

App in a Day

Microsoft Power Platform

Power Apps

Power Automate

Microsoft Dataverse



About me

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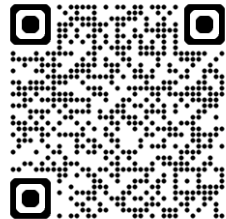
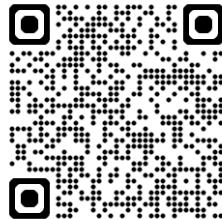
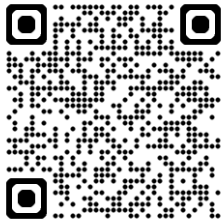
Microsoft Certified Trainer

Microsoft 365 Certified: Enterprise Administrator Expert

Microsoft 365 Certified: Security Administrator Associate

Microsoft Certified: Power Platform Functional Consultant

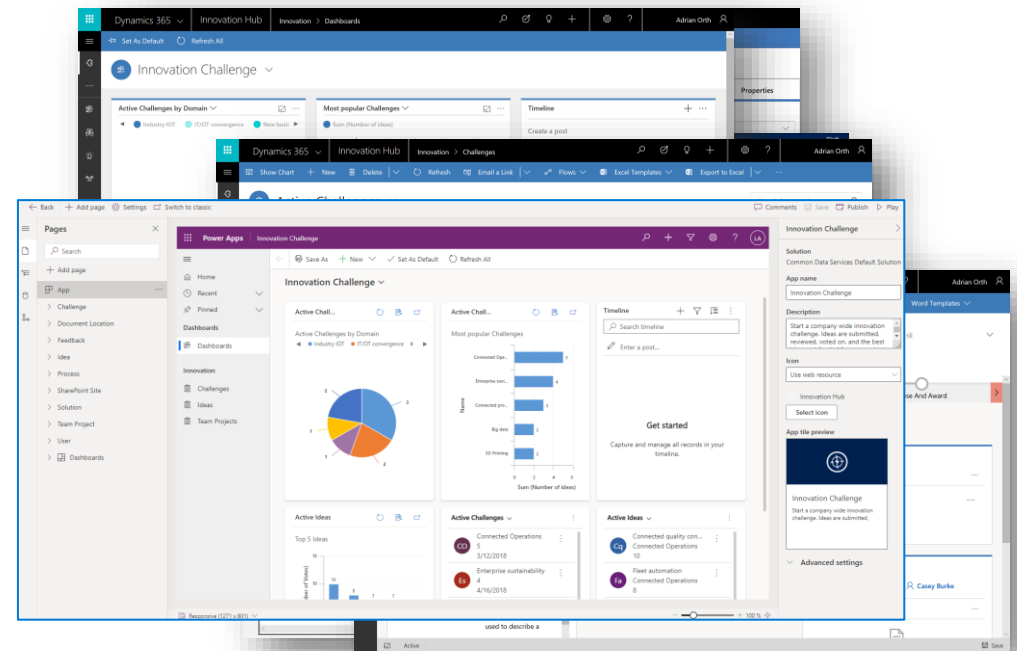
Microsoft Certified: Azure Fundamentals



Module 3: Power Apps Model-driven Apps

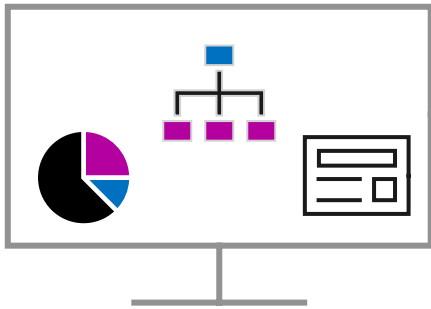


Canvas apps start with user experience, with pixel-perfect control to build highly customized task- and role-based apps that mash up data from hundreds of sources

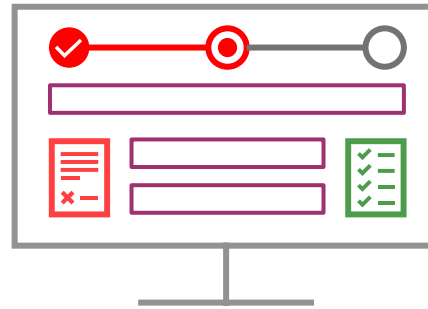


Model-driven apps leverage your data model, relationships, and business processes to automatically generate immersive, responsive applications

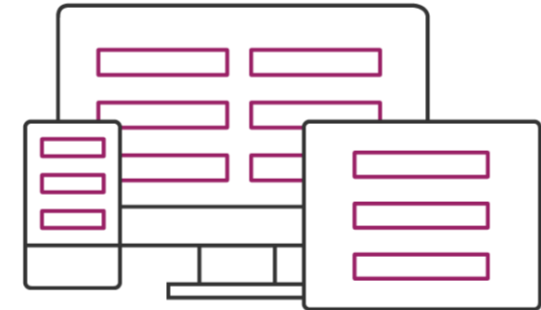
Power Apps Model-driven apps provides a metadata-driven architecture for creating and customizing apps without writing code



Rich component-focused no-code design environments



Easily add business rules and business process flows to model your business processes



Complex responsive apps on web and mobile

Component-focused approach to app development

Create apps around forms and processes

A way of app development using tables, forms and business processes.

Design sophisticated table forms quickly

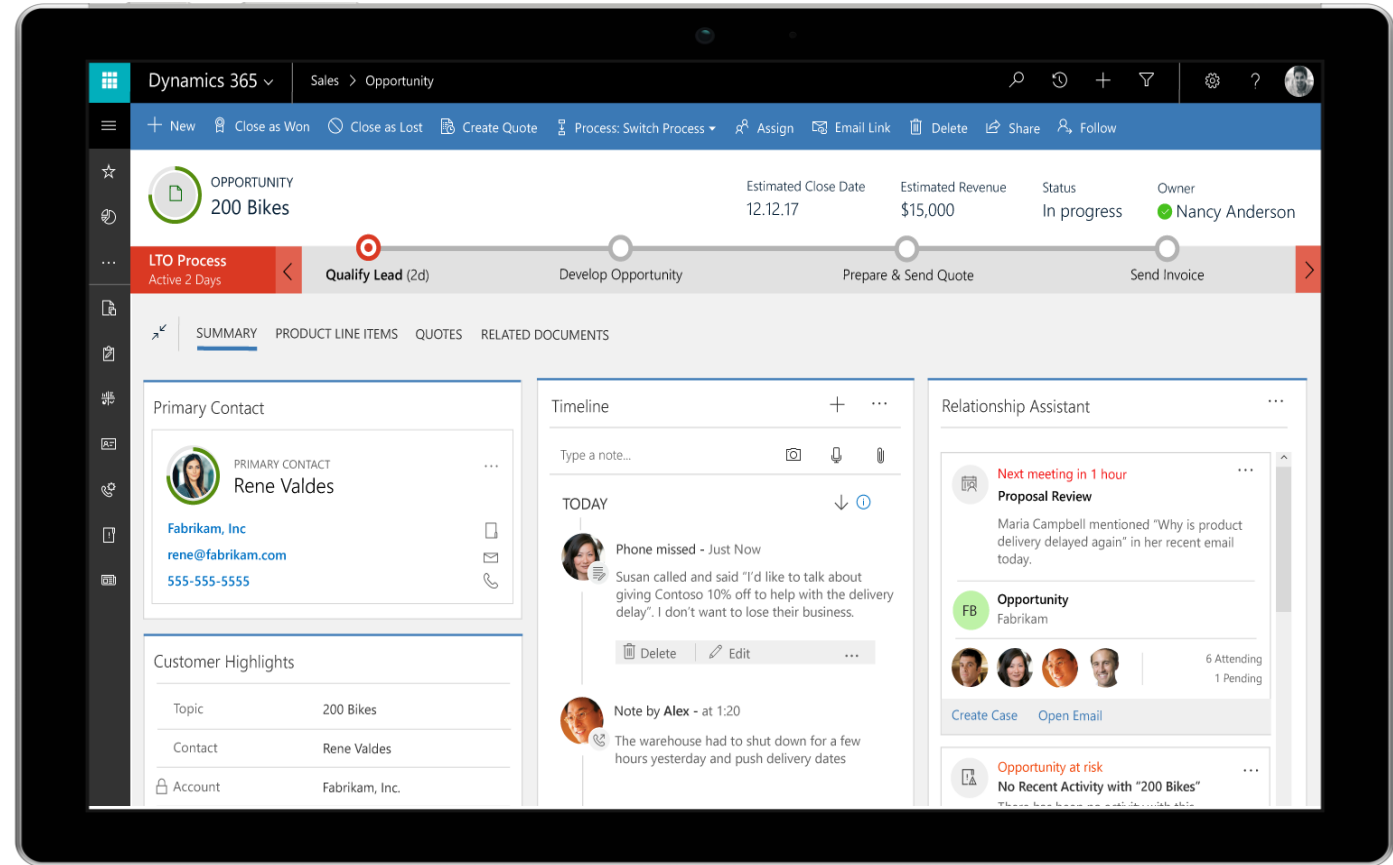
Drag and drop fields and controls in a visual designer. Forms can span multiple columns, multiple steps, and collapsible sections.

Rich, responsive client experiences

Responsive UI automatically reflows across devices based on the space available.

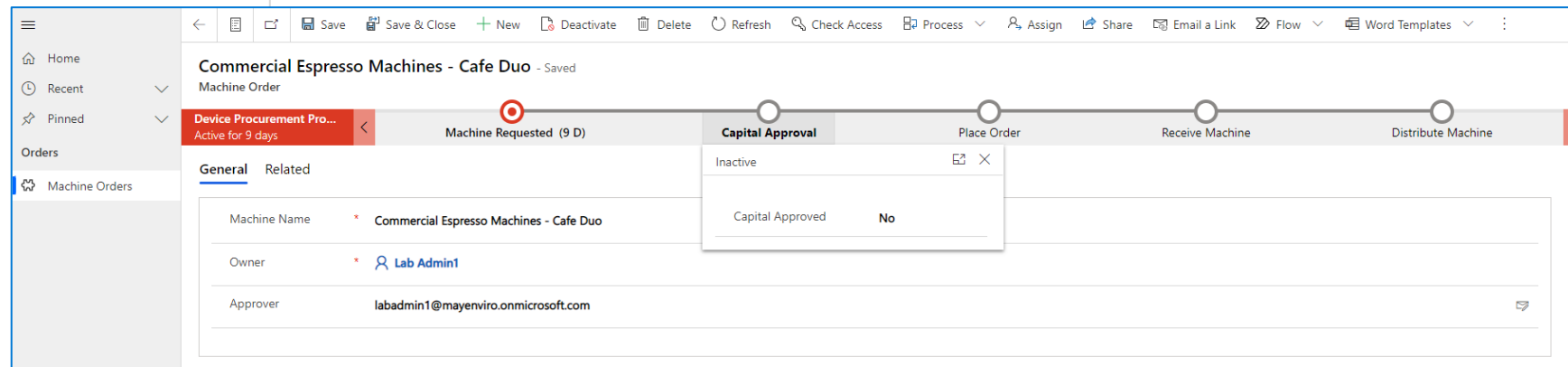
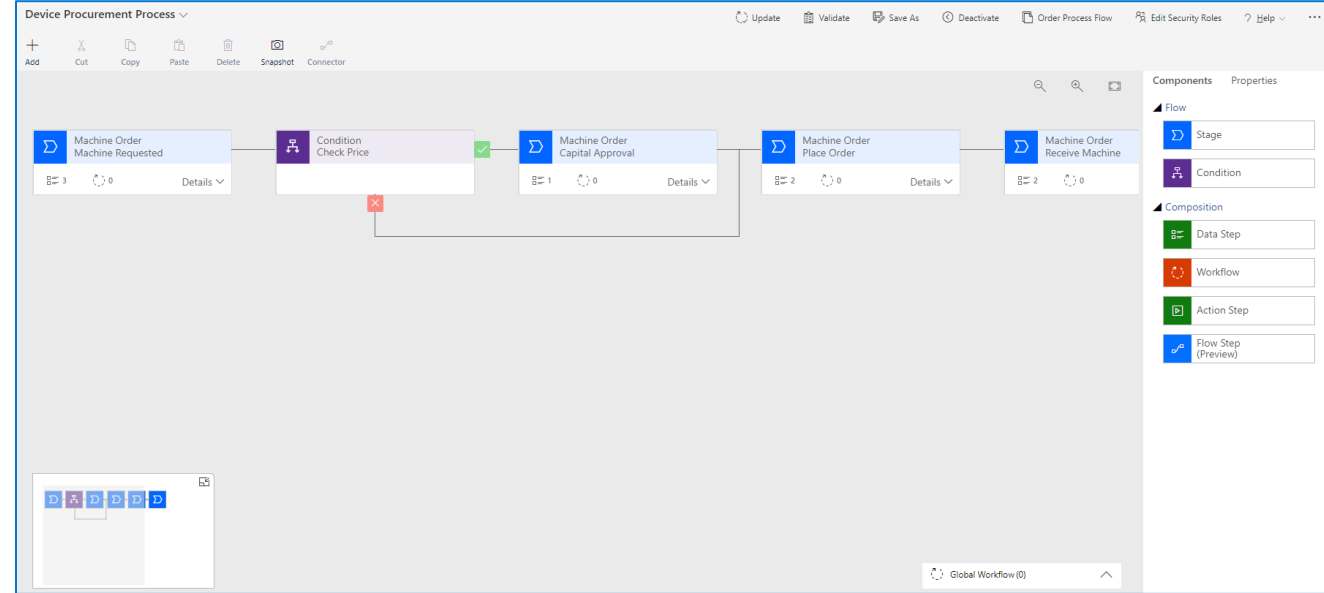
Enables easy reuse across multiple apps

Easily share forms, dashboards, flows, and more across multiple apps.



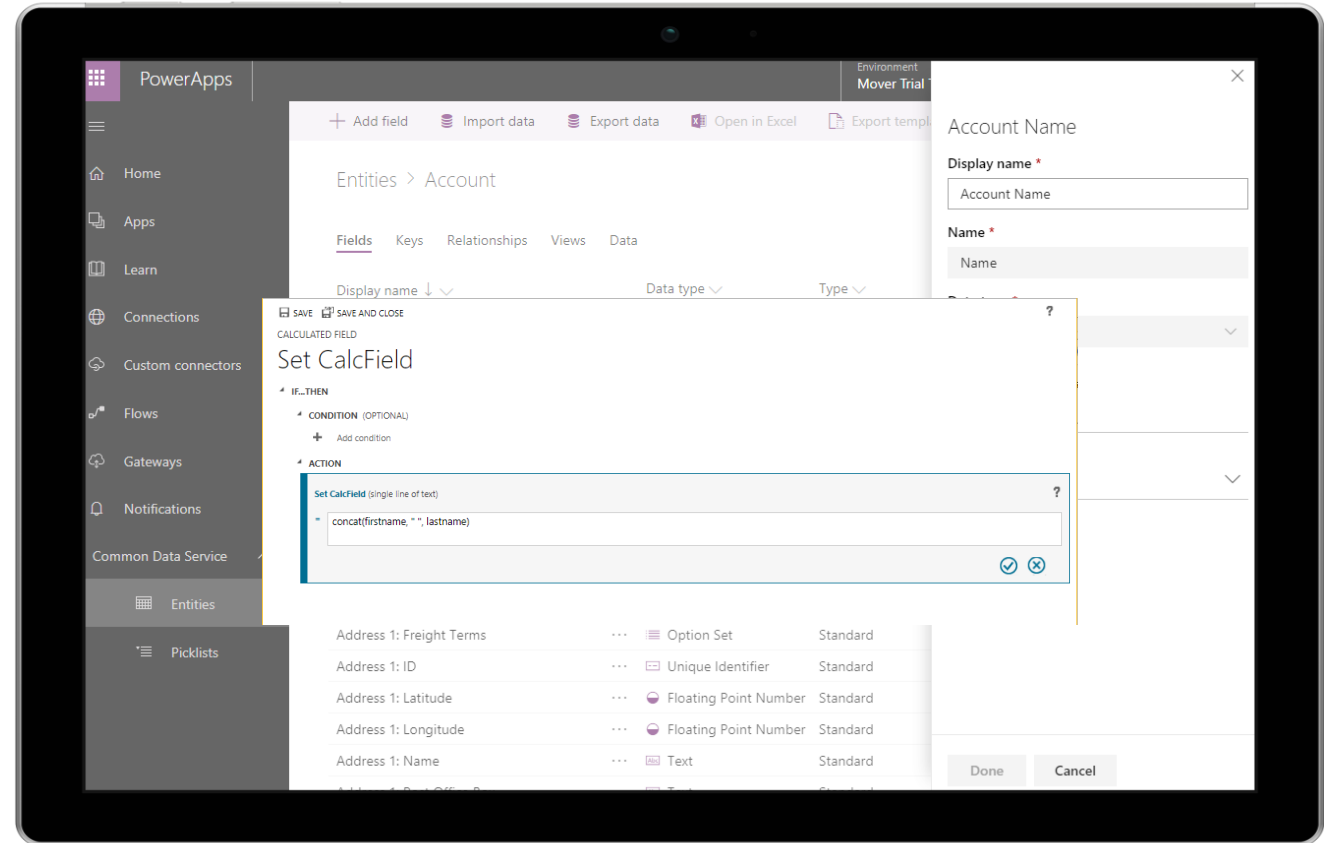
Business Process Flow

- Visual indicators that tell users where they are in the business process
- Reduce the need for training
- Configurable to support common line of business methodologies



Server-Side Logic

- Server-side logic bound to tables, works across all apps
- Create calculated and roll up columns
- Easily create validation and set default values
- Update related tables with synchronous workflows



Developer Capabilities

- Robust solution framework for application install and updates
- Integrated solution checker to identify potential issues and accessibility concerns
- RESTful (OData) web API
- .NET SDK
- Sandbox instances for ALM operations

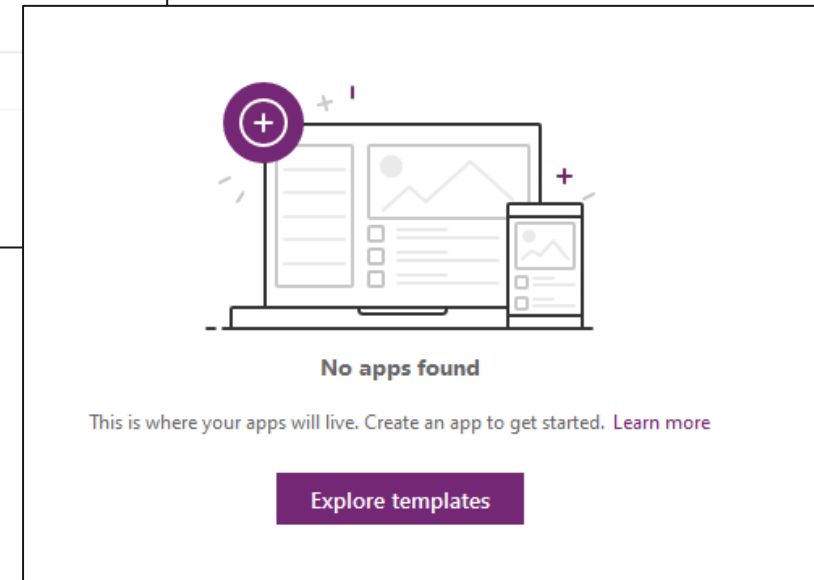
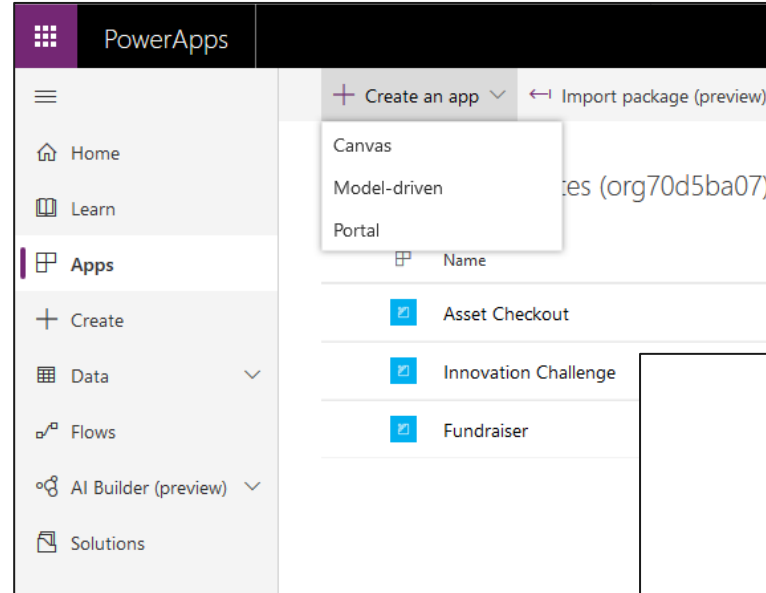
Solutions				
Name		Installed on ↓	Managed externally?	Version
Analysis Demo	...	11/30/2018	No	1.0
Repro89436486			No	1.0
PowerApps Checker			Yes	1.0.0.40
Field Service			Yes	7.5.4.51
Field Service UCI App Module			Yes	7.5.4.51
Field Service App Module			Yes	7.5.4.51
Field Service			Yes	7.5.4.51
Field Service	...	11/17/2018	yes	7.5.0.60

Edit
Delete
Export
Clone
Show dependencies
Apply upgrade
Translations
Solution checker

Run
Download last results

Power Apps Maker Portal [<https://make.powerapps.com/>]

- Create new apps
- Explore sample apps and templates
- Manage and configure your apps



Model-driven app components - Data

Component	Description
Table	An item with properties that you track, such as a contact or account. Many standard tables are available. You can customize a non-system standard table (production table) or create a custom table from scratch.
Column	A property that is associated with a table. A column is defined by a data type, which determines the type of data that can be entered or selected. Examples include text, number, date and time, currency, or lookup (creates a relationship with another table). Columns typically are used with forms, views, and searches.
Relationship	Table relationships define how tables can be related to each other. There are 1:N (one-to-many), N:1 (many-to-one), and N:N (many-to-many) types of relationships . For example, adding a lookup field to a table creates a new 1:N relationship between the two tables and lets you put that lookup on a form.
Choice	This is a special type of column, which provides the user a set of predetermined options. Each option has a number value and label. When added to a form, this column displays a control for the user to select an option. There are two types; <i>choice</i> , where the user can only select one option; and <i>multi-select choices</i> , which allow more than one selection.

Tables and columns

Tables

Table ↑ ▾

Account
Activity
Address
Appointment
Attachment
Business Unit
Contact
Currency
Email
Email Template
Fax
Feedback
Letter
Mailbox

+ New column

Search

Tables > Account > Columns ▾

Display name ↑ ▾		Name ▾	Data type ▾	Managed ▾	Customizable ▾	Required ▾	Searchable ▾
(Deprecated) Process Stage	⋮	Stageld	Unique identifier	Yes	No	No	No
(Deprecated) Traversed Path	⋮	TraversedPath	Single line of text	Yes	Yes	No	No
Account	⋮	AccountId	Unique identifier	Yes	Yes	Yes	Yes
Account Name <small>Primary name column</small>	⋮	Name	Single line of text	Yes	Yes	Yes	Yes
Account Number	⋮	AccountNumber	Single line of text	Yes	Yes	No	Yes
Account Rating	⋮	AccountRatingCode	Choice	Yes	Yes	No	No
Address 1	⋮	Address1_Composite	Multiple lines of text	Yes	Yes	No	Yes
Address 1: Address Type	⋮	Address1_AddressType	Choice	Yes	Yes	No	Yes
Address 1: City	⋮	Address1_City	Single line of text	Yes	Yes	No	Yes
Address 1: Country/Region	⋮	Address1_Country	Single line of text	Yes	Yes	No	Yes
Address 1: County	⋮	Address1_County	Single line of text	Yes	Yes	No	Yes
Address 1: Fax	⋮	Address1_Fax	Single line of text	Yes	Yes	No	Yes
Address 1: Freight Terms	⋮	Address1_FreightTerms	Choice	Yes	Yes	No	Yes

Configurable data type for columns

Display name *

Challenge Code

Description ⓘ

Data type * ⓘ

Single line of text

Format *

Text

- Email
- Phone number
- Rich text
- Text**
- Text area
- Ticker symbol
- URL

Save Cancel

App designer

Pages

- Search
- Add page
- App
 - Challenge
 - Document Location
 - Feedback
 - Idea
 - Process
 - SharePoint Site
 - Solution
 - Team Project
 - User
 - Dashboards

Power Apps | Innovation Challenge

Save As New Set As Default Refresh All

Innovation Challenge

Active Challenges

Active Challenges by Domain

- Industry IOT
- IT/OT convergence
- New business models

Most popular Challenges

Name	Sum (Number of ideas)
Connected Operations	5
Enterprise sustainability	4
Connected products	3
Big data	2
3D Printing	2

Timeline

Search timeline

Enter a post...

Active Ideas

Top 5 Ideas

Votes

Innovation Challenge

Solution
Common Data Services Default Solution

App name
Innovation Challenge

Description
Start a company wide innovation challenge. Ideas are submitted, reviewed, voted on, and the best

Icon
Use web resource

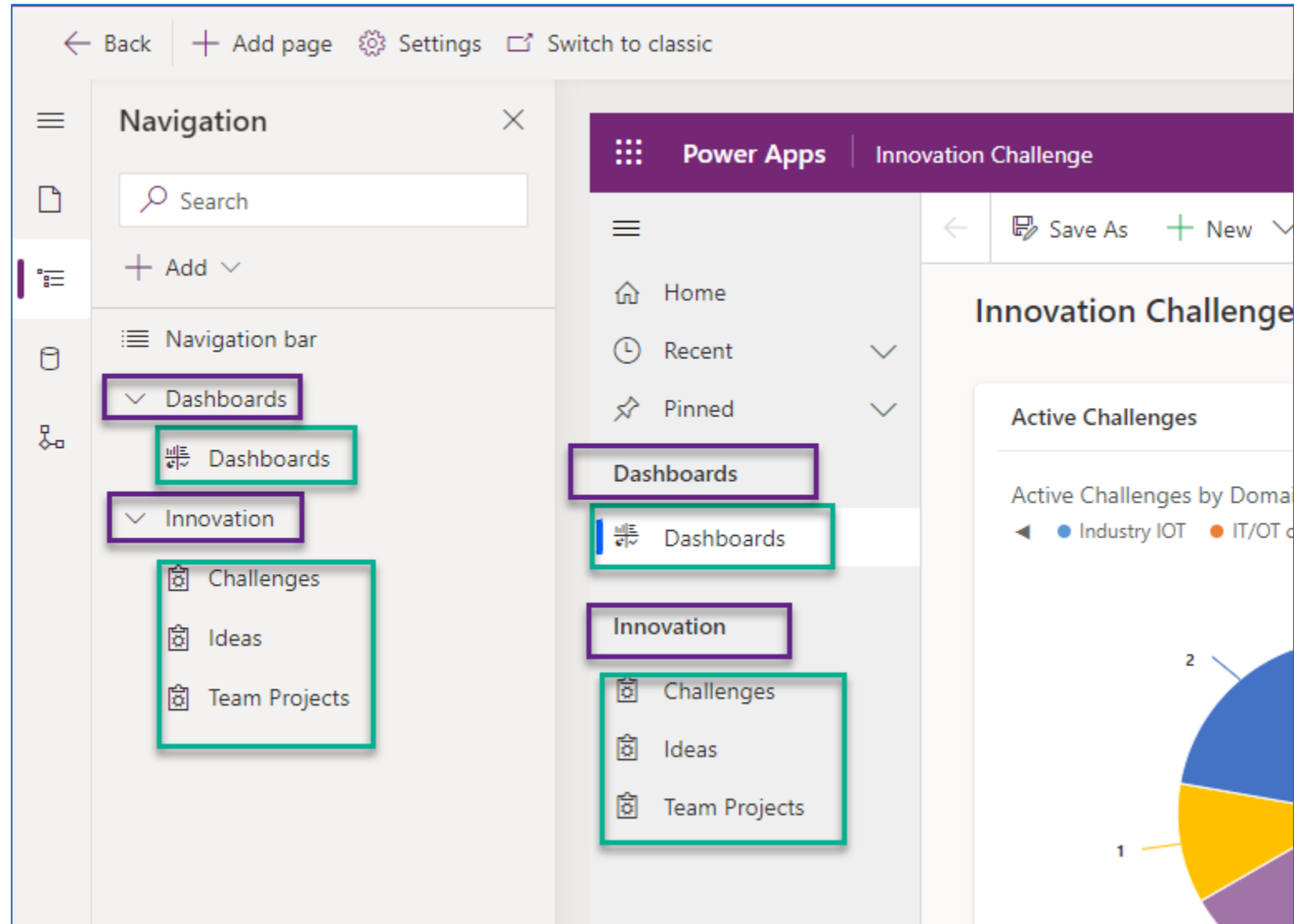
Innovation Hub
Select icon

App tile preview

Innovation Challenge
Start a company wide innovation challenge. Ideas are submitted,

Advanced settings

Navigation



Form designer

Back

Form field

Component

Form settings

Switch to classic

Table columns

Search

New table column

Show only unused table columns

Account Number

Account Rating

Address 1: Address Type

Address 1: City

Address 1: Country/Region

Address 1: County

Address 1: Fax

Address 1: Latitude

Address 1: Longitude

Address 1: Name

Address 1: Post Office Box

Address 1: Primary Contact Name

Address 1: State/Province

Address 1: Street 1

Address 1: Street 2

Address 1: Street 3

New Account

Account

Summary

Details

ACCOUNT INFORMATION

Account Name

Phone

Fax

Website

Parent Account

Ticker Symbol

ADDRESS

Address 1: Street 1

Address 1: Street 2

Address 1: Street 3

Address 1: City

Address 1: State/Province

Address 1: ZIP/Postal Code

Address 1: Country/Region

Timeline

Almost there

Primary Contact

Email

Business

CONTACTS

No data available

Get Directions

Map is disabled for this organization.

Save

Publish

Account

Main form

Properties

Events

Table

Account

Display Name

Account

Description

Updated default Account form.

Max Width (pixels)

1,920

Show image

View designer

←

+ Add column

↶ Undo

↷ Redo

Switch to classic

Save | ∨

Publish

Fields

Account

Related

Search

Default

+ New field

✓ Show only unused fields

(Deprecated) Process Stage

Account Number

Account Rating

Address 1

Address 1: Address Type

Address 1: Country/Region

Address 1: County

Address 1: Fax

Address 1: Freight Terms

Address 1: Latitude

Address 1: Longitude

Address 1: Name

Address 1: Post Office Box

Account Name ↑ ∨	Main Phone ∨	Address 1: City ∨	Primary Contact ∨	Email (Primary Contact) ∨	+ Add column
A. Datum Corporation (sample)	555-0158	Redmond	Rene Valdes (sample)	someone_i@example.com	
Adventure Works (sample)	555-0152	Santa Cruz	Nancy Anderson (sample)	someone_c@example.com	
Alpine Ski House (sample)	555-0157	Missoula	Paul Cannon (sample)	someone_h@example.com	
Blue Yonder Airlines (sample)	555-0154	Los Angeles	Sidney Higa (sample)	someone_e@example.com	
City Power & Light (sample)	555-0155	Redmond	Scott Konersmann (sample)	someone_f@example.com	
Coho Winery (sample)	555-0159	Phoenix	Jim Glynn (sample)	someone_j@example.com	
Contoso Pharmaceuticals (sample)	555-0156	Redmond	Robert Lyon (sample)	someone_g@example.com	
Fabrikam, Inc. (sample)	555-0153	Lynnwood	Maria Campbell (sample)	someone_d@example.com	
Fourth Coffee (sample)	555-0150	Renton	Yvonne McKay (sample)	someone_a@example.com	
Litware, Inc. (sample)	555-0151	Dallas	Susanna Stubberod (sample)	someone_b@example.com	

My Active Accounts

View

Name

My Active Accounts

Description

Sort by ...

↑ Account Name

Then sort by ...

Filter by ...

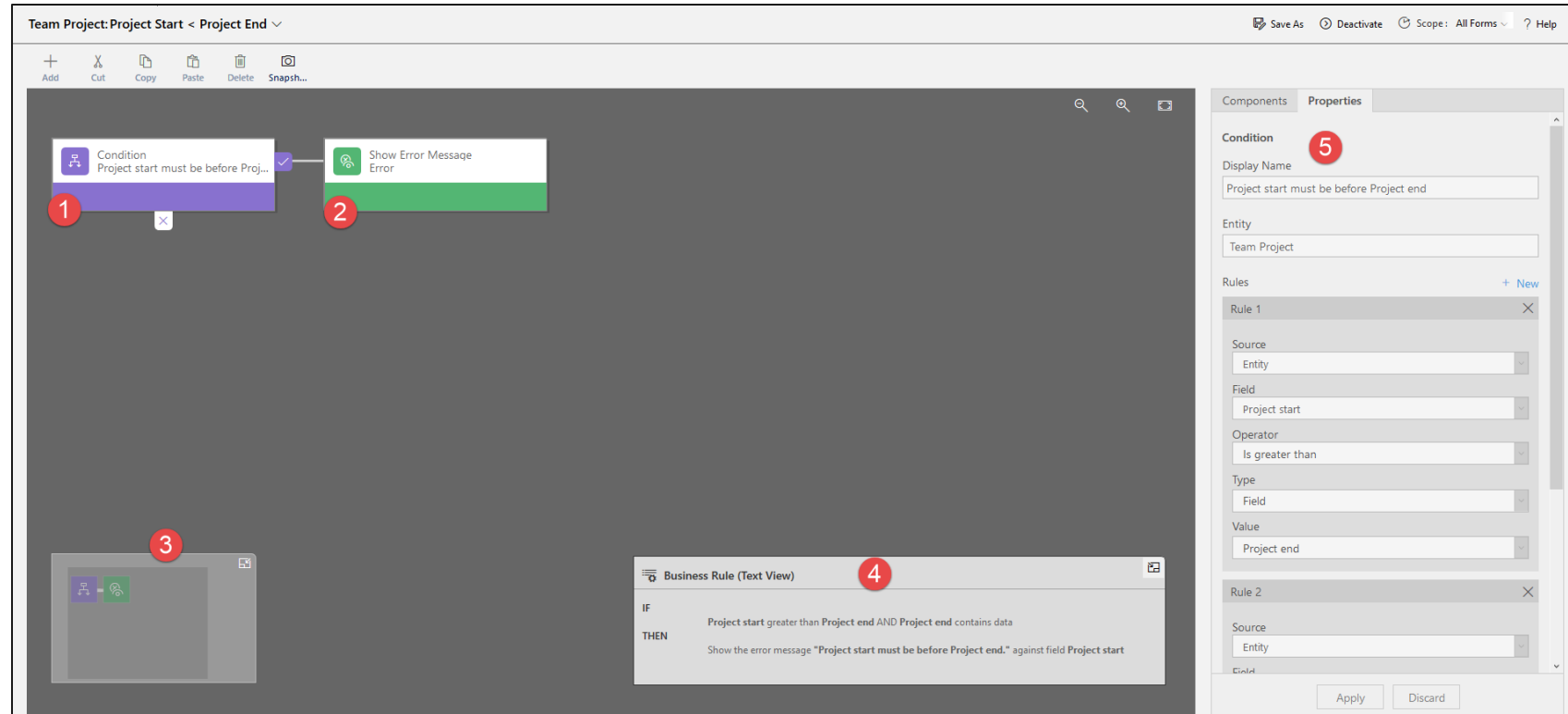
Owner is current user

Status is 'Active'

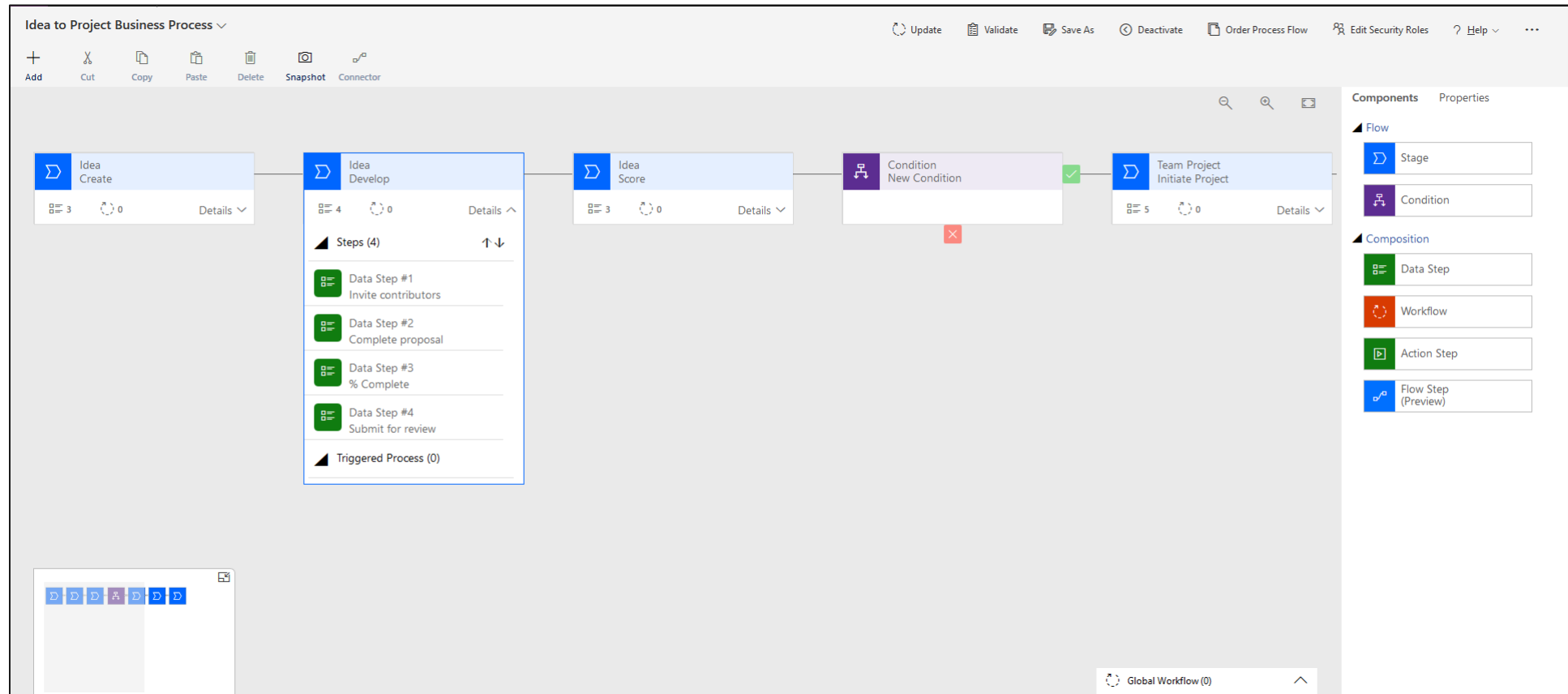
Edit filters ...

Business Rule designer

1. Condition (if this)
2. Action (do this)
3. Visualize
4. See the "code"
5. Define the rules and add more components



Business Process Flow designer



Solution: Default Solution

Dashboard : Sample dashboard

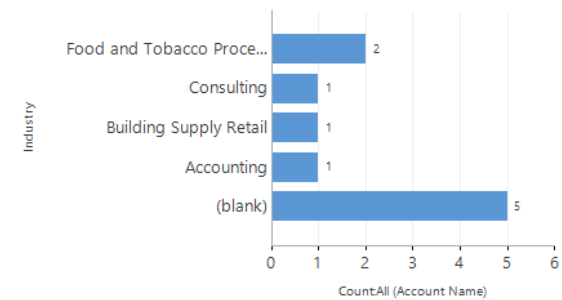
Name: * Sample dashboard

Section

Chart

Accounts by Industry

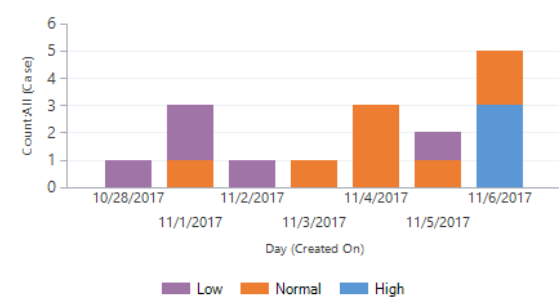
Active Accounts



Chart

Cases By Priority (Per Day)

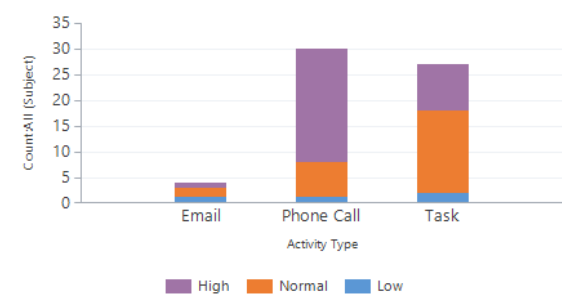
Active Cases



Chart

Activities by Type and Priority

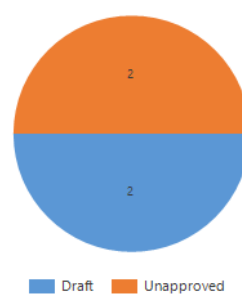
All Activities



Chart

Articles By Status

All Articles



Model-driven sample apps

In order to explore or edit model-driven sample apps, the apps must first be provisioned in a Dataverse database. First create a trial environment and database and be sure to check **Include sample apps and data**.

Create a database for this environment ?

Choose the currency and language your data should use.

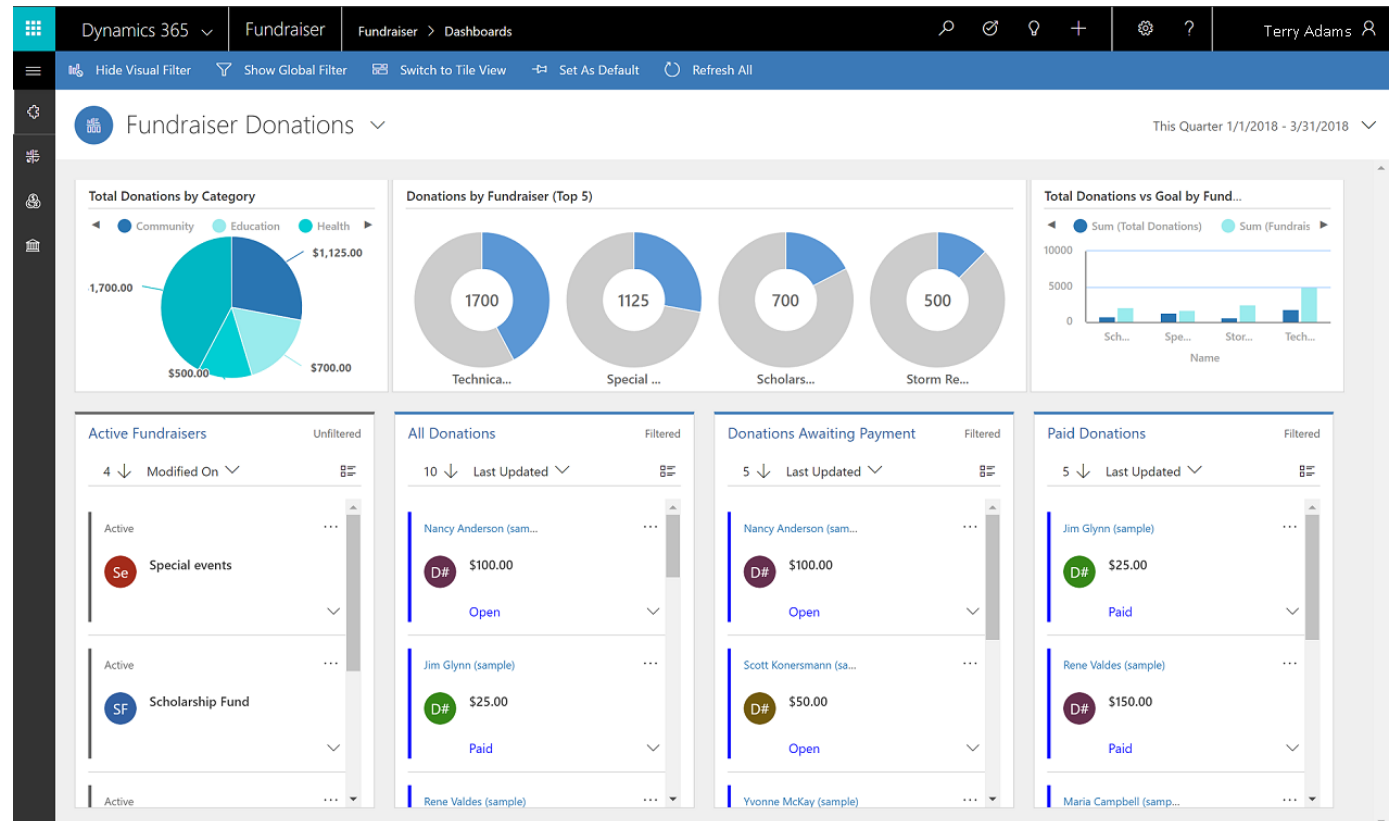
Currency ?
USD

Language ?
English

☒ Include sample apps and data

By choosing **Create my database**, you agree Microsoft can use entity and field names that you create (but not content in the database tables) to help improve our common data model. These names may be stored in our diagnostic systems and copied across regions. [Learn more](#)

Cancel Create database



Custom pages in model driven apps

The screenshot displays the Power Apps editor interface for a 'Customer Management' app. The top navigation bar is purple and includes the 'Power Apps | Customer Management' title, environment information ('Contoso Custom Pages'), and user profile. Below the navigation bar, a toolbar contains 'Back', 'New page', 'Settings', and 'Switch to classic' options. On the right side of the toolbar are 'Save', 'Publish', and 'Play' buttons.

The main workspace is divided into three panels:

- Pages Panel (Left):** Shows a list of pages including 'New page', 'App', 'Account', 'Contact', and 'Landing Page'. The 'Landing Page' is currently selected and highlighted.
- Navigation Panel (Middle-Left):** Displays a menu with 'Home', 'Recent', 'Pinned', and 'Customers' sections. Under 'Customers', 'Landing Page', 'Accounts', and 'Contacts' are listed.
- Design Canvas (Center):** Shows a preview of the 'Welcome to Customer' page. The page has a purple header with the app title and a search icon. The main content area is divided into two columns: 'Accounts' and 'Contacts'. The 'Accounts' column lists several sample companies with their phone numbers. The 'Contacts' column lists sample contact names and email addresses. At the bottom of each column, the number of rows is indicated: 'Rows: 10' for Accounts and 'Rows: 13' for Contacts.
- Properties Panel (Right):** Contains the text 'Select a node first to inspect its properties.'

At the bottom of the editor, there is a responsive design indicator showing 'Responsive (631 x 561)' and a zoom slider set to 100%.

Hands-on-lab 3

Module 3: Power Apps Model-driven App

Module 3: Learning objectives

Canvas App

Dataverse

Model-driven App

Power Automate



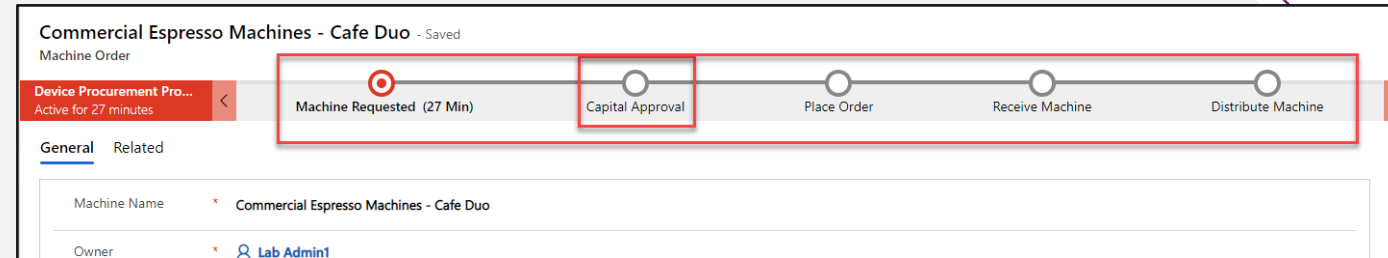
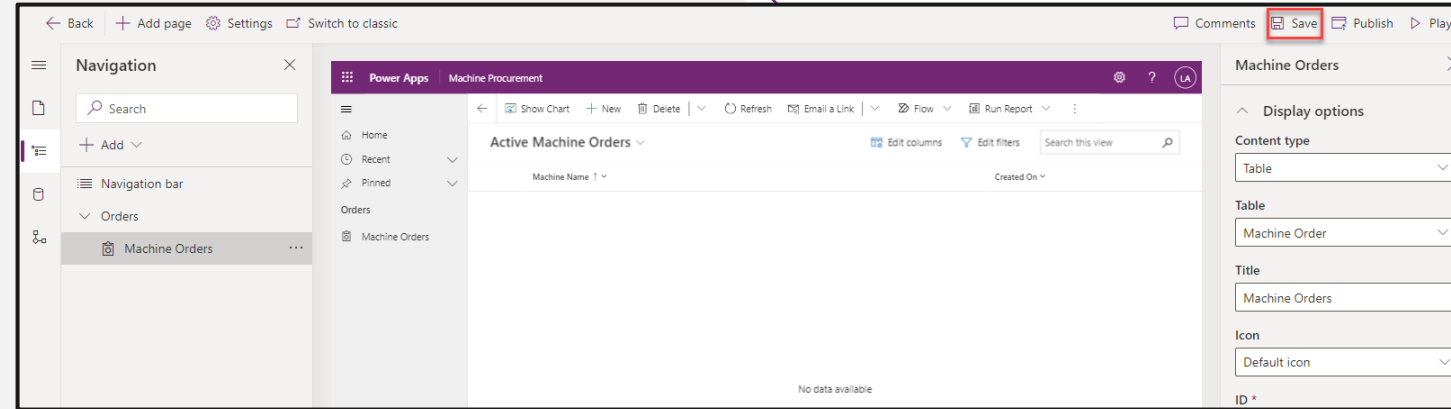
Create a standalone model-driven app



Customize forms for the model-driven app



Create a Business Process Flow





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