

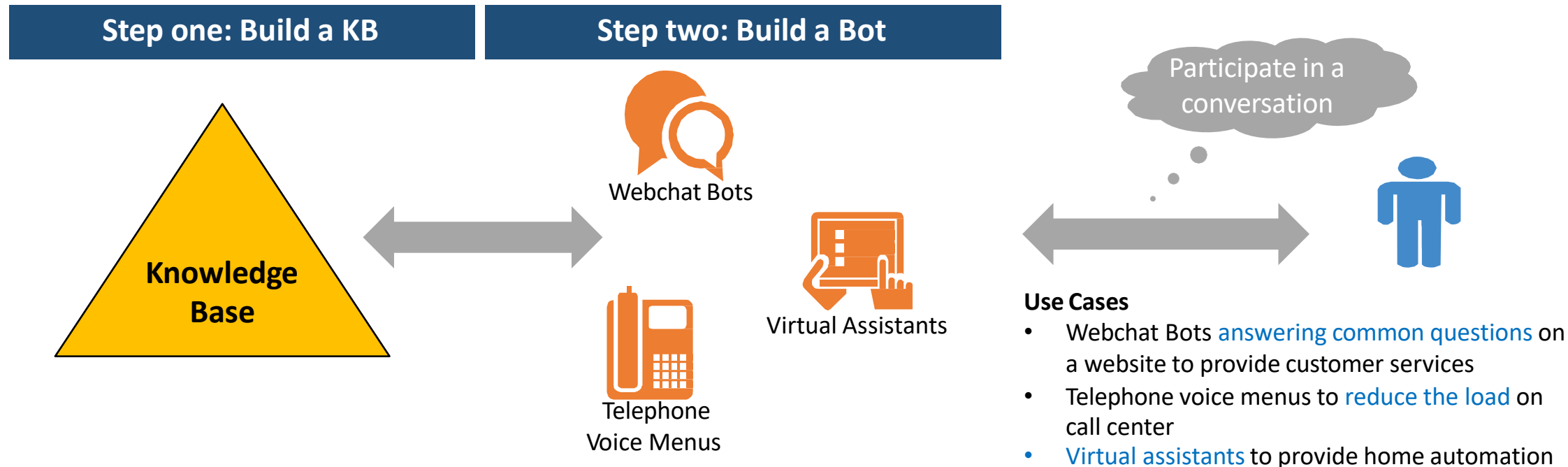


Section 6

Conversational AI in Microsoft Azure

Overview of Conversational AI Services in Azure

Services	Pre-trained Models	Custom Models	Description
QnA Maker	X	X	Create a knowledge base of conversational question and answer pairs
Azure Bot Services	N/A	N/A	Intelligent, serverless bot services that scale on demand





QnA Maker Service



Conversational AI – QnA Maker Service

- **Knowledge Base:** Question and Answers Pairs
- **Data Source Locations & Type**
 - Existing FAQ document or web page
 - Entered and edited manually
 - Question-answer pairs from semi-structured content, including SharePoint documents, etc.
 - Pre-defined chit-chat (small talk) data source

Sample Question: <i>When is your birthday?</i>	
Personality	Example
Professional	Age doesn't really apply to me.
Friendly	I don't really have an age.
Witty	I'm age-free.
Caring	I don't have an age.
Enthusiastic	I'm a bot, so I don't have an age.

Source Type	Content Type
URL	FAQs Support pages
PDF / DOC	FAQs, Product Manual, Brochures, Paper, Flyer Policy, Support guide, Structured QnA, etc.
Excel	Structured QnA file
TXT / TSV	Structured QnA file

- *Azure SQL database query is not supported*

Conversational AI – QnA Maker Service – Multi-turn Conversations

- Multi-turn prompts

Context	Question	Answer
Can I have the menu... L Pizza Menu\n L Burger Menu\n	Can I have the menu please?\n X Could you send me the menu?\n X + Add alternative phrasing	Sure, choose something from our menu: Pizza Burger
Can I have the menu pl... L Burger	Burger Menu\n X + Add alternative phrasing	This is our Burger Menu.
Can I have the menu pl... L Pizza	Pizza Menu\n X + Add alternative phrasing	This is our Pizza Menu.

Answer 1
- Prompt #1
- Prompt #2

Answer 2
- Prompt #1
- Prompt #2
- Prompt #3

can you send me the menu

Inspect You

Sure, choose something from our menu:

Pizza

Burger

Sean's Faze Food (Test) at 11:05 AM

what burger do you provide

Inspect You

We provide many yummy burgers. For more details, please tag on the buttons below:

Cheese Burger

Beef Burger

Chick Burger

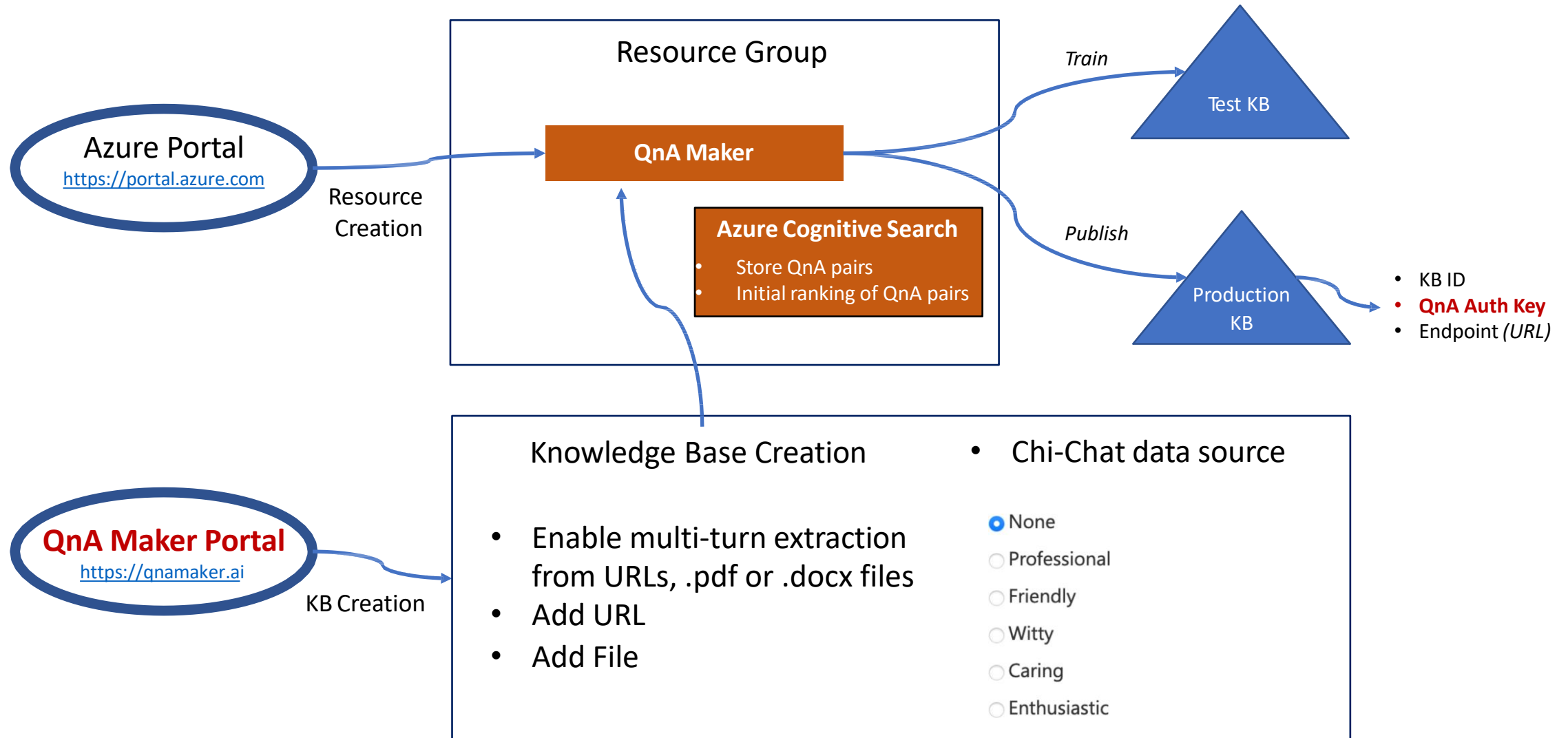
Sean's Faze Food (Test) at 11:05 AM

Type your message here ...

Question 1

Question 2

Conversational AI – QnA Maker Service – Resource Setup



Conversational AI – QnA Maker Service – KB Creation Steps

Create Knowledge Base

Edit Knowledge Base

Train & Test KB

Publish KB

Define question-and-answer pairs

- Existing FAQ document
- Existing web page (URL)
- Pre-defined *chit-chat* data source
- Manual QnA entries

Why Margie's Travel?

Margie's Travel is a full-service travel agent, with years of experience in the worldwide tourism industry.

What services do you provide?

Margie's Travel can help arrange flights, accommodation, airport transfers, excursions, visas, travel insurance, and currency exchange.

What destinations do you offer?

We can arrange travel anywhere in the world, but we specialize in trips to Dubai, Las Vegas, London, New York, and San Francisco.

How can I book a flight?

Our agents can help you book flights between any major airports, on any of the major airlines. We offer competitive fares for all flight classes. To book a flight, call us on 555 123 456; or visit our website: www.margiestravel.com.

How can I reserve a hotel?

We partner with the best independent hotels all across the world and can arrange accommodation that suits your needs and budget. From small boutique five-star luxury resorts, we've got the right hotel for you. To reserve a hotel, call us on 555 123 456; or visit our website: www.margiestravel.com.

How do I cancel a flight or hotel?

You can cancel a flight or hotel anytime up to 24 hours before check-in. A cancellation fee may apply. Call us on 555 123 456; or visit our website: www.margiestravel.com.

Can you arrange travel insurance?

Margie's Travel partners with Humongous Insurance Corp. to provide travel insurance at competitive rates.

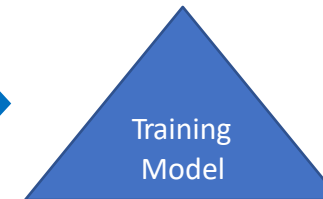
What are your office hours?

Our agents are available by phone on 555 123 456 Monday to Friday from 8:00am to 6:00pm PST. You get help on our website at www.margiestravel.com 24x7.

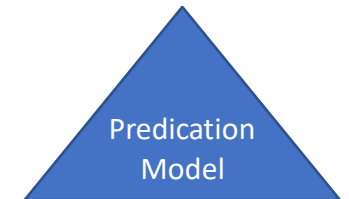


Add new Questions & Answers

- Alternative phrasing
- Multi-turn prompts
- Metadata tags used to filter answer choices



Test Model



- KB ID
- KB endpoint
- KB authorization key

QnA Maker doesn't store customer data (Q&A pairs and chatlogs).

All customer data is stored in the region of Cognitive Search service deployed

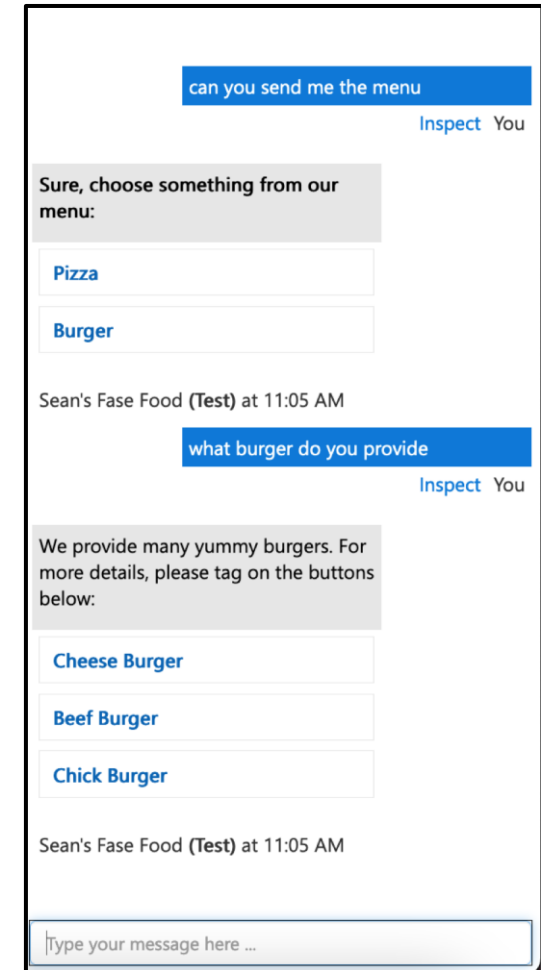


Azure Bot Services



Conversational AI – Azure Bot Services

- Azure Bot
 - Conversationally engages with customers
 - Web application with conversational interfaces
- Three ways to create a bot:
 - Bot Framework SDK - coding
 - Bot Framework Composer - visual canvas
 - QnA Maker automatic bot creation feature



Conversational AI – Azure Bot Services – Channels

- Channel - connection between communication applications and a bot



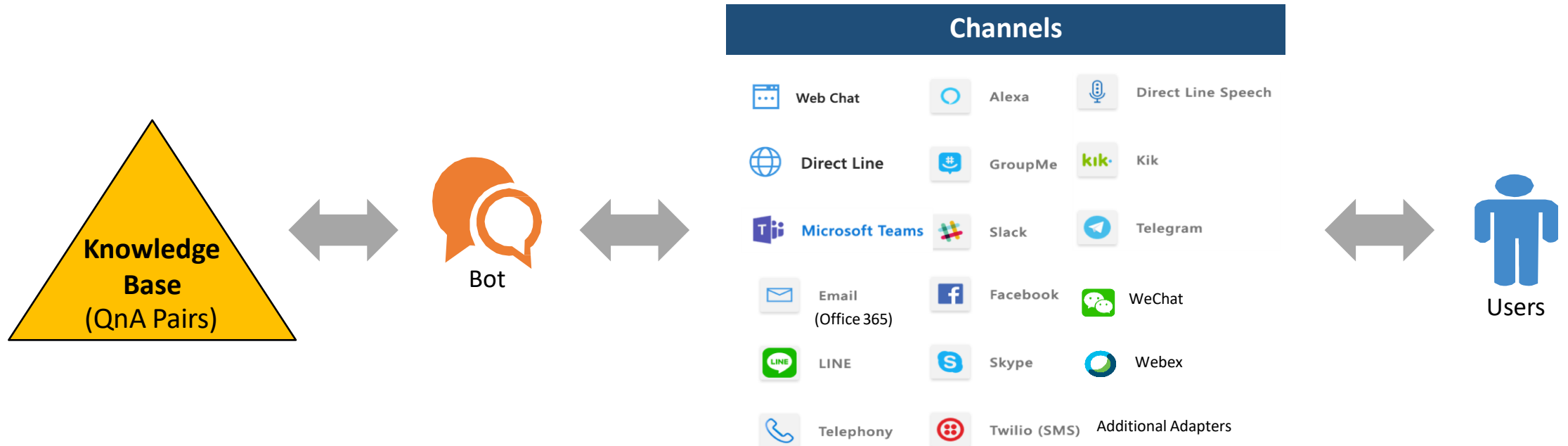
Web Chat

Automatically configured when you create a bot with the Bot Framework Service

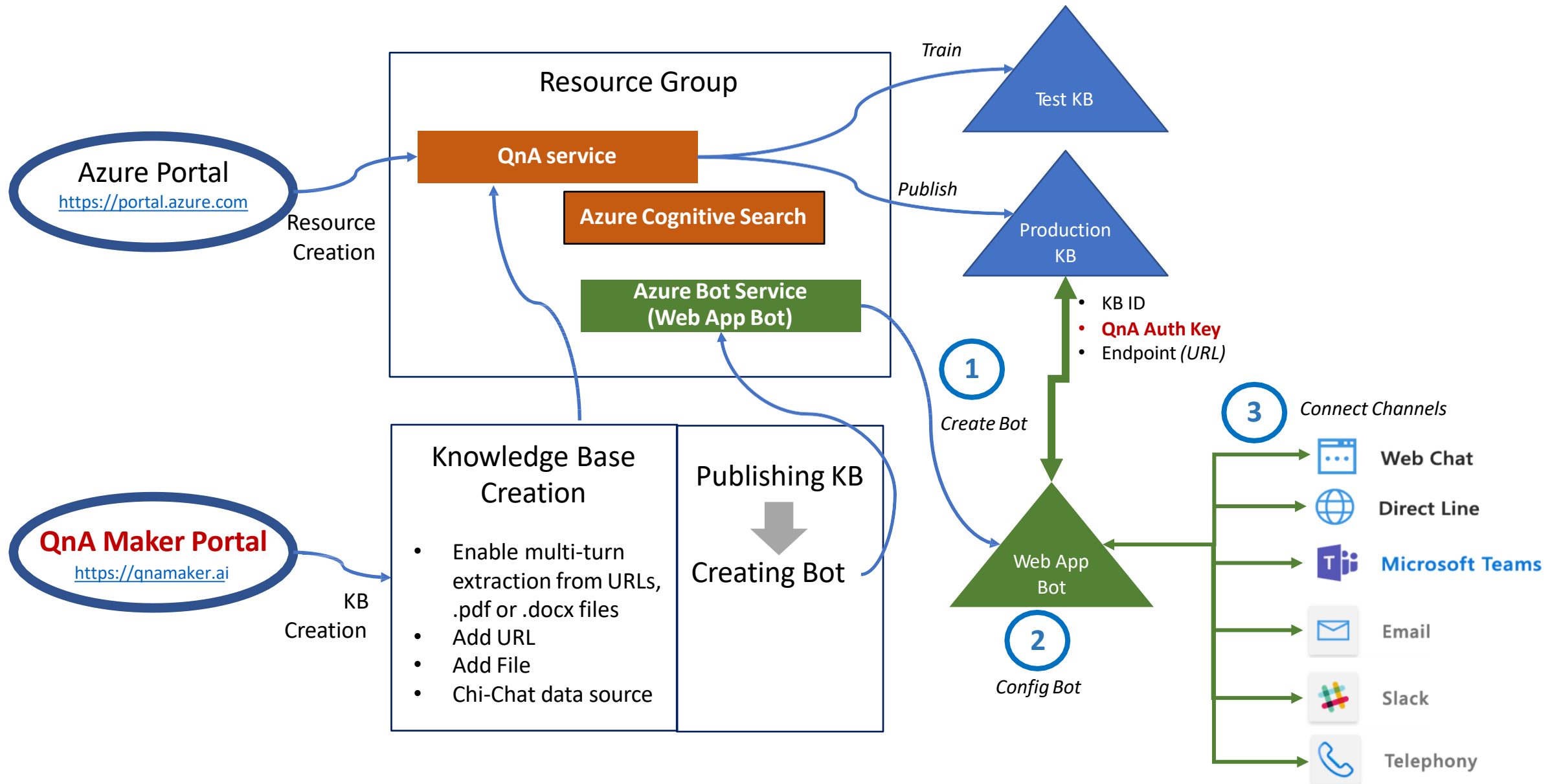


Direct Line

Standard channel: Integrate a bot into a mobile app, web page, or other applications



Conversational AI – Azure Bot Services – Resource & Bot Setup



Hands-on Lab

Building a QnA Bot

with

Azure QnA Maker and Bot Service



Conversational AI Summary



Conversational AI Summary

