

Hi,
We Are

Chatbot with **Dialogflow**



Mobile Solution Company

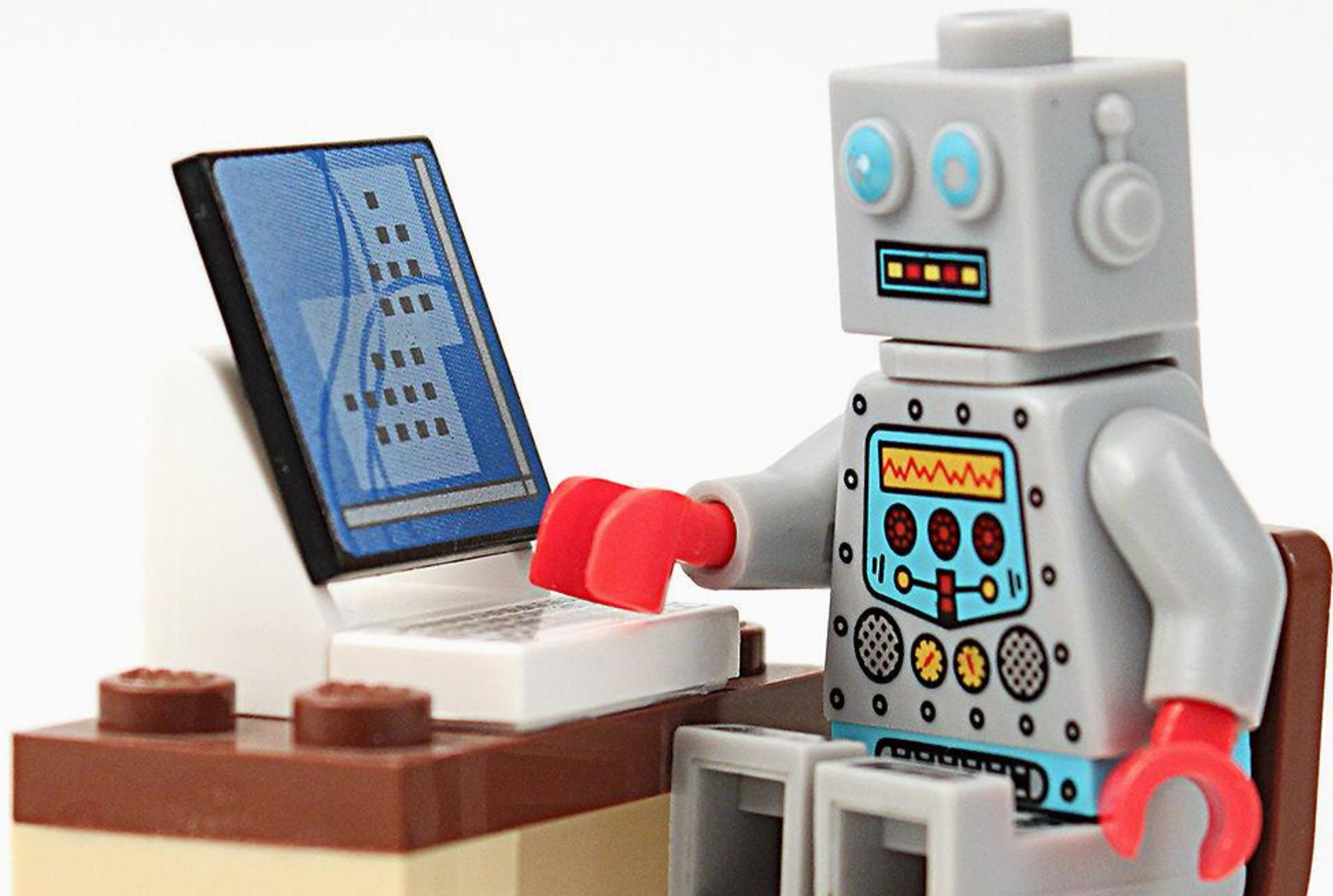
Sudaryatno

email : yatnosudar@gits.co.id

all sosmed : @dodulz



ChatBot?

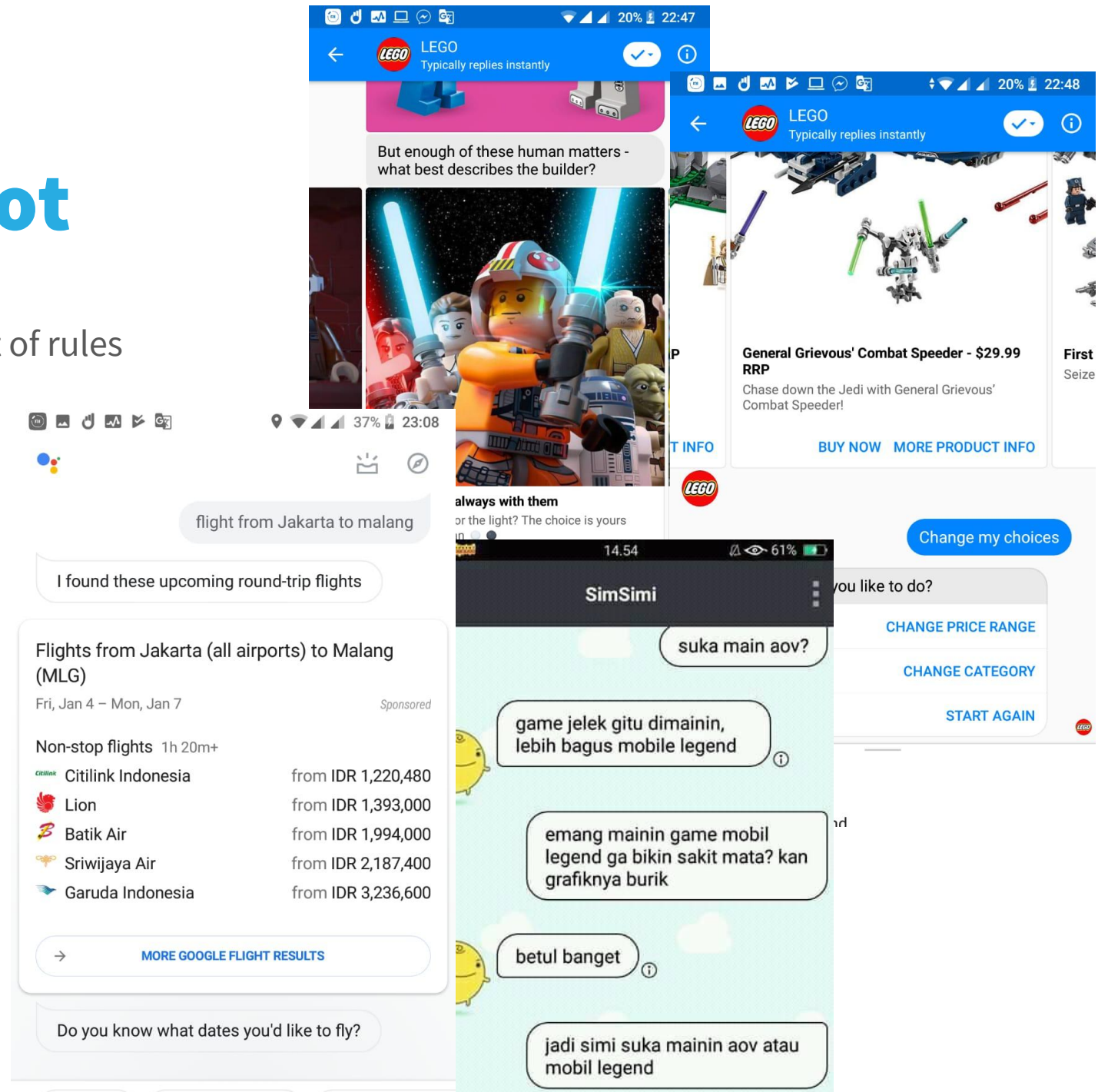


ChatBot

Chatbot berasal dari kata Chatterbot. Chat artinya ngobrol dan bot kependekan dari robot. Adapun chatter adalah tukang ngobrol. Jadi, chatterbot atau chatbot adalah robot yang bisa diajak ngobrol.

Type Of Chatbot

- One **functions based** on a set of rules
- One uses **machine learning**



How It Works

Ibu: Kakak, belikan ayam di pasar.

Ibu: 2 Kg aja di pasar Dinoyo

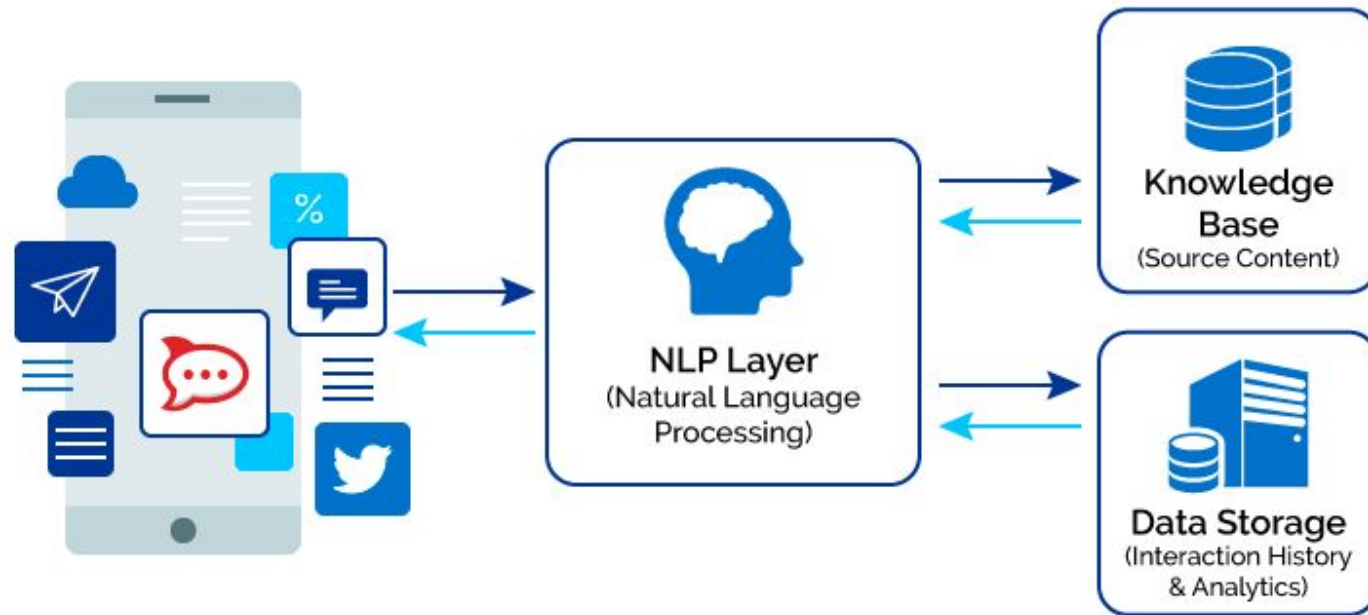
Ibu: Ya udah di Pak min aja.

Kakak: Beli berapa Kg bu?

Kakak: Di dinoyo 25.000/Kg tapi kalo
di Pak Min 20.000/Kg

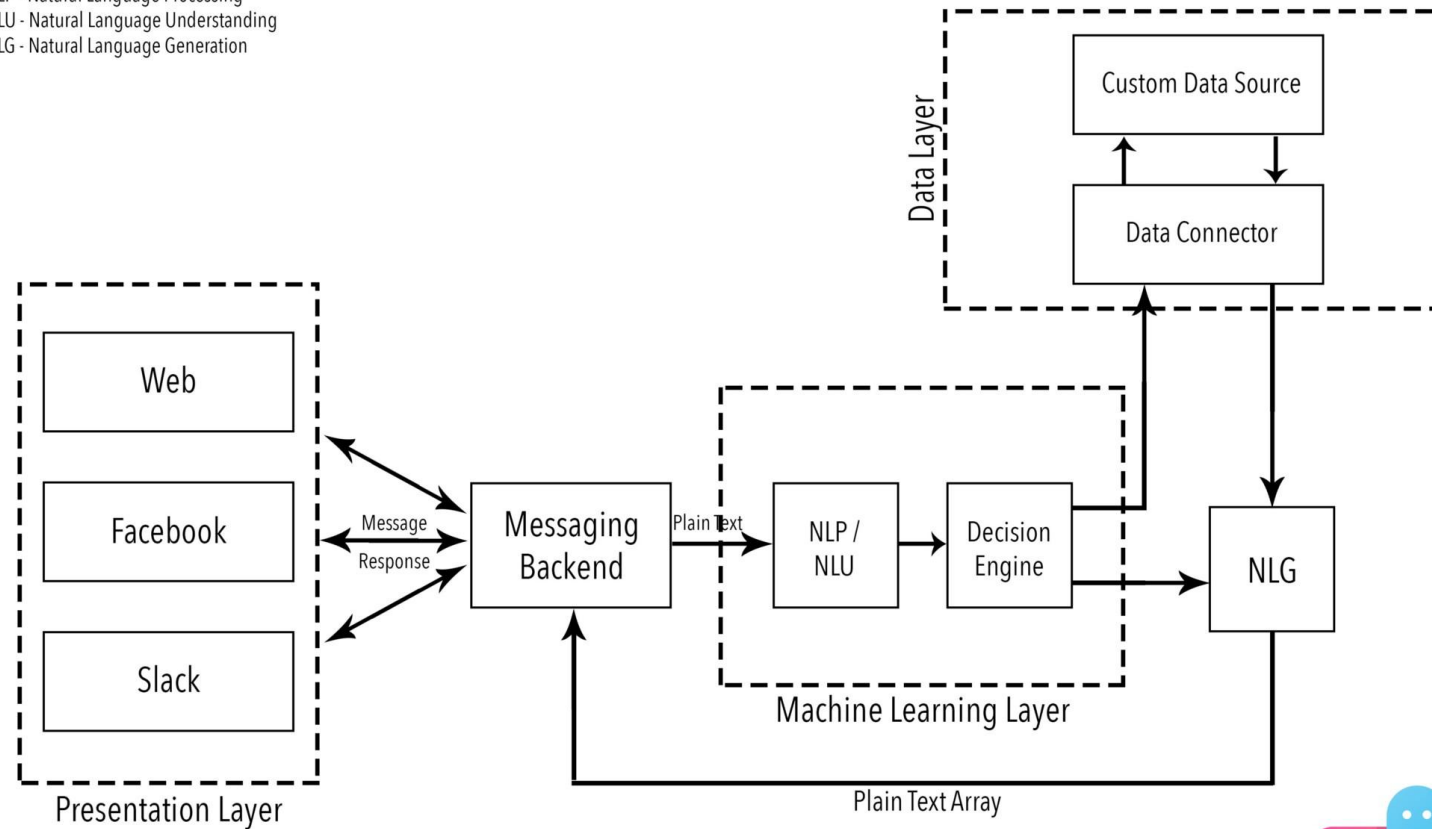
Kakak: Ok bu berangkat

How It Works



How It Works

Key:
NLP - Natural Language Processing
NLU - Natural Language Understanding
NLG - Natural Language Generation

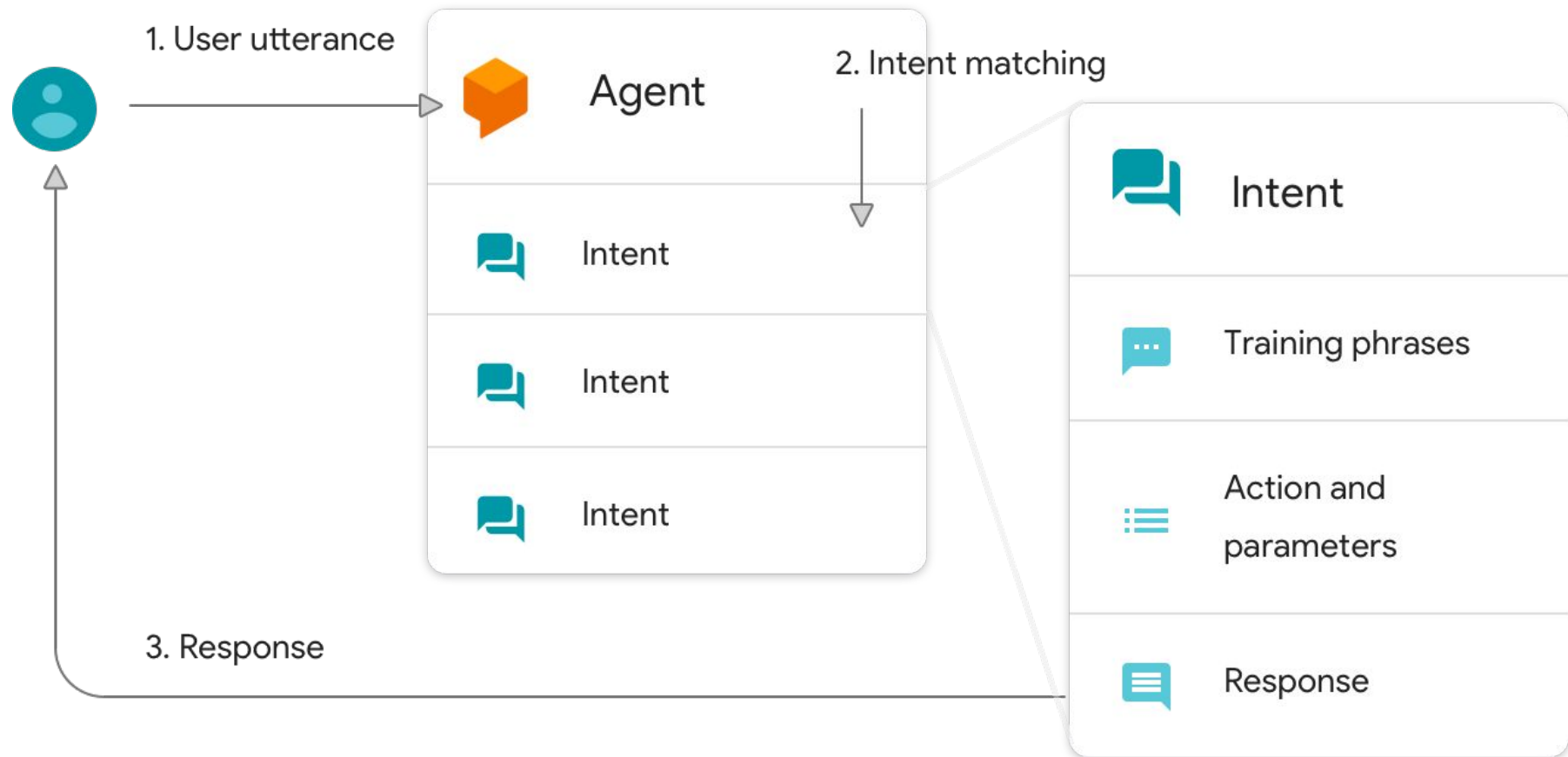




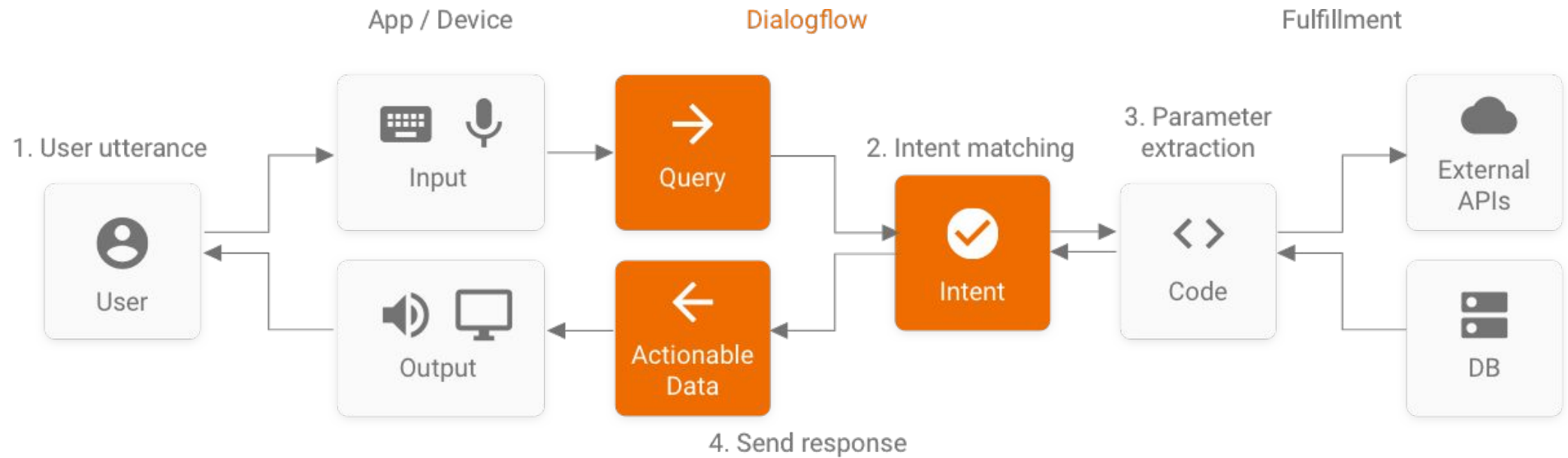
Dialogflow

Dialogflow tools yang dikembangkan oleh **Google(dulunya api.ai)** untuk membangun interaksi text maupun suara dengan sistem.

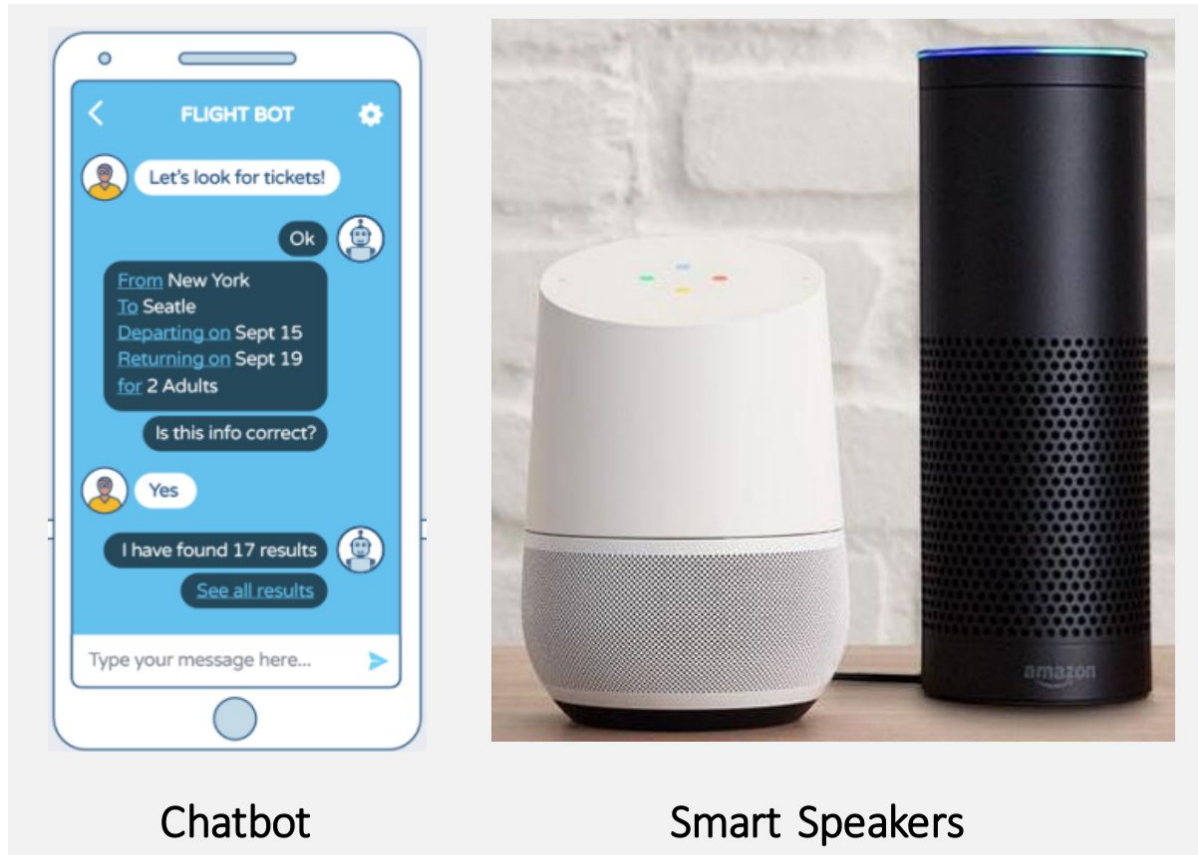
Dialogflow



Architecture



Implementation




Chatbot


Smart Speakers

/Agent

1. Merupakan modul NLU (Natural Language Understanding)
2. Digunakan untuk manajemen flow percakapan

/Agent

 **Dialogflow**

SimpleBot 


AgentOfTest


Hotel-Booking (owned by marnusvan...)


KOTAK_PASIR


SANDBOX

TEAMWORKBOT

 Create new agent


 View all agents

 Analytics

 Dashboard Agents

SimpleBot

General Languages ML Settings Export a



DESCRIPTION

Testing Simp

DEFAULT TIM


(GMT+7:00) ,


Date and time


GOOGLE PROJECT

Project ID	simplebot-cdb21
Service Account	dialogflow-itvqab@simplebot-cdb21.iam.gserviceaccount.com

API VERSION

SimpleBot 

General Languages ML Settings Export and Import Speech  Share



DESCRIPTION

Testing Simple Bot

DEFAULT TIME ZONE

(GMT+7:00) Asia/Bangkok

Date and time requests are resolved using this timezone.

GOOGLE PROJECT

Project ID	simplebot-cdb21 (Google Cloud Actions on Google)
Service Account	dialogflow-itvqab@simplebot-cdb21.iam.gserviceaccount.com

API VERSION

☒ **V2 API**
Use [Cloud API](#) as default for the agent. Your webhook will receive [V2 format requests](#) and should return [V2 format responses](#).

☐ **V1 API**
Legacy APIs

BETA FEATURES

☐ **Enable beta features and APIs**
Be the first to get access to the newest features and latest APIs. ([Full V2-beta API reference](#))

API KEYS (V1)

Client access token	aa068bebe92b4ee5beeff069a981d43f
---------------------	----------------------------------

<https://dialogflow.com/>

/Intent

Mapping antara percakapan user dan action dari percakapan tersebut.

Dialogflow terbagi menjadi tiga proses :

1. User memberikan input
2. Dialogflow agent parsing input
3. Agent memberikan response ke user

/Intent

- Order


SAVE



Contexts



Add input context

5 order 

1 order_phone 

Add output context



Events



Training phrases

Search training phrases 



” Add user expression

” hai

” pesan vit

/Intent

1

Intent name

digunakan sebagai identifikasi fulfillment

2

Training phrases

digunakan untuk training segala bentuk kemungkinan percakapan

3

Action and parameters


digunakan untuk mengambil parameter dari percakapan

4

Response

response dari percakapan

/Intent-training phrases

Training phrases 

Search training phrases 



” Add user expression

” hai

” pesan vit


@ saya mau beli @product:productName kirim ke @sys.street-address:roadAddress

” beli

” order

” pesan

/Intent-action-parameters

Training phrases 

Search training phrase 



” Add user expression

” What is the weather like on Tuesday at 3pm

PARAMETER NAME	ENTITY	RESOLVED VALUE	
date	@sys.date	on Tuesday	×
time	@sys.time	at 3pm	×

/Intent-response

Responses 



DEFAULT

GOOGLE ASSISTANT



Text response



- 1 Pulsa \$pulsa dikirim ke \$phone dengan pembayaran \$payment, anda setuju untuk melanjutkan proses?
- 2 Enter a text response variant

ADD RESPONSES

/Entities

Mekanisme untuk ekstrak parameter data dari natural language.

Udin, beli gas 3 kg ke kostan Adi setelah ashar

/Entities

Mekanisme untuk ekstrak parameter data dari natural language.

Udin, beli **gas 3 kg** ke **kostan Adi** setelah ashar

/Entities

Mekanisme untuk ekstrak parameter data dari natural language.

Udin, beli **gas 3 kg** ke **kostan Adi** **setelah ashar**

↓
item

↓
tempat

↓
waktu

/Entities

size

SAVE

☒ Define synonyms ⓘ ☐ Allow automated expansion

XXL	XXL, extra extra large, double XL, two X, double X
S	S, small
L	L, large
M	M, medium
XS	XS, extra small
XL	<div><div>XL</div><div>extra large</div></div> <div>Enter synonym</div>
Click here to edit entry	

+ Add a row

<https://dialogflow.com/>

/Entities

1. System : parameter yang disediakan oleh DialogFlow
2. Developer : parameter yang di define oleh Developer
3. User : parameter yang di redefine oleh user (session ID Level)

/Context

Context digunakan untuk flow mengontrol percakapan (perpindahan intent) menggunakan spesifik state.

/Context

1. Input Context
2. Output Context
3. Lifespan

Contexts

location

⊗

Add input context

5

location

⊗

Add output context

⊗

/Context

1. Input Context
2. Output Context
3. Lifespan

Contexts

location

⊗

Add input context

5

location

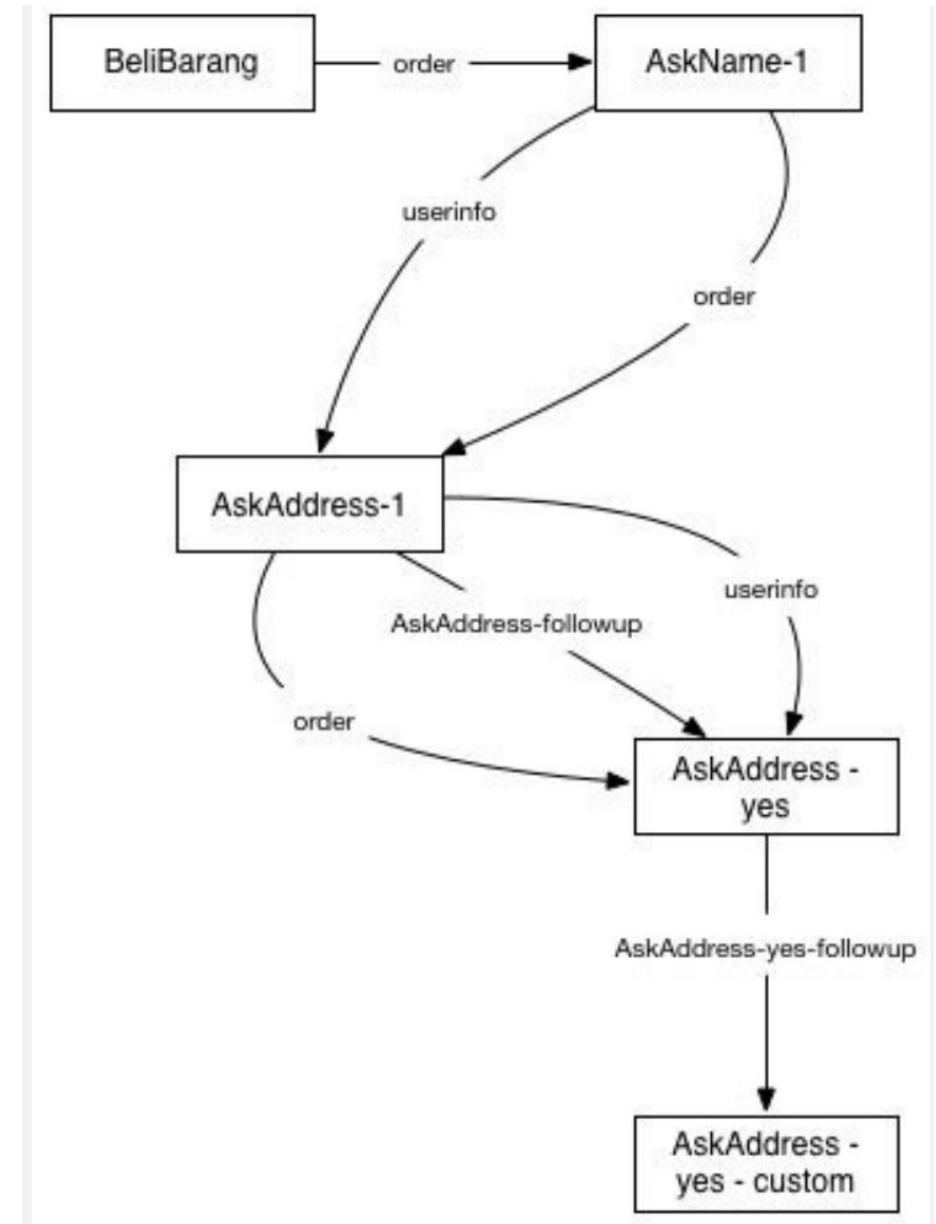
⊗

Add output context

⊗

/Context

Define flow intent menggunakan context




/Follow-up intents

Digunakan untuk percakapan yang bersifat follow-up. Dan context untuk follow-up intents sudah otomatis di definisikan oleh sistem

●	Do you like cats? ^
●	↳ Do you like cats? - yes ^
●	↳ Would you like to see a cat picture? - no
●	↳ Would you like to see a cat picture? - yes
●	↳ Do you like cats? - no

/Fulfillment

Integrasi antara Dialogflow dan sistem yang akan di integrasikan

 Fulfillment

Inline Editor (Powered by Cloud Functions for Firebase) ENABLED

Build and manage fulfillment directly in Dialogflow via Cloud Functions for Firebase. [Docs](#)

index.js package.json

```
1  'use strict';
2
3  const functions = require('firebase-functions'); // Cloud Functions for Firebase library
4  const DialogflowApp = require('actions-on-google').DialogflowApp; // Google Assistant helper
5  exports.dialogflowFirebaseFulfillment = functions.https.onRequest((request, response) => {
6    console.log('Dialogflow Request headers: ' + JSON.stringify(request.headers));
7    console.log('Dialogflow Request body: ' + JSON.stringify(request.body));
8    if (request.body.result) {
9      processV1Request(request, response);
10   } else if (request.body.queryResult) {
11     processV2Request(request, response);
12   } else {
13     console.log('Invalid Request');
14     return response.status(400).end('Invalid Webhook Request (expecting v1 or v2 webhook req
15   }
16 });
17 /*
18  * Function to handle v1 webhook requests from Dialogflow
19  */
20 function processV1Request (request, response) {
21   let action = request.body.result.action; // https://dialogflow.com/docs/actions-and-param
22   let parameters = request.body.result.parameters; // https://dialogflow.com/docs/actions-and-
```

Text response

- 1 wait cu lagi beberes rumah dulu
- 2 mbah carikan cu
- 3 bentar ya cu
- 4 sabar cu...
- 5 Enter a text response variant

ADD MESSAGE CONTENT













Fulfillment

☒ Use webhook ☐ Use webhook for slot-filling

<https://dialogflow.com/>

/Fulfillment

Integrasi antara Dialogflow dan sistem yang akan di integrasikan

 Google Assistant <input type="checkbox"/>	 Web Demo <input type="checkbox"/>	 Facebook Messenger <input type="checkbox"/>	 Slack <input type="checkbox"/>
 Viber <input type="checkbox"/>	 Twitter <input type="checkbox"/>	 Twilio IP <input type="checkbox"/>	 Twilio (Text messaging) <input type="checkbox"/>
 Skype <input type="checkbox"/>	 Tropo (Text messaging) <input type="checkbox"/>	 Telegram <input type="checkbox"/>	 Kik <input type="checkbox"/>

<https://dialogflow.com/>

Need more information check this out
<http://www.gits.co.id/career>



