

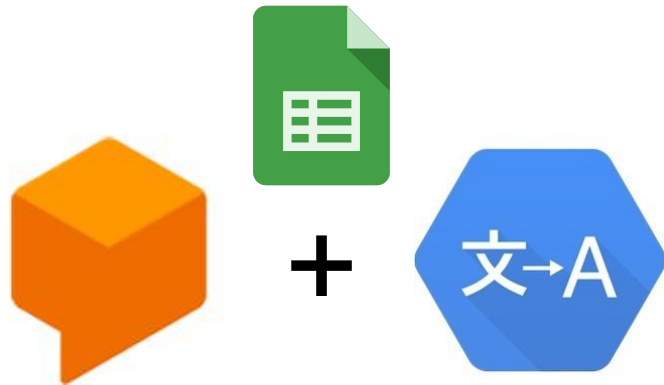
# Chatbot + ML API

- Chatbot(Dialogflow)

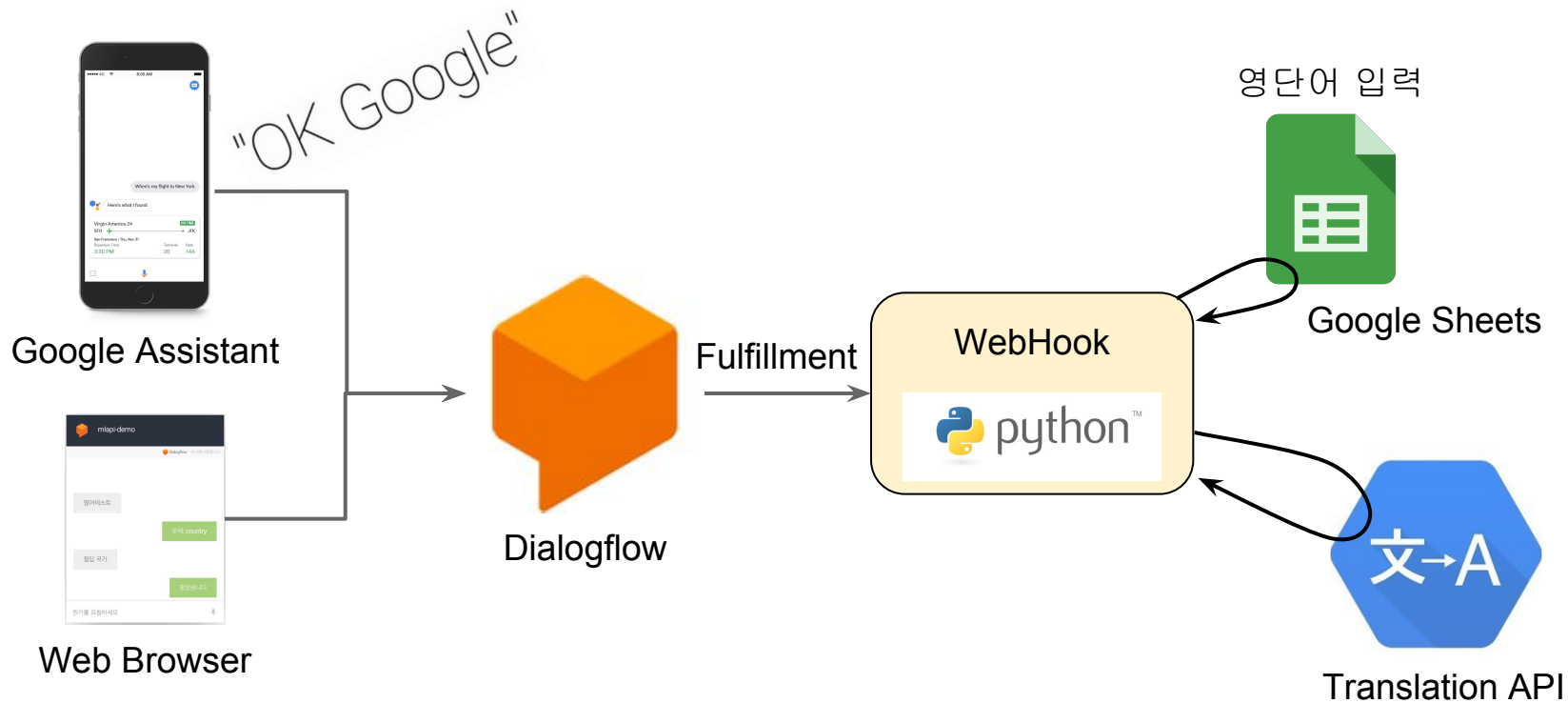
- 영어 단어 문제 풀이를 대화식으로 진행
- Google Sheets에 단어 문제/정답 입력 ⇒ 대량 입력, 공동 편집 등 가능

- Translation API

- 문장 번역 기능
- 한영/영한 및 다국어 번역

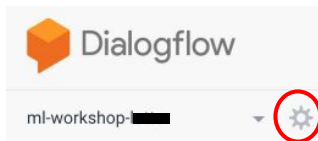


# Chatbot + ML API 아키텍처



# 1. Chatbot 생성

- Dialogflow 콘솔 접속
  - <https://console.dialogflow.com/>
- Create new agent
  - Name: ml-workshop-<id>
  - Default Language: Korean
- Import Agent
  - <https://storage.googleapis.com/cloudml-jerryig/workshop-data/dialogflow-mlapi/mlapi-demo.zip>
  - 설정 메뉴 ⇒ Export and Import ⇒ Restore from ZIP에서 import
  - 설정 메뉴 ⇒ ML Settings ⇒ TRAIN 버튼 클릭



## 2. Webhook 작성

- Service Account Key 준비
  - 콘솔 접속: <http://console.cloud.google.com>
  - IAM & admin ⇒ Service accounts
  - ⇒ Create Service Account
  - Name: speech-demo
  - Role: Project Owner
  - Create key로 json 파일 다운로드
  - json 파일의 내용을 클립보드로 복사

- Python Webhook 설치할 서버로 SSH 접속

```
mkdir git
cd git
git clone https://github.com/javalove93/dialogflow-mlapi
cd dialogflow-mlapi
cat > speech-demo.json
venv google
pip install -r requirements.txt
```

클립보드 내용 붙여 넣고  
CTRL+D

**Create service account**

Service account name <sup>?</sup>  Role <sup>?</sup>

Service account ID

You don't have permission to furnish a new private key.

☒ **Furnish a new private key**  
Downloads a file that contains the private key. Store the file securely because this key can't be recovered if lost.

**Key type**

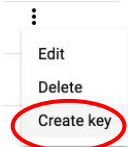
☒ **JSON**  
Recommended

☐ **P12**  
For backward compatibility with code using the P12 format

You don't have permission to modify the domain-wide delegation setting You don't have permission to modify the product name for the consent screen

☐ **Enable G Suite Domain-wide Delegation**  
Allows this service account to be authorized to access all users' data on a G Suite domain without manual authorization on their part. [Learn more](#)

**CANCEL CREATE**



## 2. Webhook 작성

- ngrok 설치
  - <https://ngrok.com/>
  - Signup 계정 생성 및 로그인
  - Auth 메뉴 ⇒ Tunnel Authtoken 복사

### Your Tunnel Authtoken

2Jtal

Copy

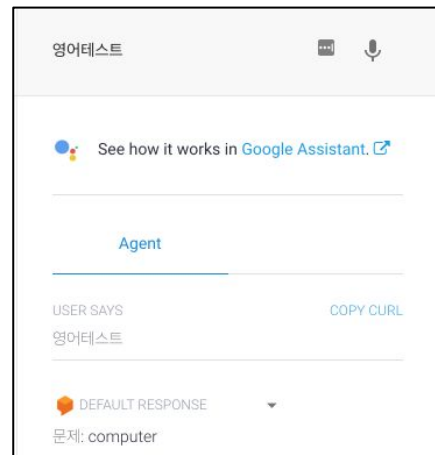
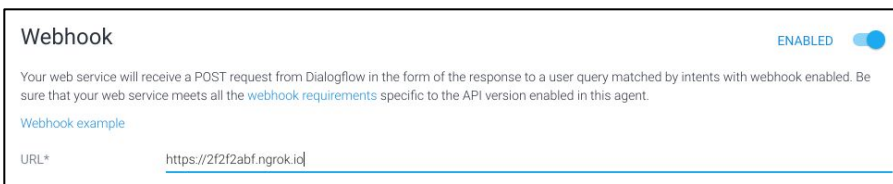
- 앞에서 접속한 서버의 SSH 세션에서

```
wget https://bin.equinox.io/c/4VmDzA7iaHb/ngrok-stable-linux-amd64.zip
unzip ngrok*.zip
./ngrok authtoken <복사한 Token>
./run_webhook.sh
./ngrok http 6000
```
- ngrok 화면에서 나오는 https:// 주소 클립보드 복사

```
Region                United States (us)
Web Interface          http://127.0.0.1:4040
Forwarding              http://39453108.ngrok.io -> localhost:6000
Forwarding              https://39453108.ngrok.io -> localhost:6000
```

### 3. Chatbot Fulfillment에 Webhook 연결

- Dialogflow 콘솔 접속
  - <https://console.dialogflow.com/>
- Fulfillment의 Webhook 설정
  - URL: ngrok의 https:// 주소 붙여 넣기
  - Save 클릭
- 테스트
  - 테스트 창에서 “영어테스트”라고 입력
  - 결과로 “문제: 000” 라고 나오면 정상
  - 테스트 창에서 차례로 “영어로 번역”, “오늘 날씨가 어때요” 입력
  - 결과로 “How is the weather today” 라고 번역되면 정상



## 4. Google Assistant(Action on Google) 연결

- Dialogflow 콘솔 접속
  - <https://console.dialogflow.com/>
- Integrations의 Google Assistant
  - Manage Assistant App 클릭
  - Decide how your Action is invoked 클릭
  - 오른쪽 그림과 같이 입력
  - Test ⇒ Simulator 클릭
- 테스트
  - 테스트 창에서 “영어테스트한테 말하기” 입력
  - 응답으로 “문제: 000” 나오면 정상
  - 모바일폰의 Google Assistant에서 동일하게 테스트 가능

**Invocation name**

Users verbally say the **Invocation name** to invoke your Action. For example if the Invocation name is 영어테스트, users can say:

OK Google, 영어테스트한테 말하기

Invocation name ⓘ

영어테스트 ▶

**Directory title**

The **Directory title** will be displayed to users in the [Google Assistant directory](#), and will be how users find your Action when browsing there.

영어테스트

**Google Assistant voice**

Pick the type of voice you would like to use for your Action. This is the voice that users will hear when they interact with your Action from their phone, Google Home or other devices.

Male 1 ▼

☒ Match user's language setting ⓘ