

# PowerApps Portals Crash Course

With Nick Doelman

MVP Business Applications

# Who Am I?

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# Intro to PowerApps Portals

## **Goal Today**

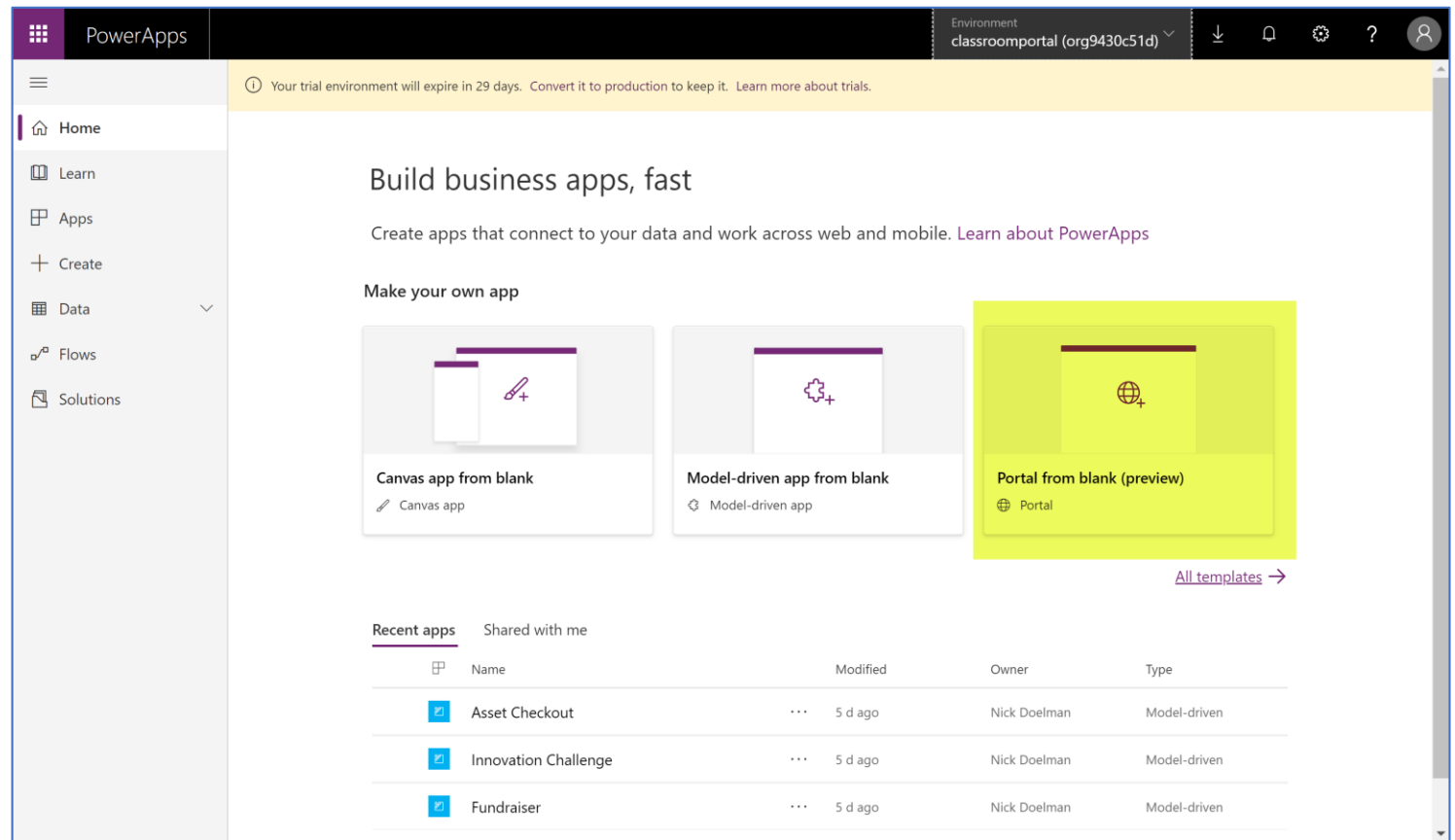
- In the next 50(?) minutes...
- Provision a portal and surface CDS data to an authenticated external user
- LIVE demonstration
- Assume knowledge of Model-Driven Configuration (Entities, Forms, Views, etc)

# Intro to PowerApps Portals



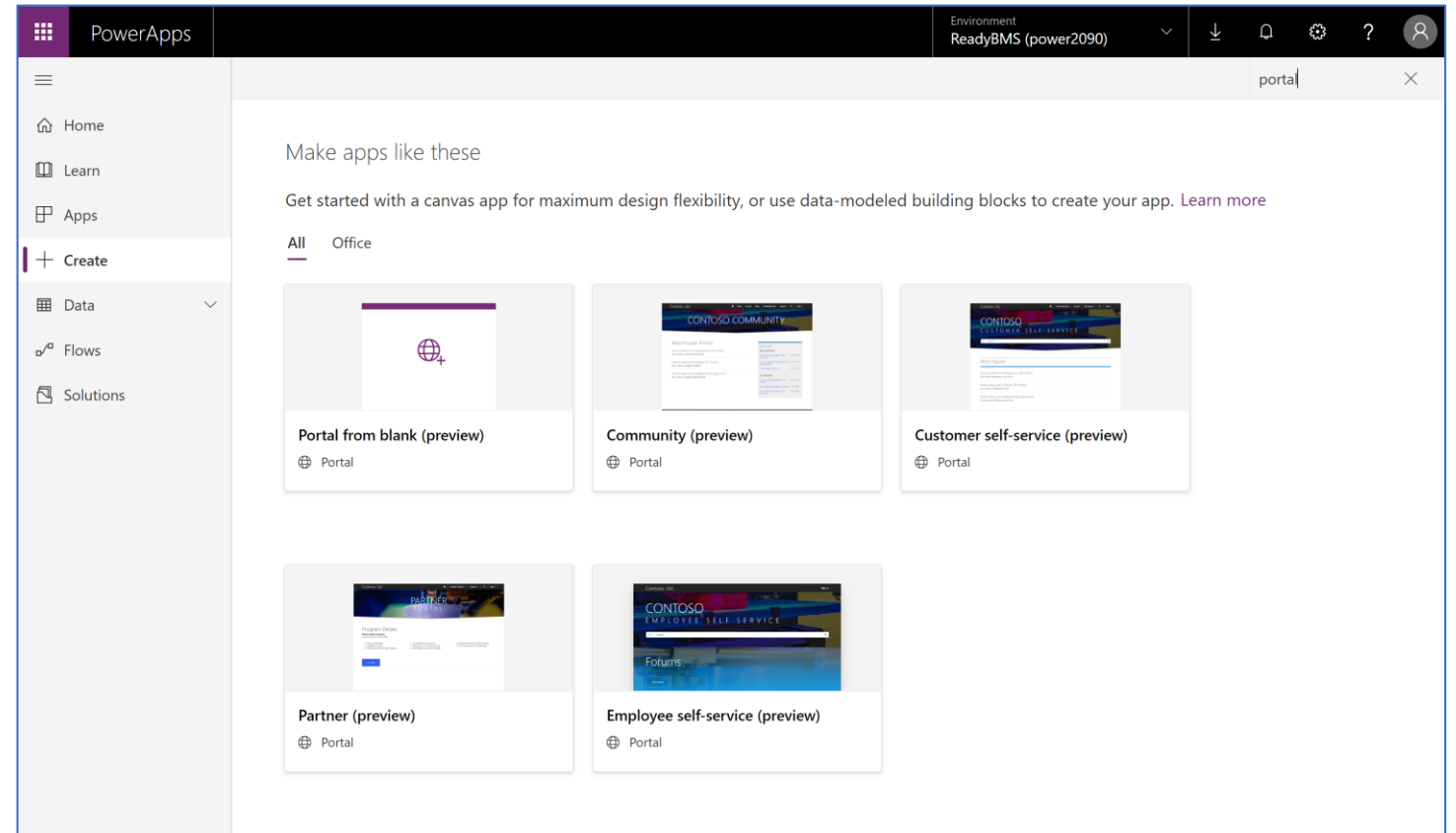
# Intro to PowerApps Portals

- Provision Portal



# Intro to PowerApps Portals

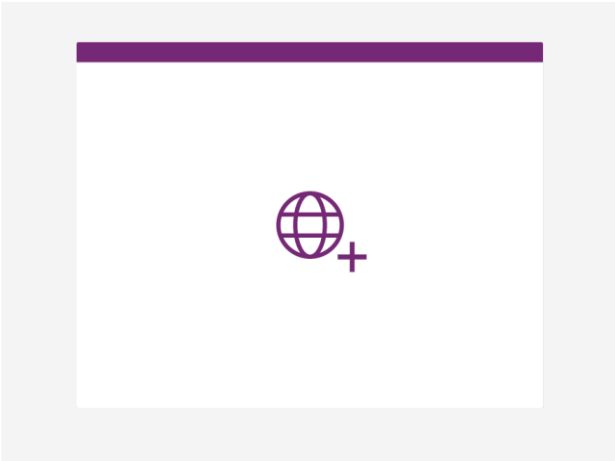
- If Dynamics 365, you can choose other starter portals




# Intro to PowerApps Portals

- Provision Portal

### Portal from blank (preview)



Create a website to share data with external and internal users. This template comes with sample pages to get you quickly started. [Learn more](#)

 Portal

i We'd need to install certain prerequisites. If you'd like to quickly try portals, use an environment with portal package already installed or create a new one using this link.  
[Create new environment](#)

Name \*

Address \* i  
   
✓ [classroomportal.powerappsportals.com](#)

Language

By clicking on Create, you agree to the [Terms and Conditions](#) and the [Terms of service](#).  
[Privacy Statement](#)

# Intro to PowerApps Portals

The screenshot shows the PowerApps portal creation interface. At the top, the 'PowerApps' header is visible. A yellow banner at the top right states: 'Your trial environment will expire in 29 days. Convert it to production to keep it. Learn more about trials.' A notification box on the right says: 'Portal provisioning in progress. Your portal classroomportal is currently being provisioned and this can take time. You'll be notified via Notifications pane once it is provisioned.'

The main content area is titled 'Build business apps, fast' and 'Create apps that connect to your data and work across web and mobile. Learn about PowerApps'. Under the heading 'Make your own app', there are three templates:

- Canvas app from blank** (Icon: Pencil and paper)
- Model-driven app from blank** (Icon: Gear and plus)
- Portal from blank (preview)** (Icon: Globe and plus)

A link 'All templates →' is located below the templates.

Below the templates, there is a section for 'Recent apps' and 'Shared with me'. The 'Recent apps' section contains a table with the following data:

Name	Modified	Owner	Type
classroomportal	...		Portal
Asset Checkout	5 d ago	Nick Doelman	Model-driven
Innovation Challenge	5 d ago	Nick Doelman	Model-driven



# Intro to PowerApps Portals

**PowerApps** Environment: classroomportal (org9430c51d)

Your trial environment will expire in 29 days. Convert it to production to keep it. [Learn more about trials.](#)

## Build business apps, fast

Create apps that connect to your data and work across web and mobile. [Learn about PowerApps](#)

### Make your own app

**Canvas app from blank**  
Canvas app

**Model-driven app from blank**  
Model-driven app

**Portal from blank (preview)**  
Portal

[All templates →](#)

#### Recent apps

Name	Modified	Owner	Type
Portal Management	2 min ago	Nick Doelman	Model-driven
Asset Checkout	5 d ago	Nick Doelman	Model-driven
Innovation Challenge	5 d ago	Nick Doelman	Model-driven

# Intro to PowerApps Portals




The screenshot shows the PowerApps web interface. The top navigation bar includes the PowerApps logo, the environment name 'classroomportal (org9430c51d)', and icons for download, notifications, settings, and help. A yellow banner at the top right states: 'Your trial environment will expire in 29 days. Convert it to production to keep it. Learn more about trials.'

The main content area is titled 'Build business apps, fast' and includes the text 'Create apps that connect to your data and work across web and mobile. [Learn about PowerApps](#)'. Below this is the 'Make your own app' section, which features three templates:

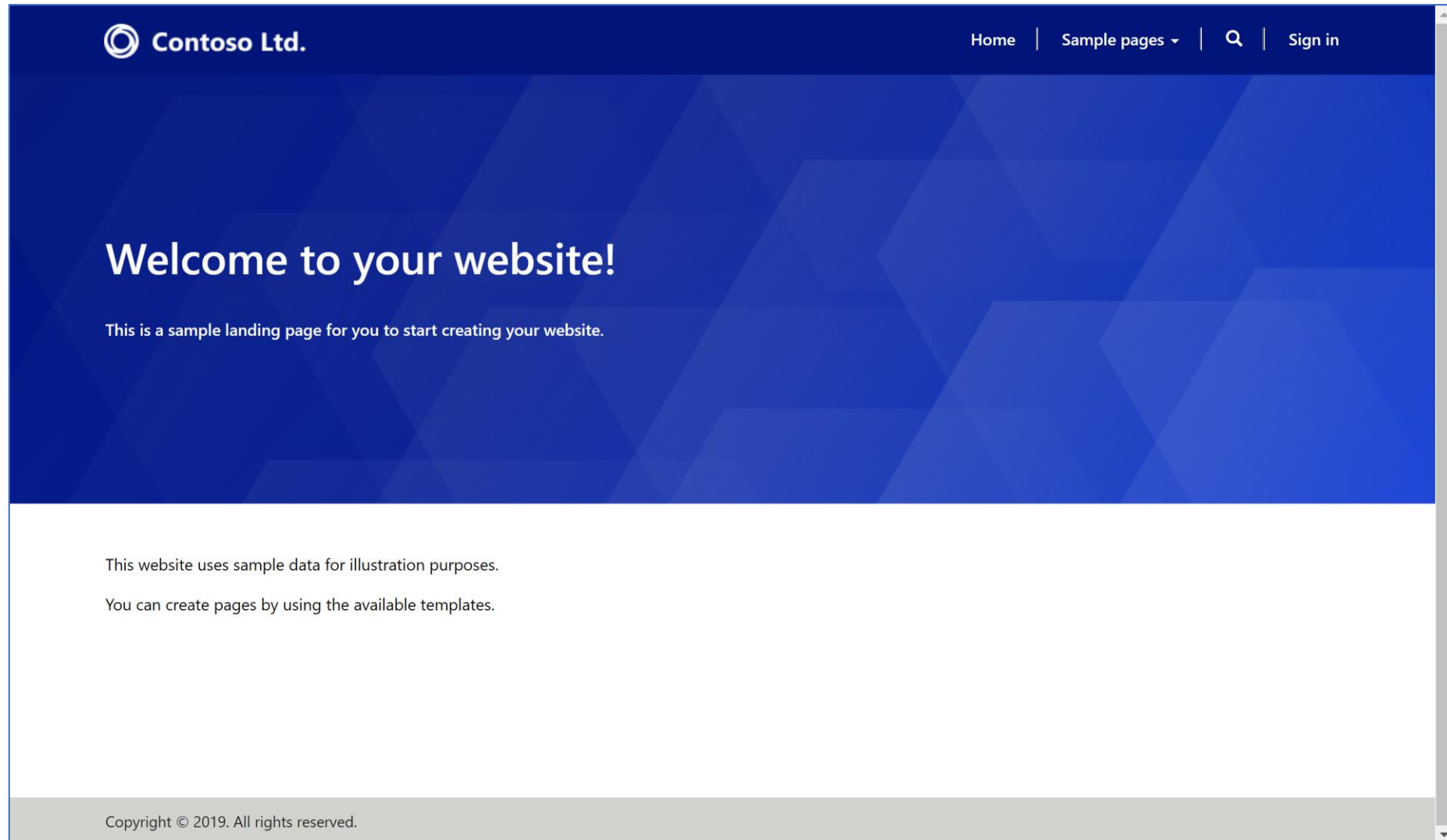
- Canvas app from blank**: Represented by a pencil icon and labeled 'Canvas app'.
- Model-driven app from blank**: Represented by a gear icon and labeled 'Model-driven app'.
- Portal from blank (preview)**: Represented by a globe icon and labeled 'Portal'.

A link '[All templates](#) →' is located to the right of the templates.

Below the templates is the 'Recent apps' section, which includes a sub-header 'Shared with me' and a table of recent applications:

Name	Modified	Owner	Type
 classroomportal	... 1 min ago	Nick Doelman	Portal
 Portal Management	... 12 min ago	Nick Doelman	Model-driven
 Asset Checkout	... 5 d ago	Nick Doelman	Model-driven

# Intro to PowerApps Portals



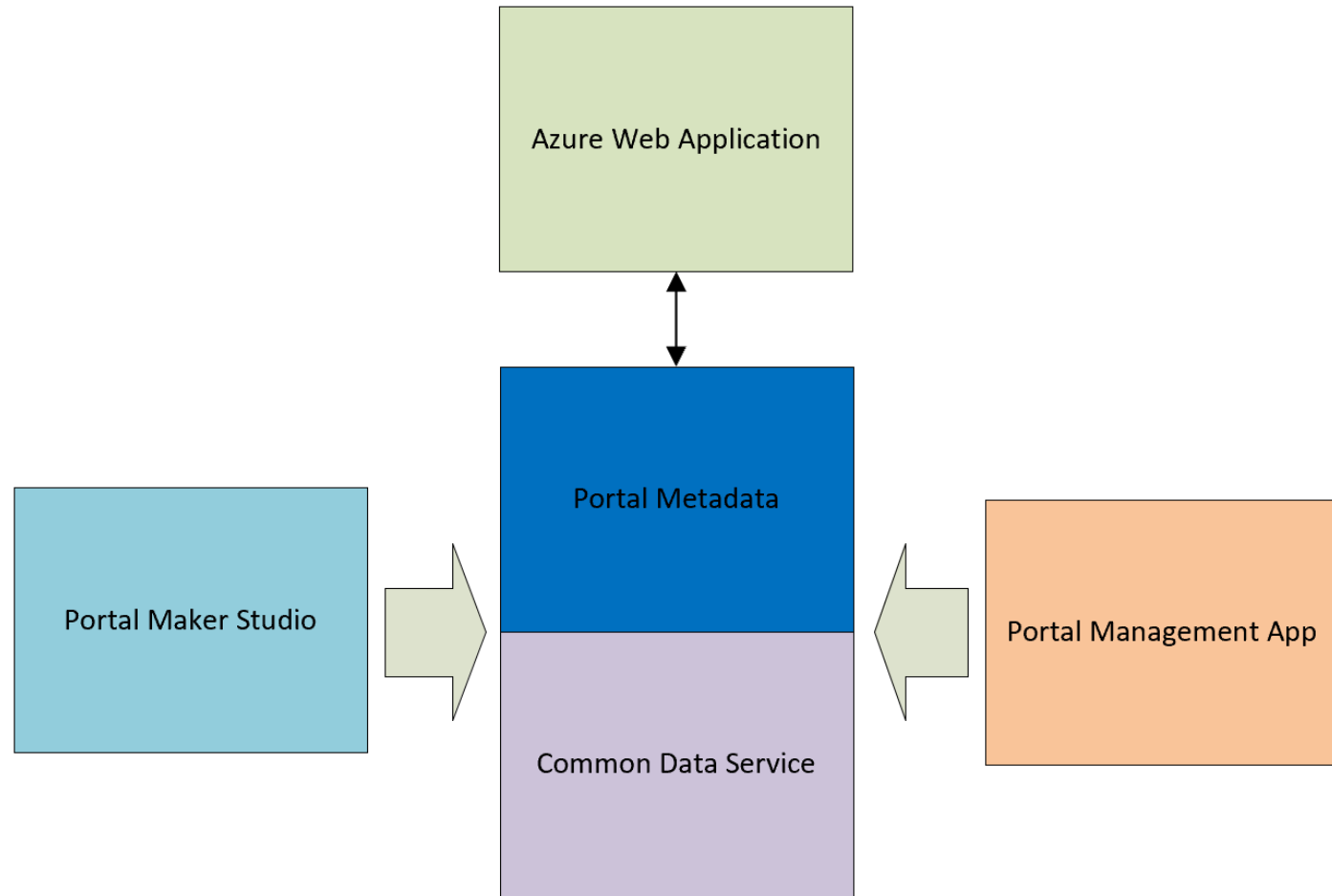
# Intro to PowerApps Portals

- Portal Theory



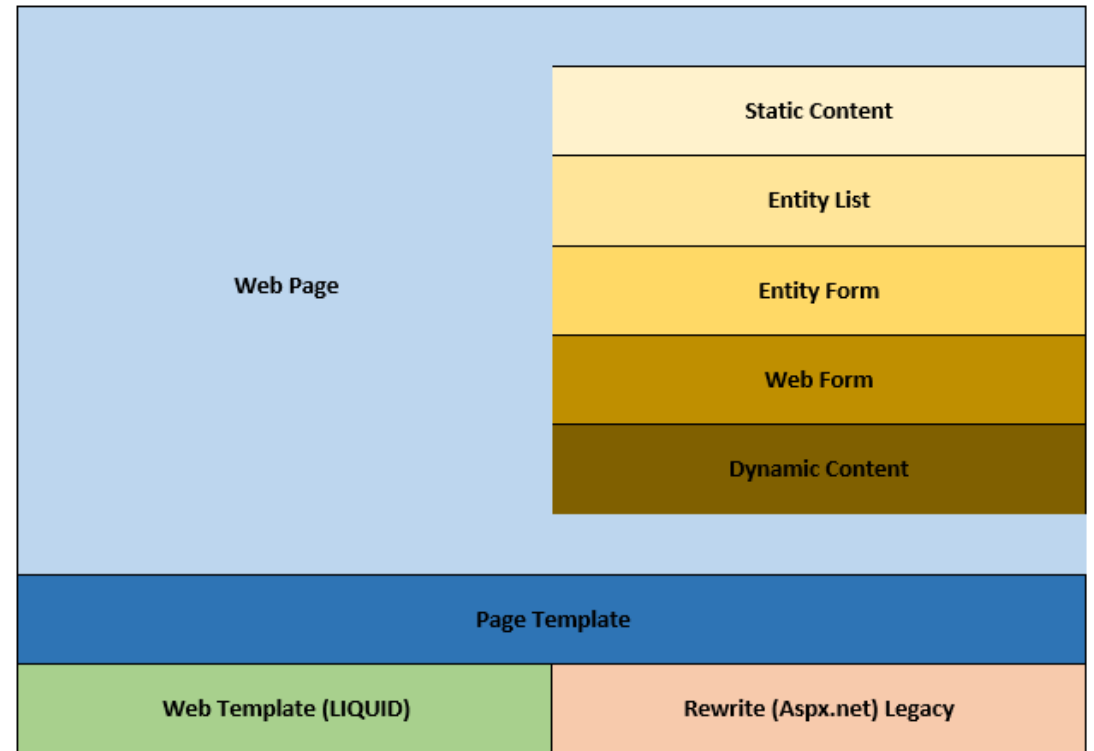
# Intro to PowerApps Portals

- Portal components



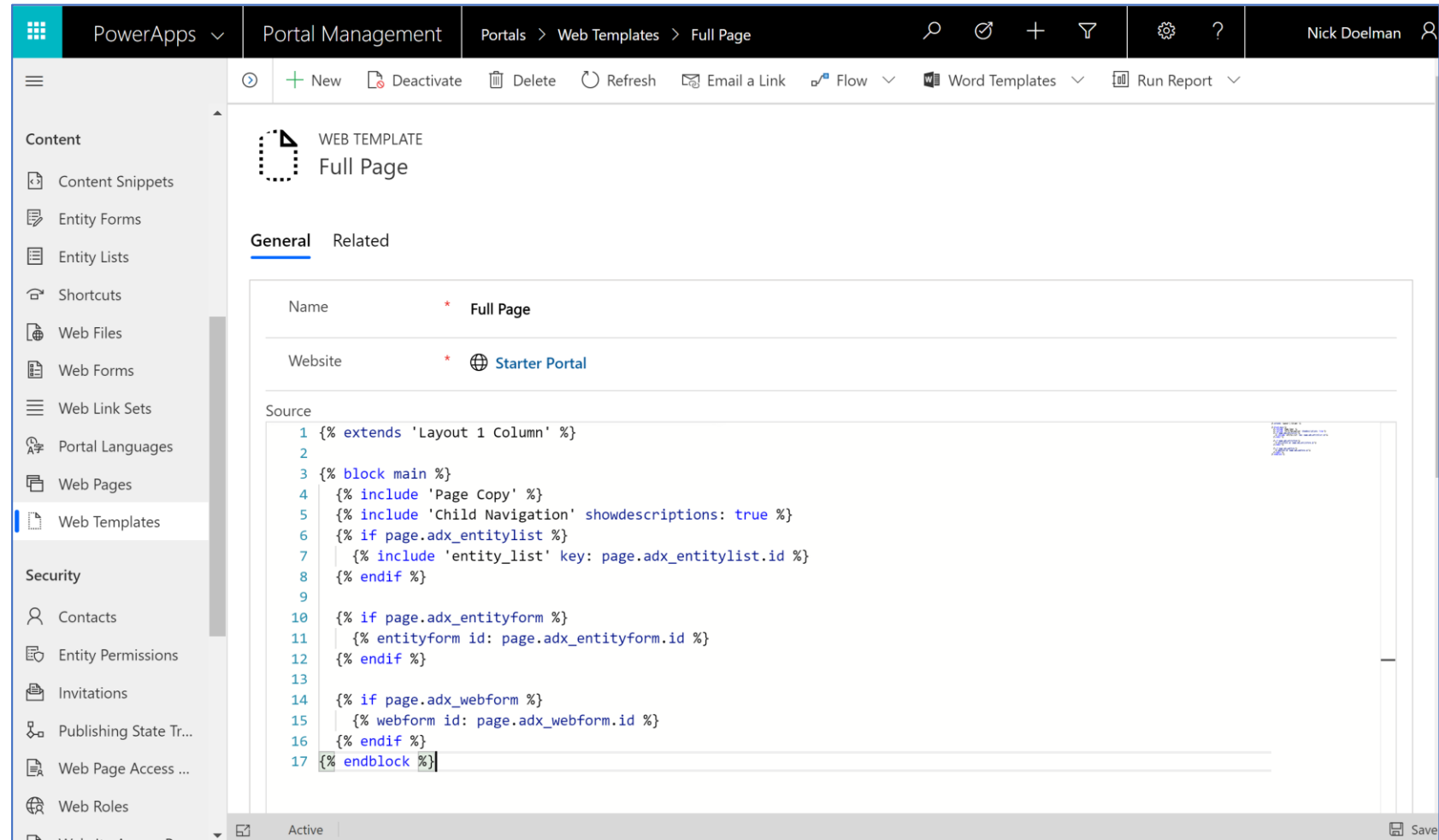
# Intro to PowerApps Portals

- Portal structure
- Portal metadata stored in CDS
- Different Portal Components for rendering



# Intro to PowerApps Portals

- Preconfigured templates
- HTML
- Uses Liquid Markup
- Good place to store JavaScript, CSS



# Intro to PowerApps Portals

```
{% extends 'Layout 1 Column' %}
```

```
{% block main %}
```

```
    {% include 'Page Copy' %}
```

```
    {% include 'Child Navigation' showdescriptions: true %}
```

```
    {% if page.adx_entitylist %}
```

```
        {% include 'entity_list' key: page.adx_entitylist.id %}
```

```
    {% endif %}
```

```
    {% if page.adx_entityform %}
```

```
        {% entityform id: page.adx_entityform.id %}
```

```
    {% endif %}
```

```
    {% if page.adx_webform %}
```

```
        {% webform id: page.adx_webform.id %}
```

```
    {% endif %}
```

```
{% endblock %}
```



# Intro to PowerApps Portals

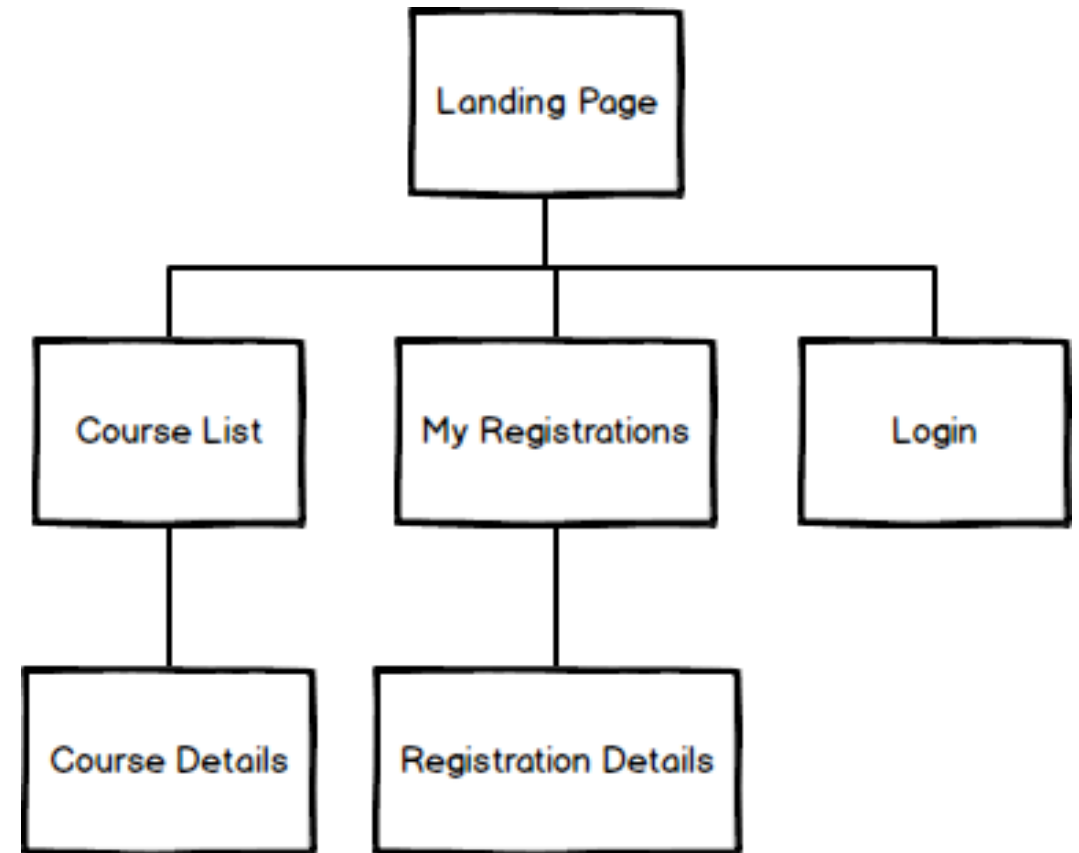
## Requirement

- We have a class management model driven app
- We want folks to see class information on a portal
- We want instructors to see just the classes they are teaching



# Intro to PowerApps Portals

- Design Portal
- Site Map a good place to start
- Consider “Minimal Viable Product”



# Intro to PowerApps Portals

## Design – Web Pages

Class room

http://classroom.powerappsportals.com

### My Registrations


Registration ID	Student	Class	Date
<a href="#">REG-002</a>	Bob Smith	Intro to Portals	2019-8-20
<a href="#">REG-005</a>	Bob Smith	SSRS	2019-6-13
<a href="#">REG-007</a>	Bob Smith	PowerApps	2019-10-16

Class room

http://classroom.powerappsportals.com

### REG-002

Course

Start Date  

Student

Fee

# Intro to PowerApps Portals

## Model Driven App

The screenshot displays the PowerApps interface for the 'Class Room App'. The left-hand navigation pane includes a 'Management' section with options for 'Courses', 'Classes', and 'Registrations'. The 'Registrations' option is currently selected. The main content area is titled 'Active Registrations' and features a table with three records. The table columns are 'Registration...', 'Class', 'Student', 'Student Account', 'Registra...', and 'Status R...'. The records are as follows:

Registration...	Class	Student	Student Account	Registra...	Status R...
REG-01000	Intro to PowerApps Portals-8/1	Maria Campbell (sample)	---	8/9/2019	Registered
REG-01001	SSRS for the PowerApps-8/21/2	Maria Campbell (sample)	---	8/5/2019	Registered
REG-01002	Intro to PowerApps Portals-9/1	Nancy Anderson (sample)	---	8/6/2019	Registered

At the bottom of the screen, there is a status bar showing '1 - 3 of 3 (0 selected)' and a 'Classroom' label with a refresh icon.

# Intro to PowerApps Portals

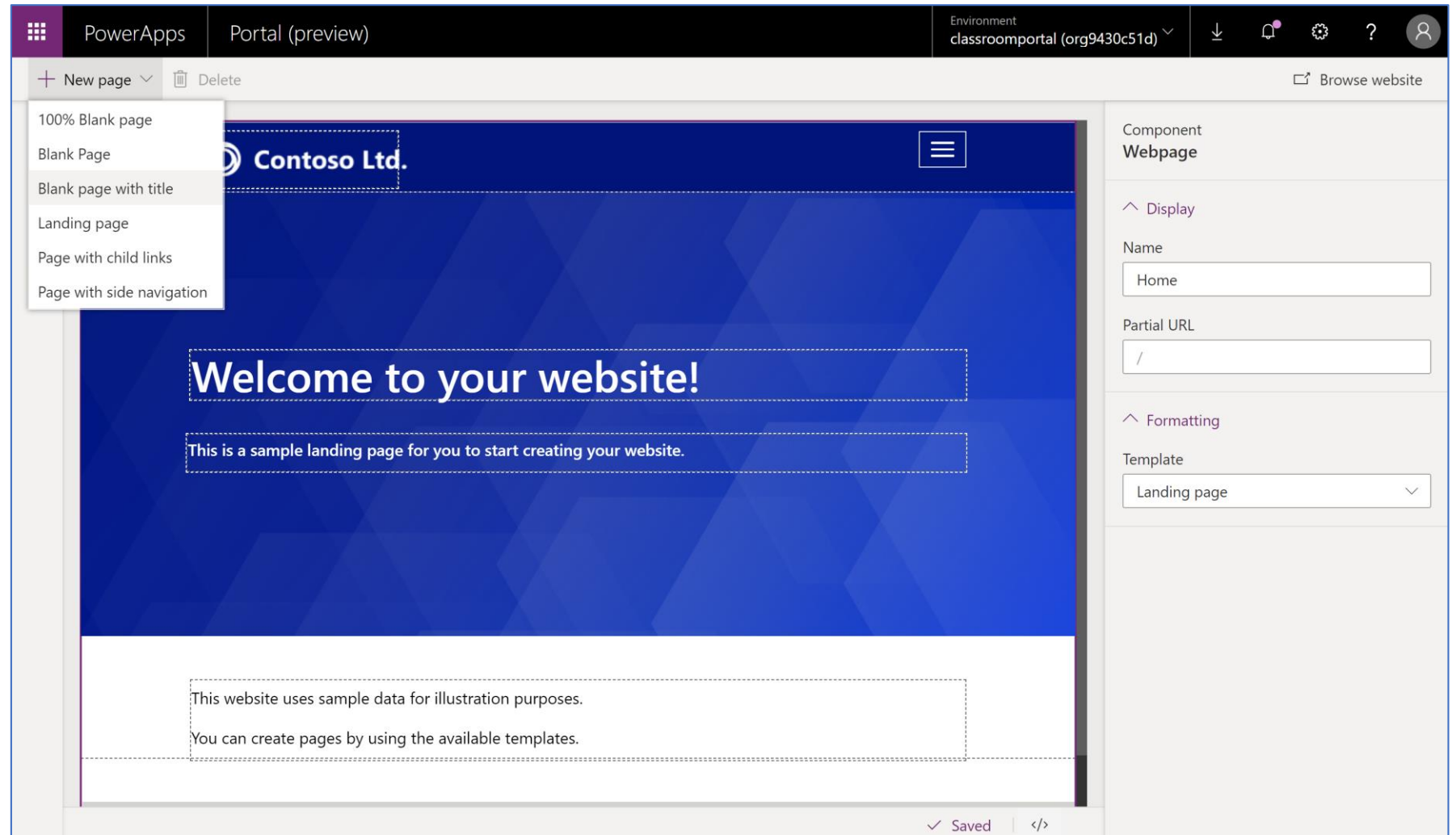
## Model Driven App

The screenshot displays a PowerApps Portal interface for a 'Class Room App'. The breadcrumb navigation shows the path: Classroom > Registrations > REG-01000. The left sidebar contains navigation options: Home, Recent, Pinned, and a Management section with Courses, Classes, and Registrations (the active page). The top toolbar includes actions like New, Deactivate, Delete, Refresh, Assign, Share, Email a Link, and Flow. The main content area shows the 'REGISTRATION REG-01000' with tabs for 'General' and 'Related'. The 'General' tab displays a table of registration details.

Class	Intro to Powe...	Registration Number	REG-01000
Registration Date	8/9/2019	Amount Paid	\$1,000.000
Student	Maria Campb...	Student Account	---
		Status Reason	Registered

# Intro to PowerApps Portals

## Create New Page



# Intro to PowerApps Portals

## Edit Page

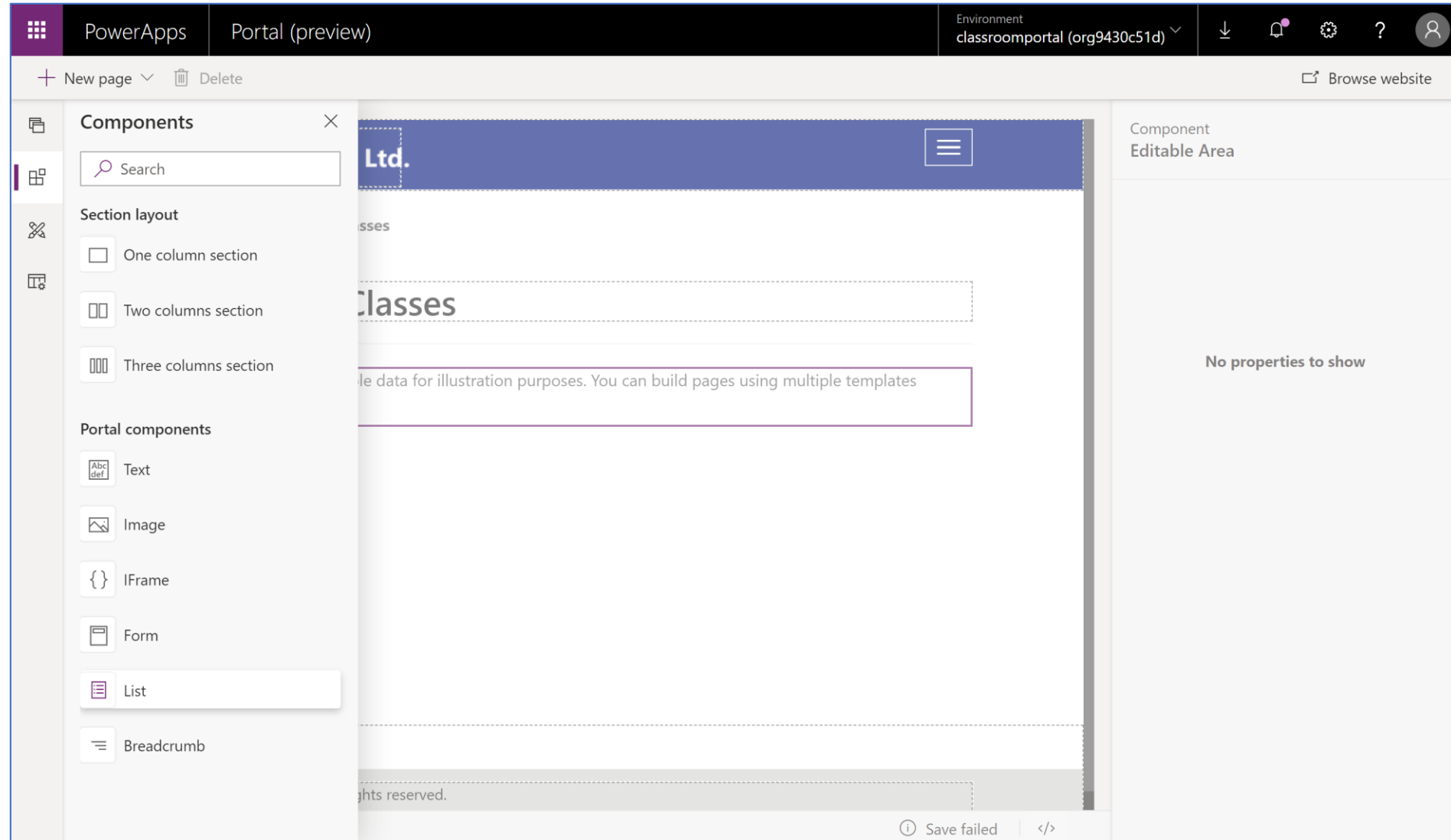
The screenshot displays the PowerApps Portal editor interface. The top navigation bar includes the PowerApps logo, the text 'Portal (preview)', and the environment name 'classroomportal (org9430c51d)'. Below this, a toolbar shows 'New page' and 'Delete' options. The main workspace shows a preview of a web page with a blue header containing the 'Contoso Ltd.' logo and a hamburger menu. The page content includes a breadcrumb 'Home > Available Classes', a title 'Available Classes', and a paragraph of sample data text. A footer contains the text 'Copyright © 2019. All rights reserved.'.

On the right side, the 'Component Webpage' panel is visible, showing the 'Display' section with fields for 'Name' (set to 'Available Classes') and 'Partial URL' (set to 'classes'). The 'Formatting' section shows the 'Template' dropdown set to 'Blank page with title'.

At the bottom right, a status bar indicates 'Save failed' and provides a code editor icon.

# Intro to PowerApps Portals

## Add List






# Intro to PowerApps Portals

## Link List to Model Driven View

The screenshot displays the PowerApps Portal (preview) interface. The top navigation bar includes the PowerApps logo, the text 'Portal (preview)', and the environment 'classroomportal (org9430c51d)'. Below the navigation bar, the main workspace shows a page titled 'Available Classes' for 'Contoso Ltd.'. The page content includes a header with the company logo, a breadcrumb 'Home > Available Classes', and a section titled 'Available Classes'. Below this, a message states: 'This website uses sample data for illustration purposes. You can build pages using multiple templates available.' A large dashed box represents a 'List' component, with a placeholder icon and the text 'List' and 'Configure the list using the properties pane'. On the right side, the 'Component List' panel is visible, showing the 'Display' tab. Under 'Display', there are radio buttons for 'Create new' (selected) and 'Use existing'. The 'Name' field is set to 'ClassList', and the 'Entity' is set to 'Class (avngr\_class)'. The 'Views' dropdown is set to 'Active Classes'. Below these, there are four toggle switches for 'Create new record', 'View details', 'Edit record', and 'Delete record', all of which are currently turned off. At the bottom right of the workspace, a status bar indicates 'Save failed' and provides a '</>' icon.

# Intro to PowerApps Portals

## Preview Portal App

 **Contoso Ltd.**

Home | Sample pages ▾ | Available Classes | 🔍 | Sign in

Home > Available Classes

## Available Classes

This website uses sample data for illustration purposes. You can build pages using multiple templates available.

Course ↑	Start Date and Time	End Date and Time	Instructor	Status Reason	Latitude	Longitude
Intro to PowerApps Portals	8/12/2019 8:00 AM	8/12/2019 5:00 PM	Jim Glynn (sample)	Scheduled		
Intro to PowerApps Portals	9/16/2019 8:00 AM	9/16/2019 5:00 PM	Jim Glynn (sample)	Scheduled		
SSRS for the PowerApps	8/21/2019 8:00 AM	8/21/2019 5:00 PM	Jim Glynn (sample)	Scheduled		

# Intro to PowerApps Portals

## Add Detail Form

The screenshot displays the PowerApps Portal editor interface. The top navigation bar includes 'PowerApps', 'Portal (preview)', and the environment 'classroomportal (org9430c51d)'. The main workspace shows a page layout with a blue header, a breadcrumb 'Home > New page > New page', and a title 'Class Details'. Below the title is a text block: 'This website uses sample data for illustration purposes. You can build pages using multiple templates available.' A large rectangular area is highlighted with a dashed border, containing a placeholder for a 'Form'. The placeholder text reads: 'Form', 'Unable to show preview', and 'Edit the form through the property panel'. To the right of the workspace is a 'Component Form' panel with the following settings: 'Display' (expanded), 'Create new' (selected), 'Use existing' (deselected), 'Name' (Class Details), 'Entity' (Class (avngr\_class)), 'Form layout' (Web - Class Details), 'Edit form' (link), 'Mode' (ReadOnly), 'Form success settings' (expanded), and 'Advanced settings' (expanded). The bottom status bar shows 'Saved' and a code icon.

PowerApps Portal (preview) Environment: classroomportal (org9430c51d)

+ New page Delete Browse website

Home > New page > New page

### Class Details

This website uses sample data for illustration purposes. You can build pages using multiple templates available.

**Form**  
Unable to show preview  
Edit the form through the property panel

Copyright © 2019. All rights reserved.

✓ Saved </>

**Component Form**

Display

☐ Create new ☒ Use existing

Name: Class Details

Entity: Class (avngr\_class)

Form layout: Web - Class Details

Edit form

Mode: ReadOnly

Form success settings

Advanced settings

# Intro to PowerApps Portals

**Edit List Control  
to navigate to  
form**

The screenshot displays the PowerApps Portal editor interface. The top navigation bar includes the PowerApps logo, the text "Portal (preview)", and the environment name "classroomportal (org9430c51d)". Below the navigation bar, the main workspace shows a preview of the portal page. The page has a blue header with the "Contoso Ltd." logo and a hamburger menu icon. The main content area is titled "Available Classes" and contains a message: "This website uses sample data for illustration purposes. You can build pages using multiple templates available." Below the message is a list control placeholder with the text "List" and "Unable to show preview. Edit the list through the property panel".

On the right side, the "Component List" panel is visible. It shows the "Display" section with the following settings:

- ☐ Create new ☒ Use existing
- Name: classlist
- Entity: Class (avngr\_class)
- Views: Active Classes
- Create new record: ☐
- View details: ☒ (highlighted in yellow)
- Target type: Form (highlighted in yellow)
- Class Details: ☐ (highlighted in yellow)
- Edit record: ☐
- Delete record: ☐

At the bottom of the editor, there is a "Saved" status and a "Settings" dropdown menu.

# Intro to PowerApps Portals

## Portal Management App

The screenshot displays the 'Active Entity Lists' interface within the PowerApps Portal Management app. The left sidebar contains a navigation menu with categories: Entity Forms, Entity Lists (selected), Shortcuts, Web Files, Web Forms, Web Link Sets, Portal Languages, Web Pages, Web Templates, Security (Contacts, Entity Permissions, Invitations, Publishing State Tr..., Web Page Access ...), Web Roles, Website Access Pe..., Ads, and Ad Placements. The main content area shows a table of active entity lists with columns: Name, Entity Name, P., Enable Entit..., Sea..., Filte..., Calendar Vi..., Ma..., and O. The table contains two rows: 'classlist' with 'avngr\_class' and 'Courselist' with 'avngr\_course'. The bottom of the screen shows a grid with columns A-Z and a status bar indicating '1 - 2 of 2 (0 selected)'.

✓	Name	Entity Name	P.	Enable Entit...	Sea...	Filte...	Calendar Vi...	Ma...	O
	classlist	avngr_class	10	No	No	No	No	No	No
	Courselist	avngr_course	10	No	No	No	No	No	No

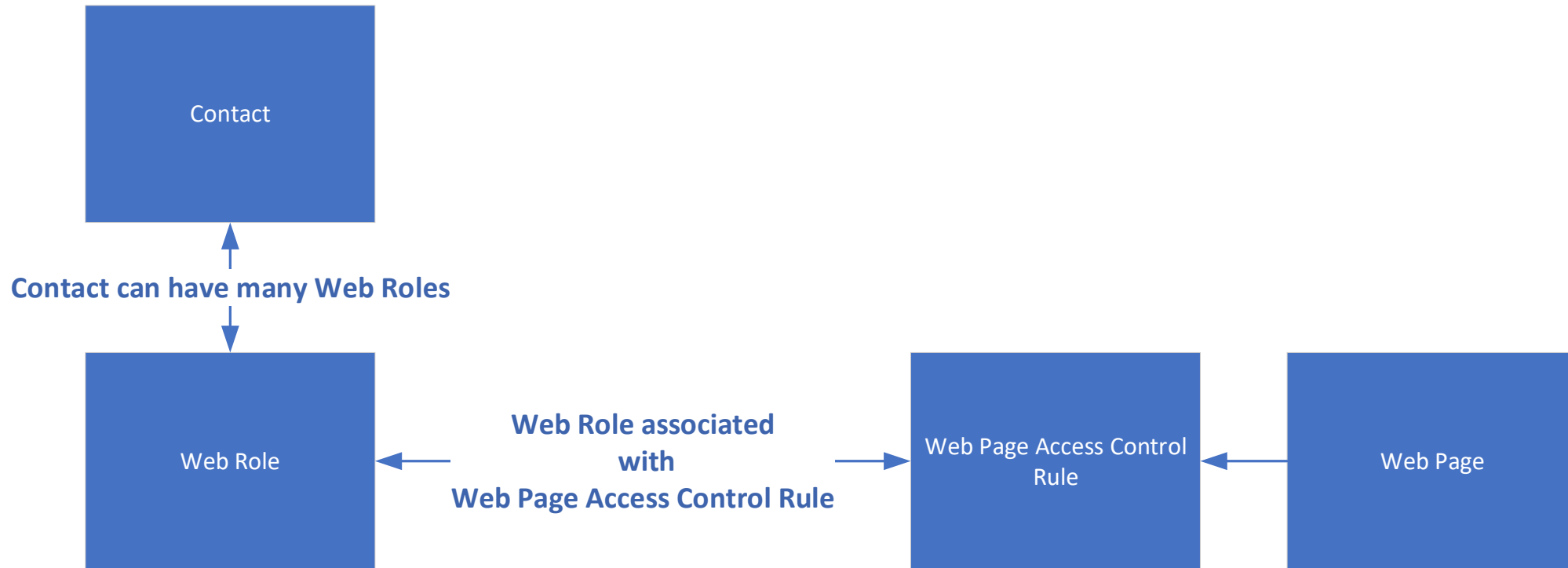
# Intro to PowerApps Portals

Allow users to  
login

Contoso Ltd.						
Home   Sample pages ▾   Available Classes ▾   🔍   Jim Glynn (sample) ▾						
Home > Available Classes						
Available Classes						
This website uses sample data for illustration purposes. You can build pages using multiple templates available.						
Course ↑	Start Date and Time	End Date and Time	Instructor	Status Reason	Latitude	Longitude
Intro to PowerApps Portals	8/12/2019 8:00 AM	8/12/2019 5:00 PM	Jim Glynn (sample)	Scheduled		▾
SSRS for the PowerApps	8/21/2019 8:00 AM	8/21/2019 5:00 PM	Jim Glynn (sample)	Scheduled		▾

# Intro to PowerApps Portals

## Web Page Access Control Rule



# PowerApps Portals Licensing

User Type	Model	SKU Names	Unit capacity	Price/month	Channel	Comments
External user (authenticated)	Per log in	PowerApps Portals login capacity add-on	100 logins	\$200	All	<ul style="list-style-type: none"> <li>A login provides the authenticated user with access to a single portal for up to 24 hours</li> <li>Multiple logins during the 24-hour period count as 1 billable login</li> </ul>
		PowerApps Portals login capacity add-on Tier 2	1000 logins	\$1000	All	
		PowerApps Portals login capacity add-on Tier 3	5000 logins	\$3500	CSP Only	
External user (Unauthenticated)	Per page view	PowerApps Portals page view capacity add-on	100,000 page views	\$100	All	
Internal user	Via license	Dynamics 365 (various) PowerApps per app plan PowerApps per user plan	N/A	N/A	N/A	<ul style="list-style-type: none"> <li>Custom portal use rights are aligned with custom app use rights</li> </ul>



# Intro to PowerApps Portals

## Next Steps – “Homework”

- Provide feedback! <https://experience.dynamics.com/insider>
- Create Portal Content (Wizard in Portal Management App)
- Create custom web templates
- View on Mobile (responsive design)
- Change CSS Themes/Logos/etc.
- Explore Entity Permissions for tighter security
- Azure B2C for Authentication
- Custom Scripting and integration to Azure (Payment Button)
- Subscribe to crm.audio “Refresh the Cache” podcast

# Crash Course in Dynamics 365 Portals

## Learning Resources

- MS Learn

<https://docs.microsoft.com/en-us/learn/paths/extend-dynamics-365-portals/>

<https://docs.microsoft.com/en-us/learn/paths/work-with-portals-in-dynamics-365/>

<https://docs.microsoft.com/en-us/learn/paths/get-started-dynamics-365-portals/>

- Portals Masterclass (please contact me)
- Online Learning (working on it!)