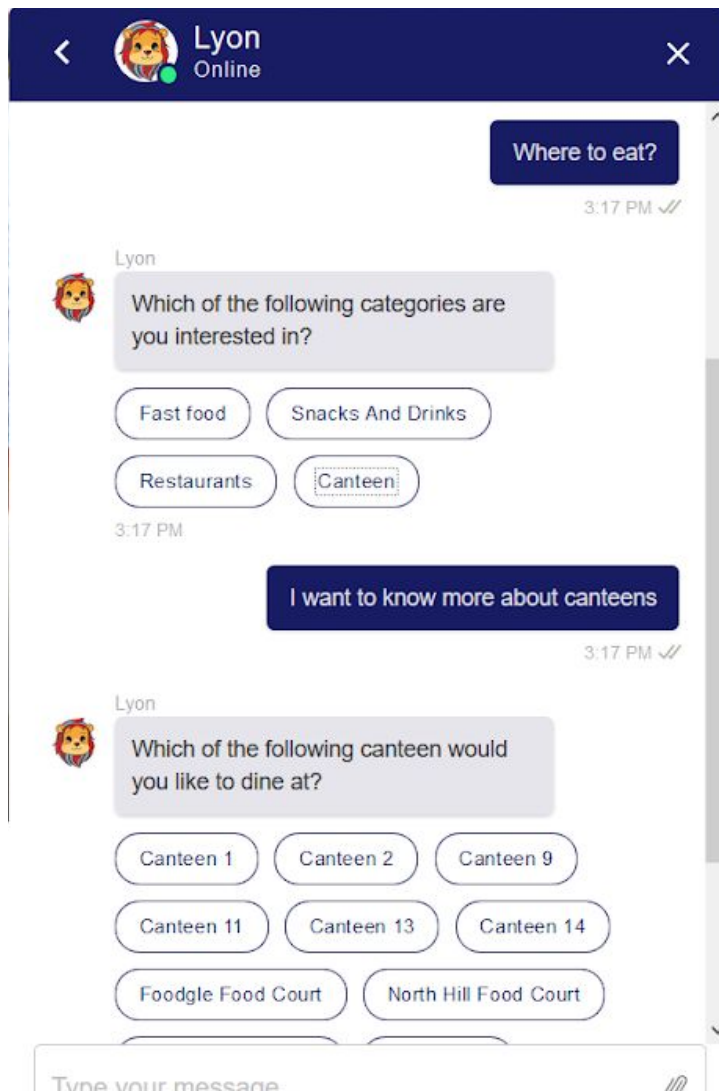
The above example can be shown as:

Question: Where to eat?

Answer: Which of the following categories …

Question: I want to know more about canteens

Answer: Which of the following canteen would you like to dine at?

In Dialogflow console, it will look like this

Dialogflow

FAQ_test
en

- Intents
- Entities
- Knowledge [beta]
- Fulfillment
- Integrations
- Training
- Validation
- History
- Analytics
- Prebuilt Agents
- Small Talk
- Docs

● Food   SAVE

Try it now

ⓘ Please use test console above to try a sentence.

●: See how it works in Google Assistant. ⎘

Contexts ❓   ⌄

Events ❓   ⌄

Training phrases ❓   Search training phrases 🔍 ⌃

99 Add user expression

99 User does not know where to eat

99 I want to know more about canteens

99 Where to eat?   🗑

Action and parameters   ⌃

Enter action name

REQUIRED ❓	PARAMETER NAME ❓	ENTITY ❓	VALUE	IS LIST ❓
☐	Enter name	Enter entity	Enter value	☐

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Responses ❓   ⌃

DEFAULT +

Custom Payload   ❓ 🗑

```
 1  {
 2          "message": "Which of the following categories are you interested in?",
 3          "platform": "kommunicate",
 4          "metadata": {
 5           "contentType": "300",
 6           "templateId": "6",
 7           "payload": [
 8              {
 9                "title": "Fast food",
10                "message": "I want to know more about fast food places"
11              },
12              {
13                "title": "Snacks And Drinks",
14                "message": "I want to know more about where I can get Snacks And
    Drinks"
15              },
16              {
17                "title": "Restaurants",
18                "message": "I want to know more about restaurants"
19              },
20              {
21                "title": "Canteen",
22                "message": "I want to know more about canteens"
23              }
```

As you can see, the question is parked under this section called Training phrases, whereas the Answer is parked under Response.

The content might look foreign for now, but we will get to them in a later section. Things for you to note:

1. The intents are under this Intent tab on the left panel, which is highlighted in blue.
2. The sections under which the Question and Answer reside respectively.
3. Each intent has a name, as indicated by the title on top (*Food* in this case)

To summarize, each conversation you see on the chatbot as an end-user is essentially just an intent at work. When the user says something, Dialogflow will see which intent's questions match this user's sayings the best, and use that intent's response to answer the user. The intent is therefore the backbone of the QnA mechanism of our chatbot.

In the next section, we will see how to add the questions and answers into the intent, as well as creating the intent.

2. Step by Step guide to add intent for a simple intent

Now assume that we want to add this intent to our bot

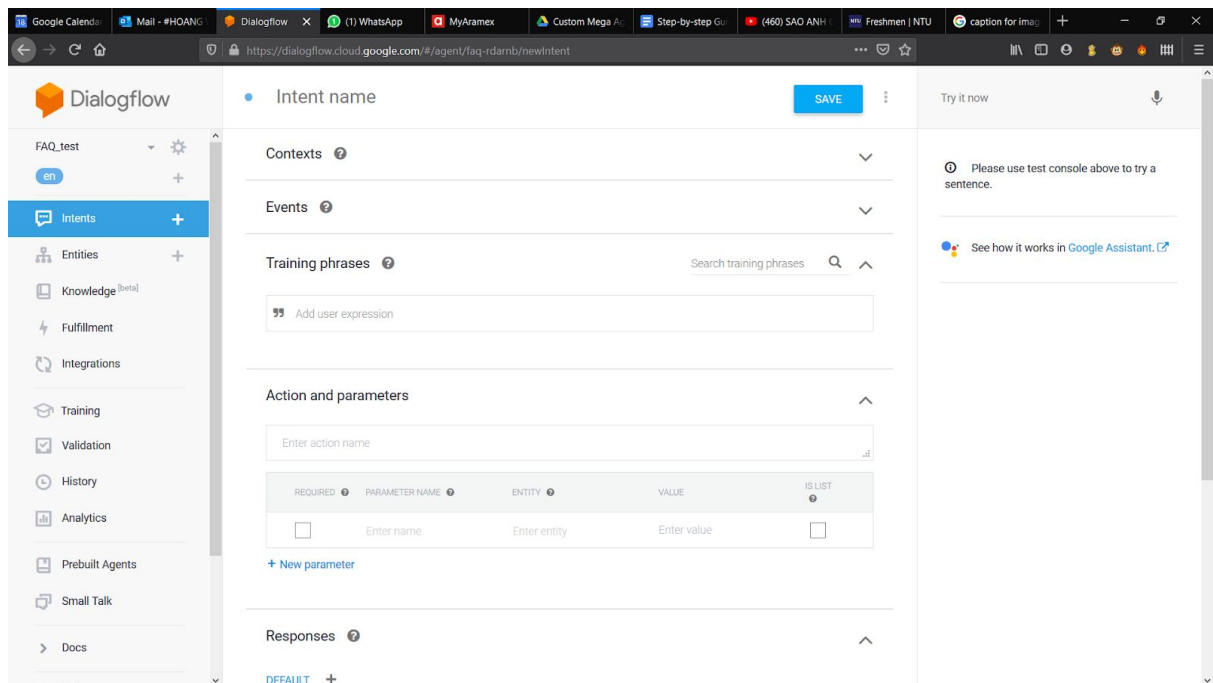Intentname: Subra_Suresh
Question: Who is Subra Suresh
Answer: He is the president of Singapore
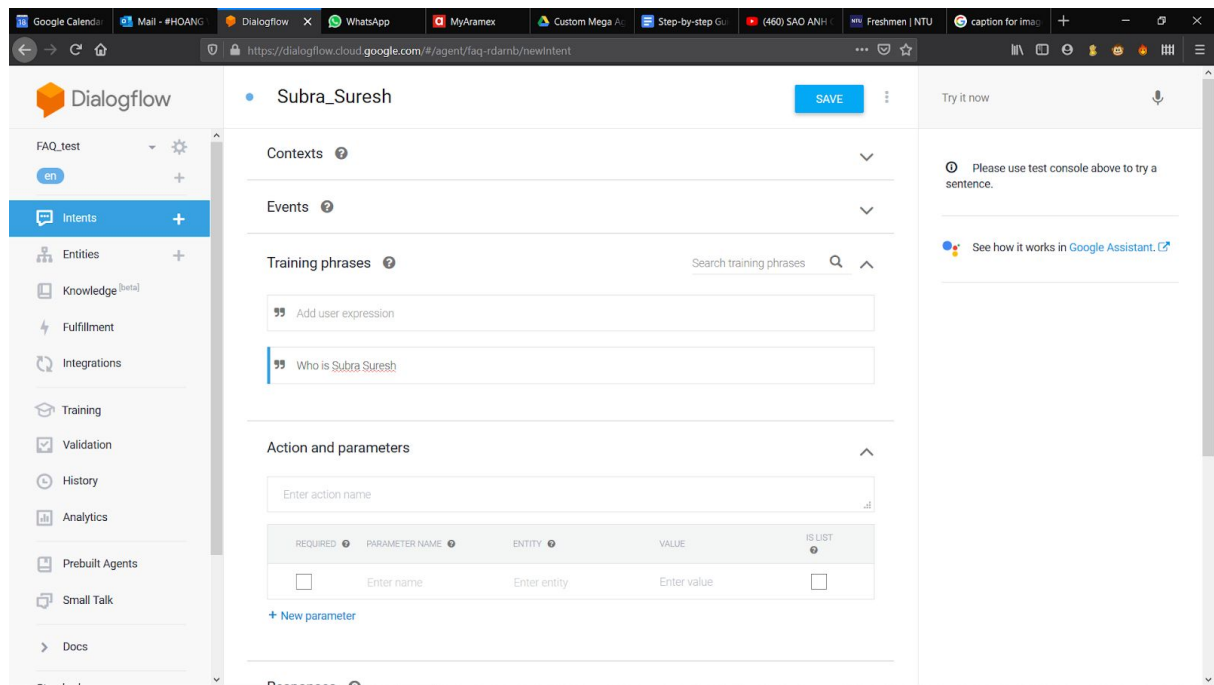
When you open Dialogflow, you will be greeted with this
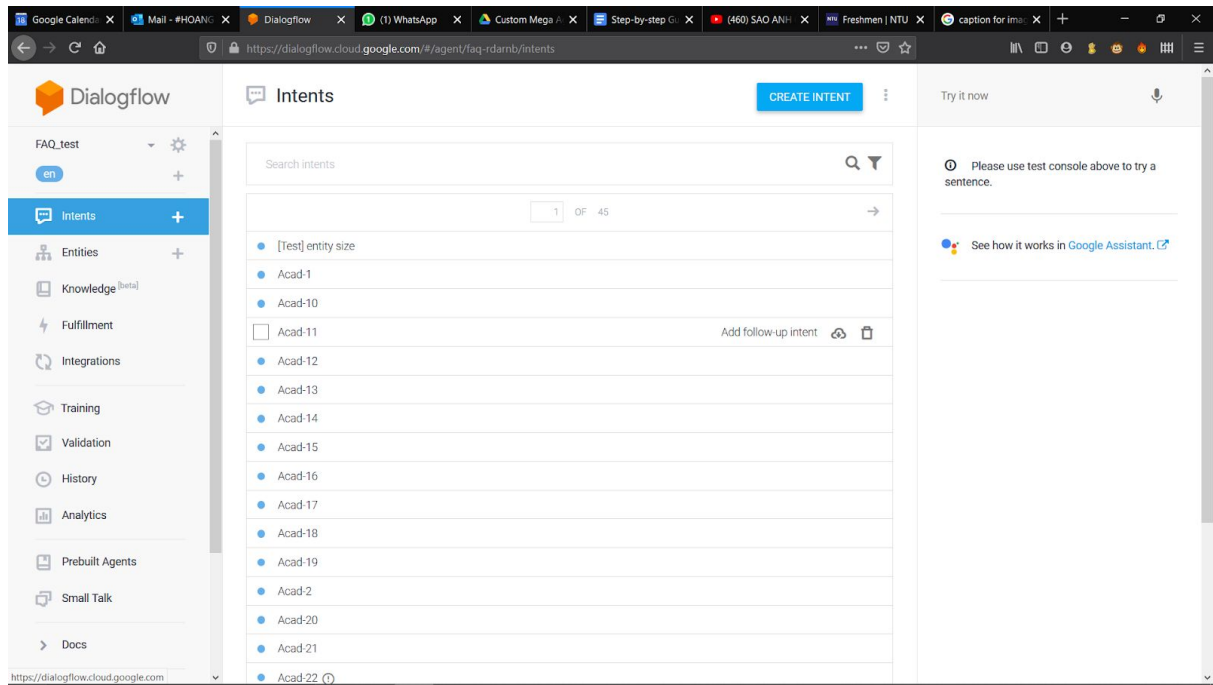
*Make sure that you are in the **Intents** tab (Left Panel)
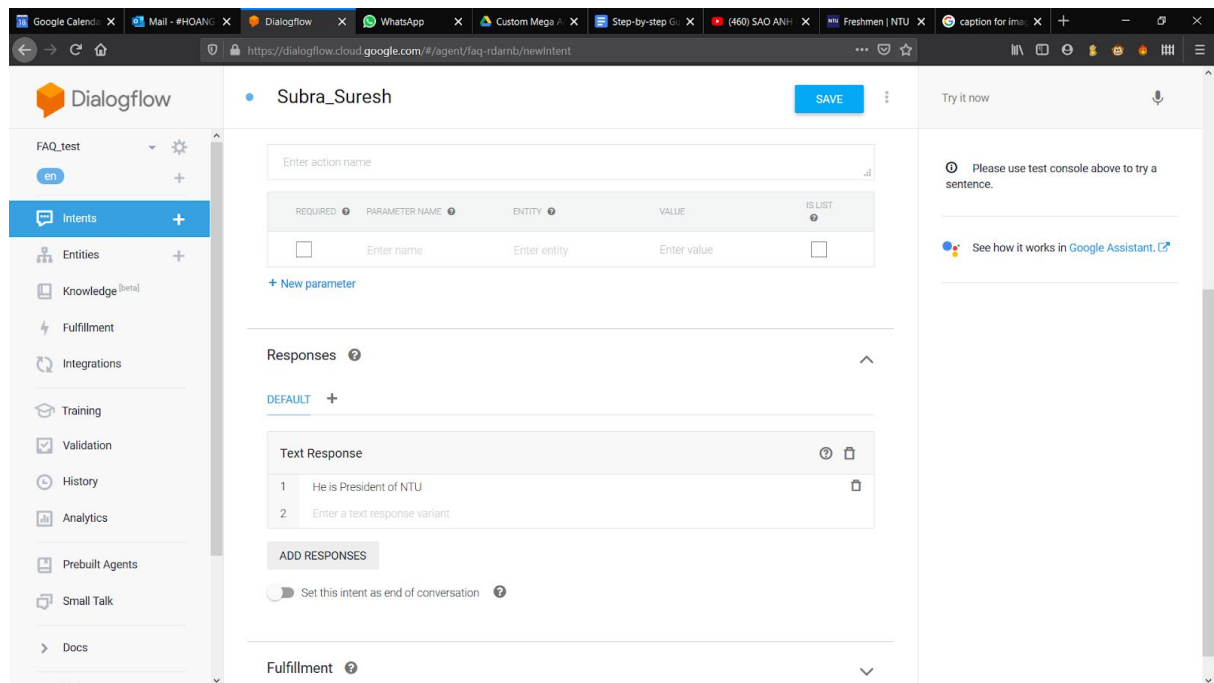
Click on **Create Intent** (top right) or the **plus** sign on the left panel, next to the Intent to get to this page:
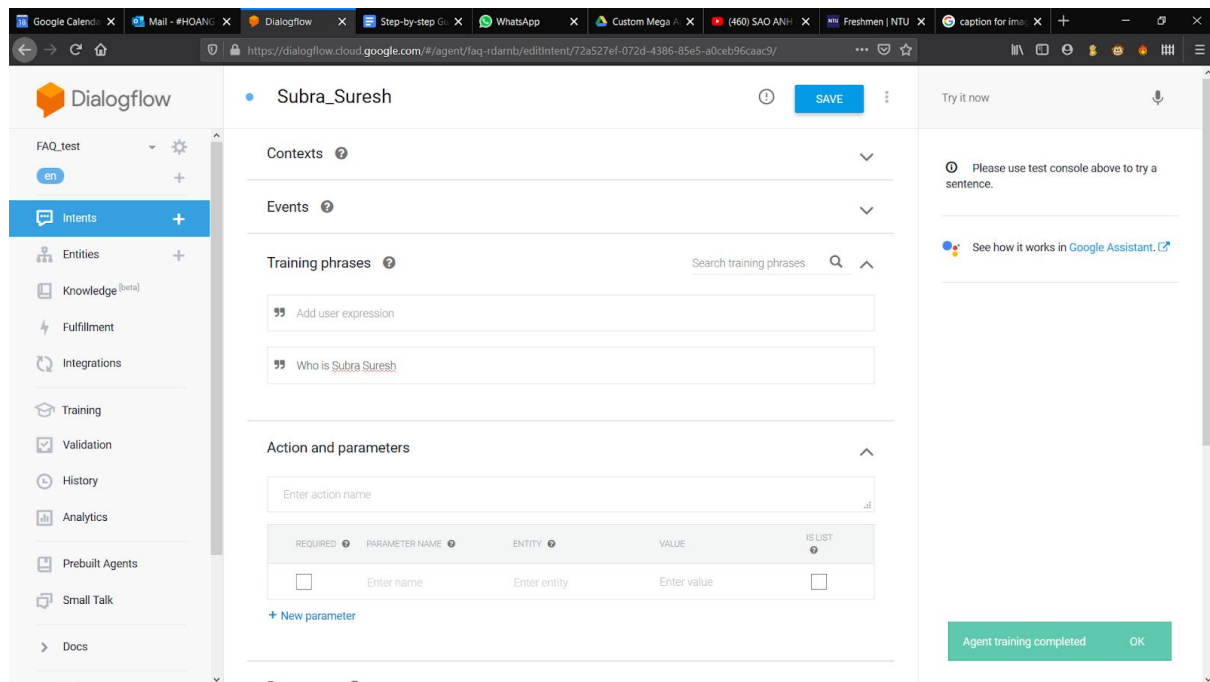

Fill in the **Intent name** field with the intent name, and add Question into **Training phrases.** It will look something like this:
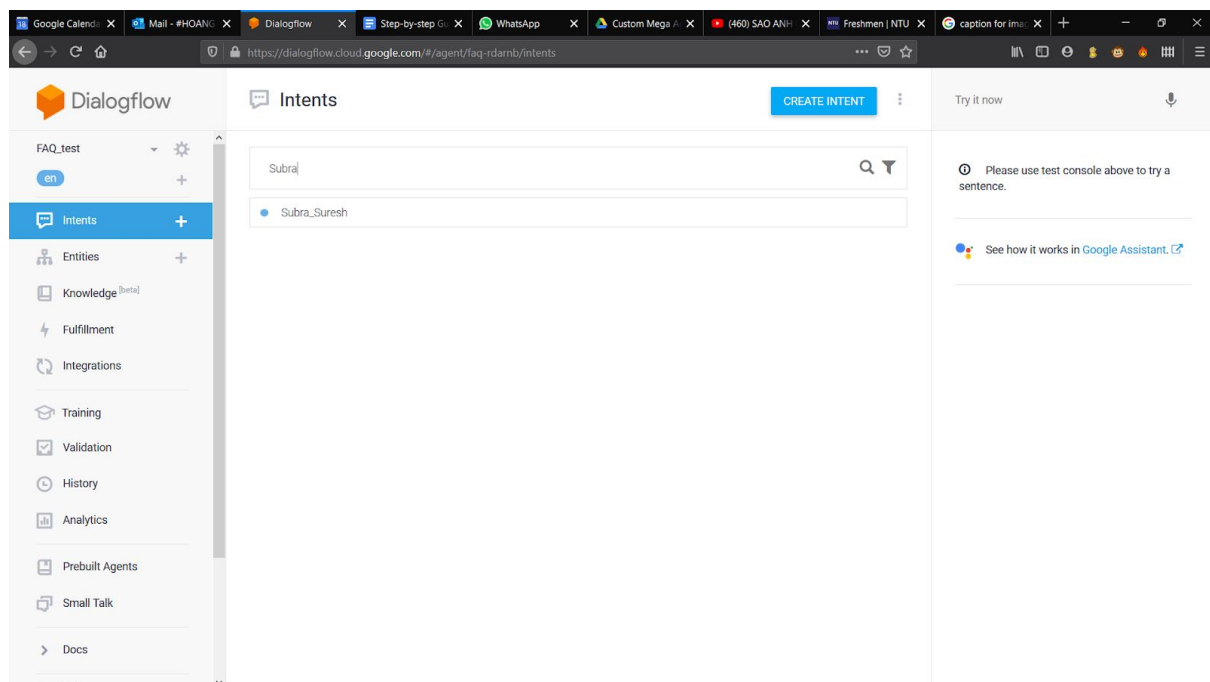
Scroll down, and add the simple text into **Responses** field

Click on **Save** on top right hand corner and wait until it says "Agent Training Finished"

The intent has been created! You can go back and make any edit by clicking on the Intent Tab on the left panel and search for the intent name

That's it! Now you know how to create an intent.

A note on Intent Training Phrases and Response:

1. Dialoglow uses Machine Learning to match what the user says to the questions put inside an intent's Training Phrases. The more *quality* questions you have for a particular intents, the better the chatbot will be. Refer to the the example below:
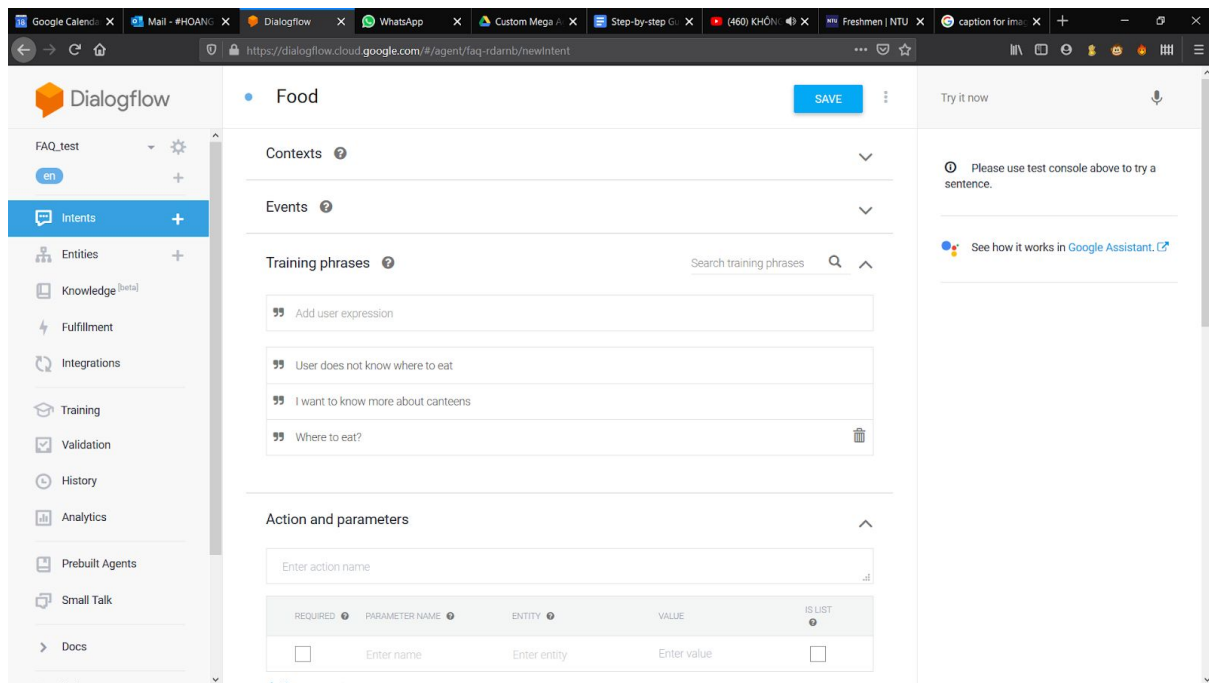
In this example, whether the user says "where to eat", "User do not know where to eat" or something vaguely related to these phrases, the intent is *triggered* and the correct response will be given to the user.

2. Similarly, to make the text response more natural, you can add variant response so that every time that intent is triggered, Dialogflow will answer a little differently, to add more nuance and human-lyness into our answers.
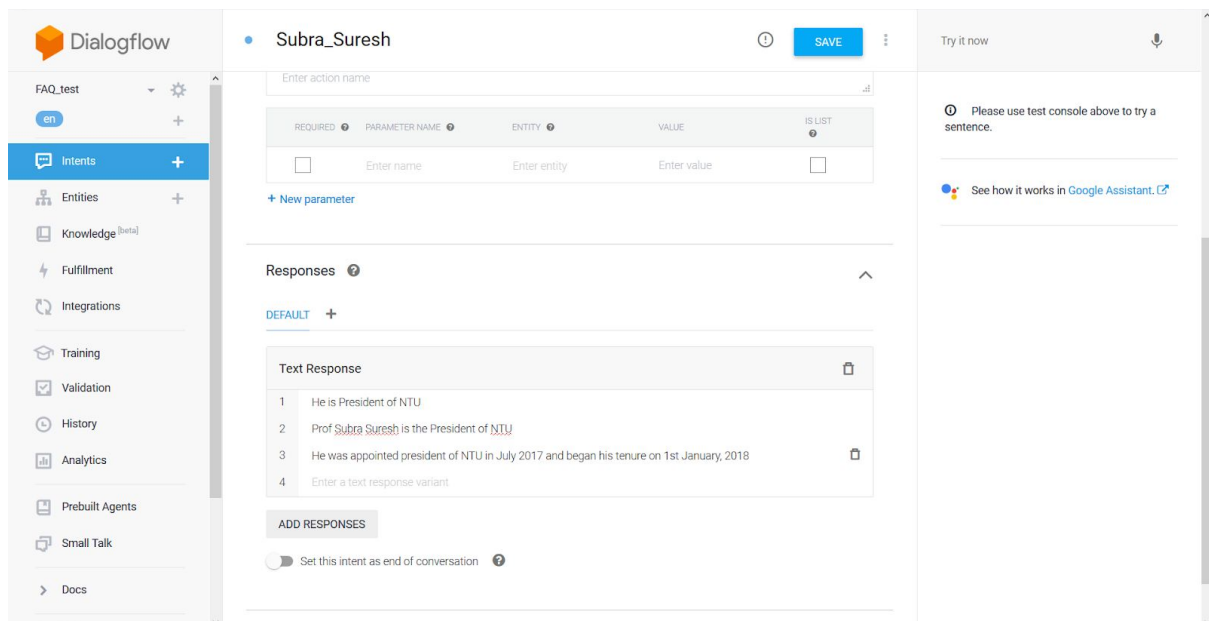

3. [*Important*] From this point onwards, we will refer to questions as training phrases and answer as responses. The quality of the training phrases is very important, as will directly affect how well Dialogflow will recognize what the user says and respond.

A vague and ambiguous training phrase such as "president","ntu","food" will cause Dialogflow to match to that intent more.
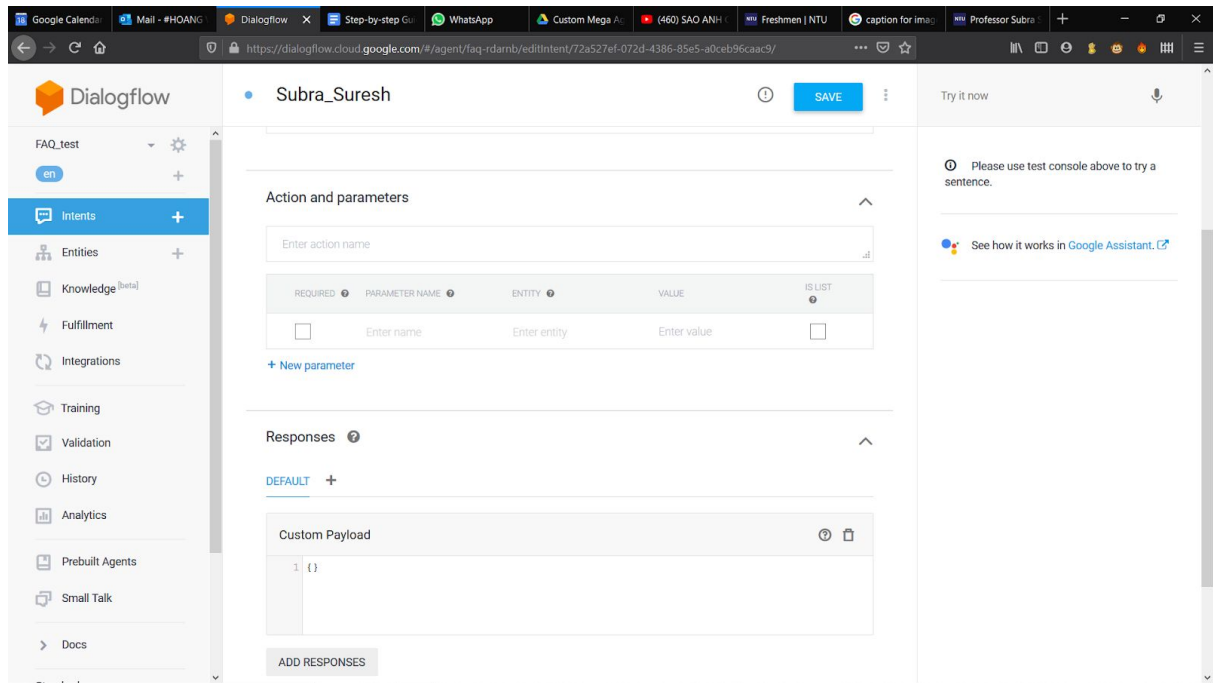
3. Custom Payloads

Now assume instead of putting a simple text in the response field, we want to send back an image or a clickable button that opens up an external link to a website. How do we do this?

Method 1: Dialogflow RAW custom payload In the Intent, click on **add response**
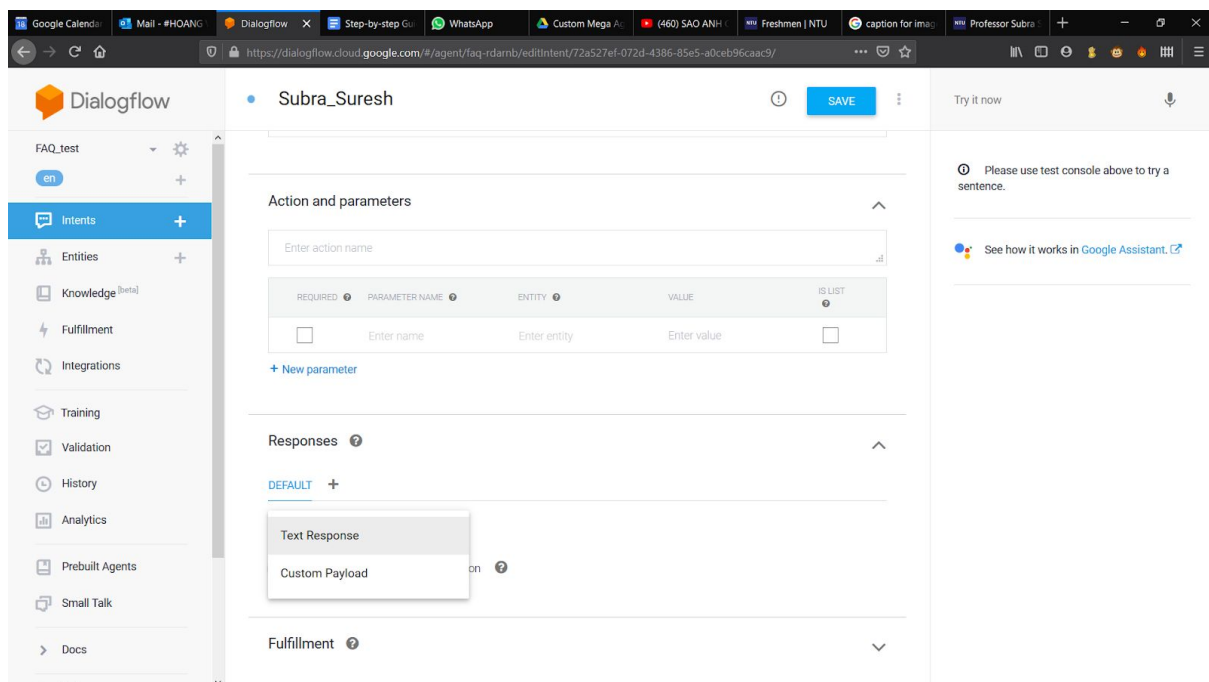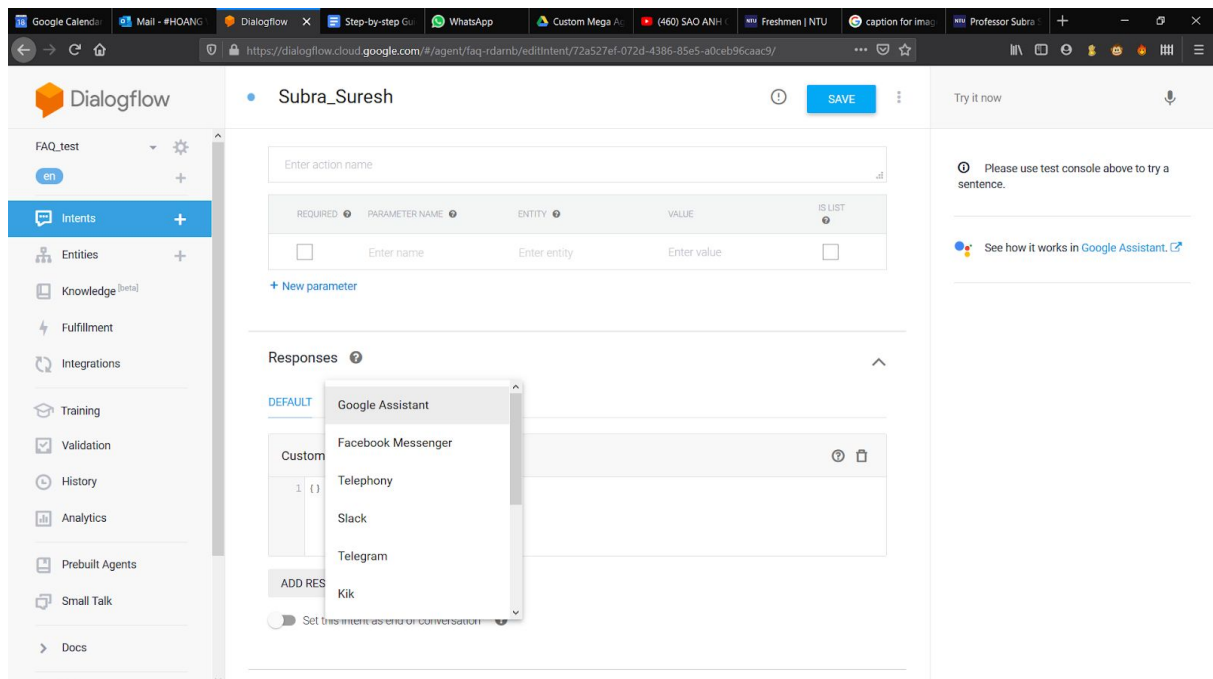

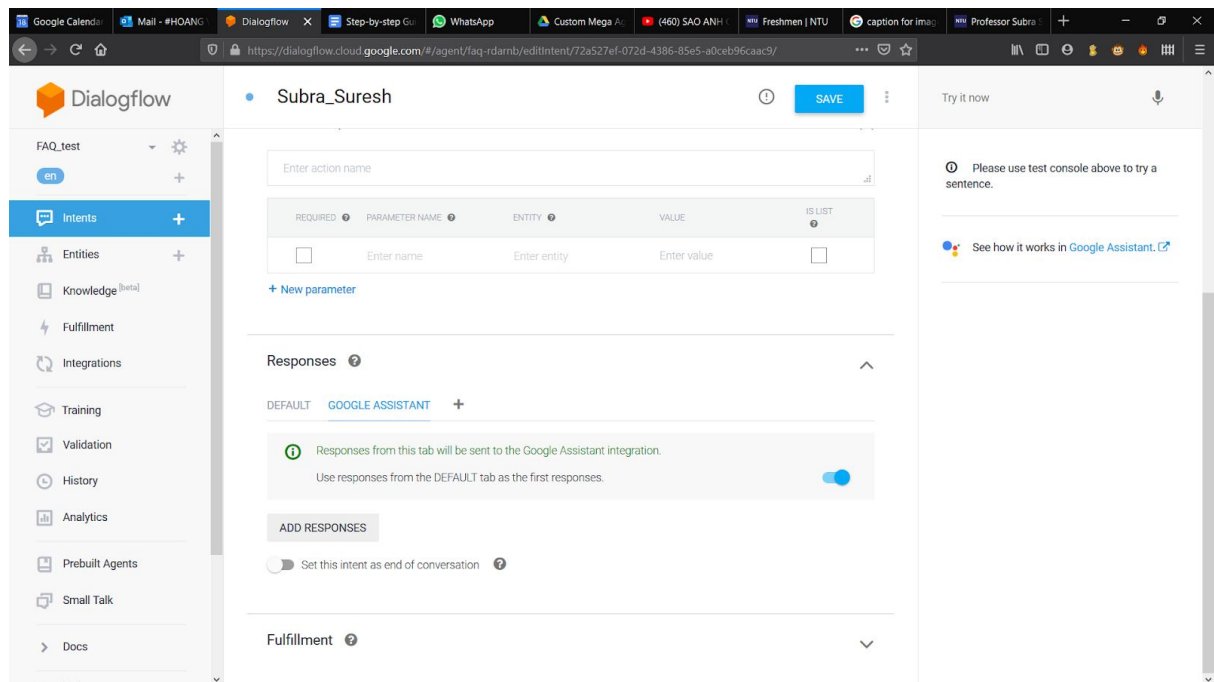Choose **Custom Payload**. It will look something like this

For what to put inside this field, consult the tech lead for the right JSON that supposes to go in there.

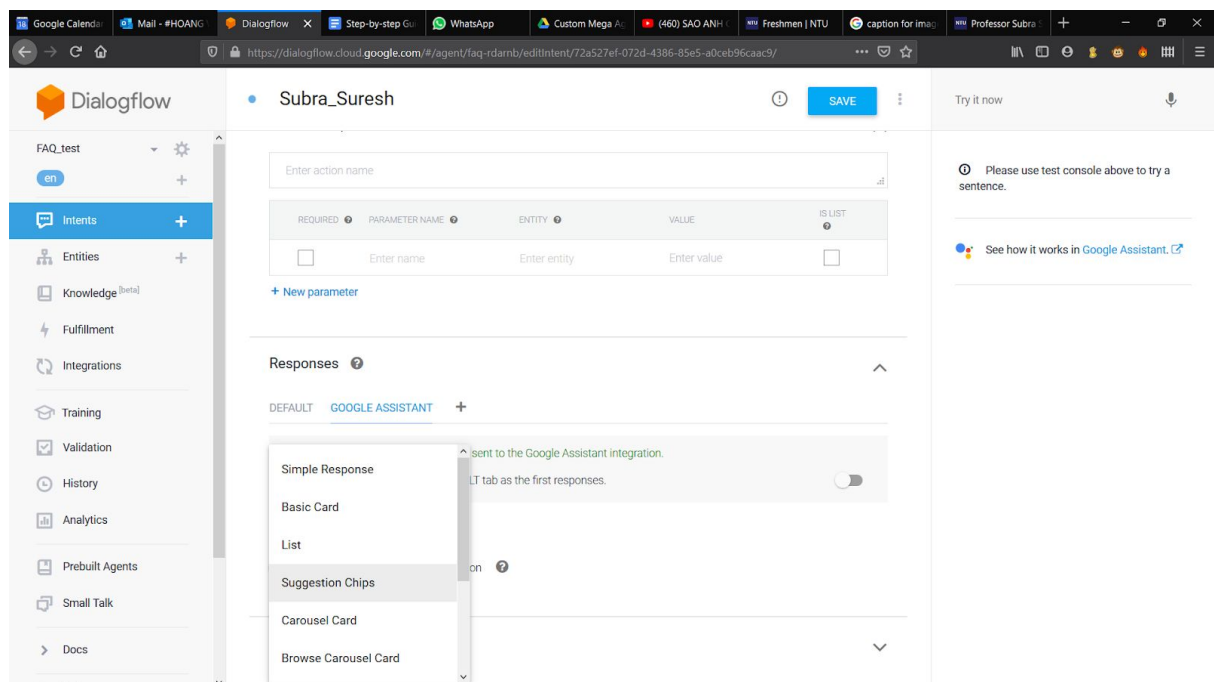Method 2: Google Assistant Payload

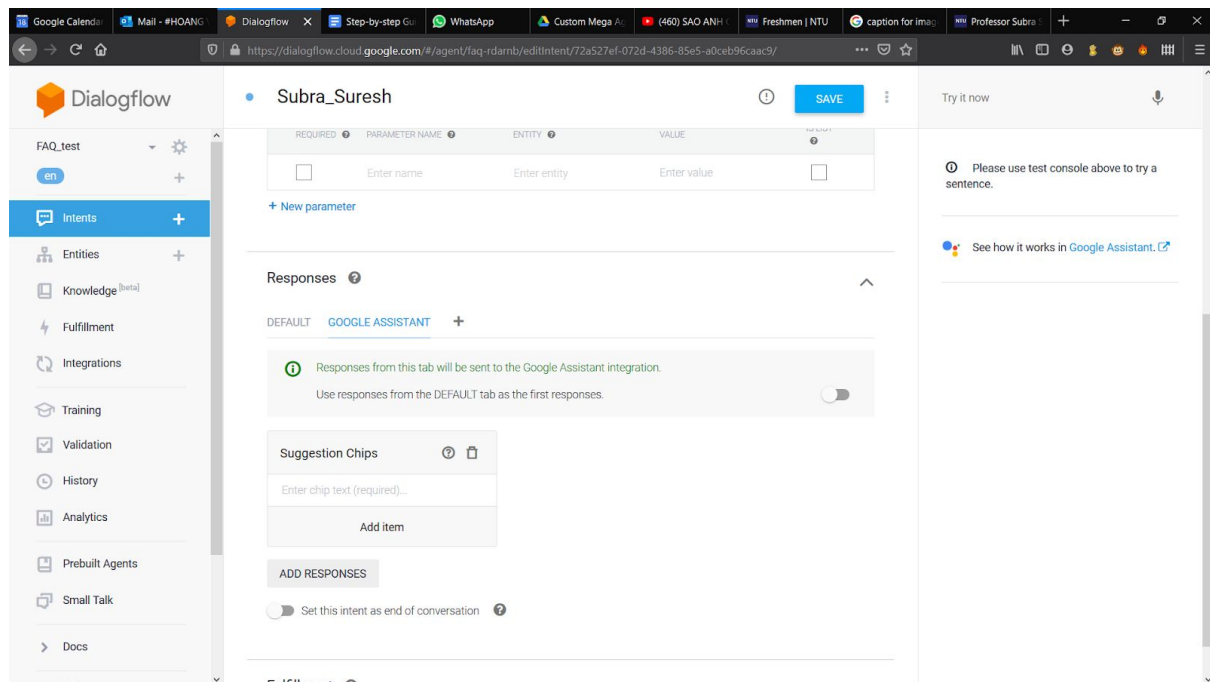Click on the + next to default in the response section

Select Google Assistant

Turn off that slider, meaning we will use Google Assistant tab as the first response.
Click on **Add Response**

There is a whole range of option to choose from, in this case we choose Suggestion Chips

This interface will then spawn and allow you to customize the response. For more info on what media Dialogflow GA can support, go to
https://cloud.google.com/dialogflow/docs/intents-rich-messages

Just remember that if you want to send anything other than text, choose from GA's rich messages selection and fill in the necessary fields provided by their interface.

4. Maintainability issue

It is recommended to use GA payload as I suspect future UI platforms will have support for GA. This means no matter which widget middleware we choose to use, it is likely that we can pass them a GA payload and the chat widget - aka the face of the chatbot, can show the response in the format that we desire.