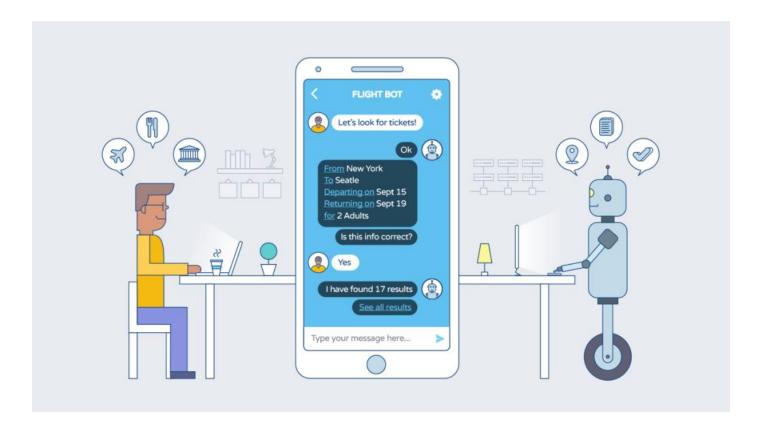
01418496: Selected Topic in Computer Science

CHATBOT: Lecture-1-Introduction to Chatbot with Dialogflow and Line Application

LECTURER: JIRAWAN CHAROENSUK

Jirawan.charo@ku.th





Agenda



- Dialogflow
 - Intent
 - Entities
 - Action and parameter
 - Fulfillment
- Line
- •Integration



Historical Timeline

Reference: Mike Phulsuksombati

Senior Data Scientist

SCB Abacus

https://goo.gl/F9bfj5



















2010 2011 2012 2013 2014 2015 2016 2017

API.AI & Dialogflow



API.AI is joining Google! **September 19, 2016**



Dialogflow



Al & Machine Learning Products

Contact sales

Get started for free

Dialogflow

Create conversational experiences across devices and platforms.

Try it free

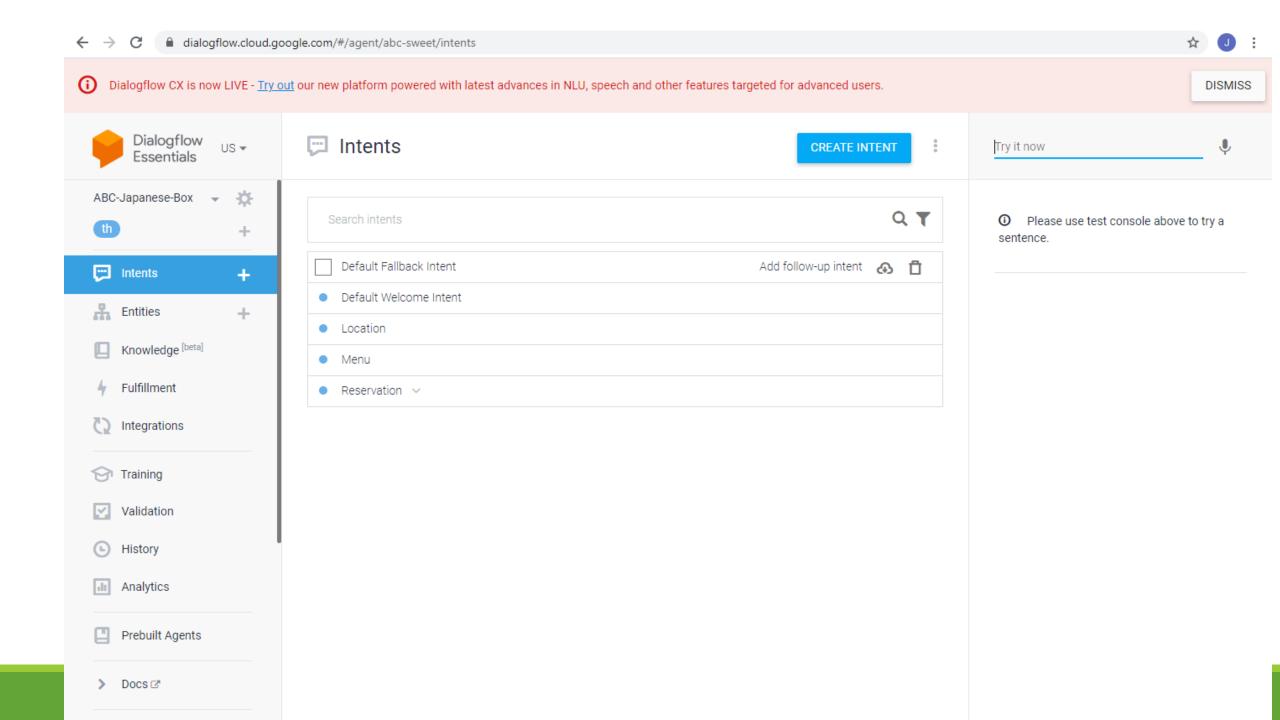
View documentation for this product

Natural conversational experiences

Dialogflow is an end-to-end, build-once deploy-everywhere development suite for creating conversational interfaces for websites, mobile applications, popular messaging platforms, and IoT devices. You can use it to build interfaces (such as chatbots and conversational IVR) that enable natural and rich interactions between your users and your business. Dialogflow Enterprise Edition users have access to Google Cloud Support and a service level agreement (SLA) for production deployments.



Activate Windows Go to Settings to activate Windows.



Dialogflow

- Powered by Google machine learning
- •Make building serverless apps easy
- Bring your enterprise knowledge
- Deliver automated phone service
- Deploy across platforms and languages
- Designed for a voice-first world
- •Improve experiences with built-in analytics
- Understand user sentiment
- Rely on automatic spelling correction

Use cases

- E-Commerce
- Customer services
- IoT devices



My Conala Salutions Draduote Drining Cotting Storted

https://cloud.google.com/dialogflow/docs

Al and machine learning products

Dialogno

Guide

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Support

Contact Sales

Get s

Di

Language •

Dialogflow

Documentation

Product overview

Editions

Al and machine learning products > Dialogflow > Documentation

Rate and review 🖒 🞵

Dialogflow

Dialogflow 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. Using Dialogflow, you can provide new and engaging ways for users to interact with your product.

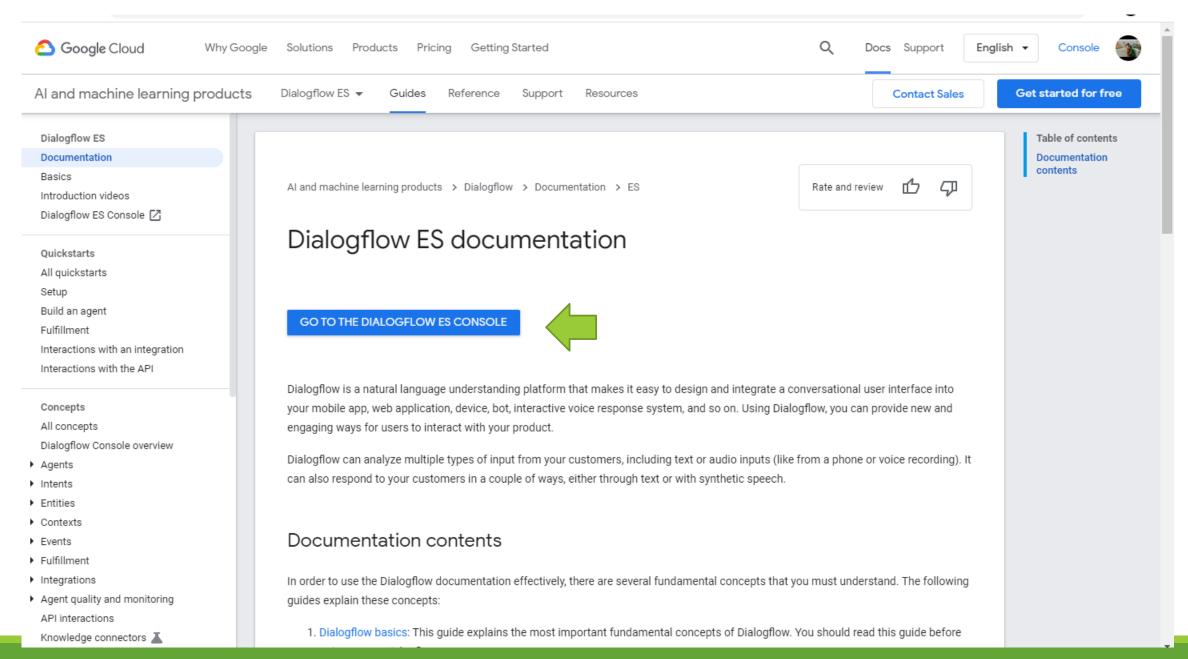
Dialogflow can analyze multiple types of input from your customers, including text or audio inputs (like from a phone or voice recording). It can also respond to your customers in a couple of ways, either through text or with synthetic speech.

Dialogflow CX and ES

Dialogflow provides two different services, each of which has its own agent type, user interface, API, client libraries, and documentation:

Dialogflow CX Provides an advanced agent type suitable for large or very complex agents.

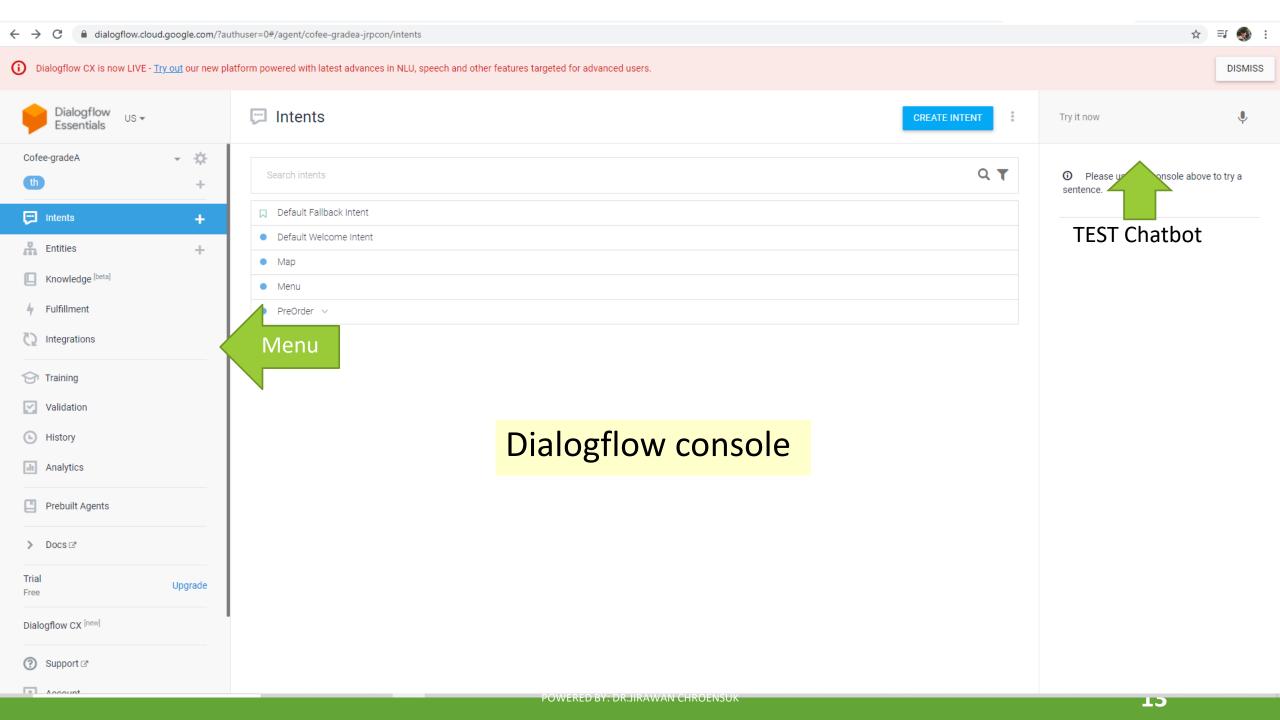
Dialogflow ES Provides the standard agent type suitable for small and simple agents.



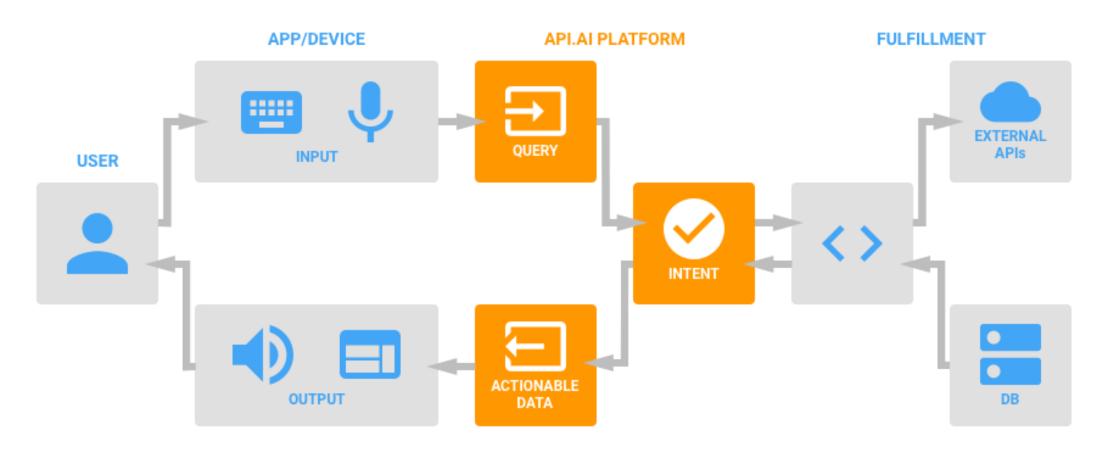


https://dialogflow.cloud.google.com

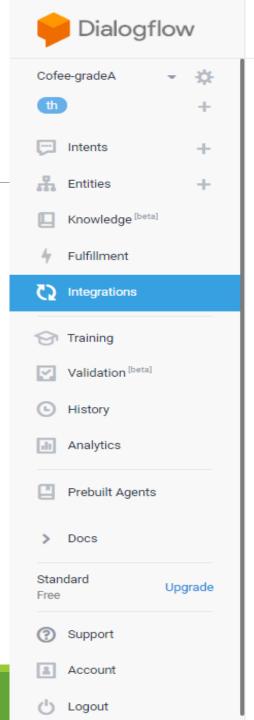


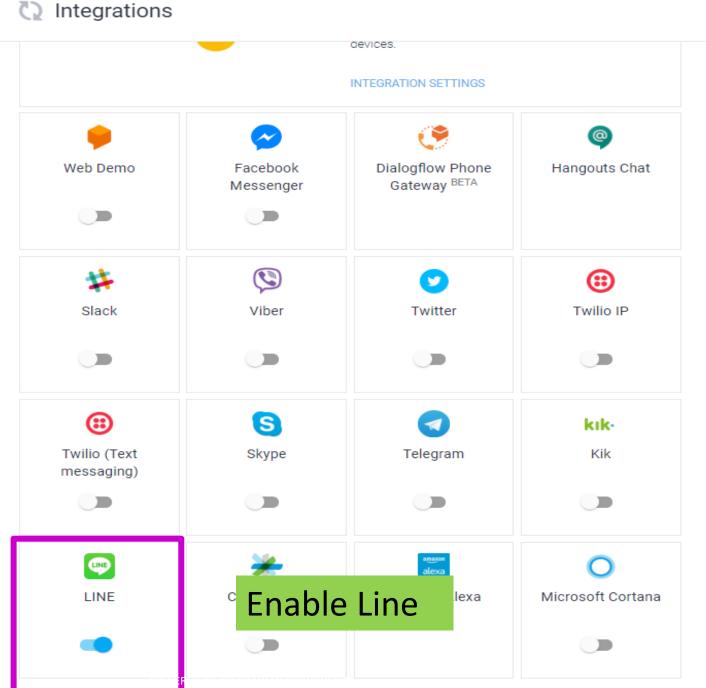


How do Chatbots work?



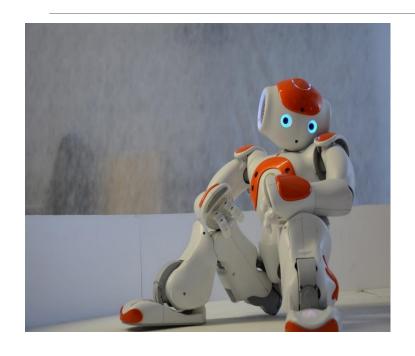
https://blog.huhtanen.eu/2017/10/15/chatbots-made-easy-dialog-flow.html





Chatbot Persona

MAIN CHAT FLOW Q&A BOARD CHATBOT SETTINGS

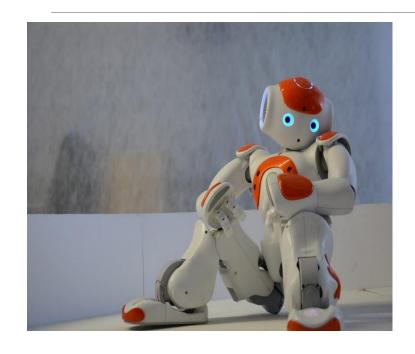


Click on this after you are done. Enter Al Helper Name Enter Al Helper Bio Upload Al Minion Albert Alberta Click on this to define a custom persona. Kaya Custom

https://chatbotsmagazine.com/the-ultimate-guide-to-chatbot-personality-b9665ab5e99d

Chatbot Persona

MAIN CHAT FLOW Q&A BOARD CHATBOT SETTINGS



Click on this after you are done. Enter Al Helper Name Enter Al Helper Bio Upload Al Minion Albert Alberta Click on this to define a custom persona. Kaya Custom

 $\frac{https://chatbotsmagazine.com/the-ultimate-guide-}{to-chatbot-personality-b9665ab5e99d}$

https://juji.io/docs/design/

Look: https://chatbotsmagazine.com/the-ultimate-guide-to-chatbot-personality-b9665ab5e99d

MEET CHARLIE - Welcome Recruitment's newest colleague

BASIC INFO

NAME: Charlie

AGE: 25

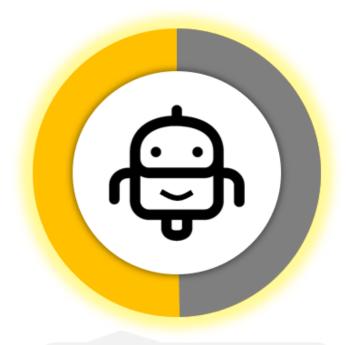
GENDER: Undefined

ROLE: Graduate Recruitment

Team Member

PASSIONATE ABOUT

- Matching recent graduates with their dream job
- The environment. Canvas shopping bags for the win!
- Being kind to one another it's the secret to happiness!



Hi, I'm Charlie. Let me help find a job that excites YOU!

INTERESTS

- Attending music festivals. Loving anything by Sam Smith right now
- Relaxing with bot friends at Saturday brunch
- Watching films. Anything with a good twist!

FAST FAVES

- QUOTE: You miss 100% of the shots you never take.
- SONG: Writing's on the Wall –
 Sam Smith
- HOLIDAY: Hiking in Colorado!
- MEAL: A shared pizza. Mamma Mia!

Improving Chatbot Retention

Look

https://chatbotsmagazine.co
 m/3-tips-on-improving chatbot-retention 297c88b249cc

Personalized Bot Flows



Shirts & Jeans

Awesome, thanks! Here are five items

we think you'll dig.



Lives in DC

Buys: Shoes

& Dresses

Awesome, thanks! Here are five items

Buy this item

See more like this

Ask a question

we think you'll dig.

Back Dress Collection

collection

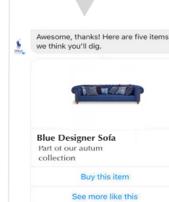


Buy this item

See more like this

Ask a question





Ask a question

Polo Classic Dress Shirt

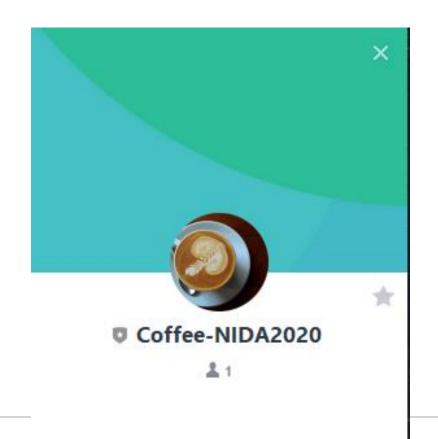
Buy this item

See more like this

Ask a question

Part of our autum collection

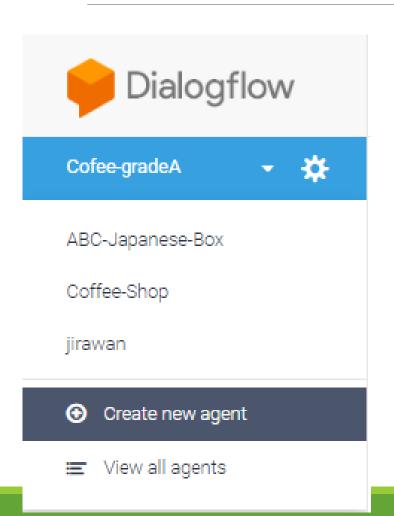
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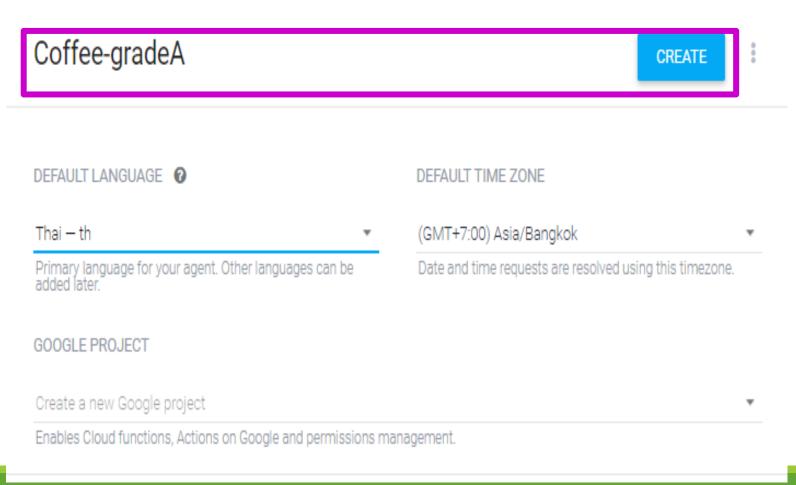




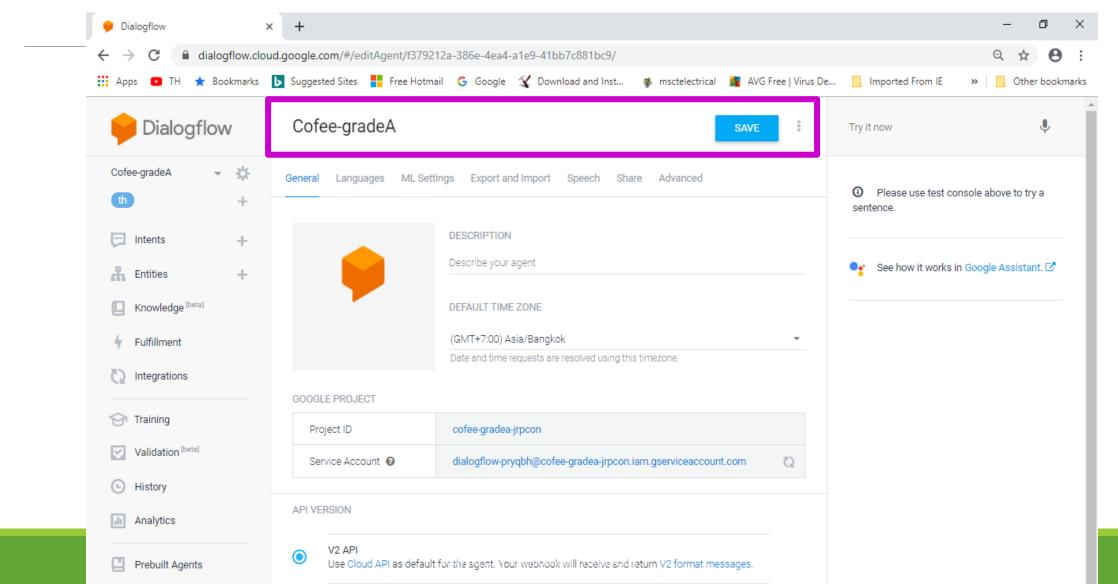


Create Agent



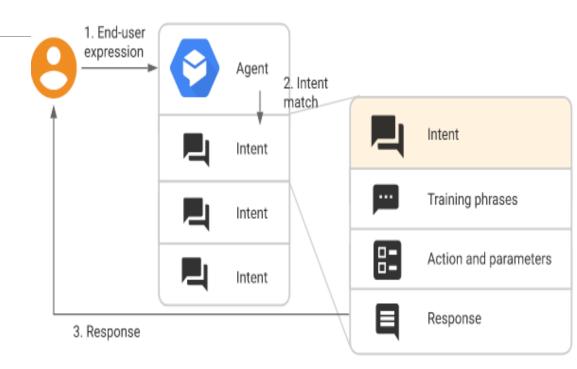


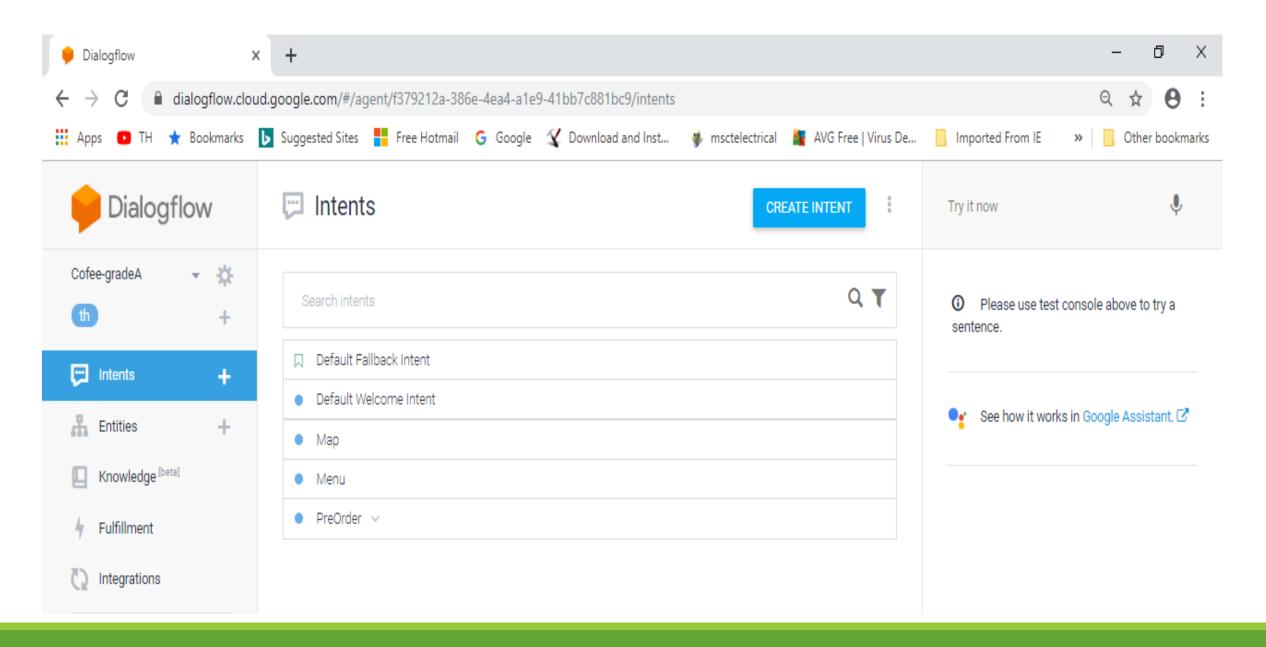
Create Agent



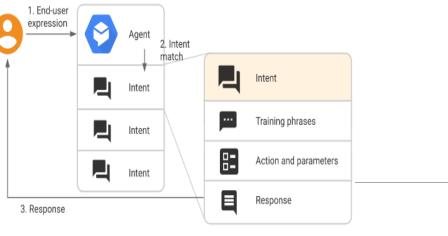
Dialogflow-Intent

- An intent categorizes an end-user's intention for one conversation turn.
- •For each agent, you define many intents, where your combined intents can handle a complete conversation.
- When an end-user writes or says something, referred to as an end-user expression, Dialogflow matches the end-user expression to the best intent in your agent.
- •Matching an intent is also known as intent classification.

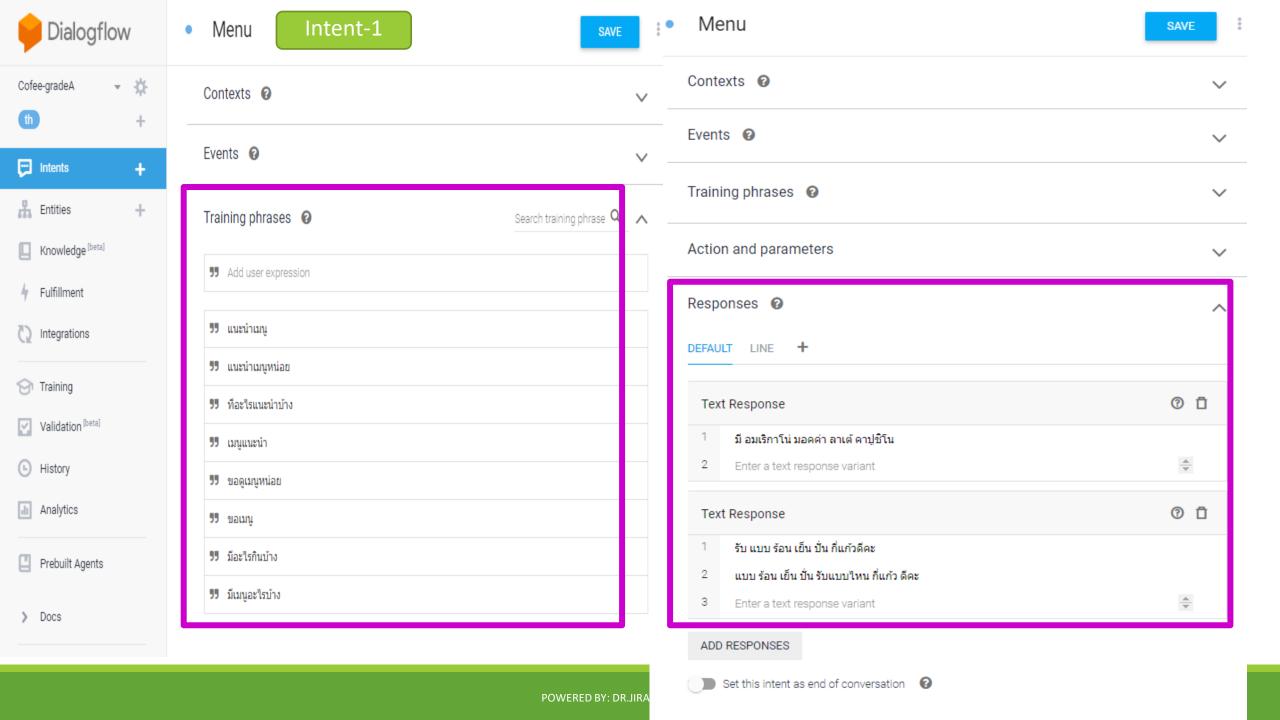


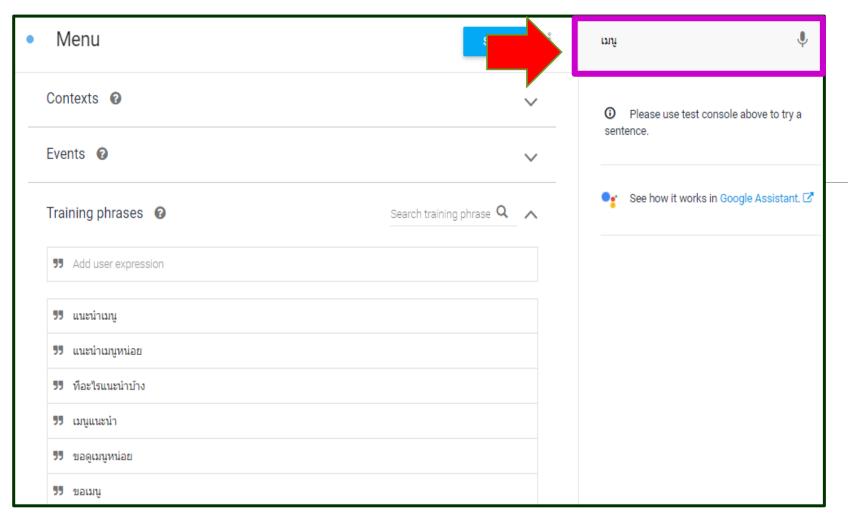


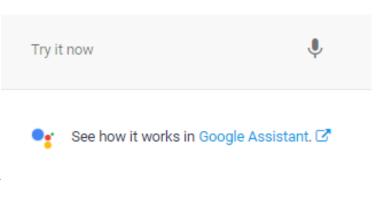
Dialogflow-Intent



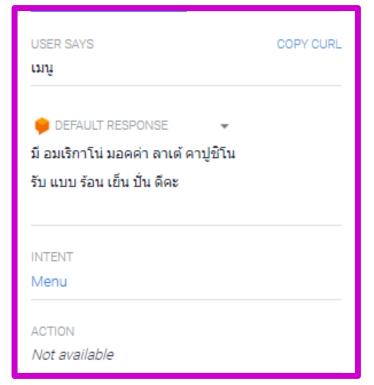
- 1. <u>Training phrases</u>: These are example phrases for what end-users might say. When an end-user expression resembles one of these phrases, Dialogflow matches the intent. You don't have to define every possible example, because Dialogflow's built-in machine learning expands on your list with other, similar phrases.
- 2. <u>Responses</u>: You define text, speech, or visual responses to return to the enduser. These may provide the end-user with answers, ask the end-user for more information, or terminate the conversation.



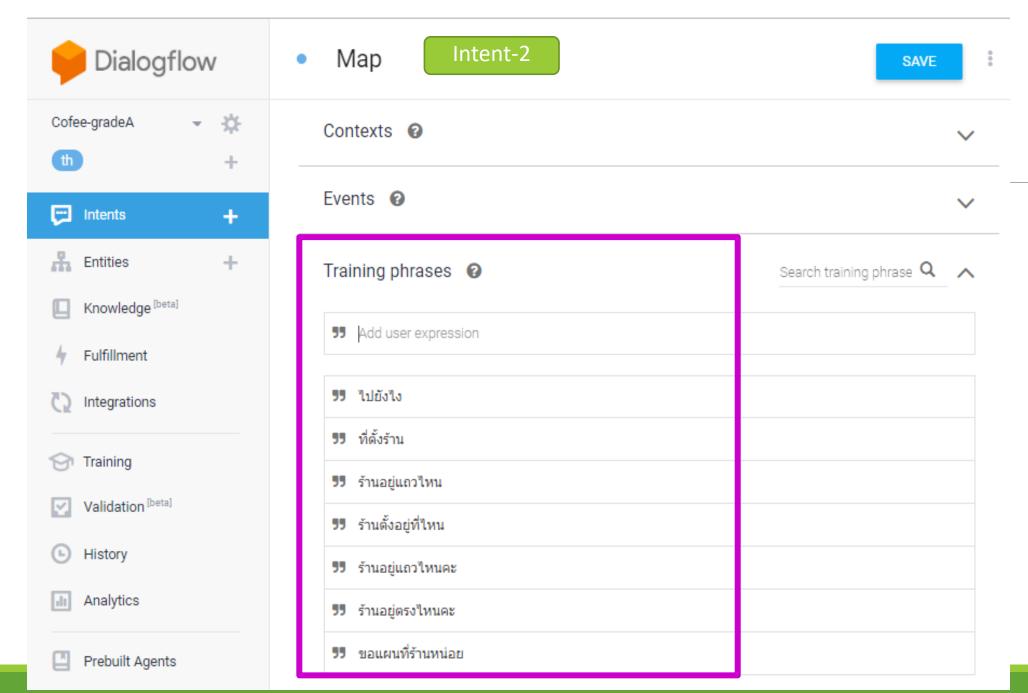


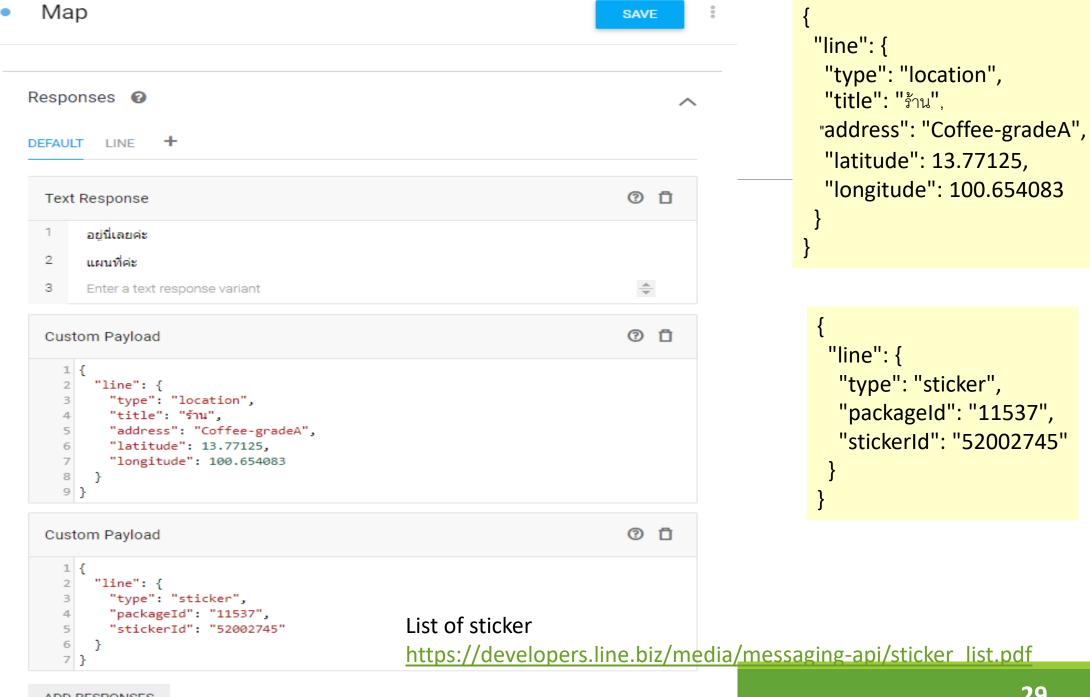


Agent



DIAGNOSTIC INFO



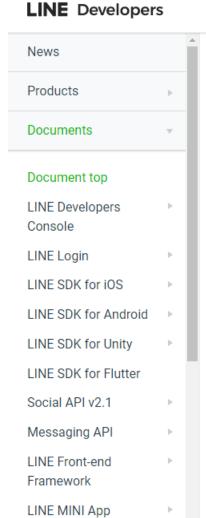


29

LINE

Log in

LINE Developers

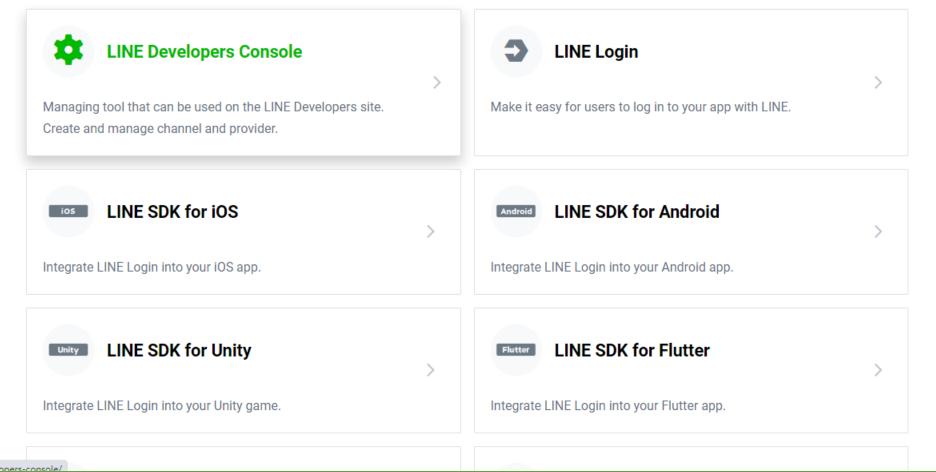


LINE Things

CLOVA Extensions Kit

LINE TV

Document top





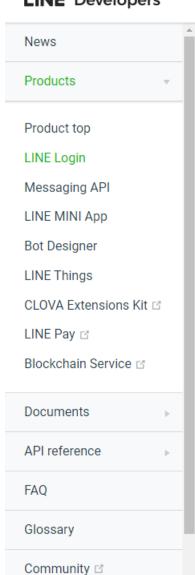
https://developers.line.biz/en/docs/line-login/



Log in

LINE

LINE Developers





Let LINE users easily log in and connect to your app.

Start now

Evtonoivo upor boos

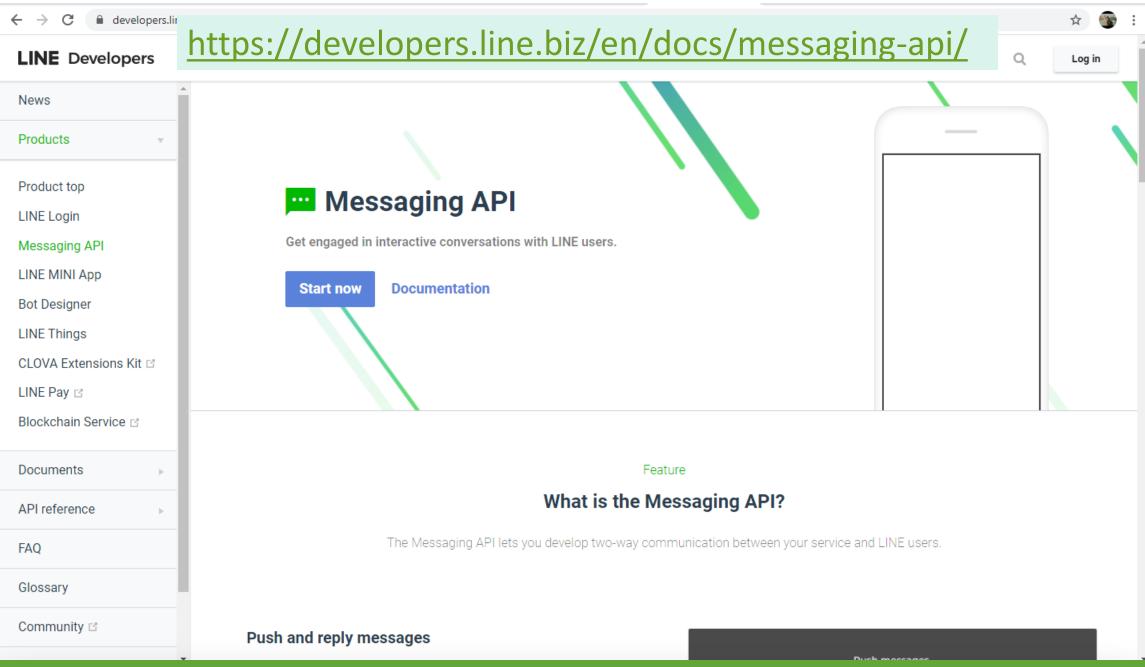
Documentation



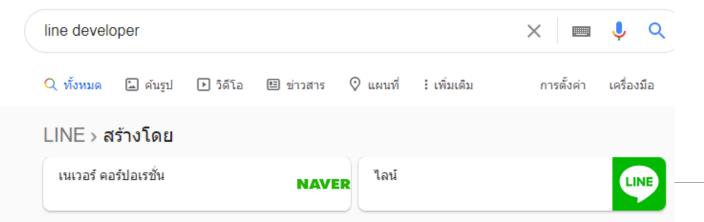


Get connected with LINE

Tap into LINE's network of users by integrating LINE Login into your native app or web app. Give users an easier way of logging in and increase your conversion rates.







developers.line.biz ▼ แปลหน้านี้

LINE Developers

The LINE Developers site is a portal site for developers. It contains docume help you use our various developer products. Creating LINE ... คุณไปที่หน้าเว็บนี้เมื่อ 7/11/2020

Messaging API

Push and reply messages · 1-on-1 and group chats · The perfect ...

LINE Developer

The LINE Developers site is a portal site for developers. It ...

Products

... documents and tools that will help you use our various ...

ผลการค้นหาเพิ่มเติมจาก line.biz »

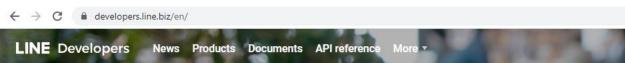
Messaging AP

What you can do with Messaging API. # Se

Documents

Messaging API - LINI Developers Console https://developers.line.biz/en/







Products



LINE Login

Increase the reach of your service using LINE Login.



Messaging API

Use Messaging API and connect to users around the world!



LINE Bot Designer

Prototype LINE bots faster and easier with LINE Bot Designer.



CLOVA Extensions Kit

Integrate CLOVA with your service through the CLOVA Extensions Kit.



LINE Pay

Add the LINE Pay payment feature to your application.



Blockchain Service

Adopt Blockchain technology into your service.

LINE Business ID

เข้าสู่ระบบด้วยบัญชี LINE

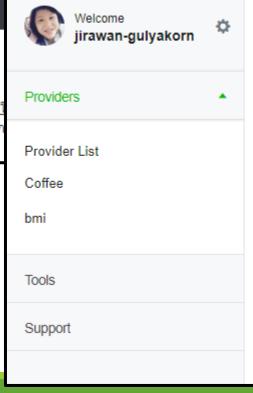


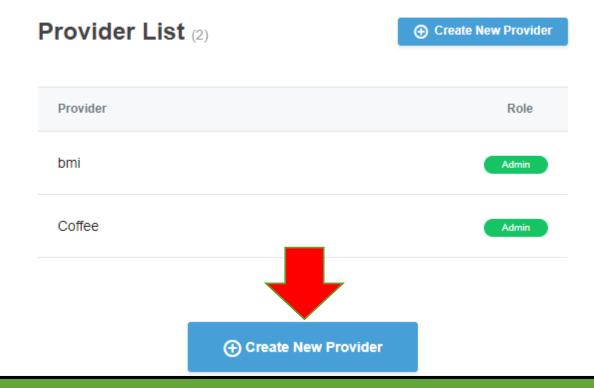
เข้าสู่ระบบด้วยบัญชีธุรกิจ

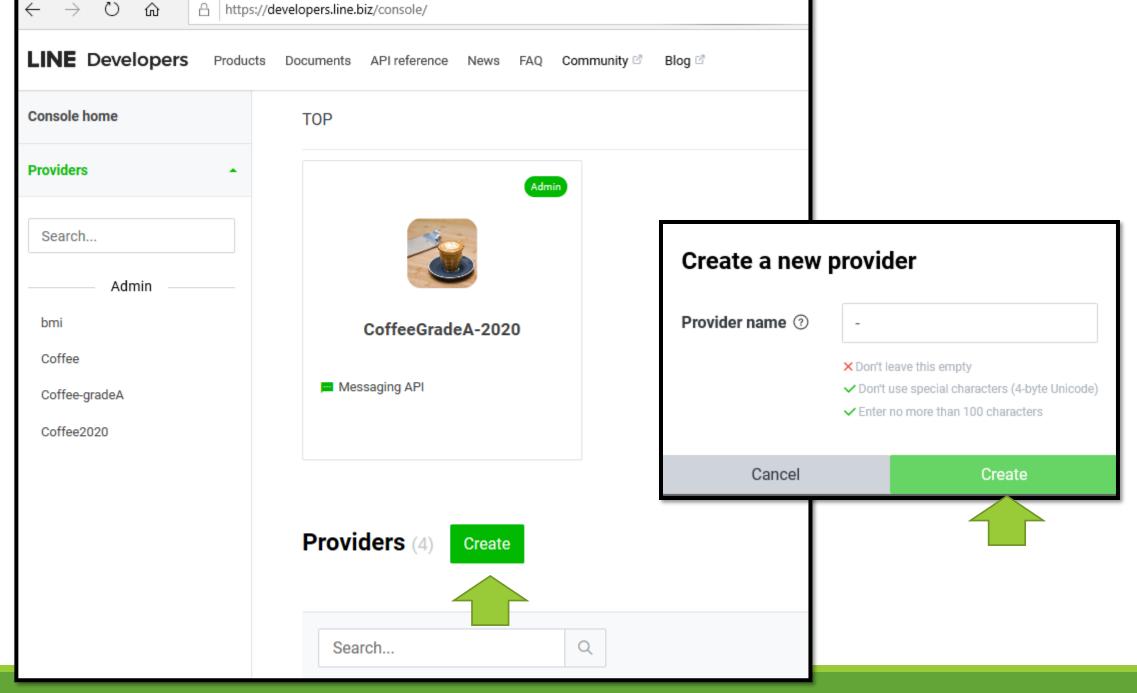
สร้างบัญชี

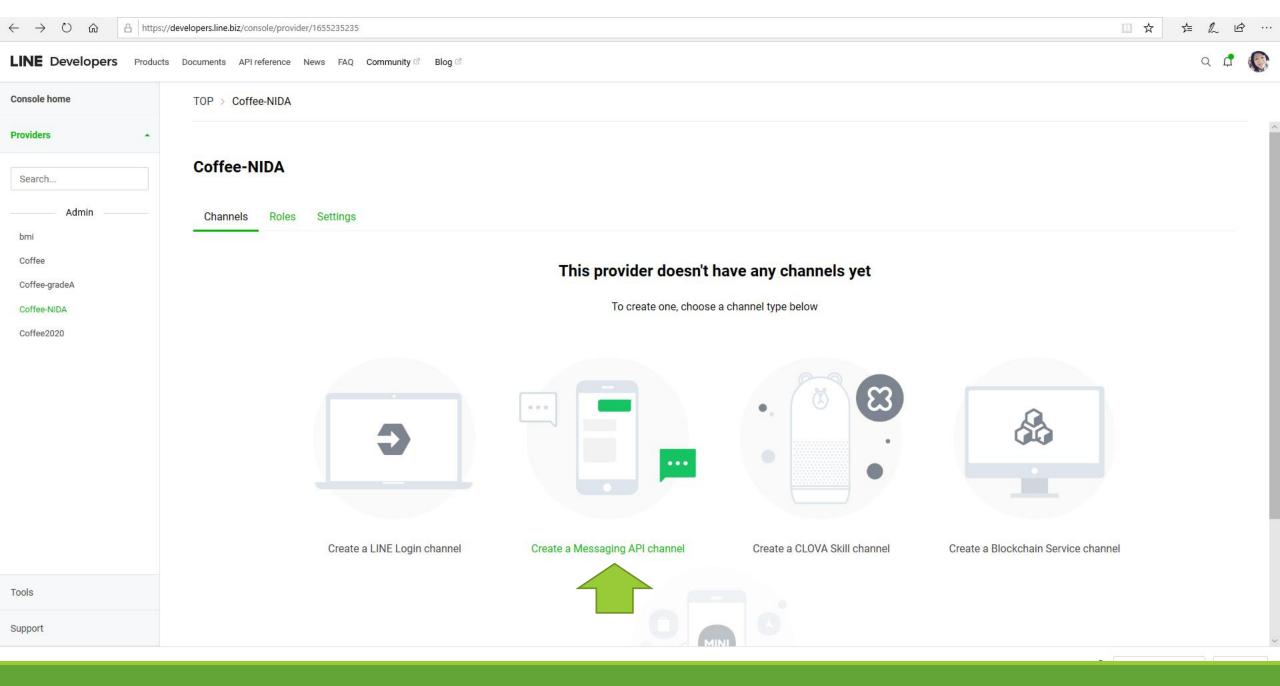
การใช้ LINE Business ID จะเป็นไปตามที่กำหนดใน<u>ข้อกำหนดการใ</u> <u>บริการ</u> เมื่อคุณเข้าสู่ระบบหมายความว่าคุณยอมรับต่อข้อกำหนดดังก แล้ว

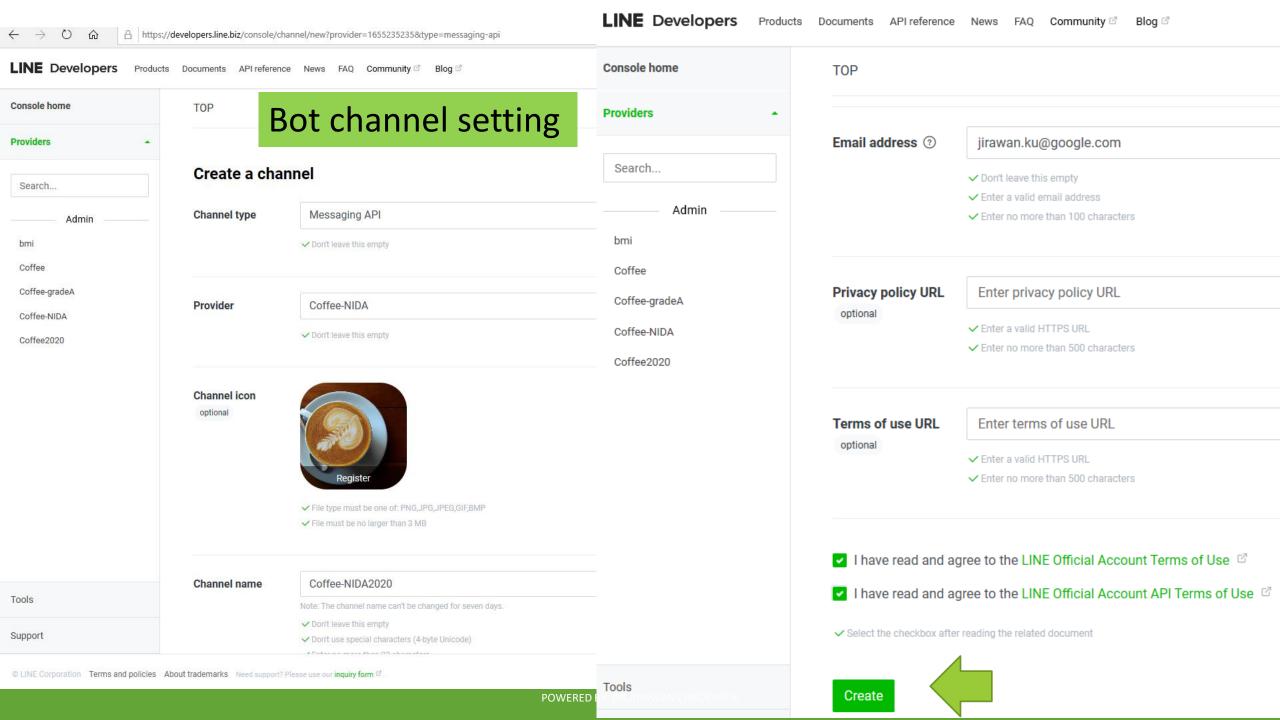
■ LINE Developers



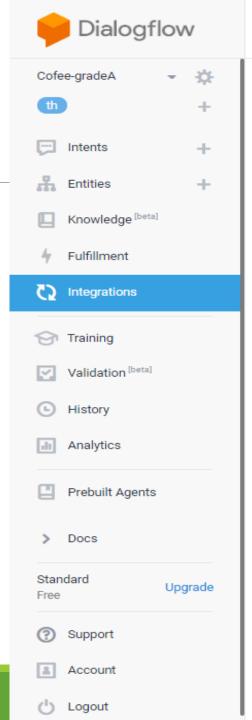




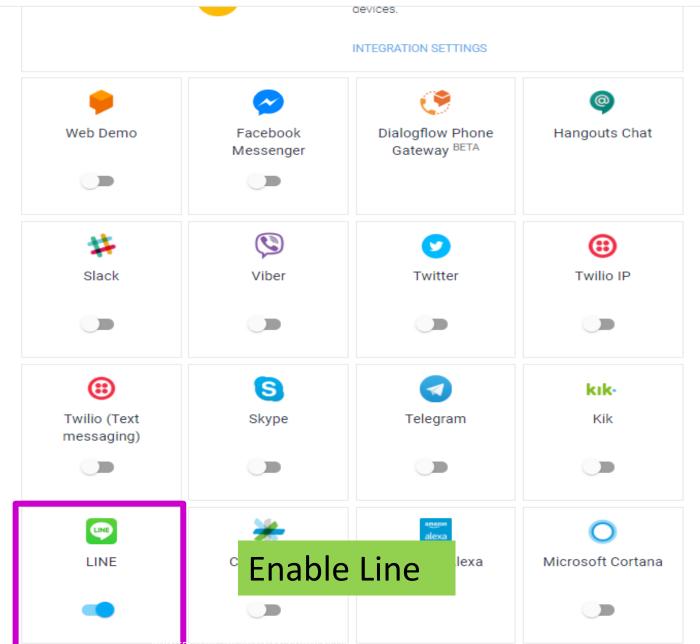




Integration



Integrations





Basic Setting



Build an intelligent conversational LINE bot.

When your Dialogflow agent is ready, follow these instructions to connect it to a LINE Channel:

- If you don't have a LINE@ account, create a LINE@ account with the Messaging API enabled.
- . If you already have a LINE@ account, enable Messaging API for your LINE@ account.
- In the LINE@ Manager, go to Settings > Bot Settings from the left side menu.
- On the Bot Settings page, in the 'Request Settings' section, set 'Allow' for 'Use webhooks'.
- . Go to your LINE@ account page in the LINE Business Center.
- In the 'Messaging API' section, click 'LINE Developers' to go to the Channel Console.
- . Copy Channel ID and Channel Secret and paste into the respective fields below.
- . Click 'ISSUE' for the 'Channel access token' item and paste its value to the respective field below.
- Click 'EDIT' and set the Webhook URL for your Channel by copying and pasting its value from the field below.
 Then click 'SAVE' and 'VERIFY'.
- · Click the 'START' button below.

More in documentation.

Require data from

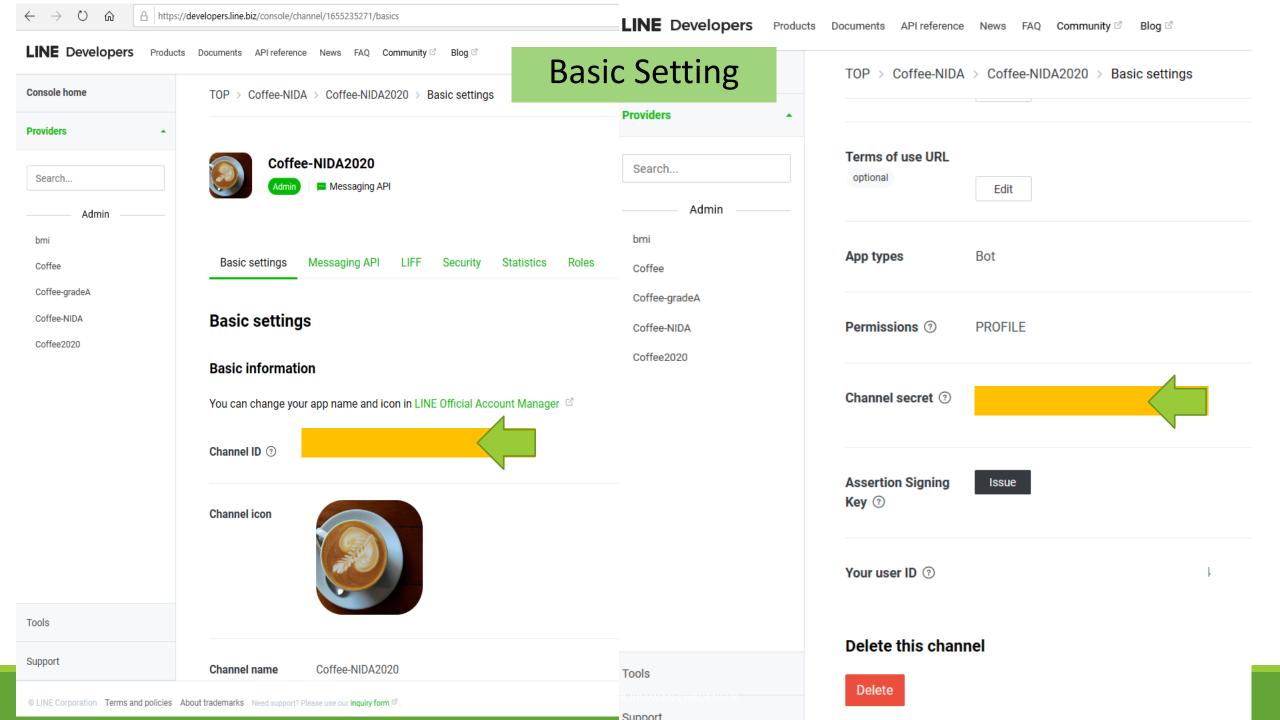
Messaging API

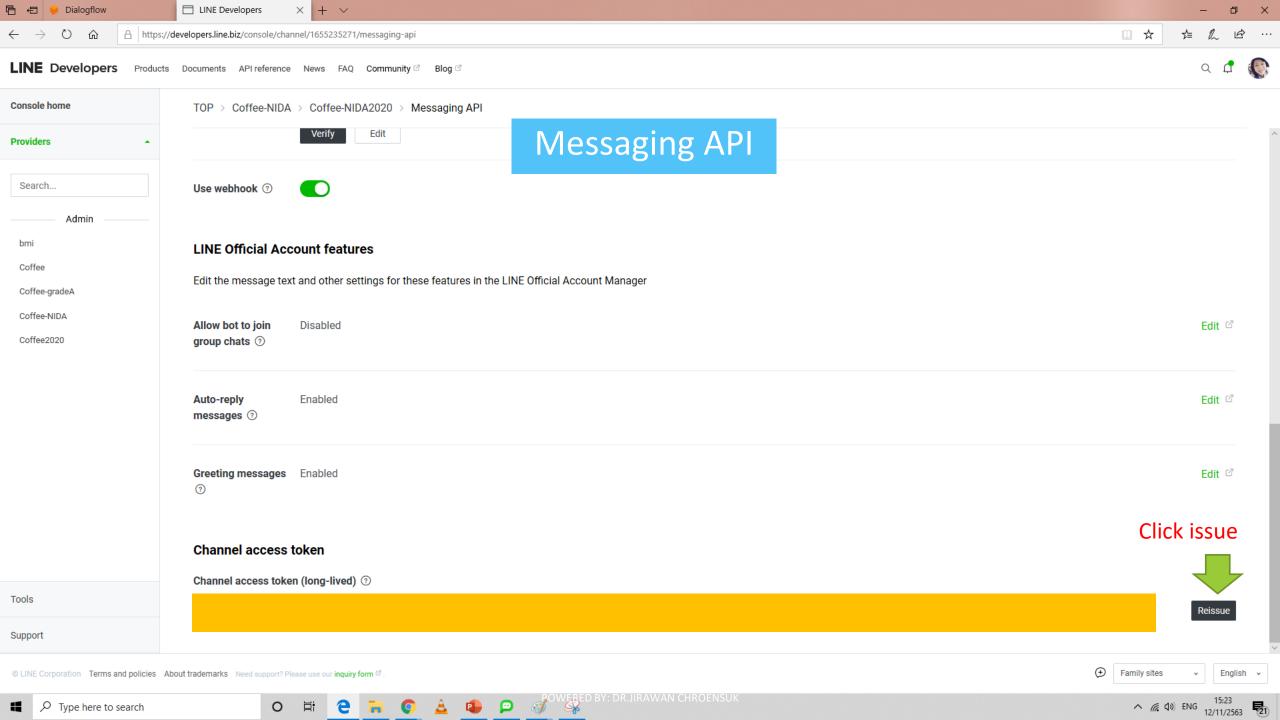
Channel ID
Channel Secret
Channel Secret
Channel Access
Token
Webhook URL
https://bots.dialogflow.com/line/f379212a-386e-4ea4-a1e9-41bb7c881bc9/webhook

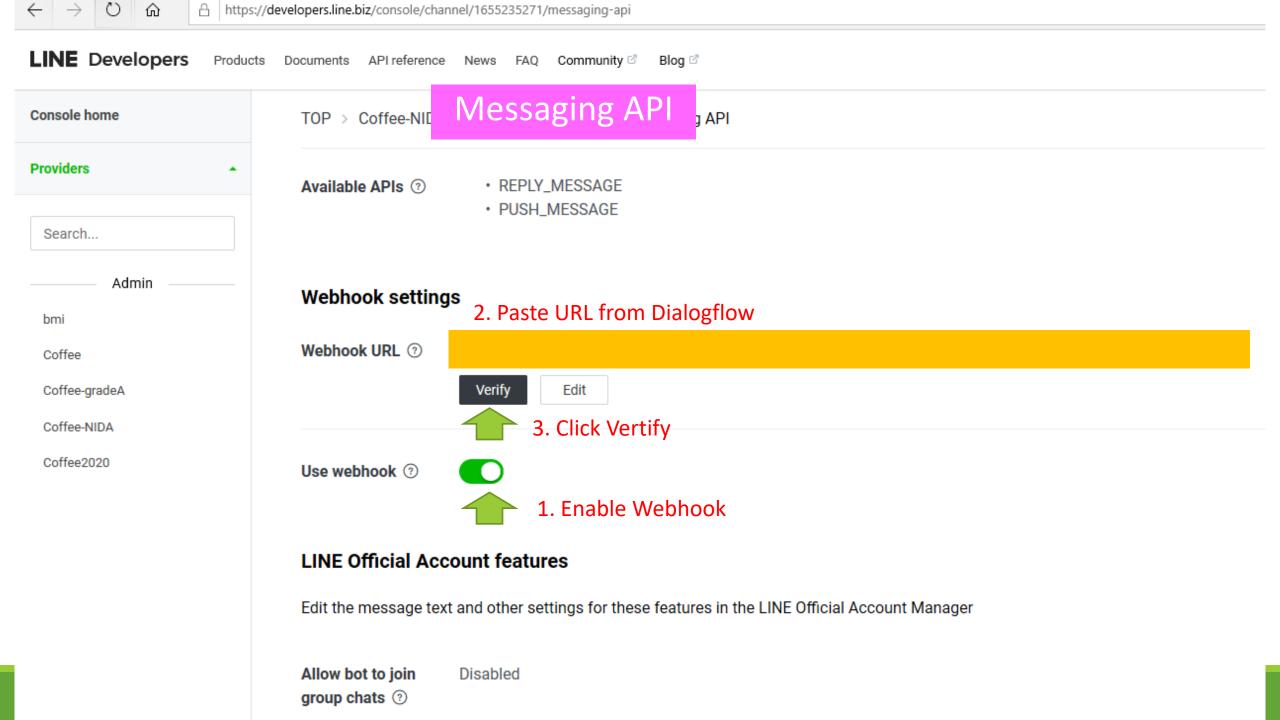
Require data from Basic Setting

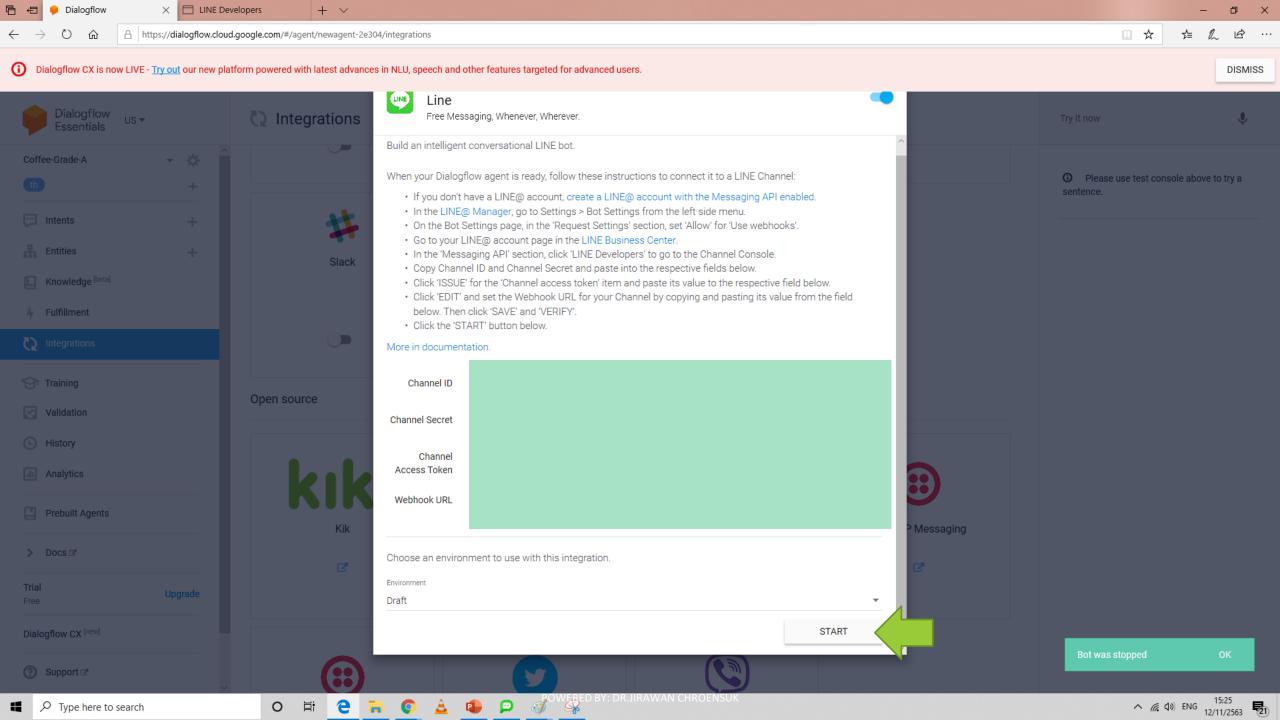
Copy and Paste at to Bot channel

START



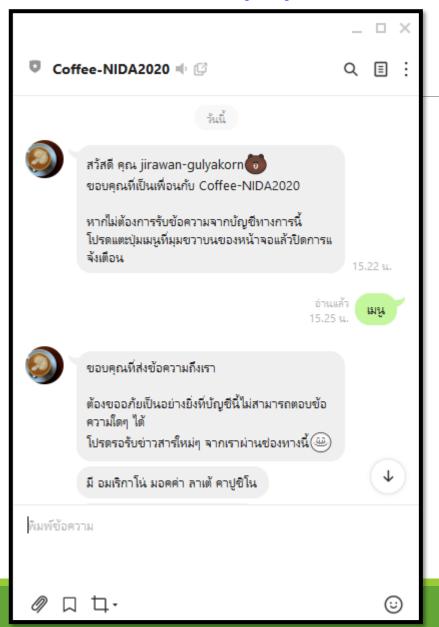






Remove reply messages

Messaging API



LINE Official Account features

Edit the message text and other settings for these features in the LINE Official Account Manager

Allow bot to join Disabled group chats ③

Auto-reply Enabled messages ③

Greeting messages Enabled

?

Home

Notifications Insight Timeline

Profile

LINE Official Account Manager

Account settings

Manage permissions

Response settings

Messaging API

Registered info

Activity and billing

Response settings

Main settings

Chats

Response mode

Bot

You can use webhooks and auto-response messages in bot mode.

Chat

You can use chats, auto-response messages, and the smart chat service in chat mode.

Greeting message

Enabled

Disabled

Greeting message settings

Detailed settings

Auto-response

Enabled Disabled

Auto-response message settings

Webhooks

Enabled

Disabled

Messaging API settings

Dialogflow-Intent

- 3. <u>Action</u>: You can define an action for each intent. When an intent is matched, Dialogflow provides the action to your system, and you can use the action to trigger certain actions defined in your system.
- **4.** Parameters: When an intent is matched at runtime, Dialogflow provides the extracted values from the end-user expression as parameters. Each parameter has a type, called the entity type, which dictates exactly how the data is extracted. Unlike raw end-user input, parameters are structured data that can easily be used to perform some logic or generate responses.

Dialogflow-Intent



Dialogflow- Entities

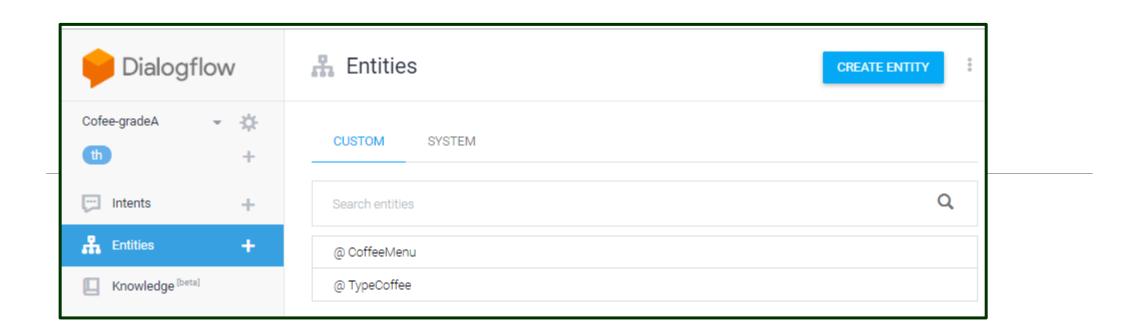
- Each intent parameter has a type, called the entity type, which dictates exactly how data from an end-user expression is extracted.
- Entity terminology
- Entity type: Defines the type of information you want to extract from user input.
 - For example, vegetable could be the name of an entity type.
 - Clicking Create Entity from the Dialogflow Console creates an entity type. When using the API, the term entity type refers to the EntityType type.

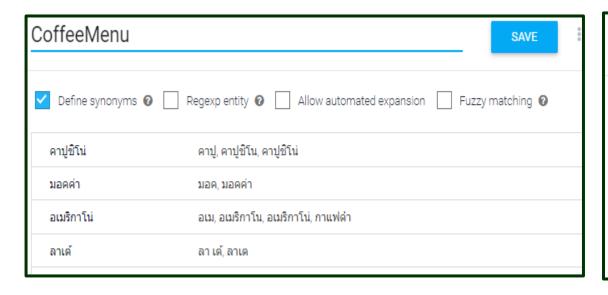
Dialogflow- Entities

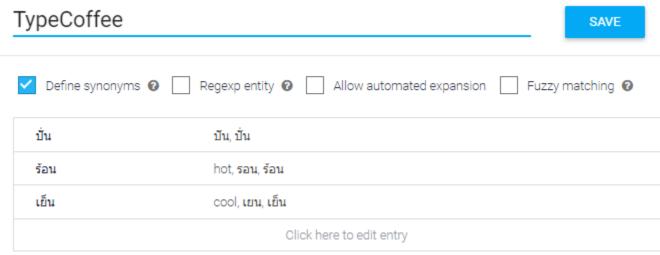
- Entity entry: For each entity type, there are many entity entries. Each entity entry provides a set of words or phrases that are considered equivalent.
 - For example, if vegetable is an entity type, you could define these three entity entries:
 - carrot
 - scallion, green onion
 - bell pepper, sweet pepper
- Entity reference value and synonyms: Some entity entries have multiple words or phrases that are considered equivalent
 - For these entity entries, you provide one reference value and one or more synonyms.

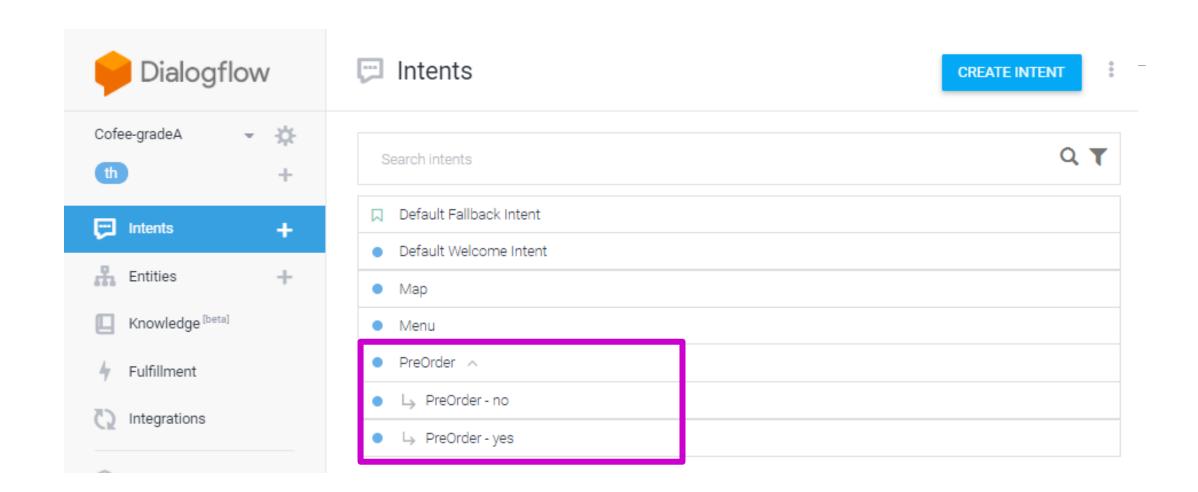


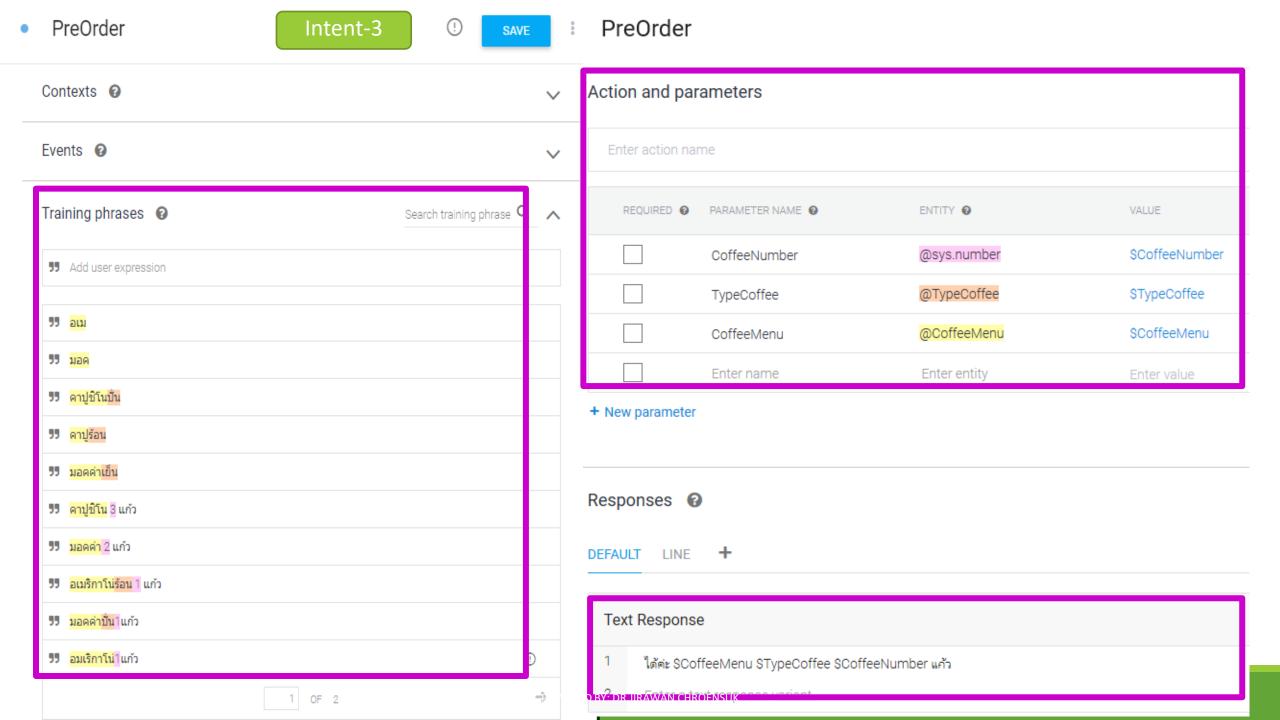


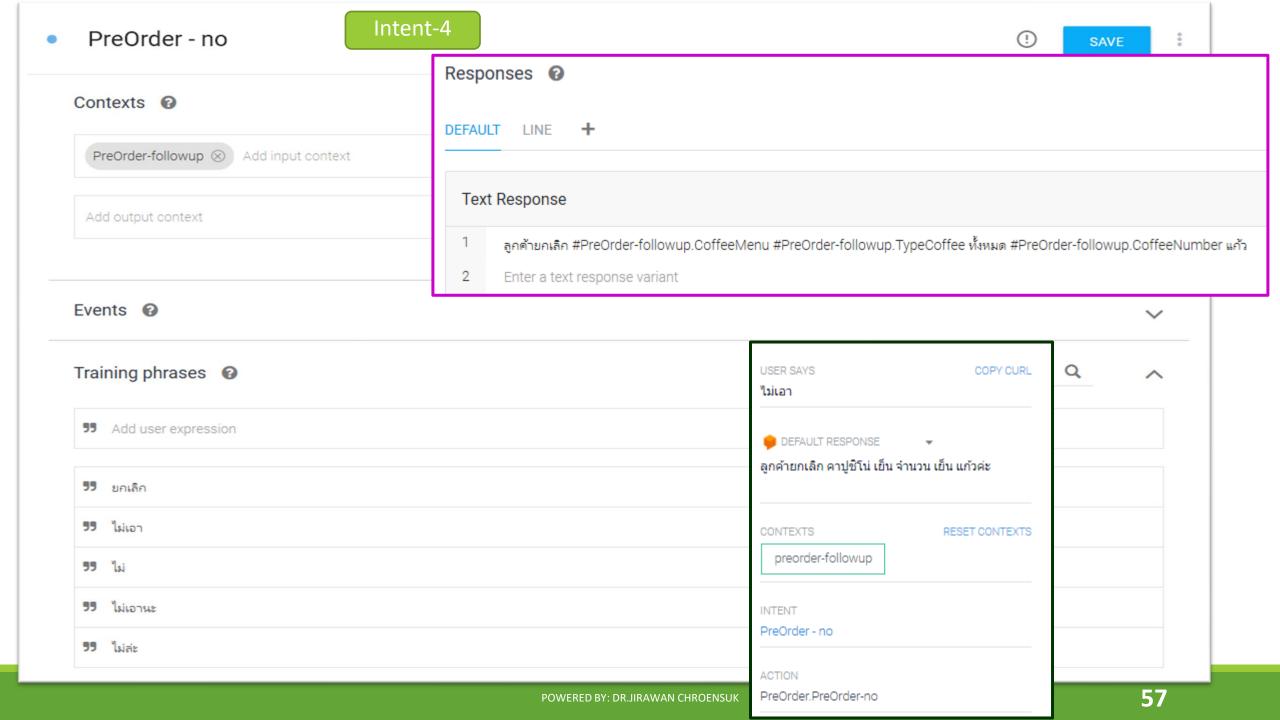


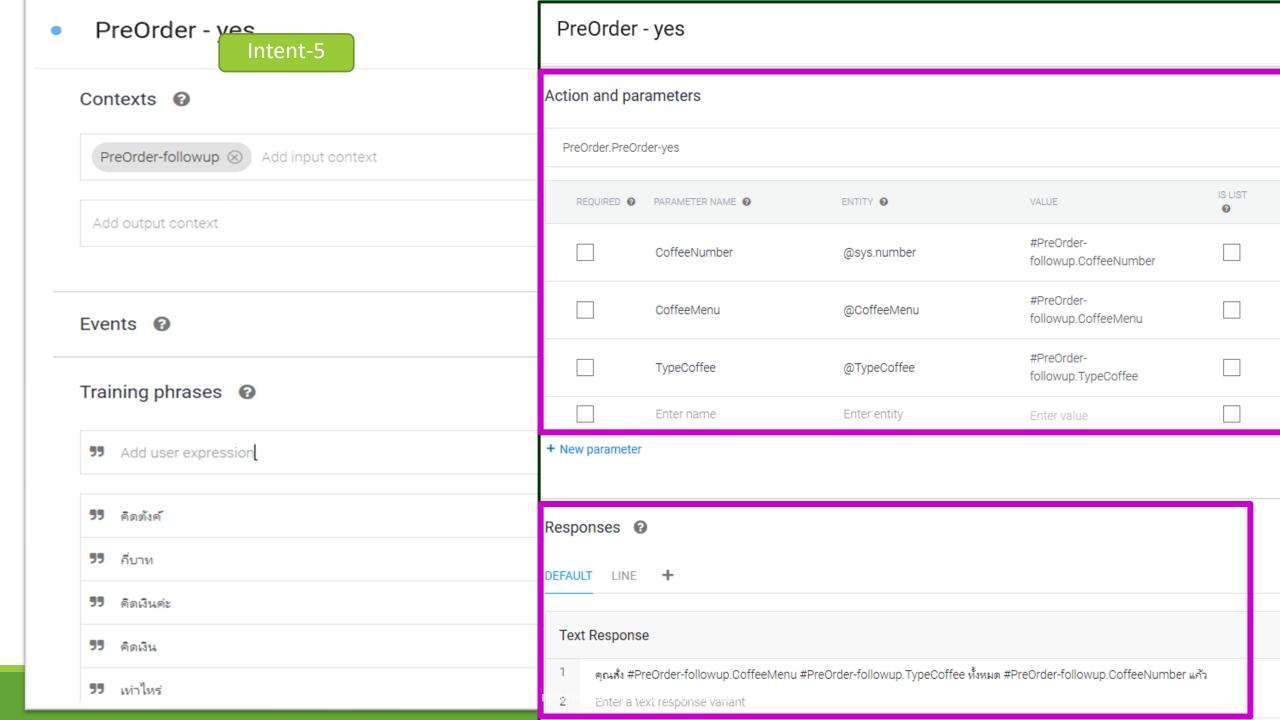






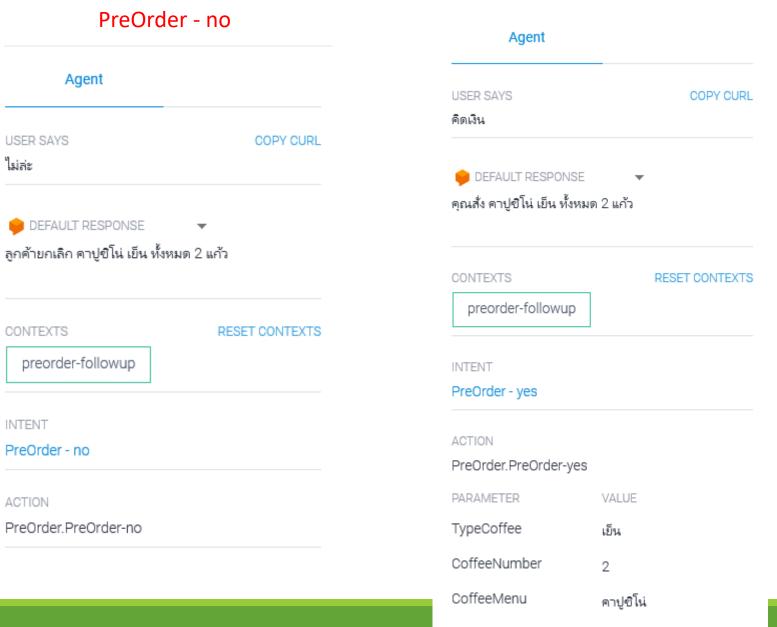






Agent USER SAYS COPY CURL คาปู เย็น 2 DEFAULT RESPONSE ได้ค่ะ คาปูชิโน่ เย็น 2 แก้ว RESET CONTEXTS CONTEXTS preorder-followup INTENT PreOrder ACTION Not available PARAMETER VALUE CoffeeNumber 2 TypeCoffee เย็น CoffeeMenu คาปูซิโน่

PreOrder - yes



Question



https://code-ai.mk/would-you-like-a-full-video-tutorials/