Microsoft

App in a Day

Microsoft Power Platform

Power Apps

Power Automate

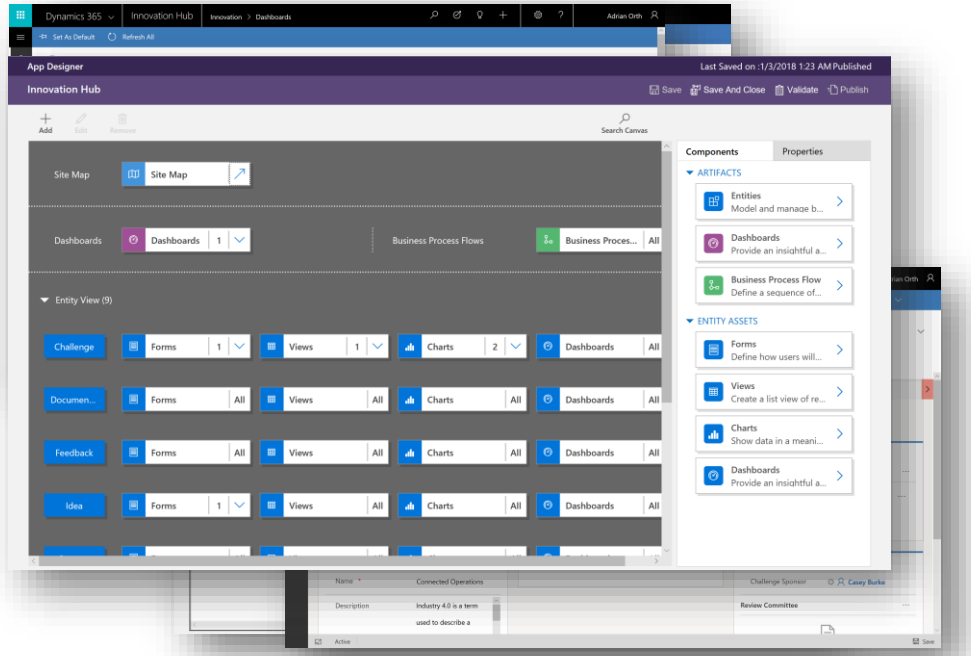
Microsoft Dataverse

February 2021

Microsoft Power Platform

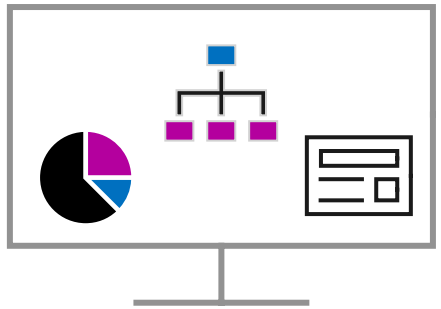
Module 3: Power Apps Model-driven Apps

Canvas apps start with user experience, with pixel-perfect control to build highly customized task- and role-based apps that mash up data from 300+ sources

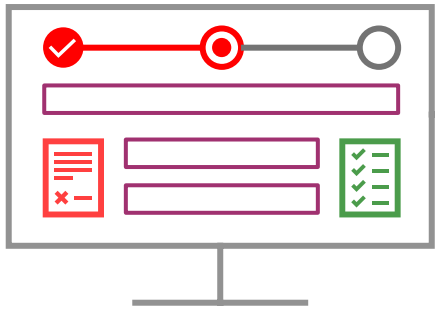


Model-driven apps leverage your data model, relationships, and business processes to automatically generate immersive, responsive applications

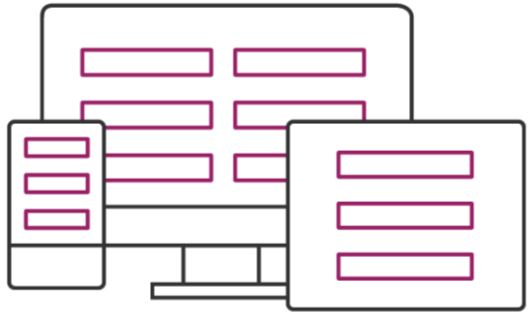
Power Apps Model-driven apps provides a metadata-driven architecture for creating and customizing apps without writing code



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

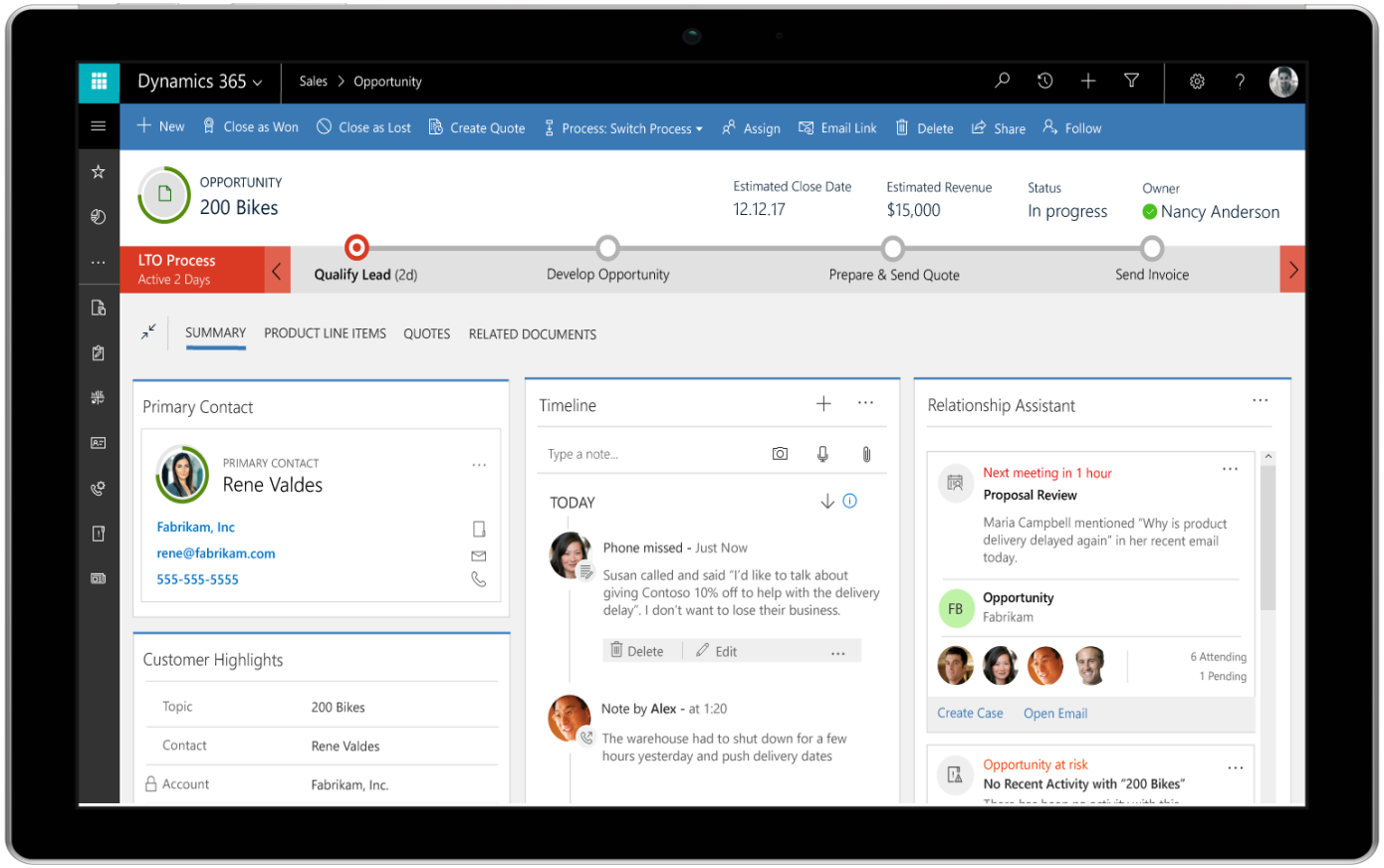
Component-focused approach to app development

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.

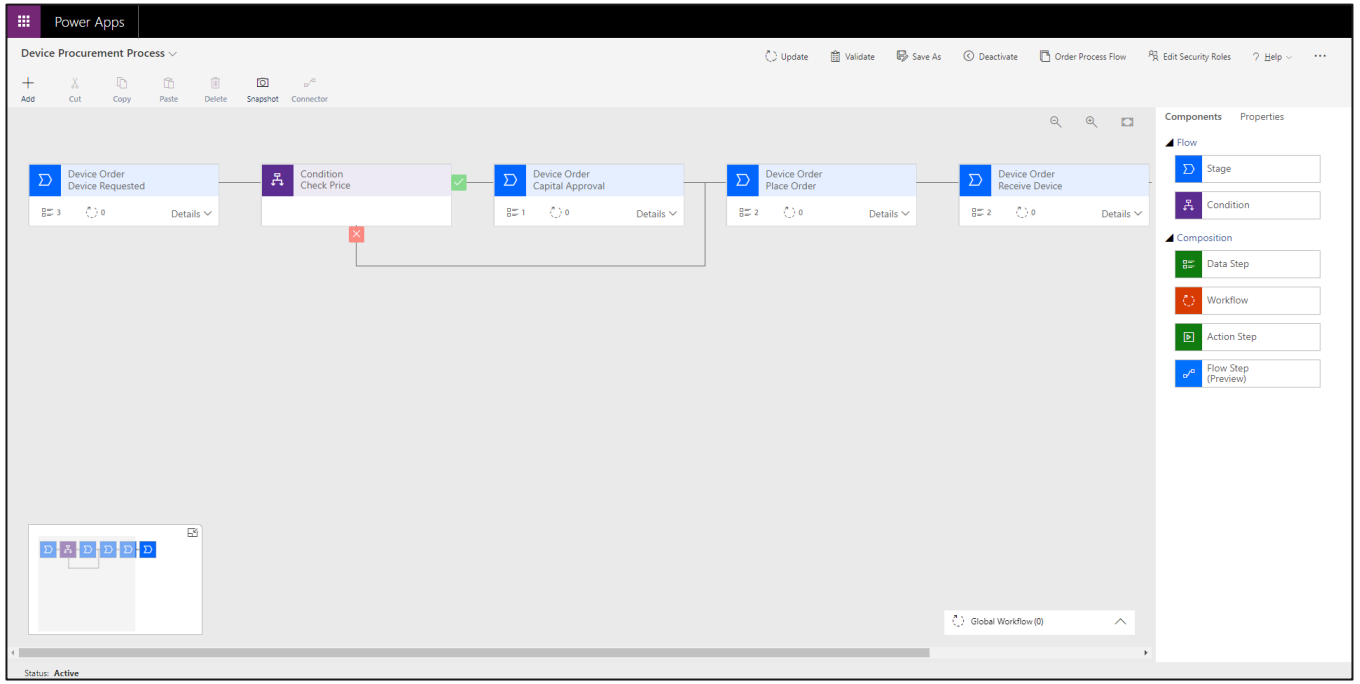
Rich, responsive client experiences
Responsive UI automatically reflows across devices based on the space available.

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



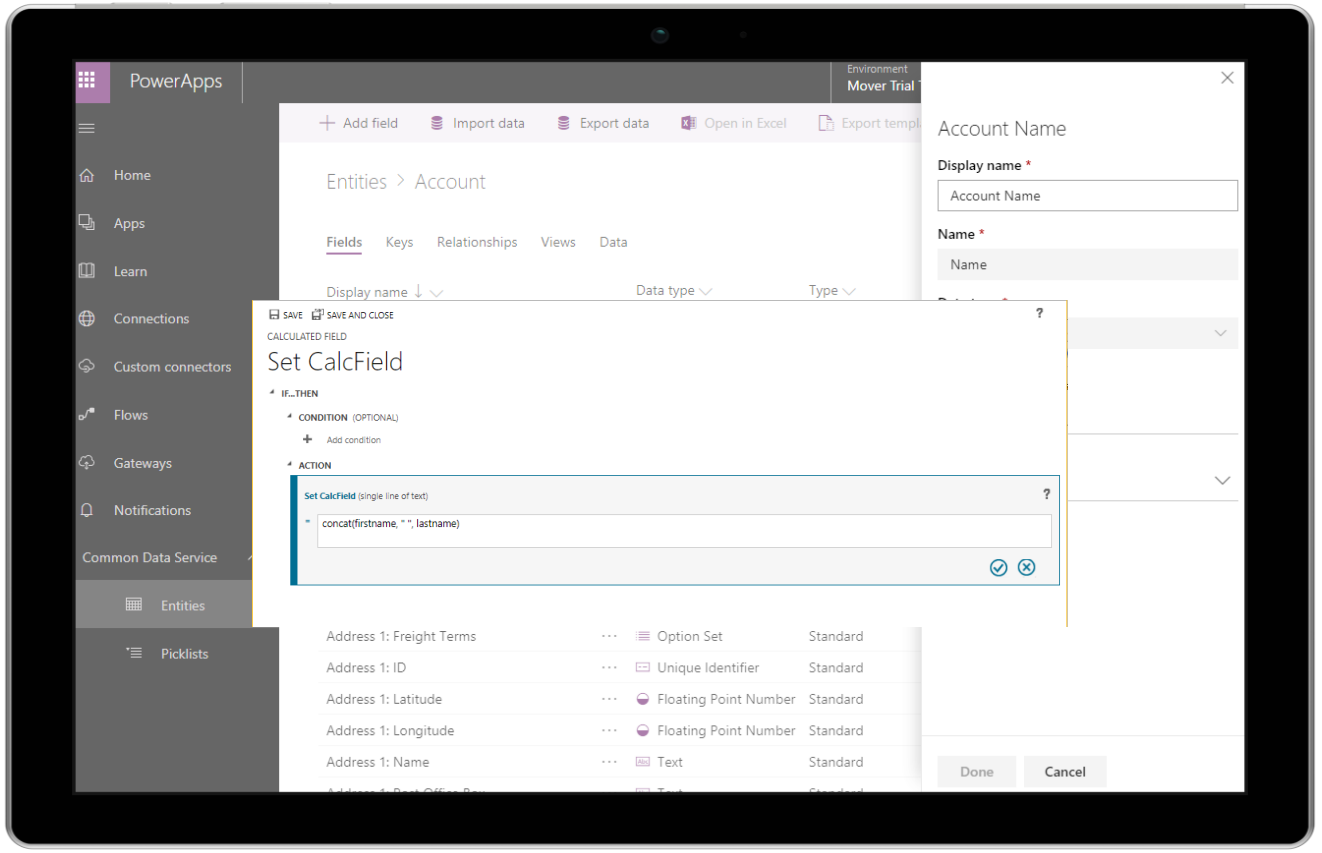
Business Process Flow

- 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



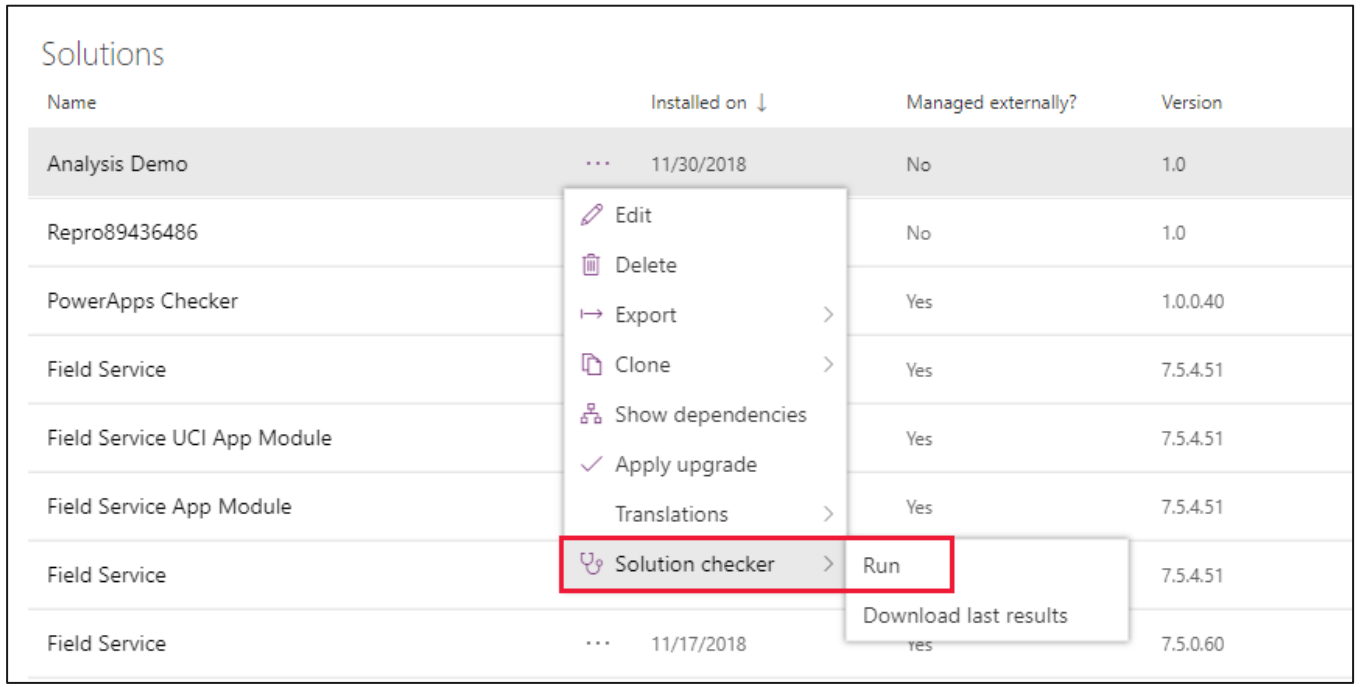
Server-Side Logic

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



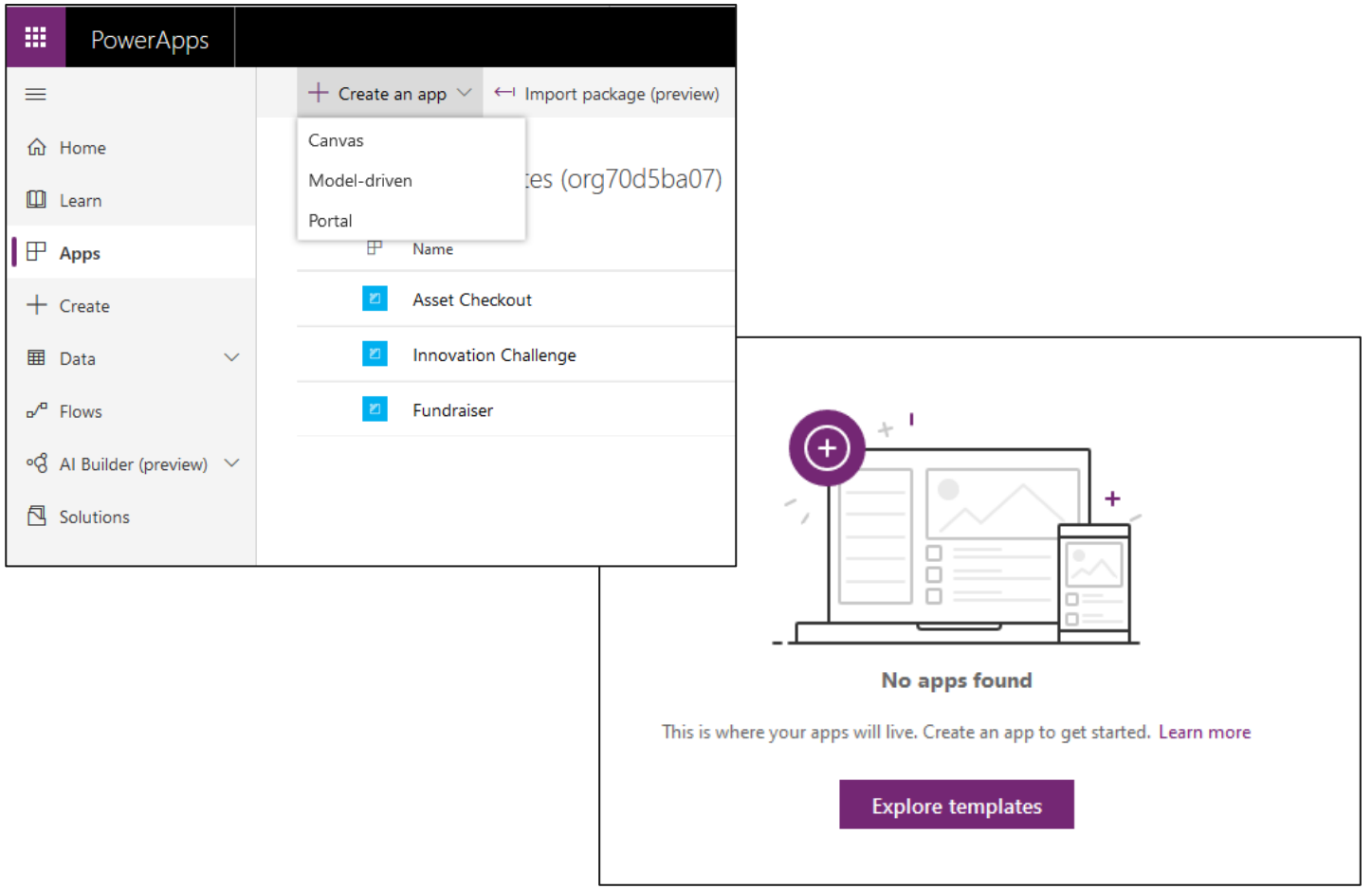
Developer Capabilities

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



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

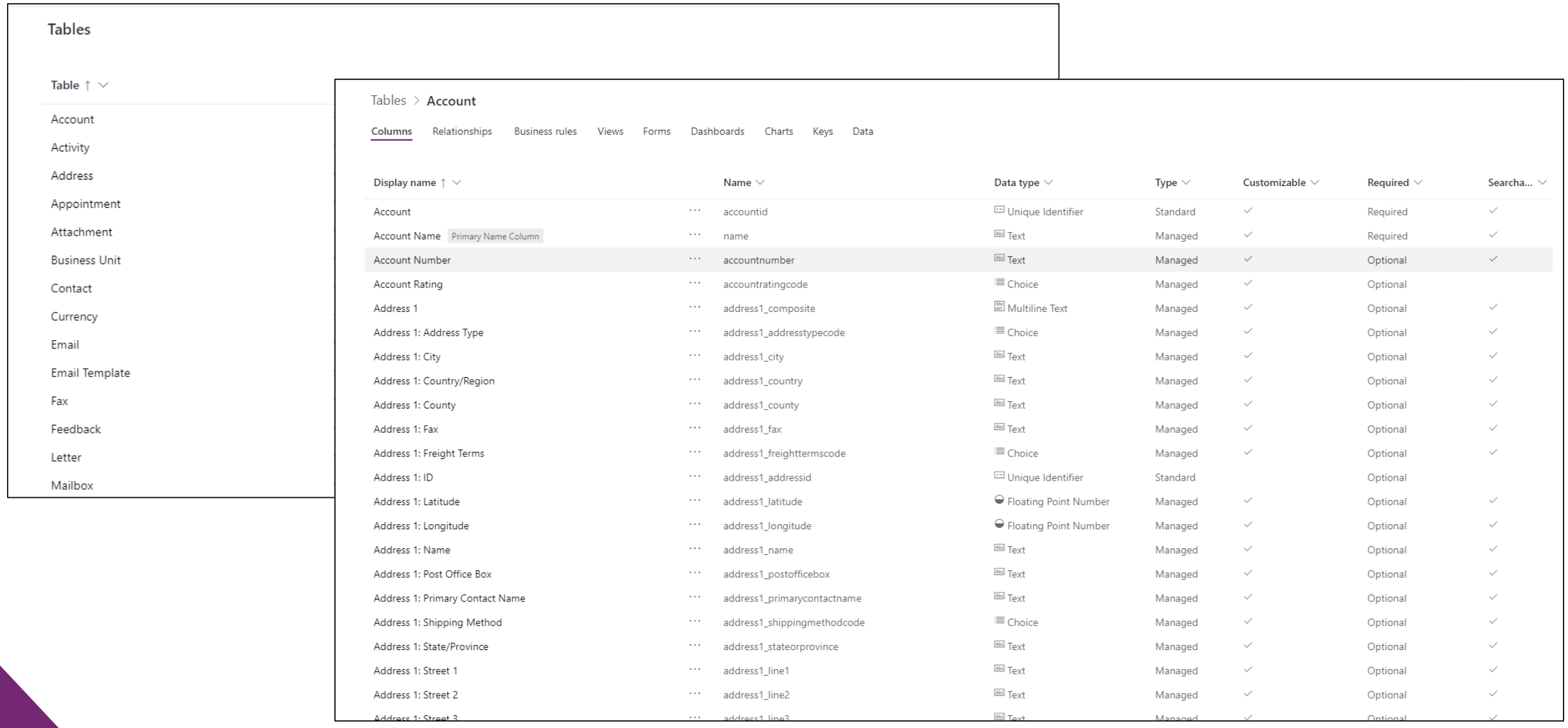
- Create new apps
- Explore sample apps and templates
- Manage and configure your apps



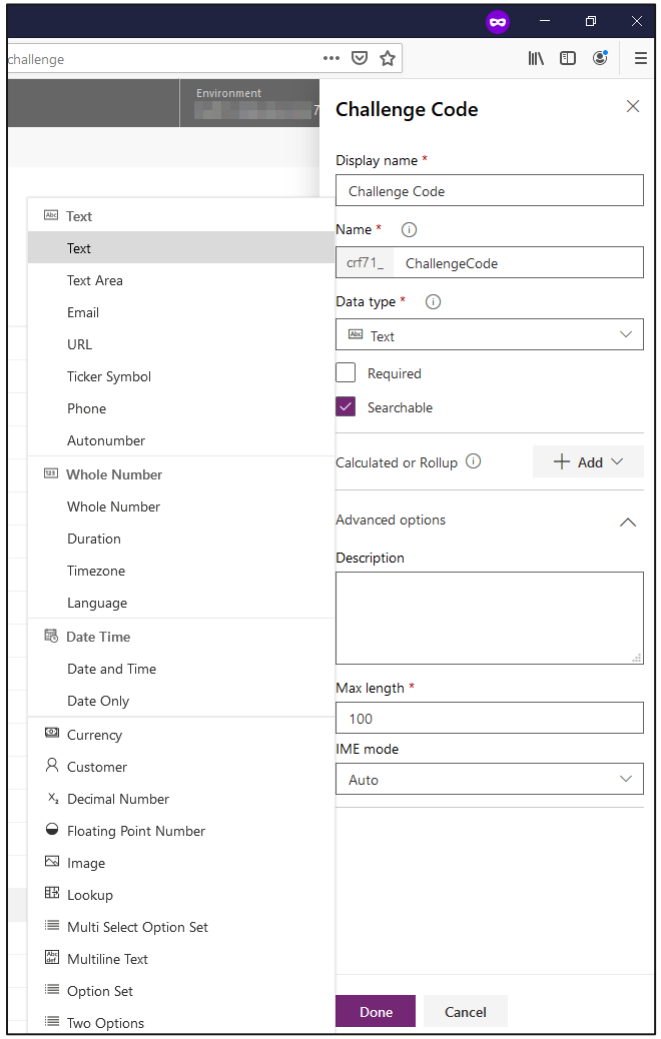
Model-driven app components - Data

Component	Description
Table	An item with properties that you track, such as a contact or account. Many standard entities 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.
Choices	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 kinds of choices; choices, where the user can only select one option; and multi-select choices, which allow more than one selection.

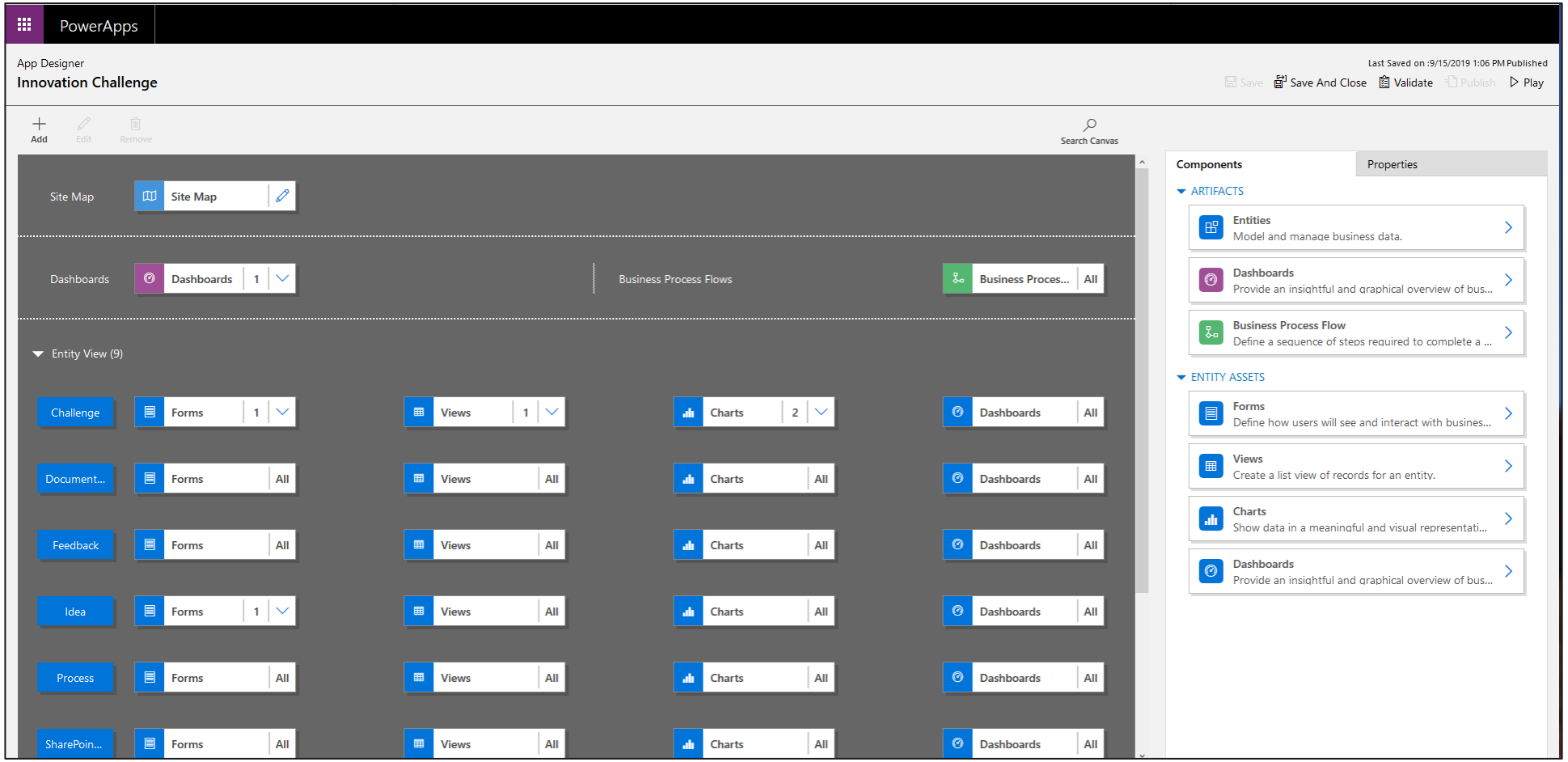
Tables and columns



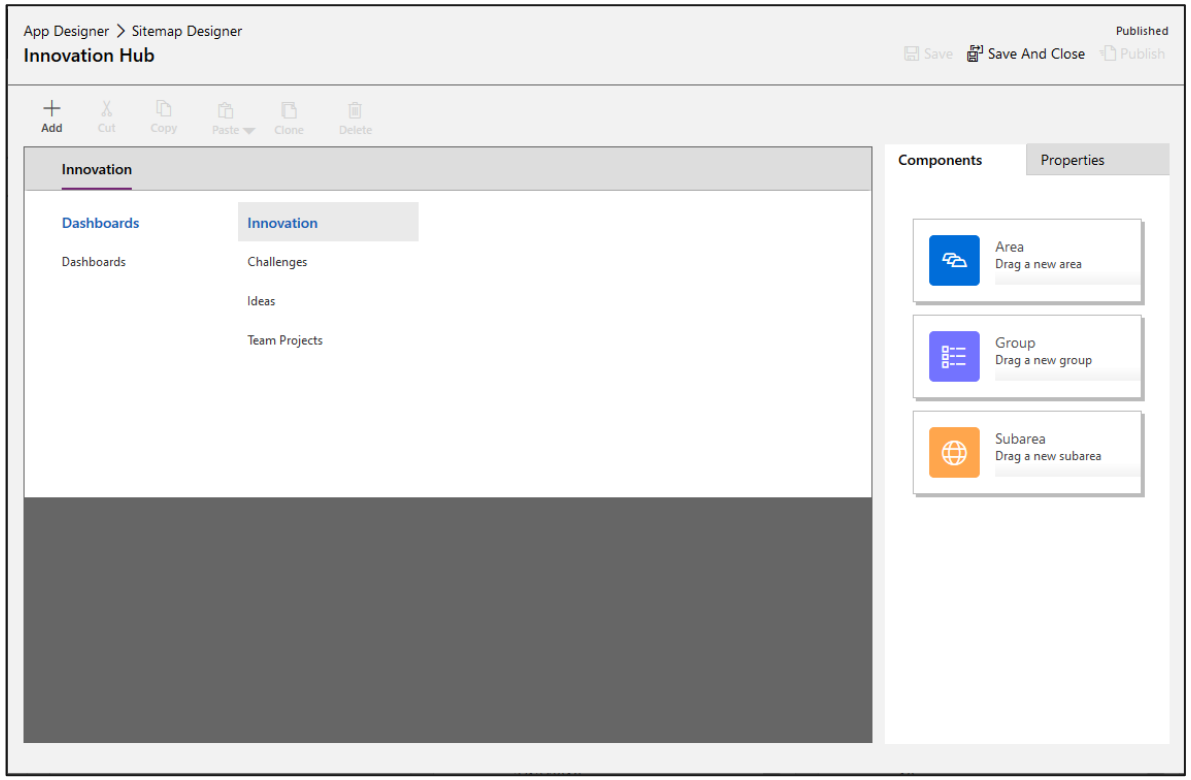
Configurable your columns with data types

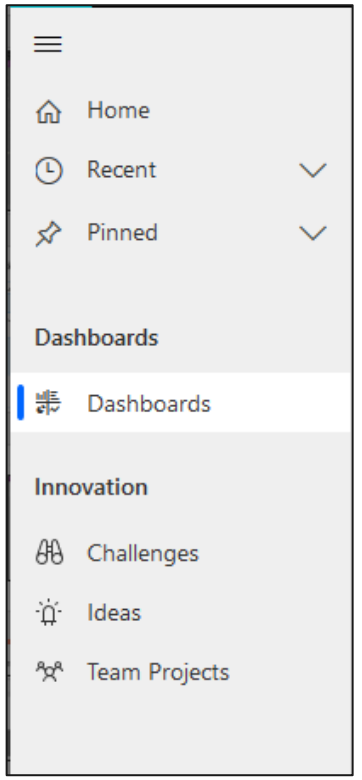


App designer

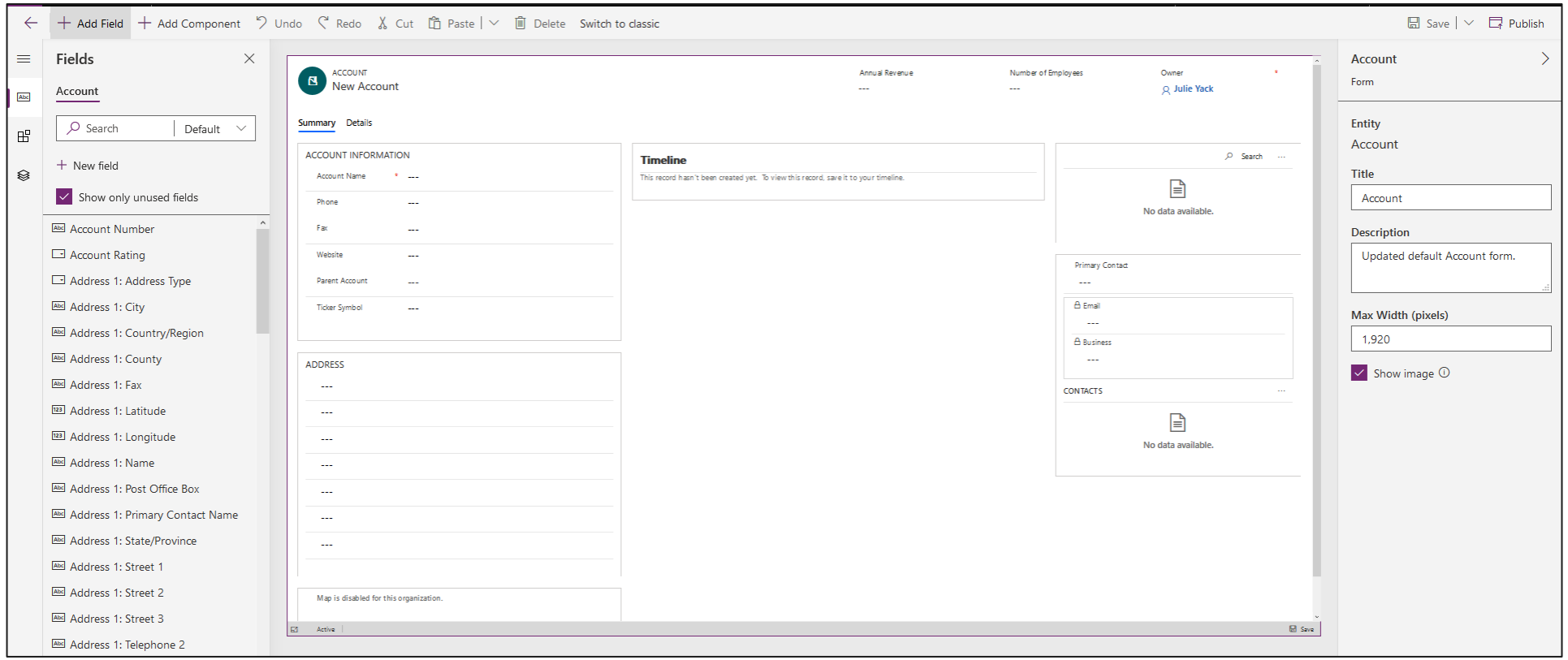


Sitemap designer

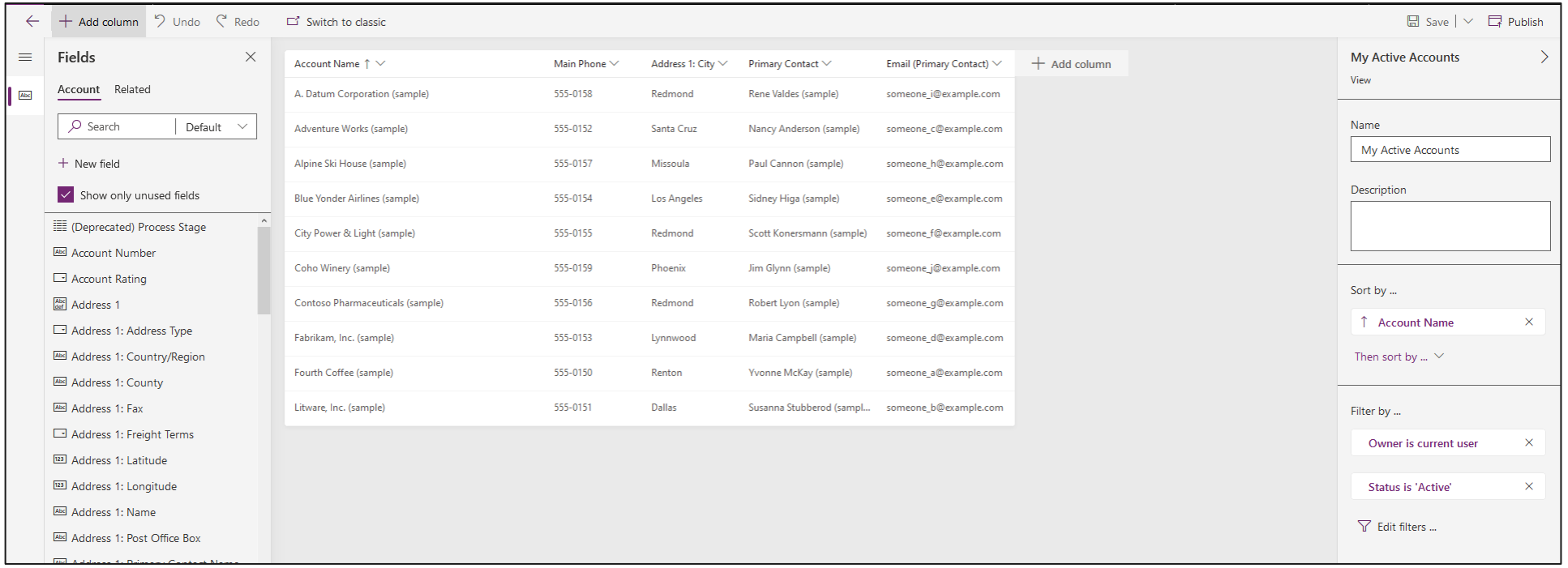




Form designer

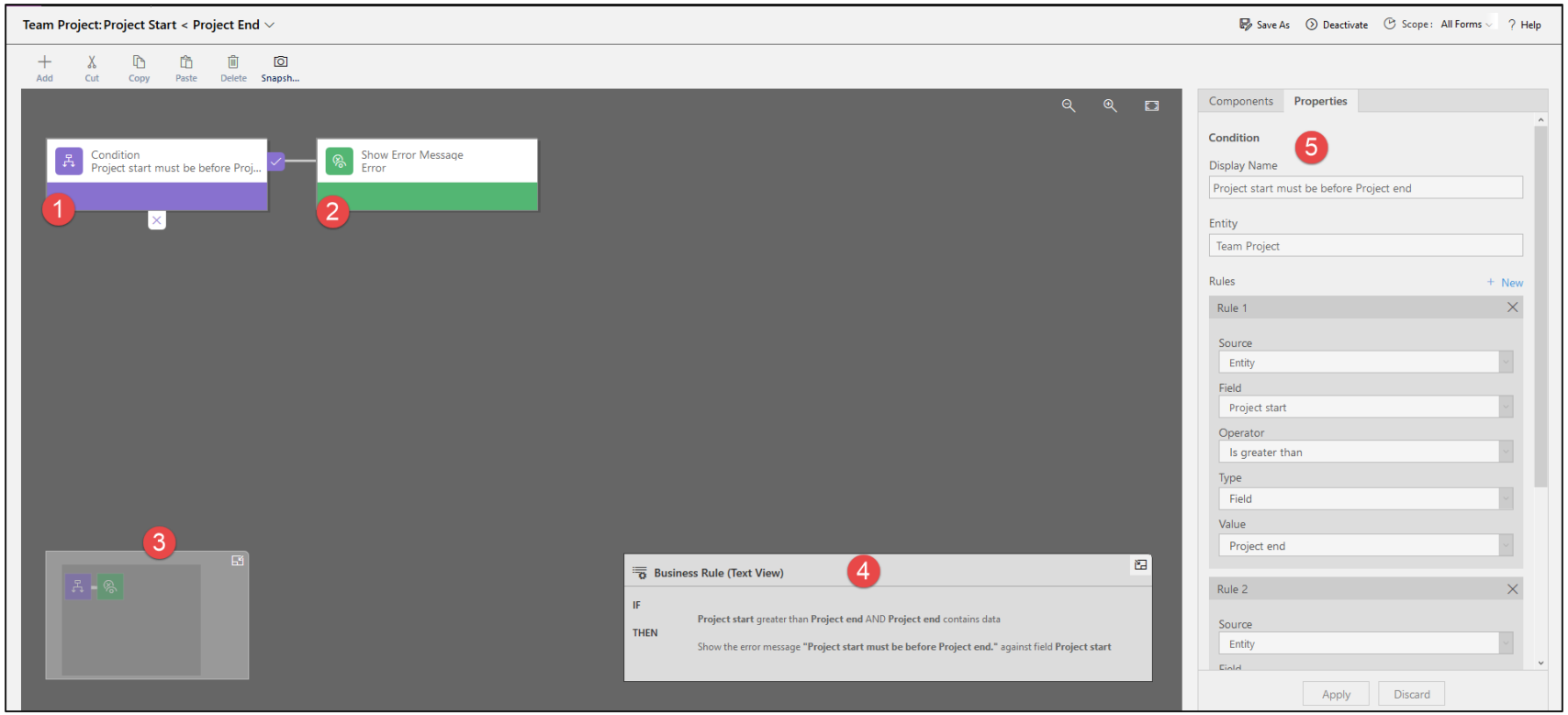


View designer

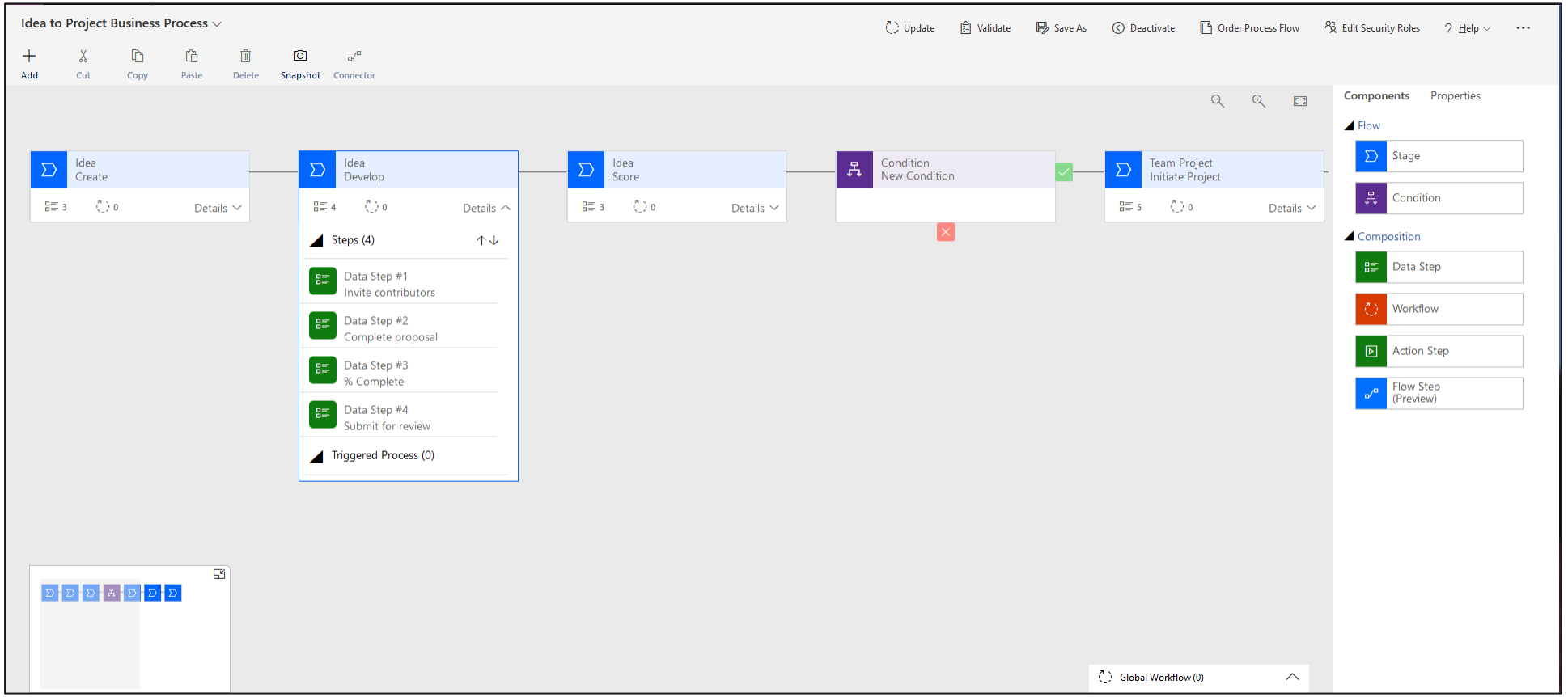


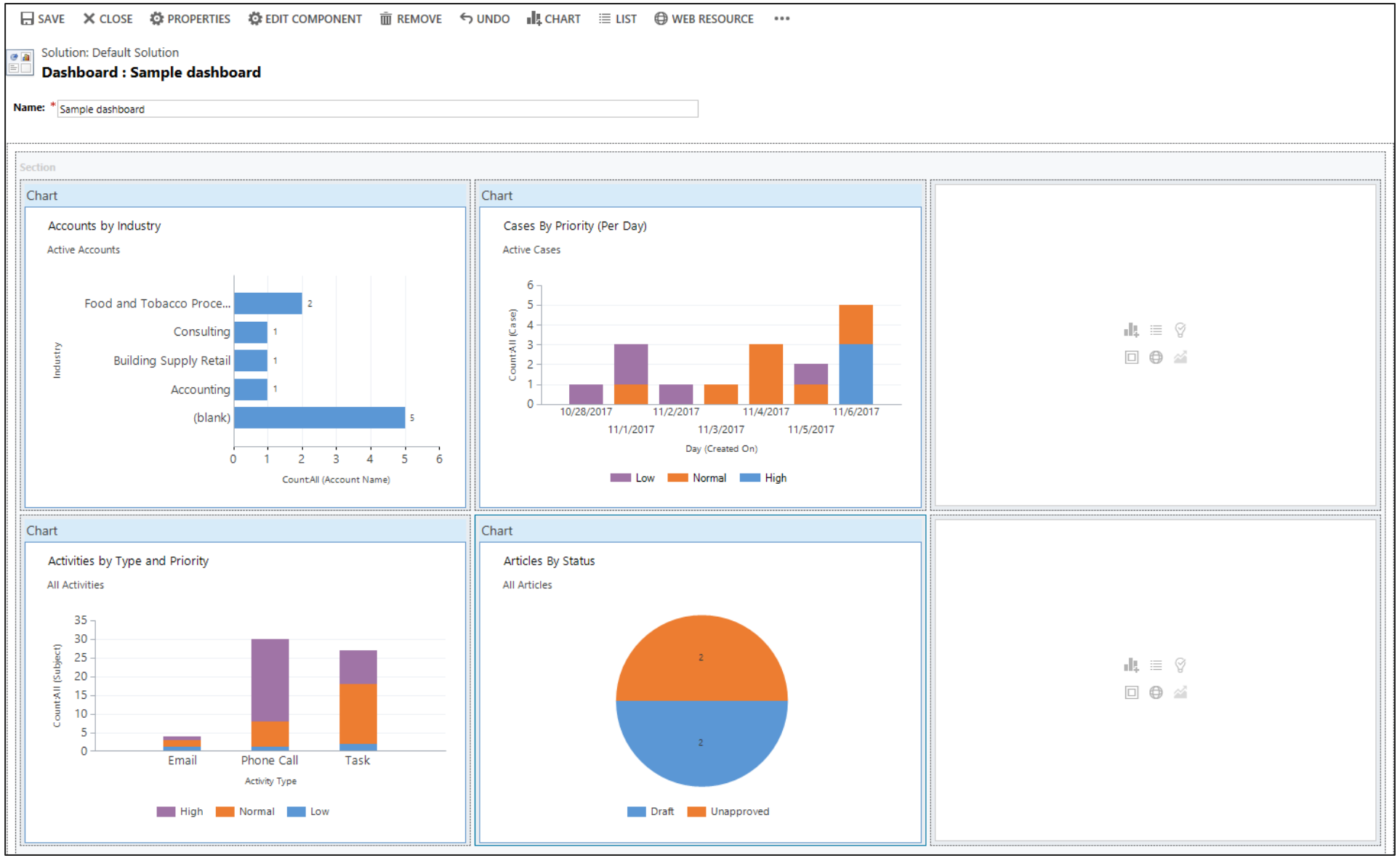
Business Rule designer

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



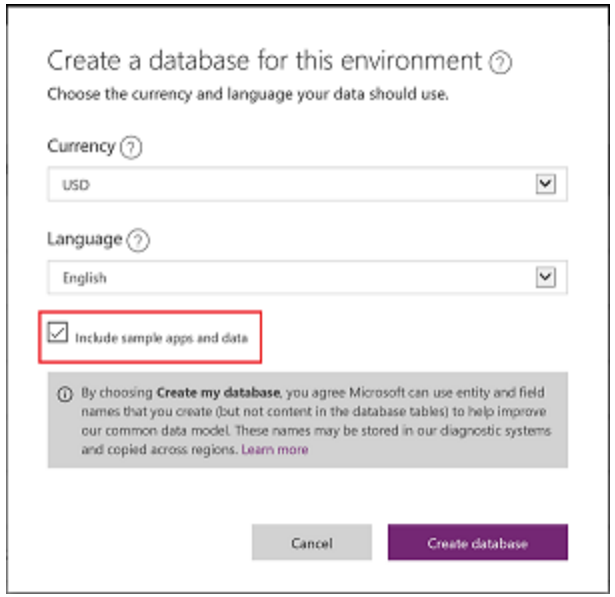
Business Process Flow designer

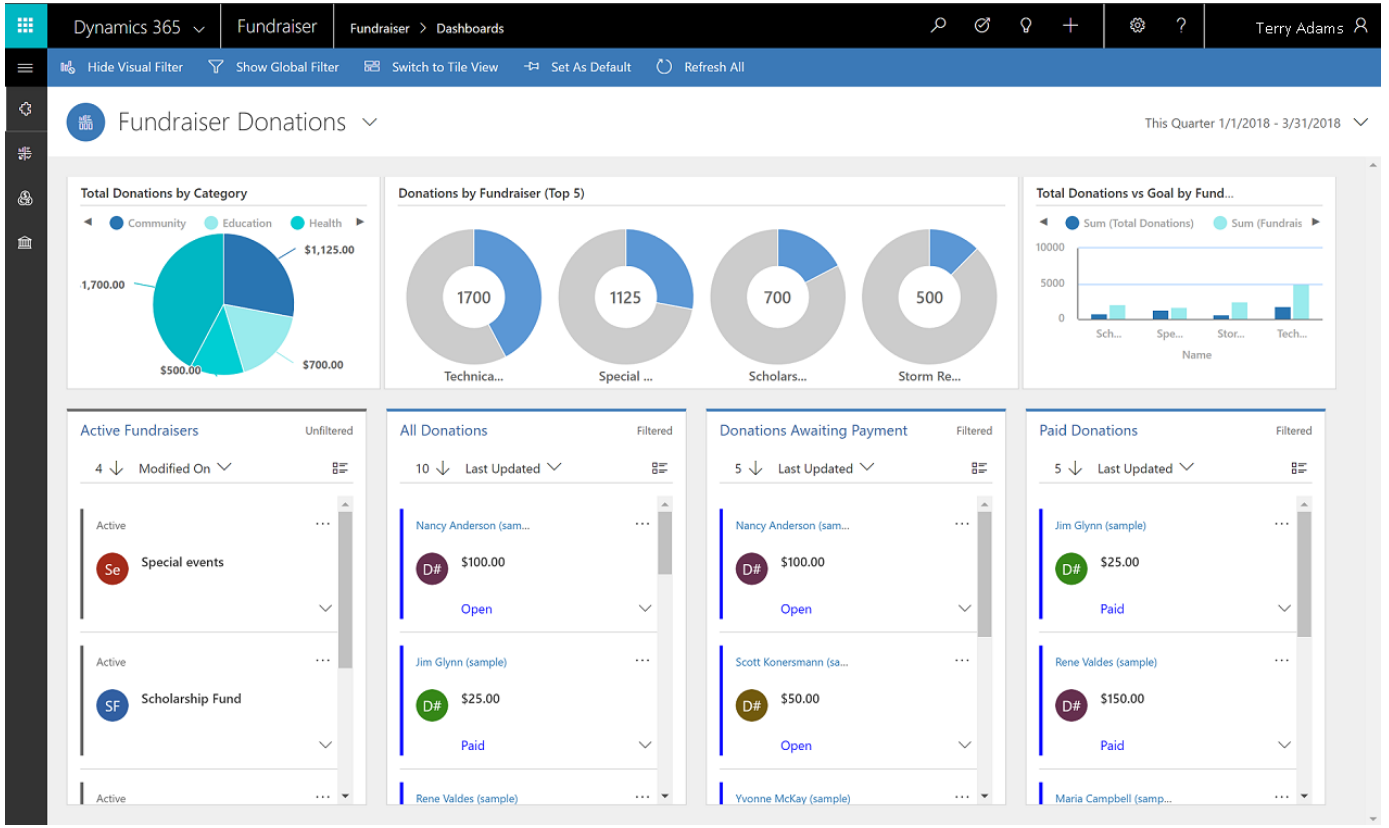



SAVE
CLOSE
PROPERTIES
EDIT COMPONENT
REMOVE
UNDO
CHART
LIST
WEB RESOURCE
Solution: Default Solution
Dashboard : Sample dashboard
Name: * Sample dashboard
Section
Chart
Accounts by Industry
Active Accounts
Food and Tobacco Proce...
Consulting
Building Supply Retail
Accounting
(blank)
Industry
CountAll (Account Name)
Chart
Cases By Priority (Per Day)
Active Cases
CountAll (Case)
10/28/2017
11/1/2017
11/2/2017
11/3/2017
11/4/2017
11/5/2017
11/6/2017
Day (Created On)
Low
Normal
High
Chart
Activities by Type and Priority
All Activities
CountAll (Subject)
Email
Phone Call
Task
Activity Type
High
Normal
Low
Chart
Articles By Status
All Articles
Draft
Unapproved

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**.





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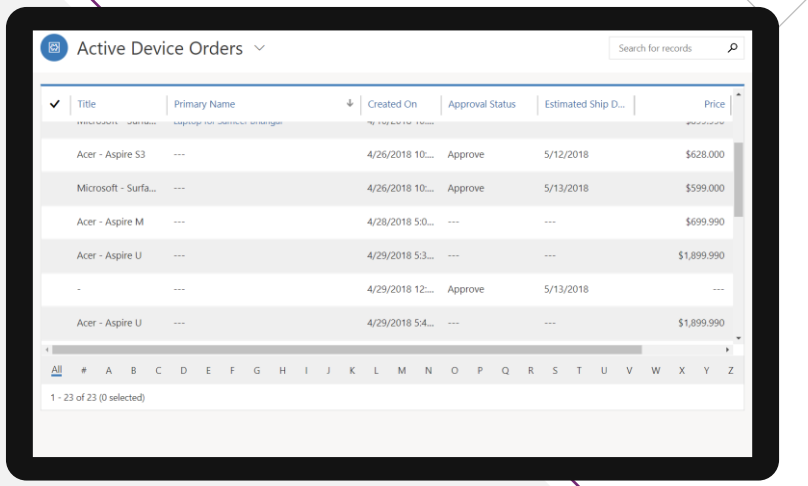
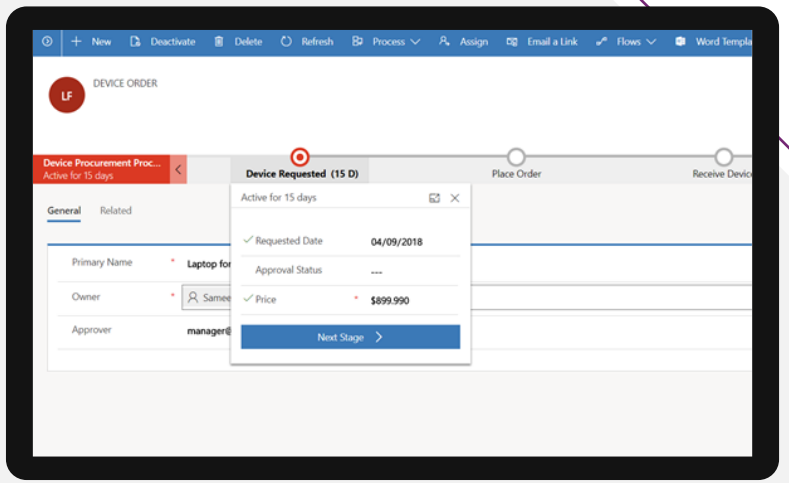
Hands-on-lab 3

Module 3: Power Apps Model-driven App

Module 3: Learning objectives

- Create a standalone Model-driven app
- Customize forms for the Model-driven app
- Create a Business Process Flow





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