



Defining Intents and Entities



Agenda

Defining Intents for Your Agent

Identifying Entities in Your Intent



It all starts with intents

Intents are the actions your users want to execute.

Intents represent something a user might ask for.



Intents help the agent determine what users want

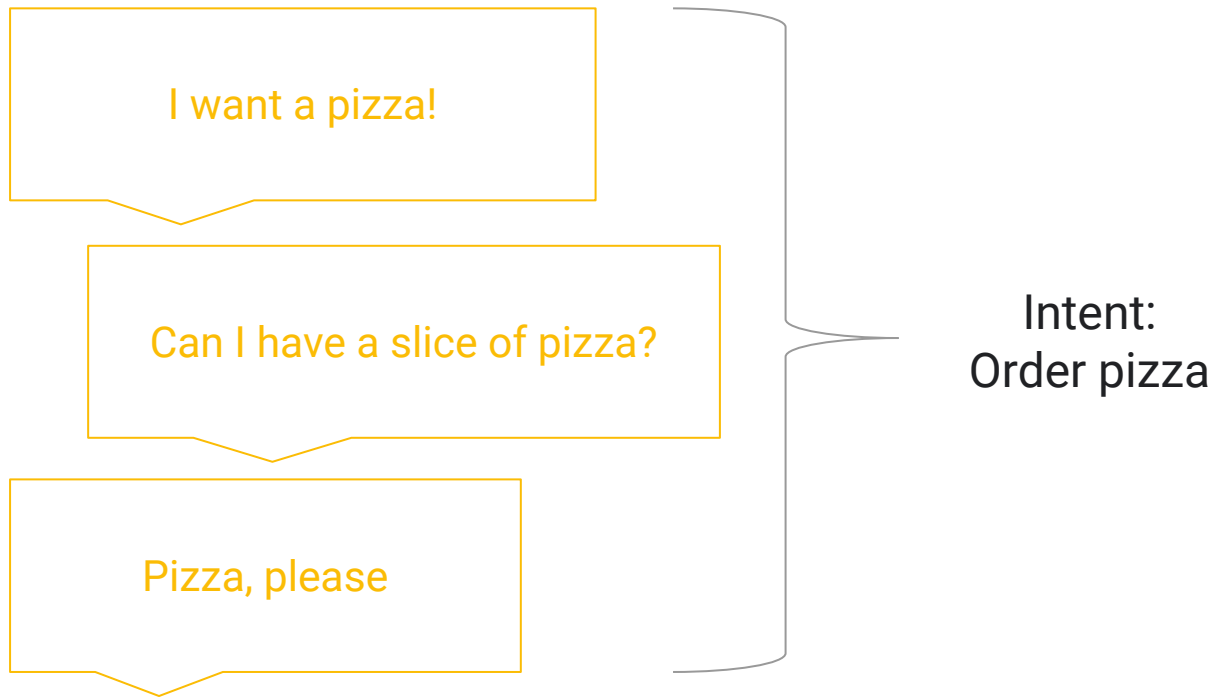
2 mocha coffees please
Intent: Order Coffee

How many calories in a slice of pizza?
Intent: Get Nutritional Details

I want a pizza!
Intent: Order Pizza



Choosing the training phrases



Activity

Identifying Training Phases

Can you come up with at least 10 different ways of ordering pizza?

Your training phrases can be generic or specific.



Some training phrases for *Order Pizza* intent

Can I have a slice of pizza please?

I want a pizza now

Whole pizza with peppers and bacon

I'd like to order pizza

One slice of veggie pizza

Get me a pineapple and ham pizza

Is it possible to buy a pizza?

I want a pizza with mushroom, bacon, and cheese



Demo

Creating Intents

In this demo, we'll create create a pizza ordering intent in the Dialogflow console.



Other types of intents

1 Fallback intent

2 Follow-up intent



Best practices when defining intents



Training phrases should be representative.



Make sure your intents do not overlap.



Prioritize intents that represent the most common requests.



Agenda

Defining Intents for Your Agent

Identifying Entities in Your Intent



Use entities to extract useful facts from what users say

Entities help identify the:

Who

What

When

Where

in the natural language input.



As a developer, you can easily define your own entities in the Dialogflow UI or programmatically

I'd like a **strawberry milkshake**
made with **2% milk**

Get me a **veggie** pizza!

How much do **mints** cost?




Demo

Creating an Entity

In this demo, we'll create a new simple entity called `pizza_topping`, which will hold the values for the pizza toppings we carry.





Mapping entity attributes through composite entities



drink

SAVE




☐ Define synonyms  ☐ Allow automated expansion

smoothie
milkshake
Enter value





Creating complex entities with composite entities



drink_composite

SAVE




☐ Define synonyms  ☐ Allow automated expansion

@milk_type:milk_type @flavor:flavor @drink:milkshake

@flavor:flavor @drink:drink




Don't create entities for dates




date

SAVE

☒ Define synonyms  ☐ Allow automated expansion

Friday	Friday	
Thursday	<input type="text" value="Thursday"/>	Enter synonym
Click here to edit entry		



Use system entities instead

Entity Name	Description	Examples	Returned Data Type	Returned Object Example
@sys.date-time	Matches date, time, intervals or date and time together	2:30 pm 13 July April morning tomorrow at 4:30 pm tomorrow afternoon	String in ISO-8601 format or object: Strings in ISO-8601 format	"2018-04-05T14:30:00-06:00" "2018-07-13T18:00:00-06:00" { "startDate": "2018-04-01T12:00:00-06:00", "endDate": "2018-04-30T12:00:00-06:00" } { "endTime": "2018-04-06T12:00:00-06:00", "startTime": "2018-04-06T08:00:00-06:00" } { "date_time": "2018-04-06T16:30:00-06:00" } { "startDateTime": "2018-04-06T12:00:00-06:00", "endDateTime": "2018-04-06T16:00:00-06:00" }
@sys.date	Matches a date	tomorrow	String in ISO-8601 format	"2018-04-06T12:00:00-06:00"
@sys.date-period	Matches a date interval	April	"object: Strings in ISO-8601 format"	{ "startDate": "2018-04-01T12:00:00-06:00", "endDate": "2018-04-30T12:00:00-06:00" }
@sys.time	Matches a time	4:30 pm	String in ISO-8601 format	"2018-04-05T16:30:00-06:00"
@sys.time-period	Matches a time interval	afternoon	"object: Strings in ISO-8601 format"	{ "startTime": "2018-04-05T12:00:00-06:00", "endTime": "2018-04-05T16:00:00-06:00" }



Demo

How to create an entity



System composite entity





“200 euros”



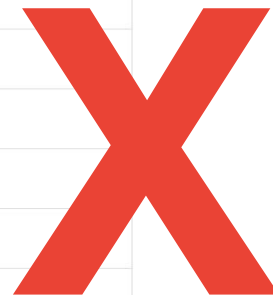
```
{ "amount" : 200, "  
  currency" : "EUR" }
```



Don't annotate inconsistently

  alarm.set  

” I'd like to set an alarm at 7 am every weekend
” set alarm for 10 am tomorrow
” new alarm called for weekdays at 10
” wake me up at 8 every day
” wake me up
” I'd like to set an alarm for 7 pm
” wake me up
” I need an alarm set for weekdays at 4 am
” new alarm
” could you set an alarm for 6 am



Don't forget to diversify examples

- horoscope

Contexts

User says

” Add user expression

” any new horoscopes for Taurus

” horoscope Taurus

” give me horoscope for Taurus

” check for Taurus

” horoscope for Taurus



Summary

- 1 What are intents and how to train your agent to detect them
- 2 Fallback intents
- 3 What are entities and how to annotate them in your agent
- 4 Different types of entities
- 5 Some best practices



Group Activity

Design your own bot



Lab

Lab 1,Part 1



cloud.google.com

