DATA COMMUNITY
UNITED FOR UKRAINE

♡ COME BACK ALIVE

15 SEPTEMBER

9 PM Kyiv
7 PM London
2 PM New York
11 AM San Francisco

CHARITY MARATHON

# "Power Apps + on-premises data gateway"


**Ricardo Cabral**

Microsoft Certified Trainer (MCT), Technical Engineer, IT Consultant, IT trainer, IT PRO, Speaker.

# Data Community – United for Ukraine

Staying with Ukraine

www.datacommunityunited.com

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# Come Back Alive

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**Donations for:**

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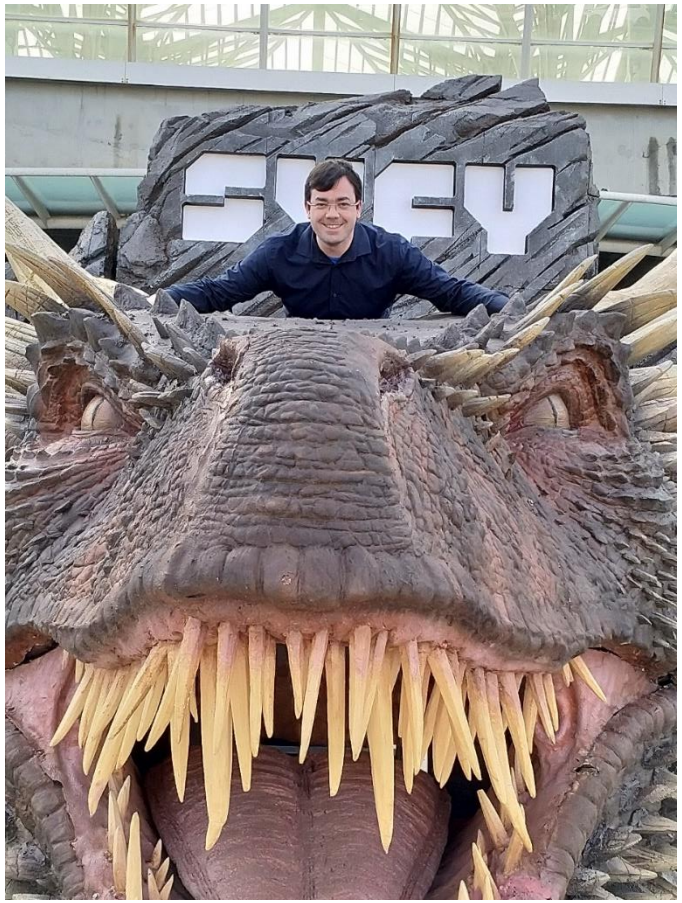
# Speaker Bio

- Ricardo Cabral
- From Portugal
- Technical Consultant and Microsoft Certified Trainer
- Independent  Contractor
- I also participate, volunteer and speak at community meetings.
- Hobbies
  - Coding
  - Cinema
  - Learning



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Microsoft Power Platform

**Power Apps**
Application development

**Power Automate**
Workflow automation

**Power BI**
Business analytics

**Power Pages**
Web App Development

**Power Virtual Agents**
Intelligent virtual agents

**Dataverse**

**AI Builder**

**Power Fx**

# What is Power Apps

- Build custom business apps using low code tools
- This mean no code?
  - NO, but doesn't require a lot of manual coding
- This is not a replacement for professional developer tool
- It exists since 2015 originally from Project Siena (Windows 8.1 App with "zero" Lines of Code)

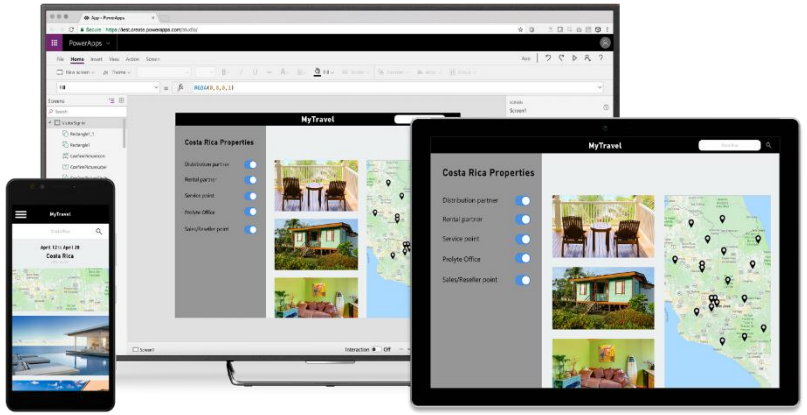
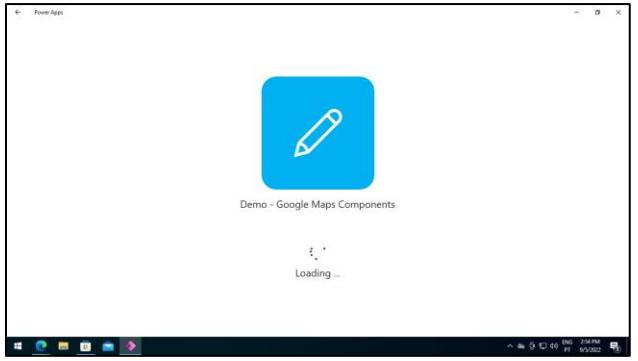
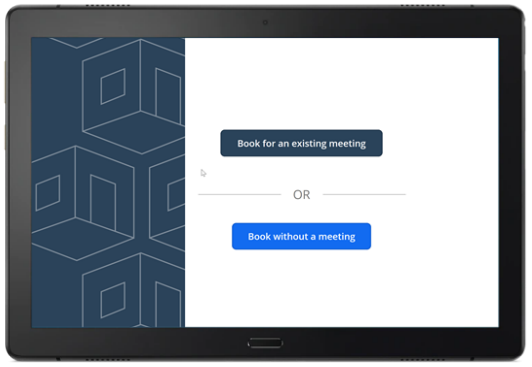


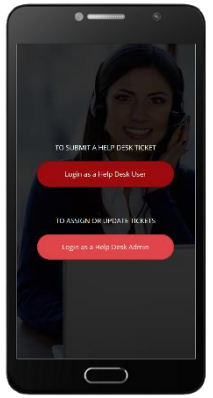

Image from Microsoft

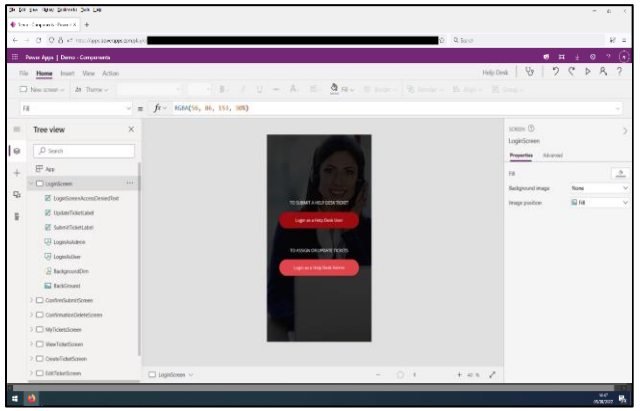
# What type of app can you build

| | Canvas App |
|---|---|
| **How to access** | Desktop, Web (MS 365) and mobile |
| **Design experience** | WYSIWYG editor using drag-and-dropping and manipulation of control properties using Power Fx expressions |
| **End user experience** | WYSIWYG (“wiz-zee-wig”)<br>What You See Is What You Get |
| **Speed of creation** | Some complexity<br>(full customization) |
| **Responsive** | NO. Fixed landscape or portrait orientation |
| **Data sources** | Dataverse or connectors |
| **Can use Data Gateways** | Yes |
| **Type of end users** | Internal and guest (Azure AD) |



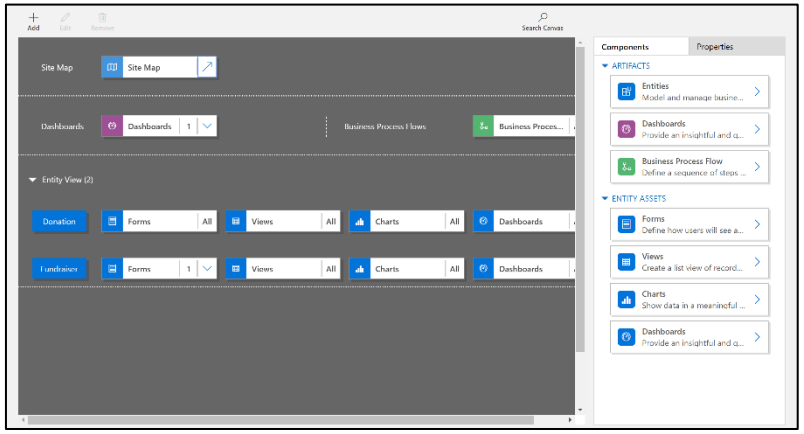



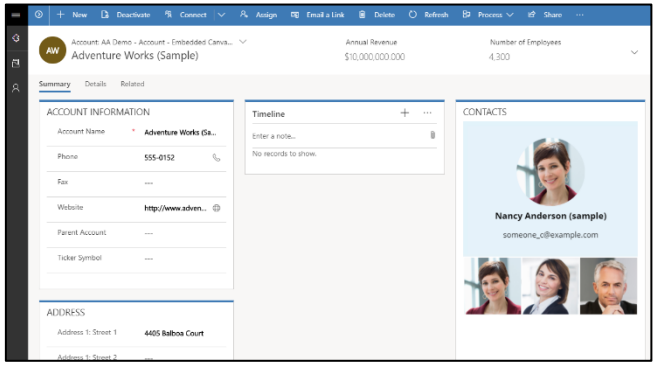


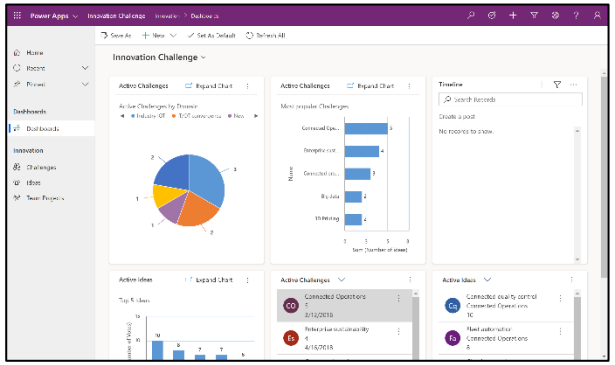
Images from Microsoft

# What type of app can you build

| | Model-Driven App |
|---|---|
| How to access | Web<br>(Microsoft 365) |
| Design experience | Focused design and table views, chats, dashboards, forms and custom pages from Dataverse |
| End user experience | Dashboard with multiple views, forms and charts |
| Speed of creation | Rapid<br>(limited customization) |
| Responsive | HTML5 responsive |
| Data sources | Dataverse only |
| Type of end users | Internal |



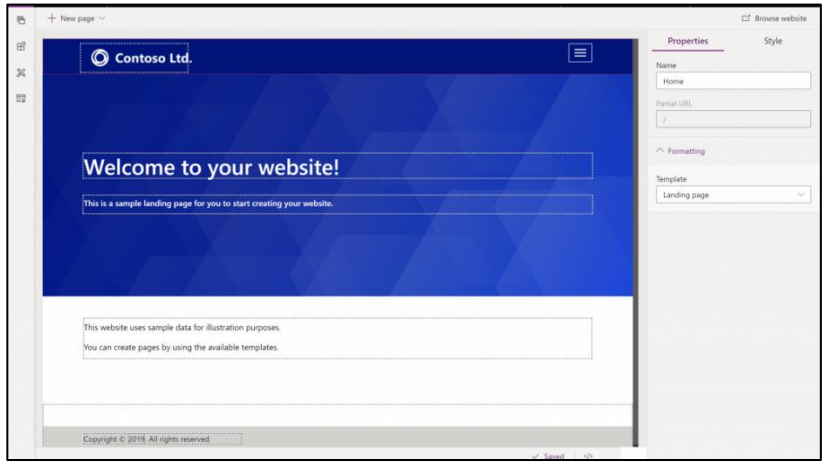



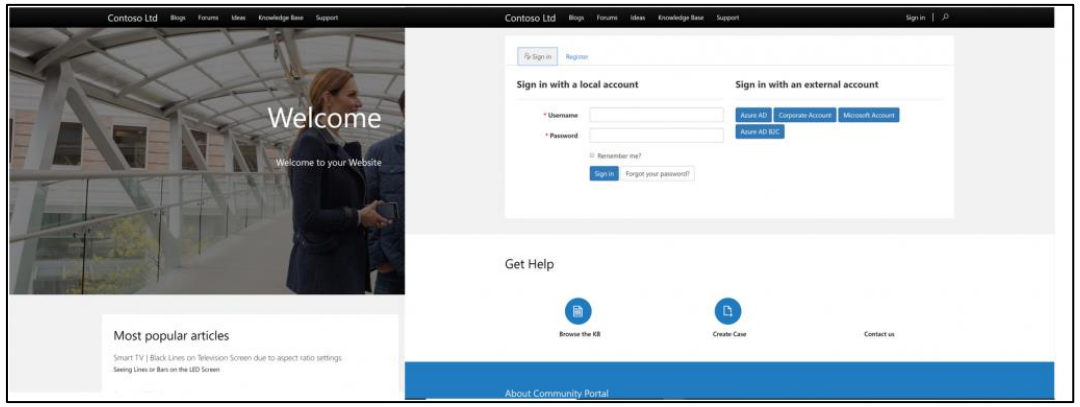




Images from Microsoft

# What type of app can you build

| | Website |
|---|---|
| **How to access** | Web<br>(Internet domain) |
| **Design experience** | WYSIWYG editor using Dataverse functionalities, pages, layout, and content |
| **End user experience** | WYSIWYG (“wiz-zee-wig”)<br>What You See Is What You Get |
| **Speed of creation** | Medium (Require HTML knowledge, authentication providers and others) |
| **Responsive** | HTML5 responsive |
| **Data sources** | Dataverse only |
| **Type of end users** | Internal and External |

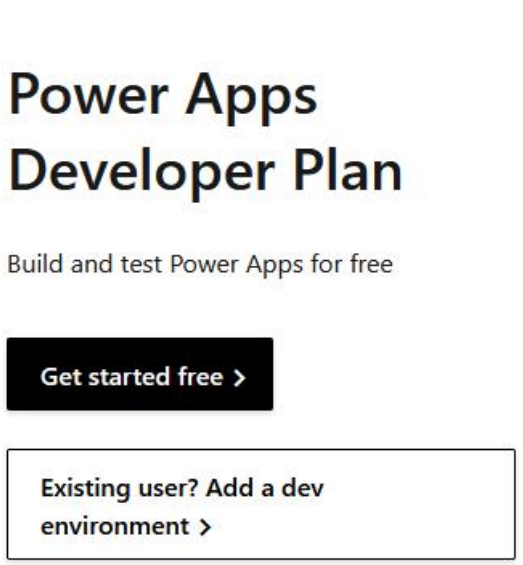


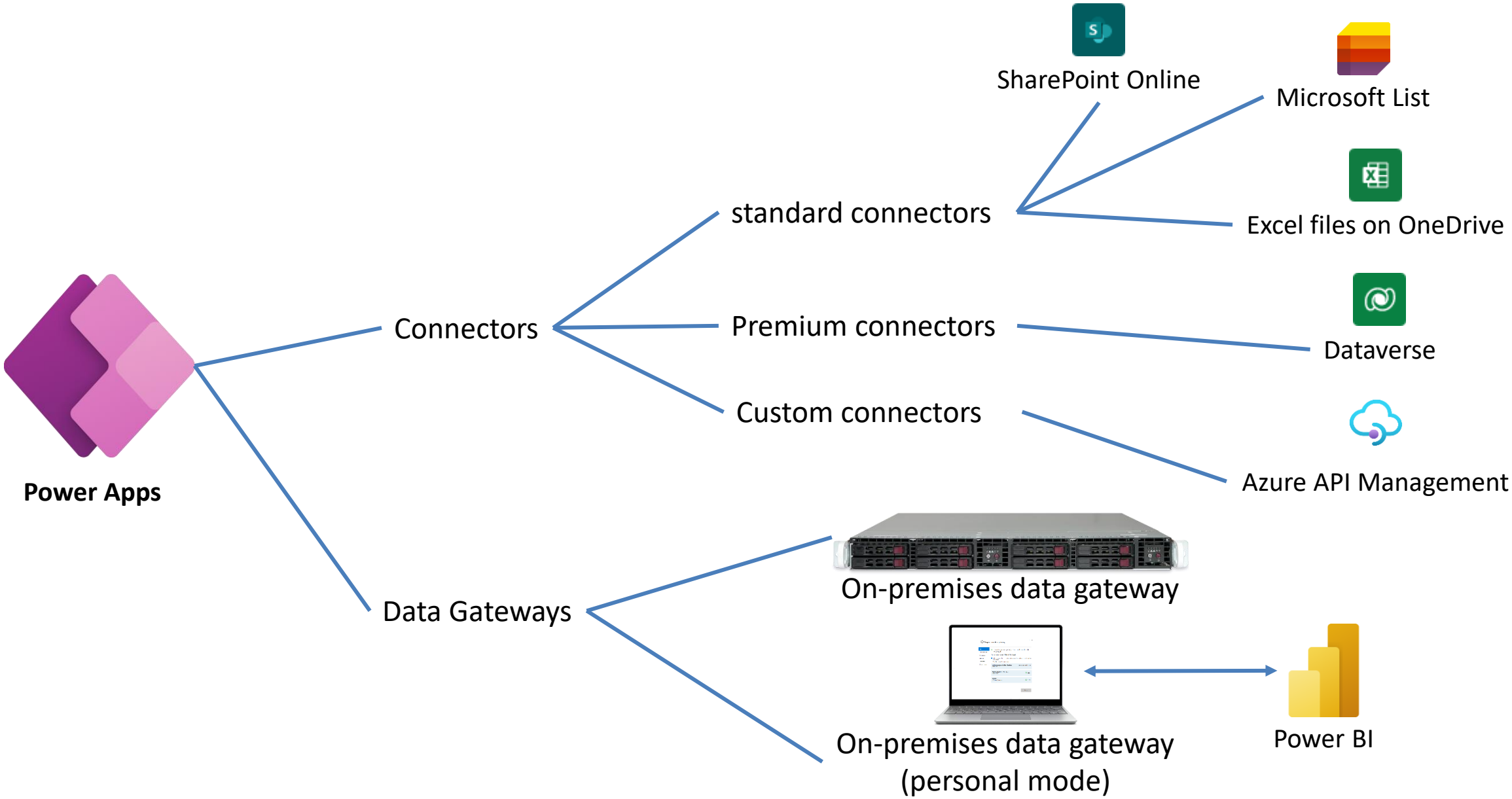

Images from Microsoft

# How to start for free

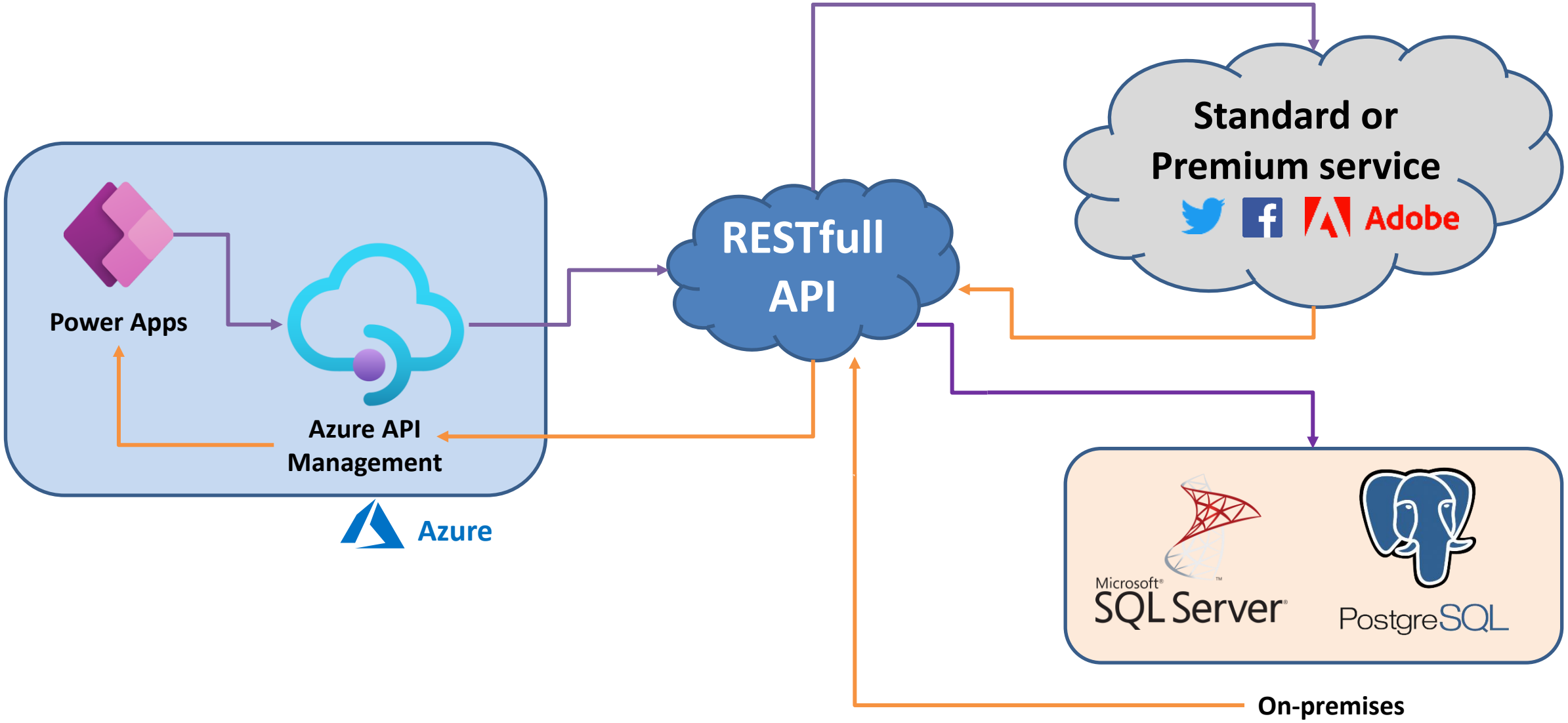
- Join to Power Apps Developer Plan
- Replace the ‘Power Apps Community Plan’
- https://powerapps.microsoft.com/en-us/developerplan/
- Free environment for individual use for development and testing
- Is restricted for use by a single user and with **no ability to share apps**
- Not for a team or production use
- **It is possible** to export the resources from this environment to another environment



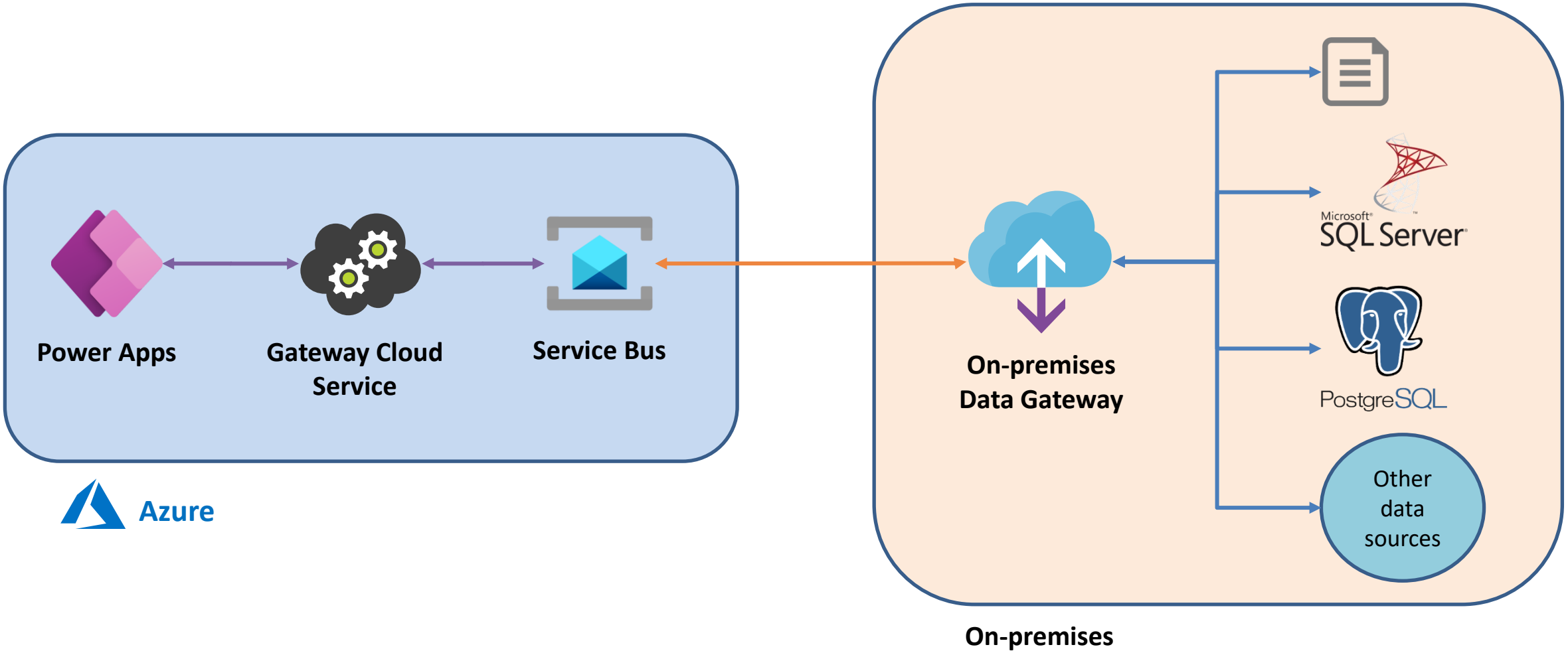
# Canvas App Data sources



# Consume data using connector



# Consume data using data gateway

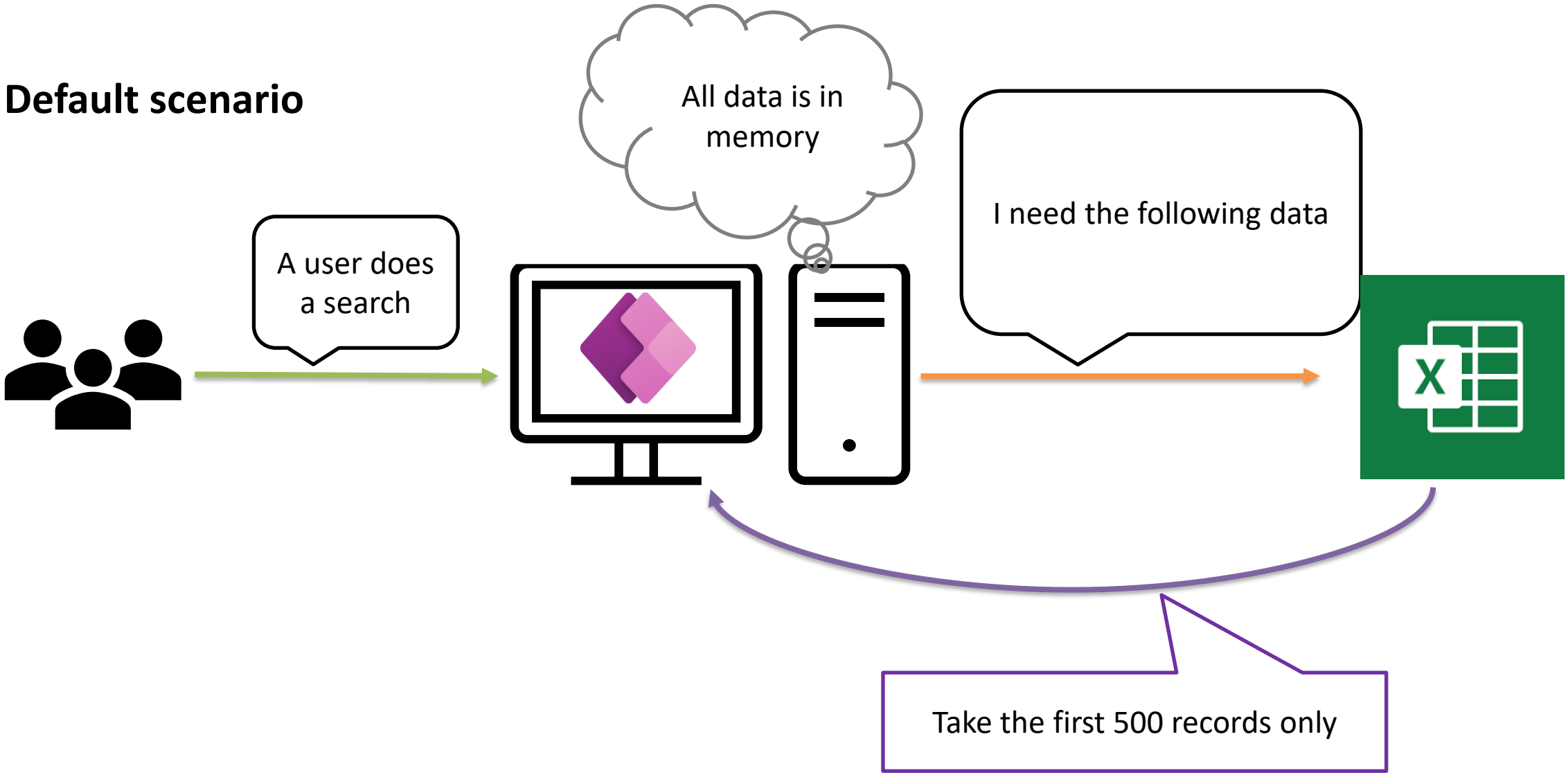


# DEMO

On-Premises Data Gateway

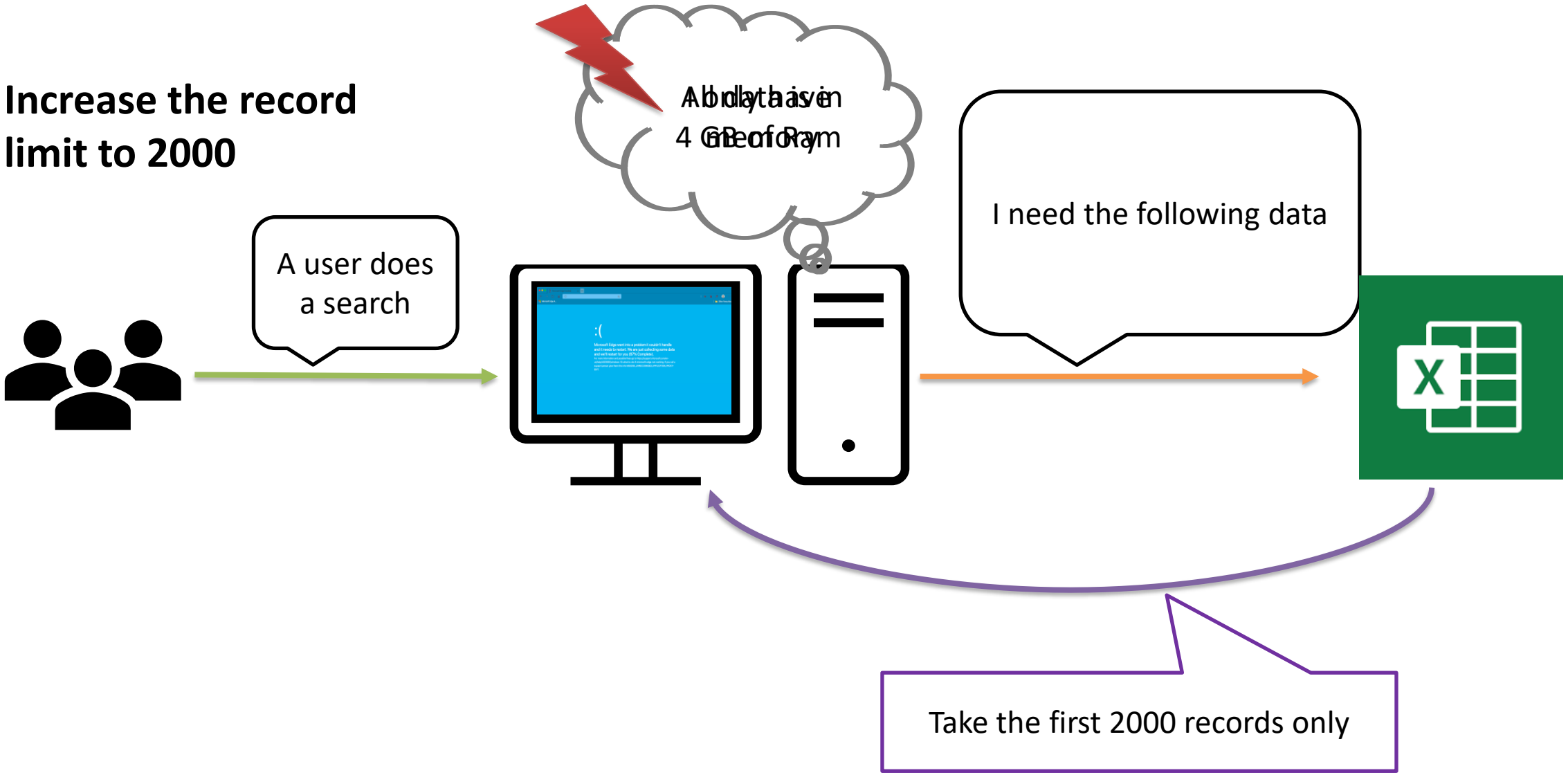
# Small data sets (Non-delegable queries)

**Default scenario**

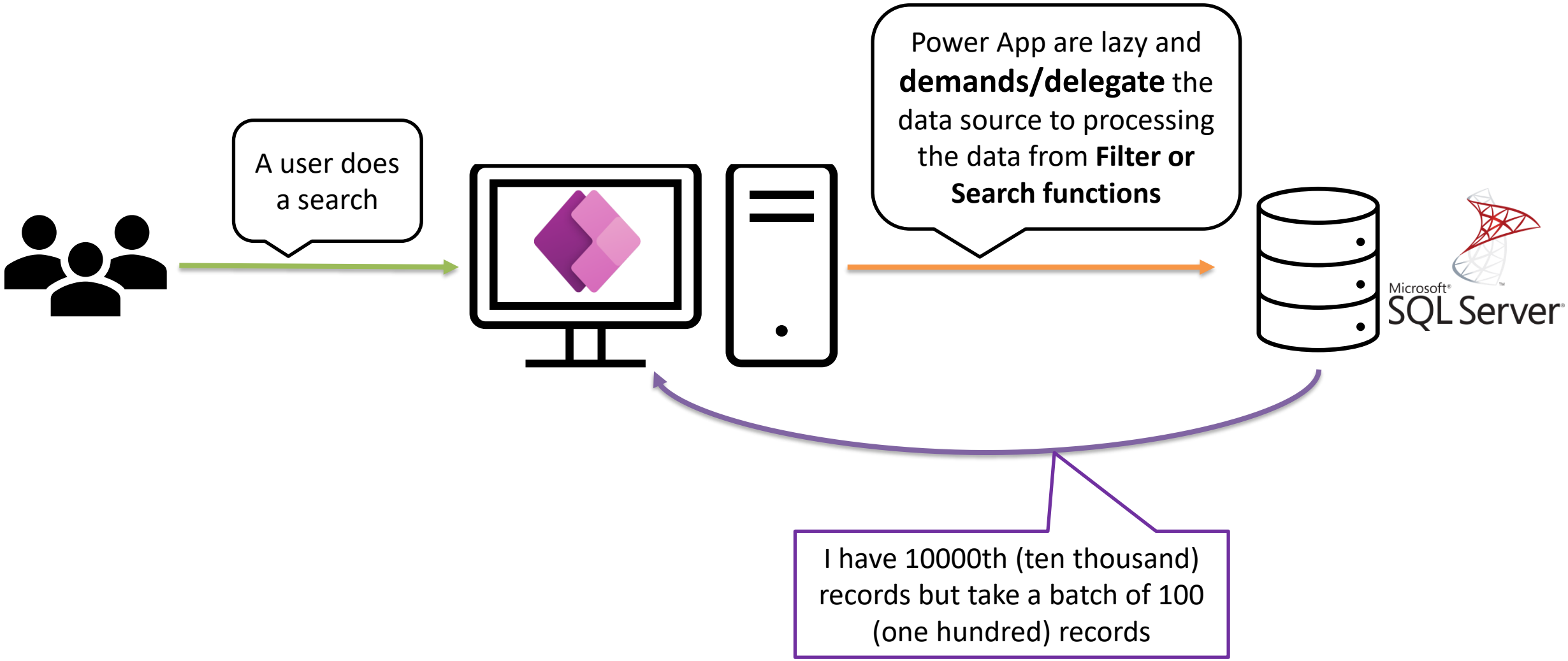


# Small data sets (Non-delegable queries)

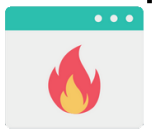
**Increase the record limit to 2000**



# Large data sets (Delegation)



# Non-delegable queries vs Delegable queries

- Any data source query can collect the first 500 records
- It is possible to set data row limit from 1 to 2000 for non-delegable queries
- Why not more than 2000 for non-delegable queries?
  - All data will be process locally by the device 
- You need to use large data sources?
  - Use Delegation
  - Delegation is supported for certain tabular data sources only

Dataverse (not all functions or operations)
Dynamics 365 (not all functions or operations)
Salesforce (not all functions or operations)
SharePoint (not all functions or operations)
SQL Server (not all functions or operations)

# DEMO

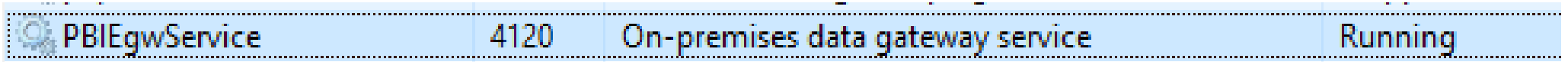
Delegation

# Considerations for data gateway

- Write operations have a 20-MB payload limit.
- Read operations have a 20-MB request limit and an 8-MB compressed data response limit.
- URL for the GET request has a 2048 character limit.
- Can not be installed in Windows container, Serve Core, Windows Server with domain controller role,

# Common mistakes

- When defining a form as FormMode.New the fields are not editable to add new data, or it is only blocked for viewing
  - The table in the database has no primary key and Identity defined.
- PowerApp is not communicating with the database
  - Execute Network ports test from On-premises data gateway app to check if it is being blocked by a security appliance and HTTPS must be enable.
  - Don't disable or stop the PBIEgwService




  - If the device is laptop may have gone into hibernation mode
  - Check Internet speed at https://azurespeedtest.azurewebsites.net/

# Q&A

# Data Community – United for Ukraine

Staying with Ukraine

www.datacommunityunited.com

# THANK YOU

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# Power Apps & on-premises data gateway

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