



# ABLE USER MANUAL

**Bring Chatbot to On Promise from Cloud**

4MS

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## Purpose of A BLE

A BLE is the solution to support the LUIS (L language Understanding Intelligent Service) Microsoft NLP engine to operate in Cloud environments.

L UIS will identify the user's intention (Intent), and An engine that extracts a key word ( Entity) In order to do this , we use the utterance to perform the learning.

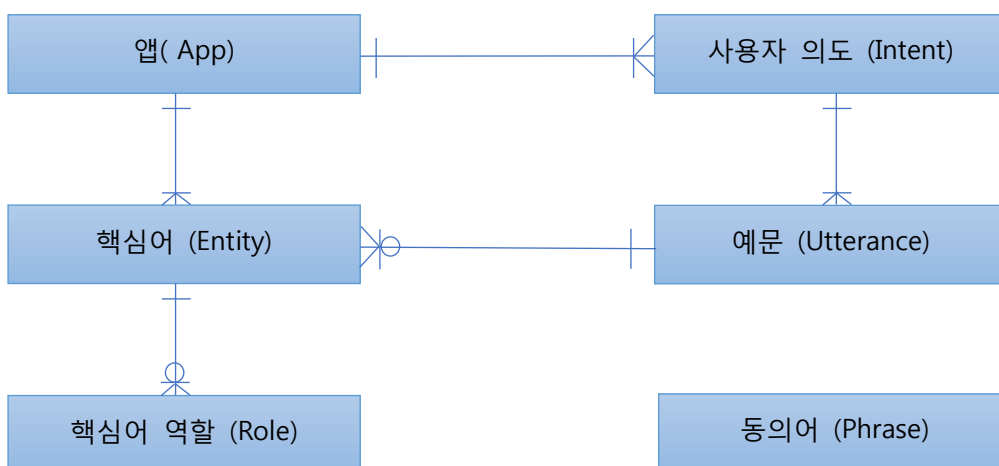
ABLE believes that such user intent, Keywords, Generate example, change, The management task to be deleted is to be performed on the On-Promise , Work results in JSON I uploaded it via file LUIS A pp can be generated.

## Structure of LUIS

L UIS uses A pp as a concept for dealing with unit work . A pp is to have a large number of user intent (Intent) to set up for recognizing a user's specific intention, You will have many utterances to learn each user's intentions .

Also, Each app has key words to handle unit work. These keywords are included in the sample sentences and are used by chatbots to perform their tasks.

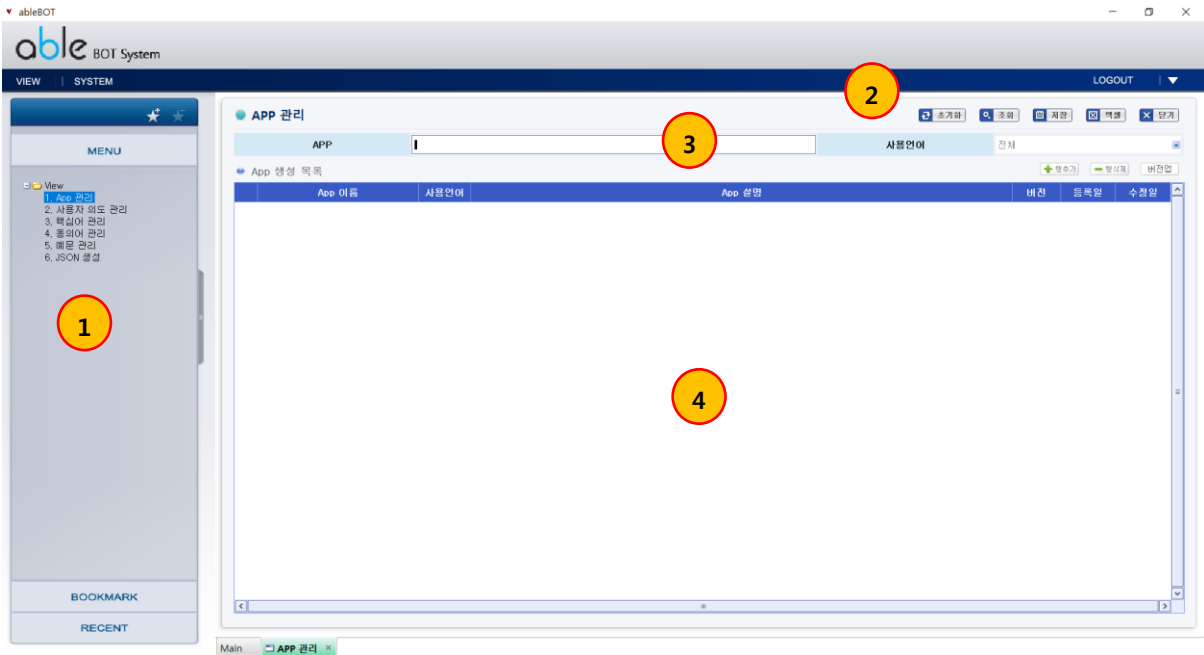
In addition, synonyms (P hrase) and key words ( Role) are used to grasp user intent .



## Screen composition of ABLE

A BLE has 1 ) menu navigation area on the left side , At the top, Lookup, Save, delete, Excel, There are 2) common areas with buttons like Close , And 3) a condition area for setting a query condition at the lower end thereof , 4) Data area at the bottom .

### Full screen configuration

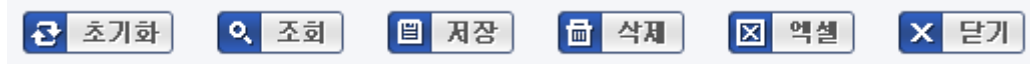


#### ● Menu Navigation Area



The menu navigation area is used to move between screens.

- **Common-area**



**Initialization** : All the data displayed in the data area Initialize.

**View** : The data corresponding to the content entered in the condition area is inquired.

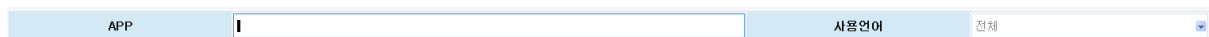
**Save** : When the user inputs a new input, change, Save the deletion to the database.

**Delete** : Deletes the selected data. You must use the Save button to reflect the deletion to the database.

**Excel** : Export the contents displayed in the data area in an Excel file format.

**Close** : Closes the current screen.

### **Conditional area**



Enter the condition of the content you want to view Or combo box.

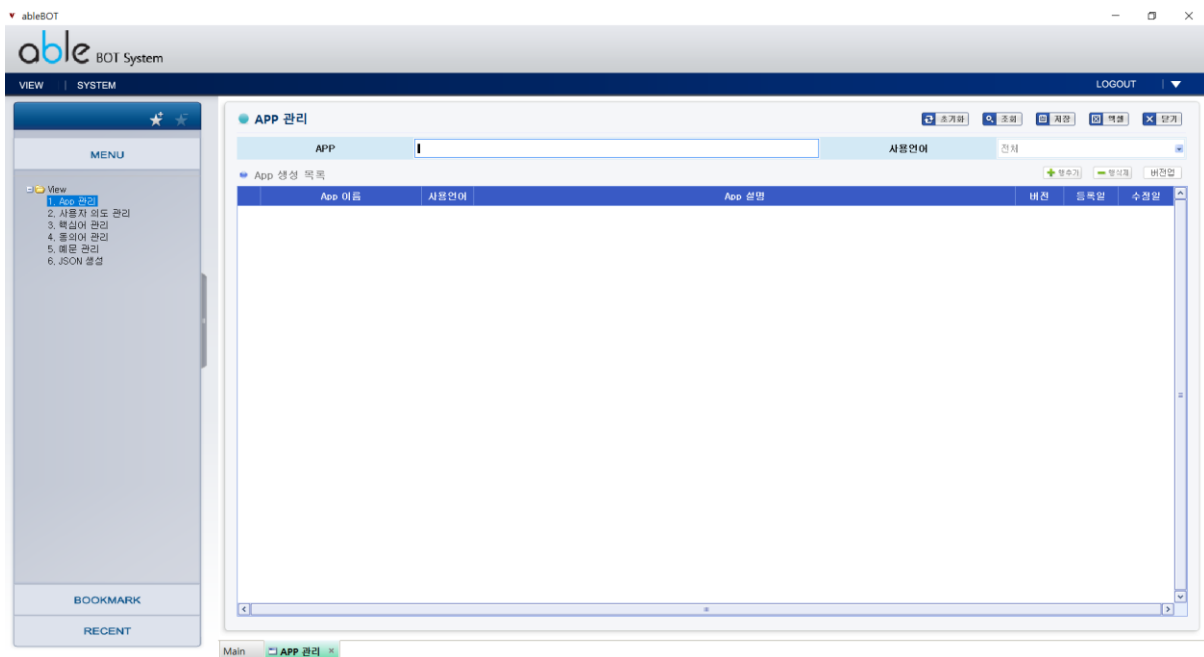
Then, the contents of the selected condition are inquired using the inquiry button.

## APP creation

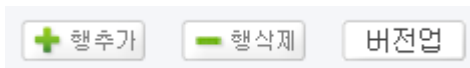
An app is a specific purpose in LUIS, which serves as a key engine in chatbots. Means the unit to perform. Since chatbot will not be recognized by learning all natural like a man, for a particular business process, you have to separate the App units.

For example, booking tickets, Banking transactions, and so on.

To create an app in A BLE, use the App management screen.



## Create a new App



1. Click the Add Row button in the top right corner of the PP Management screen.

App 이름	사용언어	App 설명	버전	등록일	수정일
	선택		0.1	2018.08.30	2018.08.30

1. App to create a name, enter the name of the app. Both Korean and English are available.
2. Select your language. The language used means to select the language in which to perform natural language processing. You can select 'Korean' and 'English'.

3. App Enter an approximate description of the App in the Description field. It is possible to input within 100 characters ( 200byte ) .
4. The version entry is automatically entered, It is initially set to version 0.1 . You can increase the version by using the version up button, and the version will be increased by 0.1 unit. After checking the check box , When you press the Version Up button to upgrade, The user's ownership of the app , Keywords, synonym, The later version of the App, including all of the examples are newly created.
5. To delete the A pp After checking in at the front of the check boxes and click the Delete Row button. The corresponding row is displayed in gray, Click the Save button to completely delete it.

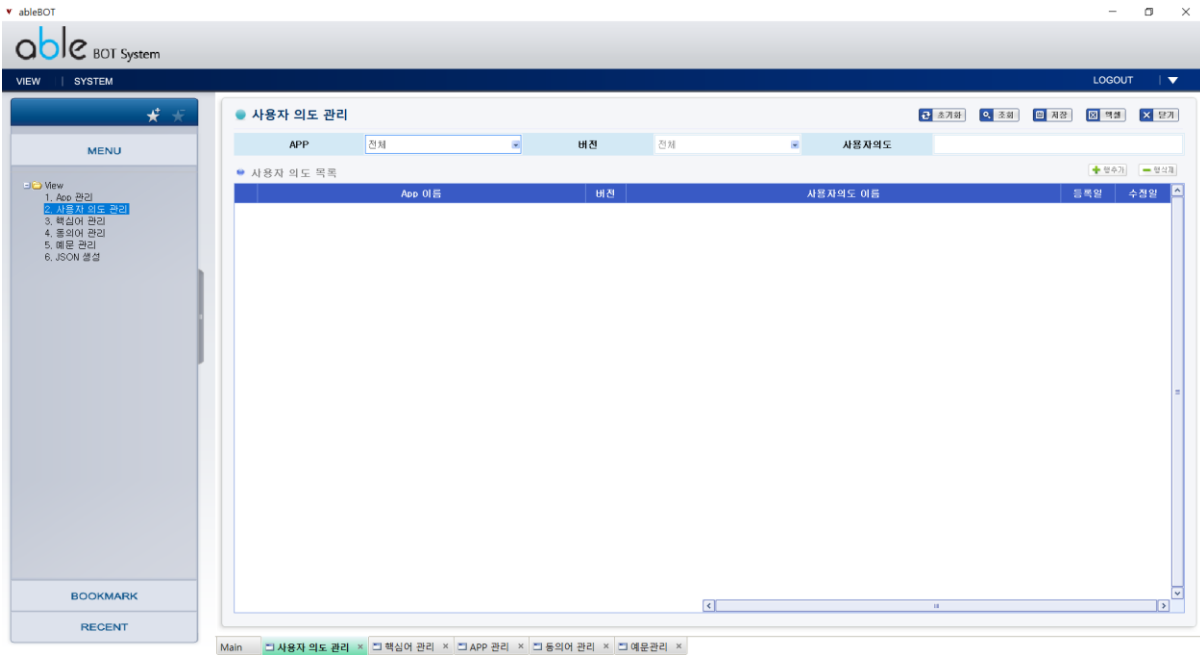
## Create user intent

The intended users (Intent) indicates an intention with a text that the user entered chaetbot.

LUIS needs to know what intent the user has, Enter the utterance corresponding to the intended user's intention .

E.g, For banking In the case of chatbot, the expected user intention is to display the balance , Transfer , You can think about transactions history inquiry .

In order to generate the intended user (Intent) user intent Use the administration screen.



1. Select the app and version you want to create the user's intent in the criteria area and click the View button View. Click the Add Row button to add a row for the new user intent.

Without query by entering the search condition (App, version) in area terms, If you right-click a row Add button, you must manually select the name and version of A pp.

	App 이름	버전	사용자 의도 이름	등록일	수정일
1	Coffee.Shop : Sample for Test	0.2		2018.08.30	2018.08.30

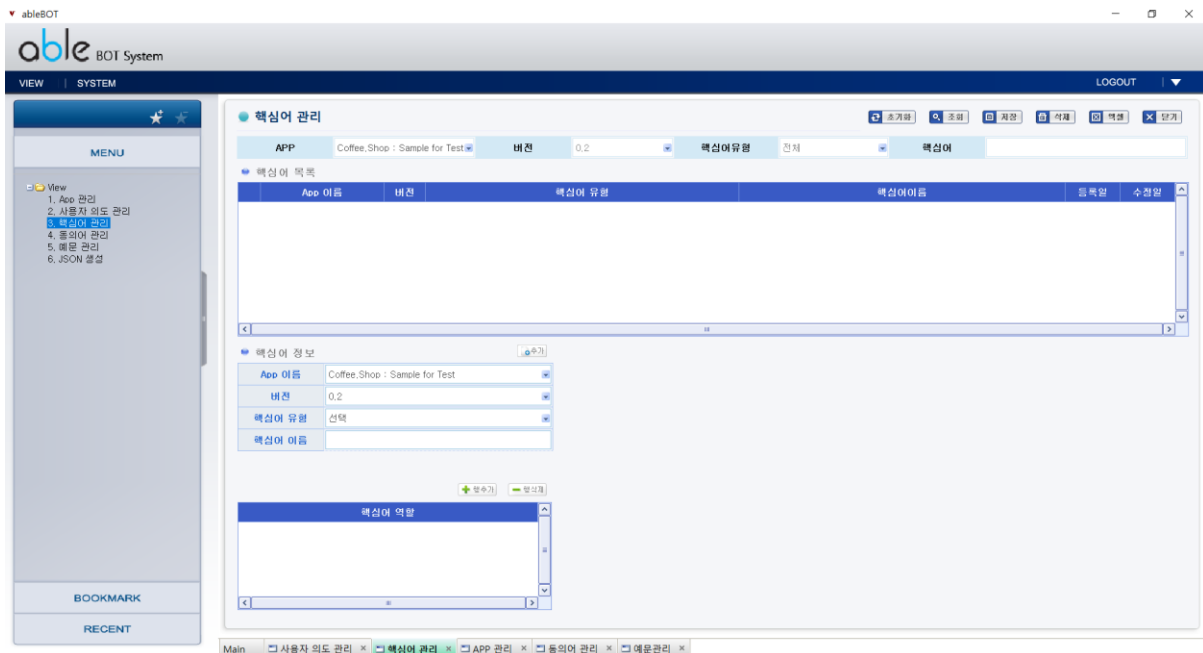
2. user After entering the intent name, Click the Save button.
3. When creating multiple user intents, Repeat the previous step. only, Just enter the Save button and click once.
4. If you delete a user intent, If you select that row, click the Delete Row button, Click the Save button when you are ready to delete in gray.



## Create Keyword

Keywords (Intent) refers to the keywords contained in the sentence (Utterance) to understand user intent. LUIS is the NLP returned to give your intent and key words to chaetbot.

To create a keyword, use the keyword management screen .



There are six types of key words.

1. Simple (Simple): A simple key word is a common word for a single concept . For example, a user in chaetbot for banking, "Give me my account balance inquiry" that if a user enters 'account', 'balance', and 'inquiry' is equivalent to the simple keyword.
2. Structured (Hierarchical): A structured key word is a word that means a category with a limited number of sub- key words that do not change often . An example is the ticket class of a ticket . Ticket class It is a structural key word, business, Economy exists structure.
3. Combination (C omposite): A combination key word is a combination of key words. Combination key words consist of a combination of existing key words. For example, combination of key words 'customer contact' can be configured as a sub-key words of "customer phone number ;' Client Email ;' customer's home telephone number.  
only, The key words that can be the sub-keywords of the combined key words are

simple , The upper key word of the structural type , Sub-key words of structural type , Limited to regular expression keywords.

4. Type list (List): List key words are key words consisting of multiple lists. List key words are the representative values of the list Consists of multiple synonyms with the same meaning as the representative value .

For example, if you have a list type keyword called ' Employee List ' Set the number of employees as a sub keyword, and You can set Korean name and English name as synonyms .

5. Regular expression ( Regex ): A regular expression key word is a key word consisting of a specific form, for example, a mobile phone number. 010- X XXX - XXX The form represented by X is a regular expression. You can type in the form 010- [0-9] {4} - [0-9] {4} .

6. Pattern type (Pattern.any): Pattern type The key word is Other Keyword Type Otherwise From example Not used Without Natural language On learning help felled In pattern Used As a key word Length is Other Word Repeated In example If it appears LUIS has Word Point Predict for It is used . example listen For library From chatbot By book number Books But Normal The user Book title Enter Because of The name of the book Pattern type In the keyword To do Number There .

## Simple Keyword

1. Select the app and version you want to create a keyword from in the criteria area and click the View button View.
2. Under Keyword Type, select Simple .

● 핵심어 정보 추가

App 이름	Coffee.Shop : Sample for Test
버전	0.2
핵심어 유형	단순형
핵심어 이름	

3. Enter the key word name and click the Save button to save it.

4. The key word role (used in the case where one of the key words to an item that is used by the pattern to two or more roles. For example, if the key word of ticket booking apps airport departure and airport Arrival Airport If there are two roles available , Click Add Row to add the role .

5. If you want to continue adding keywords, click the Add button to continue typing and click the Save button.

### Structured Keyword

1. Select the app and version you want to create a keyword from in the criteria area and click the View button View.

2. In Keyword Type, select Structured .

● 핵심어 정보 추가

App 이름	Coffee.Shop : Sample for Test
버전	0.2
핵심어 유형	구조형
핵심어 이름	

+ 추가    - 삭제

하위 핵심어

+ 추가    - 삭제

핵심어 역할

3. Enter the key word name, enter the sub key word using the Add row button in the sub key word area on the right side , Click the Save button to save.

4. If you want to continue adding keywords, click the Add button to continue typing and click the Save button.

## Combination Keyword

1. Select the app and version you want to create a keyword from in the criteria area and click the View button View.
2. In Keyword Type, select Combination.



3. Enter a keyword name, and then click Add Row button in the lower right area of the keyword and bring up a pop-up window to display the sub keyword, click the magnifying glass icon at the far right in a row to create a new one.



4. After selecting the subkey , Click the Select button to select it.
5. Repeat to select the sub-key word and press the Save button to save it.

## List type Keyword

1. Select the app and version you want to create a keyword from in the criteria area and click the View button View.
2. In Keyword Type, select List type .

3. Enter a keyword name, and then click the Add button on the right side of the row sub-region keyword and enter the key words synonymous with the subordinate in a row to create a new one. If Synonyms, enter the number without spaces, separated by a comma (,).
4. If you have difficulty typing on the screen with many lists , click the Download Form button to open the Excel form file . After you enter and save the list in the corresponding Excel file , Use the Upload button to upload the file.

## Regular expression keyword

1. Select the app and version you want to create a keyword from in the criteria area and click the View button View.
2. Under Keyword Type, select Regular Expression .
3. Enter a keyword name, save, enter a regular expression, and then click the Save button.

**핵심어 정보** 추가

App 이름	Coffee,Shop : Sample for Test
버전	0.2
핵심어 유형	정규식
핵심어 이름	
정규식	

+ 행추가
- 행삭제

핵심어 역할

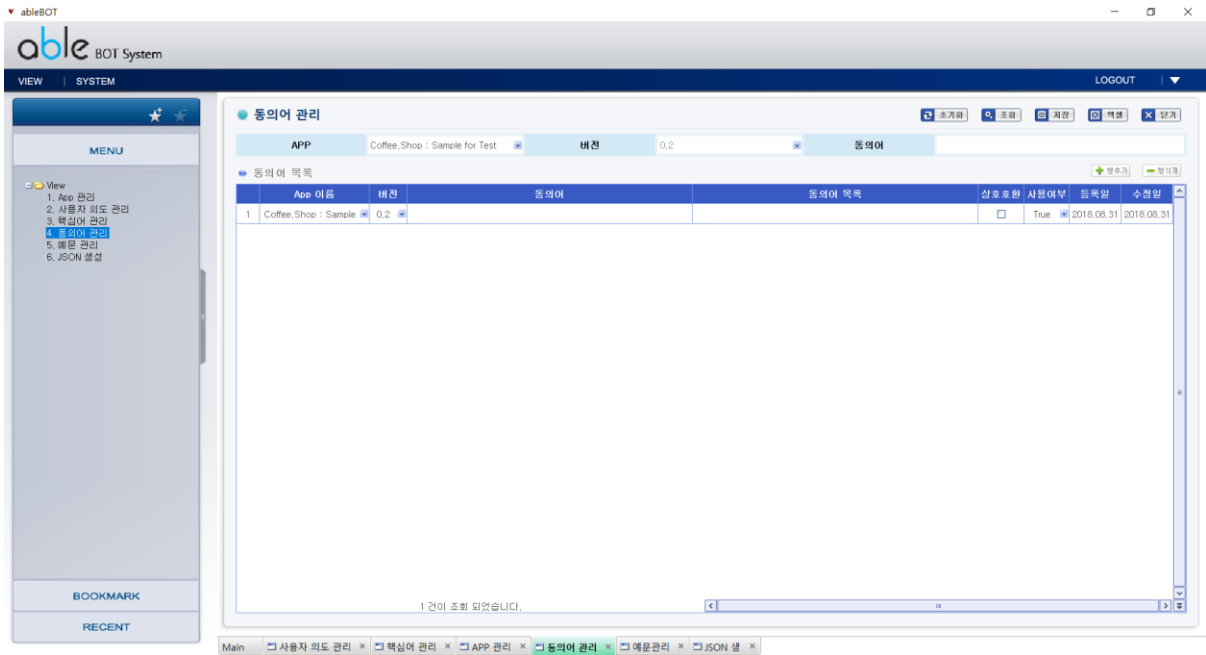
### Pattern key words

1. Select the app and version you want to create a keyword from in the criteria area and click the View button View.
2. A pattern-type in key words Select.
3. Enter a keyword name, and save it by clicking the Save button.

### Create synonym

Synonyms (P hrase) is to identify the user and the intended LUIS smoothly It is necessary to recognize keywords of various length included in the utterance . For example, to recognize key words of IT job, Web developers , Server developers , Project manager, DBA , and designer are registered as synonyms, and if these words are included in the example sentences, they are recognized as the same meaning.

To create a synonym (P hrase) Use the administration screen.



## Create synonym

1. Select the app and version you want to create synonyms in the criteria area and click the Lookup button View. Click the Add Row button to add a row for the new synonym. Without query by entering the search condition (App, version) in area terms, If you right-click a row Add button, you must manually select the name and version of App.

	App 이름	버전	동의어	동의어 목록	상호호환	사용여부	등록일	수정일
1	Coffee.Shop : Sample	0.2			<input type="checkbox"/>	True	2018.08.31	2018.08.31

2. In Synonyms, type the name of the synonym you want to create. Both Korean and English are available.
3. In the Synonyms list, type a synonym. If Synonyms, enter the number without spaces, separated by a comma (,).
4. Interoperable Same as each other in the checkbox Check if it is compatible with the context. In most cases, check for interoperability . It is very rare not to check.
5. Whether to enable or not activates the synonym . Select True if enabled .
6. Press the Save button in the common area to save the changes.

## Example statement generation

Examples (Utterance) is a sentence I intend to register a per-user basis (Intent) to the study of LUIS. Based on the key words (Entity) included in the examples and examples of learning LUIS it is in progress.

To generate example sentences (Utterance) examples Use the administration screen.

The screenshot shows the '예문 관리' (Example Management) screen in the ableBOT BOT System. The interface includes a sidebar menu with options like 'App 관리', '사용자 의도 관리', '핵심어 관리', '대화 흐름 관리', and 'JSON 생성'. The main content area has search filters for 'APP', '버전', and '사용자의도', and a '예문' input field. Below these are two tables: '예문 정보' (Example Information) and '예문 목록' (Example List).

예문 정보		예문 정보		
APP	버전	예문 단어	핵심어 유형	핵심어
Coffee.Shop : Sample for Test	0.2	1. 홍차	구조형	Menu-홍차
		2. 뜨거운	구조형	Temperature-뜨
		3. 2	단순형	Order-Qty

예문 목록					등록일	수정일
App 이름	버전	사용자의도 이름	예문			
1 Coffee.Shop : Sample for Test	0.2	Menu.Order	뜨거운 홍차 2잔 주문합니다		2018-08-31	2018-08-31

## Example statement generation

1. Select the app and version you want to generate the example from in the criteria area and click the Look up button View. If the query did not enter the search condition (App, version) in area terms, You need to choose the name and version of App from the example information .
2. After entering the example sentence, Under Keyword Information, click the Add Row button.
3. After entering the example word, Select the key word type you want to specify, Click the magnifying glass button in the Keyword column.



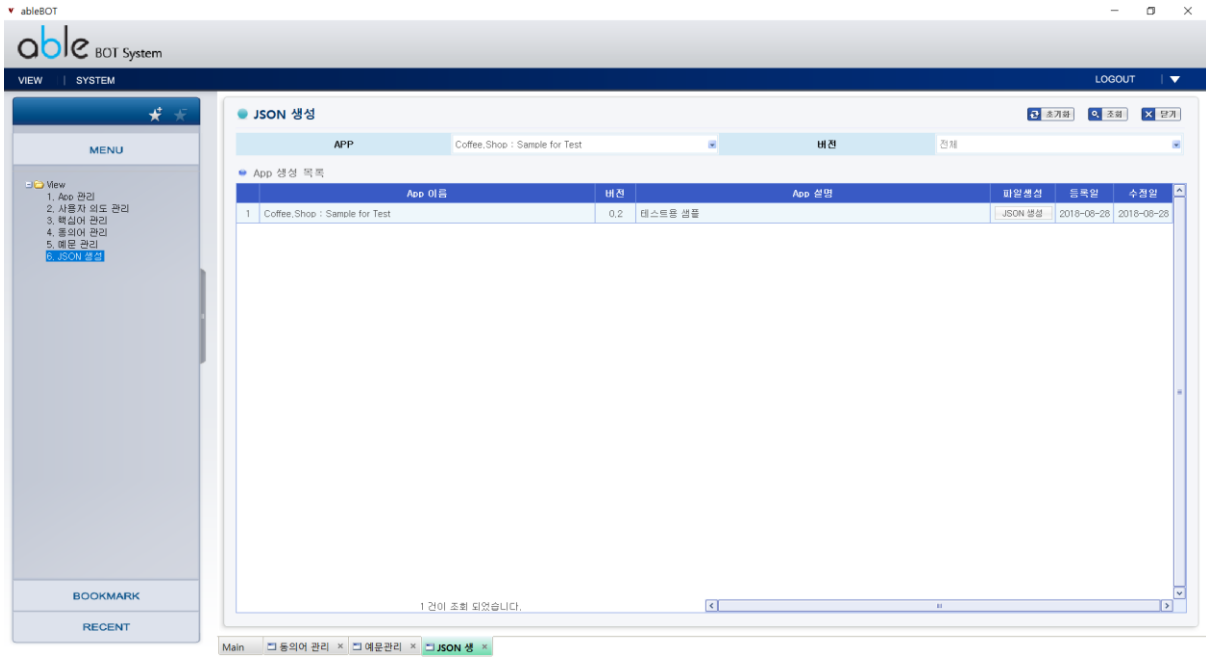


4. **Keyword** Click the Lookup button in the popup window and select the keyword. Click the row and then the Select button.
5. To continue specifying the keyword, click the Add Row button and repeat.
6. When you have finished specifying the key word, click the Save button to save your changes.
7. To delete an example, click the example you want to delete from the example list and click the Delete button in the common area .

## App Import the LUIS

When all settings are completed, relating to the App from ABLE, you need to Import the App LUIS.

LUIS uses JSON ABLE JSON because the information stored in the Import a File Download form File format. JSON To create a file J SON Use the Create screen.



## JSON File creation

1. After selecting the app and version in the condition area , Click the Lookup button.
2. JSON In the App you want to create a JSON file Click the Generate button.
3. Save the file to the desired location.

## LUIS file import

1. Luis.ai Sign in to your Microsoft account on the site.
2. Go to My Apps menu, click Import new app button.

# My Apps ?

Create new app

Import new app

3. Click File, and select from the popup window and save JSON Select the file and click the Done button.

## Import new app

App JSON file (Required)

파일 선택 | 선택된 파일 없음

Optional Name

Type app name

Done

Cancel