

CHATBOT

A chatbot is a software application that mimics conversation with a human in natural languages through various platforms like messaging, websites, mobiles, etc. The chatbot responds by identifying the intent of the conversation and then responding accordingly.

My Chatbot

My chatbot is based on ordering a bike from a nearby bike shop. I developed a chatbot using Google Dialogflow which is a natural language understanding platform that makes it easy to design and integrate a conversational user interface into your mobile app, web application, device, bot, interactive voice response system, and so on.

I followed the below steps in developing a Chatbot.

Level 1

Step 1: Getting set up with a Dialog flow account

1. Go to <https://dialogflow.com/>
2. Click on "go to console" in the top right corner
3. Login with a Gmail account when prompted

Step 2: Enable small talk:

I have enabled small talk so that my agent can learn how to support small talk without any extra development. By default, it will respond with Hiiiii, Hello. Below are customized responses to the most popular requests.

The screenshot displays the Google Dialogflow console interface for customizing Small Talk. On the left is a sidebar with navigation options: Knowledge, Fulfillment, Integrations, Training, Validation, History, Analytics, Prebuilt Agents, and Small Talk (which is currently selected and highlighted in blue). At the top of the main area, there's a 'Small Talk' header with a 'SAVE' button. Below this, a warning message states: 'Based on Actions on Google policy, enabling Small Talk in its entirety will cause your action to be rejected. See Import the prebuilt agent for steps on how to import and select subsets of Small Talk features that comply with Action on Google's policy.' A progress bar titled 'Small Talk Customization Progress' shows 0% completion. Under the 'About agent' section, two question-answer pairs are shown. The first question is 'Who are you?' with two answer variants: 'Hey, there I am bunny bakery shop! i am here to help you' and 'Enter a Answer variant'. The second question is 'How old are you?' with one answer variant: 'Enter a Answer'.

Dialogflow EssentialsGlobal

Knowledge [Detail]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Small Talk

> Docs

Small Talk

Based on [Actions on Google policy](#), enabling Small Talk in its entirety will cause your action to be rejected. See [Import the prebuilt agent](#) for steps on how to import and select subsets of Small Talk features that comply with Action on Google's policy.

Small Talk Customization Progress0%

About agent3%

QUESTIONWho are you?

ANSWER

1Hey, there I am bunny bakery shop! i am here to help you

2Enter a Answer variant

QUESTIONHow old are you?

ANSWER

1Enter a Answer

Step 3: Defining Entities:

Entities can be fields, data, or text describing just about anything — a time, place, person, item, number, etc. Using natural language processing (NLP), chatbots can extract entities from entries that users type in order to turn around accurate recommendations and answers.

In this chatbot, I have created entities as a type of items, flavor of cake Size of cake, etc.,

Type of items: This entity describes the type of items in the **bunnybakeryshop**. The flavor of cake:

This entity describes the flavors of cake such as vanilla, black forest, pineapple, chocolate, etc.

The screenshot shows the Dialogflow console interface for configuring an entity named 'typeofitem'. The left sidebar contains navigation options: Bakeryitems, Intents, Entities (selected), Knowledge (beta), Fulfillment, Integrations, Training, Validation, History, and Analytics. The main area displays the 'typeofitem' entity configuration with a 'SAVE' button. Below the entity name, there are checkboxes for 'Define synonyms' (checked), 'Fuzzy matching' (unchecked), 'Regex entity' (unchecked), and 'Allow automated expansion' (unchecked). A table lists the following synonyms:

cakes	cakes, applecake, pineapple cake
coke	coke, pepsi, cocacola
coolcakes	coolcakes, mango cake, vanilla cake

Below the table is a link 'Click here to edit entry' and a '+ Add a row' button. On the right, there is a 'Try it now' button and a message: 'Please use test console above to try a sentence.'

Step 4: Intents:

Intent refers to the goal that the customer has in mind when typing in a question or comment. While entity refers to the modifier the customer uses to describe their issue, the intent is what they mean. Here, I created intent as bunnybakeryshop.

The screenshot shows the 'Intents' section of the Dialogflow console. At the top, there is a 'CREATE INTENT' button. Below it is a search bar labeled 'Search intents'. A list of intents is displayed:

- Customer (with a dropdown arrow)
- Customer - yes
- Customer - fallback (with a green checkmark icon and context: Customer-followup)
- Customer - cancel
- Customer - no

Step 5: Training phrases:

Training phrases are example phrases for what end-users might type or say, referred to as end-user expressions. For each intent, you create many training phrases. When an end-user expression resembles one of these phrases, Dialogflow matches the intent.

I used the following phrases to train and match Dialogflow it to the intent.

bunnybakeryshop

SAVE

Training phrases

Search training phra

⚠

Template phrases are deprecated and will be ignored in training time. [More details here.](#)

When a user says something similar to a training phrase, Dialogflow matches it to the intent. You don't have to create an exhaustive list. Dialogflow will fill out the list with similar expressions. To extract parameter values, use [annotations](#) with available [system](#) or [custom](#) entity types.

”

Add user expression

”

I am looking for cake by toady evening

”

I am looking for a small cake

”

I am looking for a cake of around 1kg

”

I need something in my budget

”

I am looking for a apple cake

”

I am looking for a cake

Step 6: Actions and parameters:

Dialogflow sends an API interaction response for each step of slot filling. For each of these slot-filling responses, the intent and action will be the same, and the parameters collected so far will be provided. When building an agent, we provide prompts that the agent will use to get parameter data from the end user.

bunnybakeryshop

SAVE

have to create an exhaustive list. Dialogflow will fill out the list with similar expressions. To extract parameter values, use [annotations](#) with available [system](#) or [custom](#) entity types.

Action and parameters

Enter action name

REQUIRED	PARAMETER NAME	ENTITY	VALUE	IS LIST	PROMPTS
<input checked="" type="checkbox"/>	typeofitem	@typeofitem	\$typeofitem	<input type="checkbox"/>	hello what are ...
<input type="checkbox"/>	unit-inform	@sys.unit-information	\$unit-information	<input type="checkbox"/>	—
<input checked="" type="checkbox"/>	size	@size	\$size	<input type="checkbox"/>	what size are y...
<input checked="" type="checkbox"/>	date-time	@sys.date-time	\$date-time	<input type="checkbox"/>	At what time yo...
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>	—

+ New parameter

Step 7: Responses:

Responses

DEFAULT

Text Response

1 We have got your order of \$typeofitem by \$date-time!! Do you confirm your order ?

2 Enter a text response variant

ADD RESPONSES

☐

Set this intent as end of conversation

Chatbot responses:

The screenshot shows a chatbot interface for 'Bakeryitems' powered by Dialogflow. The chat history includes:

- Bot: Hi!
- User: who are you
- Bot: Hey, there I am bunny bakery shop! i am here to help you
- User: ok its good
- Bot: Agreed!

The input field at the bottom contains the text 'Ask something...' and a microphone icon.

The screenshot shows a chatbot interface for 'Bakeryitems' powered by Dialogflow. The chat history includes:

- Bot: Agreed!
- User: hello
- Bot: Hey there!
- User: i am looking for something delicious
- Bot: hello what are you looking for in bunnybakeryshop?

The input field at the bottom contains the text 'Ask something...' and a microphone icon.

The screenshot shows a chatbot interface for 'Bakeryitems' powered by Dialogflow. The chat history includes:

- User: hello
- Bot: Hey!
- User: I am looking for a cake
- Bot: what size are you looking for?
- User: 2kg

The input field at the bottom contains the text 'Ask something...' and a microphone icon.

The screenshot shows a chatbot interface for 'Bakeryitems' powered by Dialogflow. The chat history includes:

- Bot: At what time you need the cake
- User: I need it today evening
- Bot: we have got your order cake by today evening!! Do you confirm your order?
- User: yes
- Bot: Thats great your order hasbeen taken

The input field at the bottom contains the text 'Ask something...' and a microphone icon.

The screenshot shows a chatbot interface for 'Bakeryitems' powered by Dialogflow. The chat history includes:

- Bot: we have got your order cake by today evening!! Do you confirm your order?
- User: yes
- Bot: Thats great your order hasbeen taken
- User: cancel my order
- Bot: please send me a mail to bunnybakery@gmail.com with order id

The input field at the bottom contains the text 'Ask something...' and a microphone icon.

Chatbot link: <https://dialogflow.cloud.google.com/#/agent/bakeryitems-hhmc/editIntent/13143aae-7f00-44dc-9248-e632cc7984bb/>

GitHub link:

<https://github.com/UNarasimha>