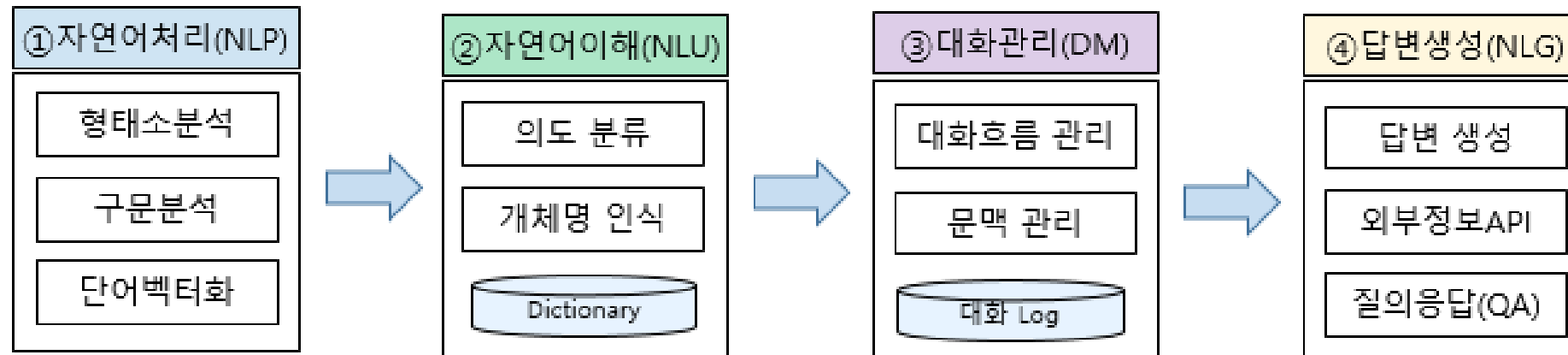


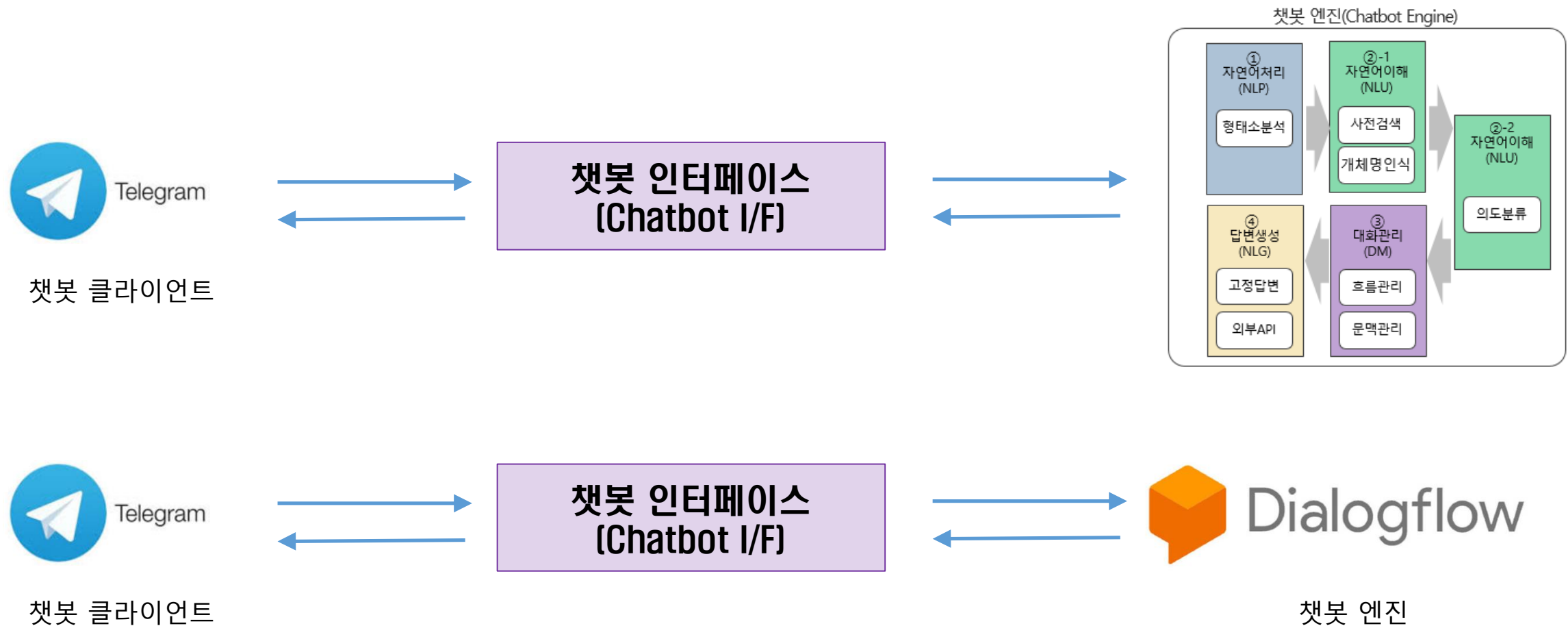
- 챗봇 엔진의 구성

①자연어 처리(NLP) ②자연어 이해(NLU) ③대화관리(Dialog Management) ④ 자연어(답변) 생성(NLG) 등으로 구성
본격적인 자연어 처리에 앞서 텍스트 전처리 과정 선행



■ 챗봇 엔진과 Dialogflow

본격적인 챗봇 엔진 구축에 앞서 인텐트(의도), 엔티티(개체명), 슬롯 등 챗봇 핵심 개념에 대한 적용
구글 Dialogflow를 통해 챗봇 엔진에 대한 이해



▪ Dialogflow란?

대화식 사용자 인터페이스를 모바일 앱, 웹 애플리케이션, 기기, 봇, 대화형 음성 응답 시스템 등에 쉽게 설계하고 통합할 수 있도록 하는 자연어 이해 플랫폼
텍스트 또는 오디오 입력(전화 또는 음성 녹음 등)을 포함하여 고객이 제공하는 여러 유형의 입력을 분석
2016년 유명한 챗봇 플랫폼인 Api.ai를 Google 이 인수하여
대화식 사용자 인터페이스의 핵심 엔진으로 Google의 인공지능 딥러닝 기반 엔진 탑재
Google의 강력한 인공지능 딥러닝 기반 엔진을 이용하여 고품질의 사용자 환경 제공
영어, 중국어 뿐만 아니라 한국어 등 다국어 지원

출처 : <https://cloud.google.com/dialogflow/docs?hl=ko>

- <https://dialogflow.com/> 접속

클릭

Build natural and rich conversational experiences

Give users new ways to interact with your product by building engaging voice and text-based conversational interfaces, such as voice apps and chatbots, powered by AI. Connect with users on your website, mobile app, the Google Assistant, Amazon Alexa, Facebook Messenger, and other popular platforms and devices.

Sign up for free



Powered by Google's machine learning

Dialogflow incorporates Google's machine learning expertise and products such as Google Cloud Speech-to-Text.

Built on Google infrastructure

Dialogflow is a Google service that runs on Google Cloud Platform, letting you scale to hundreds of millions of users.

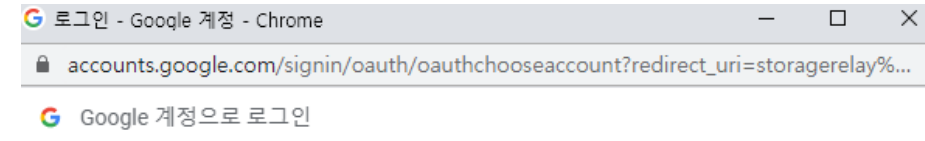
Optimized for the Google Assistant

Dialogflow is the most widely used tool to build Actions for more than 400M+ Google Assistant devices.

Dialogflow is user-friendly, intuitive, and just makes sense. Its natural language processing (NLP) is the best we've tried.

Mandi Galluch, Digital Experience Program Leader, Domino's

- 구글 계정으로 접속 및 허용



▪ 서비스 약관 동의

Please review your account settings

한국 선택

Country or territory *

South Korea

Terms of Service *

✓ Yes, I have read and accept the agreement.

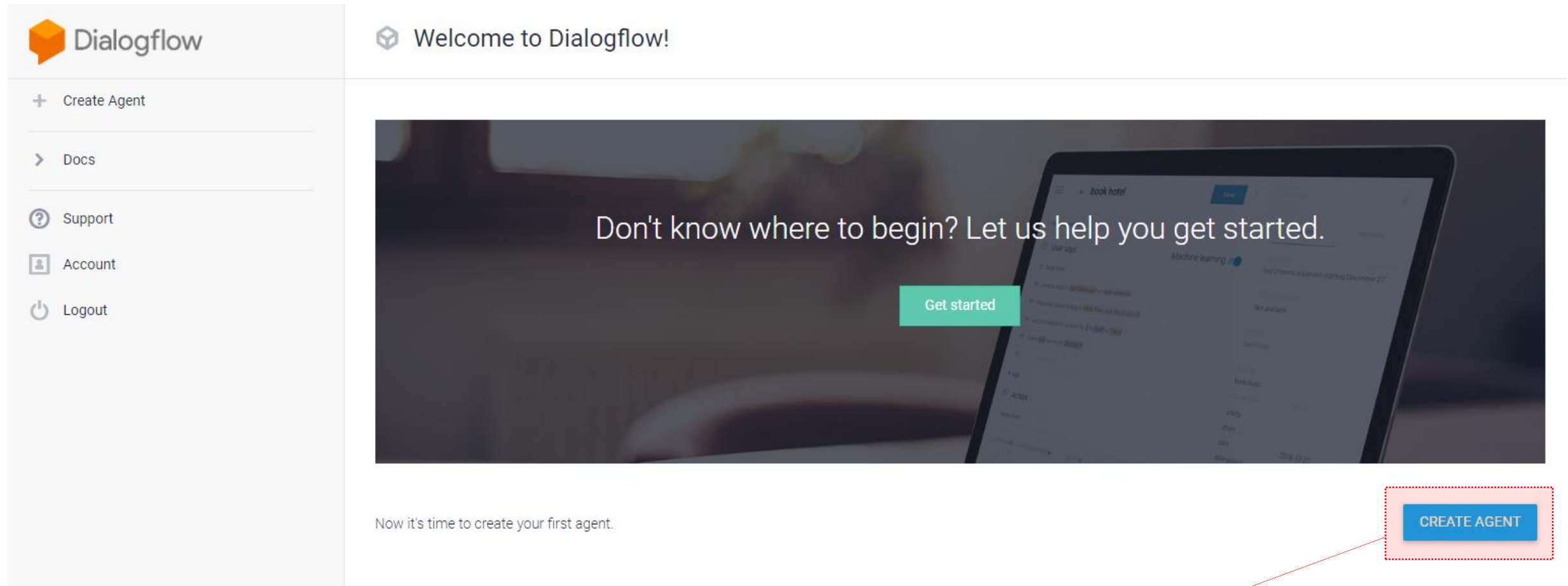
By proceeding and clicking the button below, you agree to adhere to the [Terms of Service](#).

Additionally, you may have access to certain Firebase services. You agree that your use of Firebase services will adhere to the applicable [Firebase Terms of Service](#). If you integrate any apps with Firebase on this project, by default, your Firebase Analytics data will enhance other Firebase features and Google products. You can control how your Firebase Analytics data is shared in your Firebase settings at anytime.

클릭

ACCEPT

▪ Dialogflow Agent 생성



The screenshot shows the Dialogflow console interface. On the left is a sidebar with the Dialogflow logo and navigation links: '+ Create Agent', '> Docs', '? Support', 'Account', and 'Logout'. The main area displays a 'Welcome to Dialogflow!' message. Below this is a large banner image of a tablet showing a search results page for 'book hotel'. Overlaid on the banner is the text 'Don't know where to begin? Let us help you get started.' with a green 'Get started' button. At the bottom of the main area, it says 'Now it's time to create your first agent.' and a blue 'CREATE AGENT' button is highlighted with a red dashed box. A red arrow points from the Korean word '클릭' (Click) to this button.

Dialogflow Agent 생성

The screenshot shows the 'Create Agent' page in the Dialogflow console. The left sidebar contains the Dialogflow logo and navigation links: '+ Create Agent', 'Docs', 'Support', 'Account', and 'Logout'. The main content area is titled '인공지능정보보호서비스챗봇' (AI Information Protection Service Chatbot). It contains several configuration sections: 'DEFAULT LANGUAGE' with a dropdown menu showing 'Korean (South Korea) - ko', 'DEFAULT TIME ZONE' with a dropdown menu showing '(GMT+9:00) Asia/Tokyo', 'GOOGLE PROJECT' with a dropdown menu showing 'Create a new Google project', and 'AGENT TYPE' with a toggle switch for 'Set as Mega Agent'. A red dashed box highlights the 'CREATE' button in the top right corner. Three red annotations with arrows point to specific elements: ① 클릭 (Click) points to the agent name, ② 클릭 (Click) points to the 'Korean (South Korea) - ko' language selection, and ③ 클릭 (Click) points to the 'CREATE' button.

Dialogflow

+ Create Agent

> Docs

? Support

Account

Logout

인공지능정보보호서비스챗봇

① 클릭

② 클릭

③ 클릭

CREATE

DEFAULT LANGUAGE ?

Korean (South Korea) - ko

Primary language for your agent. Other languages can be added later.

DEFAULT TIME ZONE

(GMT+9:00) Asia/Tokyo

Date and time requests are resolved using this timezone.

GOOGLE PROJECT

Create a new Google project


Enables Cloud functions, Actions on Google and permissions management.

AGENT TYPE

☐ Set as Mega Agent

Combine multiple Dialogflow agents (i.e. sub agents) into a single agent (i.e. [mega agent](#)).

- Service Account 비공개키 생성



인공지능정보보호서비스챗봇


인공지능정보보호서비스챗봇 ko

- Intents
- Entities
- Knowledge [beta]
- Fulfillment
- Integrations
- Training
- Validation
- History

인공지능정보보호서비스챗봇

SAVE

General Languages ML Settings Export and Import Environments Speech Share Advanced



DESCRIPTION

Describe your agent

DEFAULT TIME ZONE

(GMT+9:00) Asia/Tokyo

Date and time requests are resolved using this timezone.

GOOGLE PROJECT

Project ID	a-pxii
Service Account ?	dialogflow-ltikvi@a-pxii.iam.gserviceaccount.com

프로젝트 ID 확인

클릭

▪ Service Account 비공개키 생성

Google Cloud Platform a-pxii

서비스 계정 + 서비스 계정 만들기 삭제

'a-pxii' 프로젝트의 서비스 계정

서비스 계정은 Compute Engine VM에서 실행되는 코드, App Engine 앱 또는 Google 외부에서 실행되는 시스템과 같은 Google Cloud 서비스 ID를 나타냅니다. [서비스 계정 자세히 알아보기](#)

조직 정책은 서비스 계정을 보호하고 자동 IAM 부여, 키 생성/업로드, 다른 서비스 계정의 생성과 같은 위험한 서비스 계정 기능을 차단하는 데 사용될 수 있습니다. [서비스 계정 조직 정책 자세히 알아보기](#)

테이블 필터링

이메일	상태	이름 ↑	설명	키 ID	키 생성일	작업
<input checked="" type="checkbox"/> dialogflow-ltikvi@a-pxii.iam.gserviceaccount.com	✓	Dialogflow Integrations		a37f275ce289ca33f93ca2e5c0e36f9da3fe630e	2020. 6. 21.	<div>수정 사용 중지 키 만들기 삭제</div>

작업-키만들기 클릭

▪ Service Account 비공개키 생성

Service Account 비공개키 생성 후 JSON 파일 형태로 로컬 PC에 저장
프로그램에서 사용하기 때문에 저장 위치 및 파일명 확인 필요

'Dialogflow Integrations'용 비공개 키 만들기

비공개 키가 포함된 파일을 다운로드합니다. 이 키가 손실될 경우 복구할 수 없으므로 안전하게 저장하세요.

키 유형

☒ JSON

권장

☐ P12

P12 형식을 사용하는 코드와의 하위 호환용

취소

만들기

```
{
  "type": "service_account",
  "project_id": "a--pxii",
  "private_key_id": "64c4b61d7c3ded06a71addeb0d156f972e23285b",
  "private_key": "-----BEGIN PRIVATE KEY-----\nMIIEvQIBADANBgkqhkiG9w0BAQEFAASCBAkwgY",
  "client_email": "dialogflow-ltikvi@a--pxii.iam.gserviceaccount.com",
  "client_id": "113941512220688262579",
  "auth_uri": "https://accounts.google.com/o/oauth2/auth",
  "token_uri": "https://oauth2.googleapis.com/token",
  "auth_provider_x509_cert_url": "https://www.googleapis.com/oauth2/v1/certs",
  "client_x509_cert_url": "https://www.googleapis.com/robot/v1/metadata/x509/dialogflow-ltikvi"
}
```

- dialogflow 클라이언트 모듈 설치
pip install dialogflow
- dialogflow 클라이언트 모듈 import
import os
import dialogflow_v2 as dialogflow
- dialogflow 접속을 위한 설정 값
os.environ["GOOGLE_APPLICATION_CREDENTIALS"] = "Service Account 비공개키 json 파일 위치"
project_id = 'Dialogflow 프로젝트 ID'
session_id = '세션 ID(임의의 문자열 32자 까지 가능)'
language_code = 'ko'

- dialogflow 접속 및 대화 전송

```
session_client = dialogflow.SessionsClient()
session = session_client.session_path(project_id, session_id)
text_input = dialogflow.types.TextInput(text=text, language_code=language_code)
query_input = dialogflow.types.QueryInput(text=text_input)
```

- dialogflow 인텐트 분류 결과 응답

```
response = session_client.detect_intent(session=session, query_input=query_input)
print('Query text: {}'.format(response.query_result.query_text))
print('Detected intent: {} (confidence: {})\\n'.format(
    response.query_result.intent.display_name,
    response.query_result.intent_detection_confidence))
print('Fulfillment text: {}\\n'.format(response.query_result.fulfillment_text))
```

Dialogflow Default Welcome Intent

The screenshot displays the Dialogflow console interface for configuring the 'Default Welcome Intent'. The left sidebar contains navigation links for various components: Intents (selected), Entities, Knowledge [beta], Fulfillment, Integrations, Training, Validation, History, Analytics, Prebuilt Agents, Docs, Standard Free (with an Upgrade button), Support, and Account. The main content area is titled 'Default Welcome Intent' and includes a 'SAVE' button. It is divided into three sections: 'Contexts' (empty), 'Events' (containing a 'Welcome' event with an 'Add event' button), and 'Training phrases' (containing a search bar and a list of phrases). The 'Training phrases' list is highlighted with a red dashed border and includes the following Korean phrases: '오랜만이야', '안녕', '저기', '잘 있었어', '반가워', '오랜만', '어떻게 지냈어', '잘 지냈니', and '오늘 어때'.

Dialogflow

인공지능정보보호서비스챗봇

ko

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Docs

Standard Free Upgrade

Support

Account

Default Welcome Intent

SAVE

Contexts

Events

Welcome Add event

Training phrases

Search training phrases

Add user expression

오랜만이야

안녕

저기

잘 있었어

반가워

오랜만

어떻게 지냈어

잘 지냈니

오늘 어때

- Dialogflow Default Welcome Intent

```
detect_intent_texts(project_id, session_id, '안녕', language_code)
```

```
Session path: projects/a--pxii/agent/sessions/1234567890ABCDEFG1234567890
```

```
=====
```

```
Query text: 안녕
```

```
Detected intent: Default Welcome Intent (confidence: 1.0)
```

```
Fulfillment text: 안녕!
```

```
detect_intent_texts(project_id, session_id, '잘 지냈어?', language_code)
```

```
Session path: projects/a--pxii/agent/sessions/1234567890ABCDEFG1234567890
```

```
=====
```

```
Query text: 잘 지냈어?
```

```
Detected intent: Default Welcome Intent (confidence: 0.5902990698814392)
```

```
Fulfillment text: 안녕하세요!
```

- Dialogflow Default Fallback Intent

```
detect_intent_texts(project_id, session_id, '하이', language_code)
```

```
Session path: projects/a--pxii/agent/sessions/1234567890ABCDEFG1234567890
```

```
=====
```

```
Query text: 하이
```

```
Detected intent: Default Fallback Intent (confidence: 1.0)
```

```
Fulfillment text: 제가 제대로 이해하지 못한것 같아요. 죄송해요.
```


Dialogflow Default Fallback Intent

The screenshot displays the Dialogflow console interface for configuring the 'Default Fallback Intent'. The left sidebar contains navigation links for various components: Intents, Entities, Knowledge [beta], Fulfillment, Integrations, Training, Validation, History, Analytics, Prebuilt Agents, and Docs. The main area is titled 'Default Fallback Intent' and includes a 'SAVE' button. Under the 'Action' section, 'input.unknown' is specified. The 'Responses' section shows a 'DEFAULT' response with a list of seven text variants. The first six variants are highlighted with a red dashed border. At the bottom, there is an 'ADD RESPONSES' button and a toggle switch for 'Set this intent as end of conversation'.

Dialogflow

인공지능정보보호서비스챗봇

ko

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Docs

Standard Free Upgrade

Default Fallback Intent SAVE

Action

input.unknown

Responses ?

DEFAULT +

Text Response

- 1 마지막에 말씀을 잘 못 이해 한것 같아요.
- 2 방금 하신 말씀을 잘 못 알아들었어요.
- 3 죄송해요. 다시 들려 주실래요?
- 4 제가 제대로 이해하고 있는지 잘 모르겠어요.
- 5 제가 제대로 이해하지 못한것 같아요. 죄송해요.
- 6 조금 헛갈리는데요.
- 7 Enter a text response variant.

ADD RESPONSES

☐ Set this intent as end of conversation ?

```
#!/pip install dialogflow
```

```
import os
import dialogflow_v2 as dialogflow
```

```
os.environ["GOOGLE_APPLICATION_CREDENTIALS"] = "G:/sync/Project/Python/chatbot/data/a--pxii-64c4b61d7c3d.json"
project_id = 'a--pxii'
session_id = '1234567890ABCDEF1234567890'
language_code = 'ko'
```

```
def detect
```

```
    sess
```

```
    sess
```

```
    print('Session path: {}'.format(session))
```

```
    text_input = dialogflow.types.TextInput(text=text, language_code=language_code)
```

```
    query_input = dialogflow.types.QueryInput(text=text_input)
```

```
    response = session_client.detect_intent(session=session, query_input=query_input)
```

```
    print('=' * 20)
```

```
    print('Query text: {}'.format(response.query_result.query_text))
```

```
    print('Detected intent: {} (confidence: {})\n'.format(
        response.query_result.intent.display_name,
        response.query_result.intent_detection_confidence))
```

```
    print('Fulfillment text: {}\n'.format(
        response.query_result.fulfillment_text))
```

dialogflow_api.ipynb 실습

Dialogflow Welcome 인텐트 등록

② SAVE 클릭 후 저장

Dialogflow

인공지능정보보호서비스챗봇

ko

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Docs

Standard Free Upgrade

Support

Account

Logout

Default Welcome Intent

Contexts

Events

Welcome Add event

Training phrases

Search training phrases

안녕하세요?

오랜만이야

안녕

저기

잘 있었어

반가워

오랜만

어떻게 지냈어

잘 지냈니

오늘 어때

Dialogflow Welcome 인텐트 Response 등록

- Default Welcome Intent

② SAVE 클릭 후 저장



Action and parameters

input.welcome

REQUIRED ?	PARAMETER NAME ?	ENTITY ?	VALUE	IS LIST ?
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>

+ New parameter

Responses ?

DEFAULT +

① Welcome 인텐트 Response 등록

Text Response

1 안녕하세요! 정보보안 서비스 챗봇입니다. 무엇을 도와 드릴까요?

2 Enter a text response variant

- Dialogflow Welcome 인텐트 Response 등록 확인

```
text = '안녕하세요?'  
dialogflow_response(project_id, session_id, text, language_code)
```

Session path: projects/a--pxii/agent/sessions/1234567890ABCDEFG1234567890

=====

Query text: 안녕하세요?

Detected intent: Default Welcome Intent (confidence: 1.0)

Fulfillment text: 안녕하세요! 정보보안 서비스 챗봇입니다. 무엇을 도와 드릴까요?

```
text = '하이'  
dialogflow_response(project_id, session_id, text, language_code)
```

Session path: projects/a--pxii/agent/sessions/1234567890ABCDEFG1234567890

=====

Query text: 하이

Detected intent: Default Welcome Intent (confidence: 1.0)

Fulfillment text: 안녕하세요! 정보보안 서비스 챗봇입니다. 무엇을 도와 드릴까요?

▪ Dialogflow 새로운 인텐트 추가

CREATE INTENT 클릭

Dialogflow

인공지능정보보호서비스챗봇 ko +

Intents +

Entities +

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

Intents

Search intents 🔍

- Default Fallback Intent
- Default Welcome Intent

No regular intents yet. [Create the first one.](#)

Intents are mappings between a user's queries and actions fulfilled by your software. [Read more here.](#)

Before you start, check out [Prebuilt Agents](#), a collection of agents developed by the Dialogflow team.

- Dialogflow 새로운 인텐트 추가

Training phrases, Action and parameters 및 Response 추가 필요

Training phrases ?



Train the intent with what your users will say

Provide examples of how users will express their intent in natural language. Adding numerous phrases with different variations and parameters will improve the accuracy of intent matching. [Learn more](#)

[ADD TRAINING PHRASES](#)

Action and parameters



Extract the action and parameters

Parameters are specific values extracted from a user's request when entities are matched. The values captured by parameters can be used in fulfillment, or in building a response. If you mark parameters as required, Dialogflow will prompt the user if their values were not extracted from their initial request. [Learn more](#)

[ADD PARAMETERS AND ACTION](#)

Responses ?



Execute and respond to the user

Respond to your users with a simple message, or build custom rich messages for the integrations you support. [Learn more](#)

[ADD RESPONSE](#)

■ 인텐트 Training phrases 추가



Hash_Question

① 인텐트명 등록

③ SAVE 클릭 후 저장

SAVE

Contexts ?

Events ?

Training phrases ?

② Training phrases 등록 후
Enter 키 입력

Search training phrases

” Add user expression

” SHA-1 해쉬 알려주세요

” SHA-256 해쉬 암호 알고리즘 알려주세요

” MD-5 해쉬 함수 알려주세요

■ 새로운 Entity 추가

• Hash_Question

SAVE

Contexts ?

Events ?

Training phrases ?

Search training phrases

① SHA 드래그

② Create New 클릭

Filter

- @sys.number-integer
- @sys.temperature
- @sys.geo-country
- @sys.unit-information
- @sys.geo-capital
- @sys.geo-state

+ Create new

n and parameters

c values extracted from a user's request when entities
as captured by parameters can be used in fulfillment, or
If you mark parameters as required, Dialogflow will
values were not extracted from their initial request.

■ 새로운 Entity 추가

The screenshot shows the Dialogflow console interface. On the left sidebar, the 'Entities' menu item is highlighted with a red dashed box. The main area displays the configuration for an entity named 'HASH_NAME'. A red arrow points from the text '② 엔티티 등록을 위해 SAVE 클릭 후 저장' to the 'SAVE' button. Below the entity name, there are checkboxes for 'Define synonyms' (checked), 'Regexp entity', 'Allow automated expansion', and 'Fuzzy matching'. A grey box contains the instruction: 'Separate synonyms by pressing the enter, tab or ; key.' Below this, a table shows the entity's synonyms. The first row has 'SHA' in two columns. The second row has 'MD5' in the first column, 'MD5' in the second column, and 'Enter synonym' in the third column. A red dashed box highlights the second row, with a red arrow pointing from the text '① MD5도 추가' to it. At the bottom of the table, there is a '+ Add a row' link.

Dialogflow

인공지능정보보호서비스챗봇

ko

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

HASH_NAME

☒ Define synonyms ☐ Regexp entity ☐ Allow automated expansion ☐ Fuzzy matching

Separate synonyms by pressing the enter, tab or ; key.

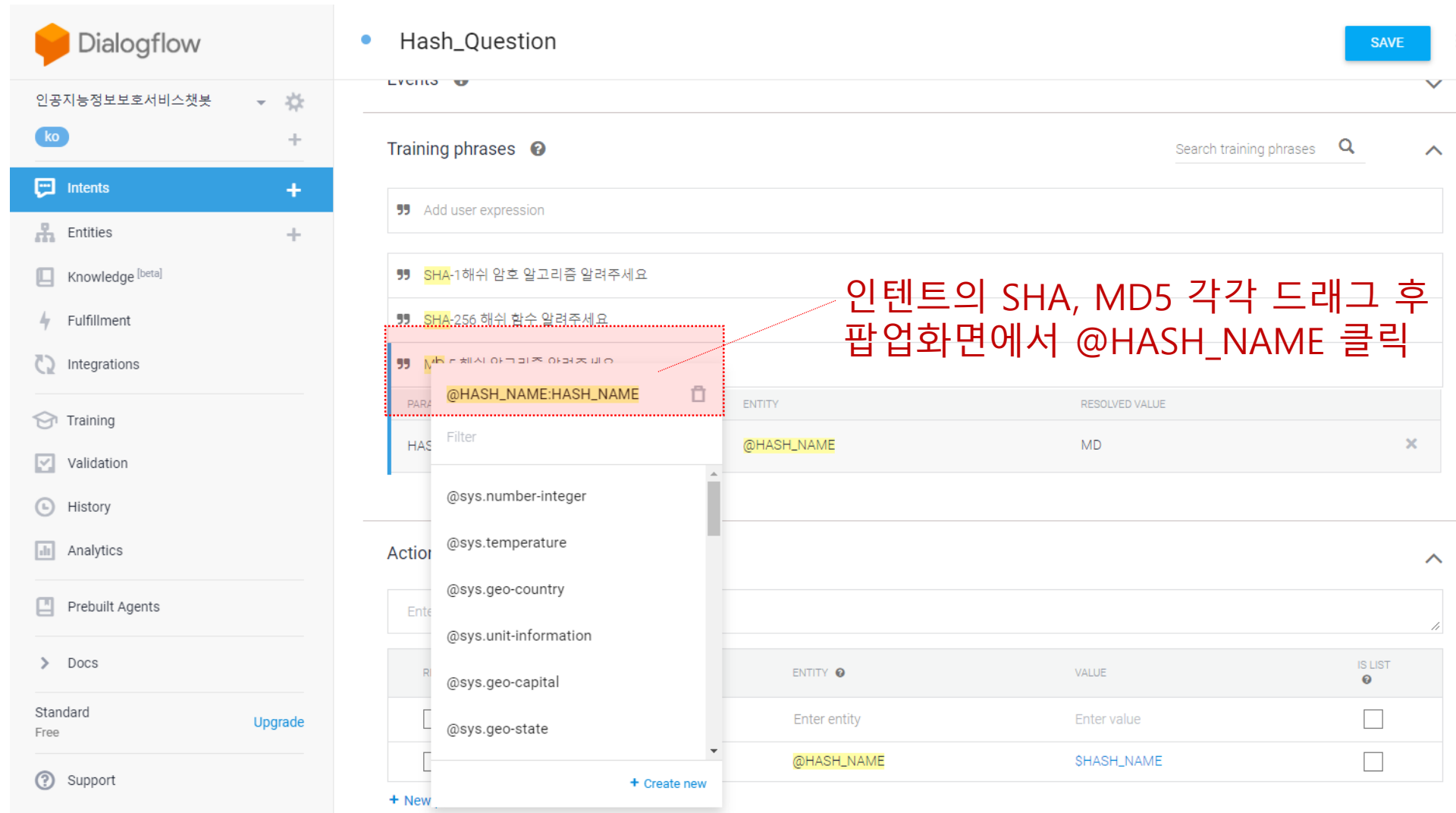
SHA	SHA	
MD5	MD5	Enter synonym

+ Add a row

② 엔티티 등록을 위해
SAVE 클릭 후 저장

① MD5도 추가

■ 인텐트 Action and parameters(슬롯) 추가



Dialogflow

인공지능정보보호서비스챗봇

ko

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

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Support

Hash_Question

SAVE

Events

Training phrases

Search training phrases

Add user expression

SHA-1해쉬 암호 알고리즘 알려주세요

SHA-256 해쉬 함수 알려주세요

SHA-512 해쉬 알고리즘 알려주세요

@HASH_NAME:HASH_NAME

Filter

@sys.number-integer

@sys.temperature

@sys.geo-country

@sys.unit-information

@sys.geo-capital

@sys.geo-state

+ Create new

ENTITY

RESOLVED VALUE

@HASH_NAME

MD

ENTITY

VALUE

IS LIST

Enter entity

Enter value

@HASH_NAME

SHASH_NAME

인텐트의 SHA, MD5 각각 드래그 후 팝업화면에서 @HASH_NAME 클릭

■ 인텐트 Action and parameters 추가

• Hash_Question

SAVE

” SHA-1해쉬 암호 알고리즘 알려주세요

” SHA-256 해쉬 함수 알려주세요

PARAMETER NAME

ENTITY

RESOLVED VALUE

HASH_NAME

@HASH_NAME

SHA

✕

” MD-5 해쉬 알고리즘 알려주세요

Action and parameters

Enter action name

REQUIRED ⓘ

PARAMETER NAME ⓘ

ENTITY ⓘ

VALUE

IS LIST ⓘ

☐

Enter name

Enter entity

Enter value

☐☐

HASH_NAME

@HASH_NAME

SHASH_NAME

☐[+ New parameter](#)

■ 인텐트 Action and parameters 추가

• Hash_Question

SAVE

Contexts ?

Events ?

Training phrases ?

Search training phrases

Add user expression

SHA-1

PARAMETER

Filter

HASH_NAME

@HASH_NAME:HASH_NAME

@sys.number-integer

SHA-2

MD-5

@sys.temperature

@sys.geo-country

@sys.unit-information

@sys.geo-capital

@sys.geo-state

Action and

Enter act

① 1, 256, 5 각각 선택 후
@sys.number-integer 선택

인텐트 Action and parameters 추가

Hash_Question

SAVE

” SHA-1 해쉬 암호 알고리즘 알려주세요

” SHA-256 해쉬 함수 알려주세요

” MD-5 해쉬 알고리즘 알려주세요

PARAMETER NAME	ENTITY	RESOLVED VALUE	
HASH_NAME	@HASH_NAME	MD	×
number-integer	@sys.number-integer	5	×

Action and parameters

Enter action name

REQUIRED ?	PARAMETER NAME ?	ENTITY ?	VALUE	IS LIST ?	PROMPTS ?
<input checked="" type="checkbox"/>	HASH_NAME	@HASH_NAME	\$HASH_NAME	<input type="checkbox"/>	Define prompts...
<input checked="" type="checkbox"/>	number-integer	@sys.number-integer	\$number-integer	<input type="checkbox"/>	Define prompts...

REQUIRED
체크박스 클릭

- 인텐트 Action and parameters 추가

Action and parameters

Enter action name

REQUIRED ?	PARAMETER NAME ?	ENTITY ?	VALUE	IS LIST ?	PROMPTS ?
<input checked="" type="checkbox"/>	HASH_NAME	@HASH_NAME	\$HASH_NAME	<input type="checkbox"/>	Define prompts...
<input checked="" type="checkbox"/>	number-integer	@sys.number-integer	\$number-integer	<input type="checkbox"/>	Define prompts...

Define prompts
체크박스 클릭

- 인텐트 Action and parameters 추가

"Action and parameters 가 "REQUIRED"로 입력되면 "슬롯"이 모두 채워질 때까지 Prompts로 사용자의 답변을 요청

Prompts for "HASH_NAME"

NAME	ENTITY	VALUE
HASH_NAME	@HASH_NAME	\$HASH_NAME

PROMPTS

1	해쉬 알고리즘명을 입력하세요
2	Enter a prompt variant

① 질문 입력

CLOSE

② CLOSE 클릭 후 저장

- 인텐트 Action and parameters 추가
숫자로 지정된 해쉬 알고리즘 버전도 Prompts 질문 입력

Prompts for "number-integer"

NAME	ENTITY	VALUE
number-integer	@sys.number-integer	\$number-integer

PROMPTS
1 해쉬 알고리즘 버전을 입력하세요
2 Enter a prompt variant

① 질문 입력

CLOSE

② CLOSE 클릭 후 저장

■ 인텐트 Responses 추가

• Hash_Question

SAVE

Action and parameters

Enter action name

REQUIRED ?	PARAMETER NAME ?	ENTITY ?	VALUE	IS LIST ?	PROMPTS ?
<input checked="" type="checkbox"/>	HASH_NAME	@HASH_NAME	\$HASH_NAME	<input type="checkbox"/>	해쉬 알고리즘명을 입력하세요...
<input checked="" type="checkbox"/>	number-integer	@sys.number-integer	\$number-integer	<input type="checkbox"/>	해쉬 알고리즘 버전을 입력하세요...

[+ New parameter](#)

추가된 Prompts

Responses ?

DEFAULT +

Text Response

- 1 \$HASH_NAME - \$number-integer 해쉬 알고리즘에 대해 말씀드리겠습니다. ~~~~
- 2 Enter a text response variant

Response 입력
슬롯(Parameter)은 \$HASH_NAME, \$number-integer로 표시

```
text = '해쉬 함수 알려주세요'
dialogflow_response(project_id, session_id, text, language_code)
```

Session path: projects/a--pxii/agent/sessions/1234567890ABCDEFG1234567890

=====

Query text: 해쉬 함수 알려주세요

Detected intent: Hash_Question (confidence: 0.4587589502334595)

Fulfillment text: 해쉬 알고리즘명을 입력하세요

```
t
c
```

S

=

Q

Detected intent: Hash_Question (confidence: 1.0)

Fulfillment text: 해쉬 알고리즘 버전을 입력하세요

```
text = '256'
dialogflow_response(project_id, session_id, text, language_code)
```

Session path: projects/a--pxii/agent/sessions/1234567890ABCDEFG1234567890

=====

Query text: 256

Detected intent: Hash_Question (confidence: 1.0)

Fulfillment text: SHA - 256 해쉬 알고리즘에 대해 말씀드리겠습니다. 지식 검색중입니다. 잠시만 기다려 주세요.

dialogflow_hash.ipynb 실습