



You came today because of a craving and a knowledge
that the old ways serve us no longer

You came today because you crave
something new, something different

Speakers



Alexander Ermakov

Dynamics 365 functional consultant, localization expert, certified auditor, Microsoft MVP

International roll-outs to Russia and CIS

Dynamics 365 Business Central strategist and Partner in Awara IT

Twitter: Alex_Ermakov

Email: alexander.ermakov@awara-it.com



Speakers



Andrey Baludin

Dynamics 365 Business Central solution architect in
Awara IT

Twitter: ABaludin

Email: andrey.baludin@awara-it.com





The World of Change

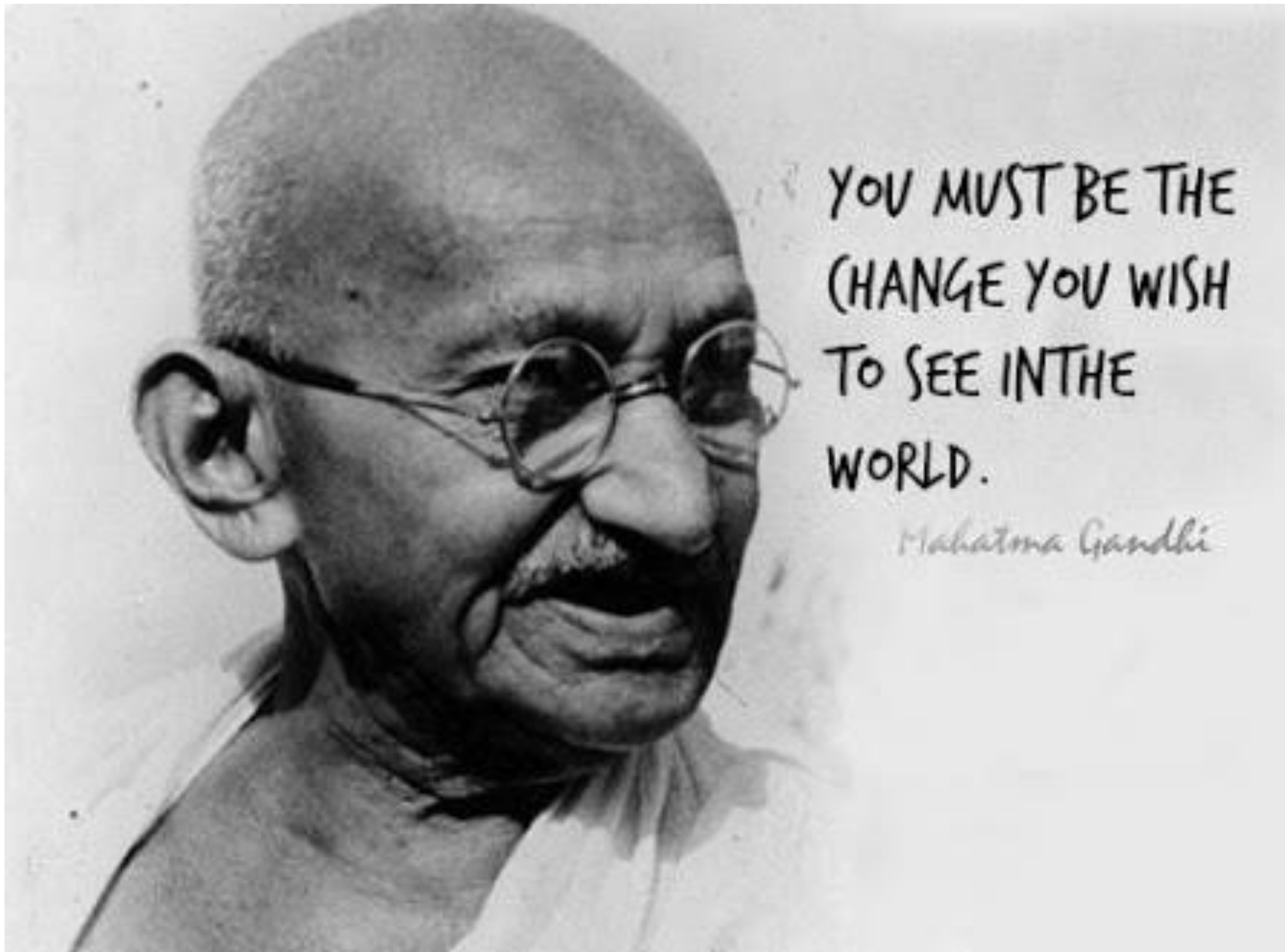


Saint-Petersburg

Russia

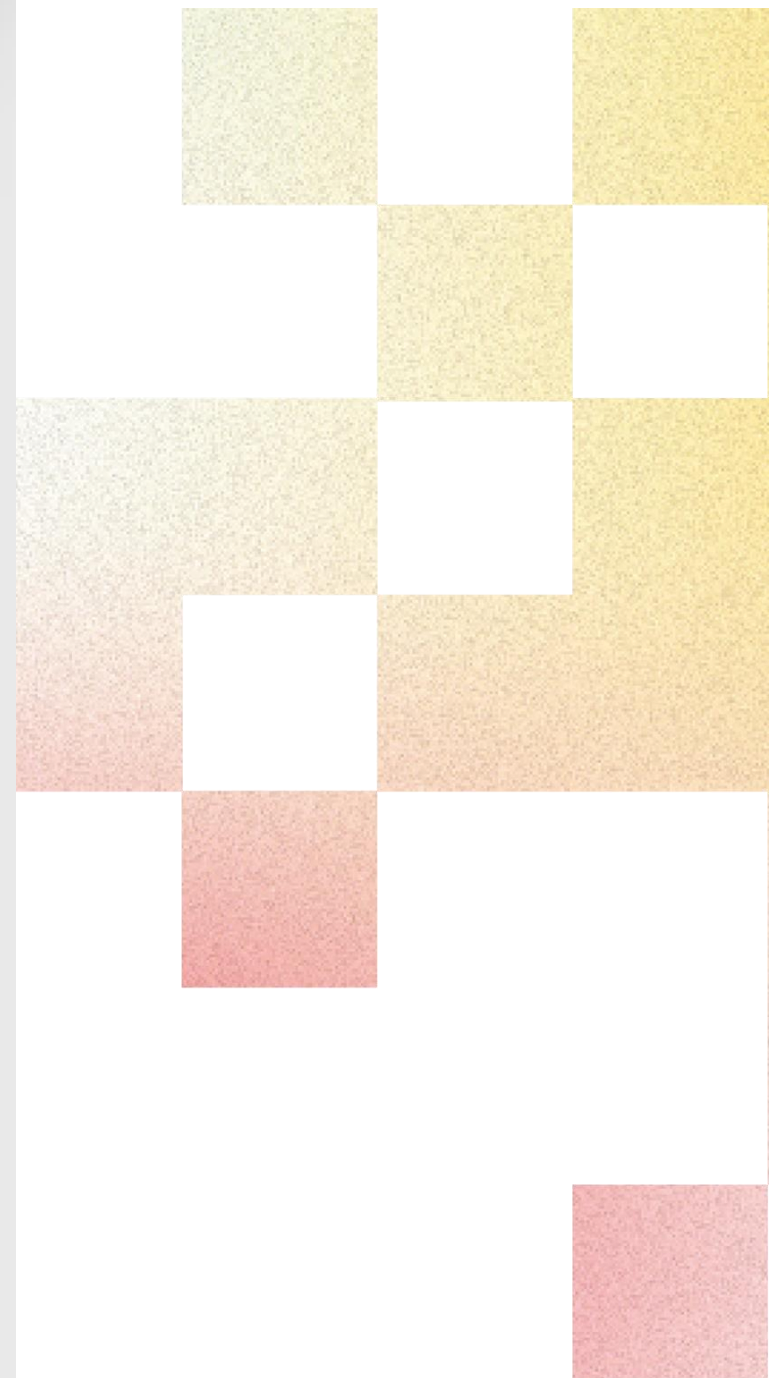
1986





YOU MUST BE THE
(CHANGE YOU WISH
TO SEE IN THE
WORLD.

Mahatma Gandhi



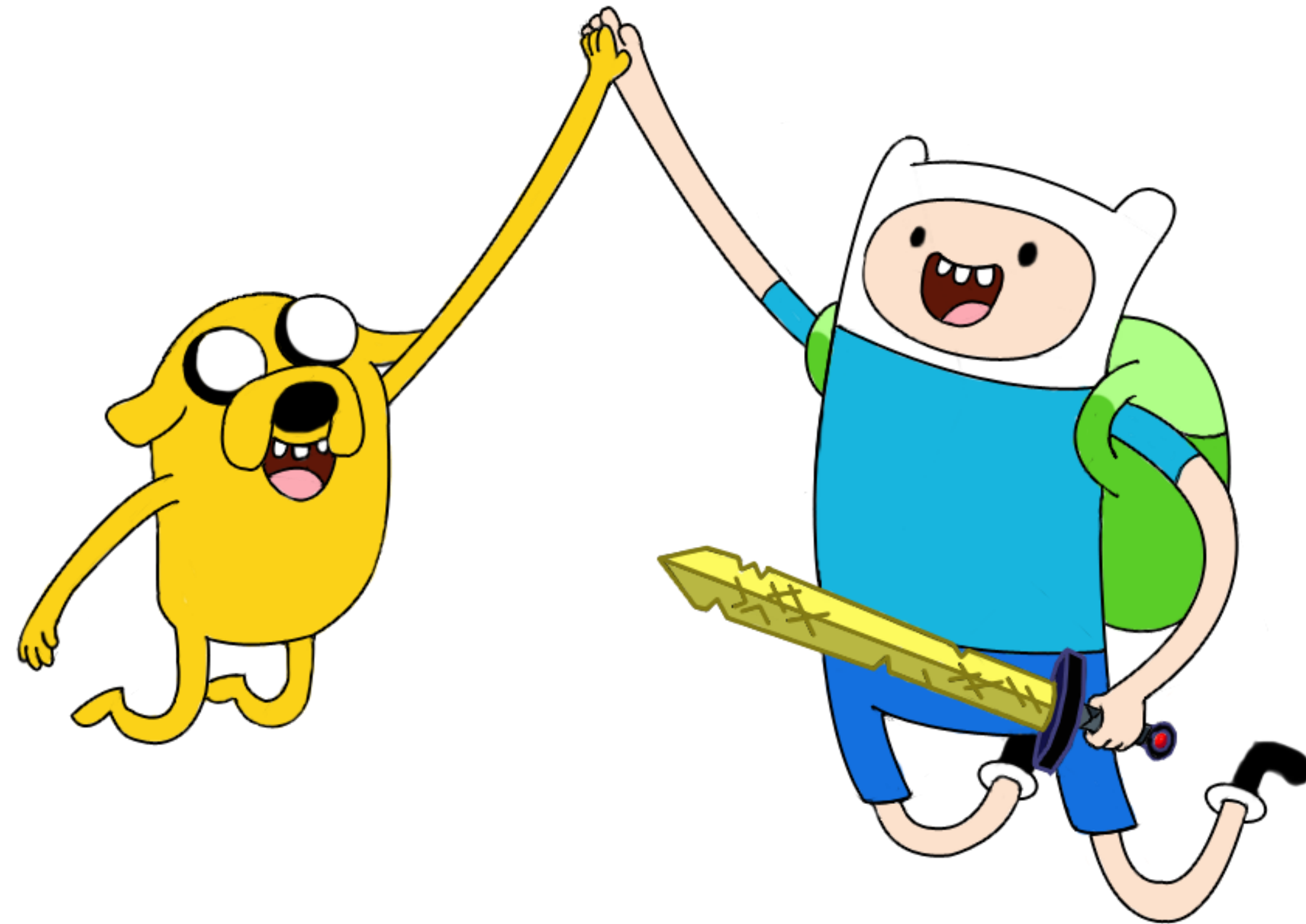
Today's product message

- Implementation costs are less important than having flexible system
- #MSDyn365BC is the last ERP to implement
- Not just ERP, but part of Microsoft Azure infrastructure
- Avoid customizations by using Azure services



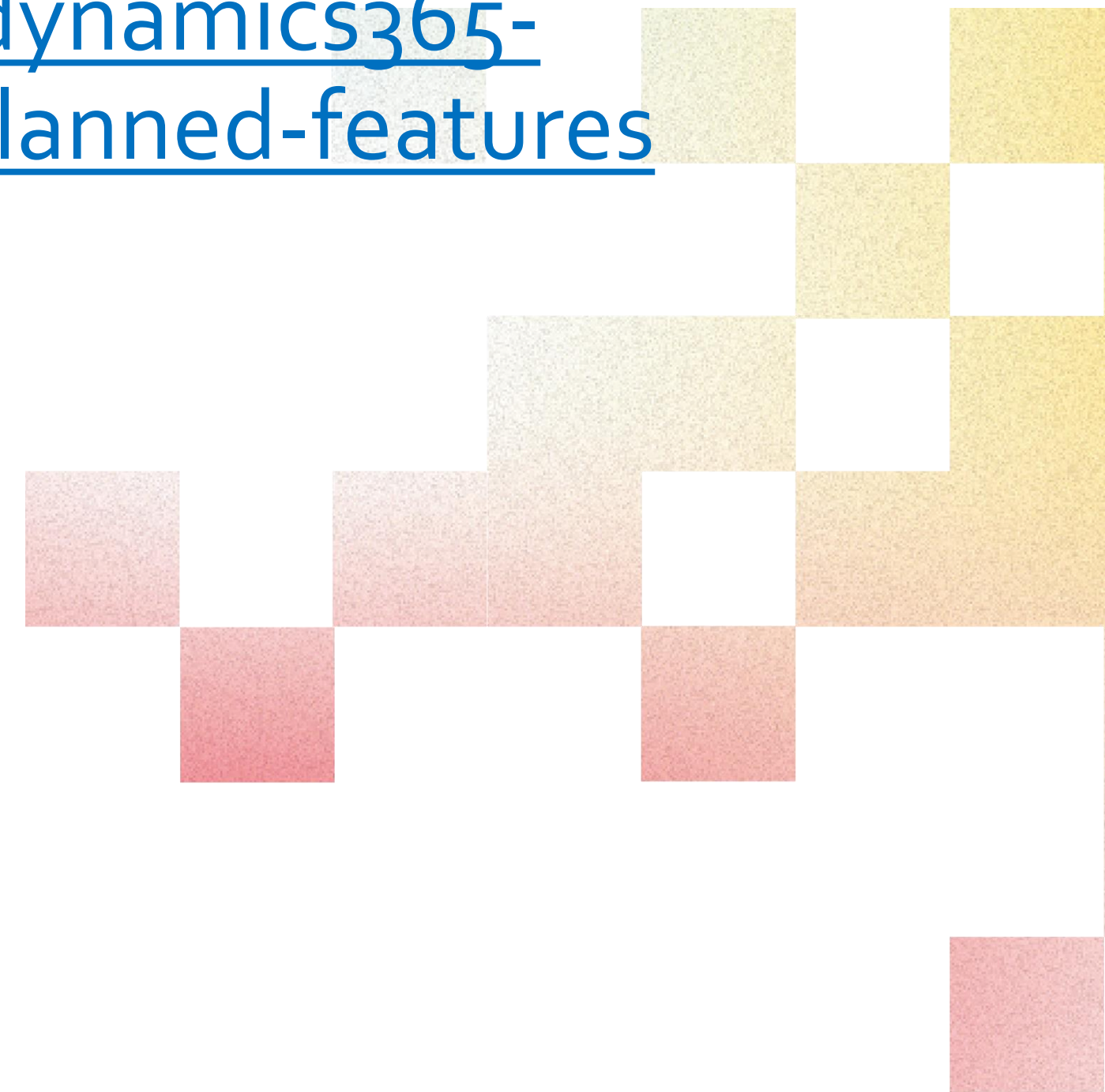


What makes #MSDyn365BC so great?



Functional legacy of 30+ years

<https://docs.microsoft.com/en-us/business-applications-release-notes/October18/dynamics365-business-central/planned-features>



What makes #MSDyn365BC so great?

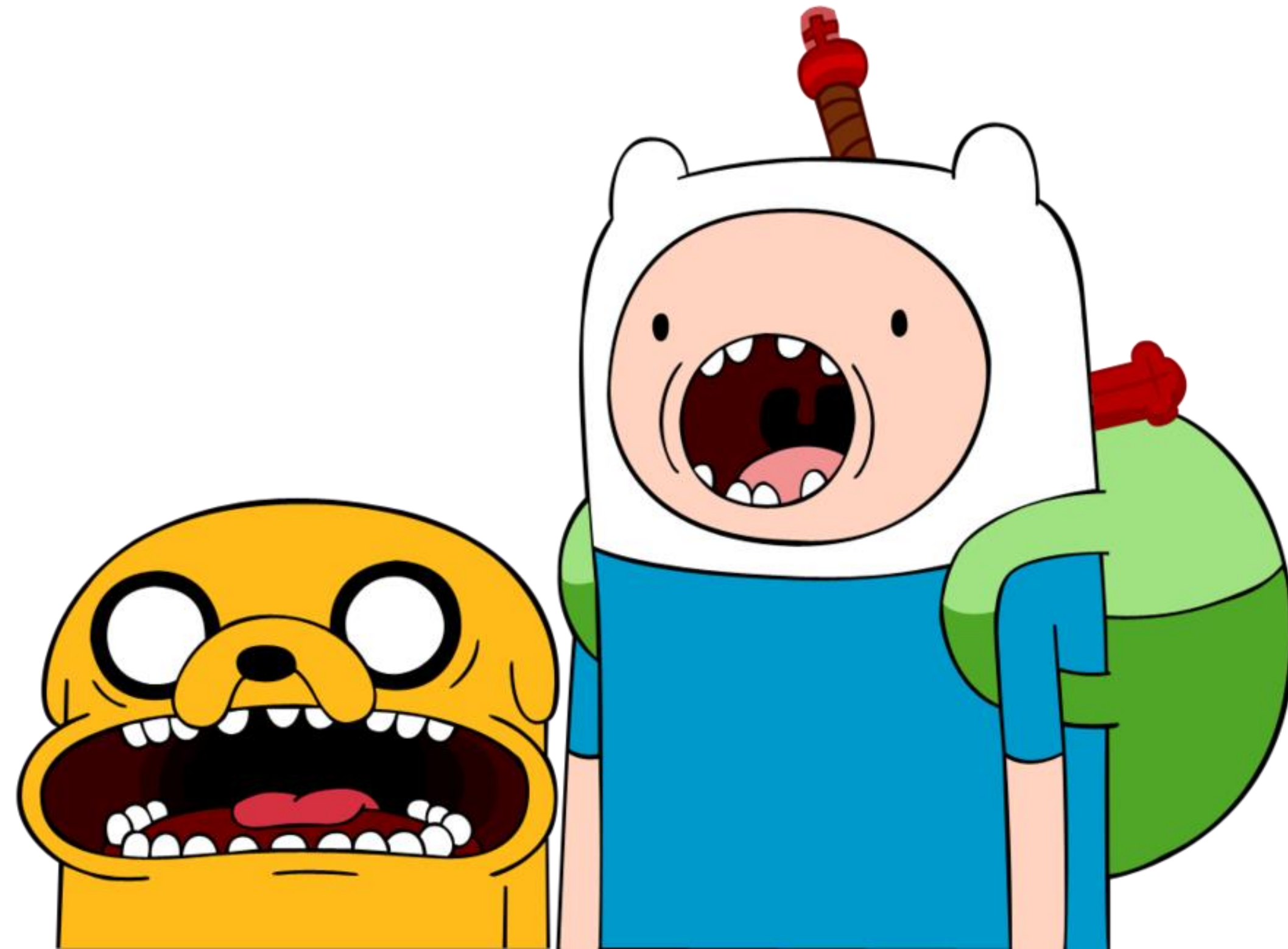


In Cloud, On-Premises

<https://docs.microsoft.com/en-us/business-applications-release-notes/October18/dynamics365-business-central>



What makes #MSDyn365BC so great?

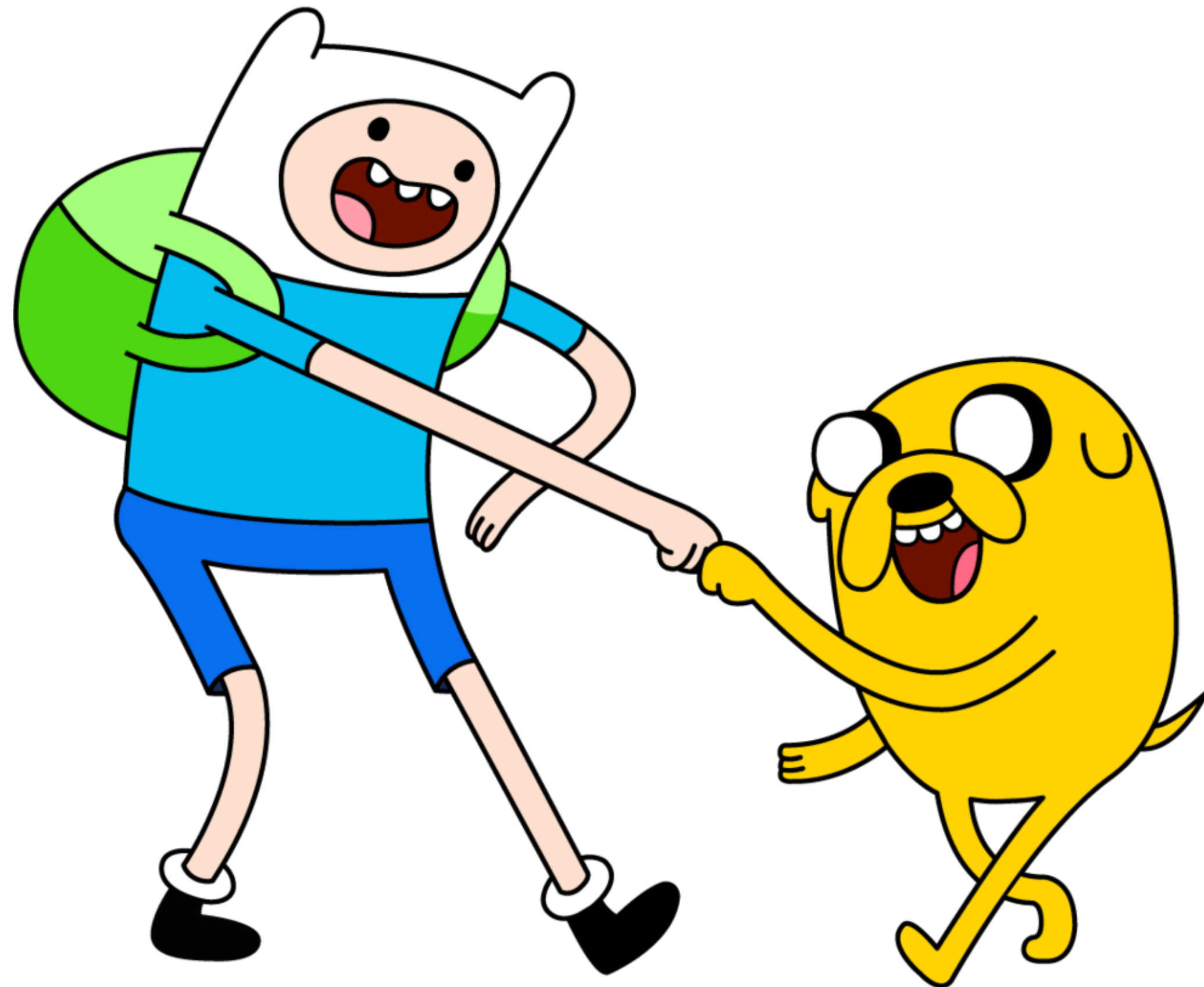


Licensing:
SaaS / Subscription / Perpetual

<https://docs.microsoft.com/en-us/dynamics365/business-central/dev-itpro/developer/readiness/readiness-welcome>



What makes #MSDyn365BC so great?

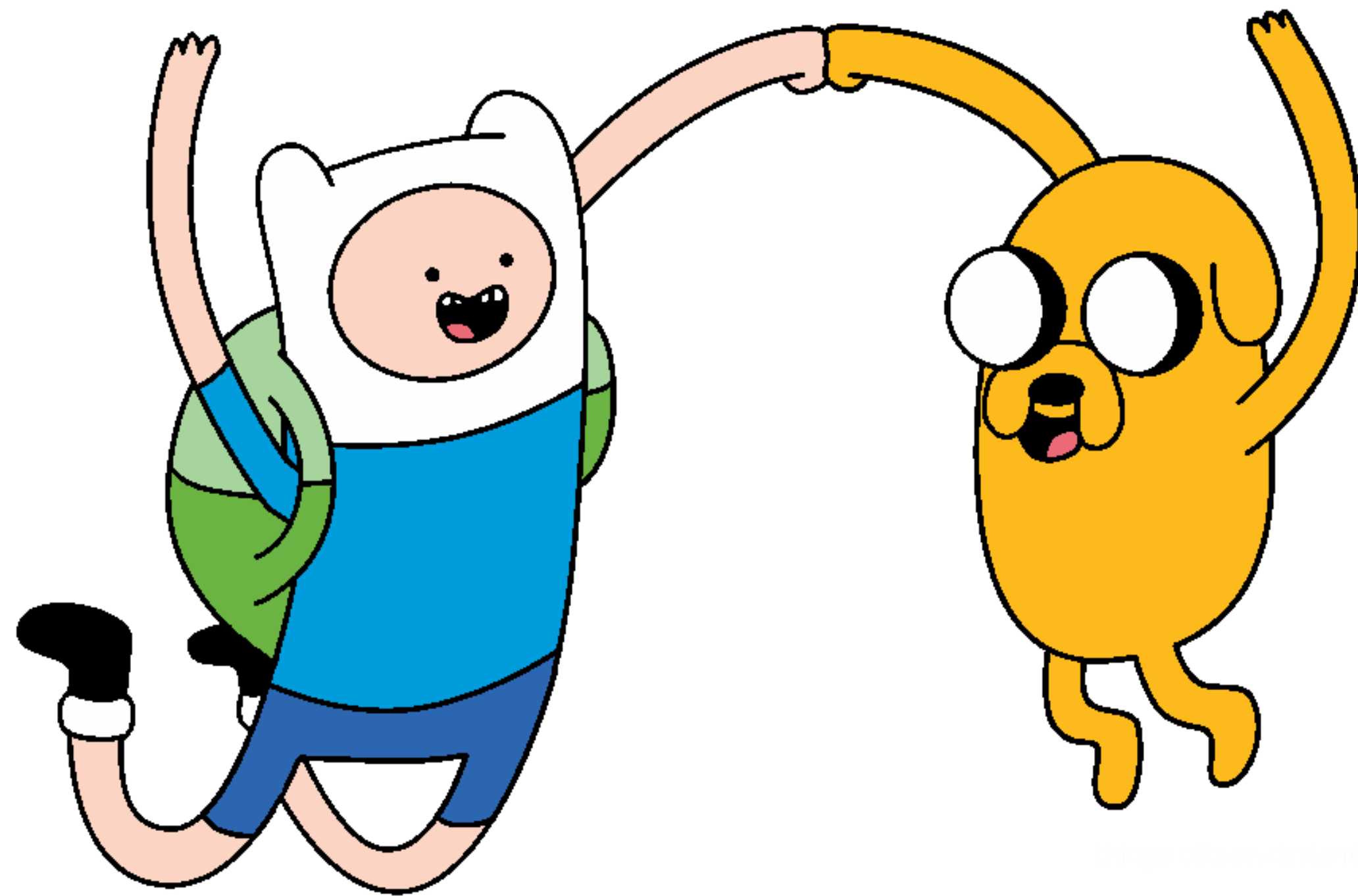


Web services and APIs

<https://docs.microsoft.com/en-us/dynamics365/business-central/across-how-publish-web-service>



What makes #MSDyn365BC so great?



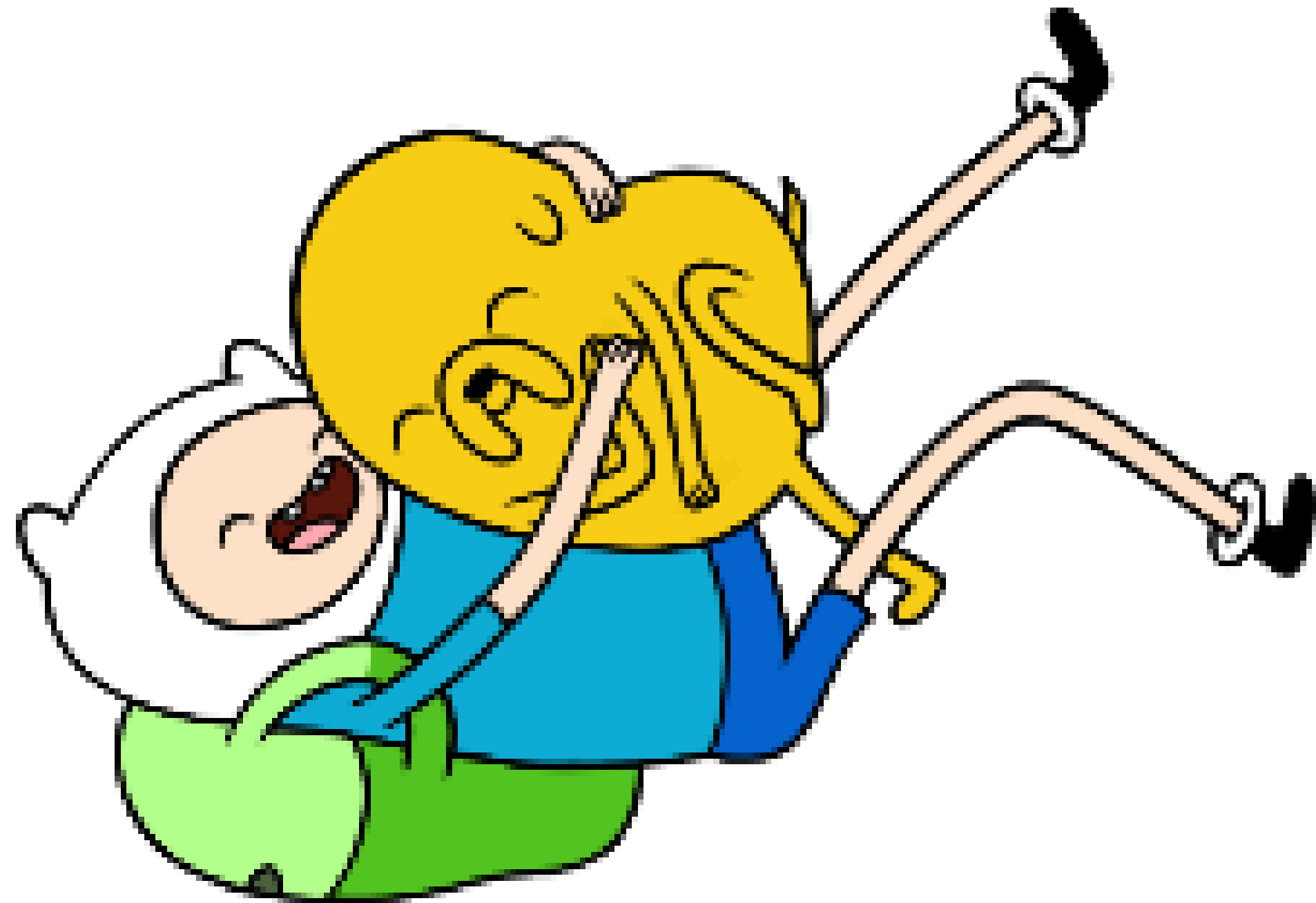
Add-on Apps and AppSource

An Add-on app extends the experience and the existing functionality of #MSDyn365BC
A Connect app can be used in the scenario where there must be established a point-to-point connection between #MSDyn365BC and a 3rd party solution or service

<https://appsource.microsoft.com>

<https://community.dynamics.com/nav/b/kats-onsnavblog/archive/2018/06/28/how-to-publish-your-business-central-app-on-appsource>

What makes #MSDyn365BC so great?



On Docker and Azure container,
frequent pre-builds

<https://community.dynamics.com/nav/b/andreysnavblog/archive/2018/06/01/business-central-installation-easy-as-1-2-3>

<https://github.com/Microsoft/navcontainerhelper>

<http://aka.ms/bcsandbox>

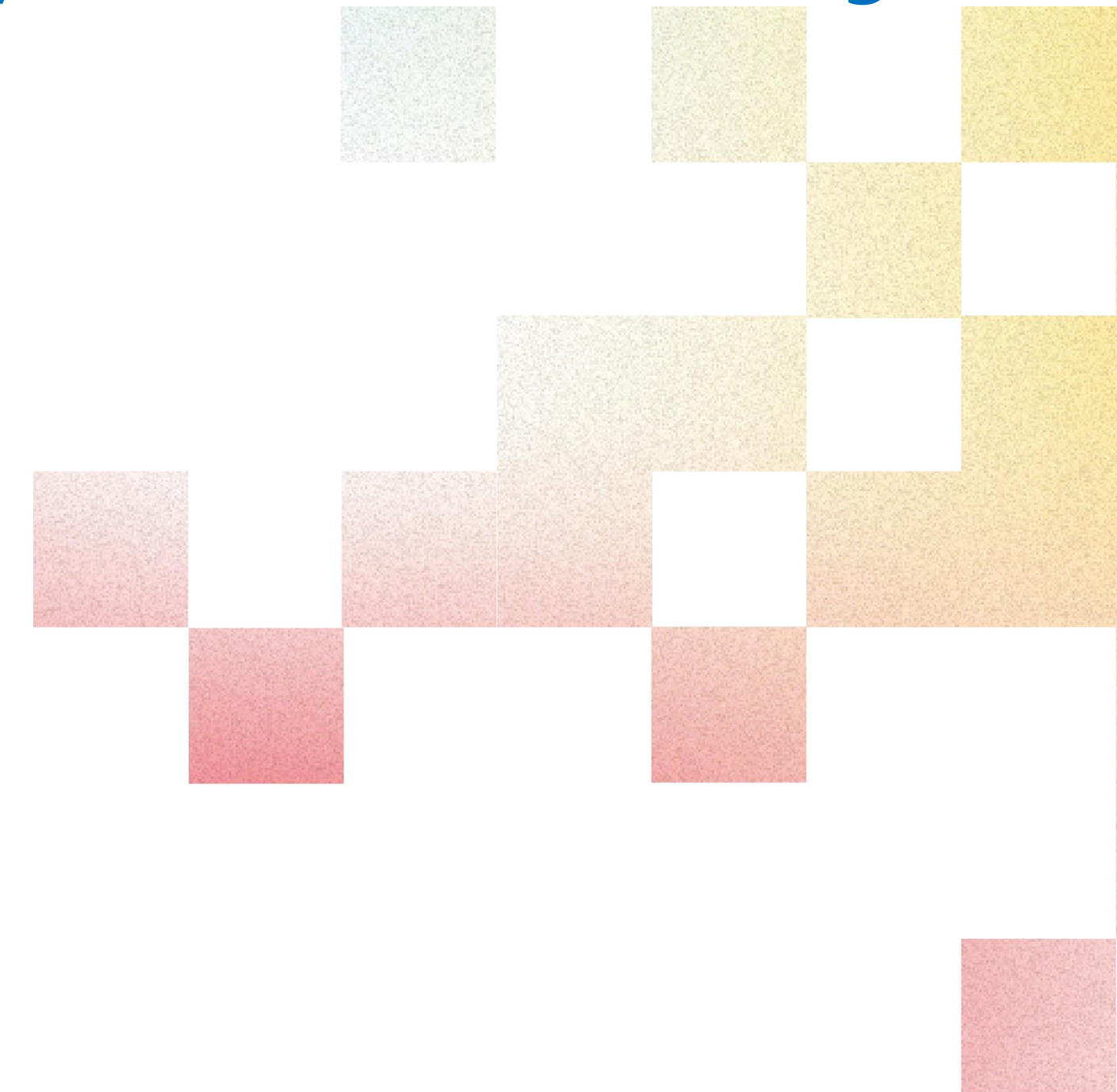
What makes #MSDyn365BC so great?



Extensions, AL and Visual Studio

<http://aka.ms/ReadytoGo>

<http://aka.ms/ReadytoGoOnlineLearning>



What makes #MSDyn365BC so great?

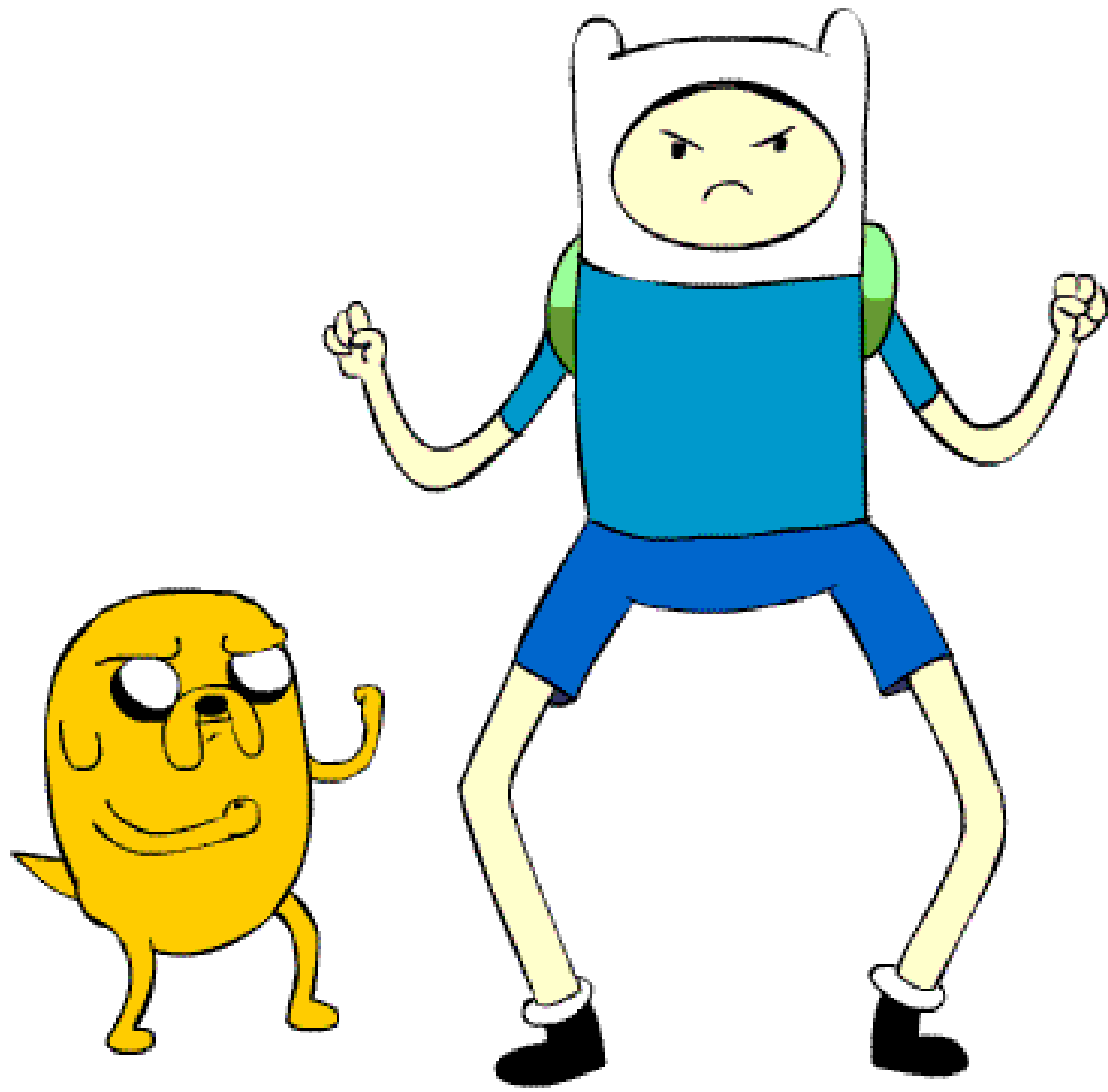


Community

<http://community.dynamics.com/business>



What makes #MSDyn365BC so great?

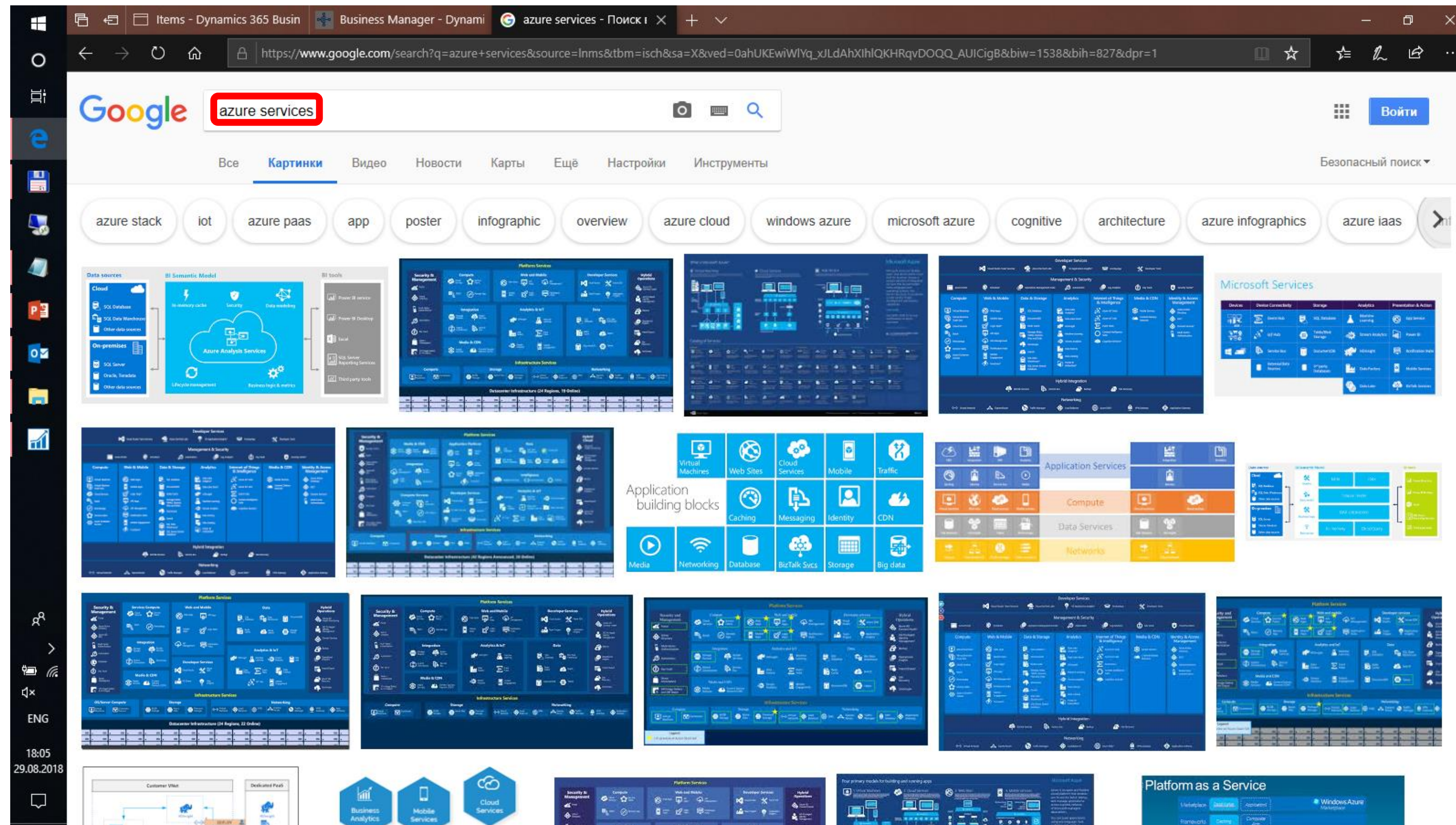


PART OF AZURE INFRASTRUCTURE (!!!)

<http://azure.microsoft.com>

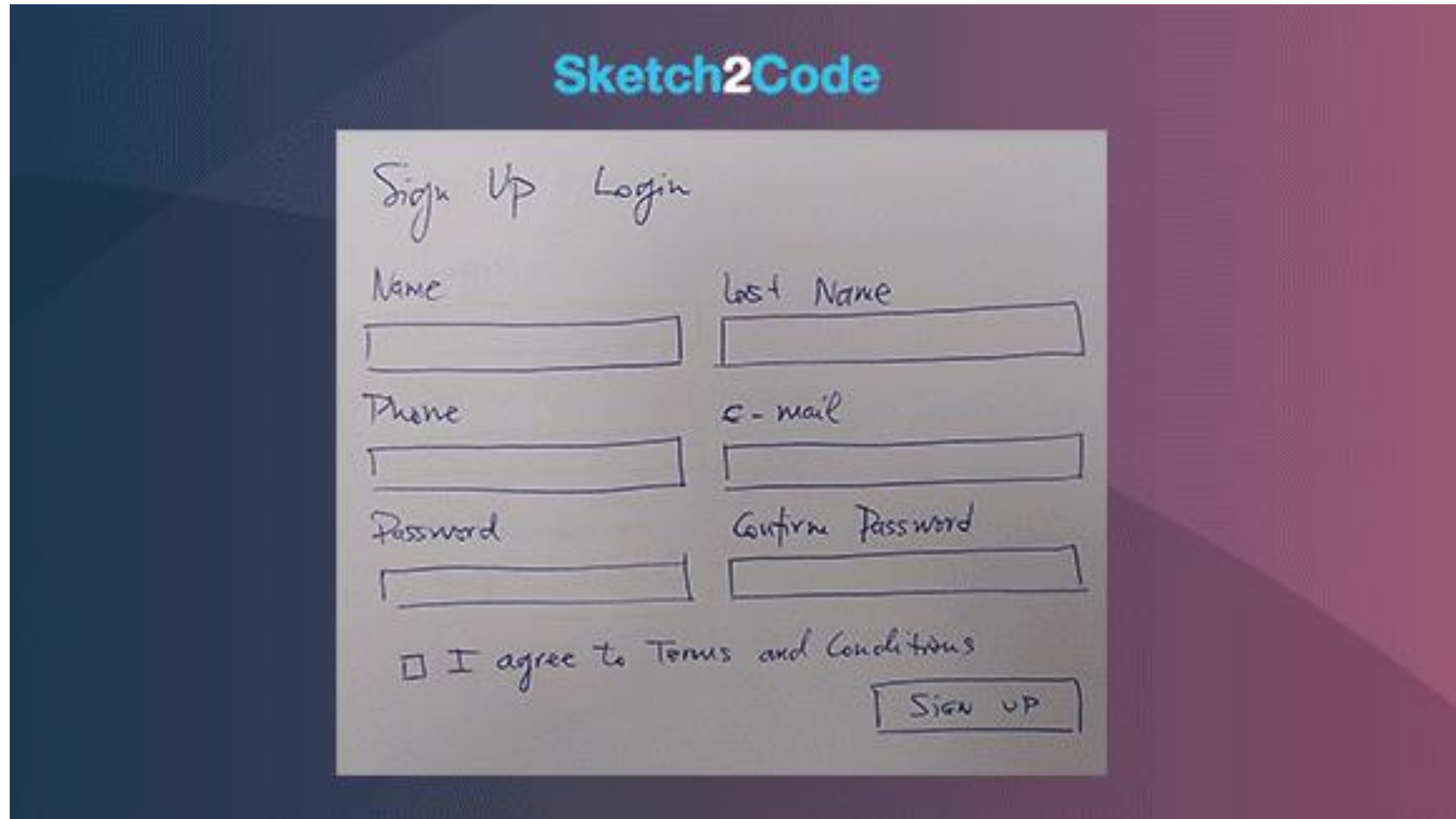


Microsoft ~~Fantastic Beasts~~ Azure services offered



Microsoft offers 100+ Azure services, constantly developing

Microsoft Sketch2Code



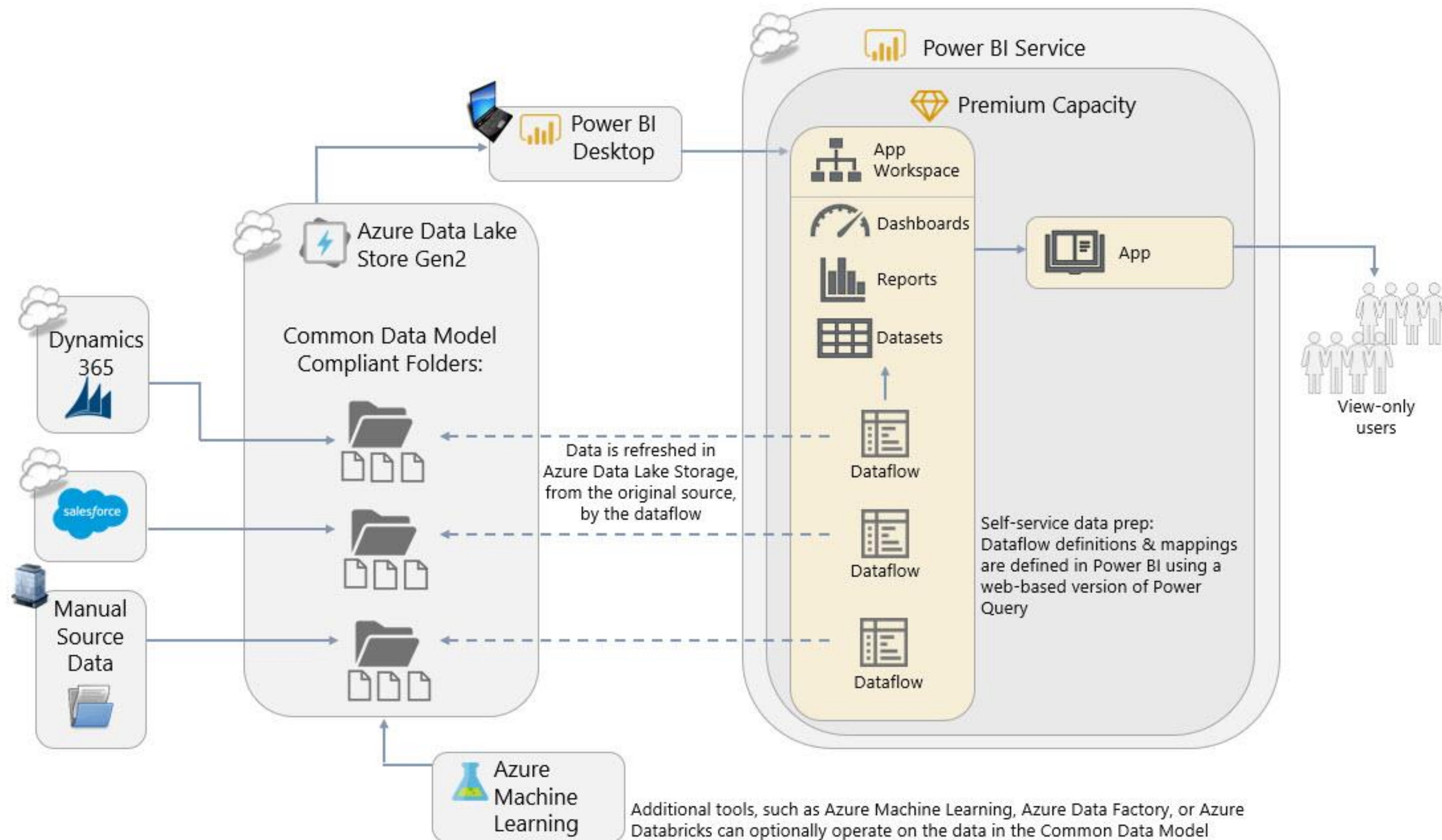
Transform any hands-drawn design into a HTML code with AI

Microsoft ~~Fantastic Beasts~~ Azure and Microsoft 365

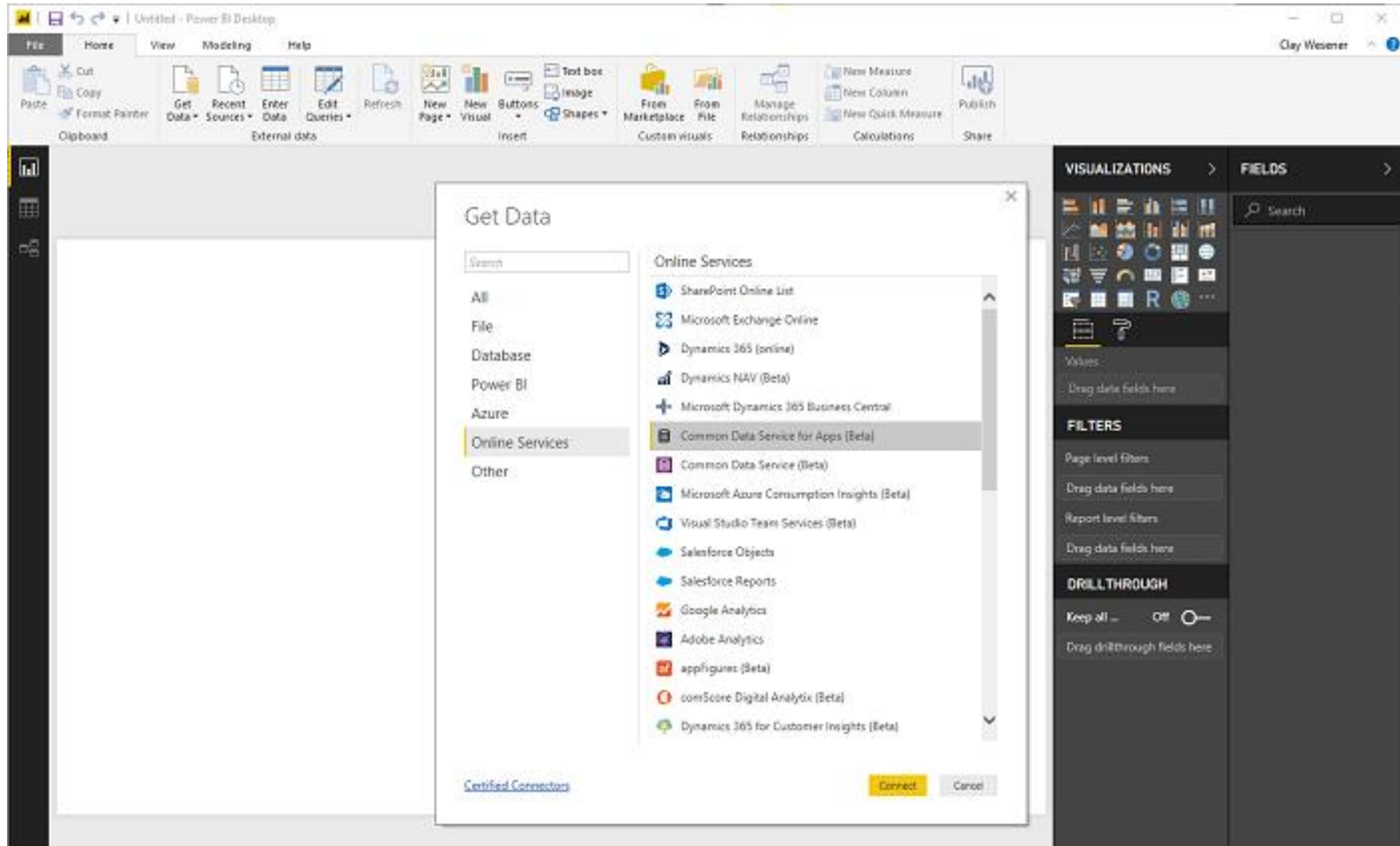


- Flow
- PowerApps
- Outlook
- Azure Service Bus
- Azure Data Lake
- Power BI

Power BI Dataflows, CDS



Power BI Dataflows, CDS



Power BI Dataflows, CDS

The screenshot shows the Power BI Desktop interface with the Navigator window open. The Navigator window displays the Common Data Model (CDM) loaded from a data source. The Account table is selected, and its data is displayed in a table view.

Account Table Data:

address1_city	address1_composite	address1_country
renton	5009 Orange Street Renton, TX 38875 U.S.	U.S.
dallas	100 Red Oak Lane Dallas, TX 28813 U.S.	U.S.

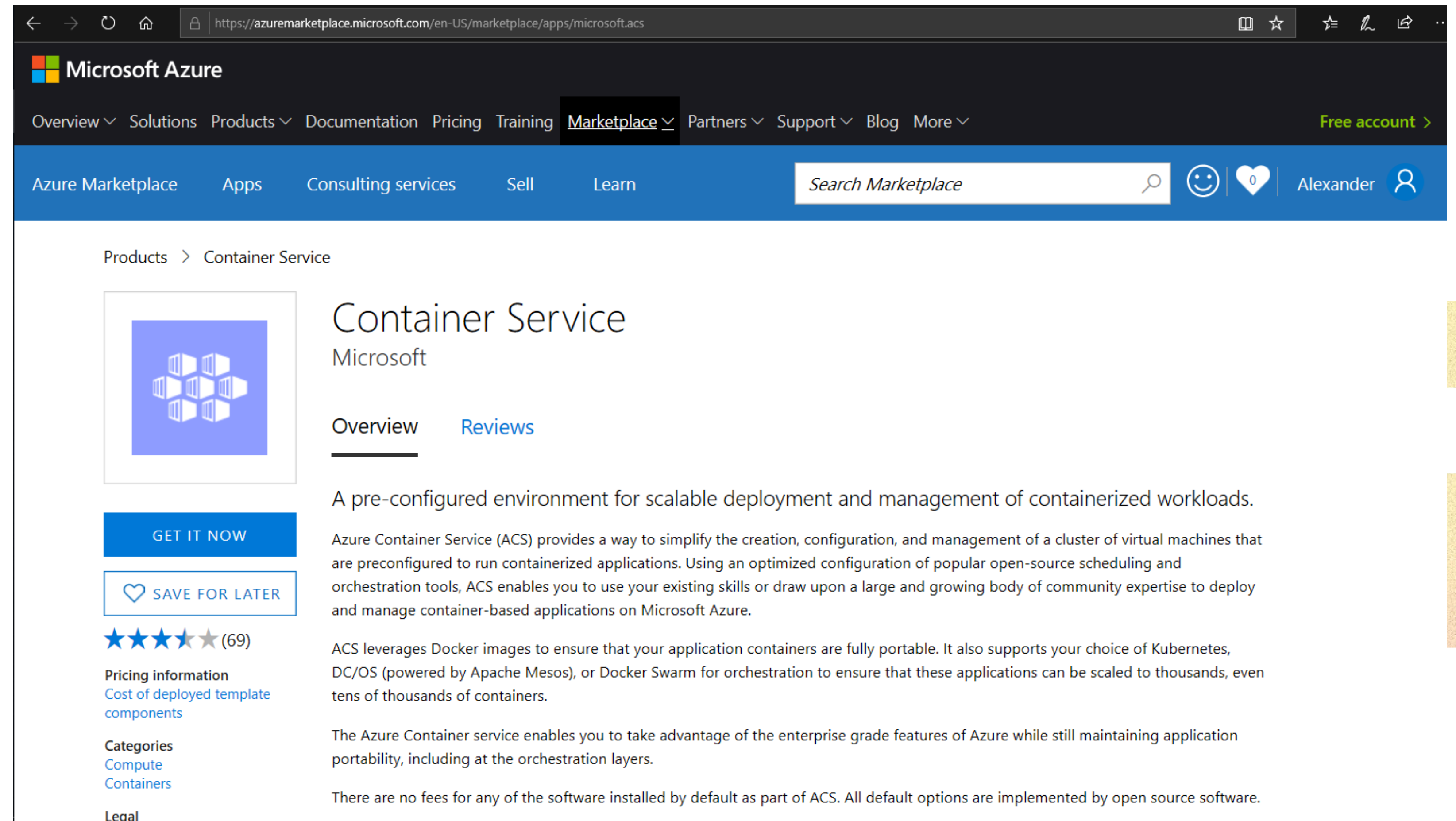


DEMO

Creation of fully serverless #MSDyn365BC in Azure container service
to exchange files though Blob storage

Azure Container Services

A pre-configured environment for scalable deployment and management of containerized workloads



The screenshot shows the Microsoft Azure Marketplace page for the 'Container Service' by Microsoft. The page is viewed in a web browser with the URL <https://azuremarketplace.microsoft.com/en-US/marketplace/apps/microsoft.acs>. The top navigation bar includes links for Overview, Solutions, Products, Documentation, Pricing, Training, Marketplace (active), Partners, Support, Blog, and More. A 'Free account' link is visible on the right. Below the navigation bar, the page is categorized under 'Products > Container Service'. The main content area features a large blue 'GET IT NOW' button and a 'SAVE FOR LATER' button with a heart icon. The product is rated with 4.5 stars (69 reviews). The 'Overview' tab is selected, showing a description of the service as a pre-configured environment for scalable deployment and management of containerized workloads. The description states that Azure Container Service (ACS) simplifies the creation, configuration, and management of a cluster of virtual machines that are preconfigured to run containerized applications. It also mentions that ACS leverages Docker images to ensure that application containers are fully portable and supports various orchestration tools like Kubernetes, DC/OS, and Docker Swarm. The page also includes links for 'Pricing information', 'Categories' (Compute, Containers), and 'Legal'.

Products > Container Service

Container Service

Microsoft

Overview [Reviews](#)

A pre-configured environment for scalable deployment and management of containerized workloads.

Azure Container Service (ACS) provides a way to simplify the creation, configuration, and management of a cluster of virtual machines that are preconfigured to run containerized applications. Using an optimized configuration of popular open-source scheduling and orchestration tools, ACS enables you to use your existing skills or draw upon a large and growing body of community expertise to deploy and manage container-based applications on Microsoft Azure.

ACS leverages Docker images to ensure that your application containers are fully portable. It also supports your choice of Kubernetes, DC/OS (powered by Apache Mesos), or Docker Swarm for orchestration to ensure that these applications can be scaled to thousands, even tens of thousands of containers.

The Azure Container service enables you to take advantage of the enterprise grade features of Azure while still maintaining application portability, including at the orchestration layers.

There are no fees for any of the software installed by default as part of ACS. All default options are implemented by open source software.

GET IT NOW

♡ SAVE FOR LATER

★★★★★ (69)

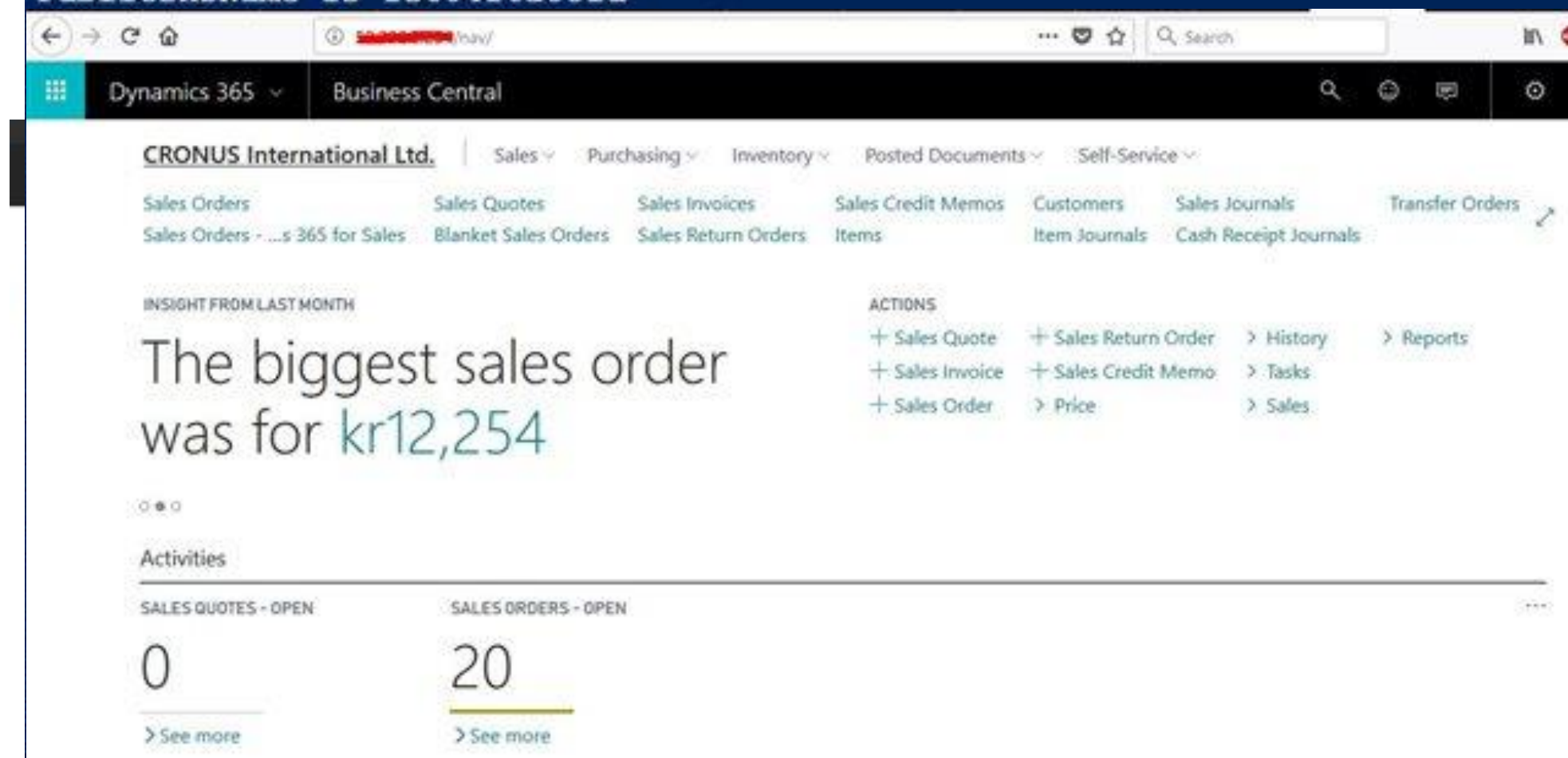
Pricing information
[Cost of deployed template components](#)

Categories
[Compute](#)
[Containers](#)

Legal

Creation of fully serverless #MSDyn365BC in Azure container service

```
PS Azure:\> az container logs --resource-group bc --name navbc
Initializing...
Starting Container
Hostname is 1e604f6a83fd
PublicDnsName is 1e604f6a83fd
```



```
NAV Admin Password : Dady2457
Dev. Server         : http://1e604f6a83fd
Dev. ServerInstance : NAV

Files:
http://1e604f6a83fd:8080/a1-0.15.18771.vsix
```

- Open Azure Portal and create new Resource Group
- Open Azure Cloud Shell and execute:
az container create --name bccont --image microsoft/bcsandbox --resource-group ntdcont --os-type Windows --cpu 2 --memory 3 --environment-variables ACCEPT_EULA=Y USESSL=N --ip-address public --port 80 443 7048 7049 8080
- Wait until status change from "Creating" to "Running" (~20 mins)
- Execute:
az container logs --resource-group bc --name navbc
- Open in browser link http://CONTAINER_IP/NAV and input NAV admin name and password

Exchange files through Blob storage

Scenario 1:

- Select file from #MSDyn365BC and store it in Azure Blog storage
- Get the reference link to the stored file
- Refer to the file out from #MSDyn365BC

Scenario 2:

- Enter the Item ID in #MSDyn365BC
- Enter the link to the image (picture URL)
- The image is uploaded to the item card





DEMO

Azure functions integration through http client

Azure Functions

Azure Functions provide a serverless development experience supporting a robust set of event triggers and data bindings

Web application backends, Mobile application backends, Real-time file processing, Real-time stream processing, Automation of scheduled tasks

A SaaS solution provides extensibility through webhooks, which can be implemented through Functions, to automate certain workflows

Functions are billed based on total number of requested executions each month for all functions

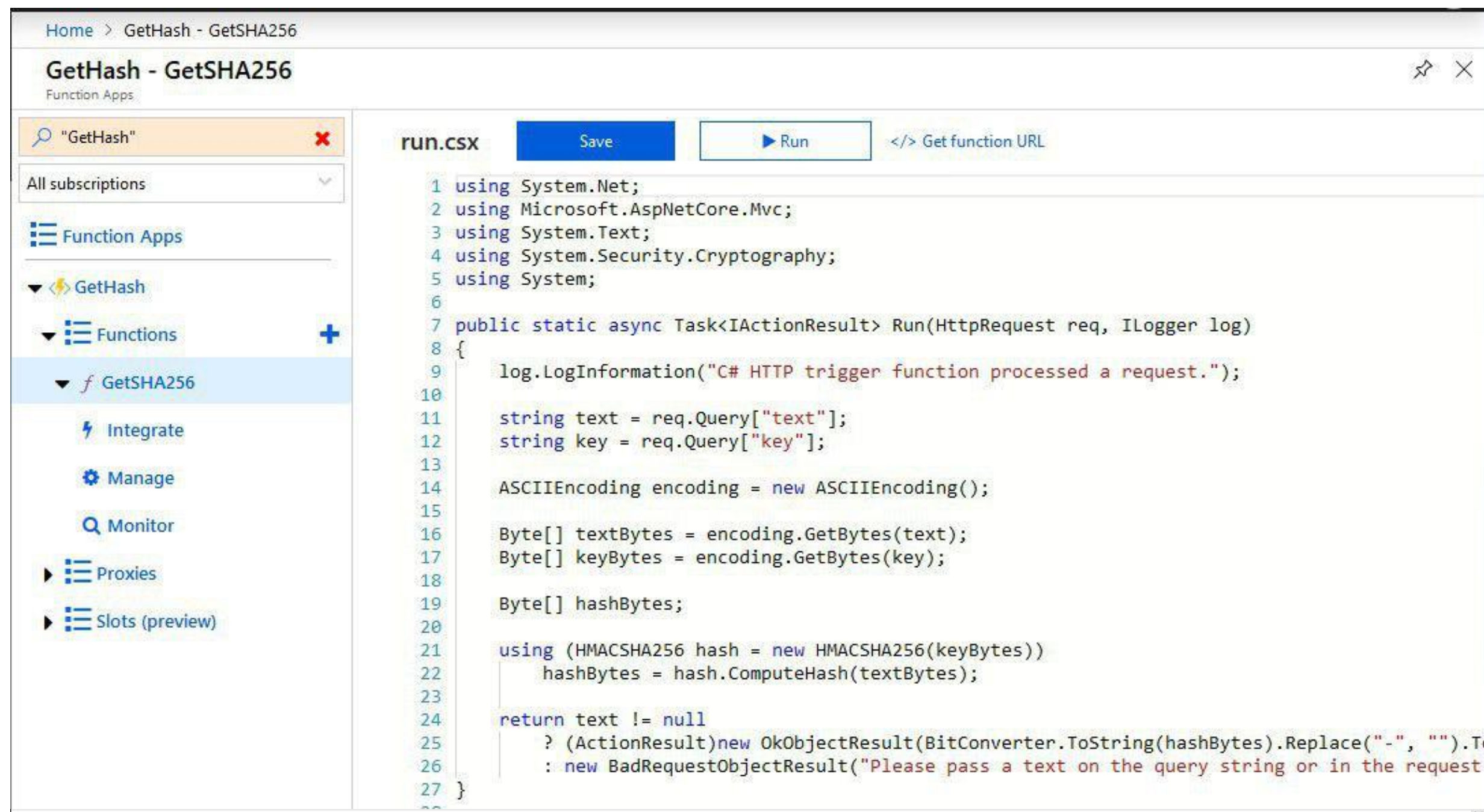
Azure functions integration through http client

Scenario:

- Fill in text data in #MSDyn365BC
- Pass this data to encrypting service that is run as Azure Function
- Receive the encrypted text data back to #MSDyn365BC



Azure functions integration through http client



The screenshot shows the Azure Functions portal interface for a function named 'GetSHA256'. The left sidebar displays the 'GetHash' function app with a tree view showing 'Functions' and 'GetSHA256'. The main area shows the 'run.csx' file with the following C# code:

```
1 using System.Net;
2 using Microsoft.AspNetCore.Mvc;
3 using System.Text;
4 using System.Security.Cryptography;
5 using System;
6
7 public static async Task<IActionResult> Run(HttpRequest req, ILogger log)
8 {
9     log.LogInformation("C# HTTP trigger function processed a request.");
10
11     string text = req.Query["text"];
12     string key = req.Query["key"];
13
14     ASCIIEncoding encoding = new ASCIIEncoding();
15
16     Byte[] textBytes = encoding.GetBytes(text);
17     Byte[] keyBytes = encoding.GetBytes(key);
18
19     Byte[] hashBytes;
20
21     using (HMACSHA256 hash = new HMACSHA256(keyBytes))
22     {
23         hashBytes = hash.ComputeHash(textBytes);
24     }
25
26     return text != null
27         ? (ActionResult)new OkObjectResult(BitConverter.ToString(hashBytes).Replace("-", ""))
28         : new BadRequestObjectResult("Please pass a text on the query string or in the request");
29 }
```

- Create a {Function App} in Azure
- Create a function of "http trigger" type, select c# code
- Write our .NET code
- Create a page in #MSDyn365BC and use our Azure function by passing request and key to it
- Function processes the request and returns encrypted values



DEMO

Microsoft Bot Framework integration for Q&A user questions
inside #MSDyn365BC

Microsoft Bot Framework integration for Q&A user questions inside #MSDyn365BC

The screenshot shows the Microsoft QnA Maker website. At the top, there's a navigation bar with links: QnA Maker, My knowledge bases, Create a knowledge base, Documentation, and Feedback. Below this, a blue banner features the text "From FAQ to Bot in minutes." and a subtext "Build, train and publish a simple question and answer bot based on FAQ URLs, structured documents, product manuals or editorial content in minutes." with a "GET STARTED >" button. To the right of the text is a diagram showing three document icons on the left, a large blue arrow pointing right, and a chatbot interface on the right. The chatbot interface shows a user asking "What are your hours today?" and the bot replying "Today we are open from 7:00 AM to 10:00 PM." followed by another user question "Do you have vegetarian options?" and a bot reply "Yes, we have vegetarian options available."

Microsoft

QnA Maker My knowledge bases Create a knowledge base Documentation Feedback

Looking for your Preview knowledge bases? Find them [here](#).

From FAQ to Bot in minutes.

Build, train and publish a simple question and answer bot based on FAQ URLs, structured documents, product manuals or editorial content in minutes.

[GET STARTED >](#)

Build, train and publish a simple question and answer bot based on FAQ URLs, structured documents, product manuals or editorial content in minutes

<https://www.qnamaker.ai>



DEMO

Integration of #MSDyn365BC with Machine Learning

Integration of #MSDyn365BC with Machine Learning

Scenario:

- Create contact for the company
- Extend contact card properties
- Fill in contact card properties
- Upload photo
- Get prediction from ML if the annual income is >50,000 USD



Integration with #ML

CT000006 - Meagan Bond

Dynamics 365

HOME ACTIONS

HOME

Robert Townes	robert.townes@contoso.com	PS
Alpine Ski House	alpine.ski.house@contoso.com	PS
Ian Deberry		
Fabrikam, Inc.	4255550101	
Krystal York	4255550101	
First Up Consultants		
Evan McIntosh		
Graphic Design Institute	graphic.design.institute@contoso.com	RL
Bryce Jasso	bryce.jasso@contoso.com	RL
Nod Publishers	nod.publishers@contoso.com	RL
Raymond Hillard	raymond.hillard@contoso.com	RL
Relecloud	relecloud@contoso.com	PS
Jesse Homer	jesse.homer@contoso.com	PS
School of Fine Art	school.of.fine.art@contoso.com	PS
Meagan Bond	meagan.bond@contoso.com	PS

For Meagan Bond Prediction is >50K, probability 0.79096657037735

OK

Answer	...	Married-civ-spouse	<input checked="" type="checkbox"/>
Answer	...	Divorced	<input type="checkbox"/>
Question	...	Educational level	<input type="checkbox"/>
Answer	...	Masters	<input type="checkbox"/>
Answer	...	Bachelors	<input type="checkbox"/>
Answer	...	Doctorate	<input checked="" type="checkbox"/>
Answer	...	11th	<input type="checkbox"/>
Answer	...	9th	<input type="checkbox"/>

ANSWER

Close

PUBLISH TO GALLERY

- Complete Predictive Experiment in Azure Machine Learning Studio
- Get Service API key after execution
- Get Request URL
- Normalize request
- Prepare Contact Card
- Add more parameters to Contact Card
- Create code for integration with ML Studio
- Run the result



DEMO

IoT devices integration with #MSDyn365BC functionality



DEMO

Voice control over #MSDyn365BC

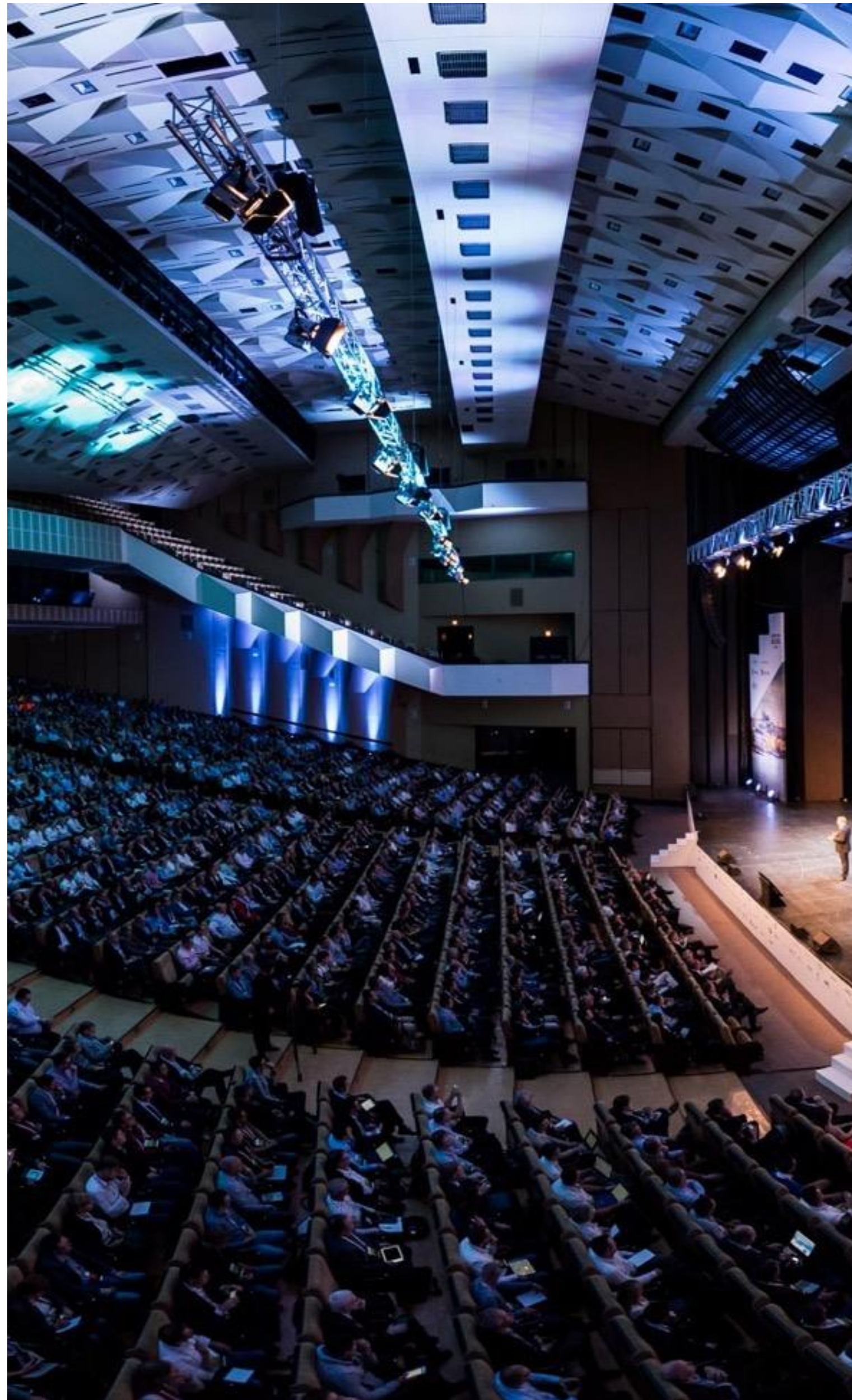
Homework

Create Azure Function that would post #MSDyn365BC sales invoice using the data received from Azure Speech to Text service.

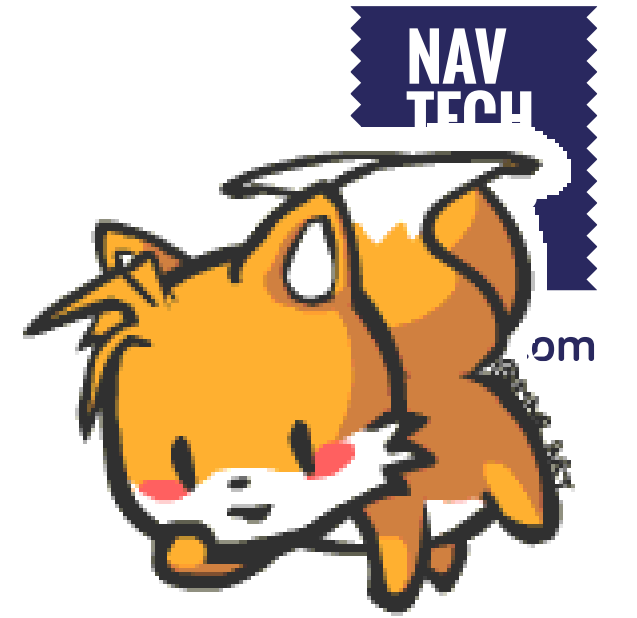
(Speech to Text: Swiftly converts audio to text for natural responsiveness. The Speech to Text API is part of the Speech services)

Record a video of that thing working and send to alexander.ermakov@awara-it.com

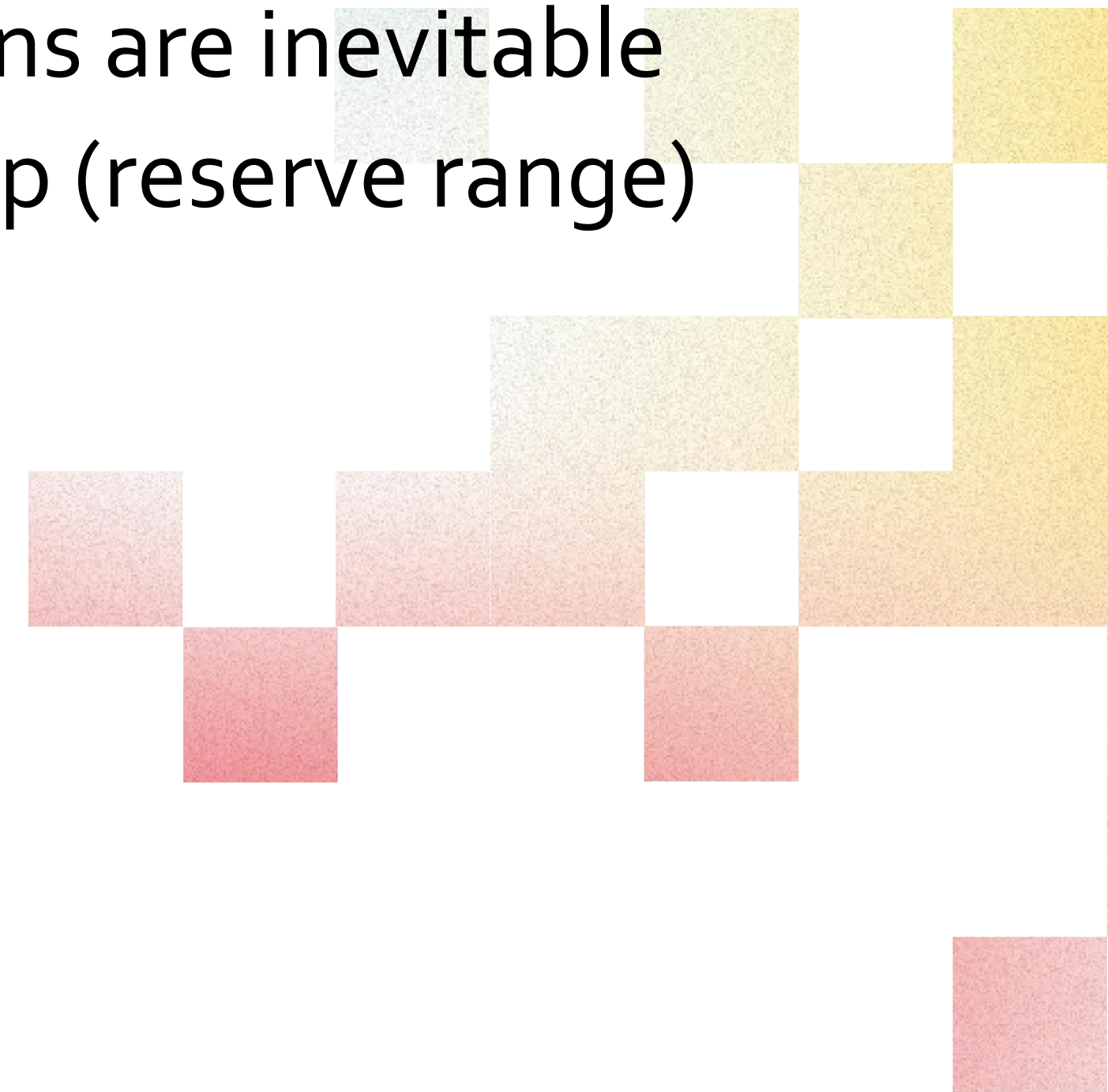
For first three, I'll ship you back the Arduino device with set of sensors.



Summary recommendations



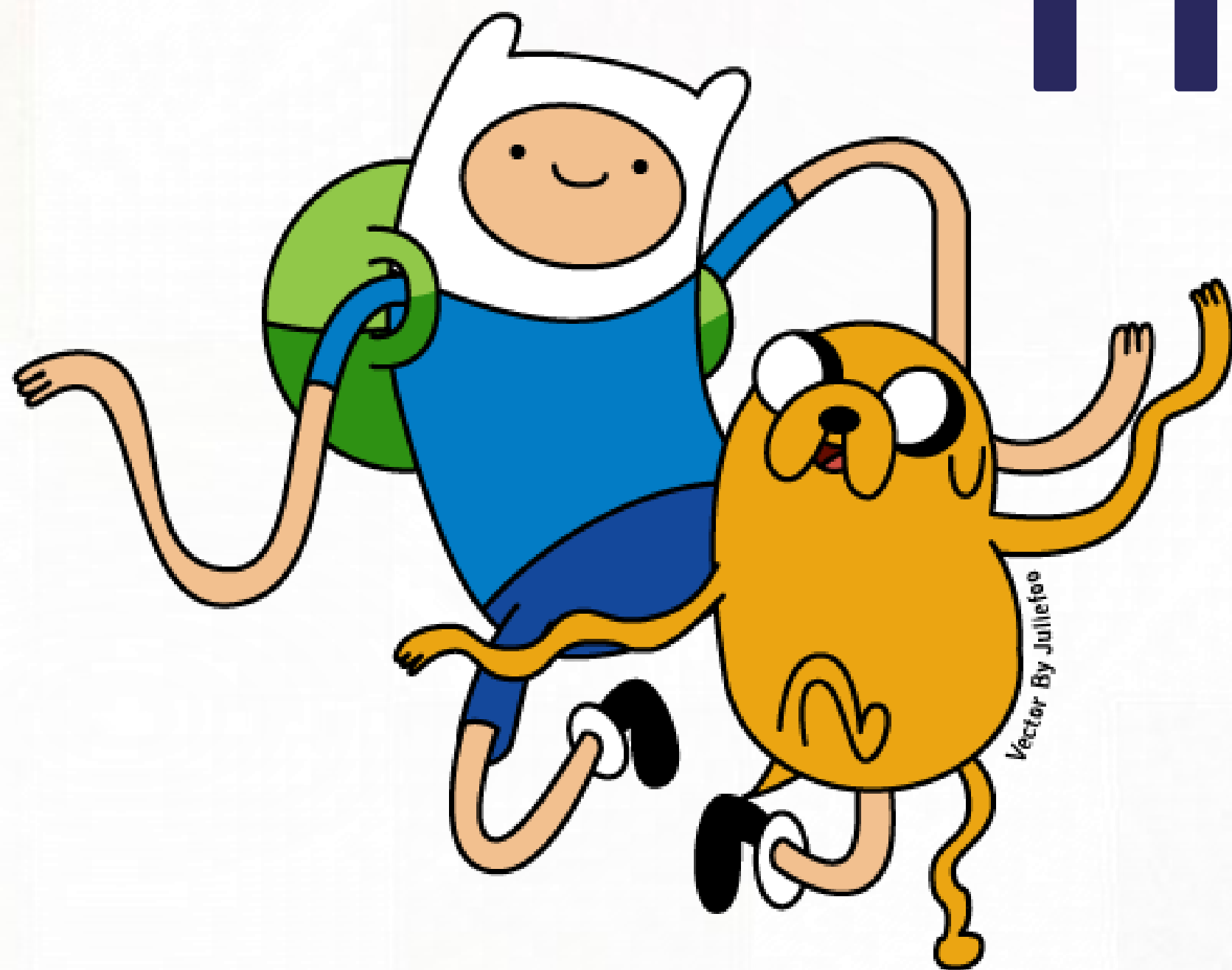
- Avoid customizations
- Use Azure services instead of customizations
- Use Extensions if customizations are inevitable
- Customize aiming to create App (reserve range)
- Publish Apps in AppSource



Any Questions?



THANK YOU



Vector By Juliette