

03. QnA Maker

甚麼是 QnA Maker ?

QnA Maker 是一項雲端式自然語言處理 (NLP) 服務，可讓您透過您的資料建立自然對話層。其用來從資訊的自訂知識庫 (KB) 為任何輸入尋找最適當的答案。QnA Maker 通常用來建立交談式用戶端應用程式，其中包括社交媒體應用程式、聊天機器人，以及具備語音功能的傳統型應用程式。QnA Maker 不會儲存客戶資料。所有客戶資料 (問題的答案和聊天記錄) 都會儲存在客戶部署相依服務實例的區域中。

QnA Maker 的使用時機

當您有靜態資訊時 - 當回答知識庫中有靜態資訊時，請使用 QnA Maker。此知識庫是依據需求所自訂的，且您已使用 PDF 和 URL 等文件建置好。

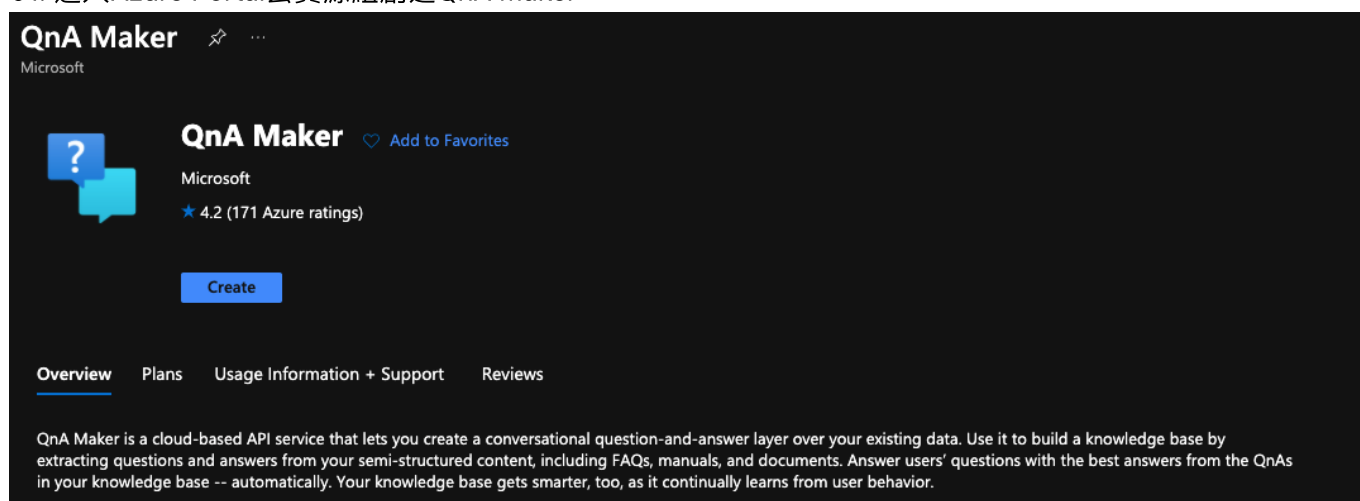
當您想要為要求、問題或命令提供相同的答案時 - 當不同使用者提交相同問題時，系統會傳回相同的答案。

當您想要根據中繼資訊來篩選靜態資訊時 - 新增 中繼資料標籤，以提供與用戶端應用程式使用者和資訊相關的其他篩選選項。常見的中繼資料資訊包括閒聊、內容類型或格式、內容用途和內容有效期限。

當您想要管理包含靜態資訊的聊天機器人對話時 - 您的知識庫會取得使用者的交談文字或命令，並做出回答。如果答案是預先決定對話流程的一部分 (在您的知識庫中會以多回合內容來表示)，則聊天機器人可以輕鬆地提供此流程。

創建 QnA Maker

01. 進入 Azure Portal 去資源組創建 QnA Maker



如上圖點擊 Create

Create ...

QnA Maker

features such as entity recognition, sentiment analysis, etc.

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ Windows Azure MSDN - Visual Studio Ultimate ▼

Resource group * ⓘ hkeduchatbotdemo ▼
[Create new](#)

Name * ⓘ covid19qaforkedu ✓

Pricing tier ([Learn More](#)) * ⓘ Free F0 (3 managed documents per month, 3 transactions per secon... ▼

Azure Search details - for data

When you create a QnAMaker resource, you host the data in your own Azure subscription. Azure Search is used to index your data.

Azure Search location * (Asia Pacific) East Asia ▼

Azure Search pricing tier * ⓘ Free F (3 Indexes) ▼

App Service details - for runtime

When you create a QnAMaker resource, you host the runtime in your own Azure subscription. App Service is the compute engine that runs the QnA Maker queries for you.

App name * ⓘ covid19qaforkedu ✓

Website location * (Asia Pacific) East Asia ▼

The App service plan currently defaults to standard(S1) tier ([Pricing](#)). It can be modified by visiting the app service plan resource page once the resource has been created.

App insights details - for telemetry and chat logs

QnAMaker will optionally provision an instance of Application Insights and will appear in your Azure subscription. Telemetry and chatlogs will be stored here.

App insights ⓘ ☒ Enable ☐ Disable

App insights location * (Asia Pacific) East Asia ▼

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2. 進入QnA Maker (<https://www.qnamaker.ai/>) 頁面，綁定剛才創建的相關服務，你就可以為自己添加自己項目中的預料庫了。按照順序選擇你的Azure訂閱，剛才創建的QnA Service名，你的QnA語言，知識庫名，你知識庫的來源，最後是資料庫的相關信息

如我們這裡採用英語的語料庫，以世衛Covid-19的數據作為那本，並作為專業語料庫，命名為covid19kb

注： Covid-19 世衛語料庫地址 <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19>

Create a knowledge base

Create an Azure service for your QnA knowledge base and add sources that contain the question and answer pairs you would like to include. [Learn more about - creating a knowledge base.](#)

STEP 1

Create a QnA service in Microsoft Azure.

Create an Azure QnA service for your KB. If you already have an Azure QnA service for this KB, skip this step. Select 'Preview' to try Custom question answering (preview release) feature. [Learn more about Azure subscriptions, pricing tiers, and keys.](#)

Create a QnA Service

☐ We strongly recommend you to use the [Question Answering](#) feature (now Generally Available) within Azure Cognitive Service for Language. You can visit [Language studio](#) to create a Language resource.

STEP 2

Connect your QnA service to your KB.

After you create an Azure QnA service, refresh this page and then select your Azure service using the options below

Refresh

* Microsoft Azure Directory ID

Lo Kinley

* Azure subscription name

Windows Azure MSDN - Visual Studio Ultimate

* Azure QnA service

covid19qforhkedu

* Language

English

STEP 3

Name your KB.

The knowledge base name is for your reference and you can change it at anytime.

* Name

covid19kb

STEP 3

Name your KB.

The knowledge base name is for your reference and you can change it at anytime.

* Name

covid19kb

STEP 4

Populate your KB.

Extract question-and-answer pairs from an online FAQ, product manuals, or other files. Supported formats are .tsv, .pdf, .doc, .docx, .xlsx, containing questions and answers in sequence. [Learn more about knowledge base sources.](#) Skip this step to add questions and answers manually after creation. The number of sources and file size you can add depends on the QnA service SKU you choose. [Learn more about QnA Maker SKUs.](#)

☐ Enable multi-turn extraction from URLs, .pdf or .docx files. [Learn more.](#)

URL

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hu>

+ Add URL

File name

+ Add file

Chit-chat

Give your bot the ability to answer thousands of small-talk questions in a voice that fits your brand. When you add chit-chat to your knowledge base by selecting a personality below, the questions and responses will be automatically added to your knowledge base, and you'll be able to edit them anytime you want. [Learn more about chit-chat.](#)

- ☐ None
☒ Professional
☐ Friendly
☐ Witty
☐ Caring
☐ Enthusiastic

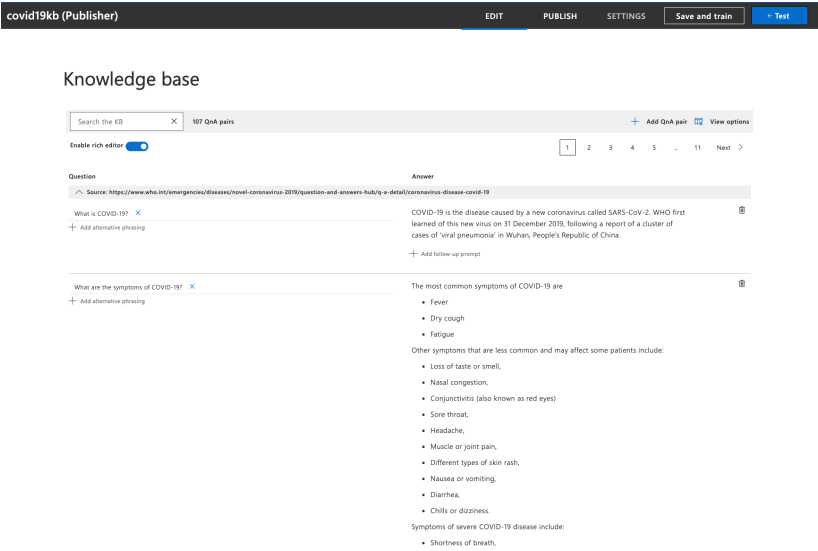
STEP 5

Create your KB

The tool will look through your documents and create a knowledge base for your service. If you are not using an existing document, the tool will create an empty knowledge base table which you can edit.

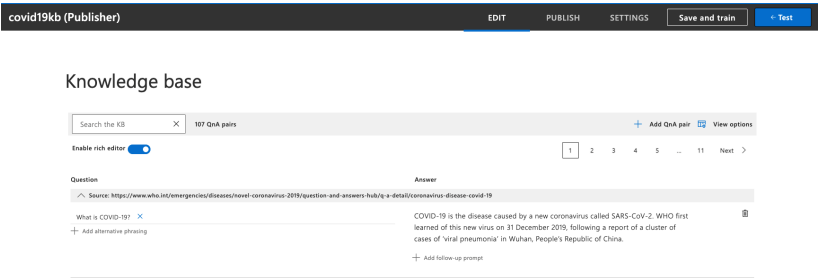
Create your KB

完成資料填充後你就可以生成關於Covid-19的知識庫了



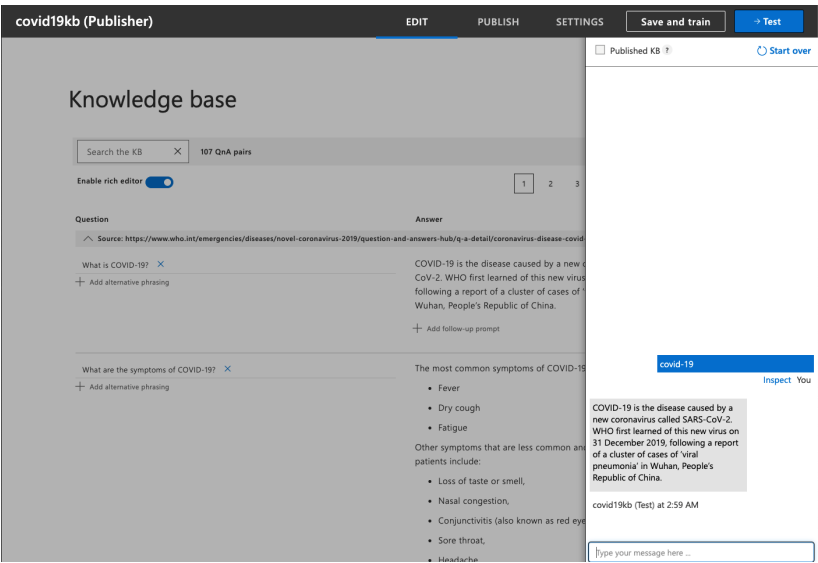
3. 你可以在QnA Maker上進行訓練

選擇covid19kb知識庫的右上角的Save and Train 按鈕進行保存和訓練

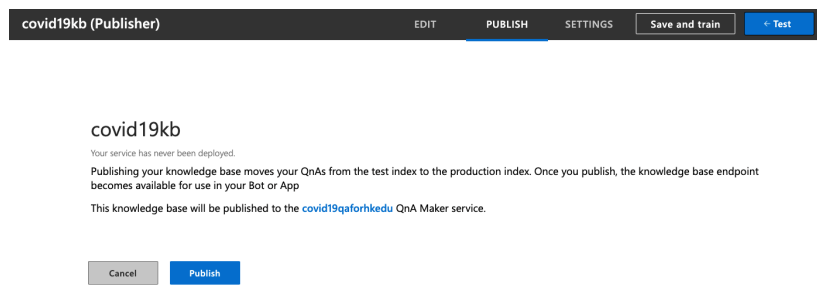


4. 你可以在QnA Maker上進行測試

選擇covid19kb知識庫的右上角的Test按鈕進行測試



4. 測試滿意後你就可以點擊發布按鈕進行發布



發布後會告訴你相關的信息，如endpointkey，url等

Success! Your service has been deployed. What's next?

You can always find the deployment details in your service's settings.

Create Bot

[View](#) all your bots on the Azure Portal.

Use the below HTTP request to call your Knowledgebase. [Learn more.](#)

Postman Curl

```
POST /knowledgebases/.../generateAnswer
Host: https://c...
Authorization: EndpointKey...
Content-Type: application/json
{"question": "<Your question>"}
```

Need to fine-tune and refine? Go back and keep editing your service.

Edit Service

5. 運行code下的chatbothol03的notebook看看結果