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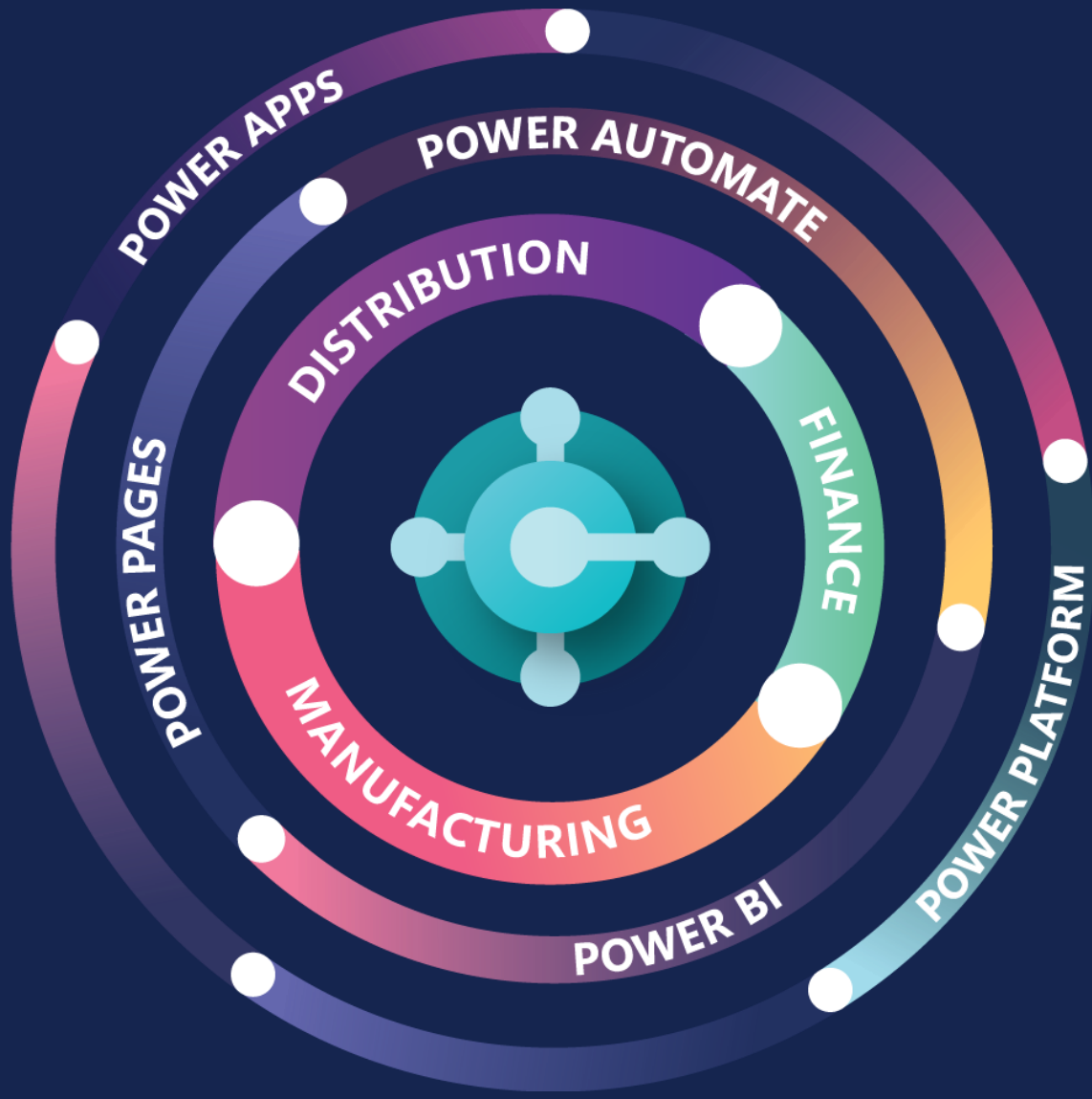
BUSINESS CENTRAL connect

Don’t need Power Apps?



15th & 16th OCTOBER 2024

Can you hear me?

Is everything clear?

~ 45 mins

Q & A

Hi!

Stuart Starforth
Stuart.starforth@tecman.co.uk

Shaun Godber
Shaun.godber@tecman.co.uk

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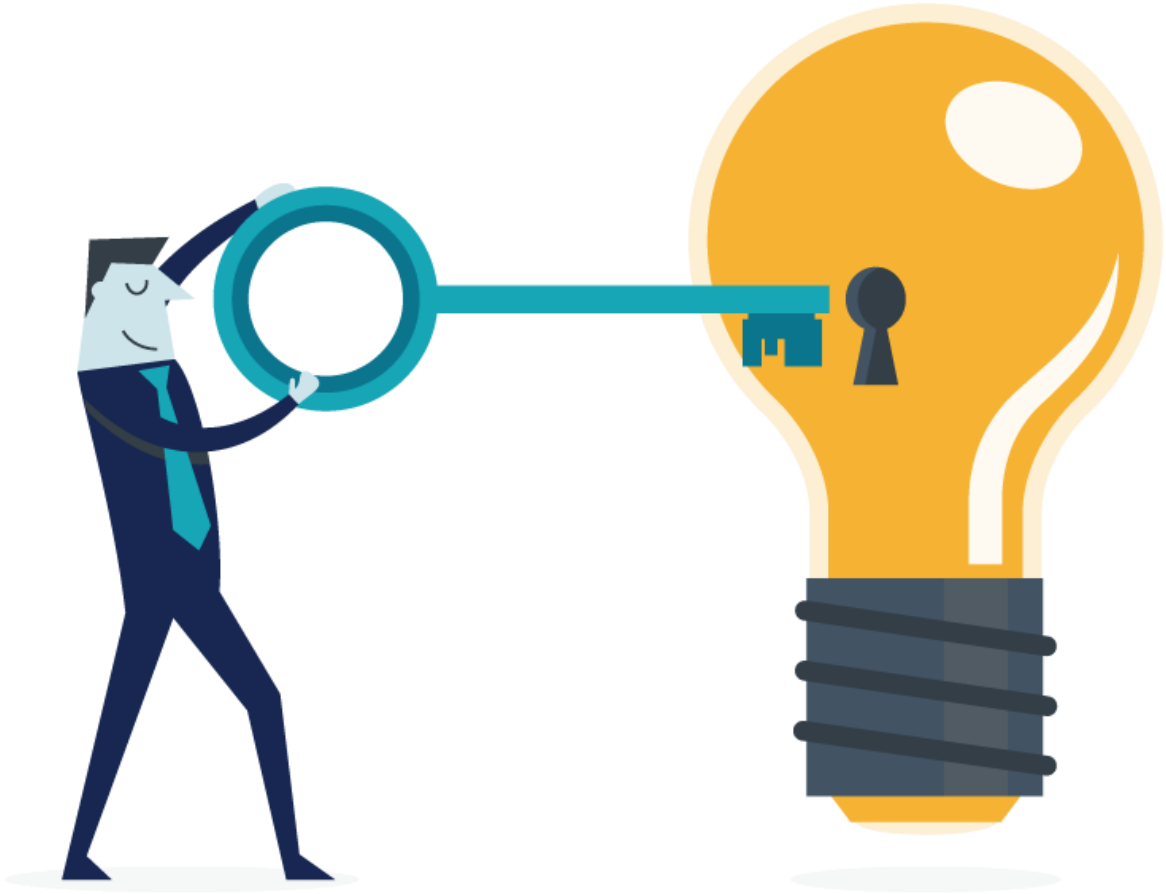
What we'll cover

1. Introduction
2. What are Power Apps?
3. Preview real-world examples
4. Power App logic & fundamentals
5. Q & A



Introduction

- Off-system operational processes?
  - Paper based
  - Excel data records
  - Sign-off processes
  - Copy & Paste into emails?
  - Lever Arch folders (I still see these!)?

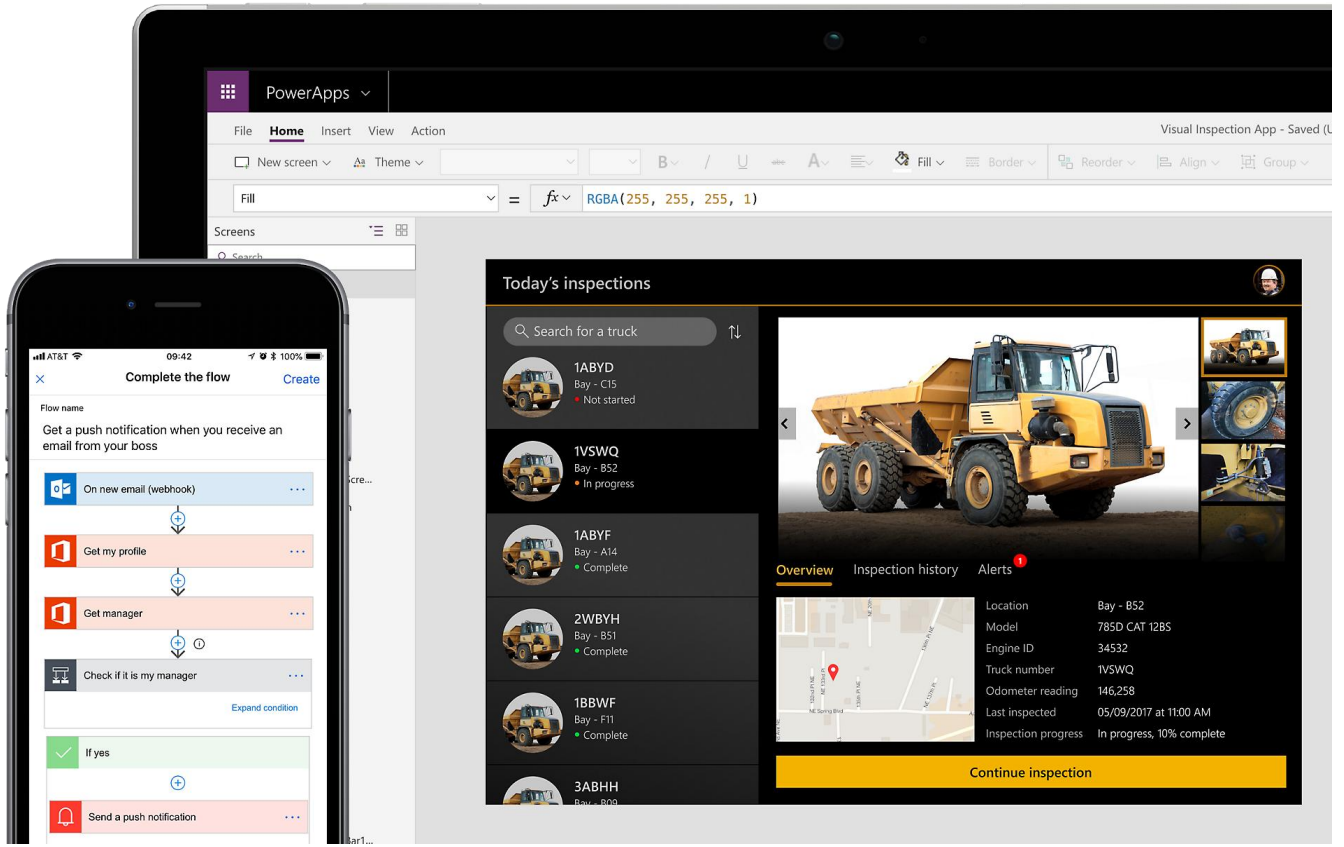
Introduction to Power Apps

What are Power Apps?

Power Apps is a suite of apps, services, connectors, and a data platform that provides a rapid application development environment.

What is a Power App?

It allows users to build mobile and web apps with little or no code.



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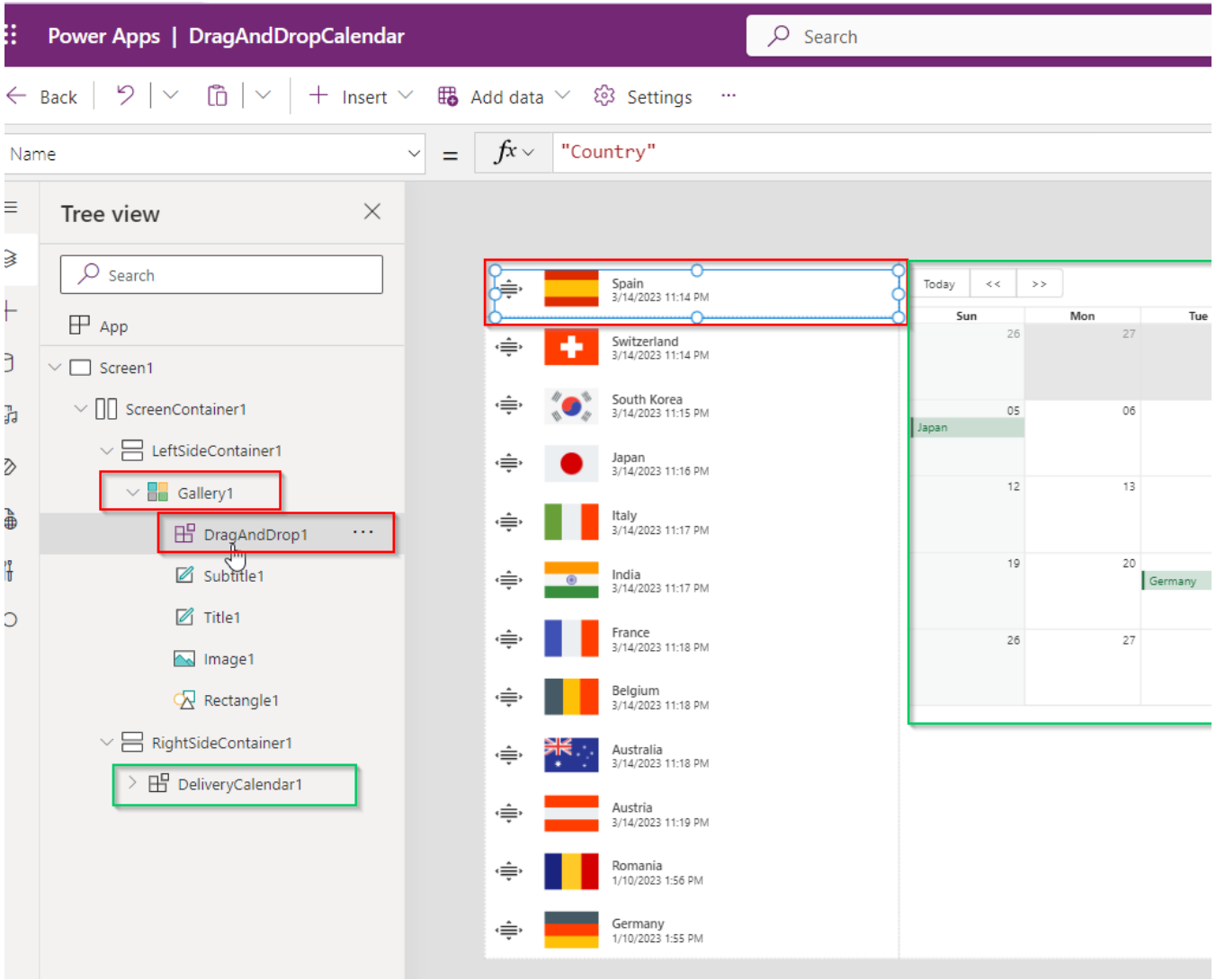

Key Features

- Drag-and-drop interface

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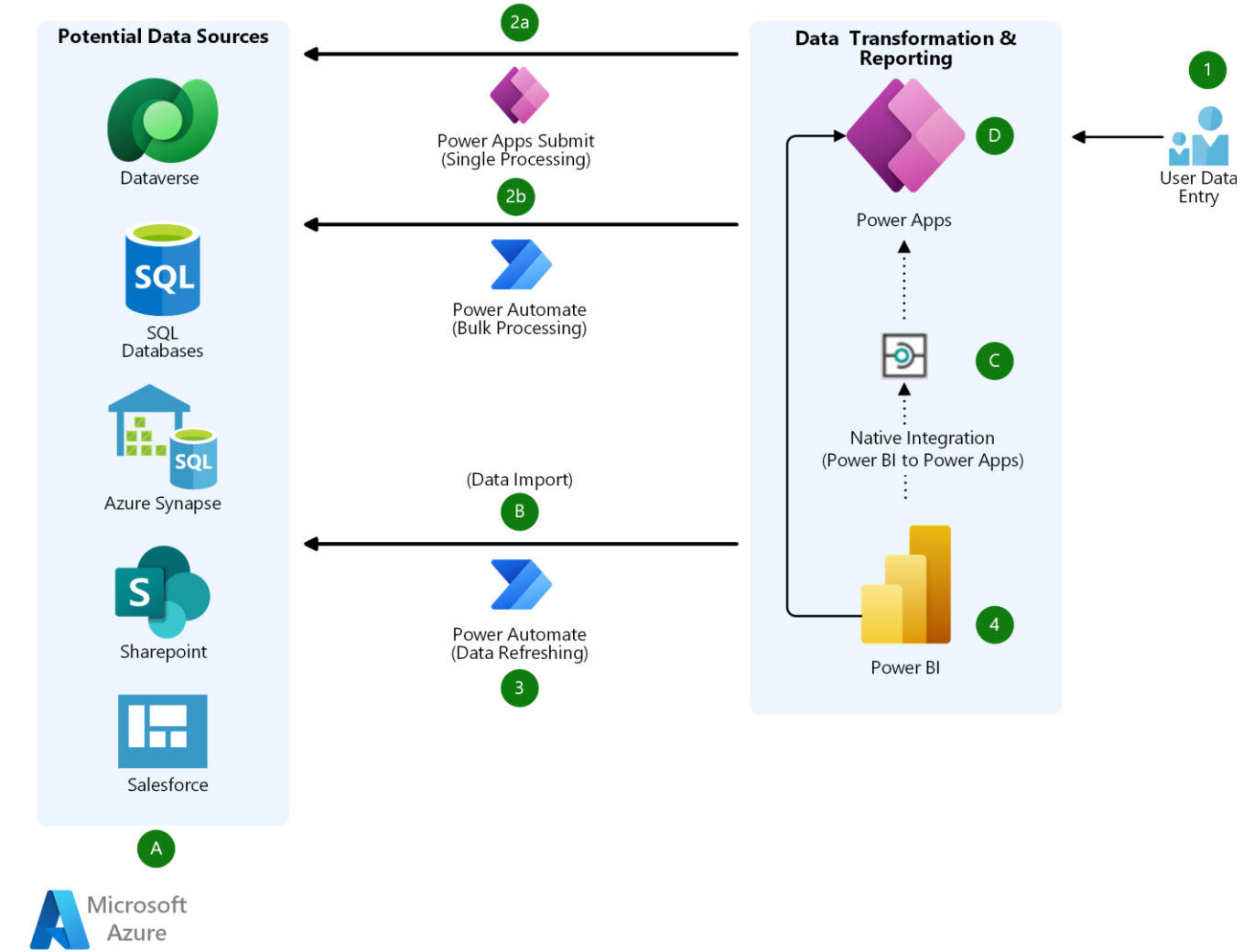


Key Features

- Drag-and-drop interface
- Connects to multiple data sources

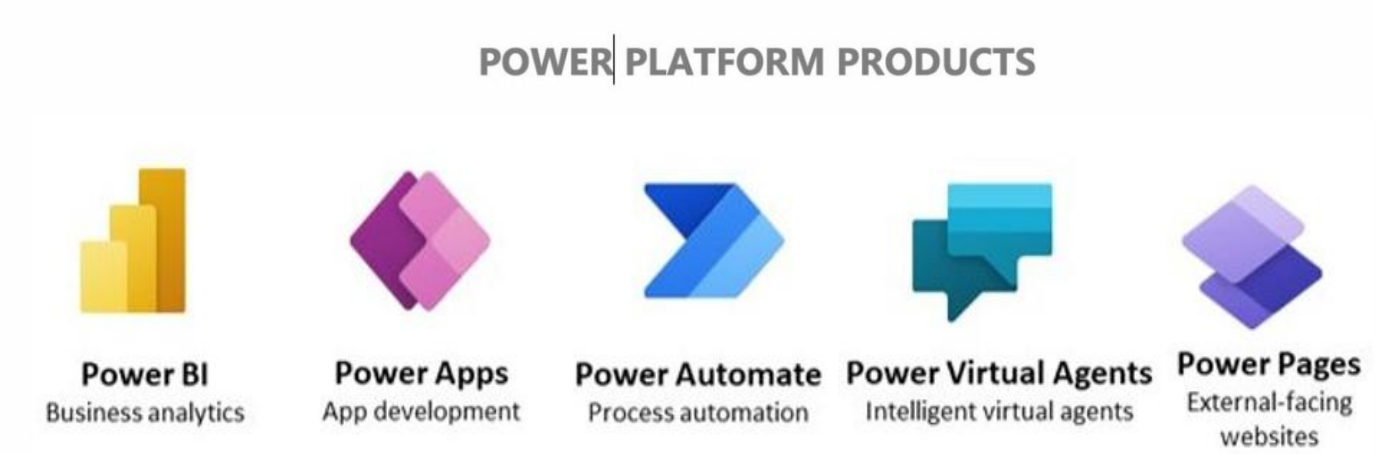
Key Features

- Drag-and-drop interface
- Connects to multiple data sources
- Integrates with Microsoft Power Platform

Power Platform Overview

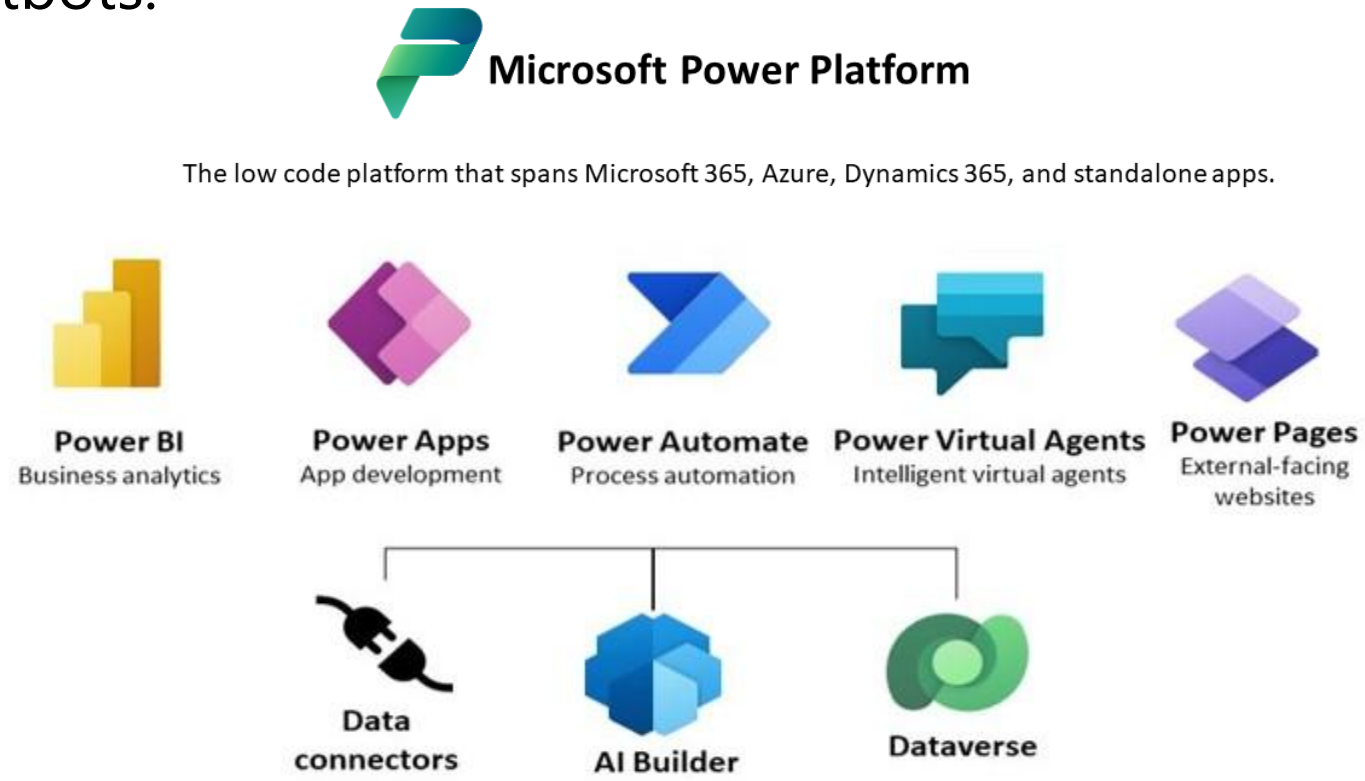
The Power Platform consists of five services:

- Power BI
- Power Apps
- Power Automate
- Power Virtual Agents
- Power Pages



Power Platform Overview

These work together to build apps, automate workflows, analyse data, and create chatbots.



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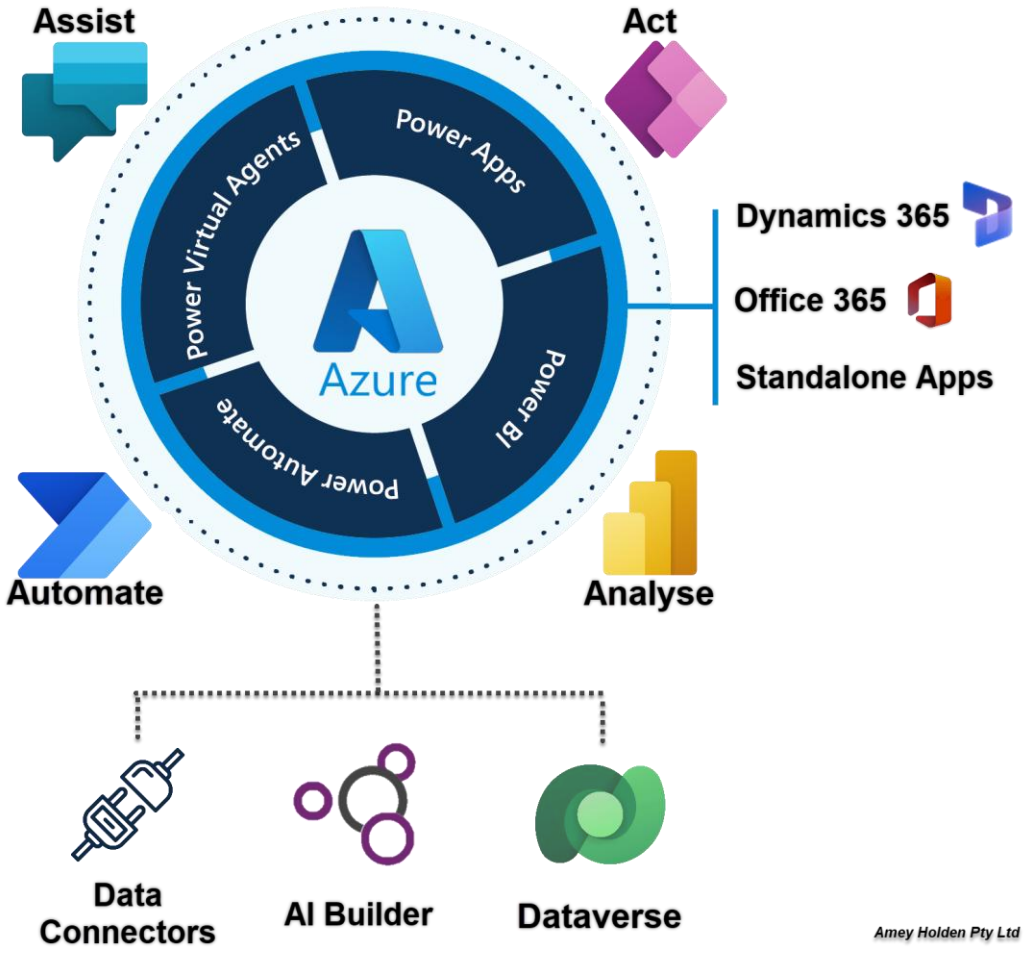
Power Apps Architecture

Core Components:

- Data sources
- Power Apps Studio
- Microsoft Dataverse
- Connectors
- AI Builder



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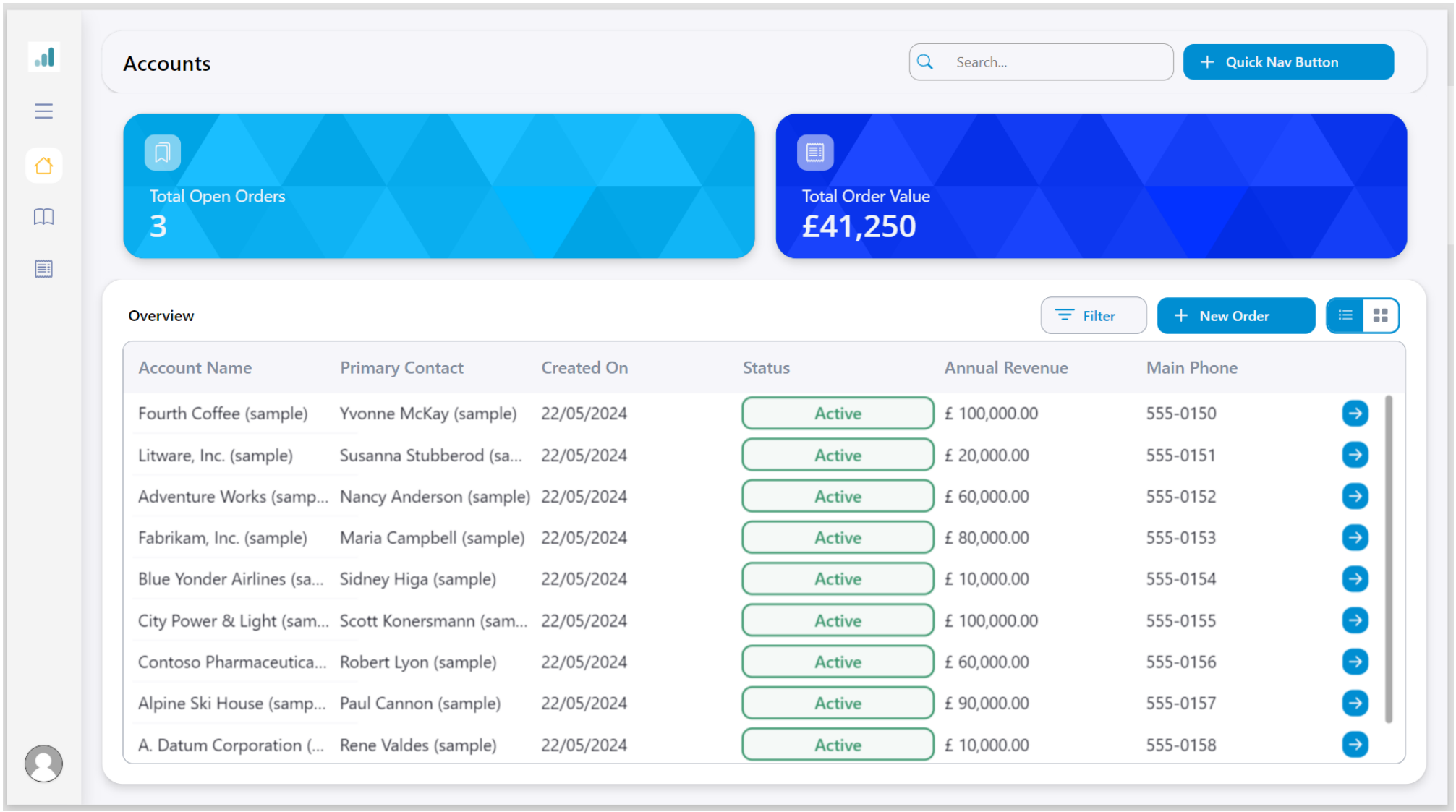
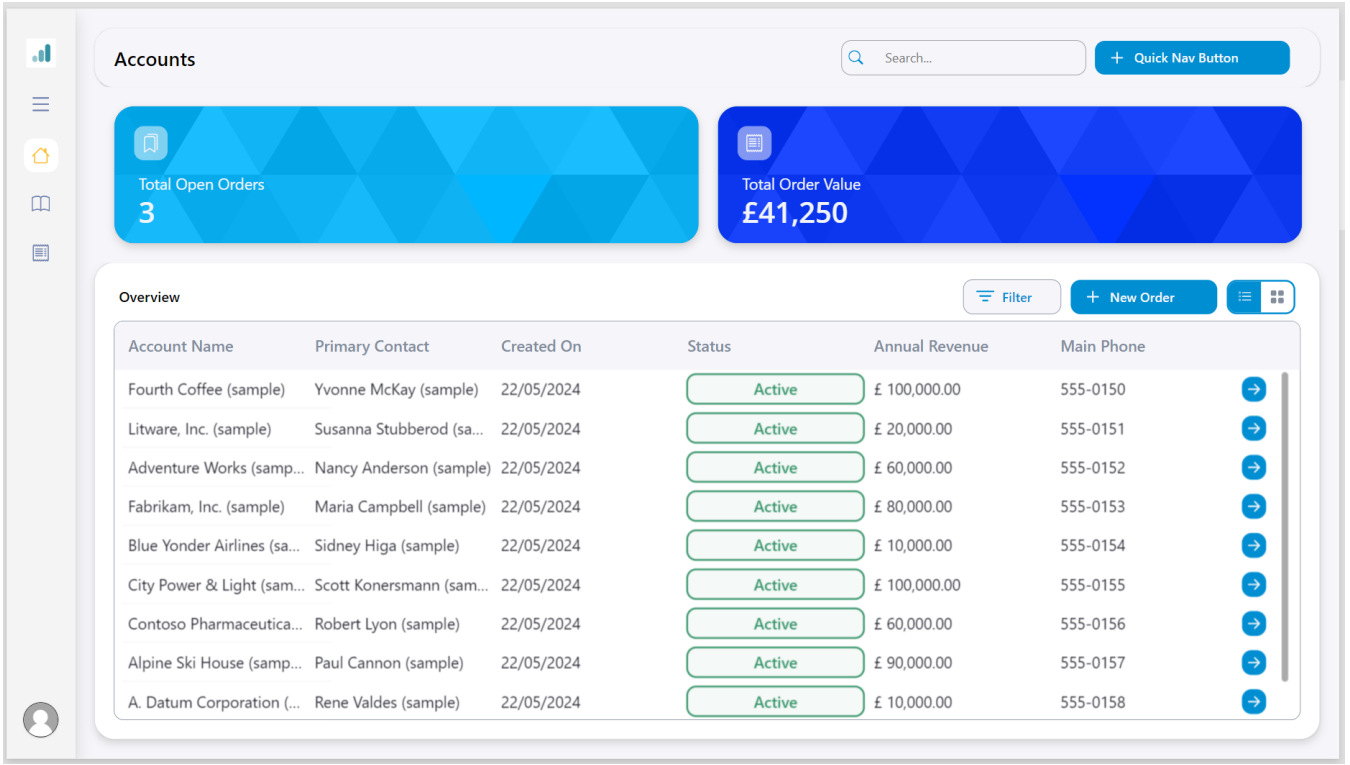
Power App Preview

Power App Preview



Power App Preview

Sales Overview App was designed to allow mobile quick access to Dataverse records.



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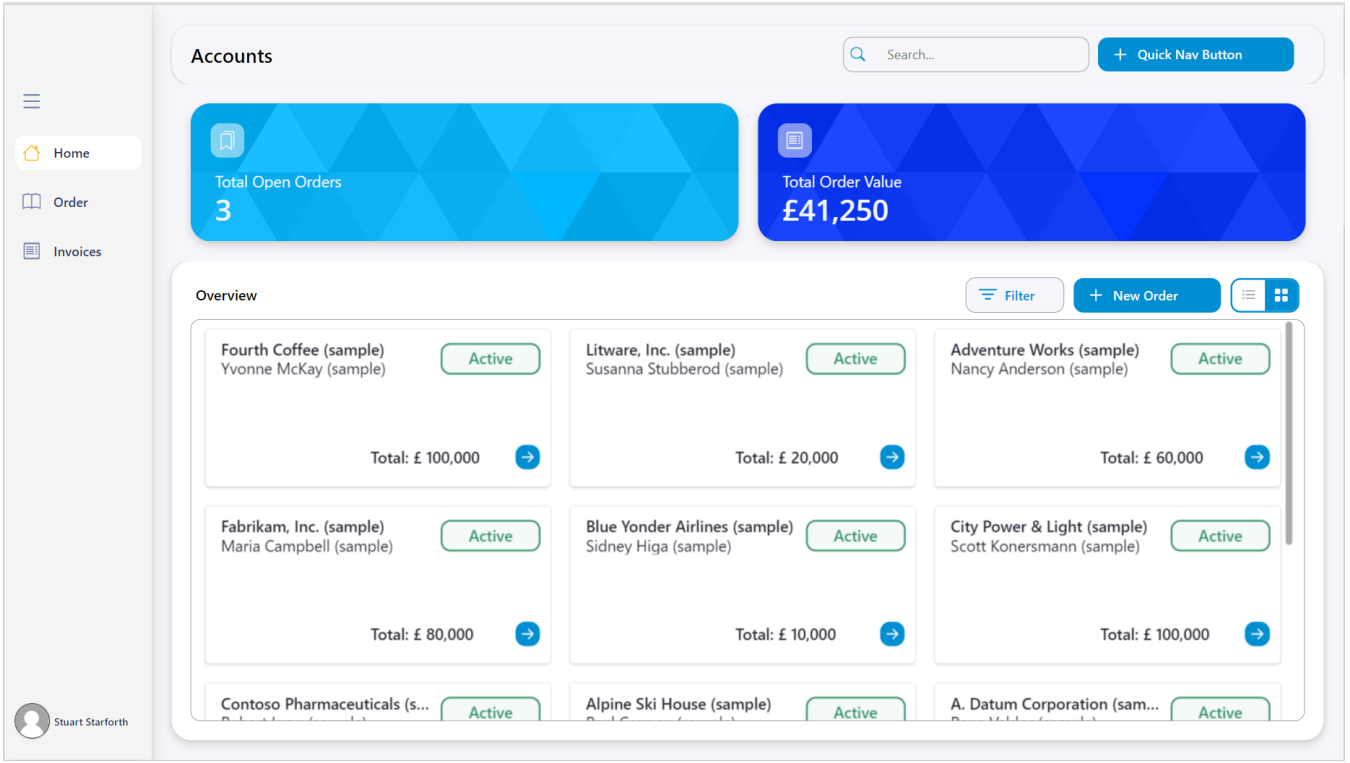
Power App Preview

The app has:

- Responsive layout
- Modern design/look
- Flexible modular component library
- Container structured
- And more…



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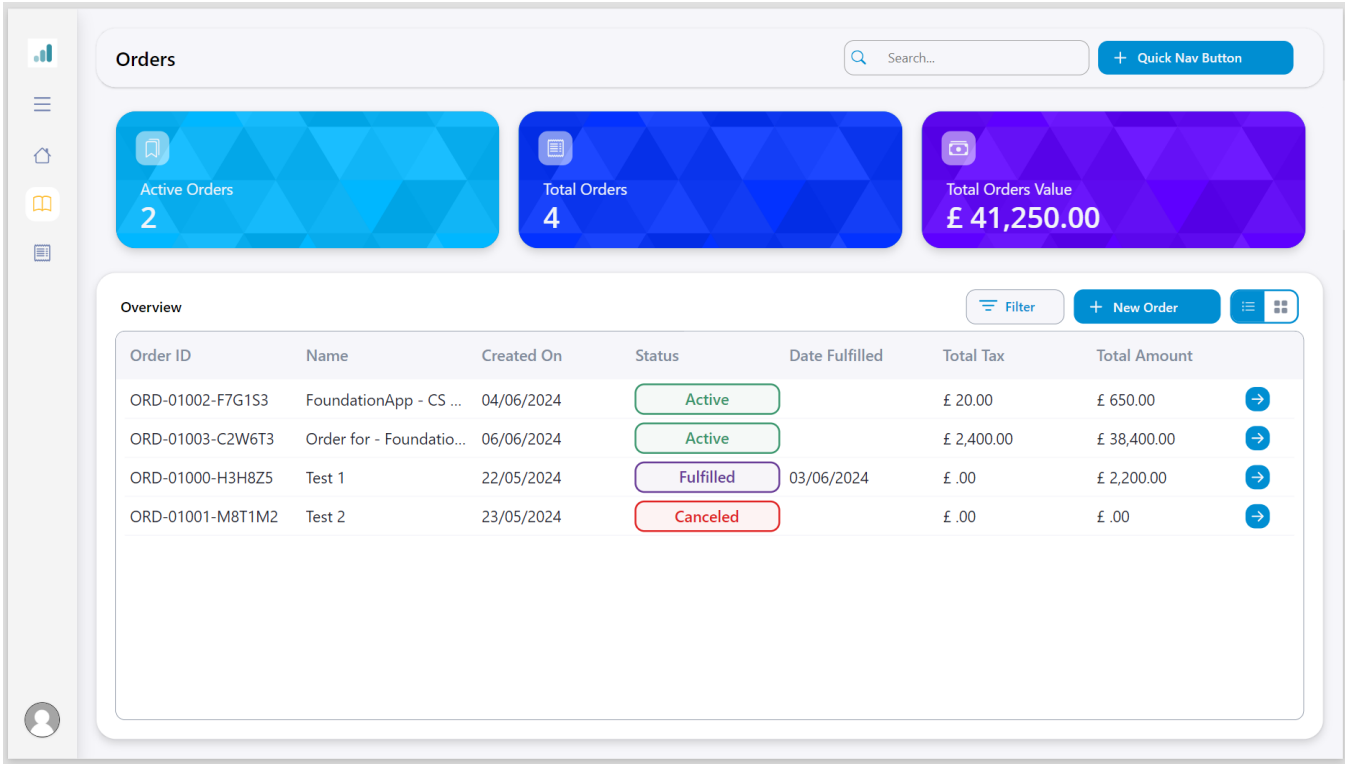
Power App Preview

Responsive app:

- Easily switch between pages and see different data
- Expanding the menu to show more information
- Search and quick navigation buttons



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Where to Place Logic: Canvas Apps, Model-Driven Apps, Dataverse, or Power Automate Flows?

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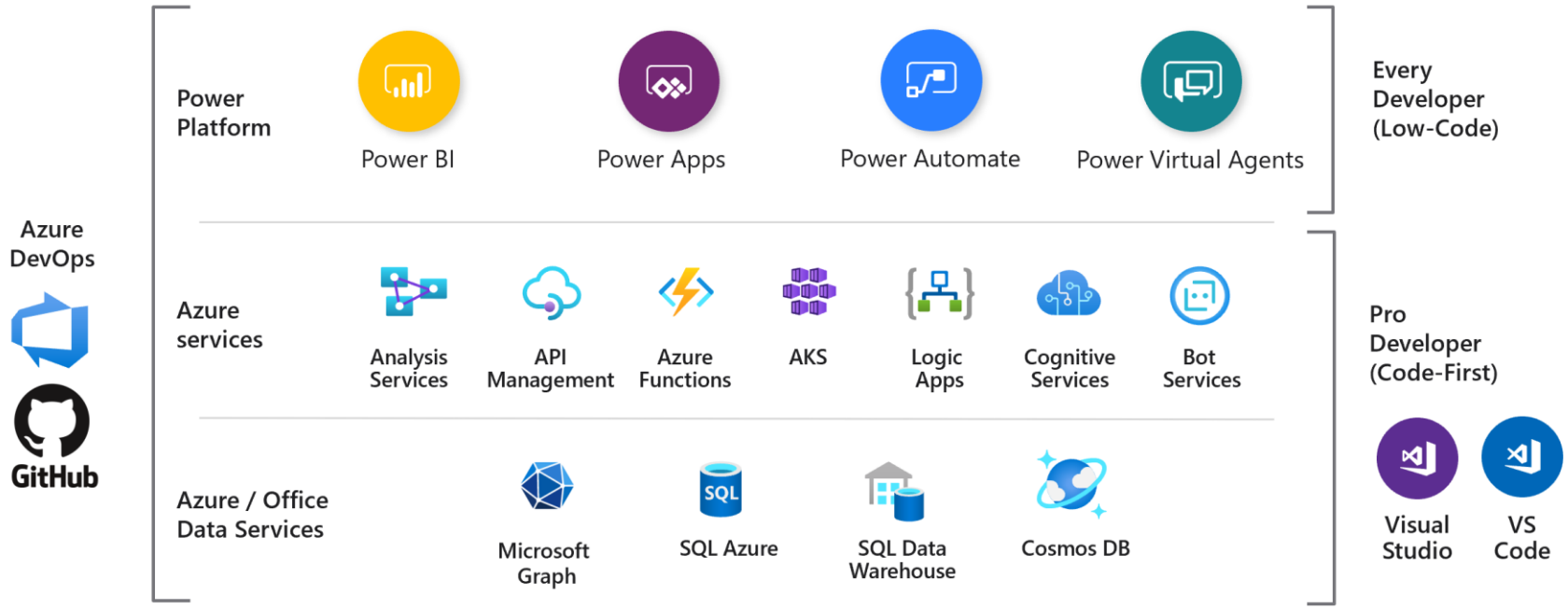
Where to Place Logic?

When building Power Apps, you need to consider where to place business logic to optimize performance and functionality.

Where to Place Logic?

Logic can be implemented in various parts of the system based on the complexity and the intended behaviour of the app.



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Considerations

Simple

If the logic is simple and needs to run instantly on the user's device, **Canvas Apps** might be the best option.

Complex

For complex workflows involving multiple data sources or connectors, using **Power Automate** flows can offload processing from the client device to the cloud.

Considerations

Universal Logic

If the logic needs to apply universally across multiple apps or enforce data integrity, using **Microsoft Dataverse** is ideal because it runs server-side and is independent of specific apps.

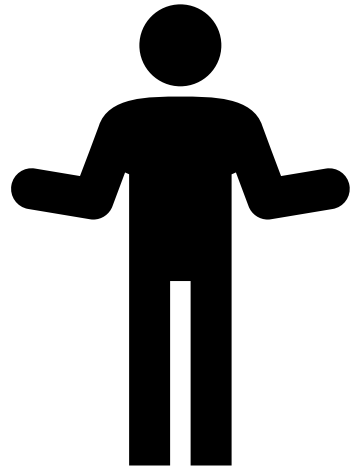
Complex Business Processes

Model-driven apps are best when you need to enforce complex business processes, business rules, or actions within a structured data-centric environment.

Quick Tour of Terms

Key Terminology:

- Power Automate (Flow): Automates workflows
- Triggers: Start actions in Power Automate
- Actions: The steps after a trigger occurs
- Microsoft Dataverse: Data platform for apps

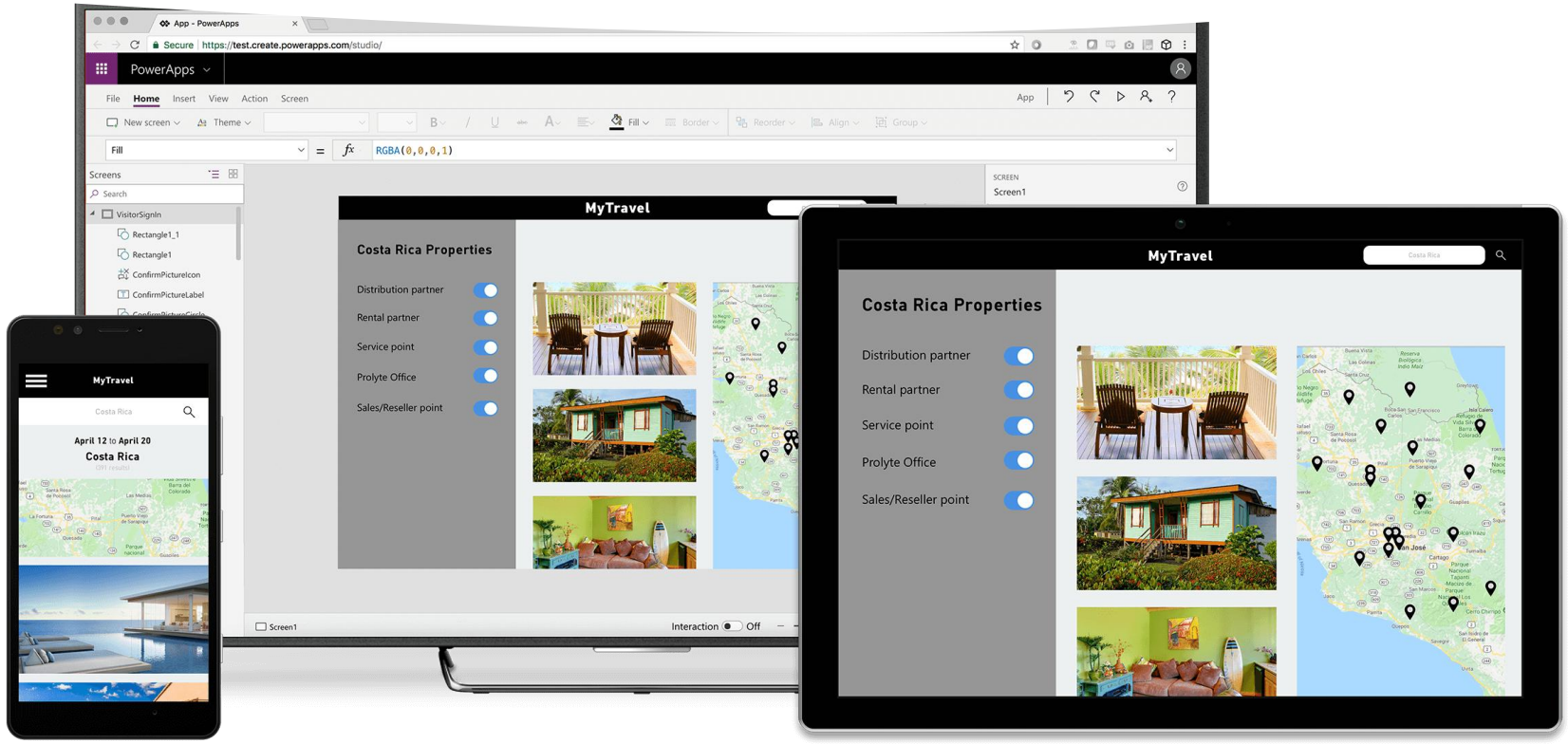


Power Apps: Canvas Apps

What is a Canvas App?

A **Canvas App** in Power Apps allows you to design and build apps from a blank canvas by dragging and dropping elements onto the screen.

You have full control over the user interface and can create custom layouts for desktop or mobile. It's ideal for simple, user-driven applications that focus on visual design and flexibility.



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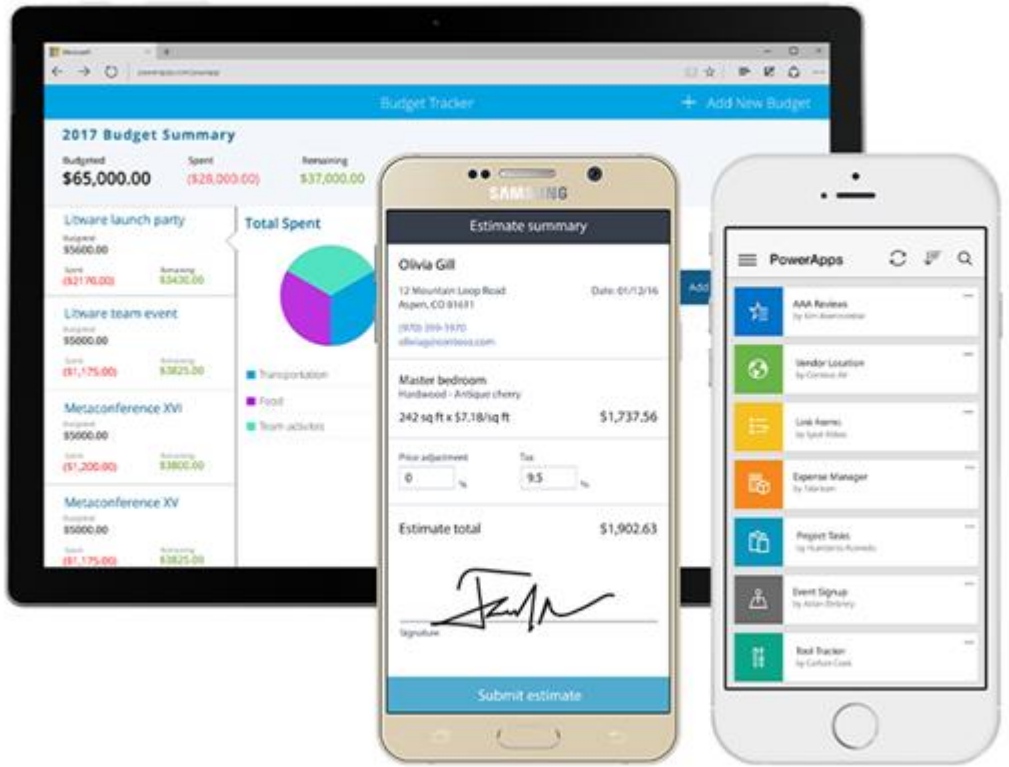
Canvas Apps

Canvas apps use formulas, similar to Excel for building logic. These formulas run client-side on the user's device.

Use canvas apps for scenarios where:

Canvas Apps

- Immediate feedback is needed (e.g., updating a screen based on user input).



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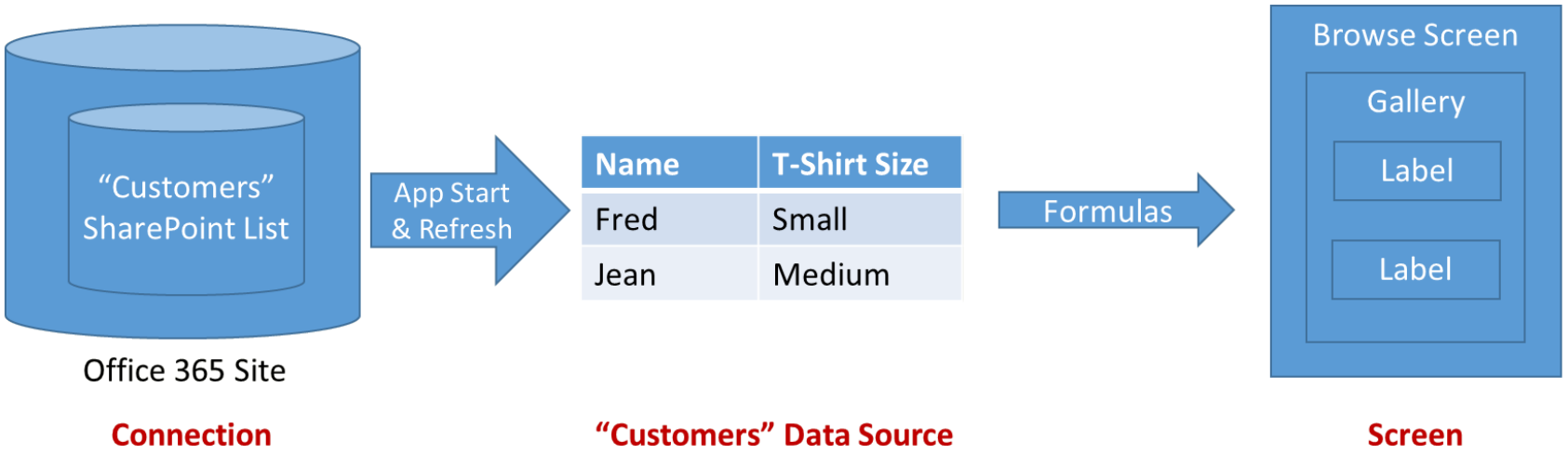
Canvas Apps

- The logic is relatively simple and doesn't involve manipulating large datasets or complex calculations.



Canvas Apps

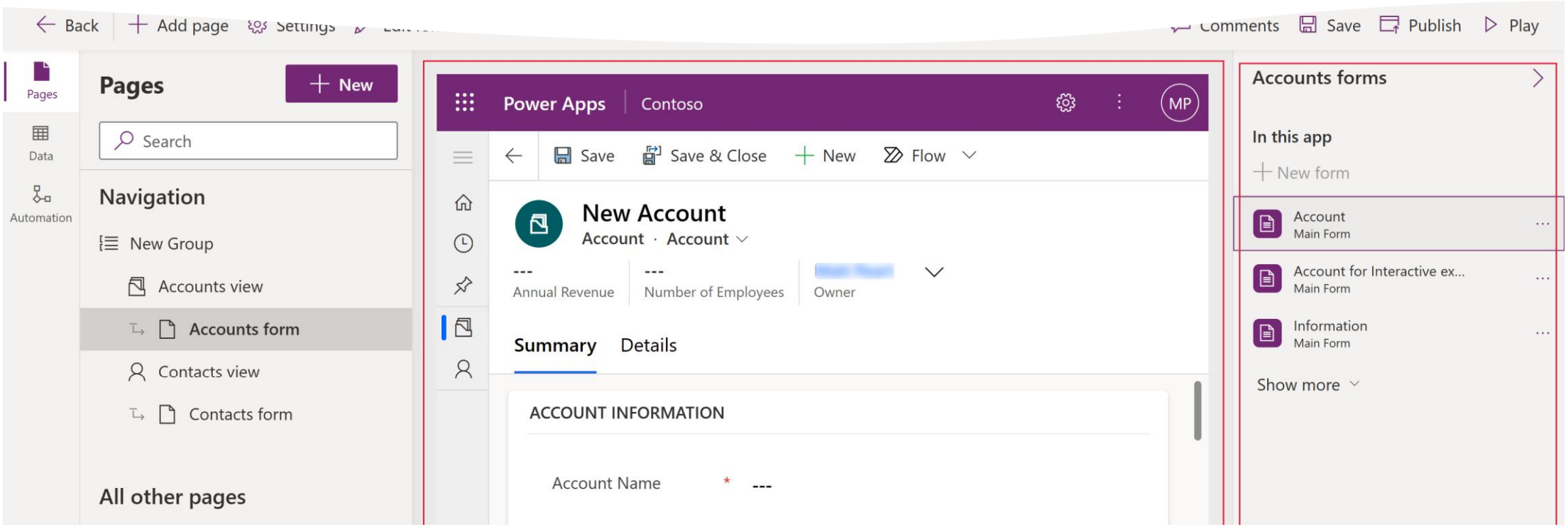
- Best practices include keeping logic simple and avoiding intensive operations like manipulating large data sets with “ForAll()”.

Power Apps: Model-Driven Apps

What is a Model-Driven App?

A **Model-Driven App** is built based on your data model in Microsoft Dataverse. Instead of focusing on the layout, you design the app around the relationships between the data entities, and the app generates the UI automatically.

It's best for complex business applications where you need consistent, structured processes.



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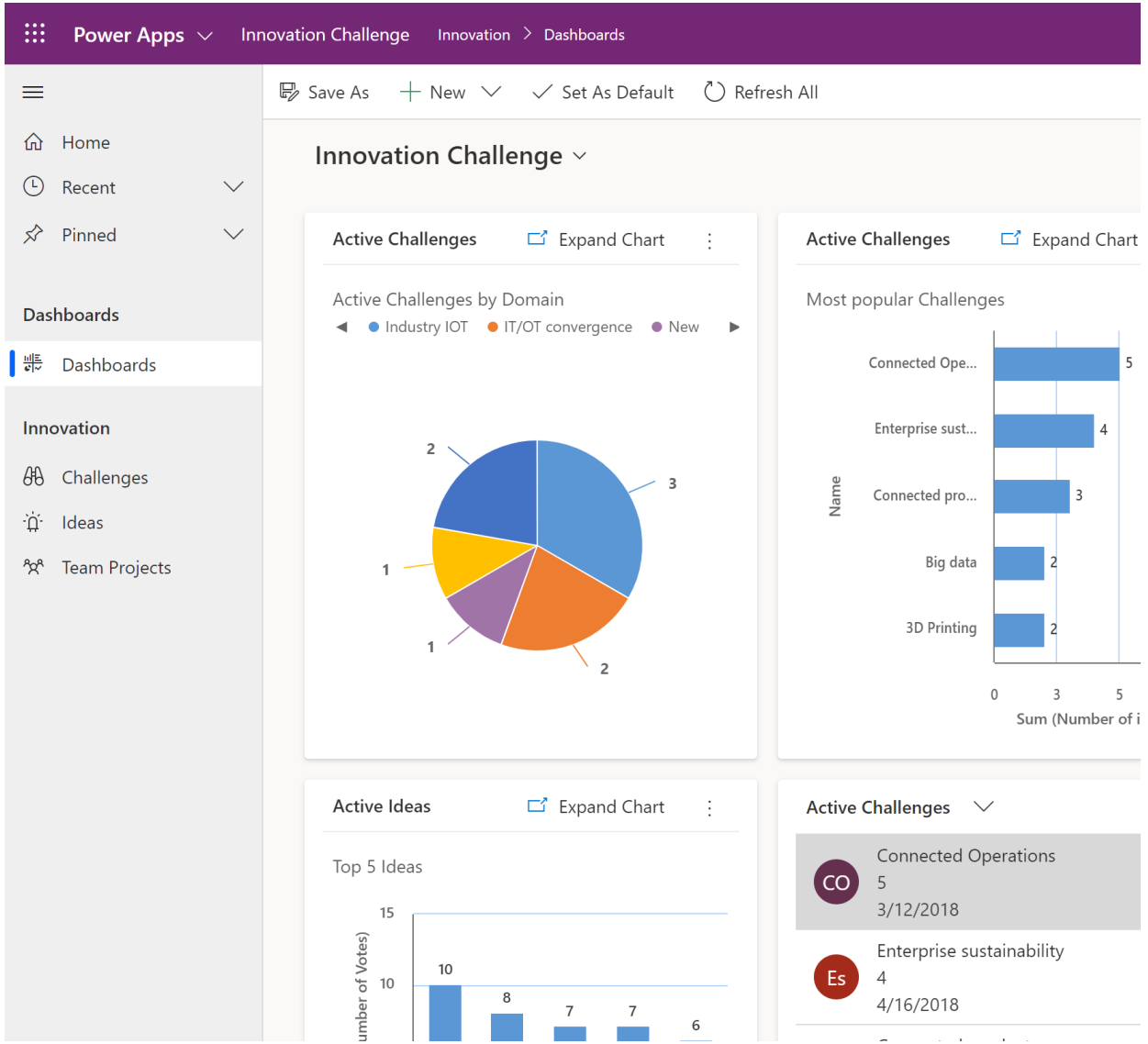
Model-Driven Apps

Model-driven apps offer multiple low-code tools for applying logic:



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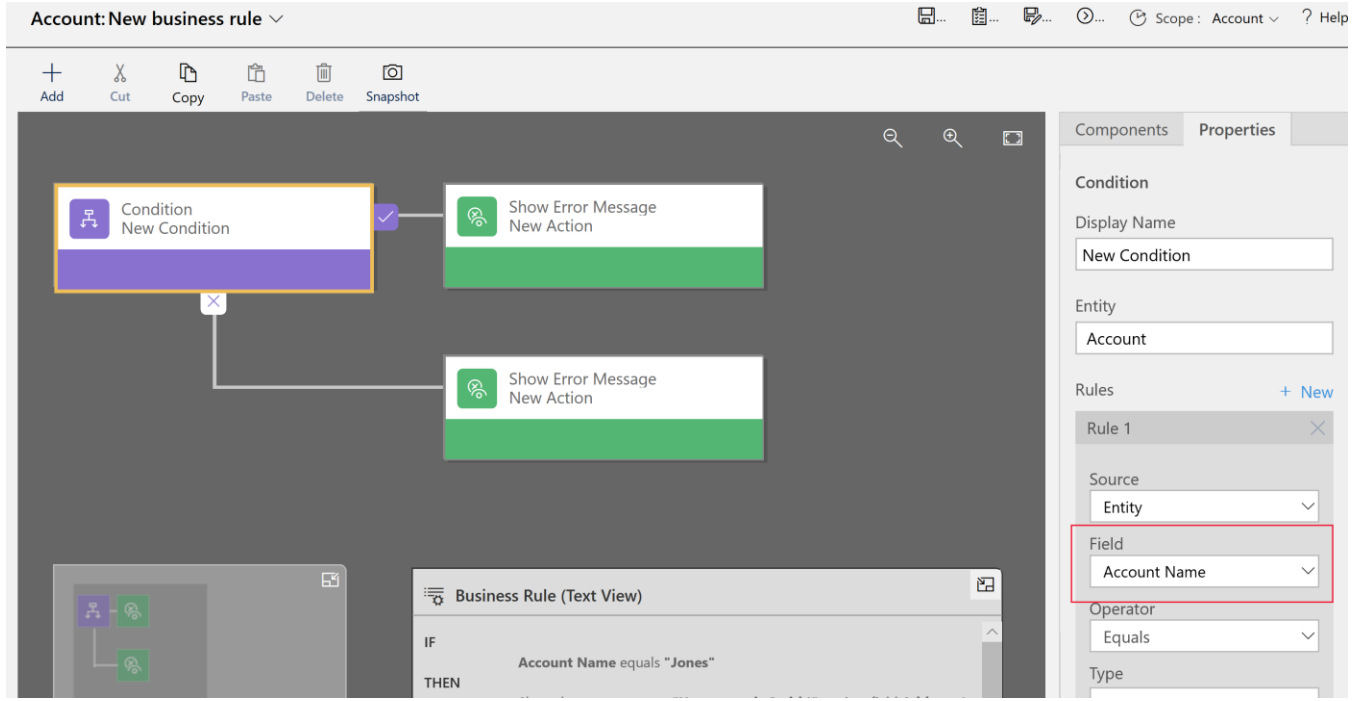
Model-Driven Apps

Business Rules: Ensure consistency by enforcing rules across different forms and tables.



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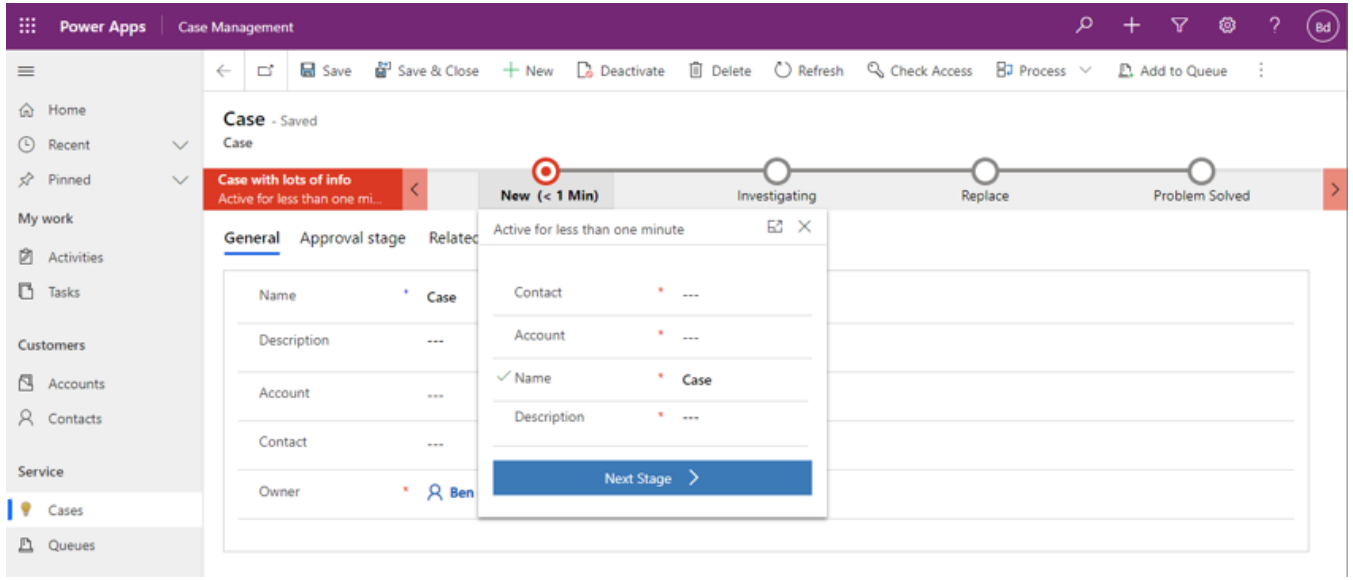
Model-Driven Apps

Business Process Flows: Guide users through multi-step processes within an app.



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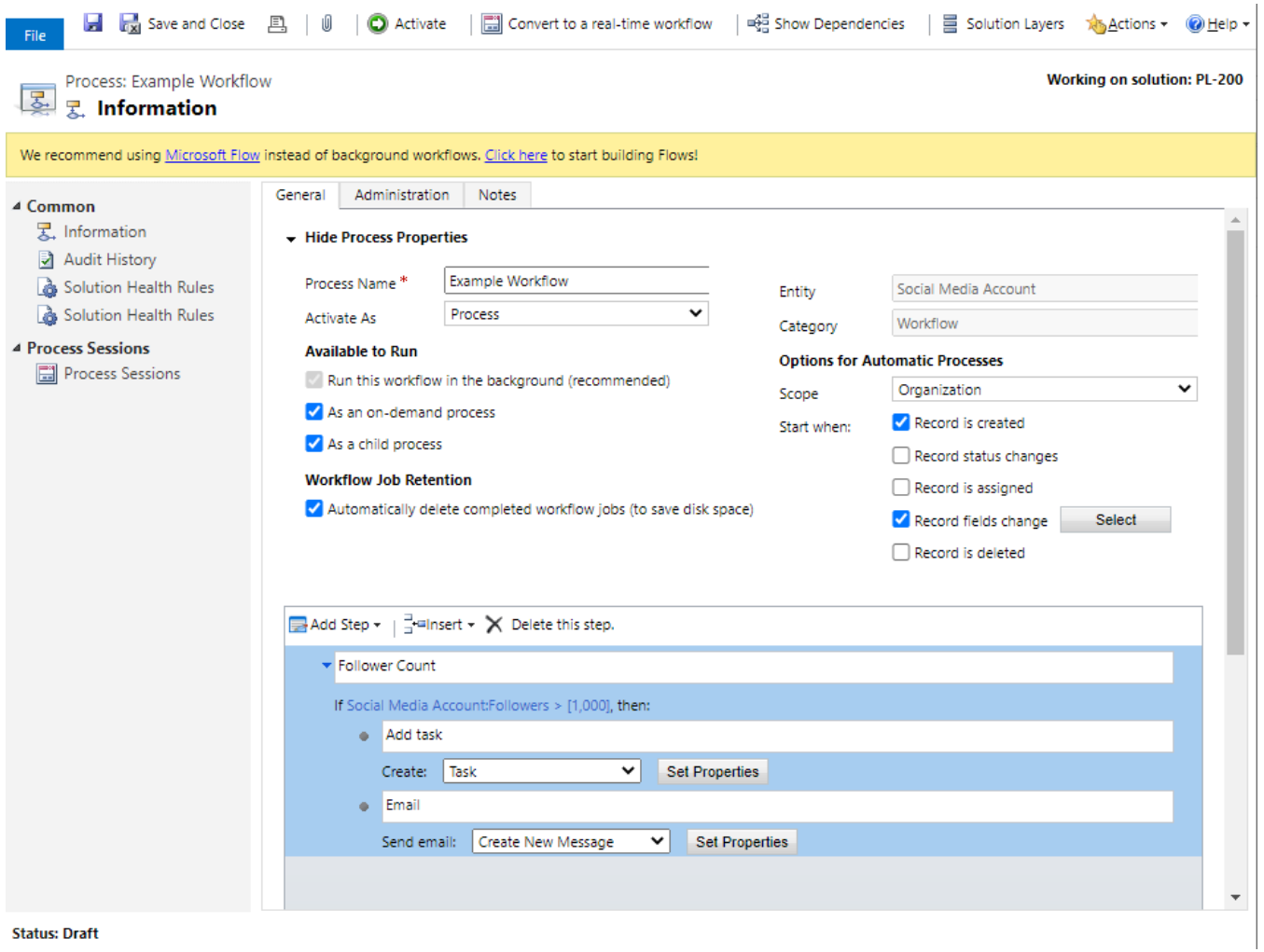
Model-Driven Apps

Workflows and Actions: Allow for automation of repetitive tasks, like approvals or notifications.



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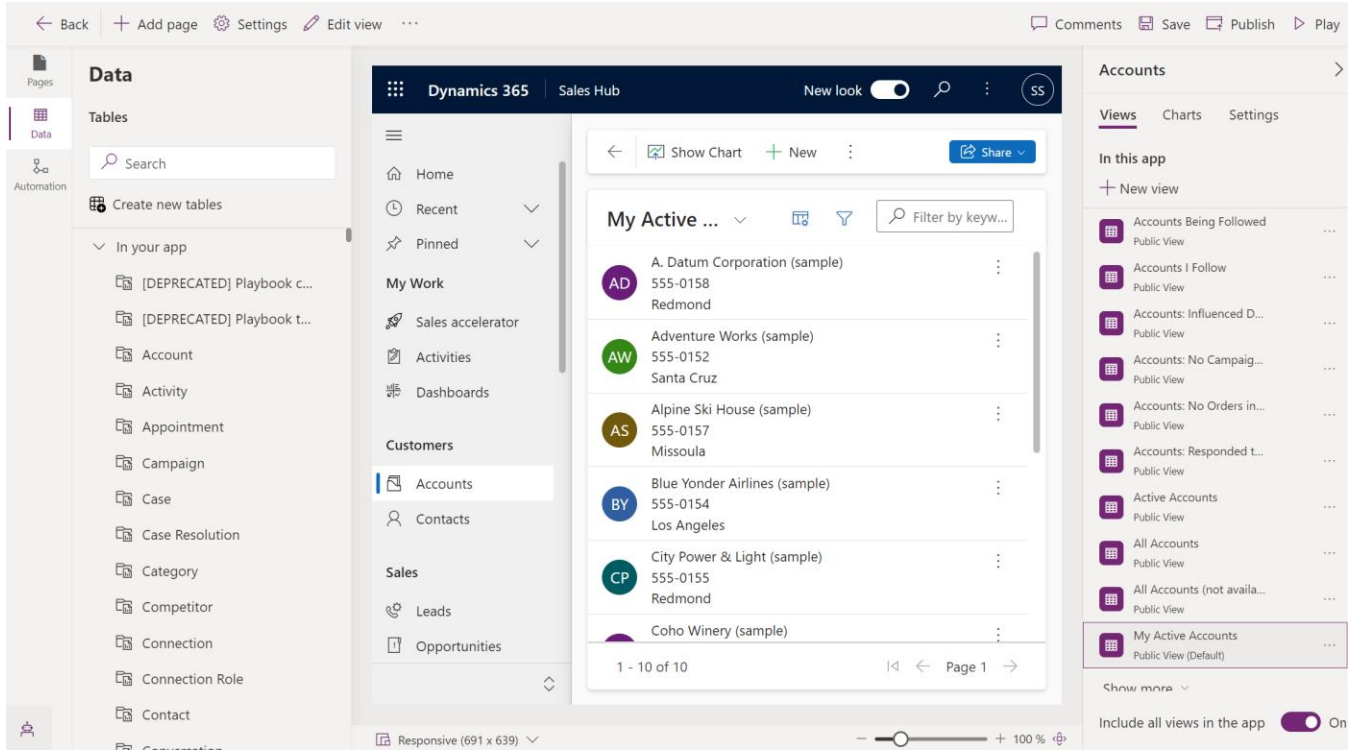
Model-Driven Apps

These apps are well-suited for complex scenarios, requiring multiple entities or when logic should apply across different areas of the app.



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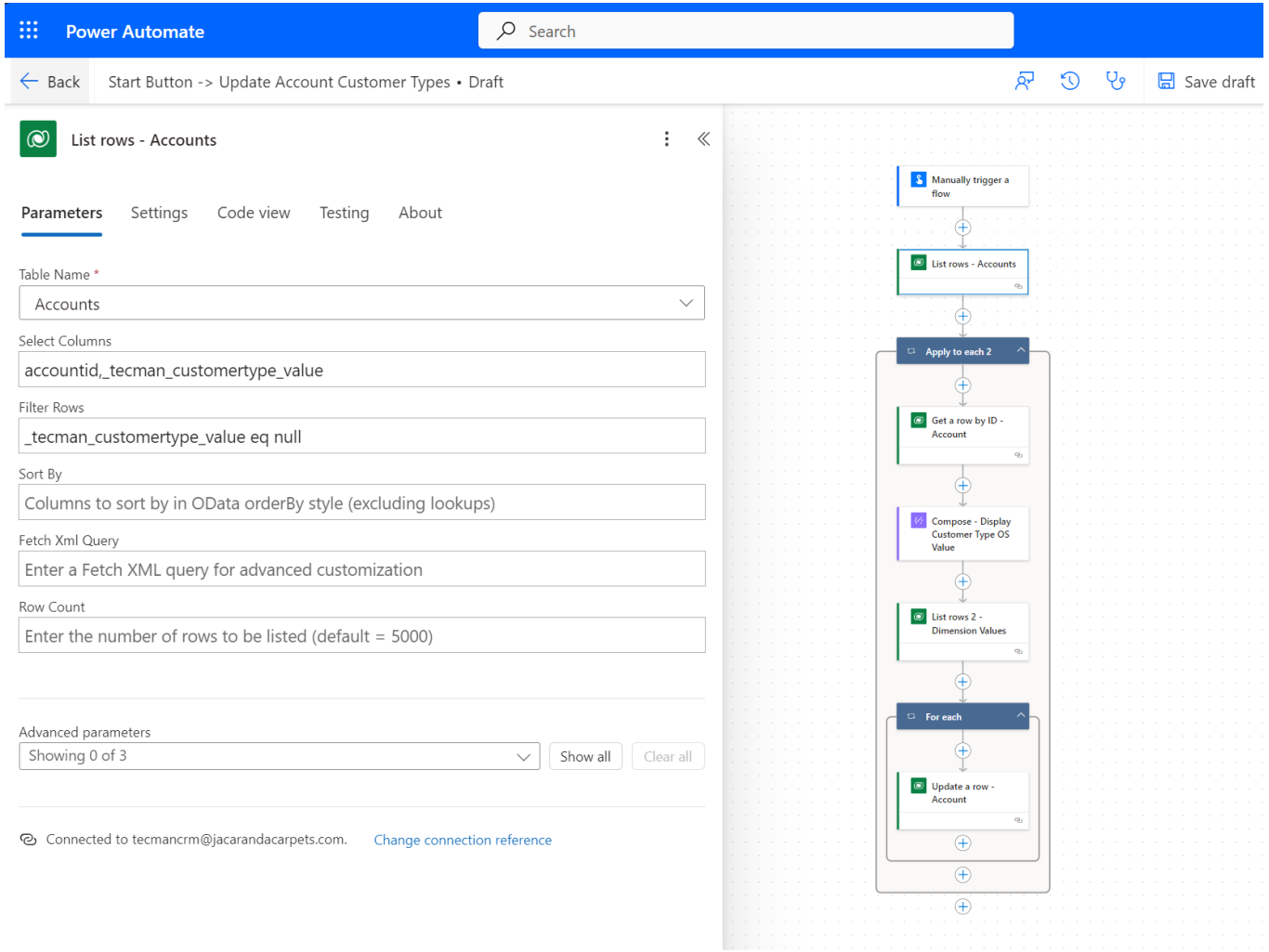
Power Apps: Power Automate



What is Power Automate?

Power Automate is a service that allows you to automate workflows between different applications and services.

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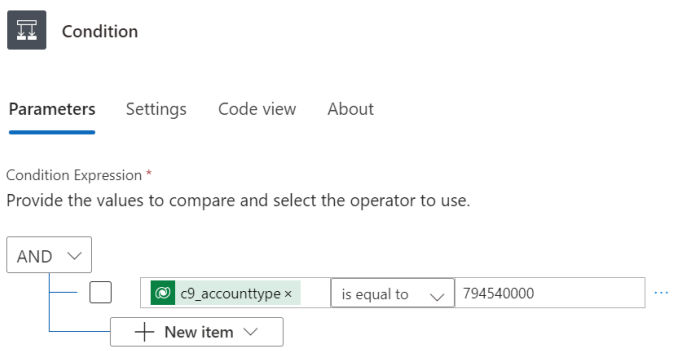
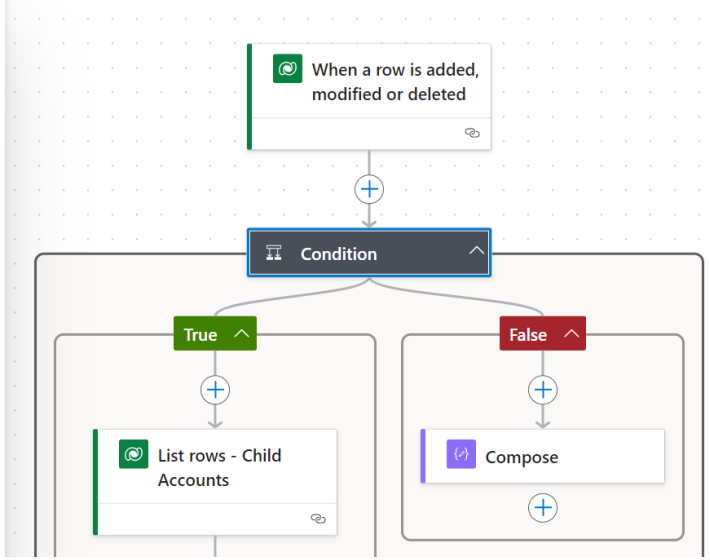
What is Power Automate?





You can create flows that trigger actions based on conditions, perform tasks across multiple apps, or streamline approvals.

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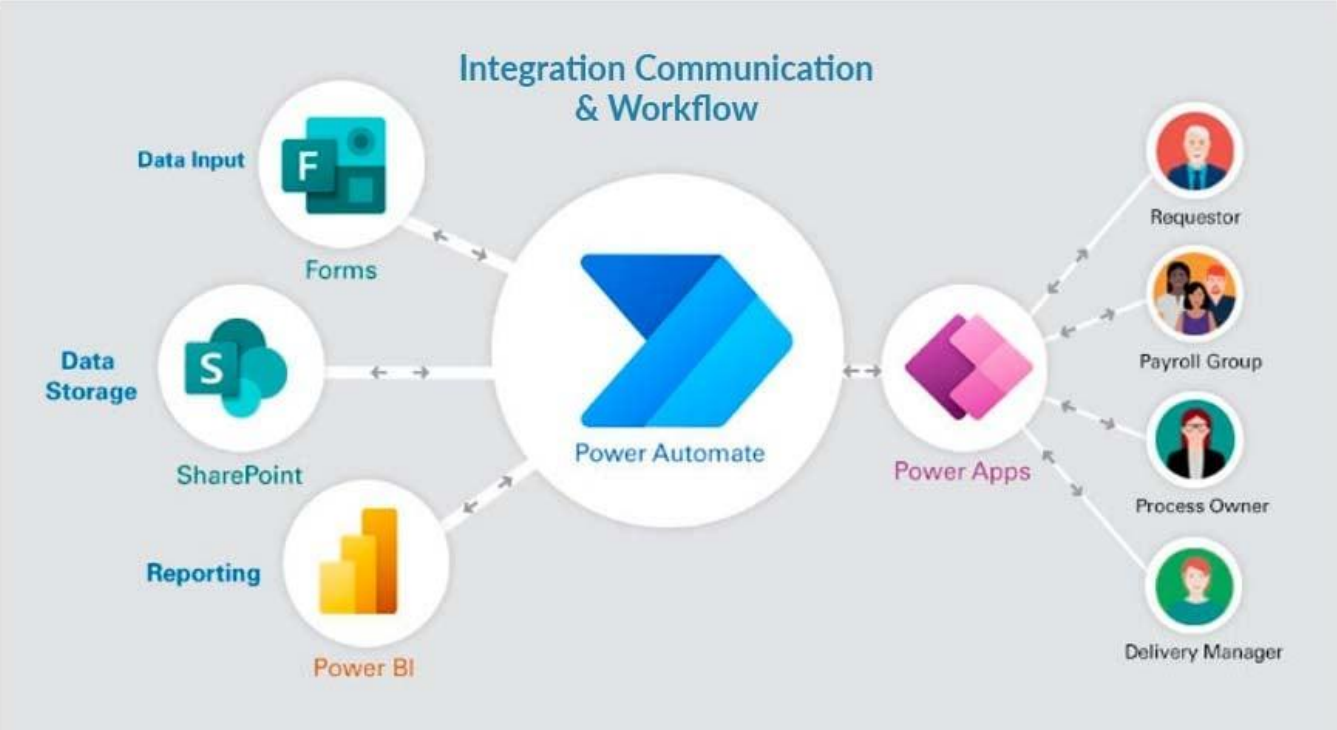

What is Power Automate?

It is useful for integrating and automating repetitive tasks without manual intervention.

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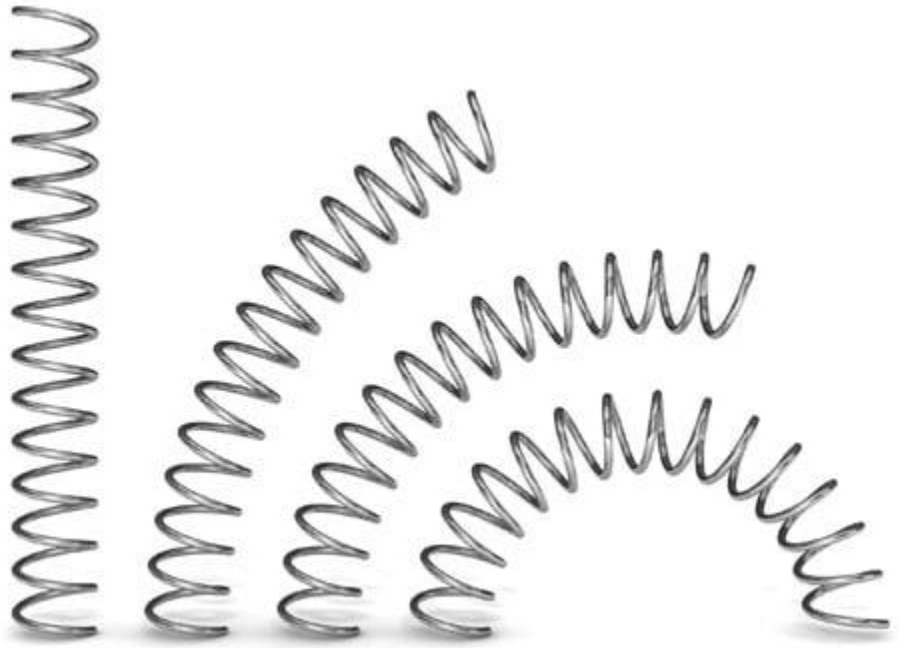
Power Automate Flows

Power Automate provides flexibility for automating processes across services and connectors.

Use Power Automate flows when:



Power Automate Flows

Logic needs to span multiple services (e.g., integrating SharePoint with Dataverse).

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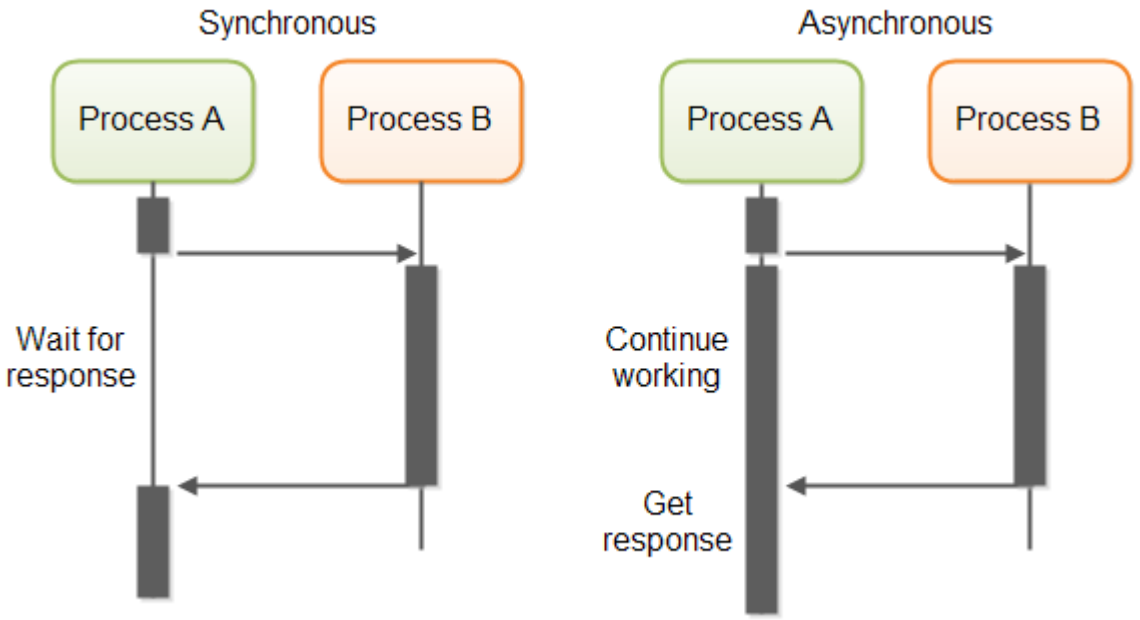
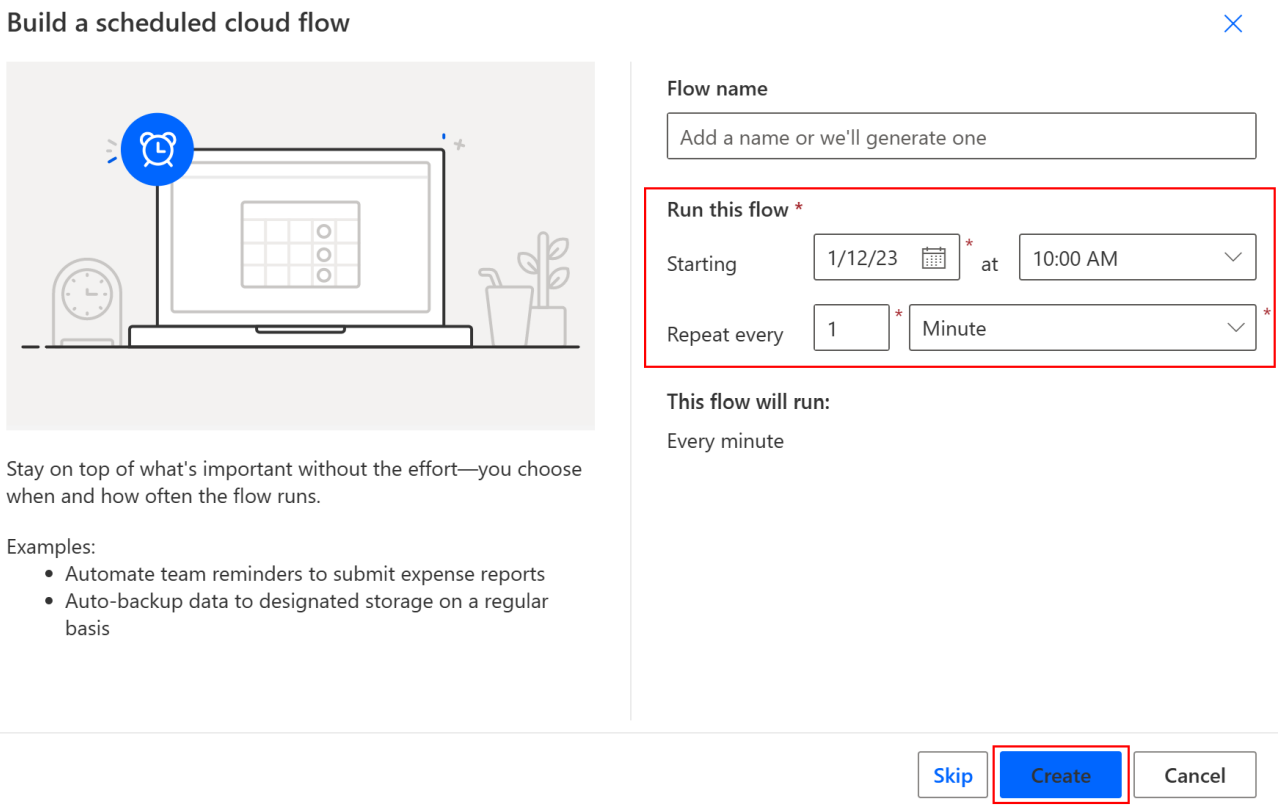
Power Automate Flows



You need to perform asynchronous operations or don't want to burden the client device with processing.

Power Automate Flows



Creating **approval flows**, triggering actions across different services, or automating tasks on a schedule.

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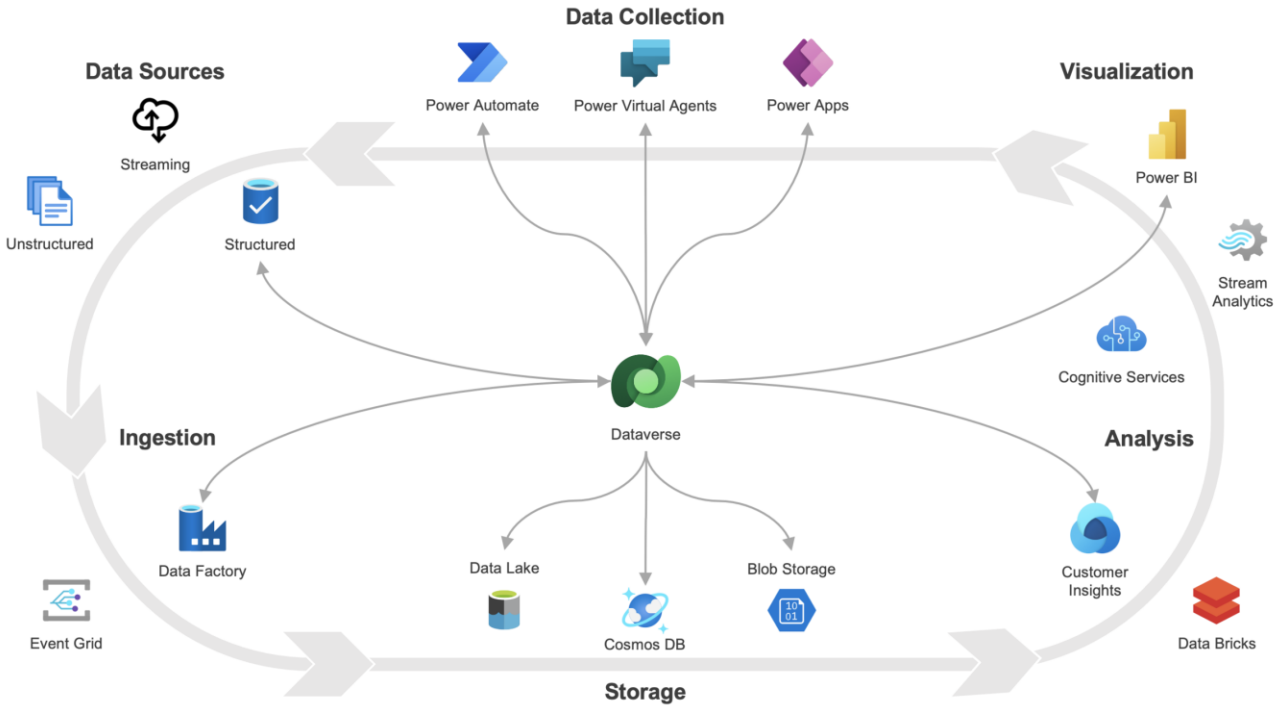
Power Apps: Microsoft Dataverse

What is Microsoft Dataverse?

Microsoft Dataverse is a secure data platform that stores and manages data used by business applications.



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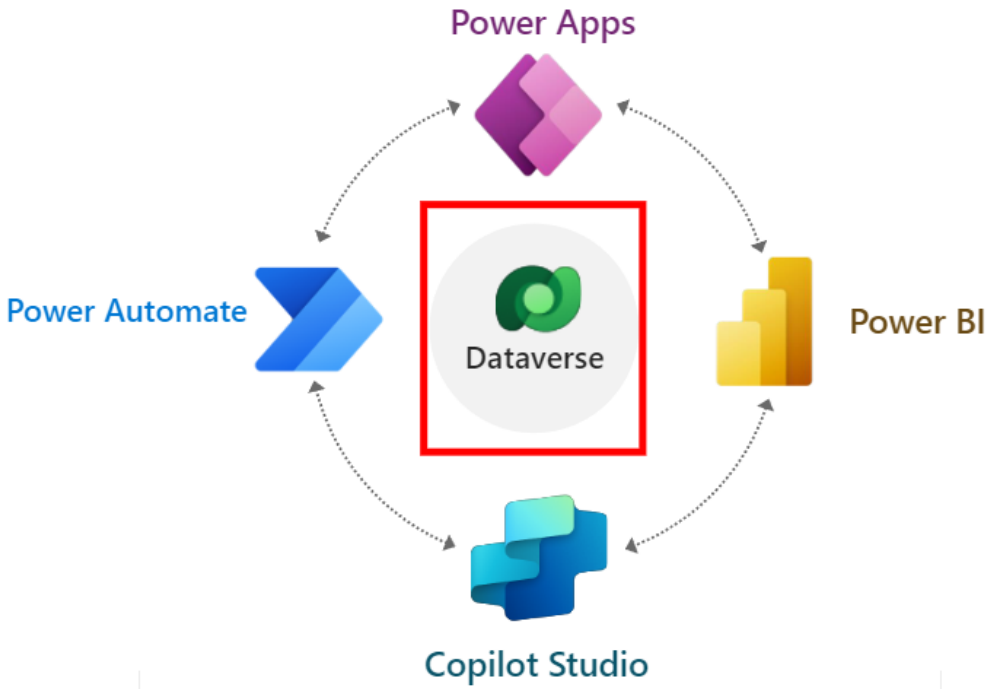
What is Microsoft Dataverse?

It acts as a unified data model that apps, including Power Apps, can connect to, enabling consistent business logic and data sharing.



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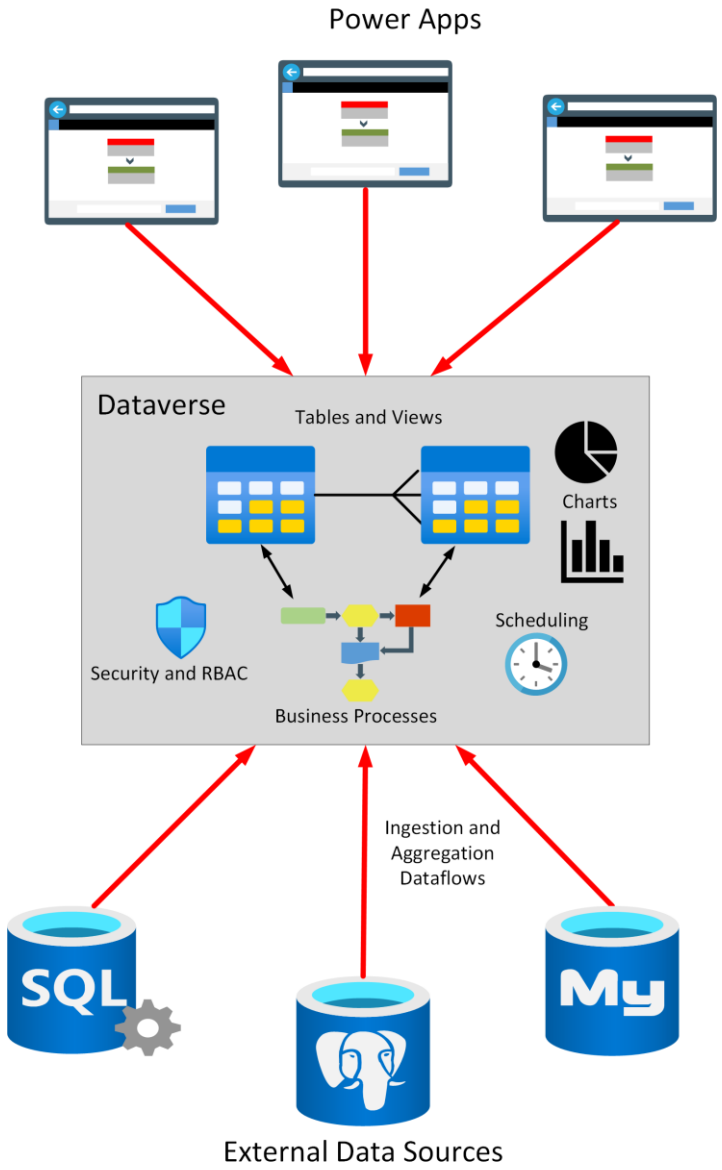
What is Microsoft Dataverse?

It supports the creation of calculated fields, workflows, and complex data relationships across different apps.



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Microsoft Dataverse

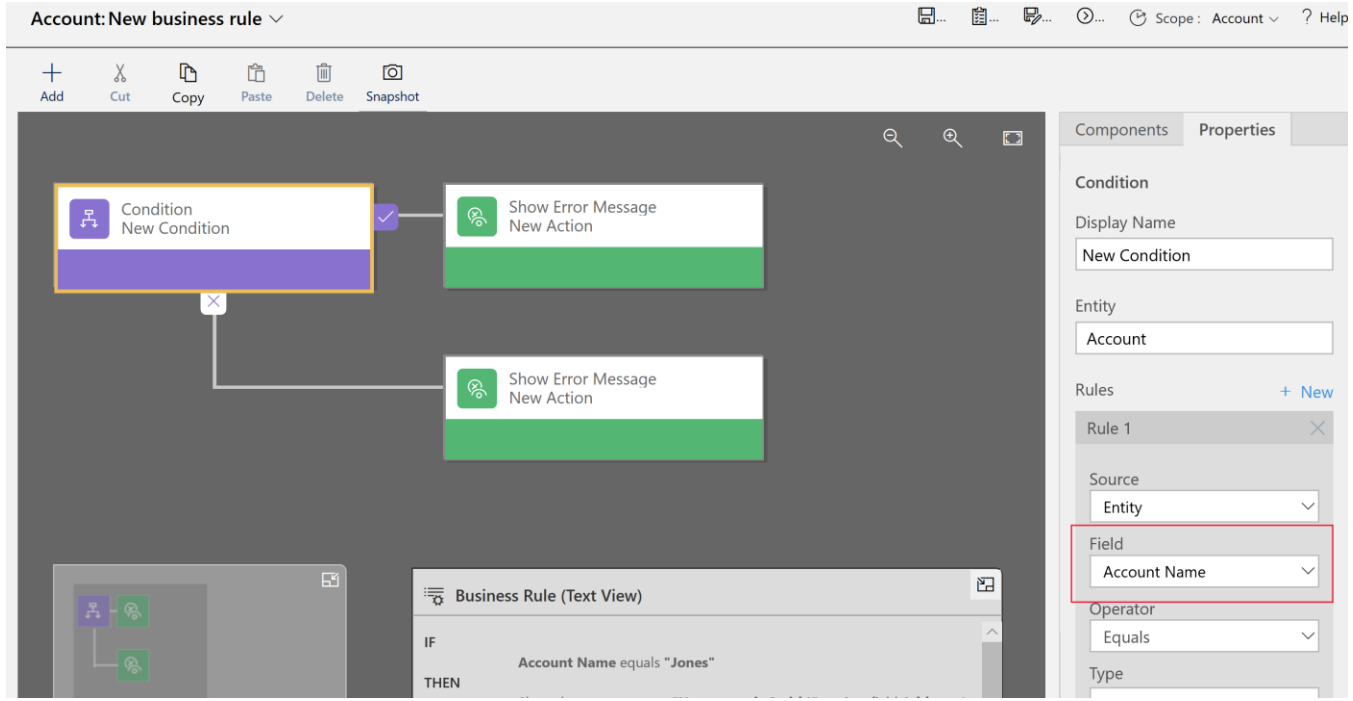
Dataverse is ideal for storing and managing business logic at the server level.

It ensures that logic is applied consistently across all apps and services.

You can implement:

Microsoft Dataverse

Business Rules: To enforce conditions, validations, and calculations at the database level.



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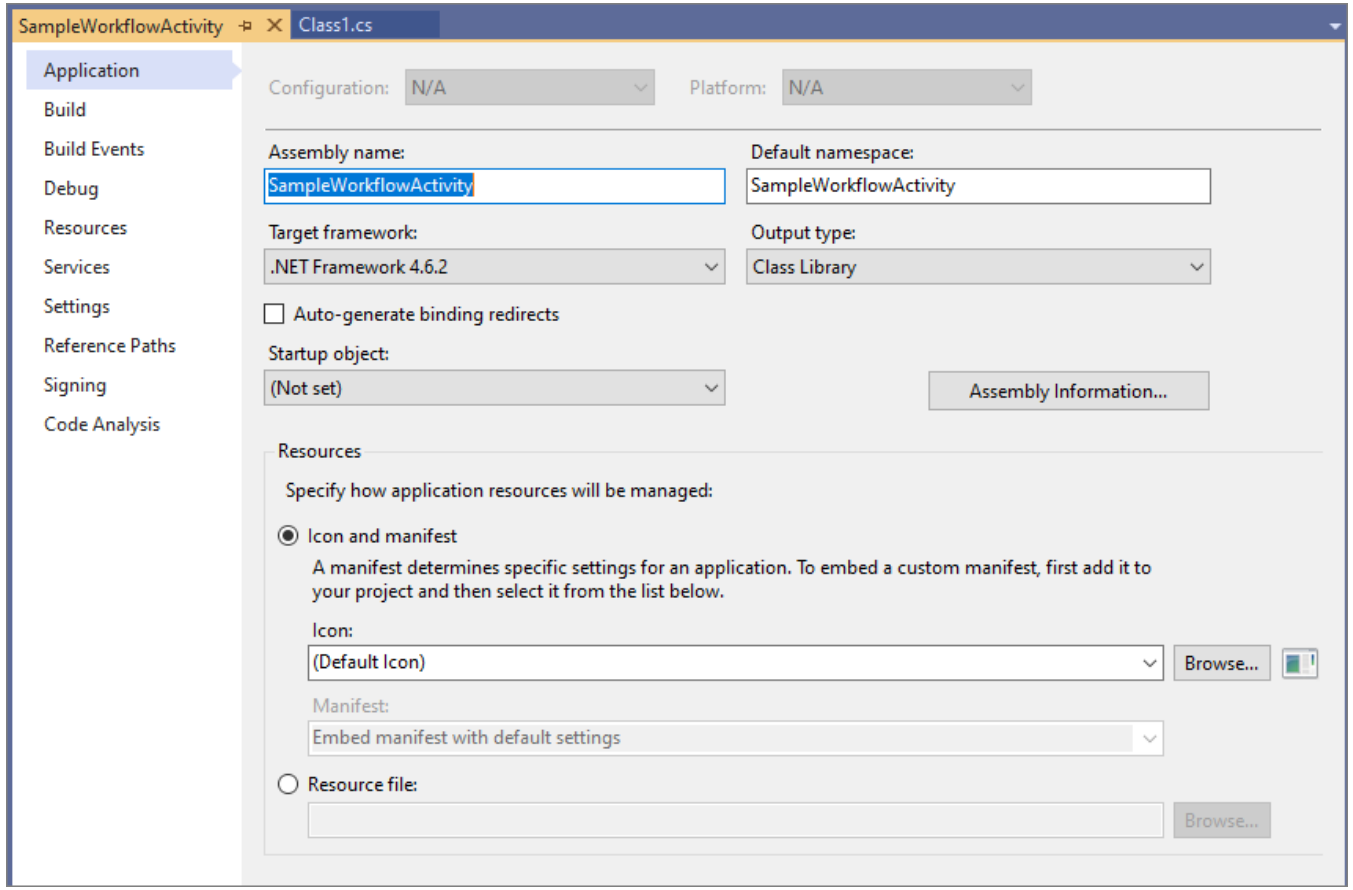
Microsoft Dataverse

Plug-ins and Workflow Extensions: For pro-developers to implement custom code that handles more complex server-side logic.



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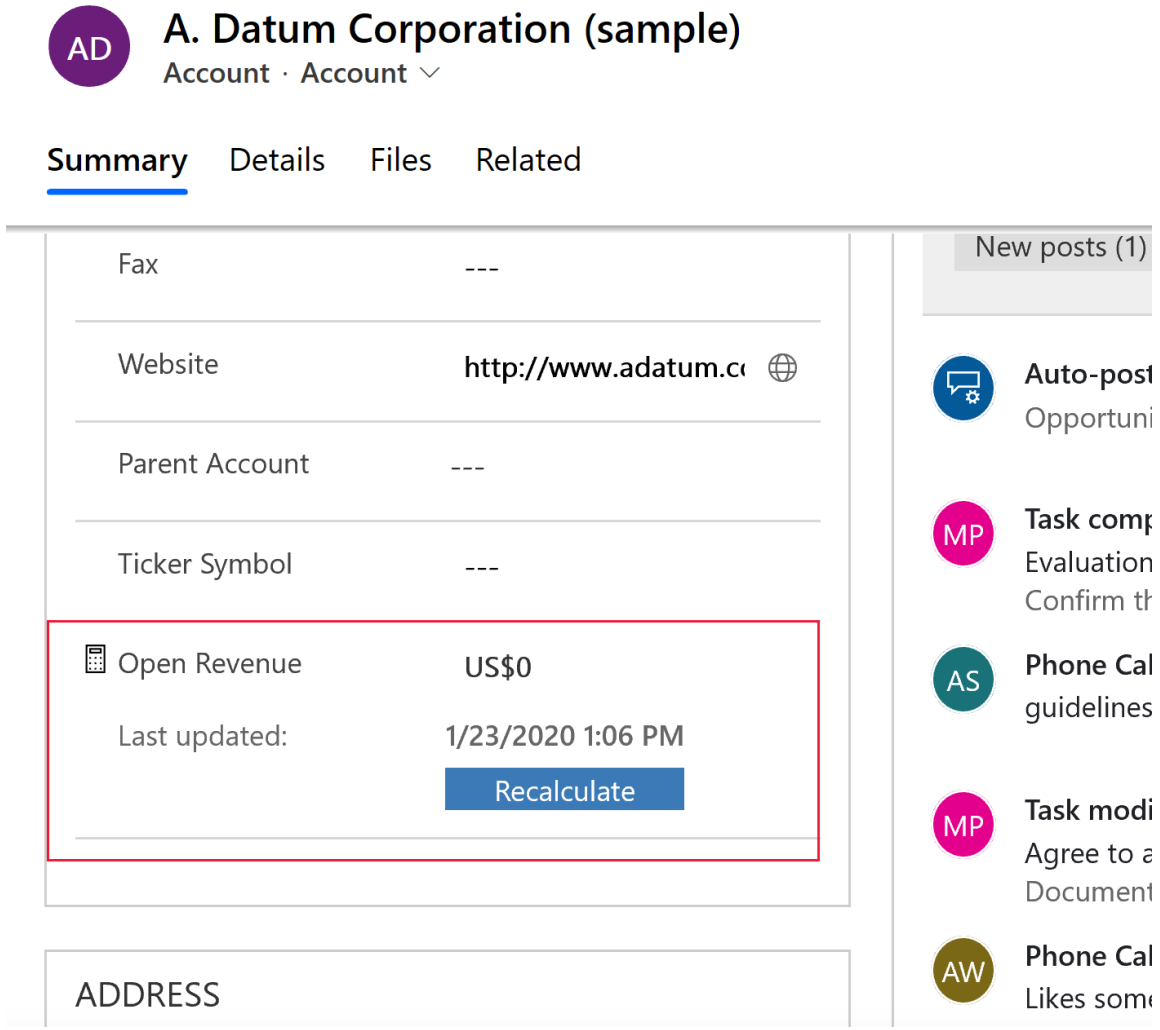
Microsoft Dataverse

Calculated and Roll-up Fields: For automatic calculations and aggregations within Dataverse tables.



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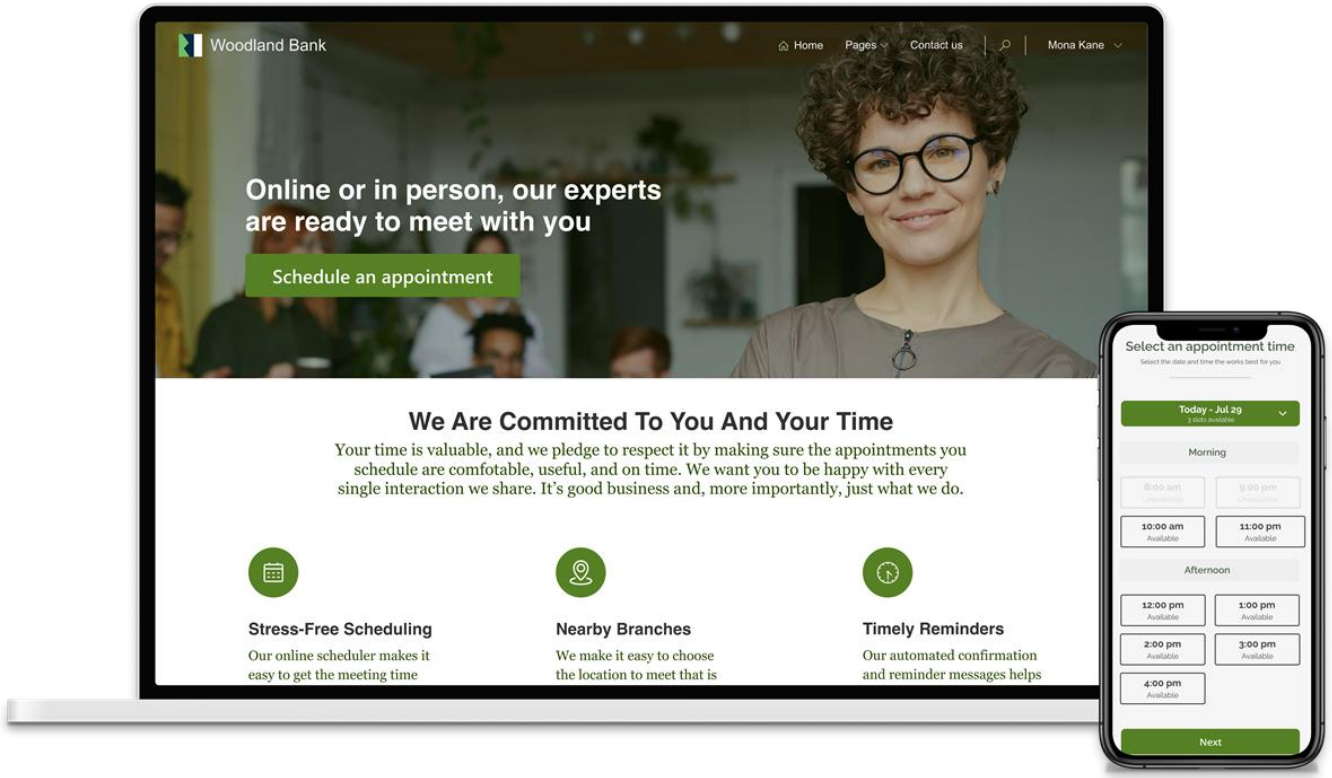
Power Apps: Power Pages



What is Power Pages?

Power Pages is a low-code development and hosting platform that allows users to build secure, data-driven websites with ease.

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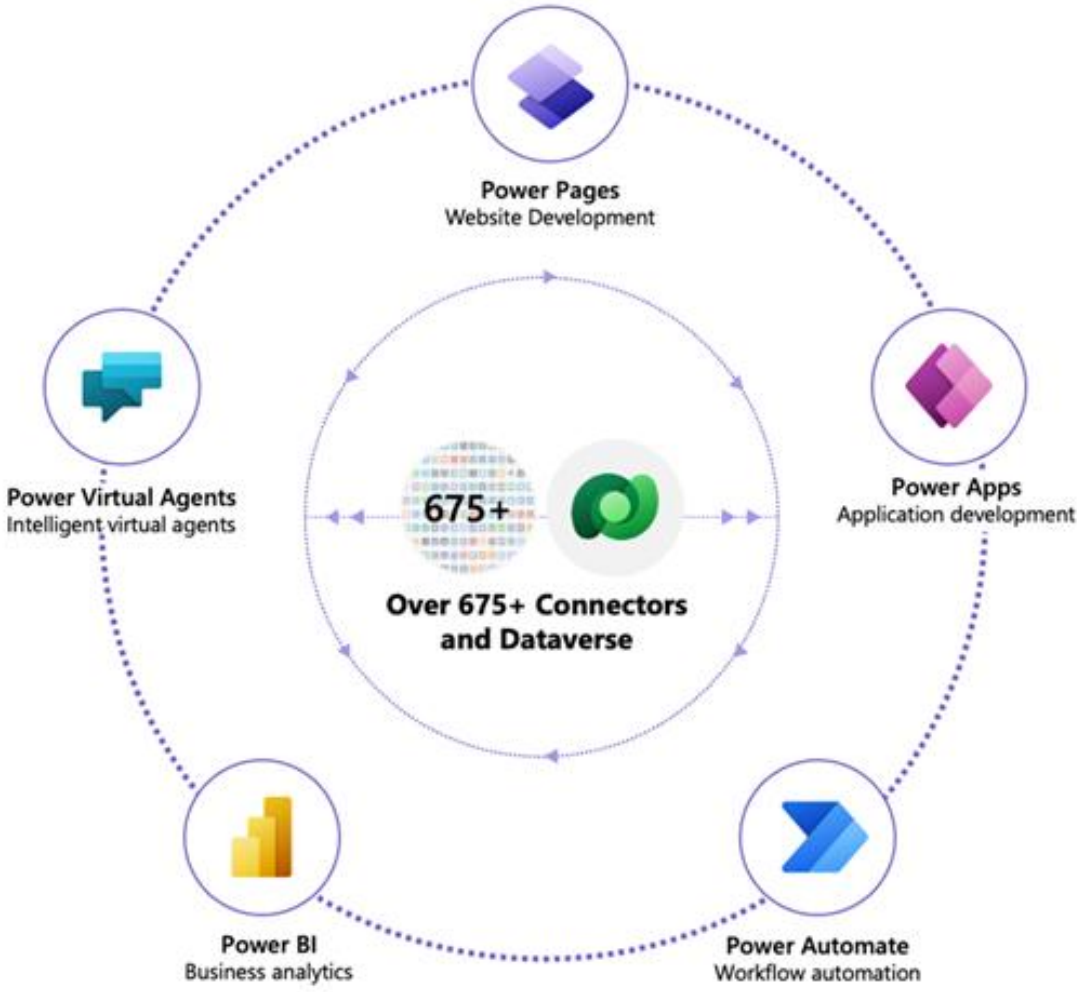
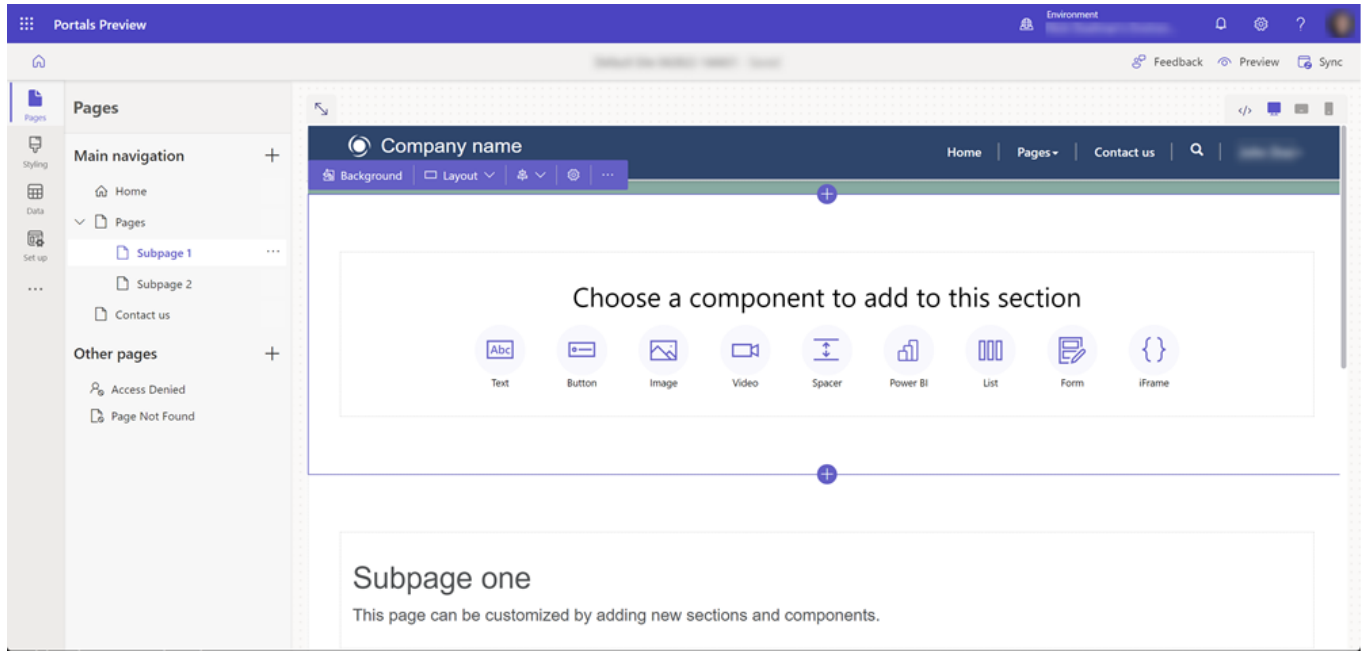


What is Power Pages?

It is part of the Microsoft Power Platform and enables users to design web pages that can integrate directly with Microsoft Dataverse and other external services, making it ideal for business scenarios requiring external-facing websites.



What is Power Pages?

Power Pages provides rich, customizable templates, a fluid visual experience through the design studio

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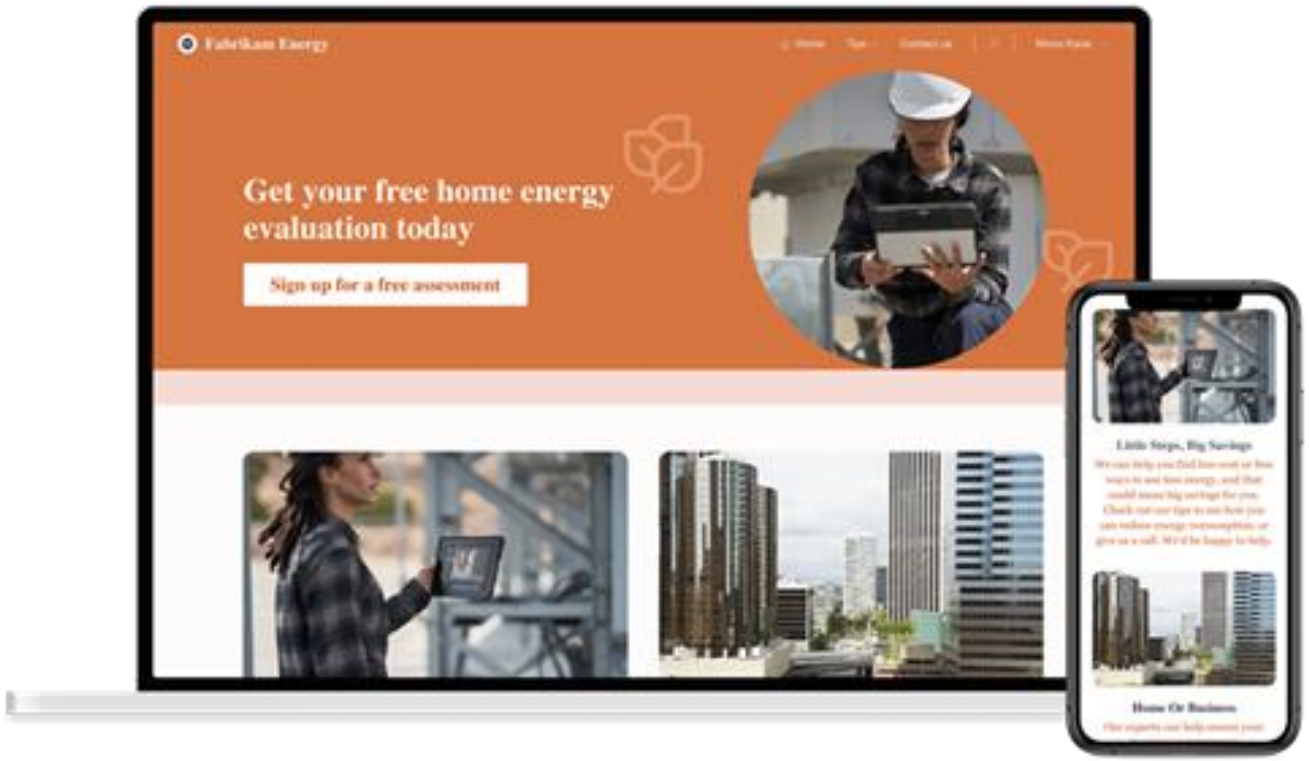

What is Power Pages?

Power Pages is based on Bootstrap, which provides support for building websites that are responsive, mobile-friendly, and available in various form factors.

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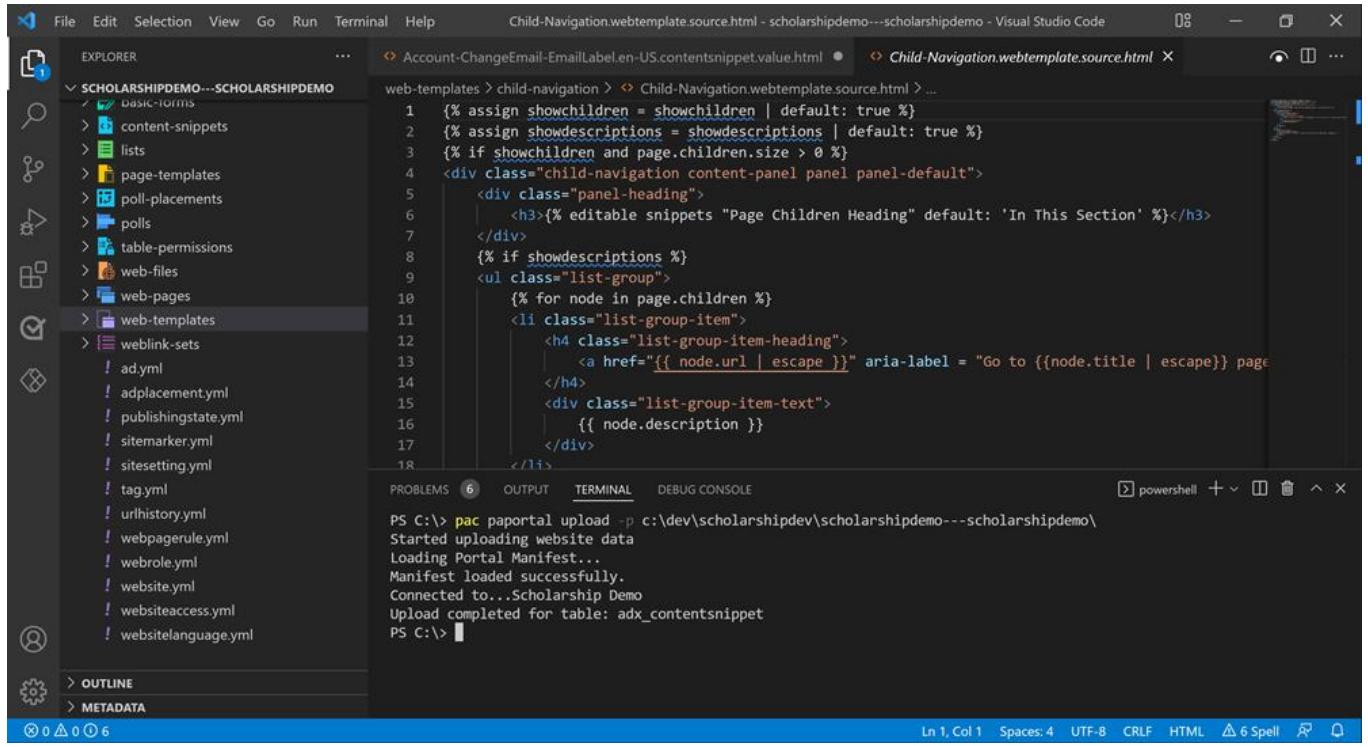

What is Power Pages?

Makers can work with pro developers in fusion teams to extend the functionality using Visual Studio Code and the Microsoft Power Platform CLI

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Power App Examples

Canvas App – Retro Stop Kit

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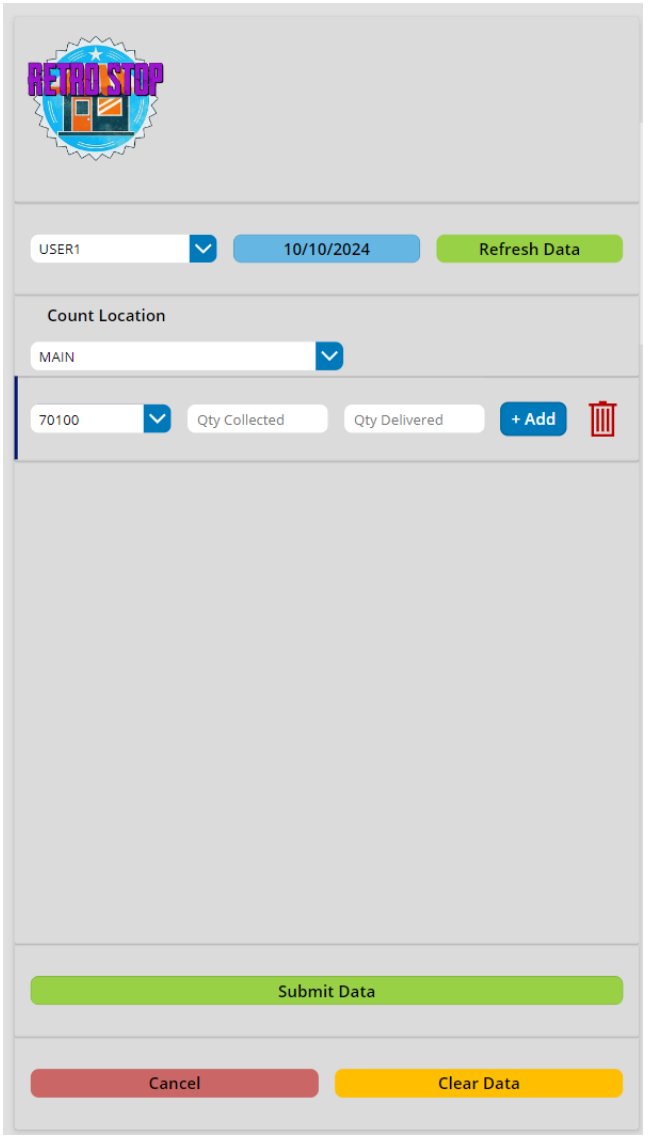
Canvas App – Retro Stop Kit Application

The Retro Stop Application kit was designed to track and submit stock collected and delivered on site.



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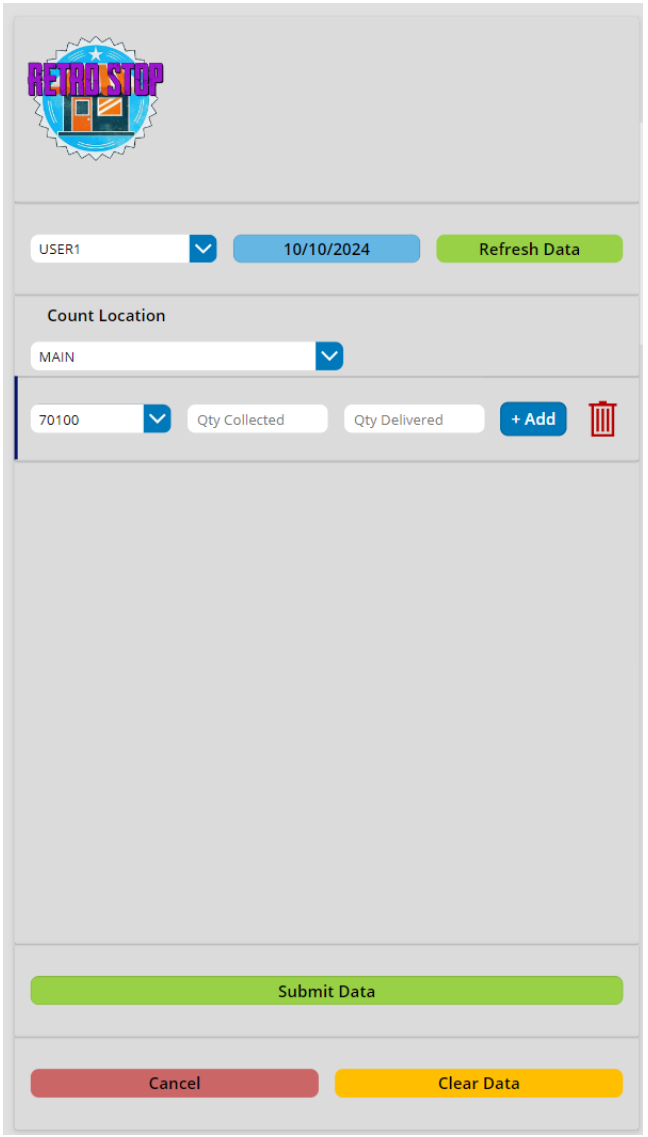
Canvas App – Retro Stop Kit Application

The app uses an API to communicate with Business Central.

Pulling down the relevant data into a collection, on press of “Refresh Data”



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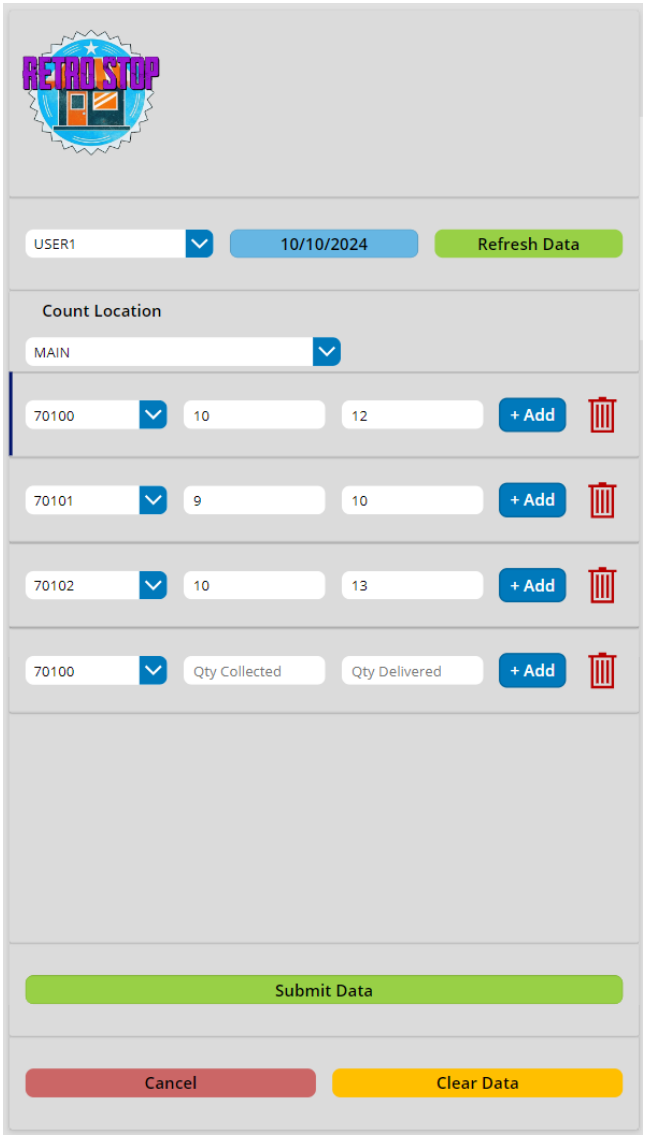
Canvas App – Retro Stop Kit Application

The app pulls data from Business Central via API messages

Date and Time	Message Short	Response Short	APP Code	Entry No.
11/10/2024 09:29	[{"action":"get","appcode":"KIT","table":"wmsuserlist","value":"Get...	[{"userid":"USER1","defaultlocationcode":""},{"...	KIT	{2e779a07-e82d-464b-9c62-44f3c9c8fb59}
11/10/2024 09:29	[{"action":"get","appcode":"KIT","table":"kitlocationlist","value":"G...	[{"code":"MAIN","name":"Main Warehouse"}]	KIT	{092467b0-21eb-4757-9027-ffe954e249b4}
11/10/2024 09:29	[{"action":"get","appcode":"KIT","table":"kitlist","value":"Get Kit Lis...	[{"customerno":"10000","customername":"Th...	KIT	{969b717d-6ae9-42b4-84ee-ebab072cbba5}

Canvas App – Retro Stop Kit Application

It allows quick collection of vital onsite information while doing collection and deliveries of stock.



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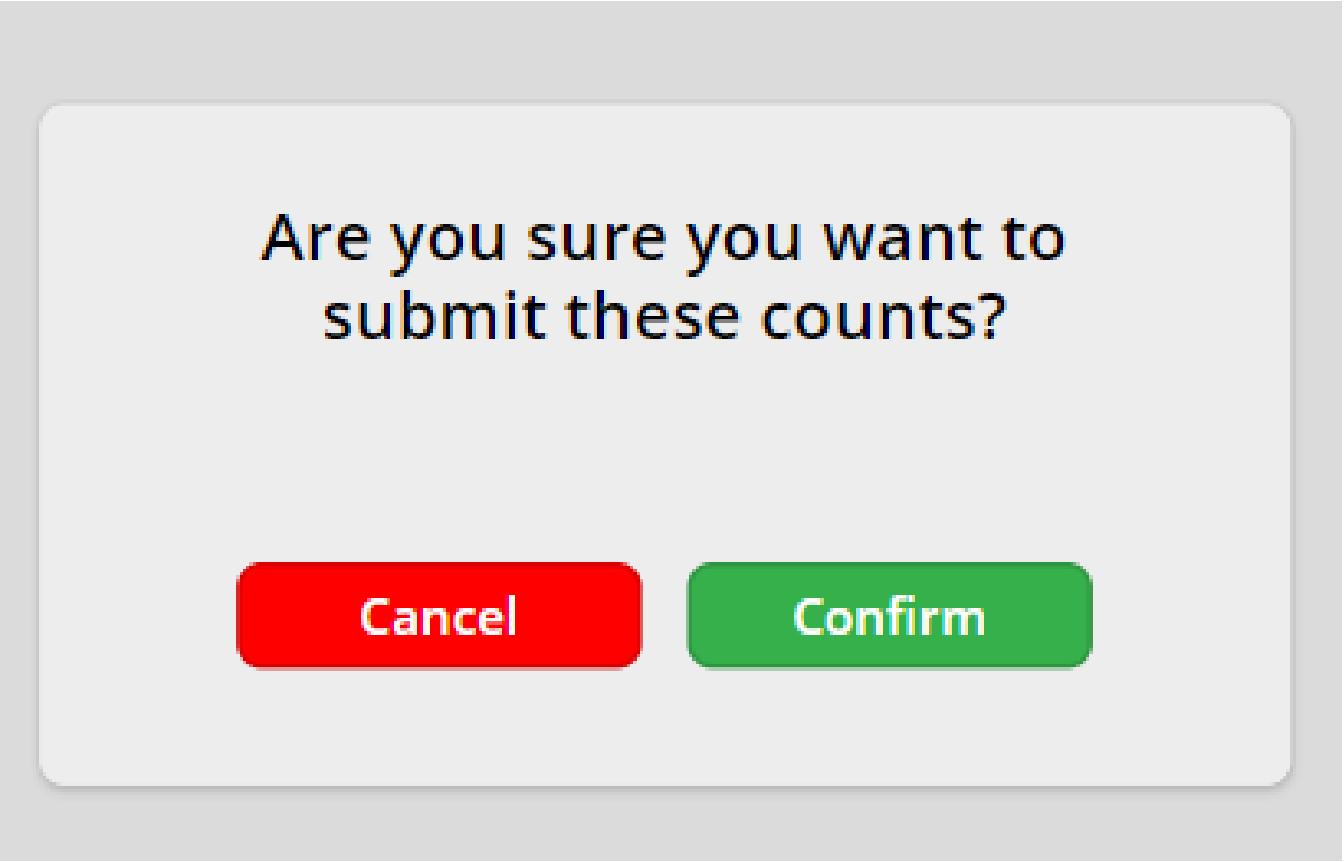
Canvas App – Retro Stop Kit Application

On Submission, the app has confirmation prompts before it submits data to business central via API Messages



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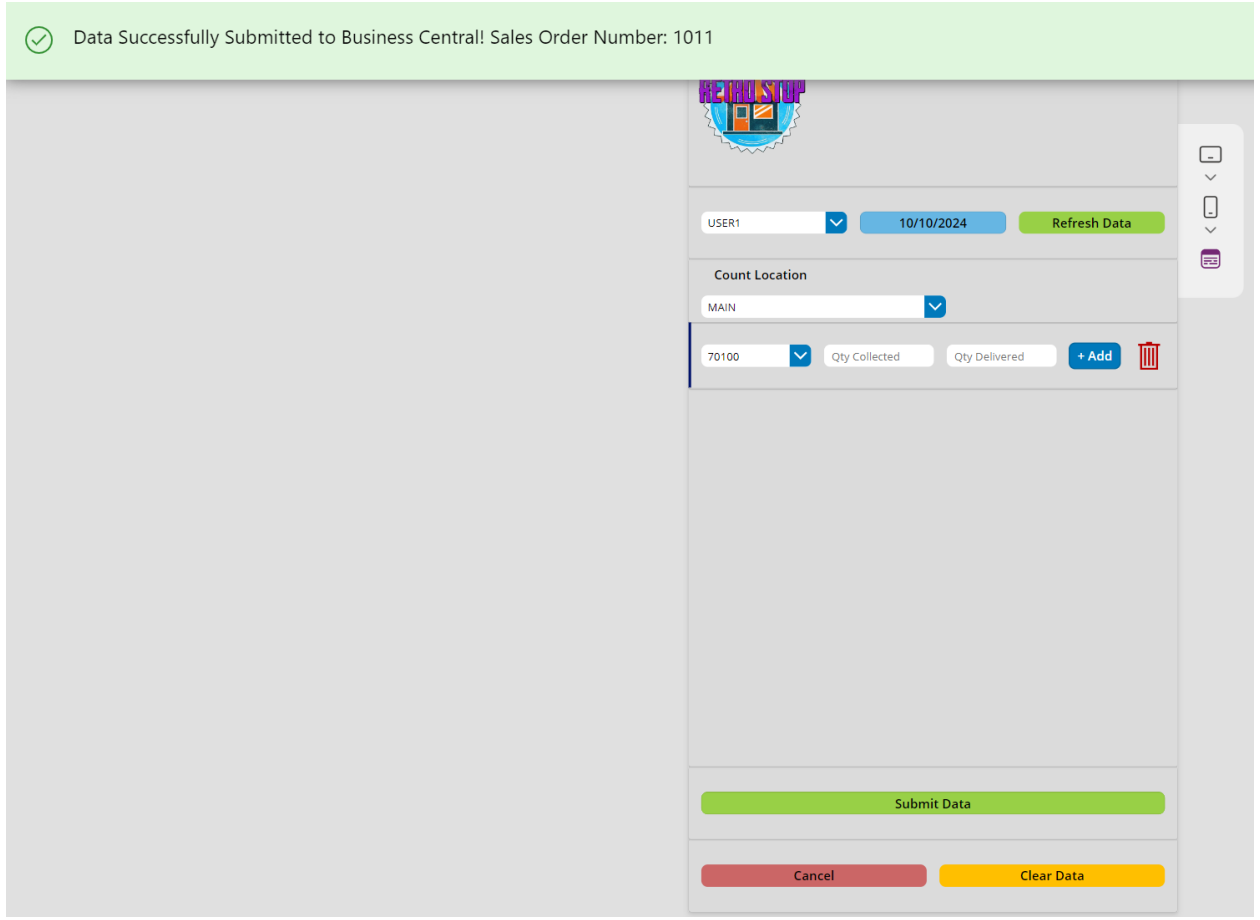
Canvas App – Retro Stop Kit Application

Submission of data feedback to the app to advise of any errors or successful Sales Order creation.



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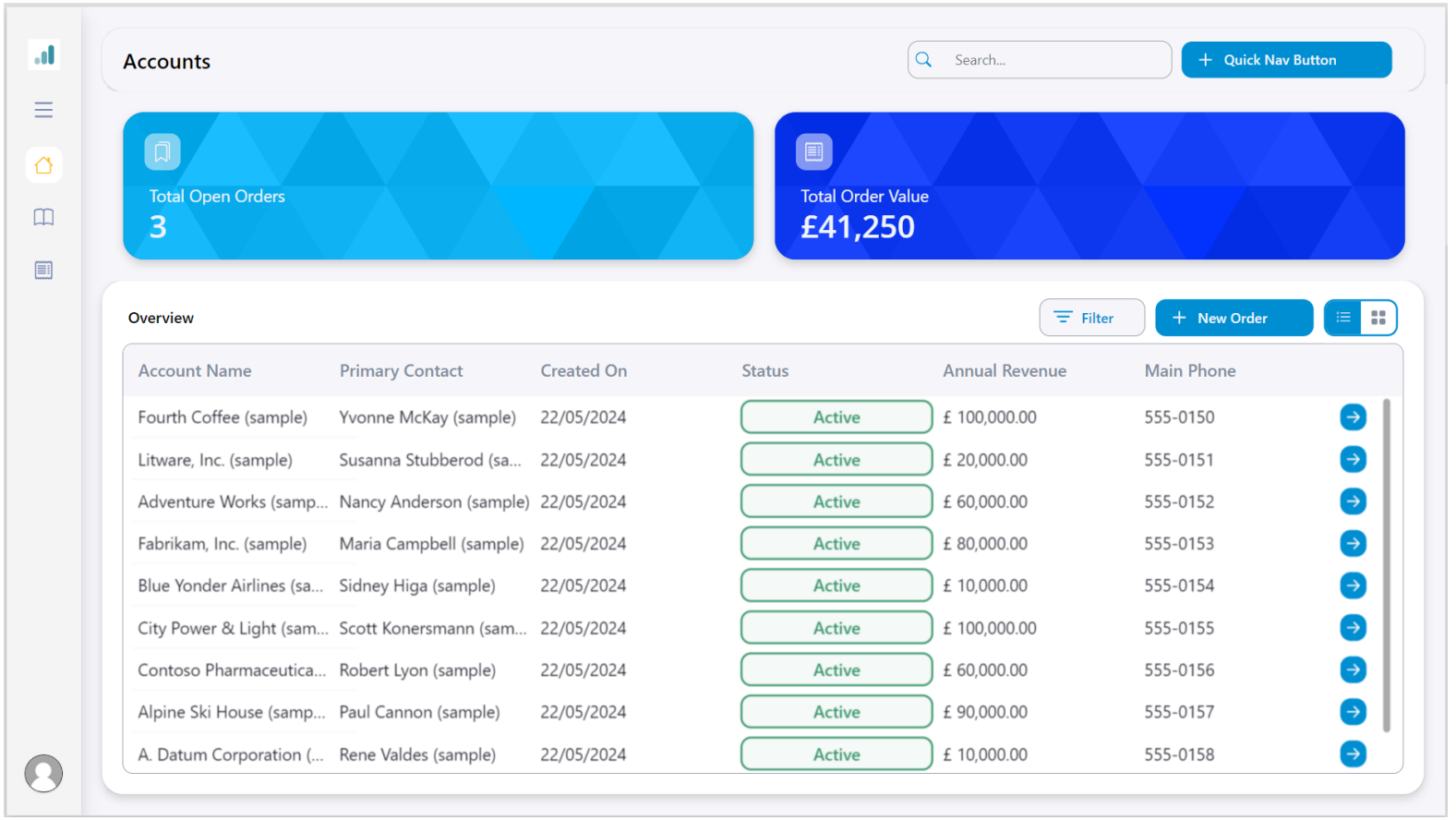
Canvas App – Retro Stop Kit Application

We can see the API message with a successful response of a sales order creation

Date and Time ↓	Message Short	Response Short	APP Code	Entry No.
11/10/2024 09:42	[{"action":"post","appcode":"KIT","countlocation":"MAIN","custo...	[{"salesorderno":"1011"}]	KIT	{89dbdef7-6070-4d9a-af50-c446d173a40e}

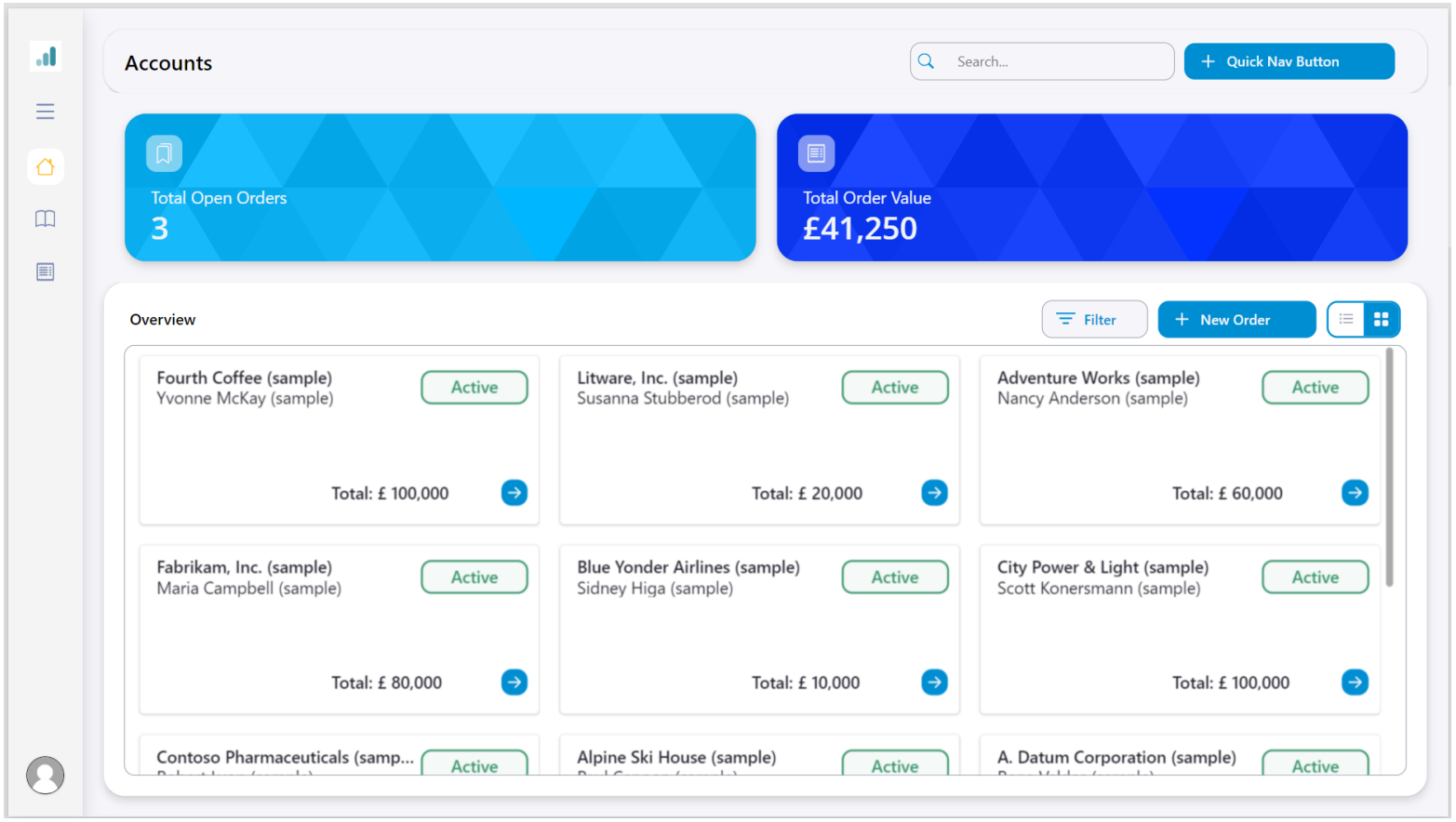
Canvas App – Sales Dashboard

Canvas App – Sales Dashboard App



Canvas App – Sales Dashboard App

The Sales Dashboard app is based on the Foundation App Tecman has developed to help excel application builds



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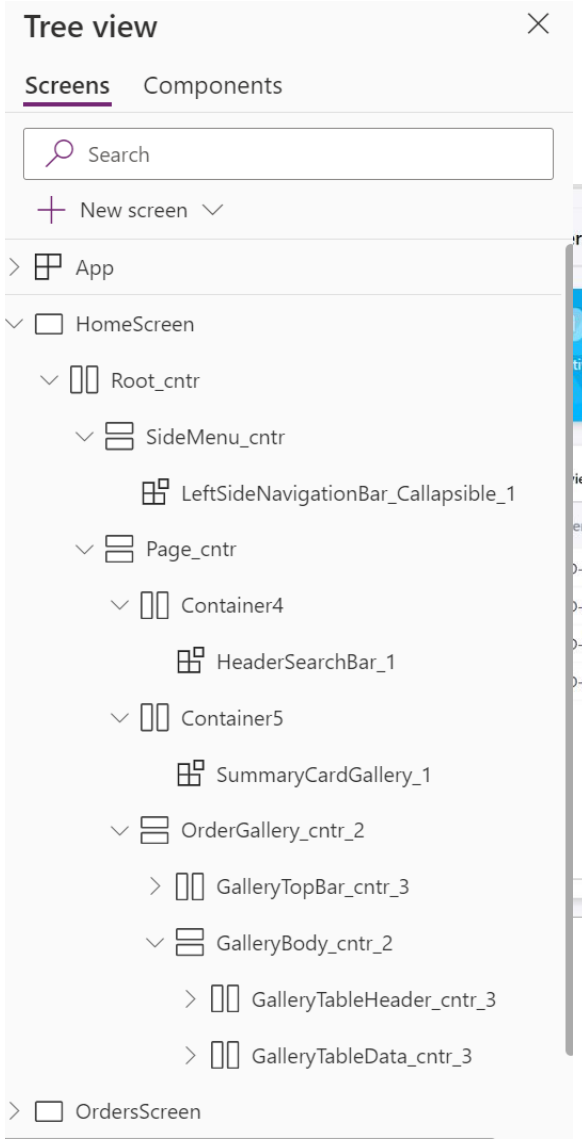
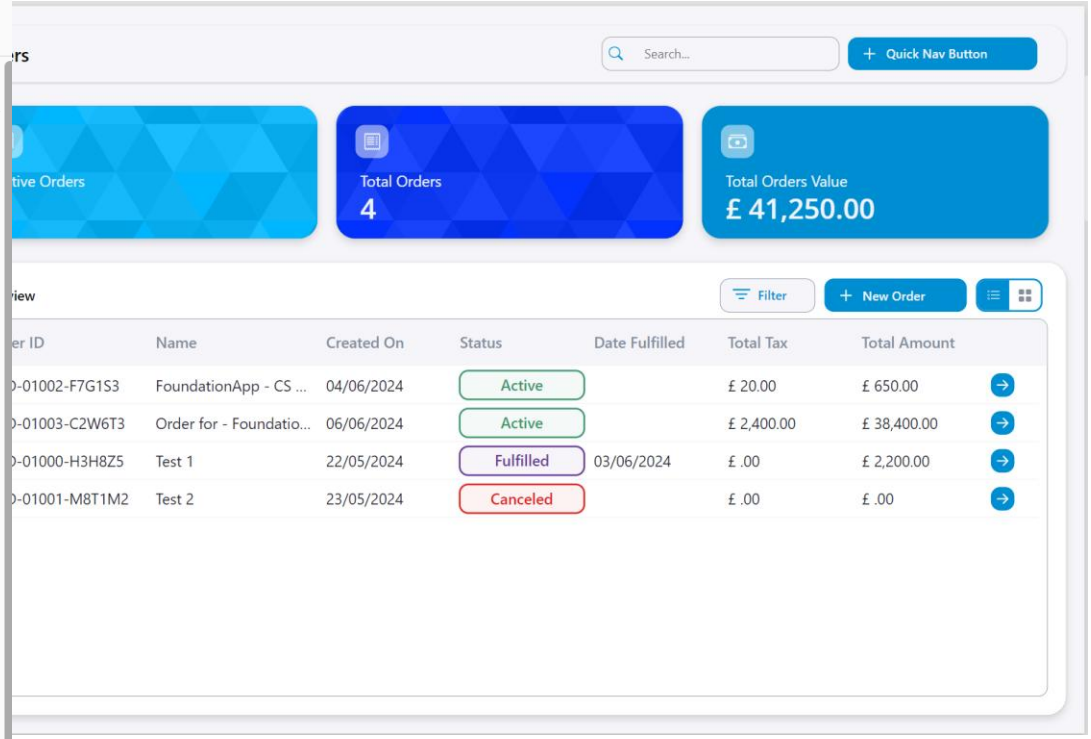
Canvas App – Sales Dashboard App

Responsive screens built upon a container structure





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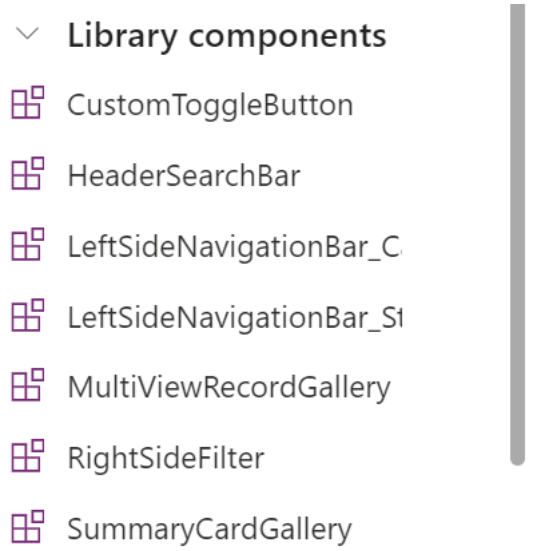
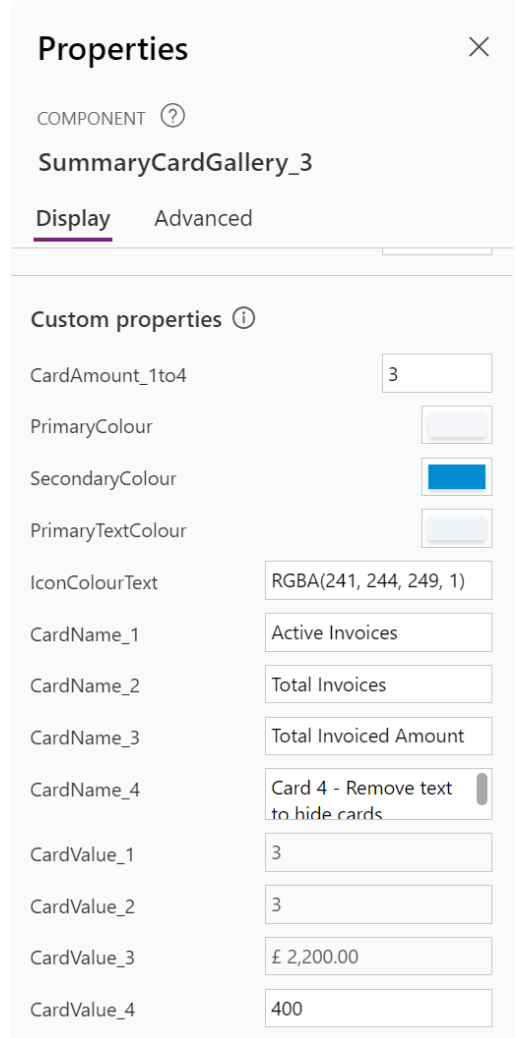
Canvas App – Sales Dashboard App

The application utilises Library components which have pre-defined components that can be drag into the app and customised.





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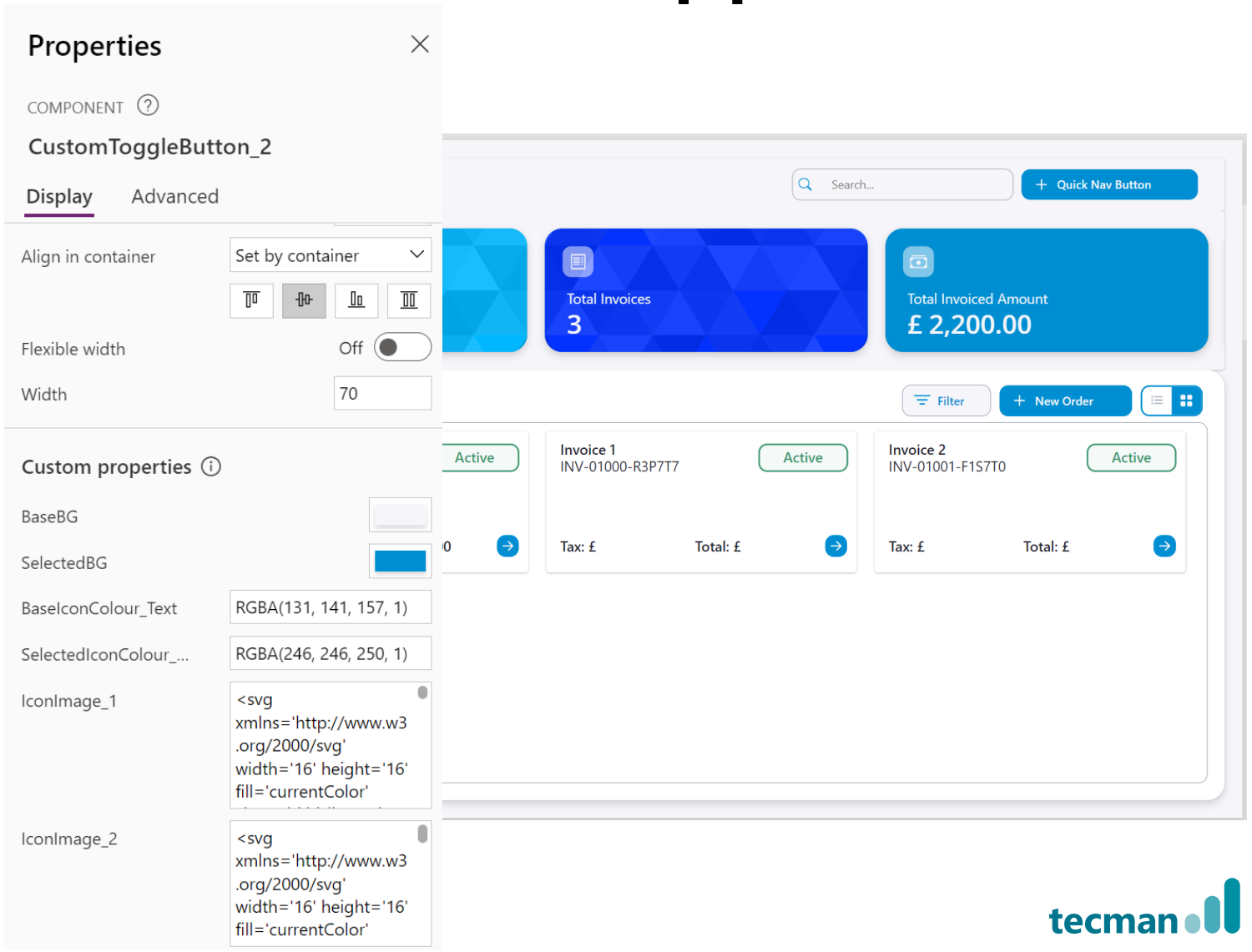
Canvas App – Sales Dashboard App

Customisable components and buttons using the component library



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Canvas App – Visitor Login System

Canvas App – Visitor Login App

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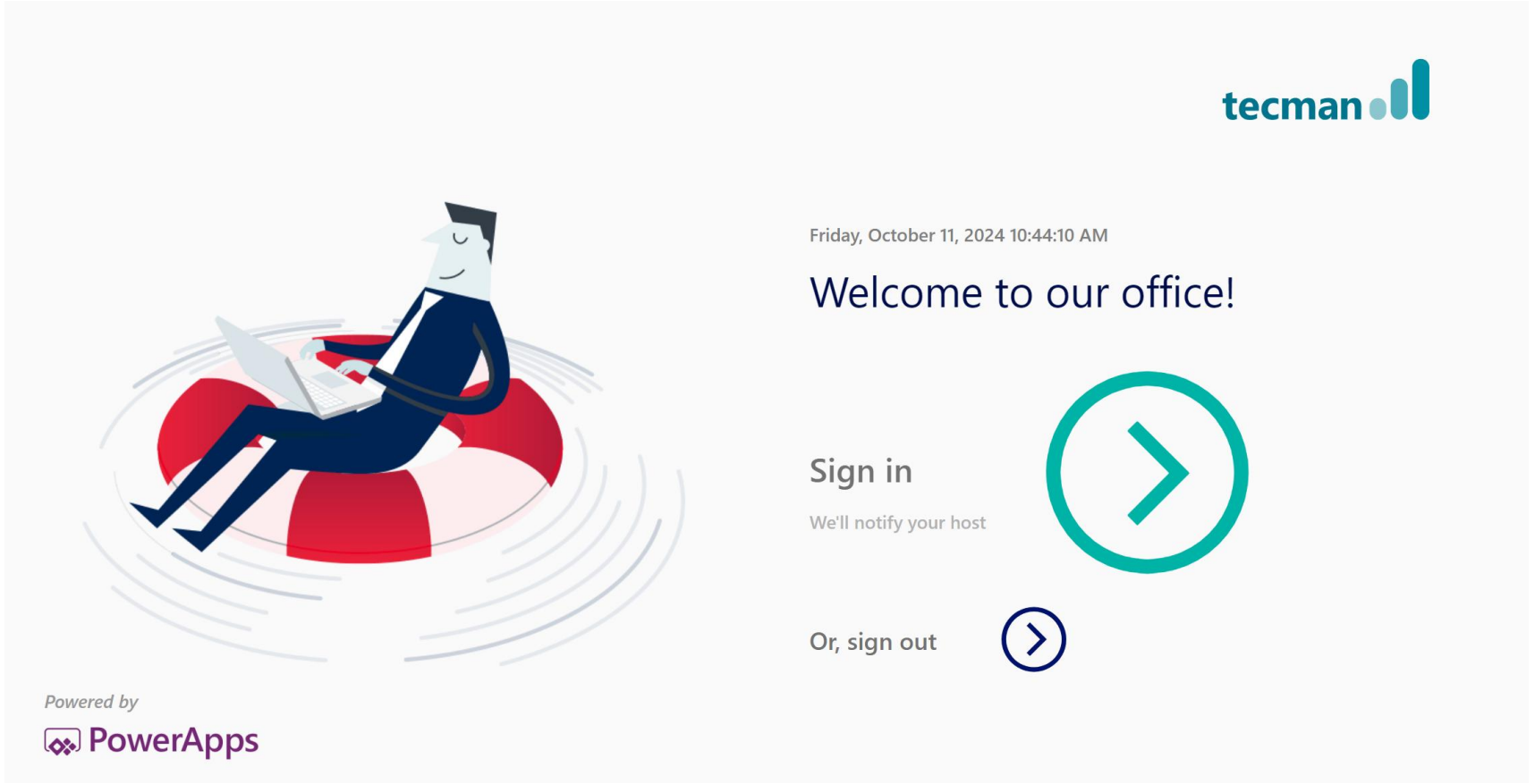
Canvas App – Visitor Login App

The visitor login system allows customer to sign into our office, notifying the consultant of their arrival.



Canvas App – Visitor Login App

Search for your visitor booking

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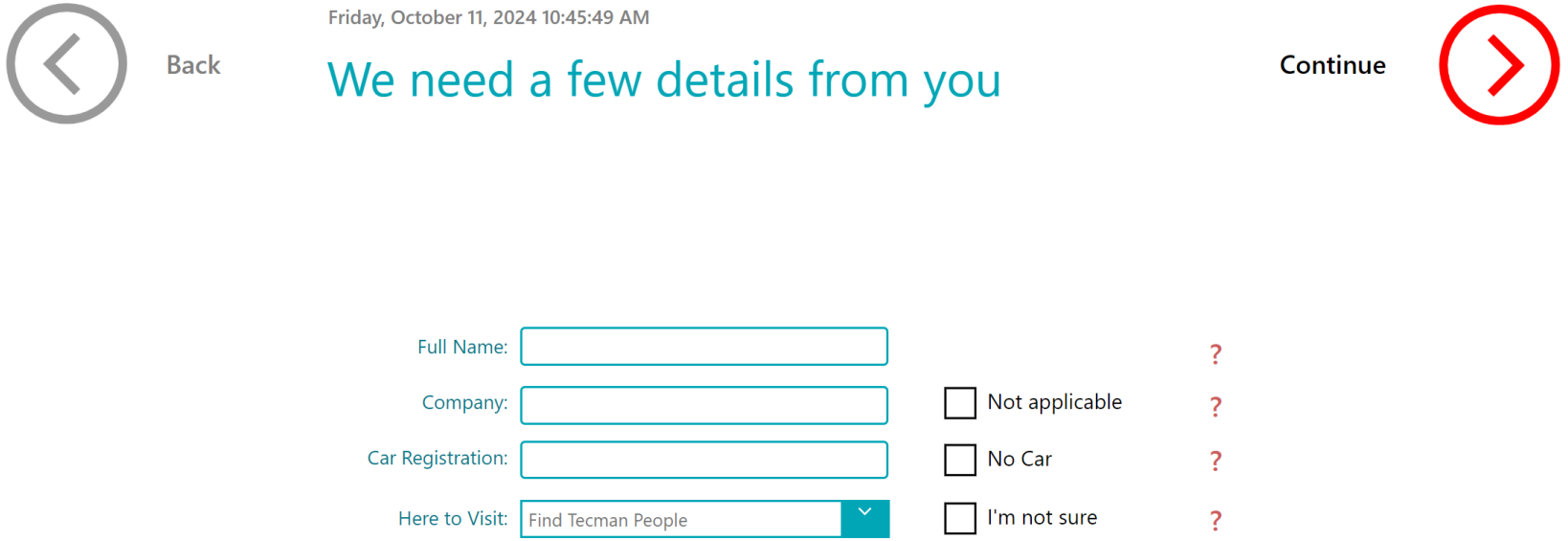
Canvas App – Visitor Login App

Customers can enter their details when arriving to the office with no scheduled booking. This will notify reception.



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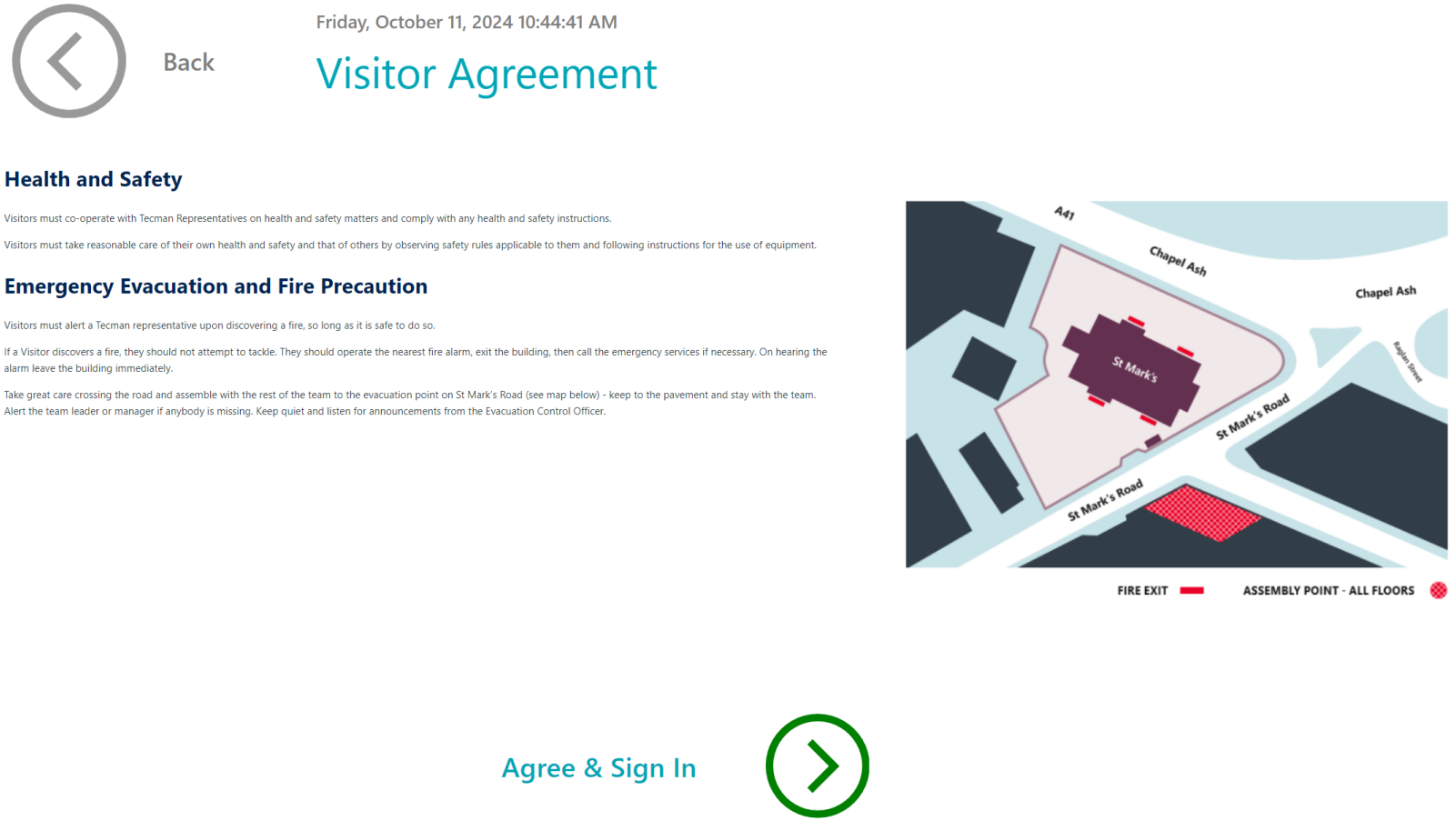
Canvas App – Visitor Login App

Shows agreement for signing into the office



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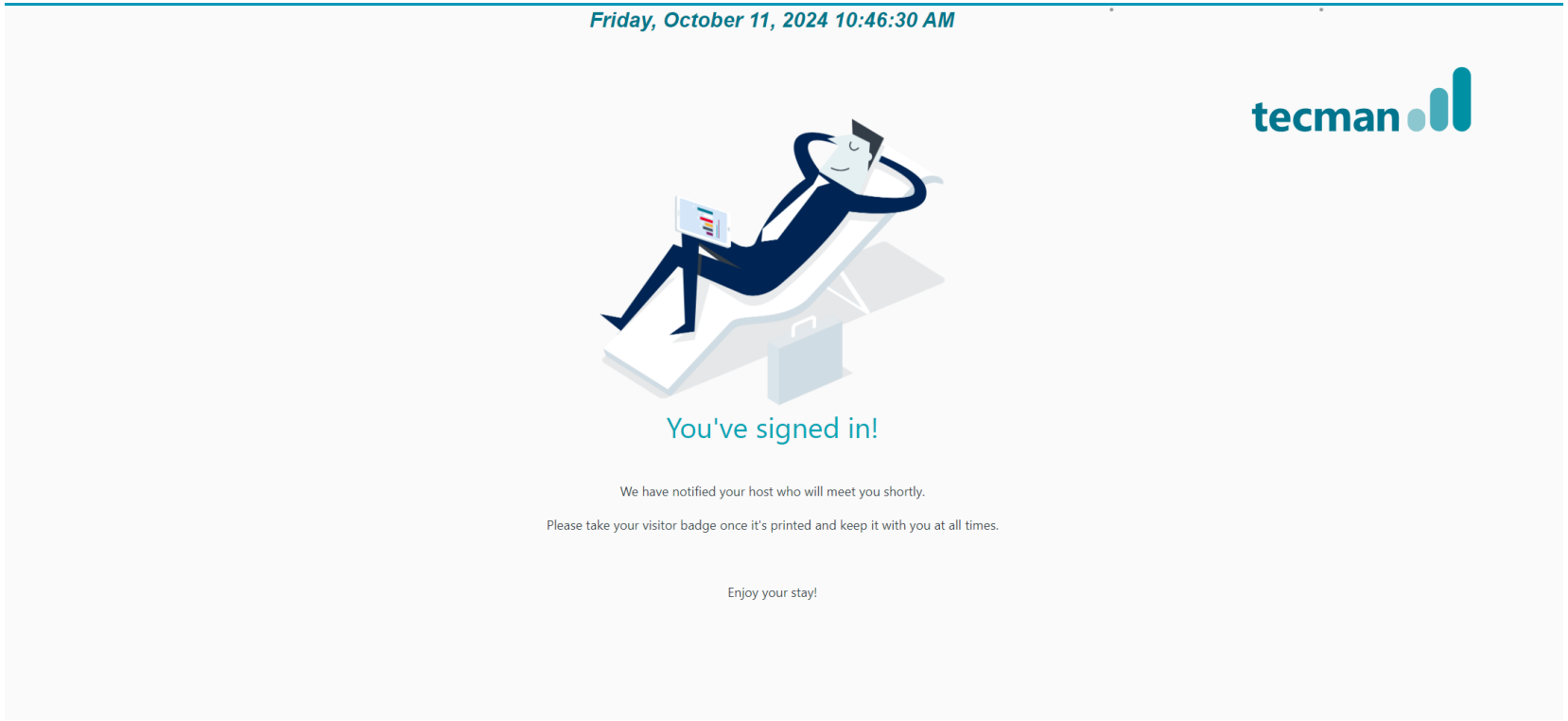
Canvas App – Visitor Login App

Confirmation of being signed in



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Canvas App – Visitor Login App (Admin)

Admin side of the app allows us to check and book visits to the office with customers.

Also displays current visitors signed in with audit history

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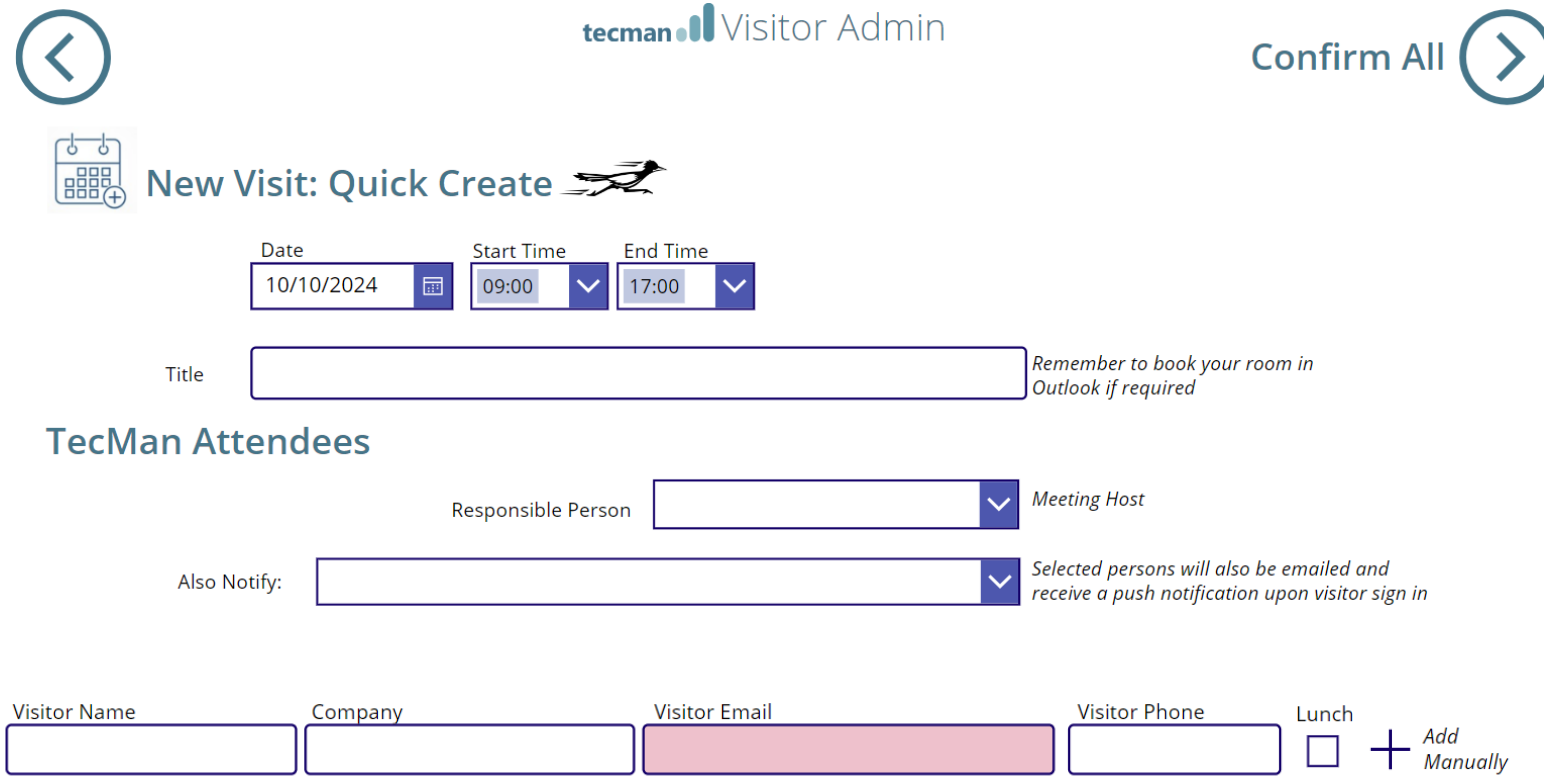
Canvas App – Visitor Login App (Admin)

Allows quick creation of new visits for customers through a simple UI



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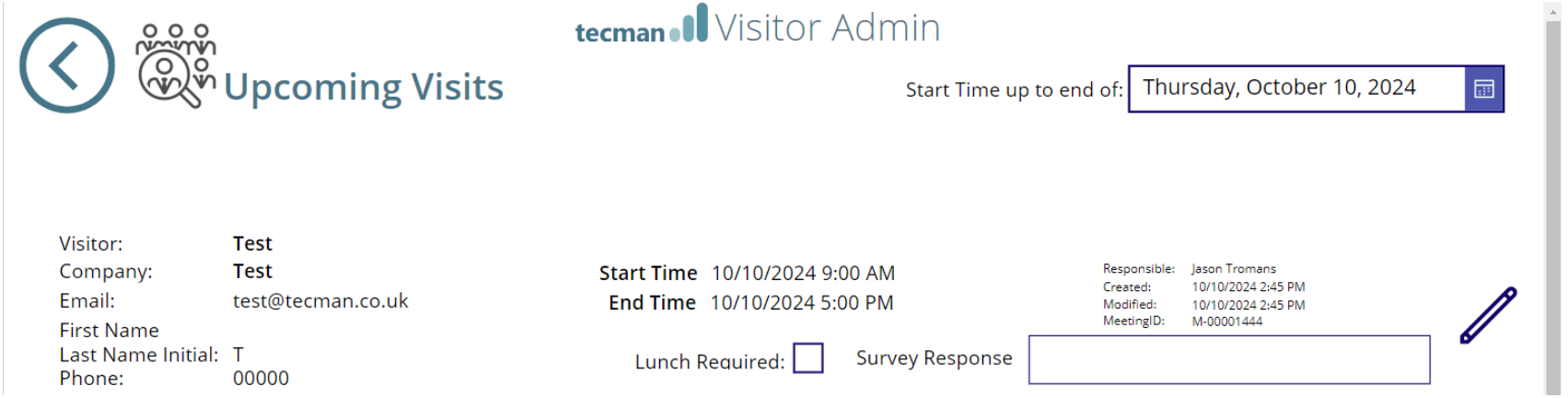
Canvas App – Visitor Login App (Admin)

Shows details of upcoming visits with customer details

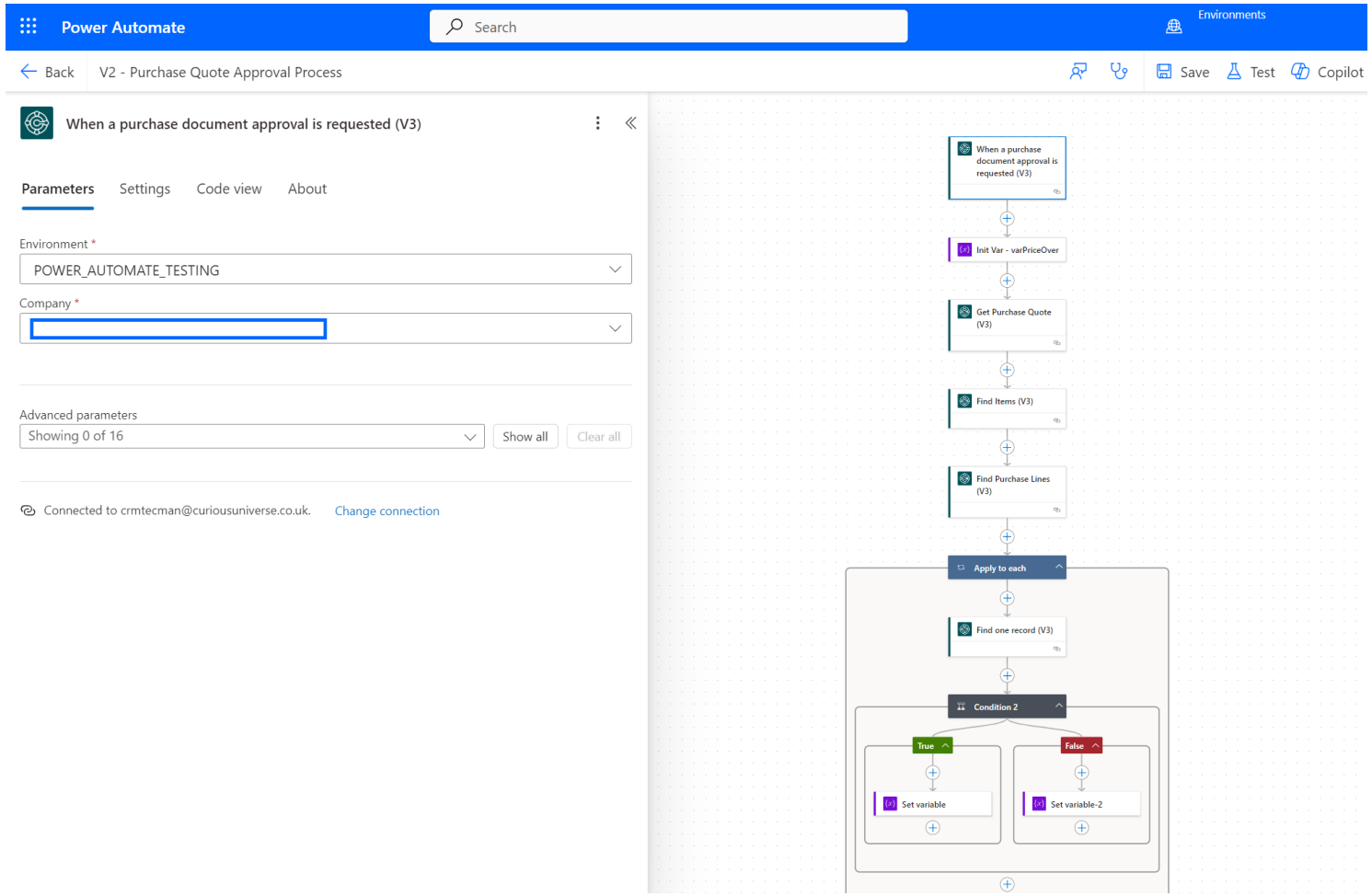


Power Automate – Approval Process

Power Automate – Approval Process

This power automate was built to submit approval requests based on the Purchase Quote price.

We want to send the approval to the correct person based on values on the Purchase Quote record in Business Central.



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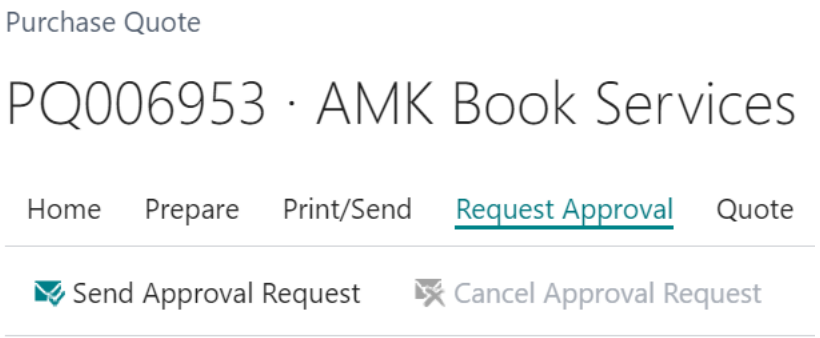
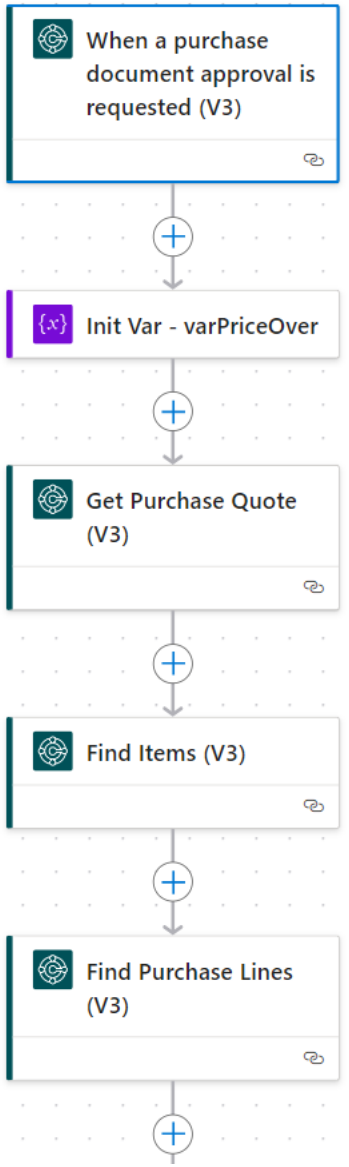
Power Automate

Trigger – When a purchase document approval is requested from Business Central:





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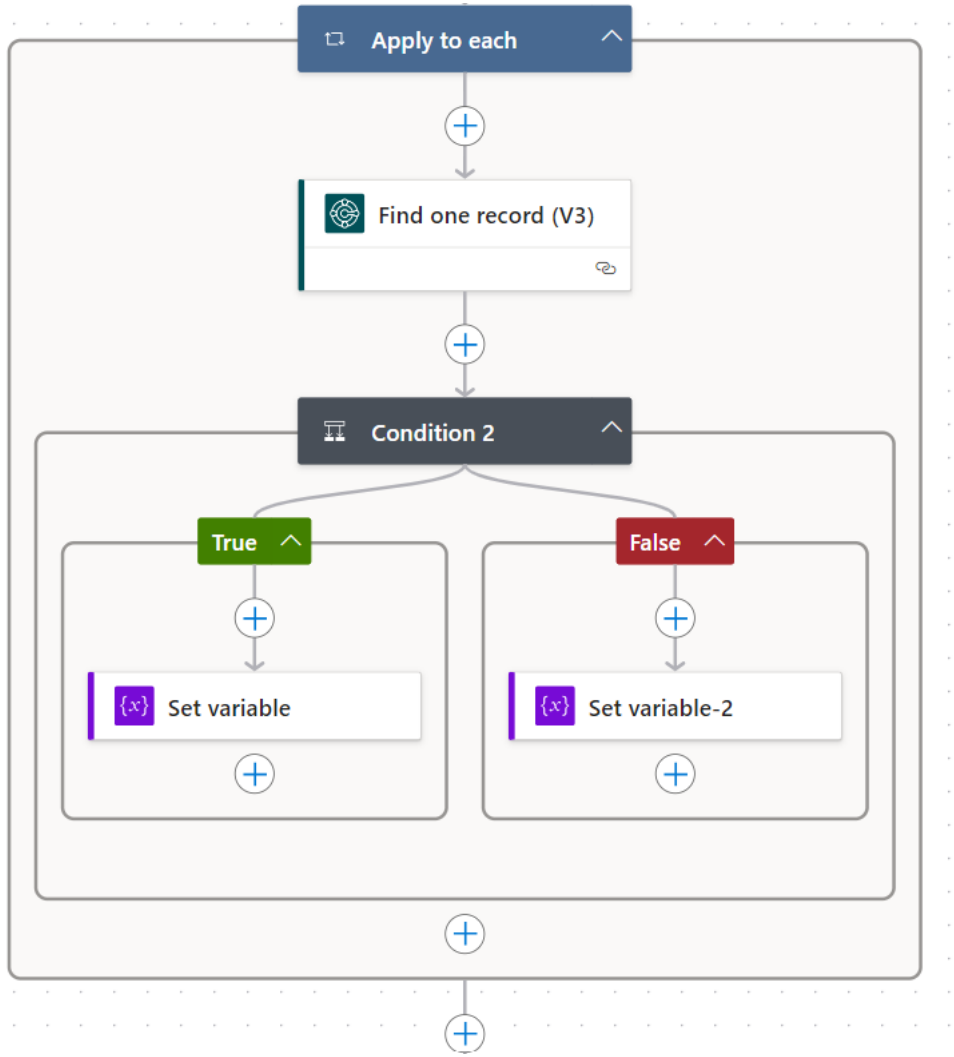
Power Automate – Approval Process

Condition – Is the “Direct Unit Cost” greater or lower than “Tender Price”



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Power Automate – Approval Process

Condition – True or False; Will send an approval request to the correct person.

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Power Pages – Customer Portal

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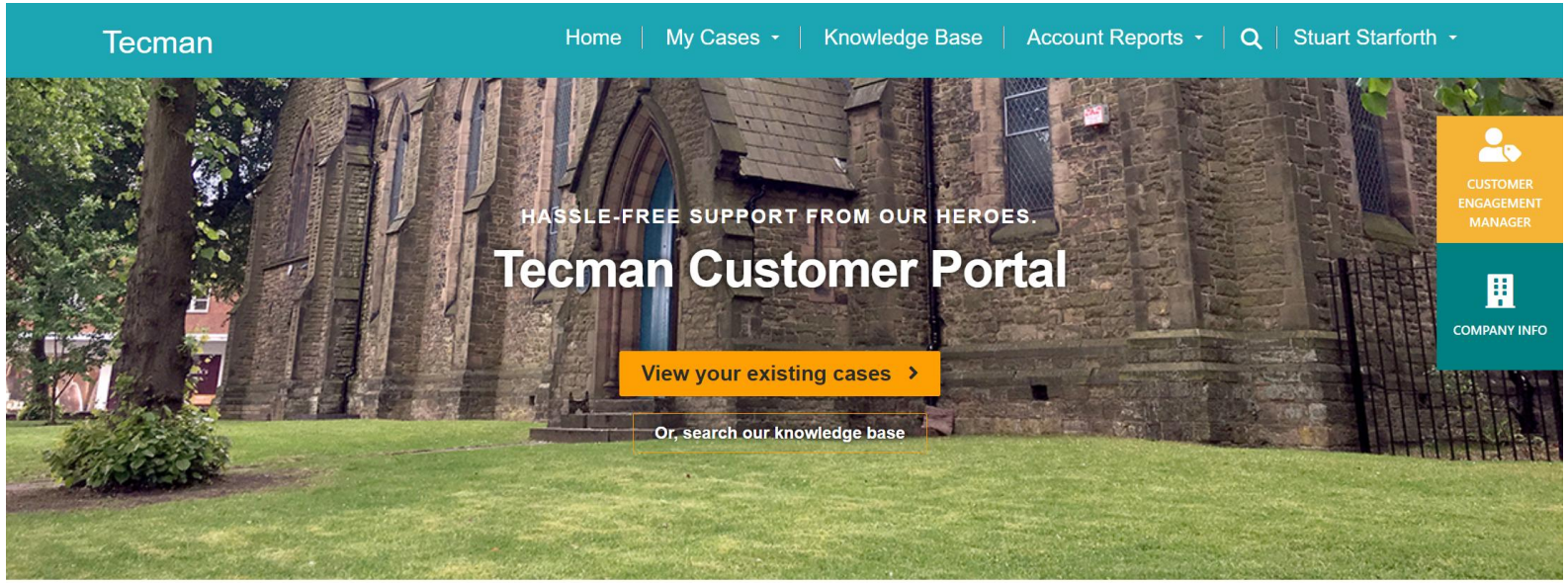
Power Pages – Tecman Customer Portal

Power Pages portal used as a customer portal for logging support cases



Hey Stuart!

As a TecMan customer, we want you to have the right tools and resources at your fingertips to get the best out of your Dynamics 365 business apps, now and in the future. In this portal you can interact with a support desk (create, manage and see all your cases), as well as search the knowledgebase for priceless solution information and much more.

Our aim is to make this the home of your engagements with TecMan.

Thanks again for being part of Team TecMan.

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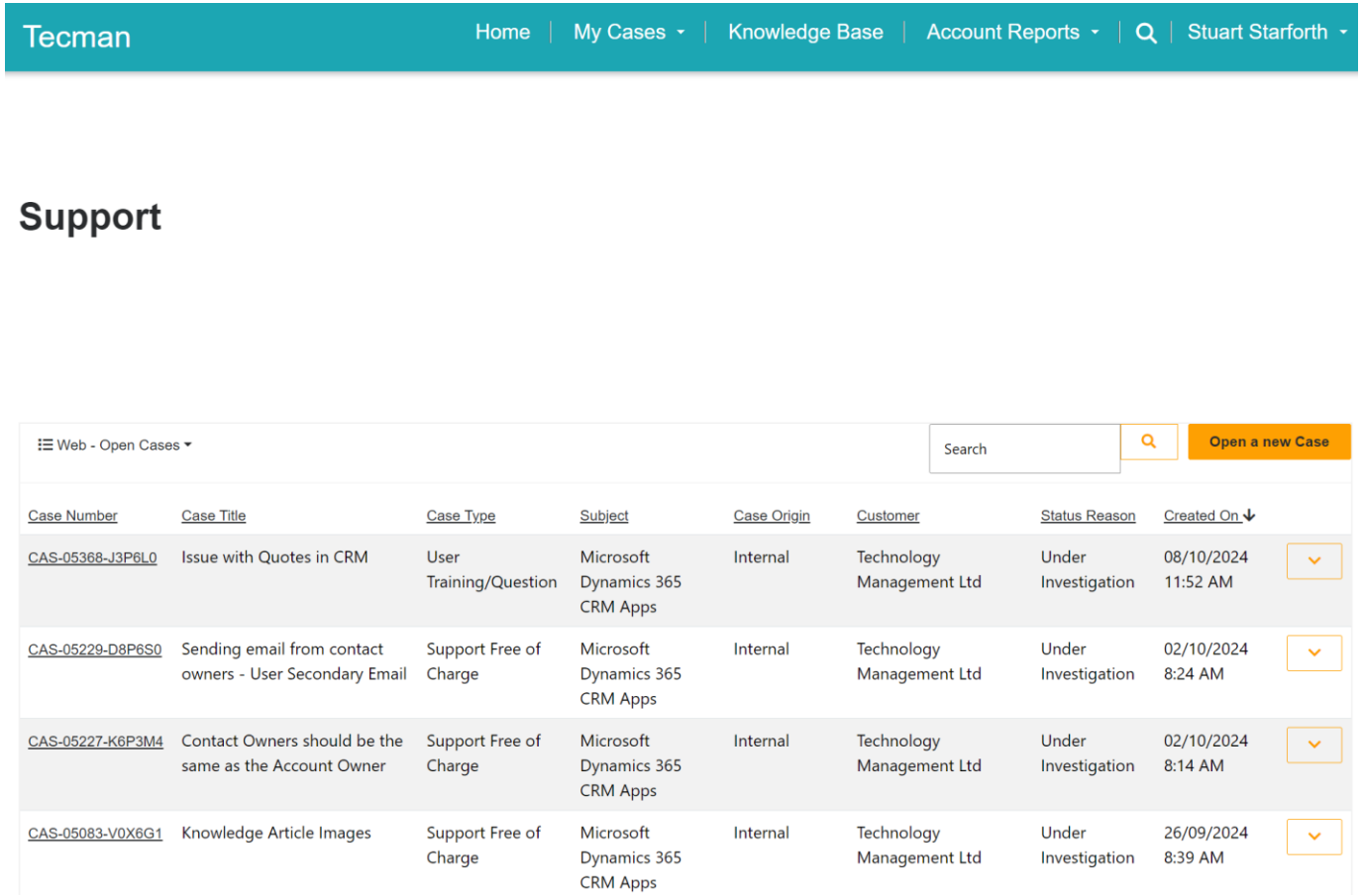
Power Pages – Tecman Customer Portal

View existing cases via an open cases view on the portal



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Power Pages – Tecman Customer Portal

Create new cases to submit to support

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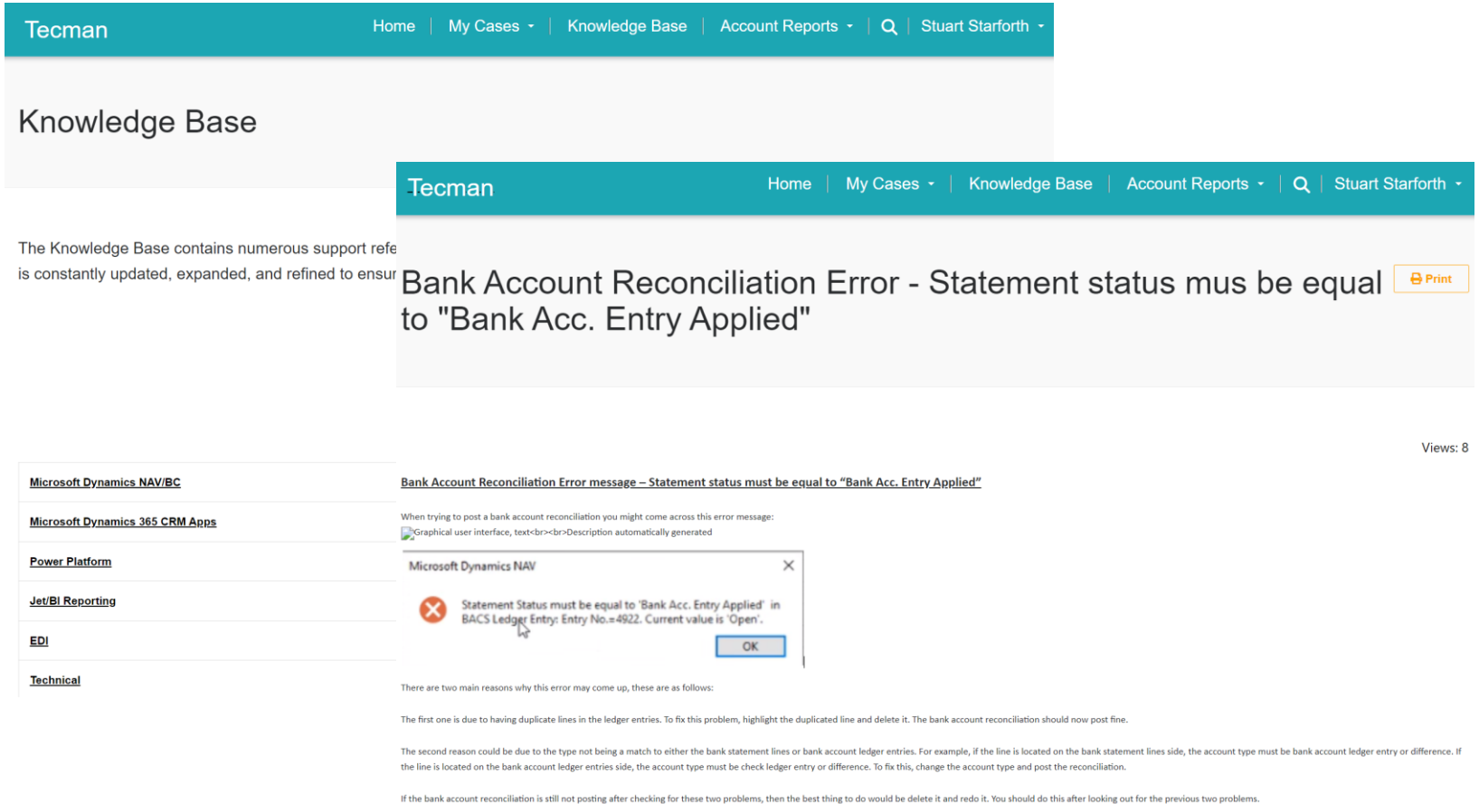
Power Pages – Tecman Customer Portal

The portal houses a knowledge base customers can access



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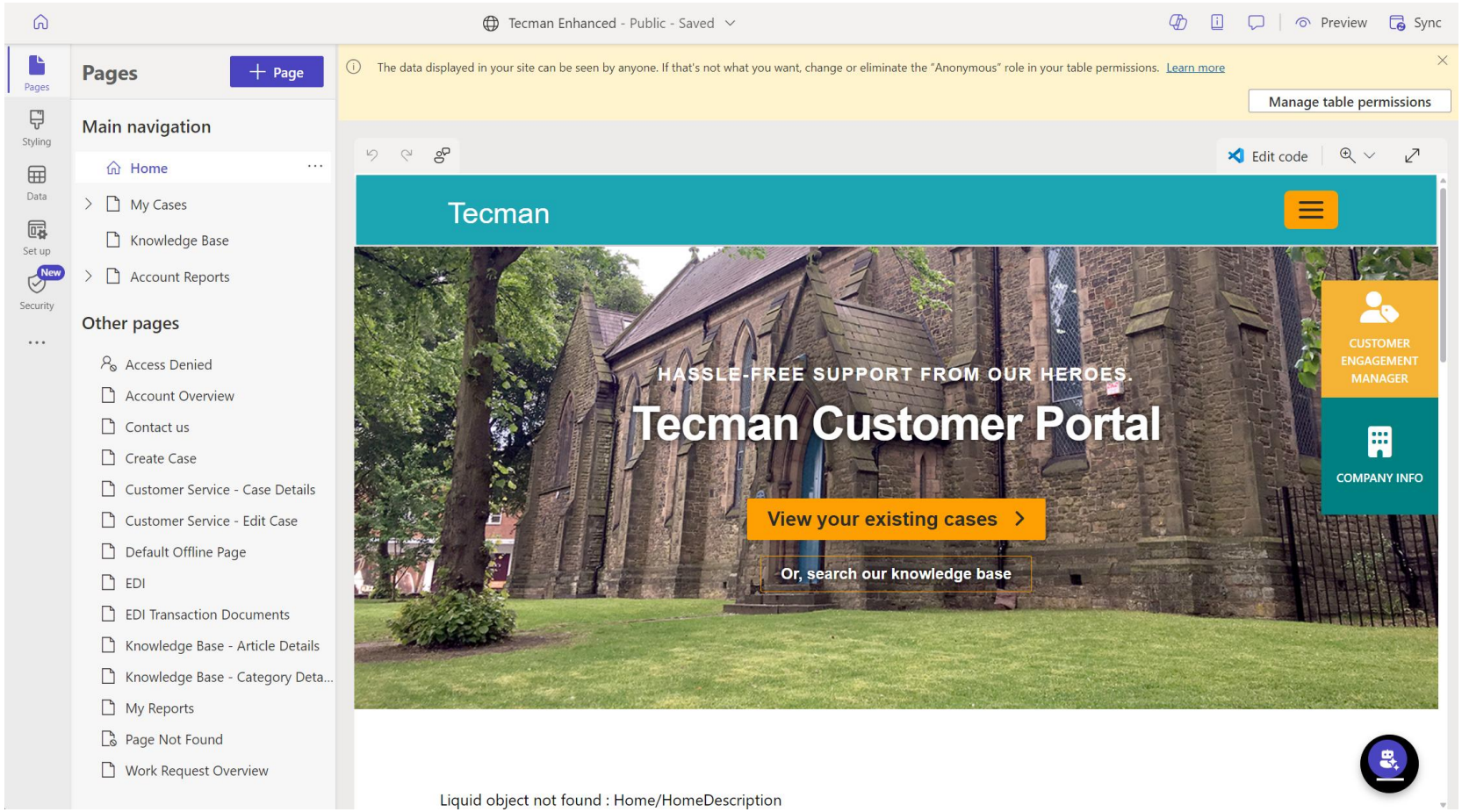
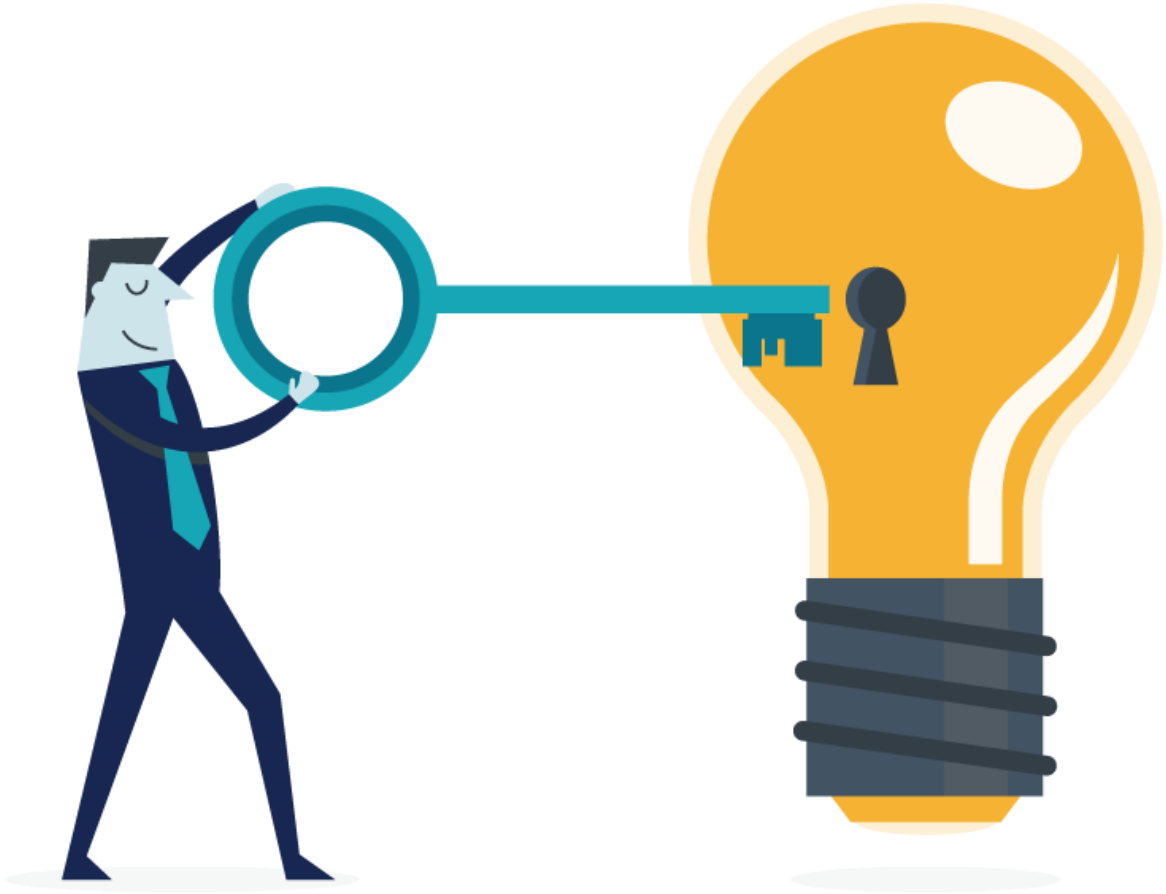
Power Pages – Tecman Customer Portal

Power Pages portal can be customised via a drag and drop experience



What we covered

1. Introduction
2. What are Power Apps?
3. Preview real-world examples
4. Power App logic & fundamentals
5. Do any of you NOT have an example in mind?



Questions?

Resources

Microsoft Power Apps:

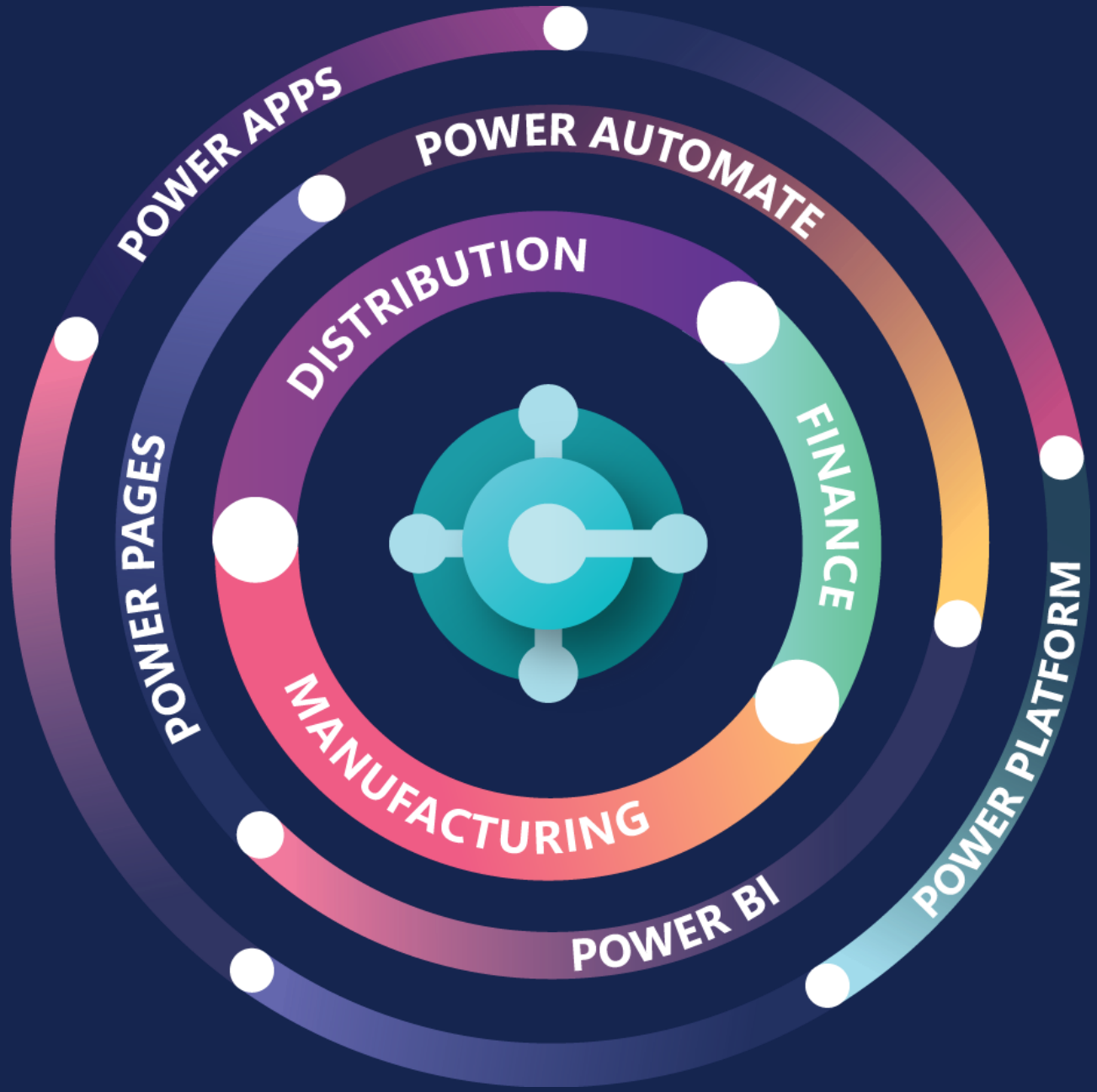
https://www.microsoft.com/en-us/power-platform/products/power-apps?msockid=11025b2d345266381cec4f783562676d

Power Apps | Microsoft Learn:

https://learn.microsoft.com/en-us/power-apps/

https://learn.microsoft.com/en-us/power-apps/guidance/planning/logic

https://learn.microsoft.com/en-us/power-platform/

Thank you.

BUSINESS CENTRAL
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15th & 16th OCTOBER 2024