

# SSC Chatbot Overview

Science Program



Shared Services  
Canada

Services partagés  
Canada

Canada



# Objective

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To provide a basic understanding of the SSC Azure chatbot services and provide a demo of its use.

# What we will cover



What is a chatbot?



Common Uses



Demo



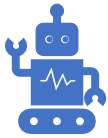
Architecture



Closing

# What is a chatbot?

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A chatbot is an Artificial Intelligence (AI) software program that fundamentally **simulates human conversations.**



A chatbot is programmed to **work independently** from a human operator.



A chatbot uses machine learning and Natural Language Processing (NLP) to formulate **responses based on a ranking score.**



# What can chatbots be used for?

- Providing answers to **repetitive** or **routine inquiries**.
- Consolidating information from multiple places
- Coordinating activities or information
- Routing inquiries to humans
- Providing a new way for employees to interact with your systems

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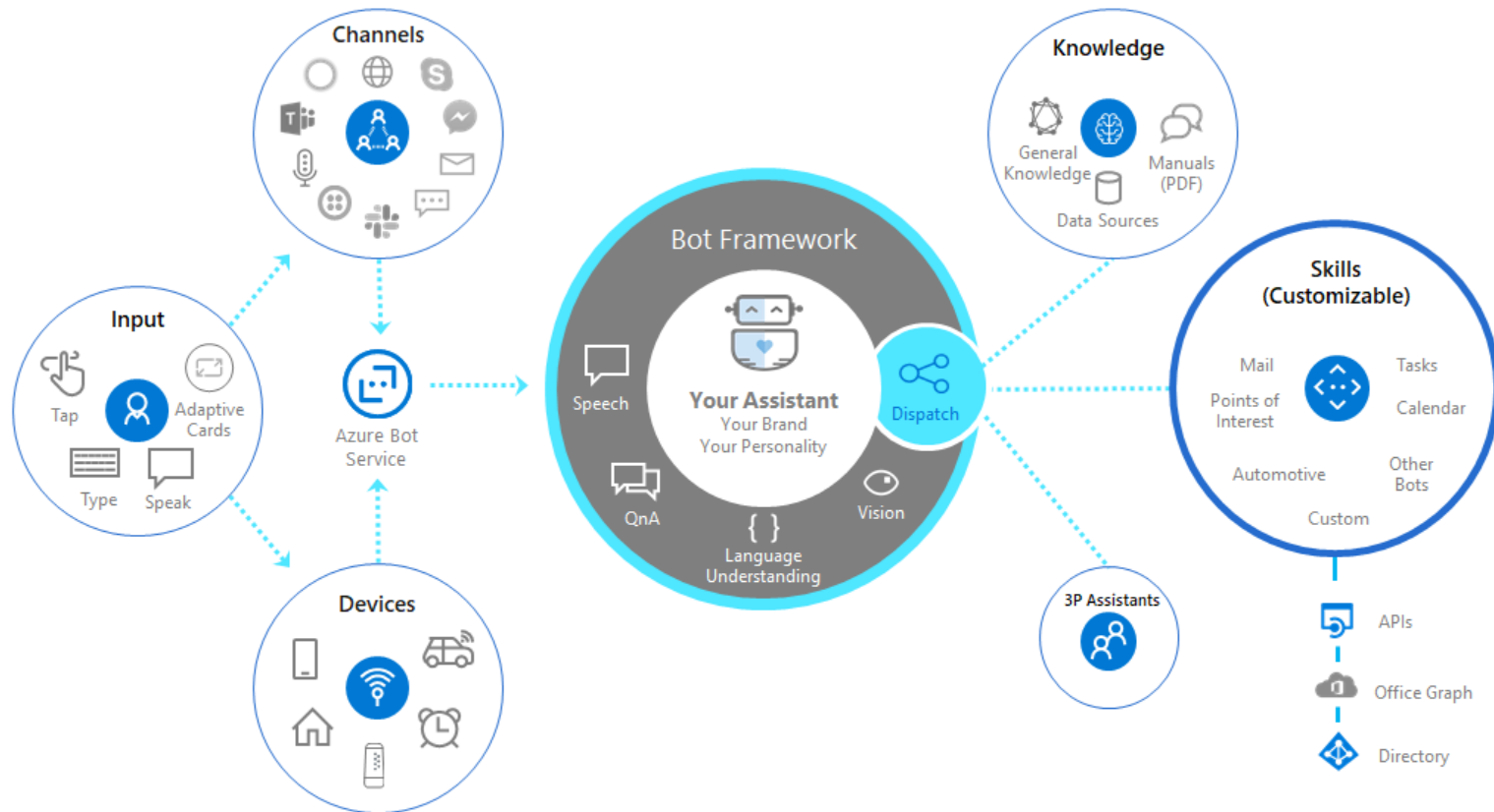
# Demo

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# Architecture

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# Azure Bot Framework





# Q&A

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*To the user, chatbots seem to be “intelligent” due to their informative skills. However, chatbots are only as intelligent as the underlying database.*

**Peter Gentsch**

AI in Marketing, Sales and Service

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Thank  
you!

**Questions?**

**Please don't hesitate to contact us**

✉ [cio-dto-bdpi-btn@ssc-spc.gc.ca](mailto:cio-dto-bdpi-btn@ssc-spc.gc.ca)

# Annex - Chatbot Tools

# Knowledge Base – QnA Maker

QnAMaker (<https://qnamaker.ai>) is a cognitive service that allows you to extract questions and answer pairs from online FAQs, product manuals or other files and turn it into a sophisticated multi-turn conversation that can be consumed by a chatbot and other services.

The screenshot displays the QnA Maker interface for a knowledge base named "ScDC-CISO-Student-Chatbot-EN-kb". The interface includes a navigation bar with "Cognitive Services | QnA Maker", "My knowledge bases", and "Create a knowledge base". The main area shows two entries:

- Entry 1:** Question: "What are the statutor...". Alternative phrasings: "What are the statutory holidays?", "What holidays do I get off?", "What holidays do I get?". Answer: "# [Public holidays for 2020] (https://www.canada.ca/en/revenue-agency/services/tax/public-holidays.html)\n\nThe holidays apply to all provinces and territories unless otherwise noted.\n\n\* New Year - Wednesday, January 1, 2020\n\n\* Good Friday - Friday, April 10, 2020\n\n\* Victoria Day - Monday, May 18, 2020\n\n\* Canada Day - Wednesday, July 1, 2020\n\n\* Civic Holiday - Monday, August 3, 2020 (All except Quebec and Yukon)\n\n\* Labour Day - Monday, September 7, 2020\n\n\* Thanksgiving Day - Monday, October 12, 2020\n\n\* Remembrance Day - Wednesday, November 11, 2020\n\n\* Christmas Day - Friday, December 25, 2020\n\n\* Boxing Day - Saturday, December 26, 2020".
- Entry 2:** Question: "Do I get a cell phone?". Alternative phrasings: "Do I get a cell phone?", "Do students get a cell phone?". Answer: "All employees, terms, students and contractors will receive a cell phone with data unless the manager specifically requests that they do not require it."

# Language Understanding Intelligent Service (LUIS)

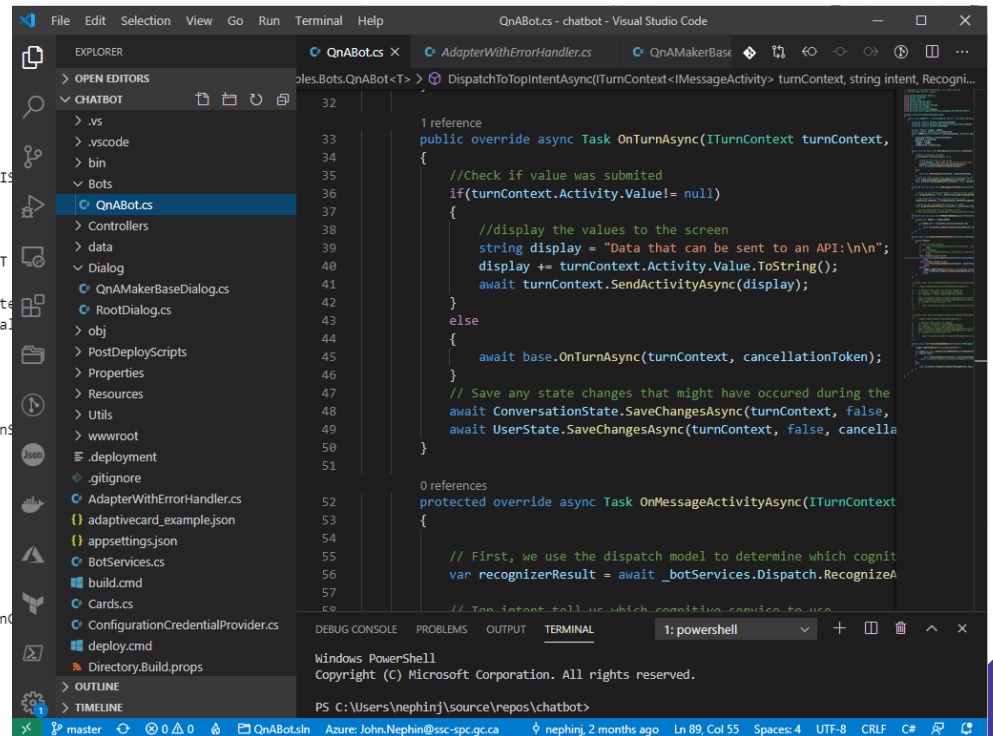
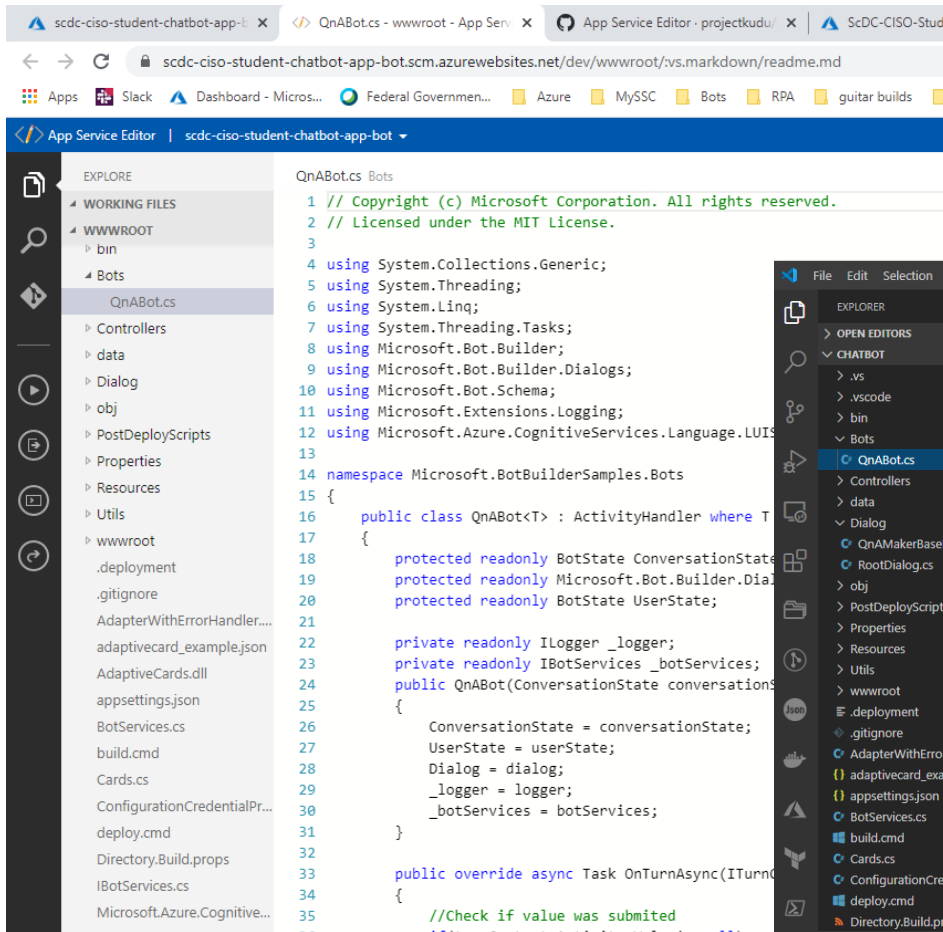
LUIS (<https://luis.ai>) is a machine learning based service to build natural language processing into apps, bots and IoT devices. It works by parsing at what the user says (utterances) picking out the key trained entities and trying to create a matches to the intent based on a ranking score.



```
{
  "query": "Are there any vegetarian restaurants within 3 miles
    from my house that is open now?",
  "topScoringIntent": {
    "intent": "FindRestaurant",
    "score": 0.9887482
  },
  "intents": [
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      "score": 0.9887482
    },
    {
      "intent": "None",
      "score": 0.04272597
    },
    {
      "intent": "LocationFinder",
      "score": 0.0125702191
    },
    {
      "intent": "FoodOrder",
      "score": 3.765154E-07
    }
  ],
  ....
}
```

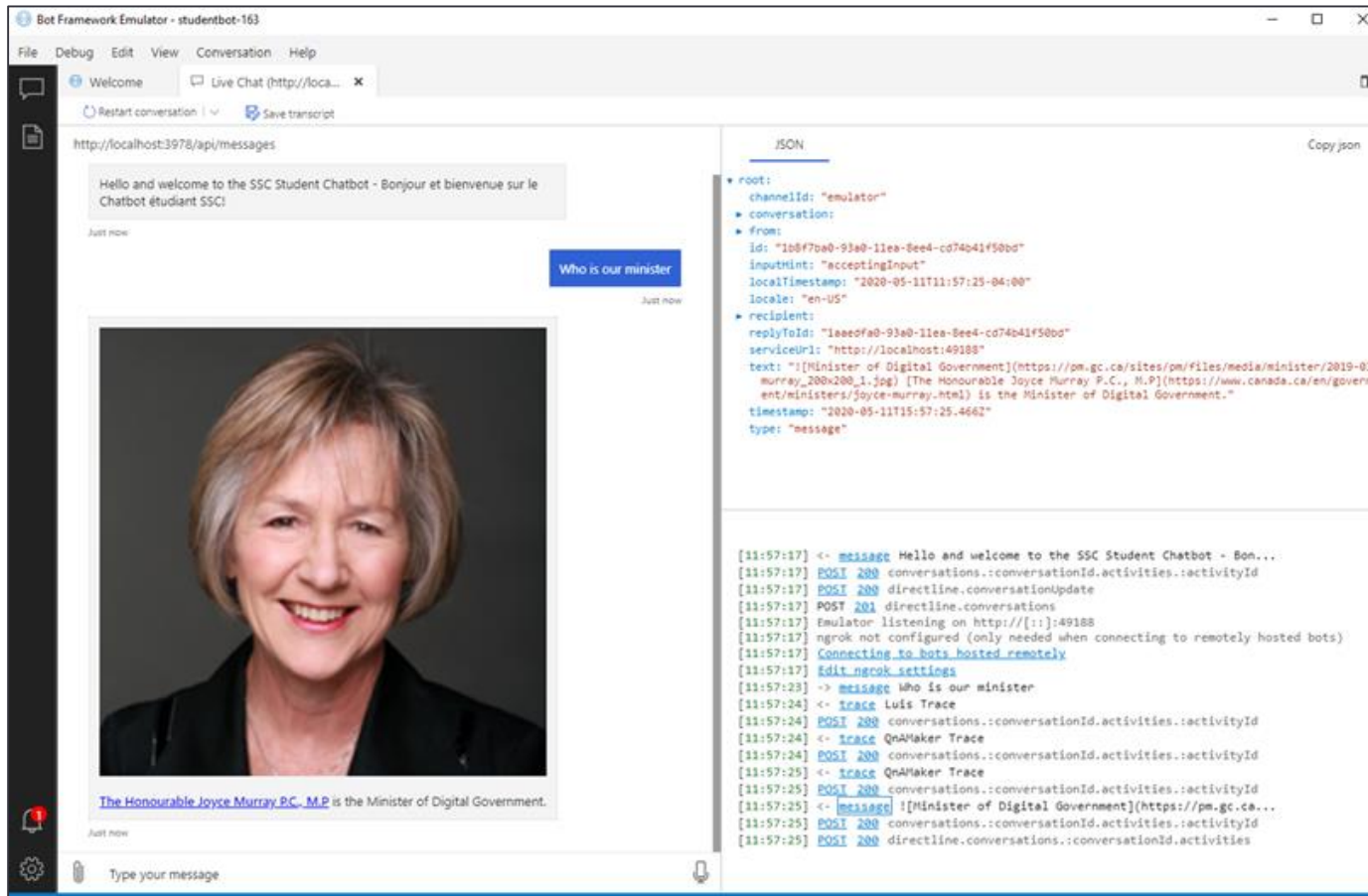
# Bot Customization Editors

Ability to manage your bot with Visual Studio Code or the App Service Editor.



# Emulators and Testing

The Bot Framework Emulator is a desktop application that allows bot developers to test and debug their bots, either locally or remotely.





# Monitoring and Analytics

Application insights can provide information on web traffic, performance, common usage patterns and more.

