

04. LUIS是甚麼

Language Understanding (LUIS) 是一種雲端式交談式 AI 服務，可將自訂機器學習智慧套用於使用者的對話、自然語言文字中，以預測整體意義，並找出相關的詳細資訊。 LUIS 可讓您透過其自訂入口網站、api 和 SDK 用戶端程式庫進行存取。

LUIS 供應專案

簡易性： LUIS 可從內部 AI 專業知識或任何先前的機器學習知識，卸載您的需求。只要按幾下滑鼠，您就可以建立自己的交談 AI 應用程式。您可以遵循其中一個快速入門來建立自訂應用程式，也可以使用其中一個預先建立的 網域 應用程式。

安全性、隱私權和合規性： Azure 基礎結構支援的 LUIS 提供企業級的安全性、隱私權和合規性。您的資料仍維持不變;您可以隨時刪除您的資料。您的資料會在儲存體中加密。如需詳細資訊，請參閱這裡。

整合： 輕鬆將您的 LUIS 應用程式與其他 Microsoft 服務整合，例如 Microsoft Bot framework、QnA Maker 和 語音服務。

LUIS 主要概念

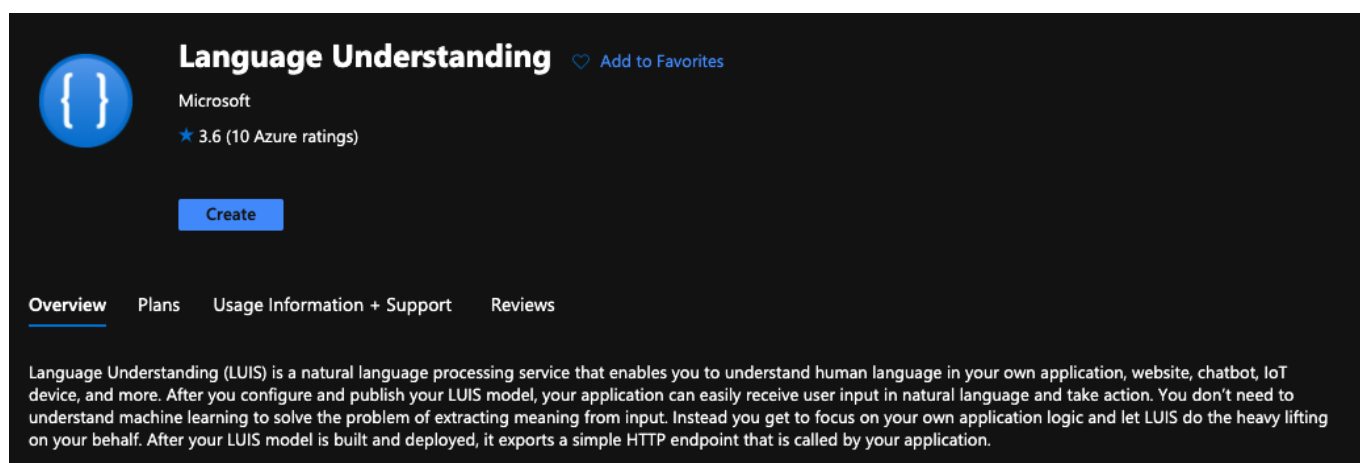
意圖 (Intent): 每一個句子的目的，像是點餐、客訴、訂票 等等。

實體 (Entity): 句子裡的名詞，通常是關鍵內容，像是點購甚麼商品、客訴哪個方面的問題、訂票的目的地 等等。

訓練句子 (Utterance): 要建立一個 LUIS 模型，我們得要在不同意圖新增訓練句子讓 LUIS 學習每一種意圖可能會有哪幾種講法，並且還可以知道句子中哪幾個字是重要的關鍵 Entity。

創建LUIS服務

1. 進入Azure Portal去資源組創建LUIS服務



Language Understanding ❤️ Add to Favorites

Microsoft

★ 3.6 (10 Azure ratings)

Create

Overview Plans Usage Information + Support Reviews

Language Understanding (LUIS) is a natural language processing service that enables you to understand human language in your own application, website, chatbot, IoT device, and more. After you configure and publish your LUIS model, your application can easily receive user input in natural language and take action. You don't need to understand machine learning to solve the problem of extracting meaning from input. Instead you get to focus on your own application logic and let LUIS do the heavy lifting on your behalf. After your LUIS model is built and deployed, it exports a simple HTTP endpoint that is called by your application.

選擇創建和QnA操作一樣，選擇相關的訂閱，並填寫相關資訊

Create Language Understanding ...

Basics Network Tags Review + create

Language understanding (LUIS) is a natural language processing service that enables you to build your own custom model to understand human language programmatically or through the UI in the LUIS portal. After you are satisfied with your LUIS model, you publish it and query its prediction endpoint through your client application for an end to end conversational flow. To build, manage, train, test and publish your LUIS Model, you will need to create the below Authoring Resource. This also gives you 1,000 requests/month endpoint requests. If you want your client app to request beyond the 1,000 requests provided by the authoring, create the below Prediction Resource. If you know from the start you will be needing more than 1000 prediction requests as well as the authoring experience, create using the "Both" option. This will create two resources, one for each type.

Create options *

☐ Both

☐ Authoring

☒ Prediction

Project Details

Subscription * ⓘ Windows Azure MSDN - Visual Studio Ultimate ▼

Resource group * ⓘ hkeduchatbotdemo ▼

[Create new](#)

Instance Details

Name * ⓘ covid19hkdemo ✓

Prediction Resource

Select pricing and location for the prediction resource

[Learn more](#)

Region ⓘ East Asia ▼

Prediction pricing tier * ⓘ Free F0 (5 calls per second, 10k calls per month) ▼

[Review + create](#) [< Previous](#) [Next : Network >](#)

2. LUIS 服務創建成功後，你就可以到LUIS網頁(<https://www.luis.ai/>)進行下一步操作了，選擇new app 按鈕你可以快速地生成一個語料，我這裡命名為HK，語言還是英語

+ New app | v | Rename | Export | Import logs | Export logs | Delete

Name	Last modified ↓	Culture	Endpoint hits
 HK	11/11/2021	en-us	0

3. 進入HK創建新的Intent，命名為HKCovid19，並添加一下樣例

添加以下Example

live status of covid19

hongkong

covid19 hk

today status

My LUIS / HK v0.1

DASHBOARD BUILD MANAGE Train Test Publish

App Assets

Intents

Entities

Prebuilt Domains

Improve app performance

Review endpoint utterances

Features

Patterns

HKCovid19

Machine learning features ⓘ

+ Add feature

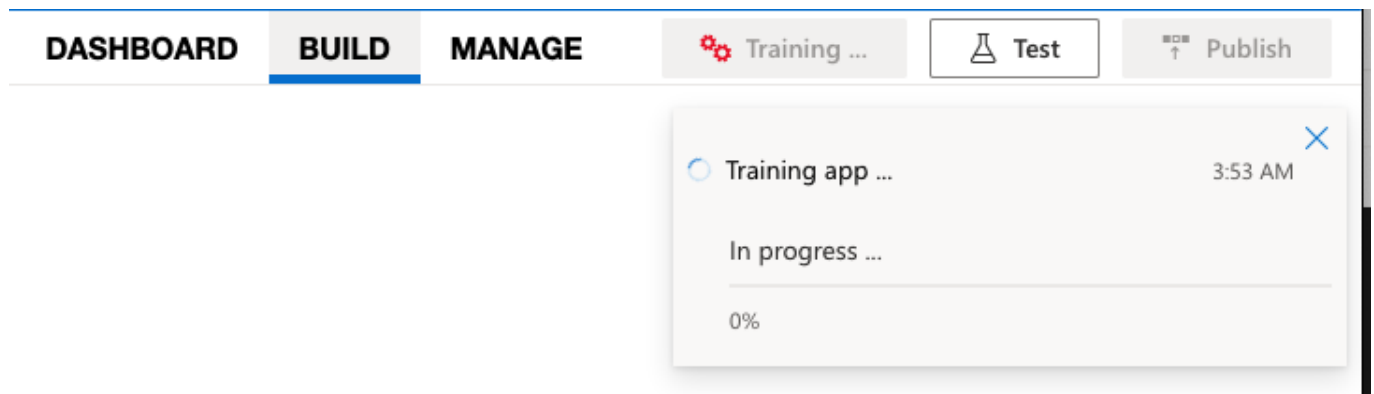
Examples ⓘ

✓ Confirm all entities | Move to | Delete | ...

View options | Filter | @

Example user input	Score
Type an example of what a user might say and hit Enter.	
hongkong	-
covid19 hk	-
today status	-
live status of covid19 hk	-

4. 添加完成後，可以按操作介面右上角Train按鈕進行訓練



5. 訓練成功後，可以按測試按鈕進行驗證

Test

[Start over](#)[Batch testing panel](#)

Type a test utterance ...

how about the status of hk

HKCovid19 (0.951)

[Inspect](#)

how about hk

HKCovid19 (0.949)

[Inspect](#)

ho w

HKCovid19 (0.797)

[Inspect](#)

6. 點擊Publish按鈕，發布你的LUIS語料

HKCovid19

Machine learning features ⓘ

+ Add feature

Examples ⓘ

✓ Confirm all entities

Example us

Type an ex

hongkong

covid19

today status

live status of covid19 hk

Score

0.968

0.975

0.968

0.977

View options

Choose your publishing slot and settings

☐ Staging slot

☒ Production Slot

Last Published: Not Published yet

Sentiment Analysis: Off

Speech Priming: Off

[Change settings](#)

Done Cancel

發布成功後，點擊Manager按鈕可以獲取到與Key相關的信息

Settings

Publish Settings

Azure Resources

Versions

Azure Resources

LUIS uses two types of resources: authoring and prediction. The authoring key is needed for authoring, publishing, managing collaborators, and versioning. A prediction key is created for you when you create your azure cognitive service account. When you are ready to publish your LUIS app, you need to create the prediction key with endpoint queries. [Learn more](#)

Prediction Resources **Authoring Resource**

[Change authoring resource](#)

covid19hkdemoauthor

Resource group: hkeduchatbotdemo

Location: westus

Primary Key: [Redacted]

Secondary Key: [Redacted]

Endpoint URL: <https://westus.api.cognitive.microsoft.com/>

Pricing Tier: F0 (Free)

7. 運行code下的chatbothol04的notebook看看結果