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Extending Dynamics 365 Customer Engagement with Bots

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Agenda

Introduction to the Bots
- What is a Bot
- Why and Why Now
  - Bots as the next big opportunity
  - Customer Services, Finance, Shopping etc.
- Overview of Bot Framework
  - Demo

Developing Bots with Dynamics 365 CRM and Flow
- Authentication Between Bot & CRM (S2S Authentication) / Web API (Lead Generation)
  - Demo
- Integration with Microsoft Flow
  - Bot Builder Community Projects and Extensions
  - Demo

Dynamics 365 Virtual Agent for Customer Service
- Why Virtual Agent
- Comparison – Bot Framework vs D365 Virtual Agent
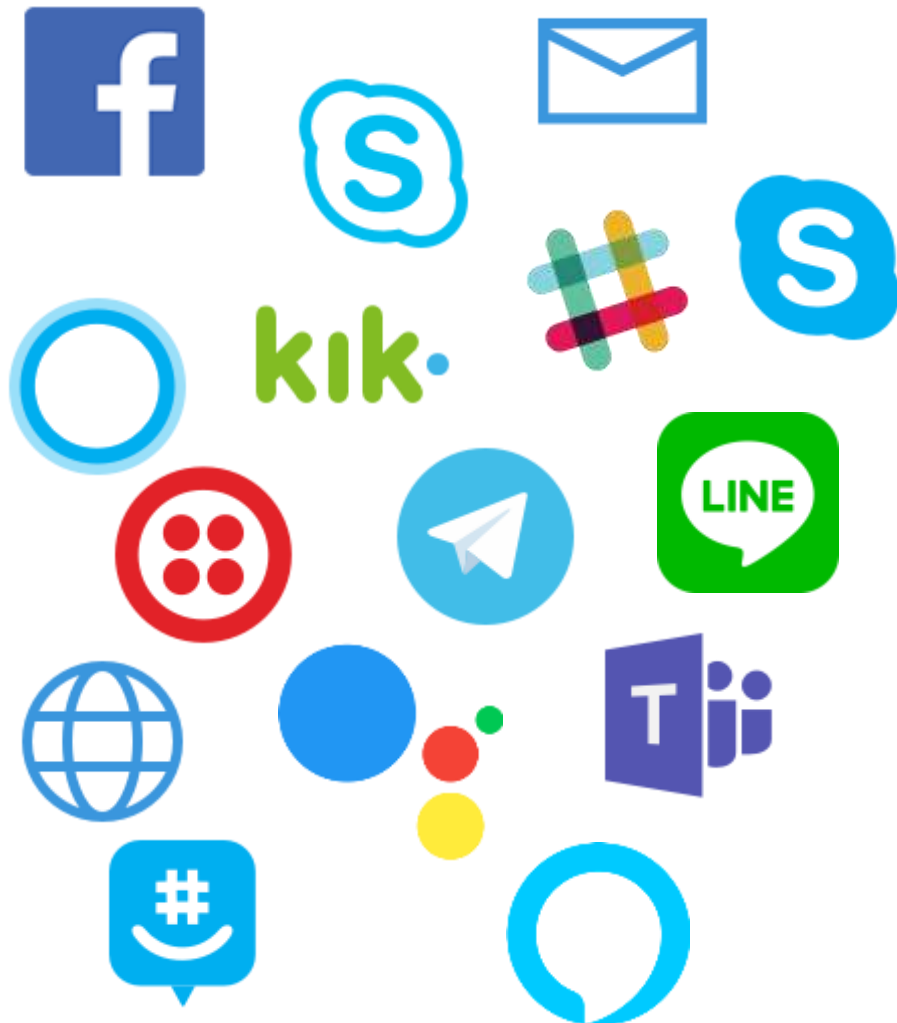
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What are bots?

- Bots are services (powered by rules) that people interact with through conversation and messaging

- Conversational AI - Set of technologies that enable computers to simulate real conversations
  - Can be used in apps, browser or on IoT devices
  - New user interface paradigm

Why and Why Now!

"25 Percent of Customer Service Operations Will Use Virtual Customer Assistants by 2020[1]" – Gartner, 2/18

1 Mar 2016

1 Jul 2018

Google Trends, Australia

[1] - https://www.gartner.com/en/newsroom/press-releases/2018-02-19-gartner-says-25-percent-of-customer-service-operations-will-use-virtual-customer-assistants-by-2020

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An asset to Digital Transformation

Customer Services / Help Desk	Retail / Shopping	In-house Support

Customer Services / Help Desk
- FAQs
- Appointment Booking
- Transport Queries
- Troubleshooting
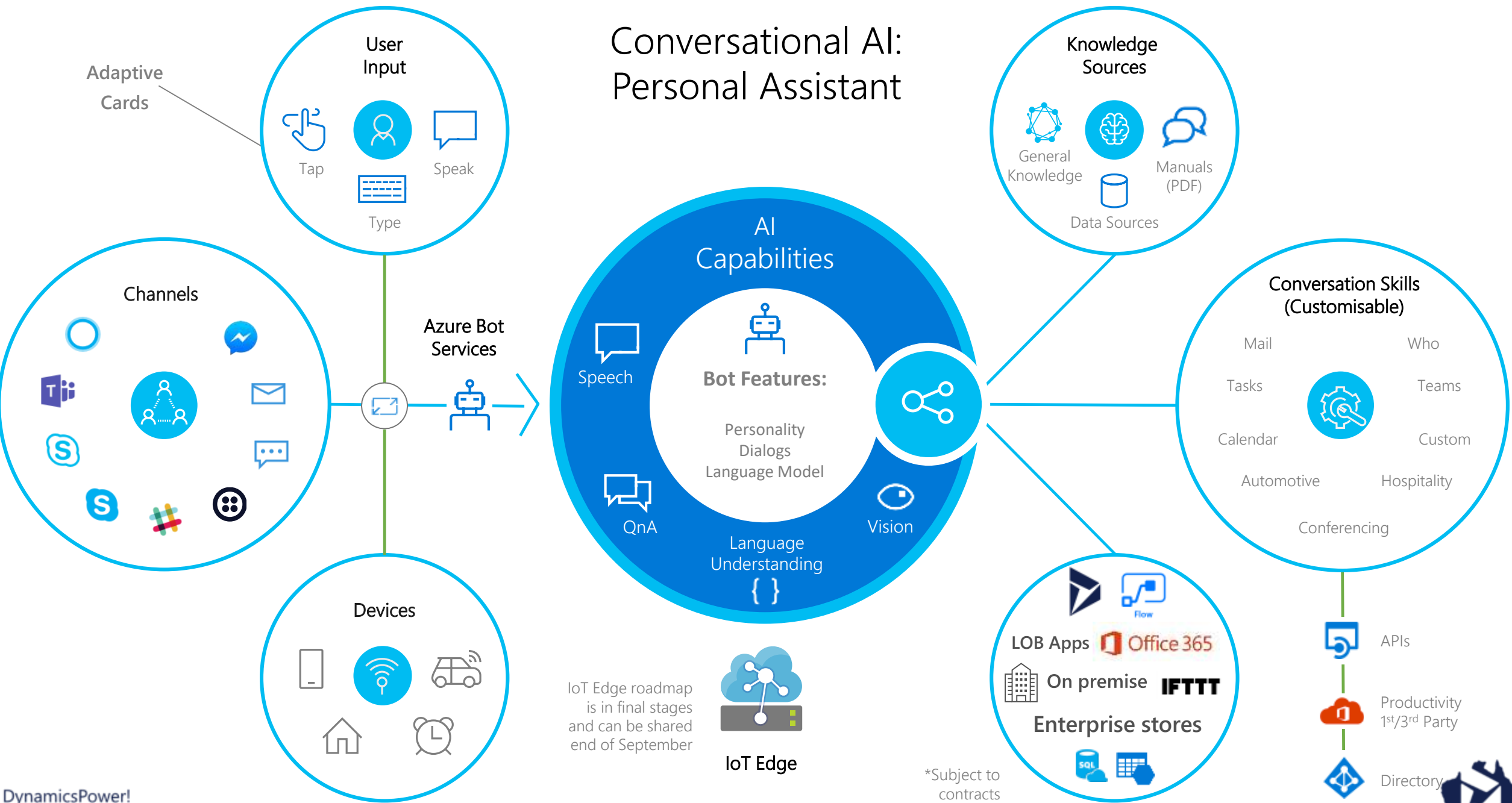- Customer Onboarding or KYC process

Retail / Shopping
- Tickets booking
- Flight / Hotel booking
- Recommend products
- Find the right product

In-house Support
- Meeting Room booking
- Find the right domain expert
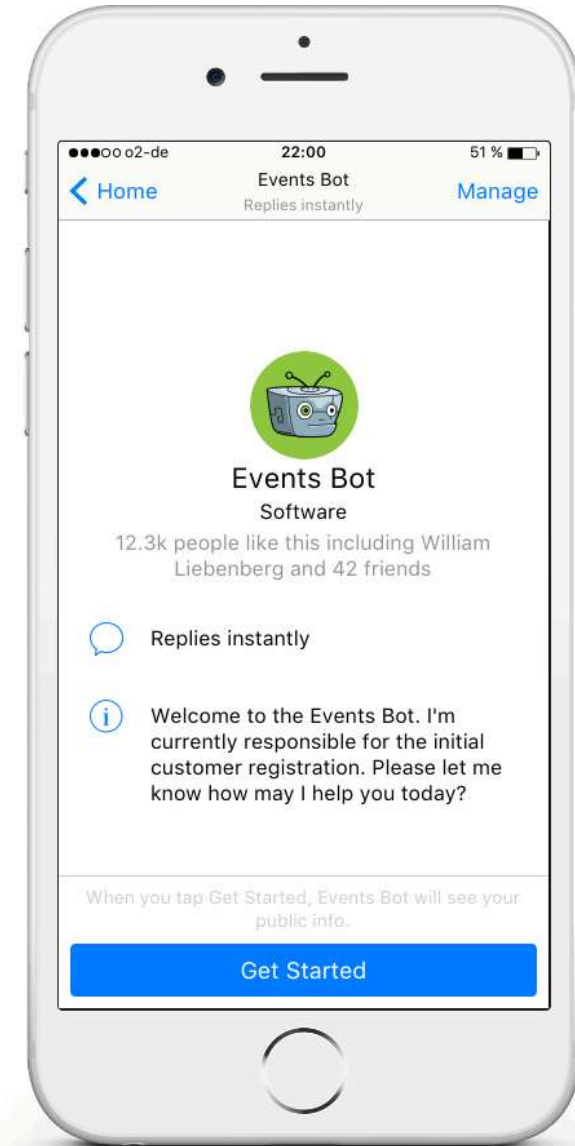- HR – booking holiday, fault reporting

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Demo – Creating a Bot

The Events Bot
Initial customer registration

S2S Authentication between Bot & CRM

- Why do we need this?
  - The Web API Challenge
  - All operations are performed as Application Users
  - No license fee for application users

- Steps to integrate
  - Azure Active Directory Portal (from portal.office.com)
    - Go to App Registrations
    - Create an app
      - Add Redirect URL http://localhost, copy client ID and endpoint
    - Certificates & Secrets
      - Create a client secret & copy it (to be used by bot, later on)
    - Give permissions to Dynamics 365
  - Login to Dynamics 365
    - Go to Advanced Settings -> Security -> Users -> Application Users -> New User
    - Provide the copied Application (client) ID to the Application ID field
    - Provide other necessary information and save
    - Go to Manage Roles, give appropriate roles
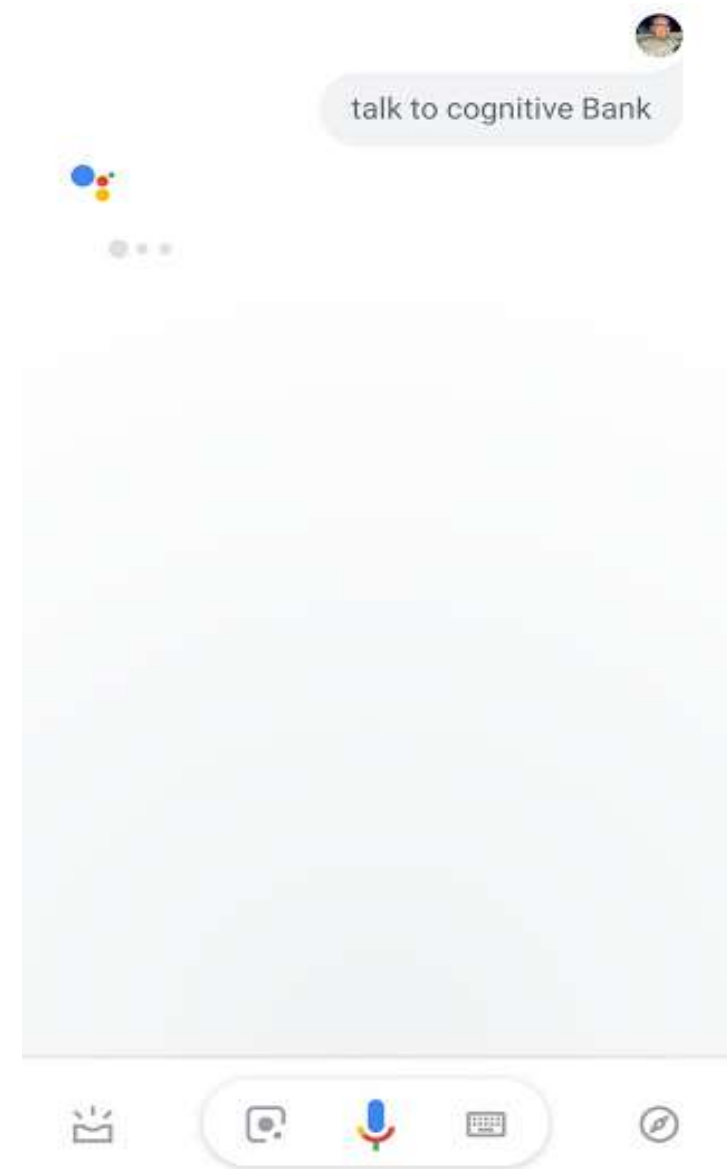 - Integrate the Web API code with Bot

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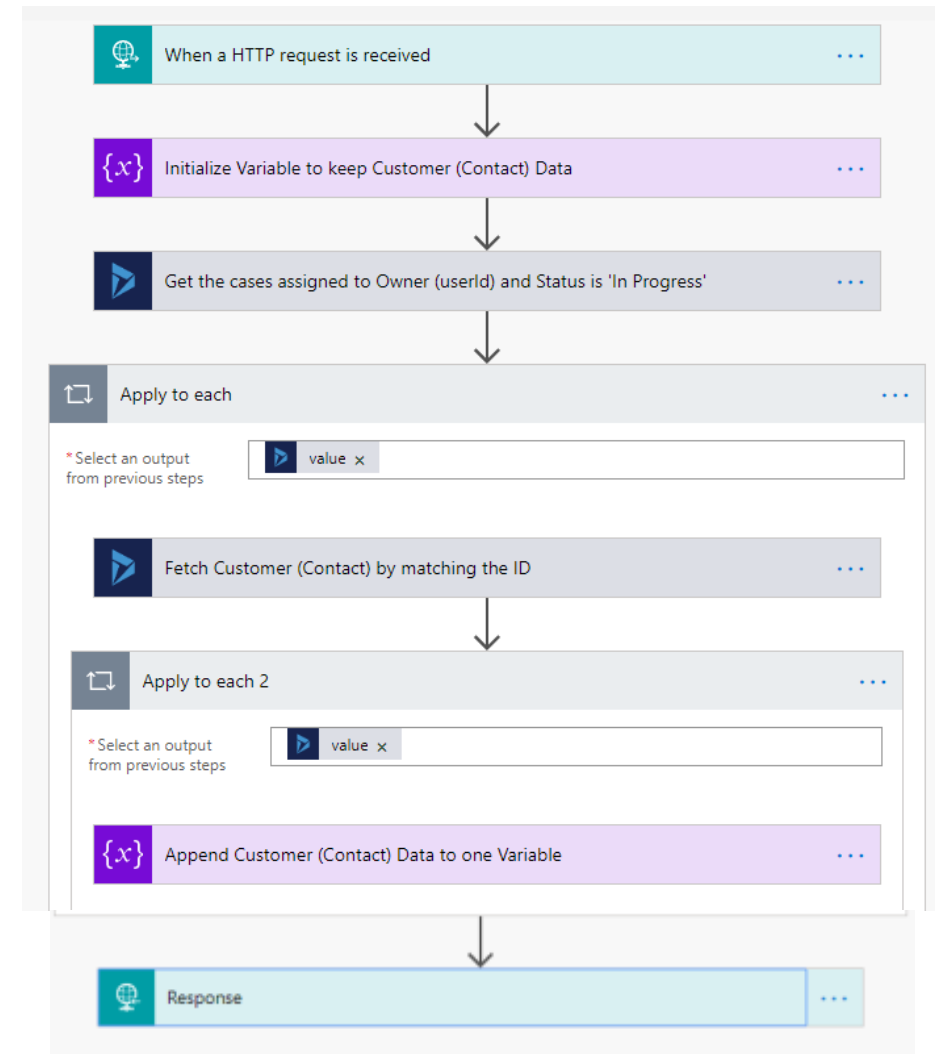# Demo – Integrating the Lead Generation Code to Bot

The Task Bot
Debit Card Delivery for Customer

Integrating Flow with Bot & CRM (1/2)

- Why Flow?
  - Easy
  - No / low code
  - Fast and Reliable
- Steps to create the Flow
  - HTTP Request is initiated from the Bot
    - Get cases assigned to the owner
    - Get assigned contact from case's owner
    - Fetch contact details
    - Append all those customer details into the CustomerData variable
    - Return the result with HTTP Response

Integrating Flow with Bot & CRM (2/2)

- Bot Builder Community Project
  - OSS - https://github.com/BotBuilderCommunity
  - Libraries (Extensions, Middleware, Dialogs, Recognizers etc.)
  - Google / Alexa Adapters / Samples
- Steps to integrate DialogFlow, Bot and Flow
  - Google DialogFlow
    - ngrok – develop locally for internet (setup a secure tunnel)
    - Add fulfillment URL
  - Bot
    - Install Bot Builder Community Extension for Google Adapters
    - Plug in the code for Flow

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Demo – Integrating Flow with Bot & CRM

AMA Bank Bot
Prospect customer registration

AMA Bank

Hi,

Welcome to my bot

AMA Bank Bot is one-stop solution for all your banking needs.

Start a conversation

Chat with your bot by using the following trigger phrases.

Are you open today?

Can I open up an account with you online?

Where are you located?

I want to make some transfers

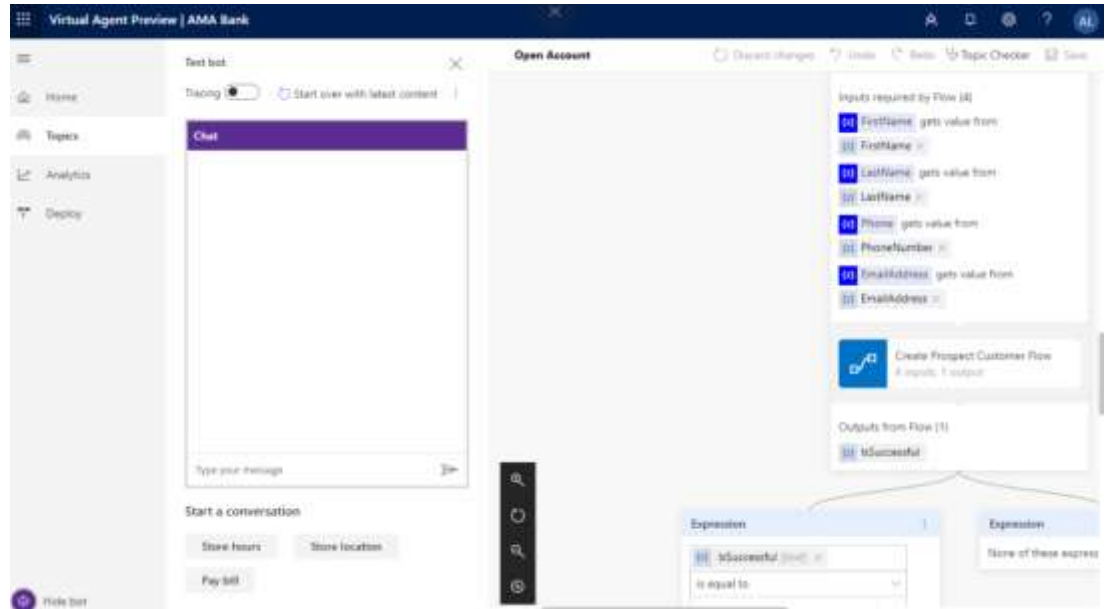Can I pay my bills here?

AMA Bank

Hi,

D365 Virtual Agent for Customer Service

- Total No-code approach

- Empower customer support specialists / people closest to customer

- Create powerful bots using a guided GUI

- No prior knowledge of data science / developers is required

- Monitor and improve bot's performance

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Bot Framework & D365 Virtual Agent

Bot Framework (Azure Bot Service)	D365 Virtual Agent for Customer Service
Multiple channels, one code	No code, only one channel
100% for professional / citizen developers	Mainly for non-developers with guided UI
Flexibility – sky is the limit	Still under development, not flexible at all
100% customizable	Very few features of customization

What we learnt..

- Bot Framework – An asset to the digital transformation

- One code, multiple channels – future proof approach

- S2S authentication – Web API & Bot

- Integration of Flow, Bot & CRM
  - Using famous channels such as Google Assistant

- D365 Virtual Agent – good for customer support specialists
  - Still in preview

Resources

Blogs / Docs

- My Blog - http://www.arafattehsin.com/blog

- Virtual Agent for Customer Service - https://docs.microsoft.com/en-us/dynamics365/ai/customer-service-virtual-agent/overview -

- Azure Bot Service - https://azure.microsoft.com/en-au/services/bot-service/

- Benefits of Bots - https://cloudblogs.microsoft.com/dynamics365/it/2019/05/30/the-benefit-of-bots-dynamics-365-virtual-agent-for-customer-service-overview/

- Calling a Custom Service from VA - http://aihelpwebsite.com/Blog/EntryId/2039/Calling-A-Custom-Service-From-Dynamics-365-Virtual-Agent-for-Customer-Service

- Automating Customer Interactions with Bots - https://danielburtcrm.wordpress.com/2017/03/14/automating-customer-interactions-with-bots-contoso-flowers-part-1/

- Dynamics 365 is talking to Microsoft Teams now! - https://uhslogic.com.au/dynamics-365-is-talking-to-microsoft-teams-now/

- Authentication with Bot Framework - https://dhina.org/2019/04/29/authenticate-bot-with-dynamics-365/

YouTube

- Building Dynamics 365 Bots with Azure Bot Framework and LUIS - https://www.youtube.com/watch?v=V-dyBffn6Cs

- Dynamics 365, Bots and Cognitive Services - https://www.youtube.com/watch?v=pH-JBpyCEC0

- BMW and Bot Framework Virtual Assistant Solution Accelerator - https://www.youtube.com/watch?v=u7Gql-ClcVA

- AI Chatbot for Dynamics 365 Example - https://www.youtube.com/watch?v=EkEJnmBhJ0U

GitHub

- https://github.com/BotBuilderCommunity/

- https://github.com/arafattehsin/CognitiveRocket

- https://github.com/TheCRMLab/CRMBot

- https://github.com/andz88/CrmChatBot

Microsoft Learn

- https://www.microsoft.com/learn

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Thank you