

# Power Apps

# Model-driven

# App

## Model-driven Apps – A brief introduction

Model-driven app design is an approach that focuses on adding components such as forms, views, and charts and dashboards to tables using an app designer tool. Additionally, relationships connect tables together in a way that permits navigation between them and ensures that data is not repeated unnecessarily.

Using the app designer with little or no code, you can build apps that are simple or very complex.

Model-driven apps are especially well suited to process driven apps that are data dense and make it easy for users to move between related records. For example, if you are building an app to manage a complex process, such as onboarding new employees, managing a sales process, or member relationships in an organization such as a bank, a model-driven app is a great choice.

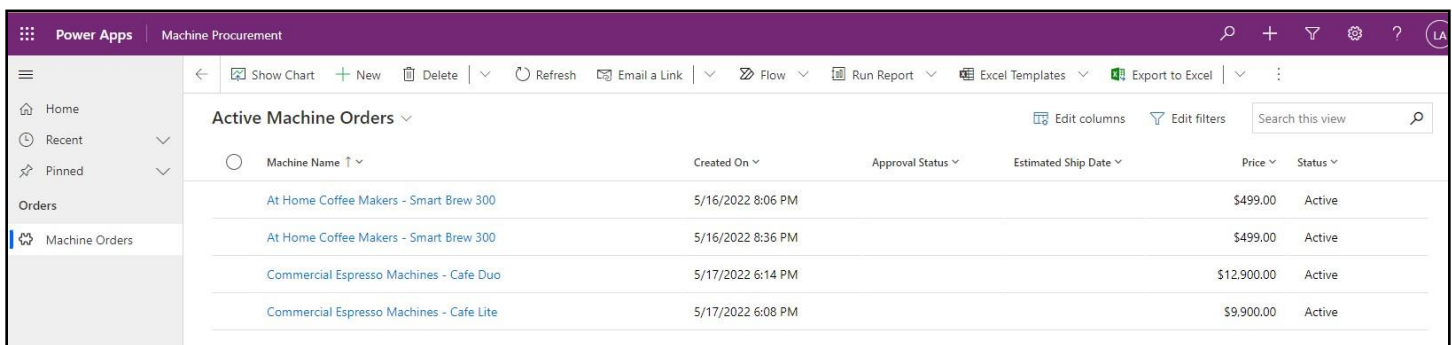
While they're called model-driven apps, it is often easier to think of them as data model driven apps. This is because, without a data model housed within Microsoft Dataverse, you can't create a model-driven app.

- App Designer specifies the sitemap, global dashboards, business processes flows, and tables forms, views, and dashboards [learn more](#)
- Sitemap Designer provides the application navigation that is always available [learn more](#)
- Business Process Designer provides stages and steps to guide users consistently through common business processes within a form [learn more](#)
- Table Designer defines the Columns, relationships, and metadata for a table [learn more](#)
- Business Rule Designer provides no-low business logic for a table [learn more](#)
- View Designer specifies Columns and filter conditions for a Row list [learn more](#)
- Form Designer specifies the Columns and controls along with layout for a single Row [learn more](#)
- Dashboard Designer summaries one or more tables using charts, lists, etc. [learn more](#)

## Scenario for building a Model-driven app

In the first lab, you built a Power Apps Canvas application for an organization where every few years the employees go through a coffee machine replacement cycle. The application let employees place a request for a machine using the Power Apps app that you built. In the second lab module, using a custom table you created in the Microsoft Dataverse lab, you stored that request for processing.

From the requesting employee's point of view, after they place the order, the new coffee machine just magically shows up. But there is a back-office process that needs to happen to manage the procurement, setup of the device, and distribution of the machine to that requesting employee. In this lab you will be building a Power Apps Model-driven app that will be used by the two or three back-office staff that manage fulfilling machine requests. Using the Model-driven app style, you can take advantage of the Business Process feature of Model-driven apps to keep the back-office staff on track for each machine request.



The screenshot shows the Power Apps interface for a 'Machine Procurement' app. The left sidebar contains navigation links: Home, Recent, Pinned, Orders, and Machine Orders. The main area displays a table titled 'Active Machine Orders'. The table has columns for Machine Name, Created On, Approval Status, Estimated Ship Date, Price, and Status. There are four rows of data, all with a status of 'Active'.

Machine Name	Created On	Approval Status	Estimated Ship Date	Price	Status
At Home Coffee Makers - Smart Brew 300	5/16/2022 8:06 PM			\$499.00	Active
At Home Coffee Makers - Smart Brew 300	5/16/2022 8:36 PM			\$499.00	Active
Commercial Espresso Machines - Cafe Duo	5/17/2022 6:14 PM			\$12,900.00	Active
Commercial Espresso Machines - Cafe Lite	5/17/2022 6:08 PM			\$9,900.00	Active

Model-driven apps are a type of application you can build directly from PowerApps.com. Model-driven apps make it easy to build forms over data applications quickly. This style of application brings together forms, views, dashboards, and charts quickly to provide a productive user experience for working with related data. These components can quickly be customized to show only the data that is relevant for the scenario.

**Table views:** Views are what users see when they look at a list of Rows from the Microsoft Dataverse. Views define the columns that are visible as well as the criteria for inclusion of the Rows in the display.

**Table forms:** Forms are used when users drill down into a Row from a table View. Forms are created using a visual drag-and-drop designer to place Columns into the form that is structured into tabs and sections.

**Business process flows:** These flows are interactive visual guides to help the user through a business process. Business process flows use the concept of stages that contain steps. Stages are milestones in the process that need to be completed and the steps highlight to the user either data to collect or tasks to complete the stage to progress. Flows are created using a visual designer using drag and drop to compose the flow and establish any branching conditions (different paths in the business process) that must be handled.

For more details on Model-driven apps and the differences between Canvas apps and Model-driven apps, see the product announcement at [Announcement](#).

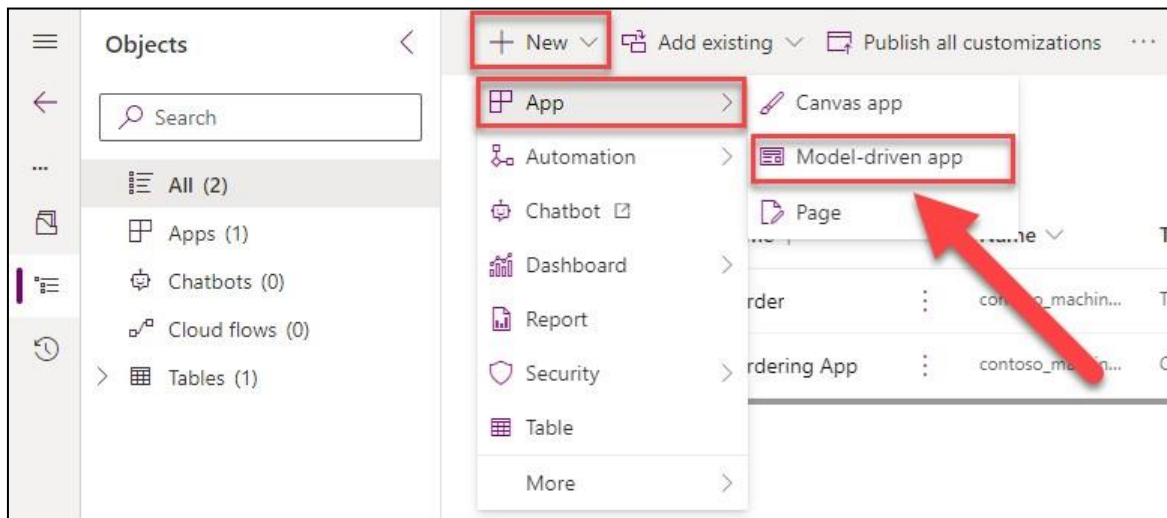
# Exercise 1: Create Application and add Columns to the Machine Order Table

In this exercise, you will be creating a standalone Model-driven application that will leverage the same Machine Order table you created in the Microsoft Dataverse in Lab.

## Task 1: Create an application

The first thing you will do is create a Model-driven application. This application will serve as a container to identify all the components that make up the application. It will also include a sitemap that defines the custom navigation users will use to navigate between the components (table views, dashboards, and other visual components).

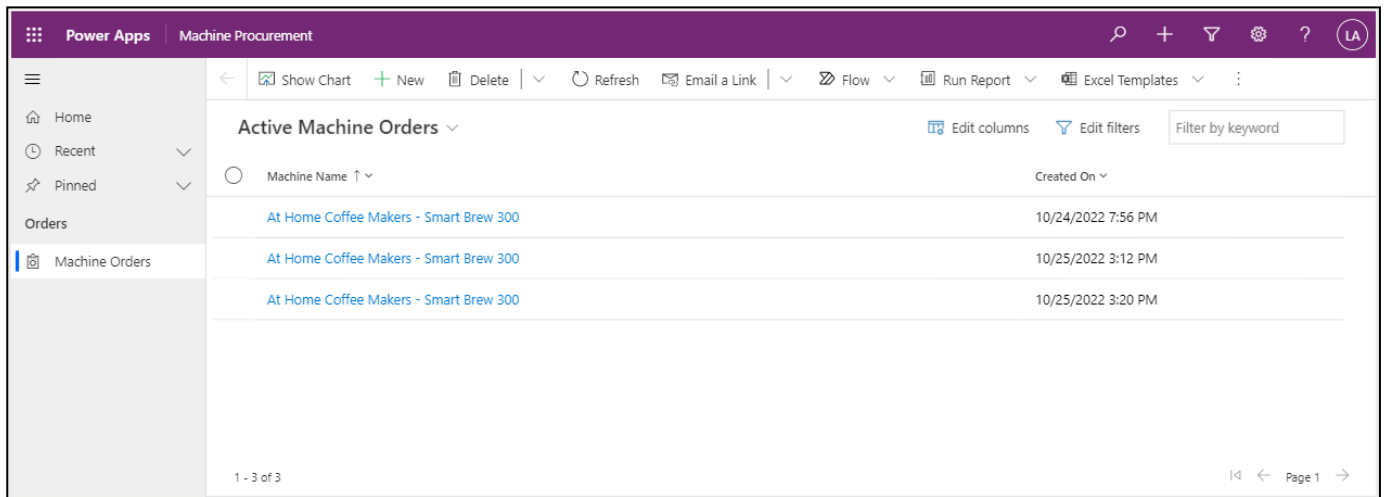
1. Navigate to [Make Power Apps](#), and select the environment you created.
2. Select **Solutions** from the menu pane to the left and select the **Contoso Coffee** solution.
3. Select **+ New** from the ribbon at the top of the screen and select **App**. Then, choose **Model-driven app**.



4. In the New model-driven app dialog box, enter **Machine Procurement** for Name and then select **Create**.

A screenshot of the 'New model-driven app' dialog box. The 'Name' field is highlighted with a red box and contains the text 'Machine Procurement'. Below it is a 'Description' field. At the bottom, there is a 'Create' button (highlighted with a red arrow) and a 'Cancel' button. The 'Advanced' section is collapsed.

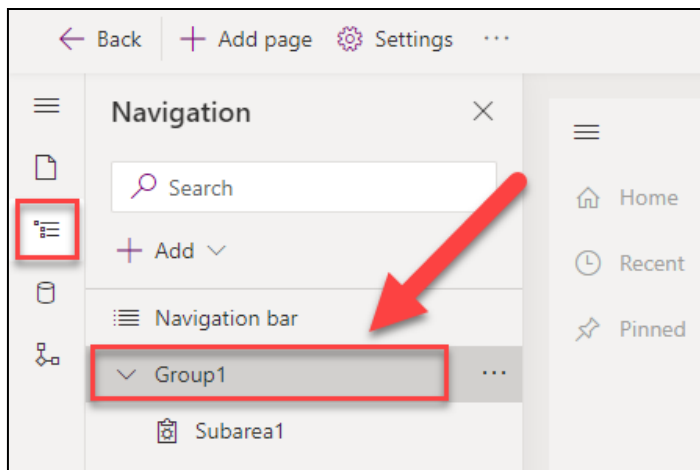
Next, you will build a **Site Map** for the application. The completed Site Map will look like the figure below:



The screenshot shows the Power Apps interface for 'Machine Procurement'. The left navigation pane has 'Machine Orders' selected. The main area displays a table titled 'Active Machine Orders' with columns 'Machine Name' and 'Created On'. The table contains three rows of data.

Machine Name	Created On
At Home Coffee Makers - Smart Brew 300	10/24/2022 7:56 PM
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:12 PM
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:20 PM

5. Select the **Navigation** icon in the pane to the far left of the screen and then select **Group1** from the **Navigation** pane to the left of the screen.



6. Navigate to the **Display options** within the Group pane to the right of the screen. Enter **Orders** for Title, and **nav\_ordersgroup** for ID.

**Note:** The properties pane on the right of the screen will only show if you have selected the **Group** within the pane to the left of the screen.

Orders

^ Display options

Title

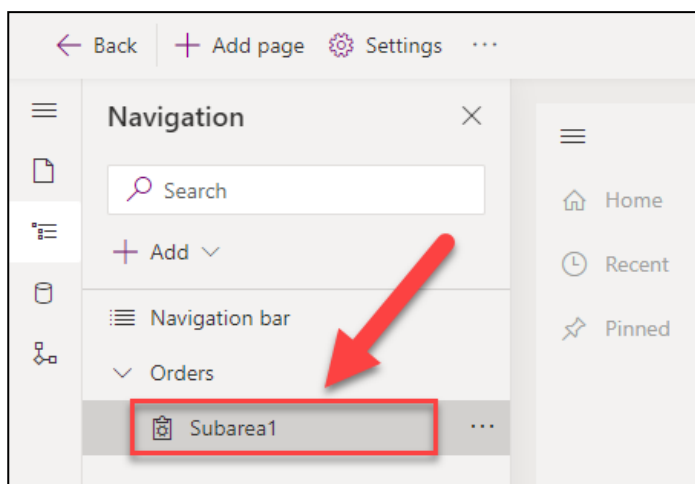
Orders

ID \*

nav\_ordersgroup

▼ Advanced settings

7. Select the **Subarea1** within **Orders** in the Navigation pane to the left of the screen.



**Note:** The properties pane on the right will only show if you select Subarea1 from the pane to the left of the screen.

8. In the **Subarea** pane to the right of the screen, set the **Table** for **Content type**, select **Machine Order** for **Table**, enter **Machine Orders** for **Title**, and enter **nav\_machine\_orders** for **ID**.

**Machine Orders** >

^ **Display options**

**Content type**

Table ▾

**Table**

Machine Order ▾

**Title**

Machine Orders

**Icon**

Default icon ▾

**ID \***

nav\_machine\_orders

▽ **Advanced settings**

9. The application should now look like the figure below. Once you have ensured that everything looks correct, select the **Save** button in the top right corner of the screen within the ribbon. .

← Back + Add page Settings ...

Comments **Save** Publish Play

**Navigation**

Search

+ Add ▾

Navigation bar

Orders

Machine Orders

**Power Apps** Machine Procurement

Show Chart + New Delete ▾ Refresh

**Active Machine ...** ▾ Filter by keyword

Machine Name ↑ ▾	Created On ▾
At Home Coffee Makers - Smart Brew 300	10/24/2022 7:5...
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:1...
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:2...

1 - 3 of 3

Page 1

**Machine Orders** >

^ **Display options**

**Content type**

Table ▾

**Table**

Machine Order ▾

**Title**

Machine Orders

**Icon**

Default icon ▾

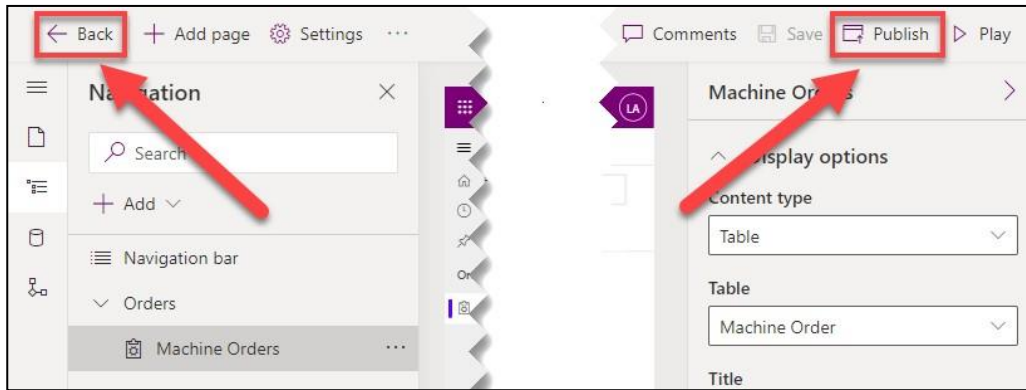
**ID \***

nav\_machine\_orders

▽ **Advanced settings**

**Note:** If you tested the app at the end of Lab 2, then there will be data that appears within the Machine Orders table. If not, then the table will appear blank.

10. **Publish** the application by selecting the icon within the ribbon in the top right corner of the screen.
11. Then select the **← Back** button in the top left corner of the screen.



## Task 2: Add procurement columns to the Machine Orders

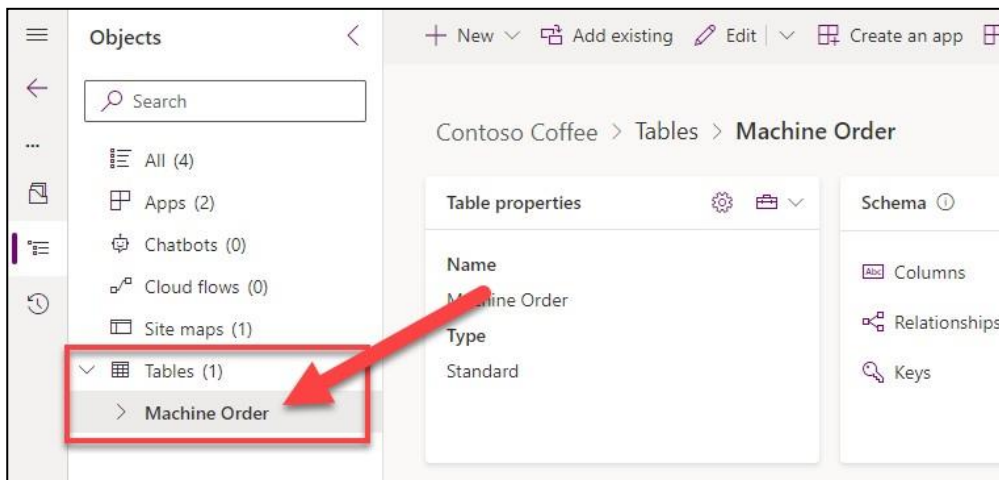
In this task, you will add new columns to the Machine Order table. The columns you are going to add here are columns that support the Business Process Flow, which we are going to build in the next exercise. When you use a Business Process, it consists of Stages which you can think of as major milestones in completing the work. Each Stage has one or more Steps. Steps help users keep track of what they need to do before advancing to the next Stage. Steps are just columns on the table. To make it quicker when we create the Business Process in this task, we are going to first create the columns that we need.

To support our scenario, we are going to add the following columns to the table:

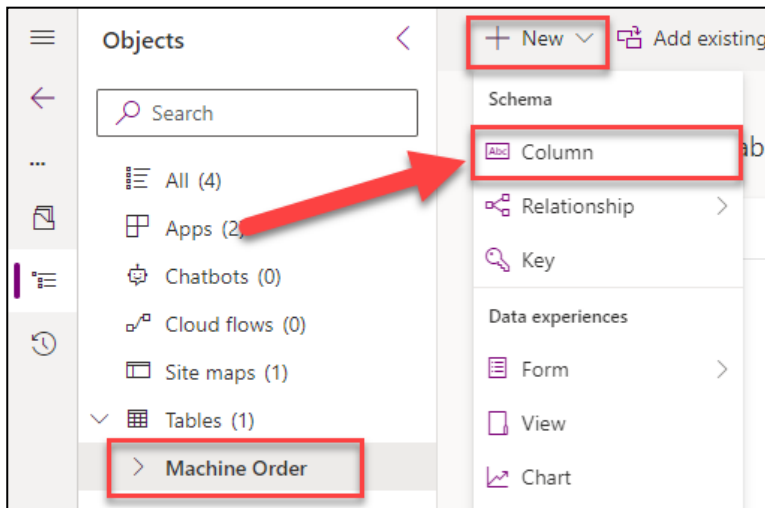
**Capital Approved:** This column will be used in the flow to capture that the machine order has received capital approval.

**Send Survey:** This column will be used in the final stage. Right now, the team plans on manually sending a survey to see how the user's ordering experience was, and will manually check this once they send it, but they have a desire in a future update to automate sending a survey in a future release.

1. Navigate to [Make Power Apps](#)
2. Select **Solutions** from the pane to the left of the screen and then select the **Contoso Coffee** solution.
3. Select **Tables** from the Objects pane to the left of the screen and then select the **Machine Order** table.



4. Select **+ New** from the ribbon at the top of the screen and then select **Column**.



5. In the **New column** dialog that appears, enter **Capital Approved** for **Display Name**, select **Yes/No** for the **Data Type** and then select **Save** at the bottom of the dialog.

We are using a Yes/No data type here because when we use it as a Step in the Business Process, we want to be able to simply mark it completed. Yes/No are a true or false Column.

A screenshot of the 'New column' dialog box. The 'Display name' field is set to 'Capital Approved'. The 'Data type' dropdown is set to 'Yes/no'. The 'Behavior' dropdown is set to 'Simple'. The 'Required' dropdown is set to 'Optional'. The 'Searchable' checkbox is checked. At the bottom, there are 'Save' and 'Cancel' buttons. A red arrow points to the 'Save' button.

6. Using the same steps as we just did to create the Capital Approved column, create four more **Yes/No** Columns and name them **Machine Received**, **Machine Configured**, **Send Survey**, and **Machine Delivered**.



### New column

Previously called fields. [Learn more](#)

**Display name \***

Machine Received

Description ⓘ

**Data type \*** ⓘ

Yes/no

Behavior ⓘ

Simple

Required ⓘ

Optional

☒ Searchable ⓘ

Choices

**Save** Cancel

### New column

Previously called fields. [Learn more](#)

**Display name \***

Machine Configured

Description ⓘ

**Data type \*** ⓘ

Yes/no

Behavior ⓘ

Simple

Required ⓘ

Optional

☒ Searchable ⓘ

Choices

**Save** Cancel

### New column

Previously called fields. [Learn more](#)

**Display name \***

Send Survey

Description ⓘ

**Data type \*** ⓘ

Yes/no

Behavior ⓘ

Simple

Required ⓘ

Optional

☒ Searchable ⓘ

Choices

**Save** Cancel

### New column

Previously called fields. [Learn more](#)

**Display name \***

Machine Delivered

Description ⓘ

**Data type \*** ⓘ

Yes/no

Behavior ⓘ

Simple

Required ⓘ

Optional

☒ Searchable ⓘ

Choices

**Save** Cancel

7. Insert another Column, set the name to **Supplier Order ID**, select **Single line of text** for **Data Type**, choose **Text** for **Format**, and select **Save**.

Notice we are not asking you to make this Column required here, but we will make it a required Column in the Business Process later in the lab.

**New column**  
Previously called fields. [Learn more](#)

**Display name \***  
Supplier Order ID

**Description** ⓘ

**Data type \*** ⓘ  
Single line of text

**Format \***  
Text

**Behavior** ⓘ  
Simple

**Required** ⓘ  
Optional

☒ **Searchable** ⓘ

[Advanced options](#) ▾

**Save** **Cancel**

## Exercise 2: Business Process Flow

In this exercise, we are going to add a Business Process Flow to the Machine Order to help guide the back-office worker through the task of managing the procurement of the requested device.

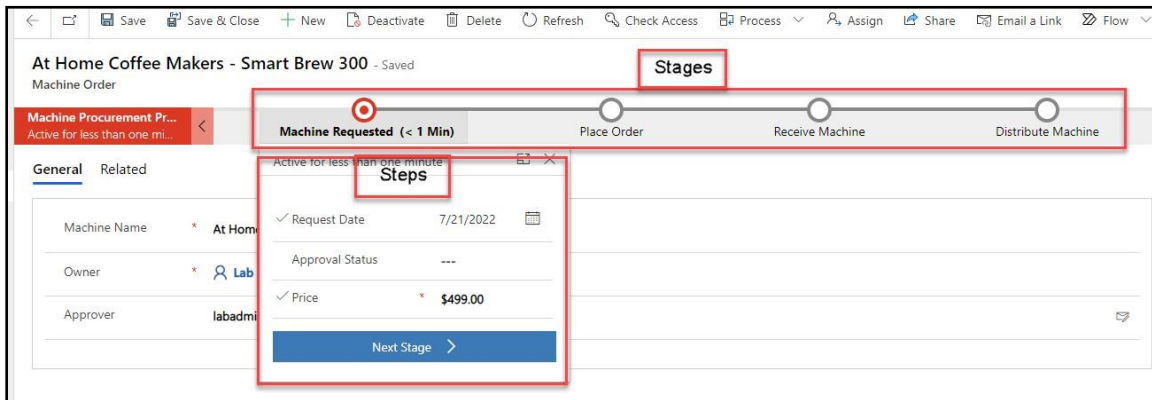
In discovery meetings with the back-office workers, we learned that a machine request goes through the following tasks as they perform the magic to get the requestor their machine.

- **Machine Requested** – Today this is an e-mail sent to them with the machine request. Going forward in the new Power Apps world this will be a machine Order Row in the Microsoft Dataverse.
- **Place Order** – Once they receive the request, they will place an order with a supplier and get an order ID.
- **Receive Machine** – This occurs when the machine is received, and they send it to the technician to be configured with the standard configuration.
- **Distribute Machine** – Once configured it needs to get to the employee that requested it, and they need to survey the employee to make sure they are happy.

Each of these represents a milestone and will become our Stages in the Business Process Flow. In a more complex scenario, you would likely end up compressing or even possibly re-imagining the business process to make it more optimal than the current process the staff performs with their existing process.

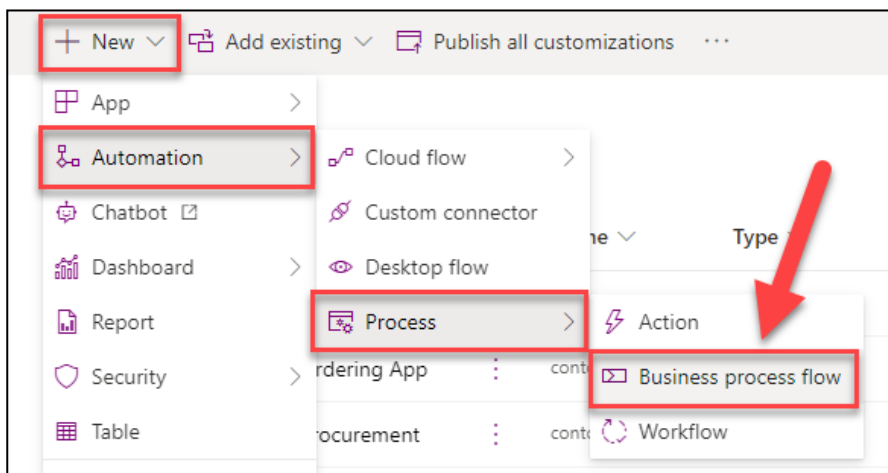
For this lab, the *Receive Machine and Distribute Machine stages are marked optional*. While these stages would need to be created for a full implementation of the scenario, to save time you may skip them or do them as a take home exercise.

The completed Business Process Flow will look like the figure below:



## Task 1: Create business process flow

1. Navigate to [Make Power Apps](#)
2. Select **Solutions** from the pane to the left of the screen and then select the **Contoso Coffee** solution.
3. Select **+ New** from the ribbon at the top of the screen and then hover over Automation. Then, hover over **Process** and select **Business process flow**.



4. Within the **New business process flow** dialog box, enter **Machine Procurement Process** for Display Name, select **Machine Order** for table, and select the **Create** button at the bottom of the dialog.

When you create the Business Process Flow behind the scenes it creates another table with the same name as the Business Process Flow to track the progress of each business process on the row. Because of this, choose your name carefully, for example, you wouldn't want to use the same name as your table e.g. Machine Order. Here we choose Machine Procurement Process.

**Note:** After you select OK, a new window will be loaded with the designer. If you have popup blockers enabled, this might be blocked. The window might also not immediately have focus and you might have to manually bring it into focus.


### New business process flow ✕

Use business process flows to define a set of steps for people to follow to take them to a desired outcome.

**Display name \***

**Name \***

**Table \***




**Create**

5. A dialog box may appear letting you know about the new Process being created. Select **Done**.

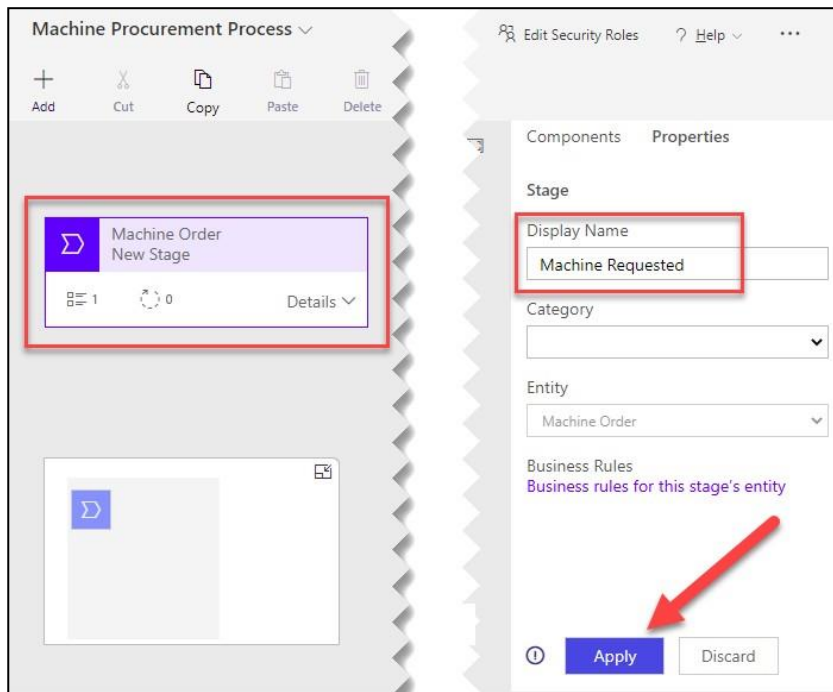
### Currently creating a new Process

When you're done creating the new Process, click Done below to return to the page. This will refresh the page and fetch your changes.

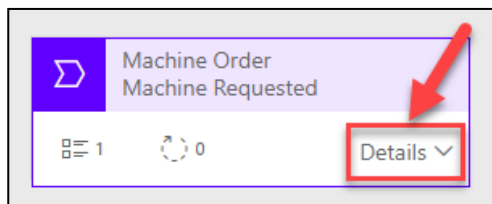


**Done**

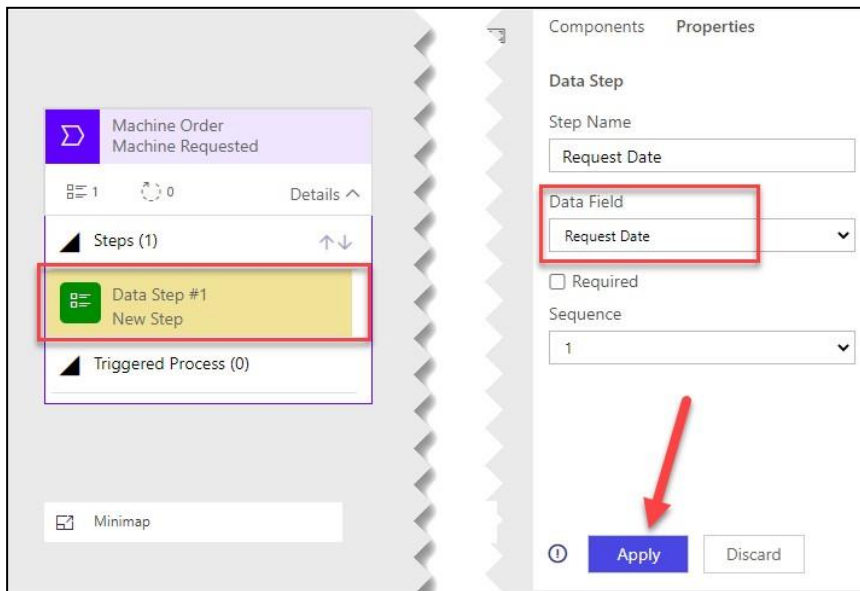
6. Select the Machine Procurement Process from the list within Contoso Coffee. Once the new browser opens, select the **New Stage**. From the Stage pane to the right of the screen, change the Display Name to **Machine Requested** and select **Apply** at the bottom of the pane.



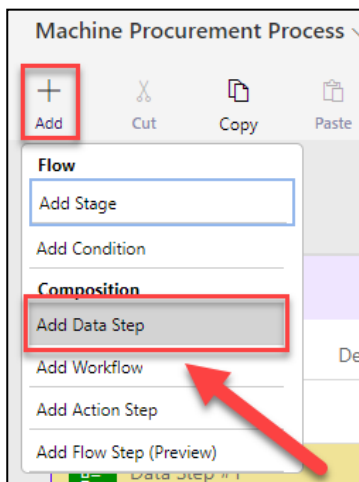
7. With the **Machine Order** stage still selected, select the **Details** drop-down.



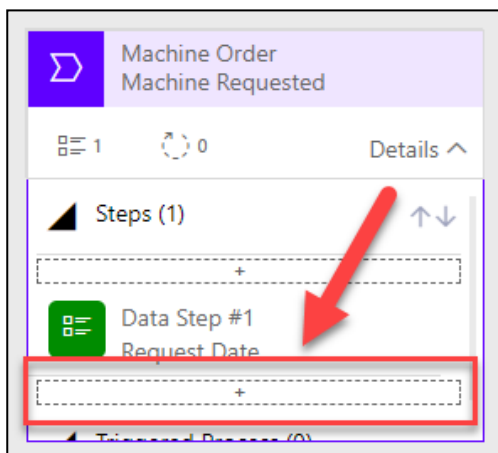
8. Select the **Data Step** from the Details list. Then, within the Data Step pane to the right of the screen, select **Request Date** for Data Field and select **Apply** at the bottom of the pane. The Step Name will auto-filled for you.



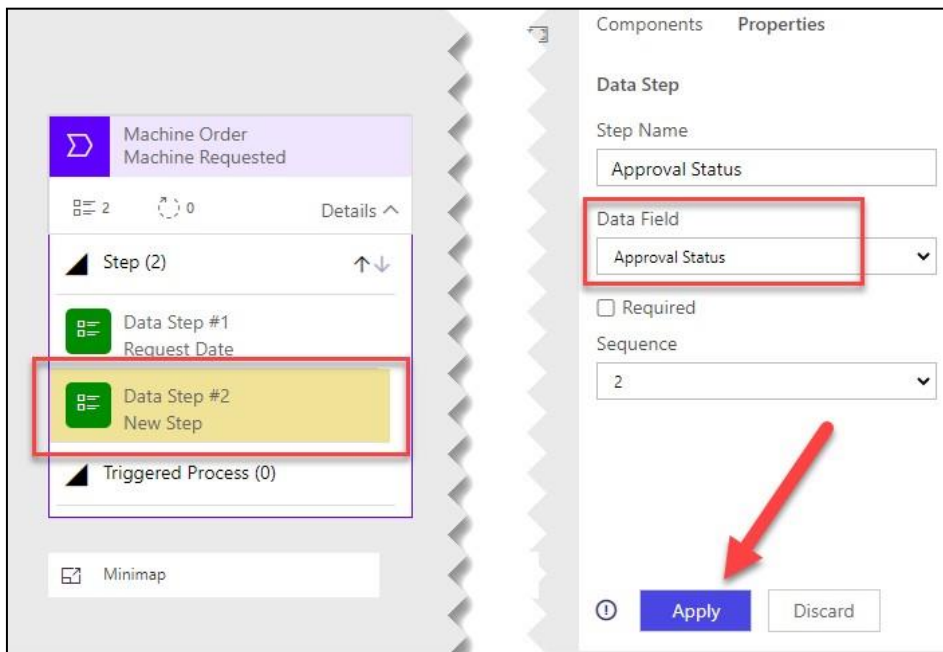
9. Select + **Add** from the ribbon at the top of the screen and select **Add Data Step** from the drop-down.



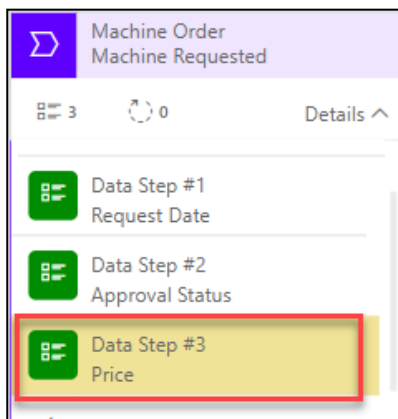
10. Select the small + under **Data Step #1** within the Machine Order.



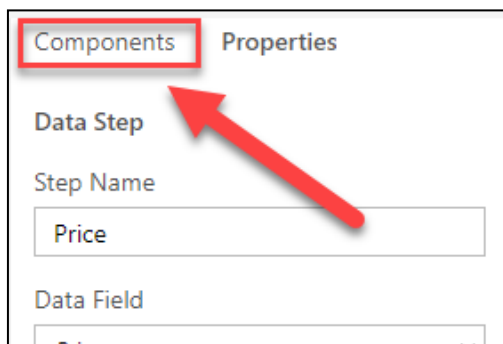
11. Within the newly added **Data Step** pane to the right of the screen, select **Approval Status** for the Data Field and then select **Apply** at the bottom of the pane.



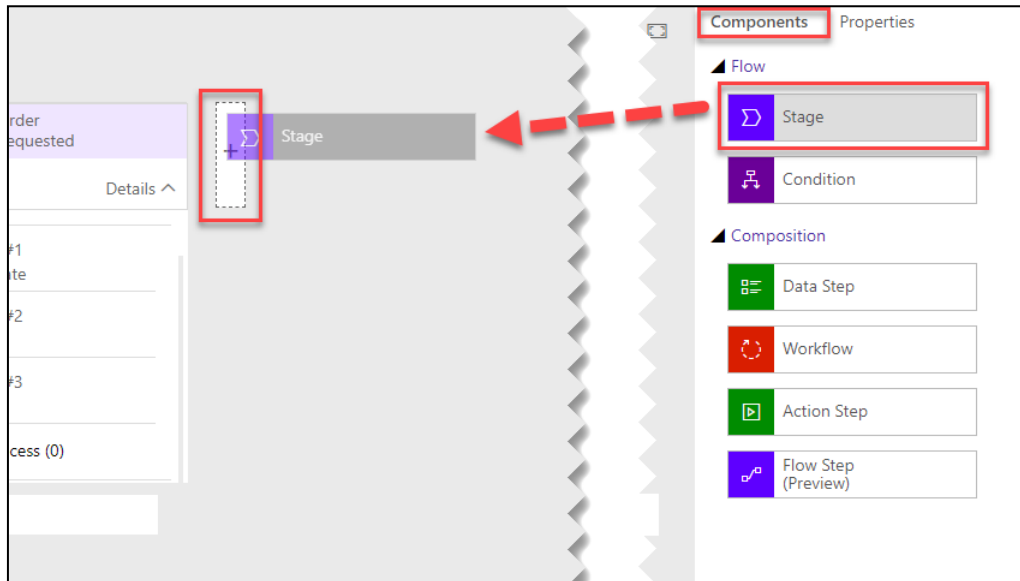
12. Using the same steps as we just did previously, add another **Data Step** below the second Data step within the Machine Requested stage. Then, within the pane, select **Price** for Data Field select **Apply**.



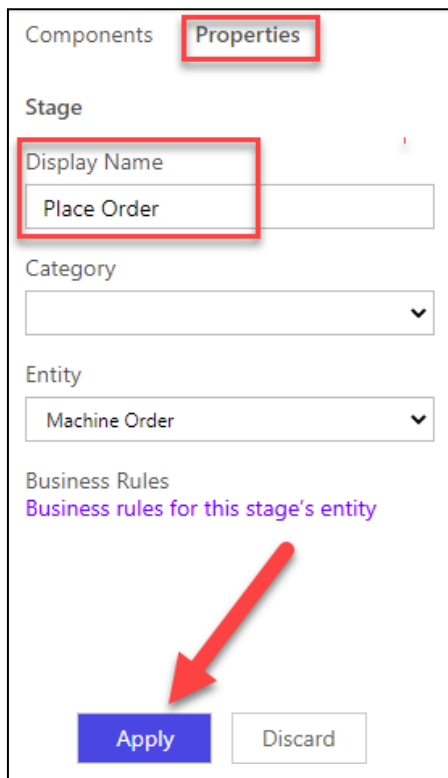
13. Select the **Components** tab at the top of the pane to the right of the screen.



14. Drag the **Stage** flow to the canvas and place to the right of the **Machine Requested** stage.



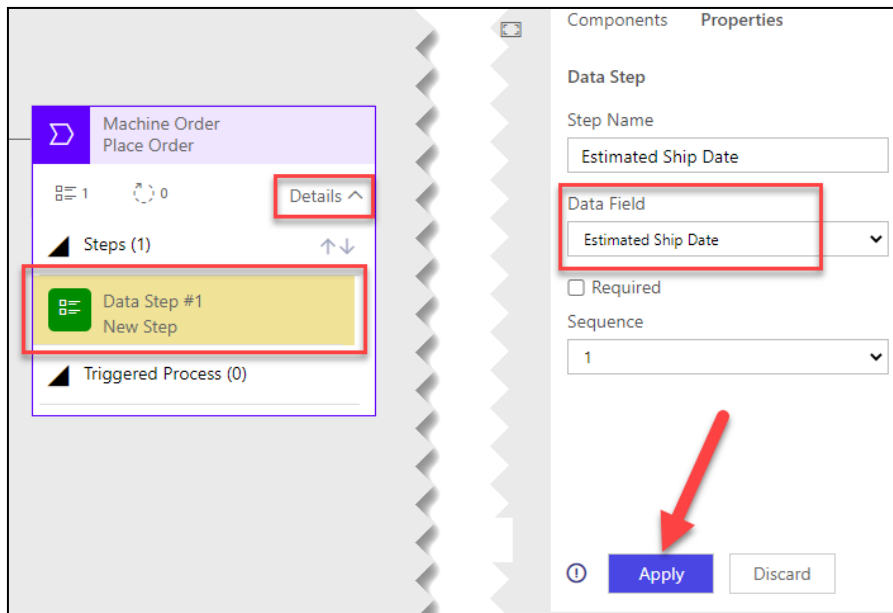
15. Select the **new stage** within canvas. Then in the pane to the right of the screen, under the **Properties** tab, change the Display Name to **Place Order** and select **Apply**.



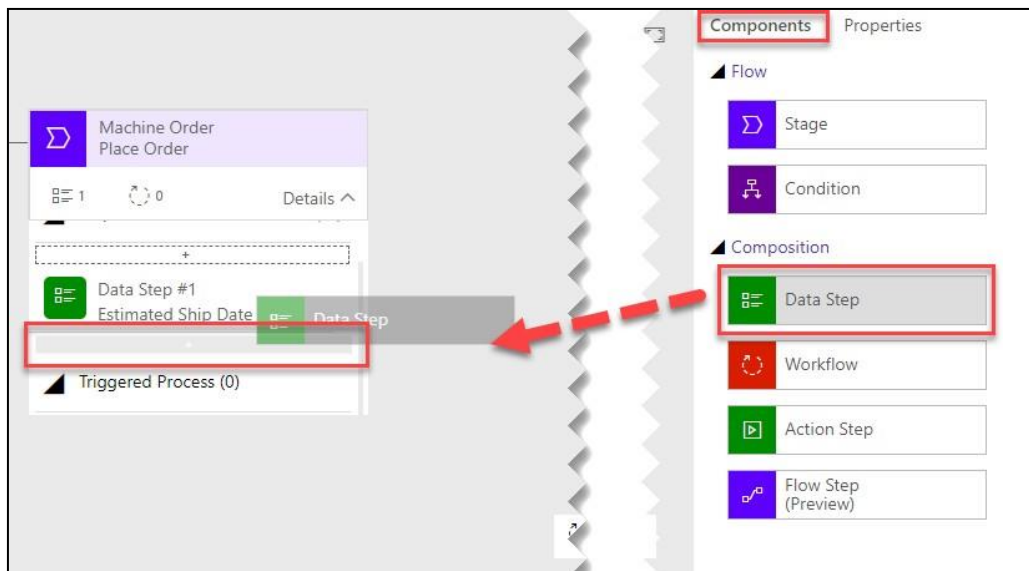
16. Select the **Details drop-down** within the **Place Order** stage in the canvas.



17. Select the existing Data Step from the Details list. From the pane to the right, under the **Properties** tab, select **Estimated Ship Date** for Data Field, and then select **Apply**.



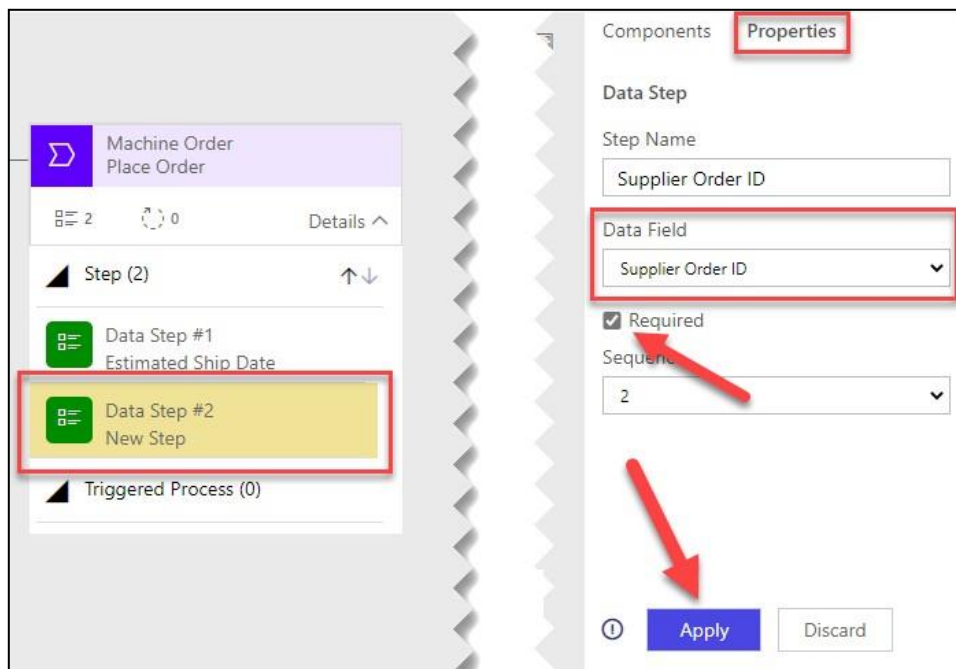
18. Select the **Components** tab from the pane to the right of the screen, drag **Data Step** to the canvas and place it under the **Estimated Ship Date** step within the Place Order stage.



19. With the new Data Step selected within the Place Order stage, select the **Properties** tab within the pane to the right of the screen. Select **Supplier Order ID** from the drop-down for the Data Field, check the **Required** checkbox and then select **Apply**.

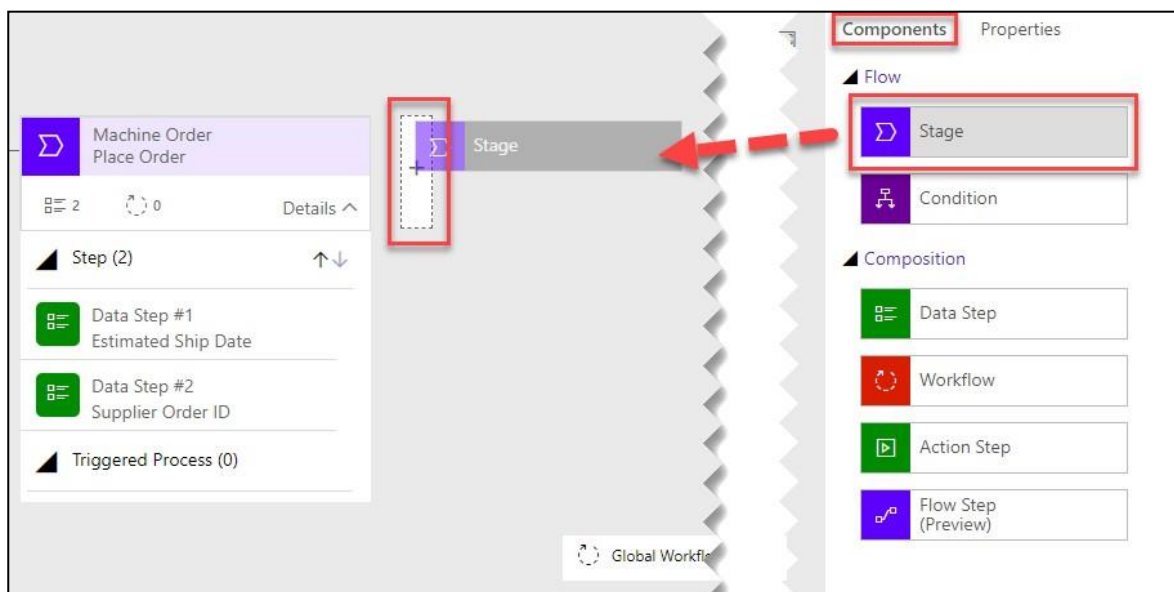
Remember that previously this Column was not required, but by checking this here, we will require it to be filled out before they can advance to the next stage.

It won't, however, block saving the row if there isn't a data value populated like it would if it was marked required on the Column definition.



**NOTE:** All steps from here onwards until you reach Task 2 are OPTIONAL. These steps add two more stages to the business process using the same technique you learned above. You may skip ahead to Task 2 to add a branch condition.

20. Select the **Components** tab within the pane to the right of the screen and then drag Stage to the right side of the **Place Order** stage.



21. Select the **new stage**. From the pane to the right of the screen, under the **Properties** tab change the Display name to **Receive Machine** and select **Apply**.

Components **Properties**

Stage


Display Name  
Receive Machine

Category  
▼

Entity  
Machine Order ▼

Business Rules  
Business rules for this stage's entity

Apply Discard



22. Within the Receive Machine, select the **Details** drop-down.

23. Select the existing Data Step within the Details list. Then, within the pane to the right of the screen, under the Properties tab, choose **Machine Received** for the Data Field and select **Apply**.

Components **Properties**

Data Step


Step Name  
Machine Received

Data Field  
Machine Received ▼

☐ Required

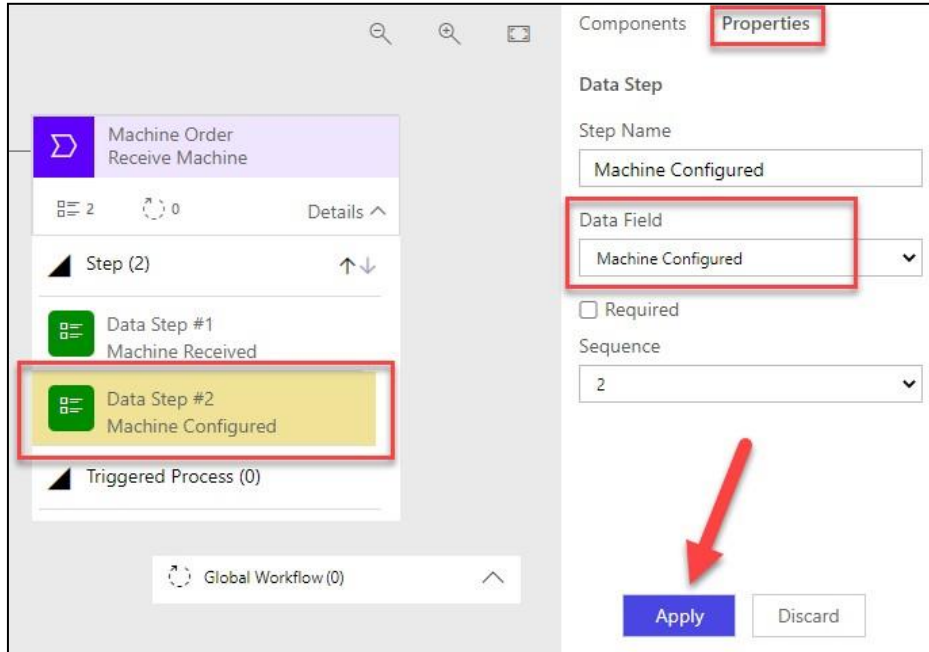
Sequence  
1 ▼

Apply Discard

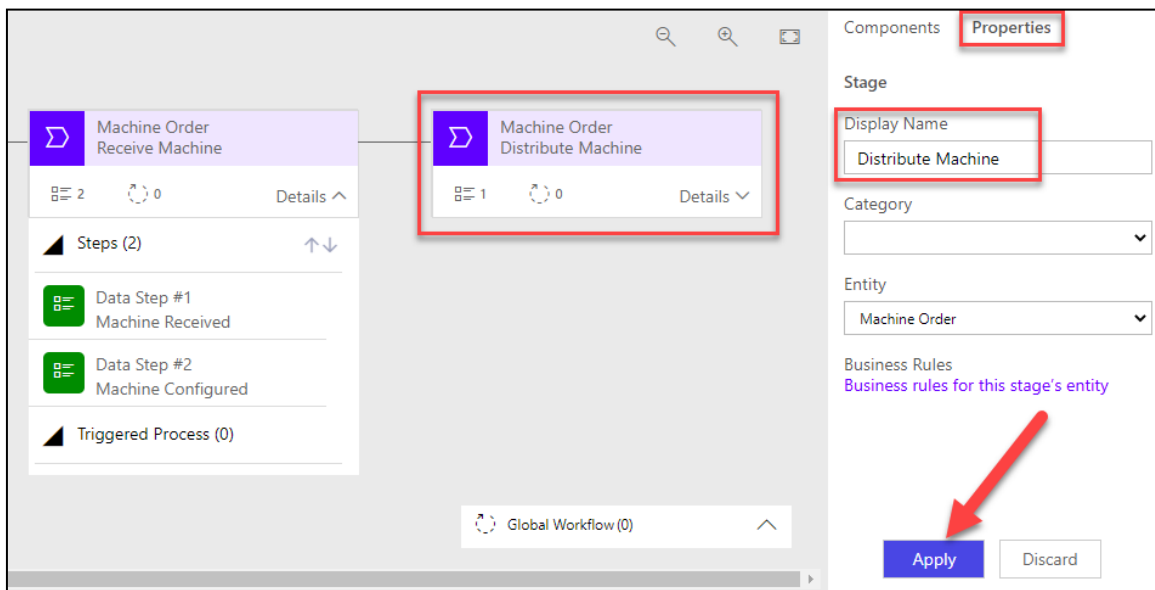


24. Select the **Components** tab within the pane to the right of the screen, drag Data Step to the **Receive Machine** stage and place it under the **Machine Received** step.

25. Within the pane to the right of the screen, under the Properties tab, select **Machine Configured** for the Data Field and select **Apply**.

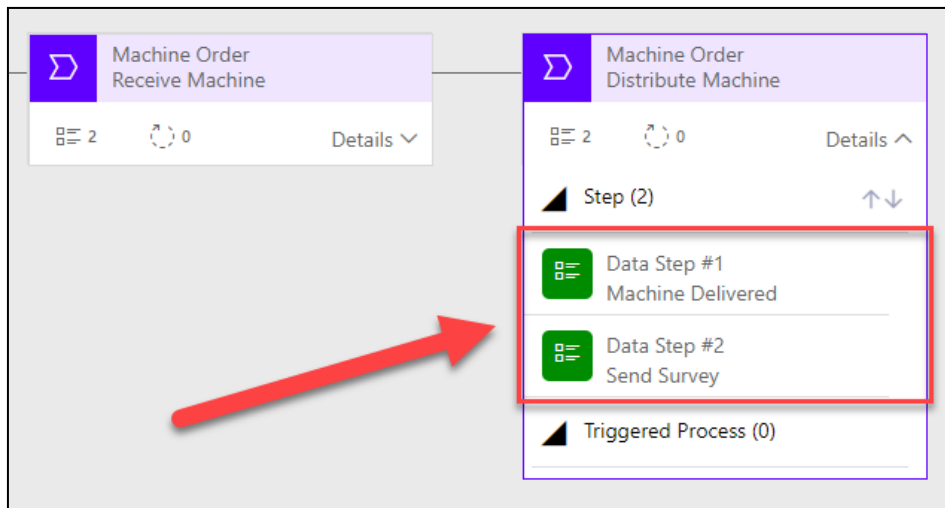


26. From the pane to the right of the screen, under the **Components** tab, add another **Stage** to the **right** of the **Receive Machine** stage.
27. Then, in the new pane to the right of the screen, under the **Properties** tab, **name** the new stage **Distribute Machine**.
28. Select **Apply** at the bottom of the pane to apply the new name to the new stage.

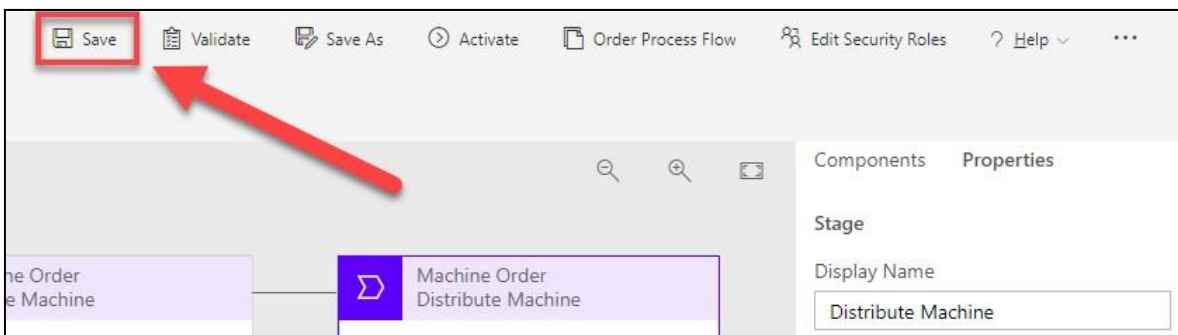


29. Next, add **two data steps** to the **Details** list for the **Distribute Machine** stage. Select the **Details** drop-down within the **Distribute Machine** stage.
30. Within the **Details** drop-down list, select the first **Data Step**.
31. From the pane to the right of the screen, change the **Data Field** for the step to **Machine Delivered**. Then, select **Apply**.

32. Repeat the previous steps to **add another, second step** below the first step within the **Details** drop-down list. Set the **Data Field** of the new **Data Step** to **Send Survey** and select **Apply**.



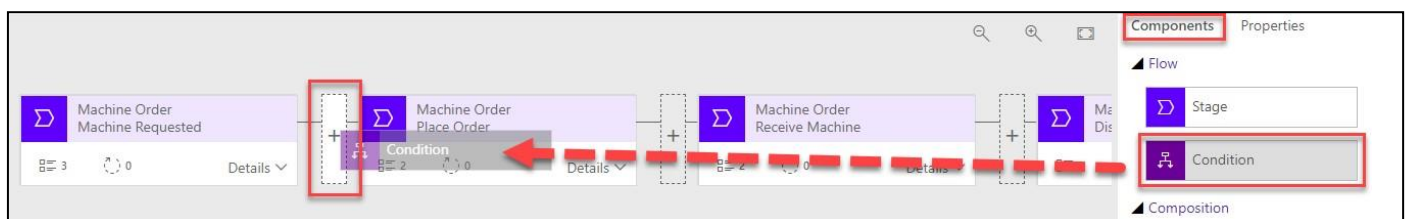
33. Once you have finished adding Data Steps to the Distribute Machine Stage, select **Save** from the ribbon at the top of your screen.



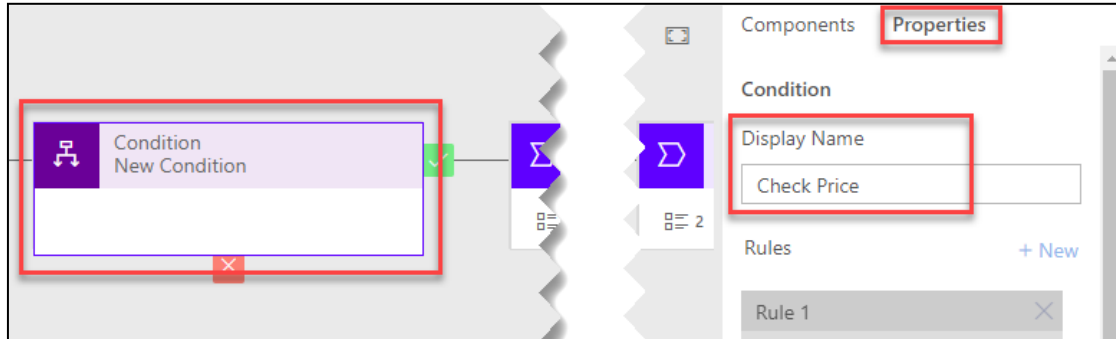
## Task 2: Add a branch condition

In this task, we are going to add a conditional branch to our Business Process Flow. When we did the discovery, we learned that if the price was greater than \$10K there were additional steps in place to get capital approval prior to placing the order. In this task, you will see how we can modify the flow we built to accommodate this.

1. Select the grey background within the design space. From the pane to the right of the screen, select the **Components** tab, drag **Condition** and place it between **Machine Requested** and **Place Order**.

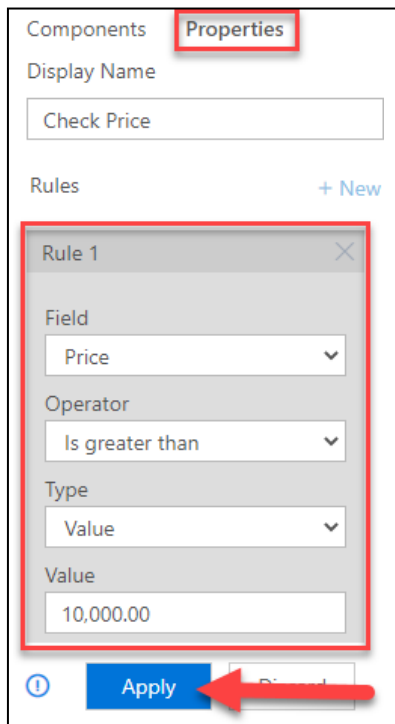


2. Select the newly added **Condition**. From the pane to the right of the screen, under the Properties tab, change the Display Name to **Check Price**.

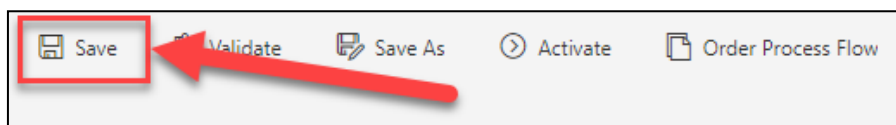


3. Within the pane, under the **Properties** tab, in the **Rule 1** section, select **Price** for Field, **is greater than** for Operator, **Value** for Type, **10000** for Value Then, select **Apply**.

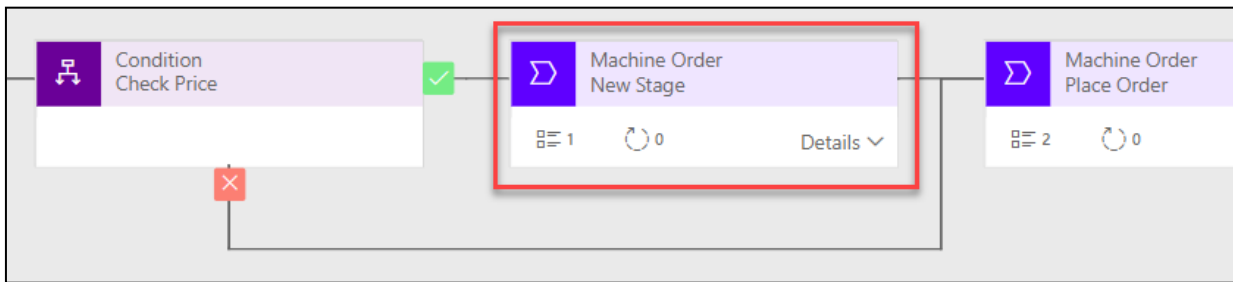
It's important to note that Columns you use in the rules on the condition must be in the prior Stages steps. That is one of the reasons we put the price in there previously.



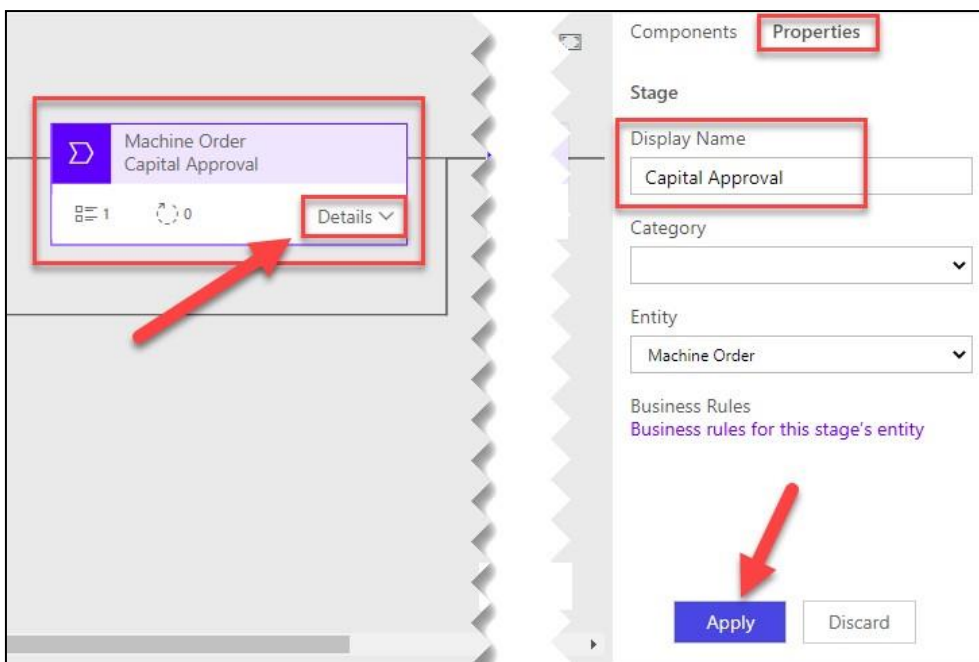
4. Select **Save** from the ribbon at the top of the screen.



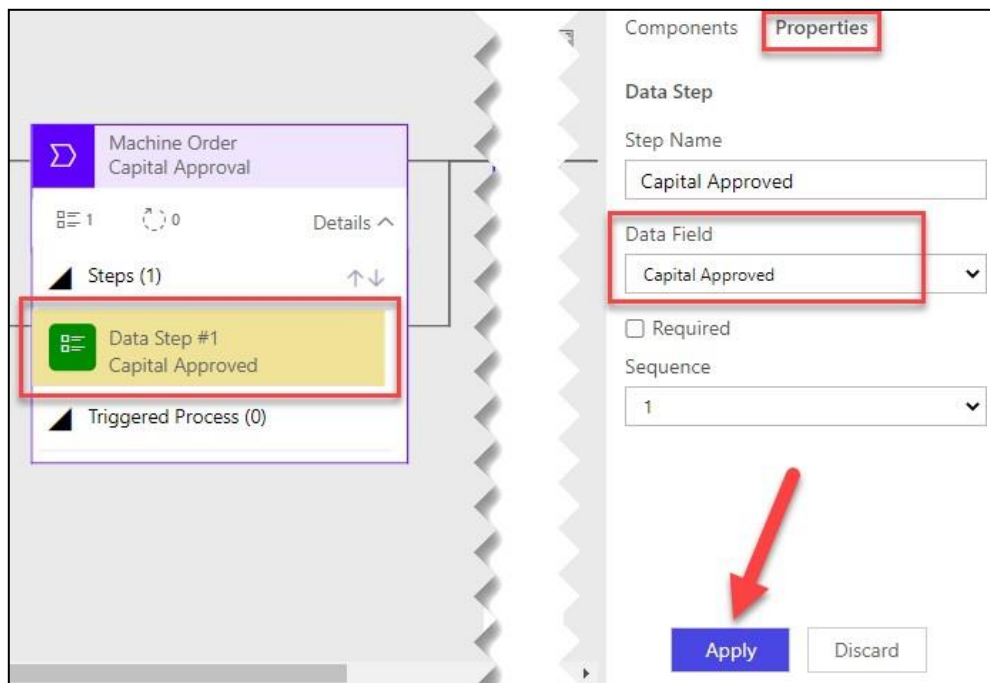
5. Notice that a new stage is added.



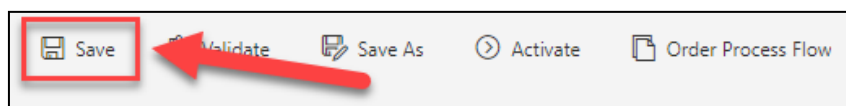
6. Select the new stage. From the pane to the right of the screen, under the properties tab, change the Display Name to **Capital Approval** and select **Apply**.
7. Then, select the **Details** drop-down from the Capital Approval stage.



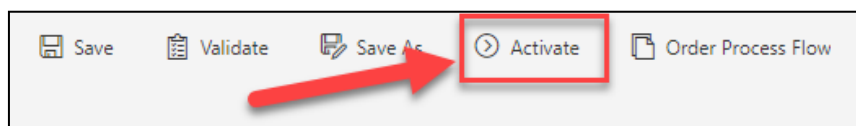
8. Select the existing **Data Step** within the **Details** drop-down. Within the pane to the right of the screen, under the **Properties** tab, select **Capital Approved** for the Data Field and select **Apply**.



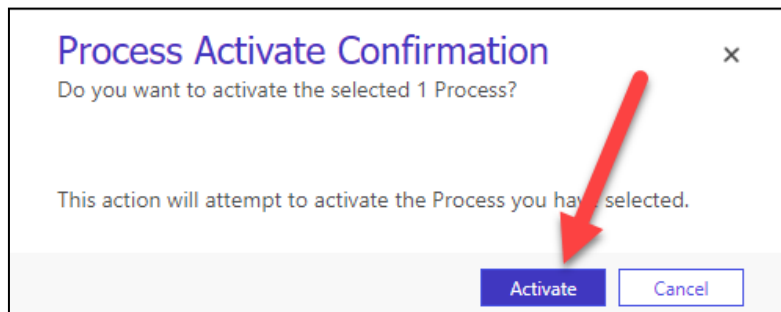
9. Select **Save** from the ribbon at the top of the screen.



10. Then, select **Activate**.



11. A **Process Activate Confirmation** dialog will appear. Select **Activate**.



12. **Close out** of the process editor.



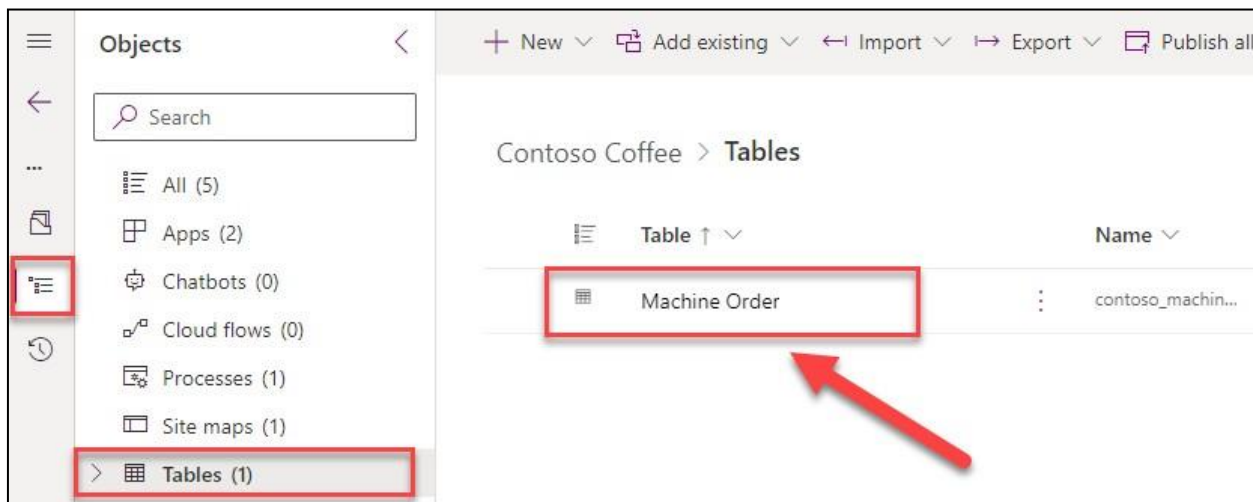
## Exercise 3: Form and View Modification

In this exercise, we are going to modify the Machine Order form to add additional columns. When you create a table in Microsoft Dataverse, it also creates a main Form for that table with a few basic columns on it. In addition to the form, views are created for the table. Views are used in a Model-Driven app any time a list of the table rows are displayed. You would modify the view to add additional Columns or change the placement. You can also create additional views, for example, you might provide a view to show all machine requests that are waiting to be received.

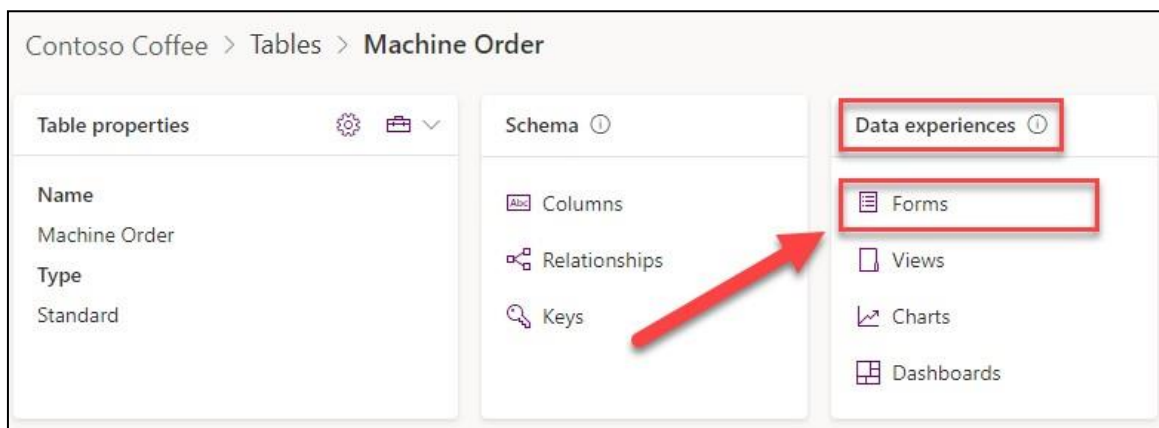
Before you begin this exercise, and the tasks to follow, ensure that you are logged into [Make Power Apps](#) and that you are in the correct Environment.

### Task 1: Modify the form

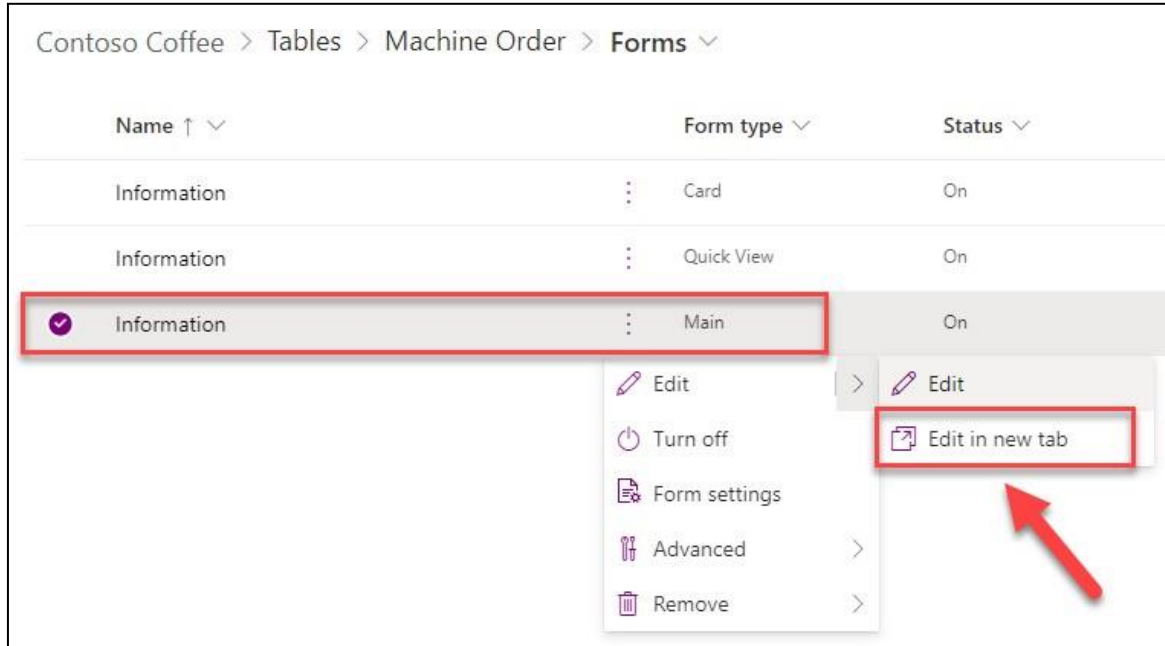
1. Within Power Apps, select **Solutions** from the menu pane to the left of the screen and select the **Contoso Coffee** solution.
2. Within the Contoso Coffee solution, select **Tables** and then select the **Machine Order** table.



3. Navigate to the **Data experiences** section and select **Forms** from the list of options.

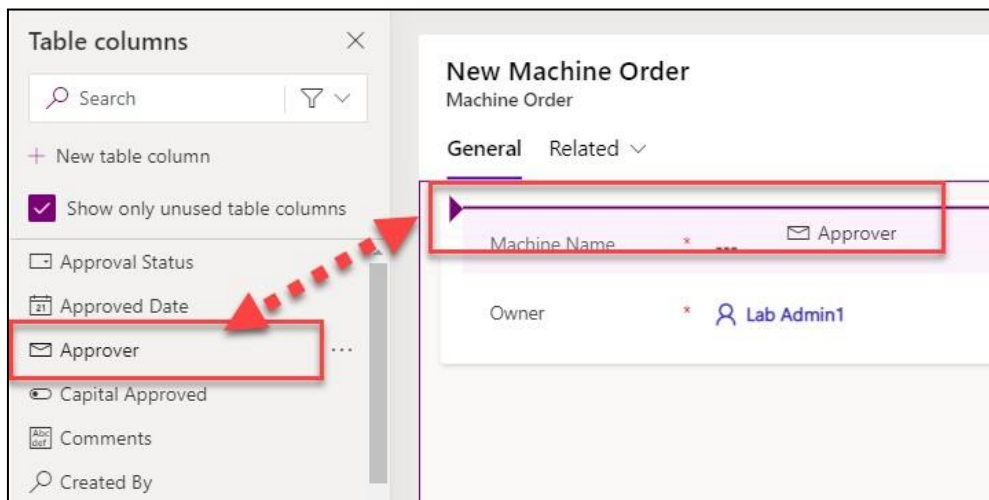


4. From the list of forms, hover over the **Information** form with the **Main** form type. Select the **ellipses** (...) to the right of the form title and select **Edit** > **Edit in new tab** from the menu of options.

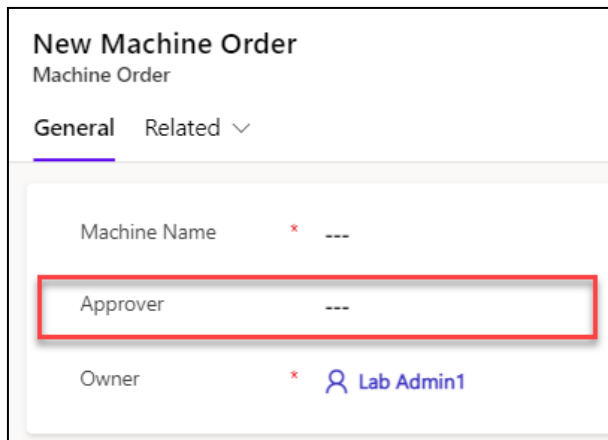


**Note:** The form designer is being modernized. You can read more about the form designer at [Overview of the model-driven form designer](#).

5. If you are required to sign in again, do so now.
6. Search for the **Approver** column within the Table columns pane to the left of the screen and drag it to the form.
7. Place the **Approver** Column **above** the Machine Name column.

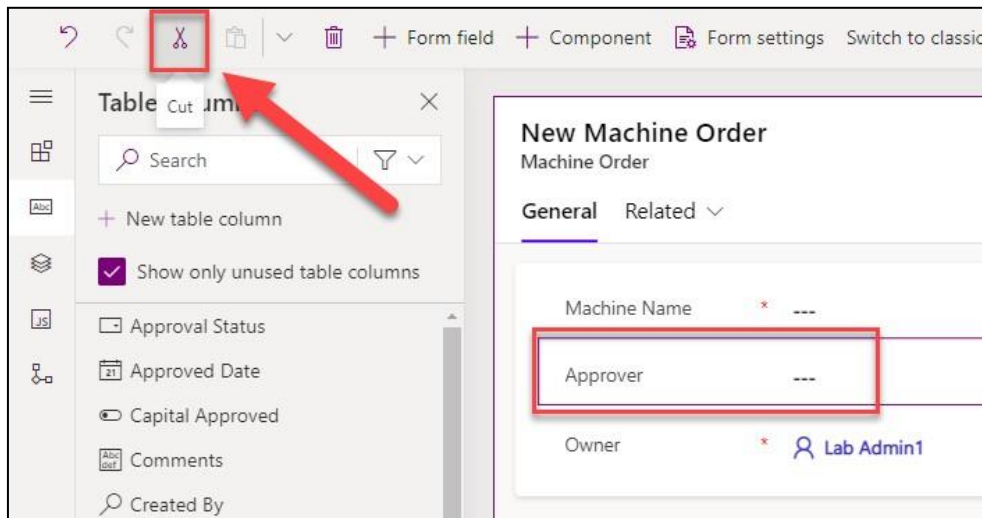


8. The new form designer will let you reposition Columns. Drag the **Approver** column and place it **between** the Machine Name and Owner columns.



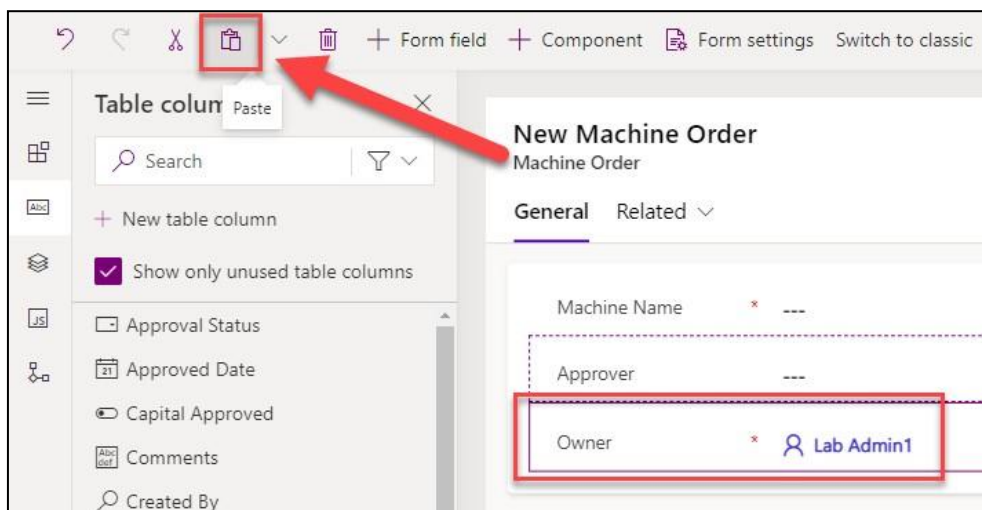
The screenshot shows the 'New Machine Order' form in a design tool. The form has a title 'New Machine Order' and a subtitle 'Machine Order'. Below the title are two tabs: 'General' (selected) and 'Related'. The form contains three input fields: 'Machine Name' with a red asterisk and a dropdown arrow, 'Approver' with a dropdown arrow (highlighted by a red rectangle), and 'Owner' with a red asterisk and a user selection icon labeled 'Lab Admin1'.

9. The new form designer will let you cut and paste columns. Select the **Approver** column and select the **Cut** button.



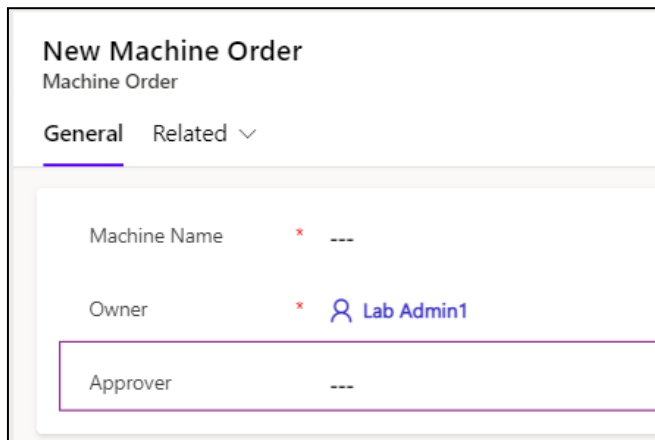
The screenshot shows the 'New Machine Order' form designer with a 'Table column' panel on the left. The panel has a search bar, a '+ New table column' button, and a checked 'Show only unused table columns' checkbox. Below these are several table columns: 'Approval Status', 'Approved Date', 'Capital Approved', 'Comments', and 'Created By'. The 'Approver' column is highlighted with a red box, and a red arrow points to the 'Cut' button (scissors icon) in the top toolbar. The main form area shows the 'New Machine Order' form with the 'Approver' column highlighted by a red box.

10. Select the **Owner** column and then select the **Paste** button.



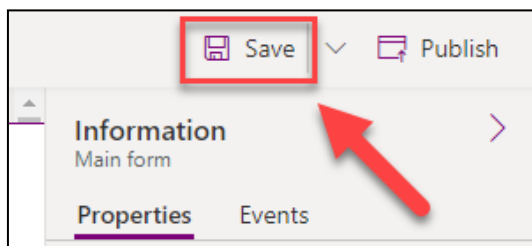
The screenshot shows the 'New Machine Order' form designer with the 'Table column' panel on the left. The 'Owner' column is highlighted with a red box, and a red arrow points to the 'Paste' button (copy icon) in the top toolbar. The main form area shows the 'New Machine Order' form with the 'Approver' column highlighted by a red box and the 'Owner' column highlighted by a red box.

11. The **Approval** column will be moved to the bottom.

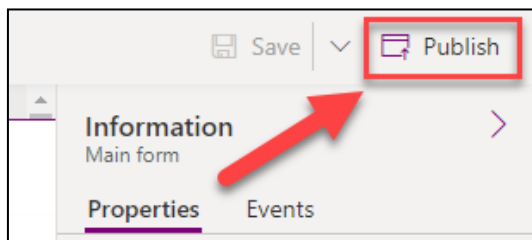


The screenshot shows a form titled "New Machine Order" with a subtitle "Machine Order". Below the title are two tabs: "General" (selected) and "Related" with a dropdown arrow. The form contains three input fields: "Machine Name" with a red asterisk and a dashed line; "Owner" with a red asterisk, a user icon, and the text "Lab Admin1"; and "Approver" with a dashed line.

12. From the ribbon at the top of the screen, in the top right corner, select **Save**.

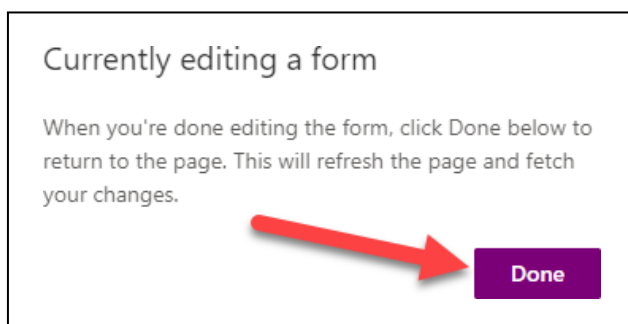


13. Then, from the same location as the Save button, select the **Publish** button.



14. Close out of the **Form Designer** tab.

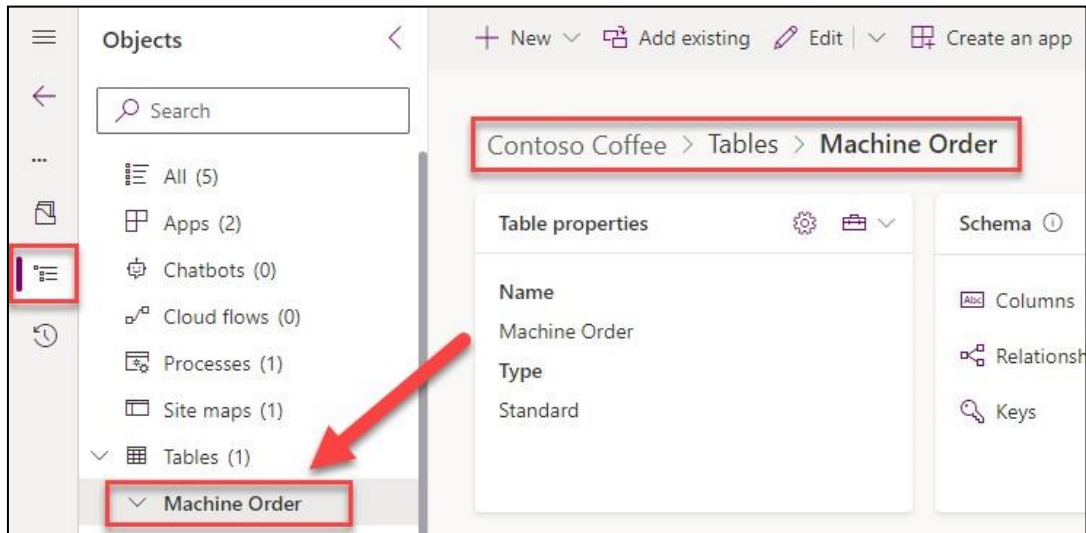
15. In the **Currently editing a form** dialog box, select **Done**.



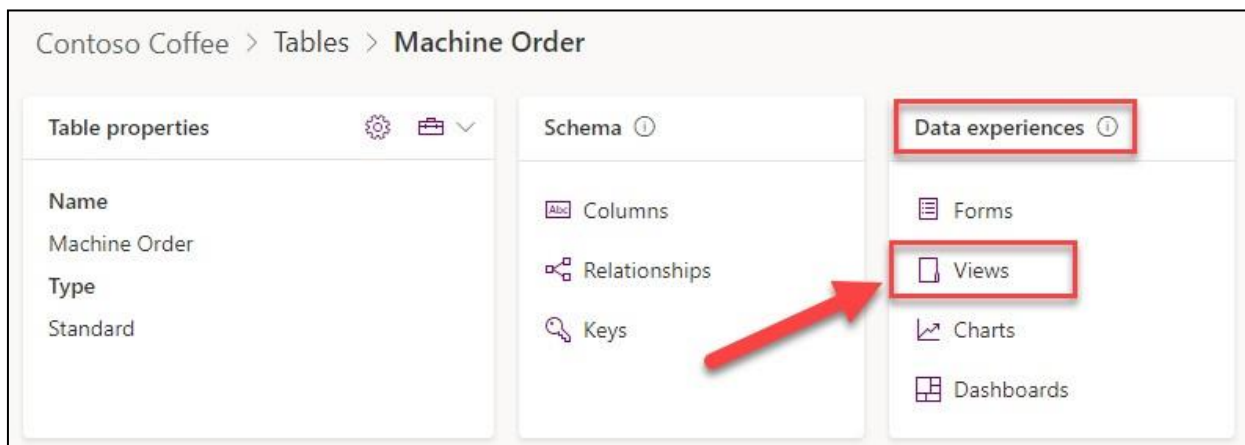
## Task 2: Modify the view

This task will pick back up at the ending spot of Task 1.

1. Navigate to the **Contoso Coffee Machine Order** table within Power Apps.



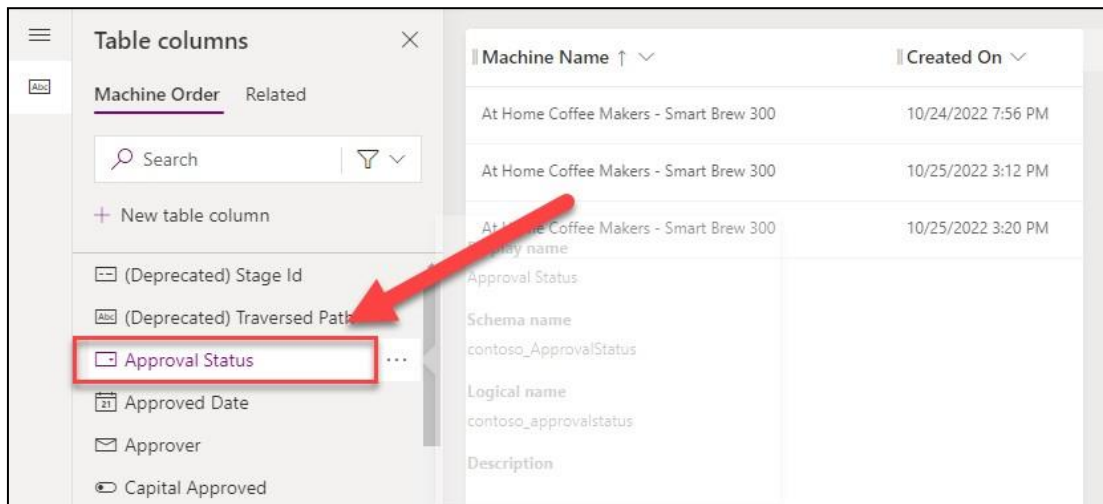
2. In the **Data experiences** section of the Machine Order, select **Views**.



3. Select the **Active Machine Orders** from the Views list.



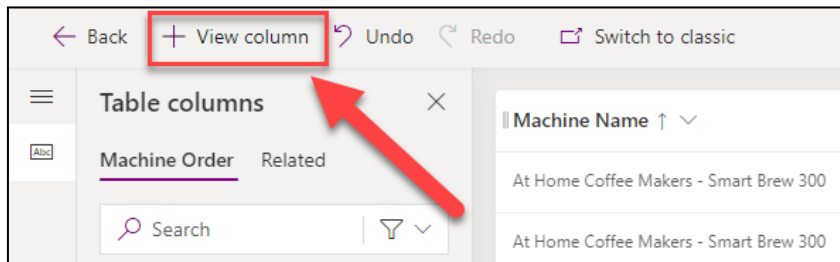
4. Select the **Approval Status** column within the Table columns pane to the left of the screen.



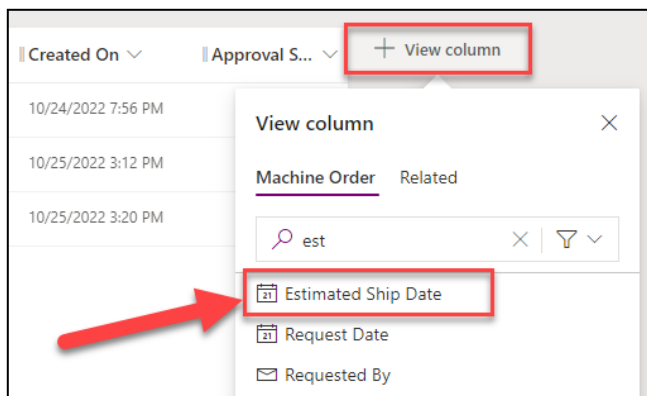
5. The new Approval Status column will be added to the view.



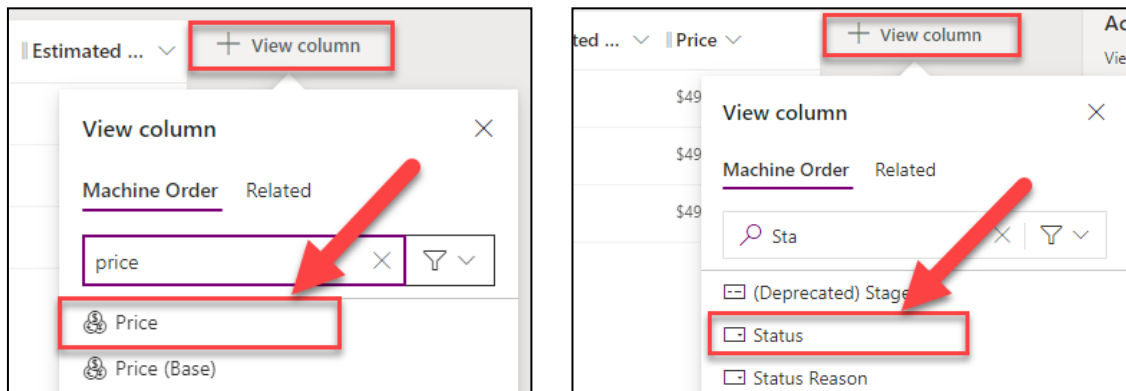
6. Select the **+ View Column** button from the ribbon at the top of the screen.



7. Select **+ View column**, again, to the right of the Approval Status column in the View. Search and select **Estimated Ship Date** from the View column menu.



8. Select **+ View column** again and repeat the same steps to add **Price** and **Status** to the View.

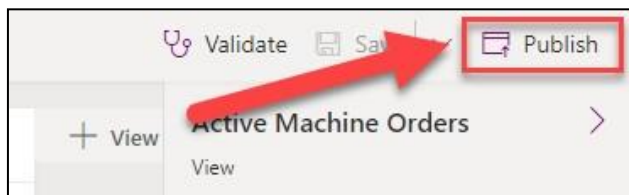


9. Your view should look like the one displayed in the figure below:

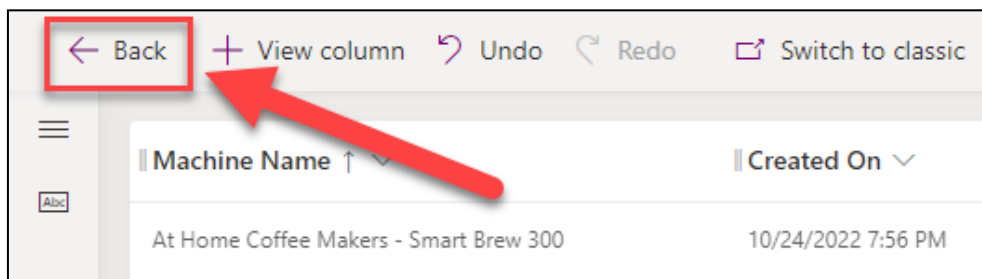
Machine Name ↑	Created On	Approval S...	Estimated ...	Price	Status
At Home Coffee Makers - Smart Brew 300	10/24/2022 7:56 PM			\$499.00	Active
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:12 PM			\$499.00	Active
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:20 PM			\$499.00	Active

10. Select the **Save** button from the ribbon at the top of the screen.

11. Then, after the View and changes have been saved, select the **Publish** button from the ribbon at the top of the screen.



12. Ensure that the View has completely finished Publishing. Then, select the **Back** button in the top left corner of the screen.



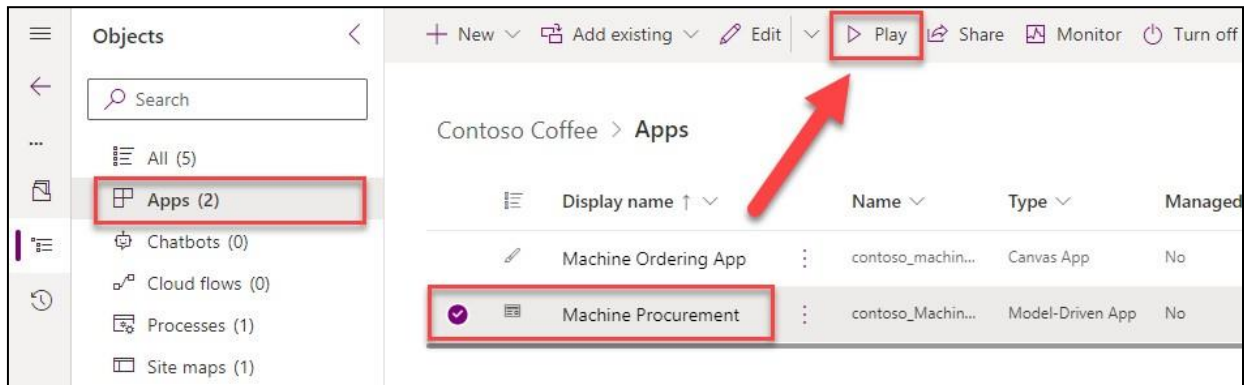
## Exercise 4: Test the application

In this exercise, we are going to test the application you just built.

### Task 1: Test the application

Before you begin this task, ensure that you are in the **Contoso Coffee solution** within Power Apps.

1. Select **Apps** from the pane to the left of the screen, then select the **Machine Procurement** application. Select the **Play** button in the ribbon at the top of the screen.



2. The application should start. The **Active Machine Orders** view should load.

**Note: If you don't show any data in the list, run the Machine Ordering canvas app you built and submit some orders.**

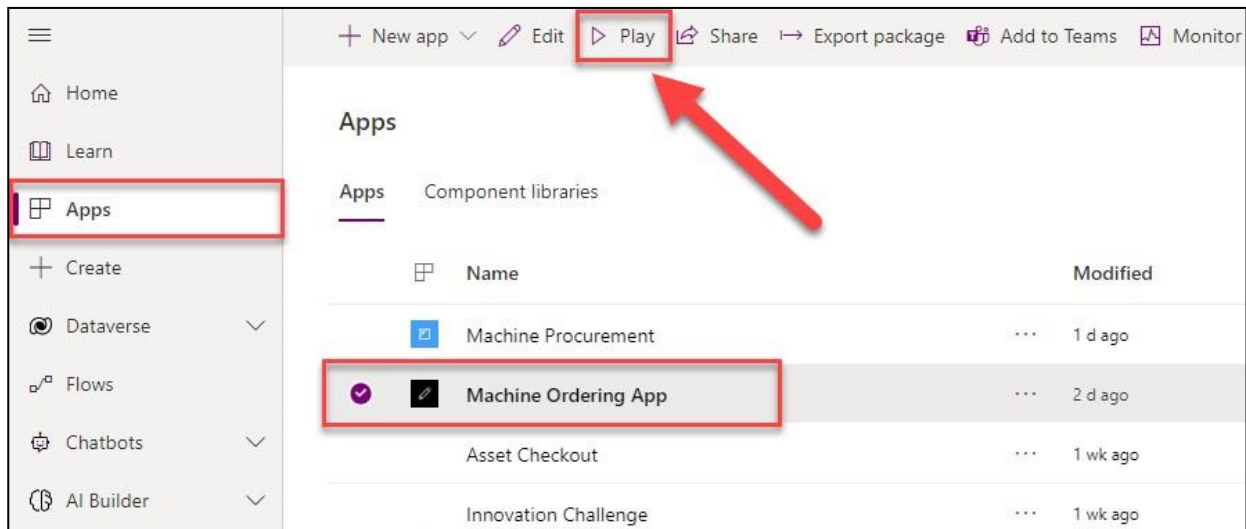
The screenshot shows the 'Active Machine Orders' view within the application. The left pane shows navigation options: Home, Recent, Pinned, Orders, and Machine Orders. The main area displays a table of active machine orders. The table has columns for 'Machine Name', 'Created On', 'Approval Status', 'Estimated Ship', 'Price', and 'Status'. There are three rows of data, all representing orders for 'At Home Coffee Makers - Smart Brew 300'.

Machine Name	Created On	Approval Status	Estimated Ship	Price	Status
At Home Coffee Makers - Smart Brew 300	10/24/2022 7:56 PM			\$499.00	Active
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:12 PM			\$499.00	Active
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:20 PM			\$499.00	Active

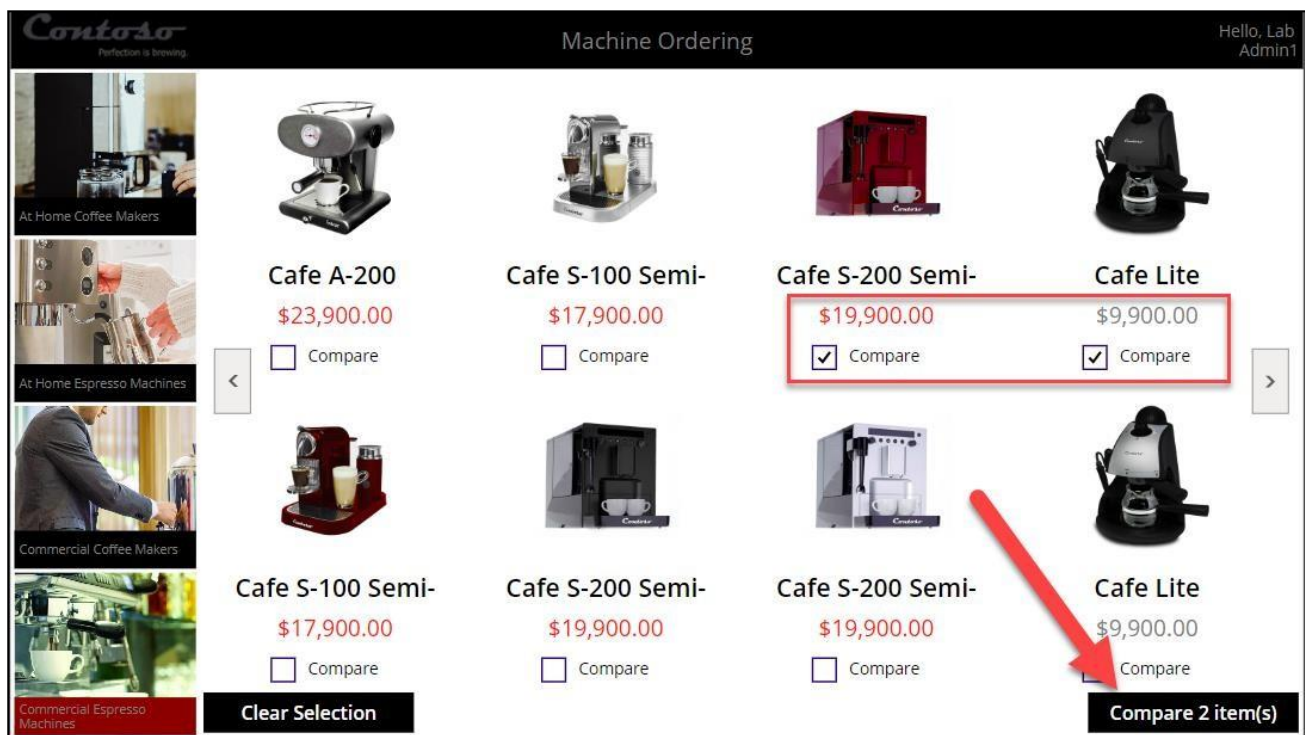
3. Open a new web browser instance and navigate to [Make Power Apps](#). **Do not** close the Model-driven application. If needed, sign into Power Apps to continue.
4. Ensure that you are in the correct Environment.



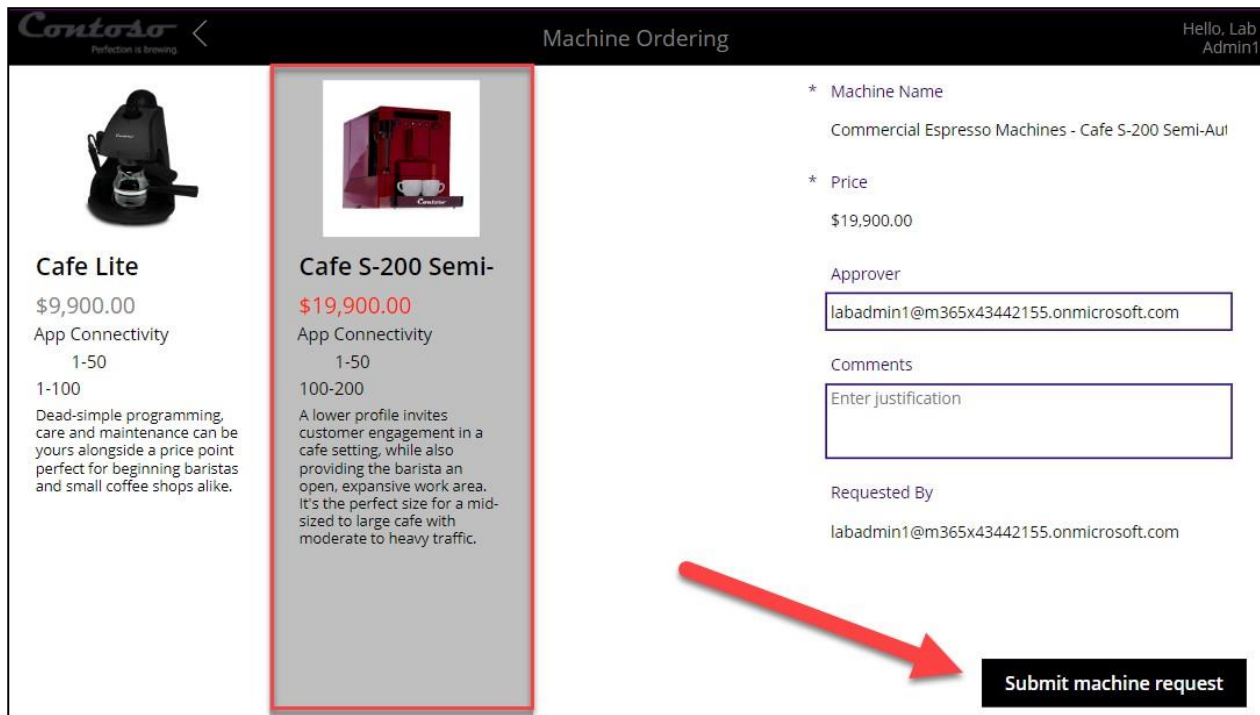
5. Select **Apps** from the pane to the left of the screen, then select the **Machine Ordering** canvas application you created in module 2. Then, select the **Play** button in the ribbon at the top of the screen.



6. Select **two** machines, make sure one of the machines is priced over \$10,000 and then select **Compare**.



7. Select the machine with the price over \$10k and then select **Submit**.



**Contoso** < Machine Ordering Hello, Lab Admin1

**Cafe Lite**  
\$9,900.00  
App Connectivity 1-50  
1-100  
Dead-simple programming, care and maintenance can be yours alongside a price point perfect for beginning baristas and small coffee shops alike.

**Cafe S-200 Semi-Automatic**  
**\$19,900.00**  
App Connectivity 1-50  
100-200  
A lower profile invites customer engagement in a cafe setting, while also providing the barista an open, expansive work area. It's the perfect size for a mid-sized to large cafe with moderate to heavy traffic.

\* Machine Name  
Commercial Espresso Machines - Cafe S-200 Semi-Automatic

\* Price  
\$19,900.00

Approver  
labadmin1@m365x43442155.onmicrosoft.com

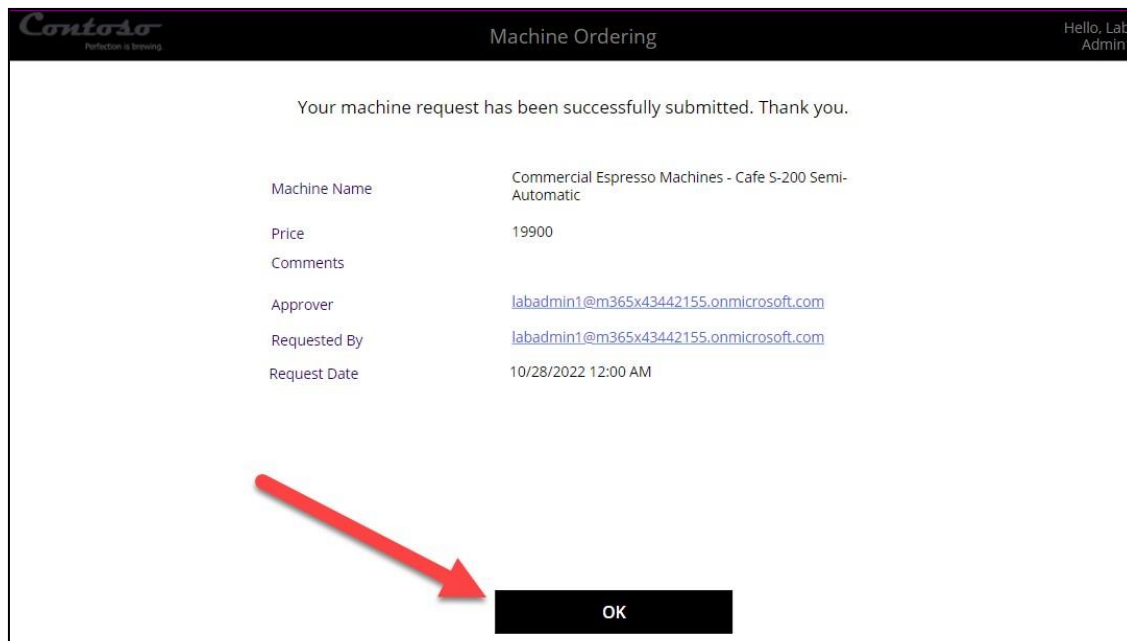
Comments  
Enter justification

Requested By  
labadmin1@m365x43442155.onmicrosoft.com

**Submit machine request**

8. On the machine request success screen, select **OK**.

**Note:** If you did not choose to create the submission success screen in a previous module that this option will not exist. You will need complete steps 3 and 4 (above) in order to continue.



**Contoso** Machine Ordering Hello, Lab Admin1

Your machine request has been successfully submitted. Thank you.

Machine Name	Commercial Espresso Machines - Cafe S-200 Semi-Automatic
Price	19900
Comments	
Approver	labadmin1@m365x43442155.onmicrosoft.com
Requested By	labadmin1@m365x43442155.onmicrosoft.com
Request Date	10/28/2022 12:00 AM

**OK**

9. Select **two** more machine, with one being more than \$10,000, and then select **Compare**.

Contoso  
Perfection is brewing

Machine Ordering









Hello, Lab Admin1

At Home Coffee Makers

At Home Espresso Machines

Commercial Coffee Makers

Commercial Espresso Machines

 <b>Cafe Lite</b> \$9,900.00 <input type="checkbox"/> Compare	 <b>Cafe Lite</b> \$9,900.00 <input checked="" type="checkbox"/> Compare	 <b>Cafe Duo</b> \$12,900.00 <input checked="" type="checkbox"/> Compare	 <b>Cafe Grande</b> \$14,900.00 <input type="checkbox"/> Compare
 <b>Cafe Lite</b> \$9,900.00 <input type="checkbox"/> Compare	 <b>Cafe Duo</b> \$12,900.00 <input type="checkbox"/> Compare	 <b>Cafe Duo</b> \$12,900.00 <input type="checkbox"/> Compare	 <b>Cafe Grande</b> \$14,900.00 <input type="checkbox"/> Compare

Clear Selection


Compare 2 item(s)


10. Select the machine with a price **under** \$10k, provide approver email (or leave in the auto-populated manager email) and select **Submit**. Then, on the machine request success screen, select **OK**.

Contoso  
Perfection is brewing

Machine Ordering

Hello, Lab Admin1

  
**Cafe Lite**  
\$9,900.00  
App Connectivity  
1-50  
1-100  
Dead-simple programming, care and maintenance can be yours alongside a price point perfect for beginning baristas and small coffee shops alike.

  
**Cafe Duo**  
\$12,900.00  
App Connectivity  
1-50  
1-100  
Providing high quality espresso and coffee for large and small shops alike, the Cafe Duo best accommodates smaller operations that serve a range of 50-80 drinks per day.

\* Machine Name  
Commercial Espresso Machines - Cafe Lite

\* Price  
\$9,900.00

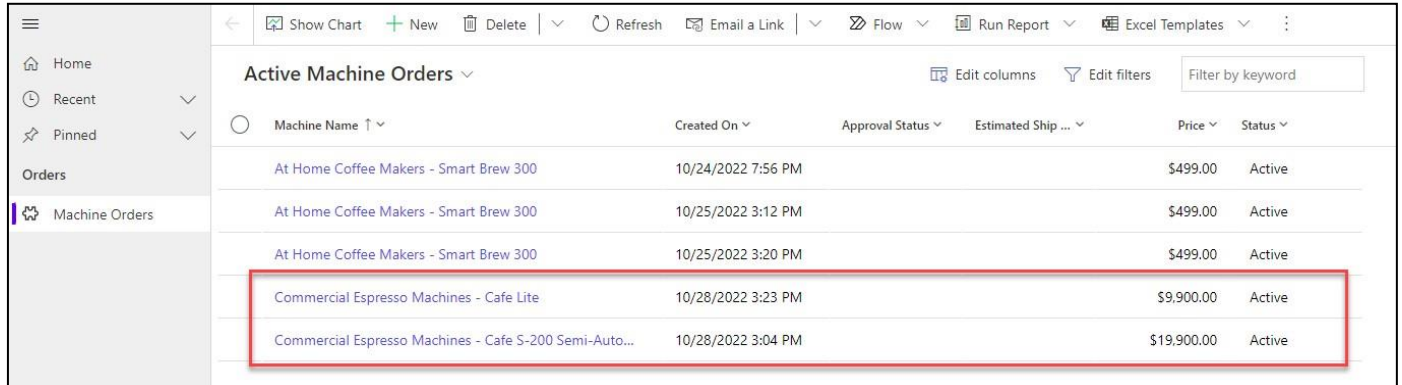
Approver  
labadmin1@m365x43442155.onmicrosoft.com

Comments  
Enter justification

Requested By  
labadmin1@m365x43442155.onmicrosoft.com

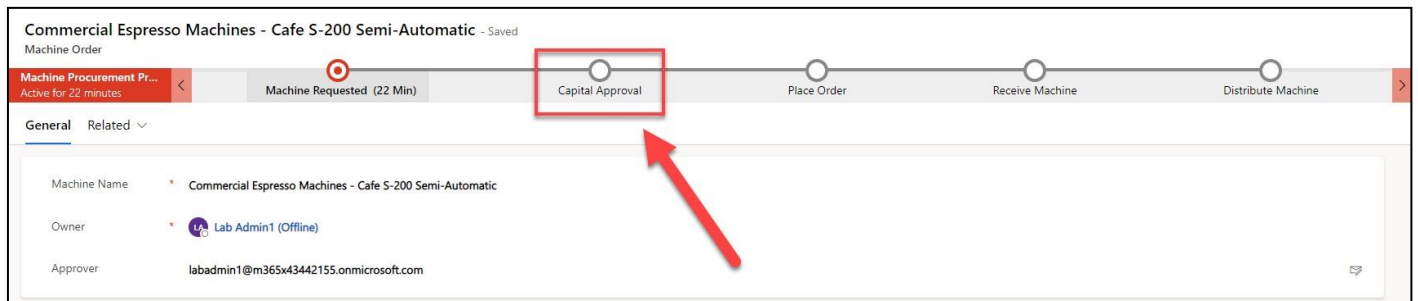
Submit machine request

11. Navigate back to the **Model-driven application** you created and **refresh** the view. **Sort the orders** by **Created On** column, and you should see the two machines you ordered using the Power Apps Canvas App.

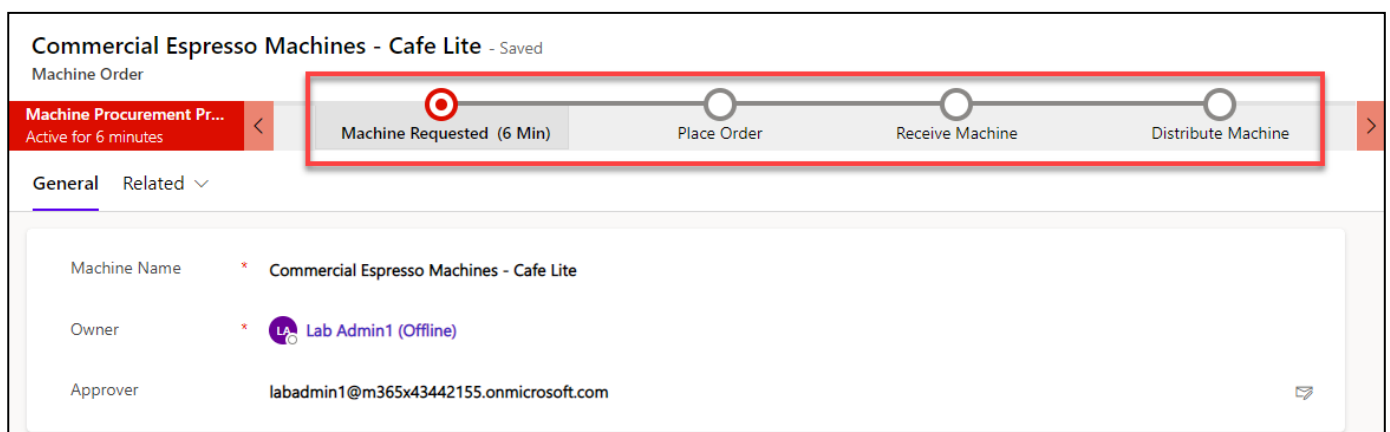


Machine Name ↑	Created On	Approval Status	Estimated Ship ...	Price	Status
At Home Coffee Makers - Smart Brew 300	10/24/2022 7:56 PM			\$499.00	Active
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:12 PM			\$499.00	Active
At Home Coffee Makers - Smart Brew 300	10/25/2022 3:20 PM			\$499.00	Active
Commercial Espresso Machines - Cafe Lite	10/28/2022 3:23 PM			\$9,900.00	Active
Commercial Espresso Machines - Cafe S-200 Semi-Auto...	10/28/2022 3:04 PM			\$19,900.00	Active

12. Open the machine request that is priced **over** \$10k.
13. The **Business Process Flow** should now have **5** stages. This is because this order costs more than \$10k and needs **Capital Approval**.



14. Select **Machine Orders** from the menu pane to the left of the screen.
15. Select the other order you requested that is priced **below** \$10K.
16. The **Business Process Flow** for this order should have **4** stages; this is because this order **does not** require **Capital Approval**.



You can now close out of the Power Apps browsers.