

Mastering Model-Driven Power Apps

Login to your VM with the following credentials...

Username: LabUser

Password: Pa\$\$w0rd

Use Copilot to Build a Model-Driven App

Part 1: Configure Lab Environment

These steps will guide you in creating a preferred solution to hold all configuration details for your new app.

Select the **T** icon to automatically type the text.

Instructions

1. Open **Microsoft Edge browser**
2. Navigate to <https://make.preview.powerapps.com>.

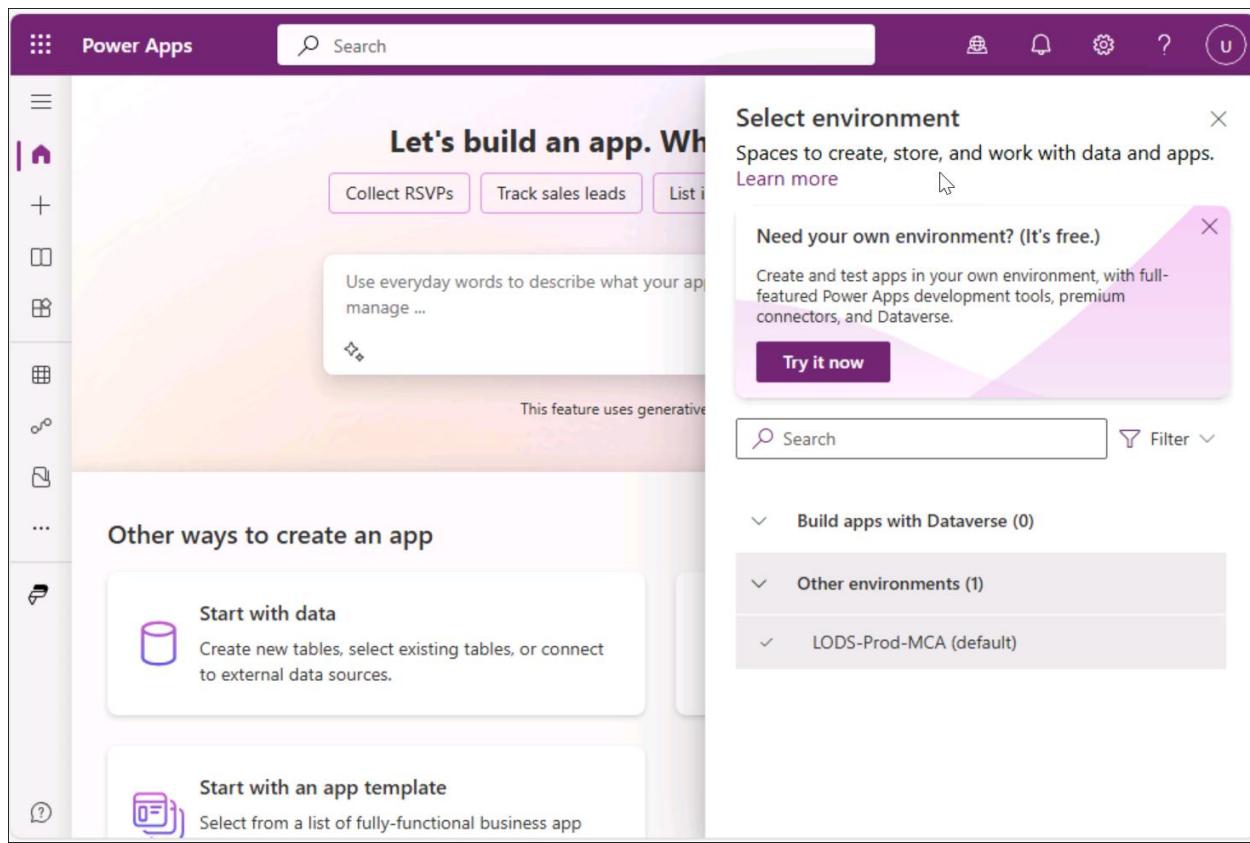
Make sure you use <https://make.PREVIEW.powerapps.com>

3. Use the following credentials:

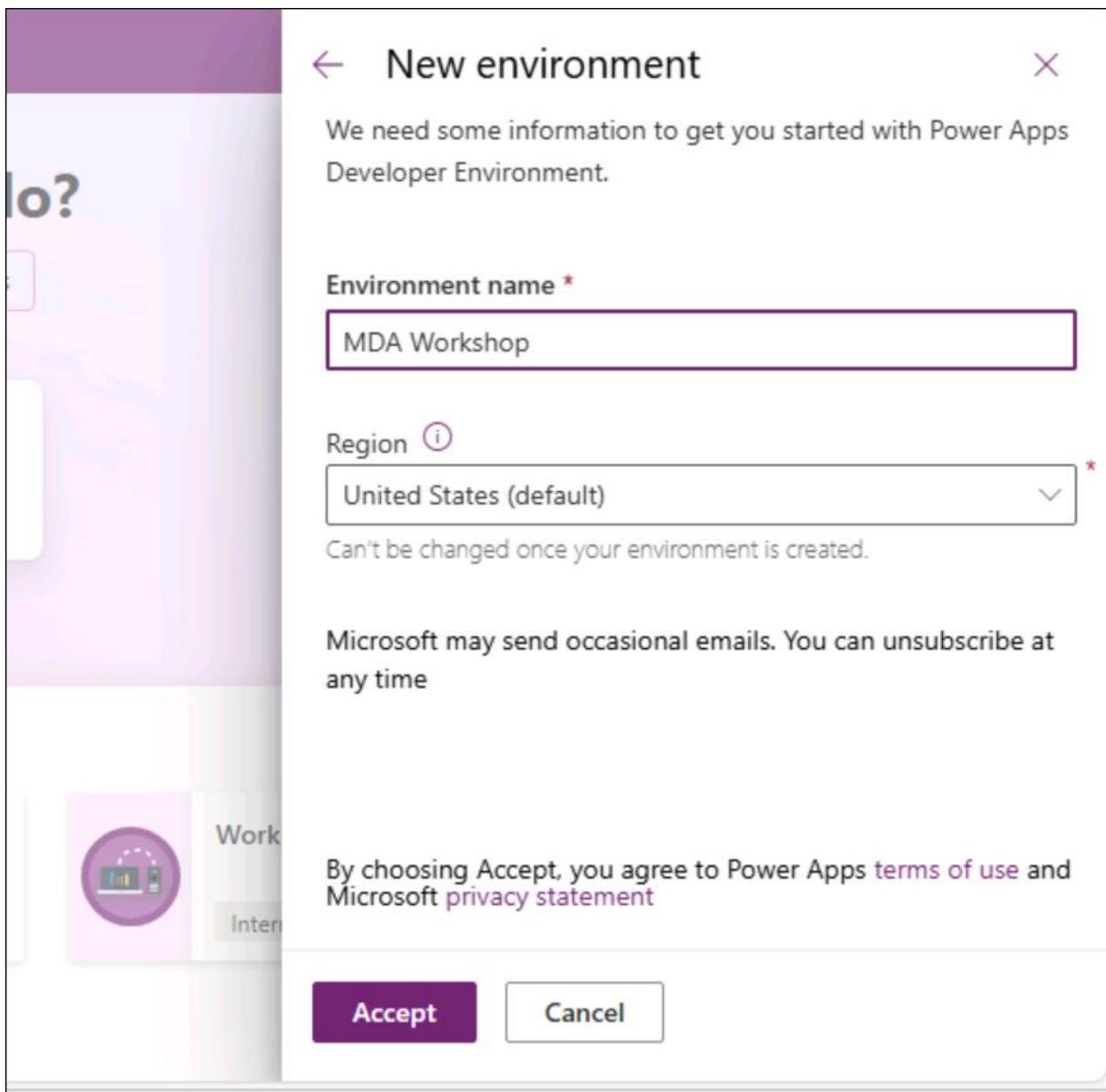
Username: admin@LODSA418378.onmicrosoft.com

Password: ^t#H4r#m;H1cCQ%KWOOpS2e40z2i=8#9+

4. If prompted, choose **United States** as your region.
5. Select your developer environment from the upper-right corner.
6. If you don't have a developer environment, select the **Try it now** option to create one.



7. Give the environment the name MDA Workshop.



8. Select **Accept**
9. Or select the developer environment if you already have set one up.

The screenshot shows the Power Apps home page. At the top, there is a search bar and a 'Select environment' dialog box. The dialog box shows the current environment is 'MDAWorkshop', with 'Admin' role and 'Developer' type. Below the dialog, there are sections for 'Let's build an app. What should it do?' (with options like 'Collect RSVPs', 'Track sales leads', 'List inventory', 'Manage inspections'), 'Other ways to create an app' (with 'Start with data' and 'Start with a page design' options), and a 'Your apps' table listing three apps: 'Power Pages Management', 'Dataverse Accelerator App', and 'Solution Health Hub', all created 3 days ago by 'SYSTEM'. A red arrow points to the 'Solutions' option in the side menu.

10. When the environment is ready, select **Solutions** from the side menu.

The screenshot shows the Power Apps home page again. The 'Solutions' option in the side menu is highlighted with a red box and a red arrow pointing to it. The main content area shows the 'Let's build an app' section and the 'Other ways to create an app' section.

11. On the solution page, select **+ New Solution**.

The screenshot shows the Power Apps Solutions page. On the left, there's a navigation menu with options like Home, Create, Learn, Apps, Tables, Flows, and Solutions (which is highlighted with a red box). The main area displays a list of solutions. At the top right, it says "Environment MDAWorkshop". A modal window titled "Set your preferred solution" is open, asking to select where updates will be saved. It shows "Common Data Services Default Solution" as the current preferred solution, with a "Manage" button. Below this, there are three tabs: Unmanaged, Managed, and All. The All tab is selected, showing a table of solutions:

Display name	Name	Created	Version	Publisher	Solution check
MDA Workshop	MDAWorkshop	1 week ago	1.0.0.0	Model driven ap...	Hasn't been run
Common Data S	Cr5692f	2 weeks ago	1.0.0.0	CDS Default Publ...	Hasn't been run
Default Solution	Default	2 weeks ago	1.0	Default Publisher...	Not supported fe

12. Enter the details for the solution:

- **Display Name:** MDA Workshop
- **Name:** MDAworkshop
- **Publisher:** Select + New Publisher

The screenshot shows the Power Apps Solutions page with the "New solution" button highlighted with a red box. A modal window titled "New solution" is open on the right, containing fields for Display name, Name, Publisher, and Version. The "Name" field is filled with "MDA Workshop", and the "Publisher" dropdown is set to "Select a Publisher" with a "+ New publisher" option. Red arrows point from the "Name" field and the "Publisher" dropdown to the respective fields in the modal.

13. Provide details for the publisher to track your creations in this environment:

- **Display Name:** Model Driven App Workshop
- **Name:** MDAWorkshop
- **Description:** Model Driven App Workshop Publisher
- **Prefix:** mda

The screenshot shows the 'New publisher' dialog box. On the left, there's a sidebar with a purple header and a 'Common Data Set' section containing a 'Manage' button. The main area has a title 'New publisher' and a note about publishers indicating who developed associated solutions. It includes tabs for 'Properties' (selected) and 'Contact'. The 'Properties' tab contains fields for 'Display name *' (Model driven app workshop), 'Name *' (MDAWorkshop), 'Description' (Model driven app workshop publisher), 'Prefix *' (mda), and 'Choice value prefix *' (86170). A preview of the new object name (mda_Object) is shown below. At the bottom are 'Save' and 'Cancel' buttons.

New publisher

Publishers indicate who developed associated solutions. [Learn more](#)

Properties Contact

Display name *

Model driven app workshop

Name *

MDAWorkshop

Description

Model driven app workshop publisher

Prefix *

mda

Choice value prefix *

86170

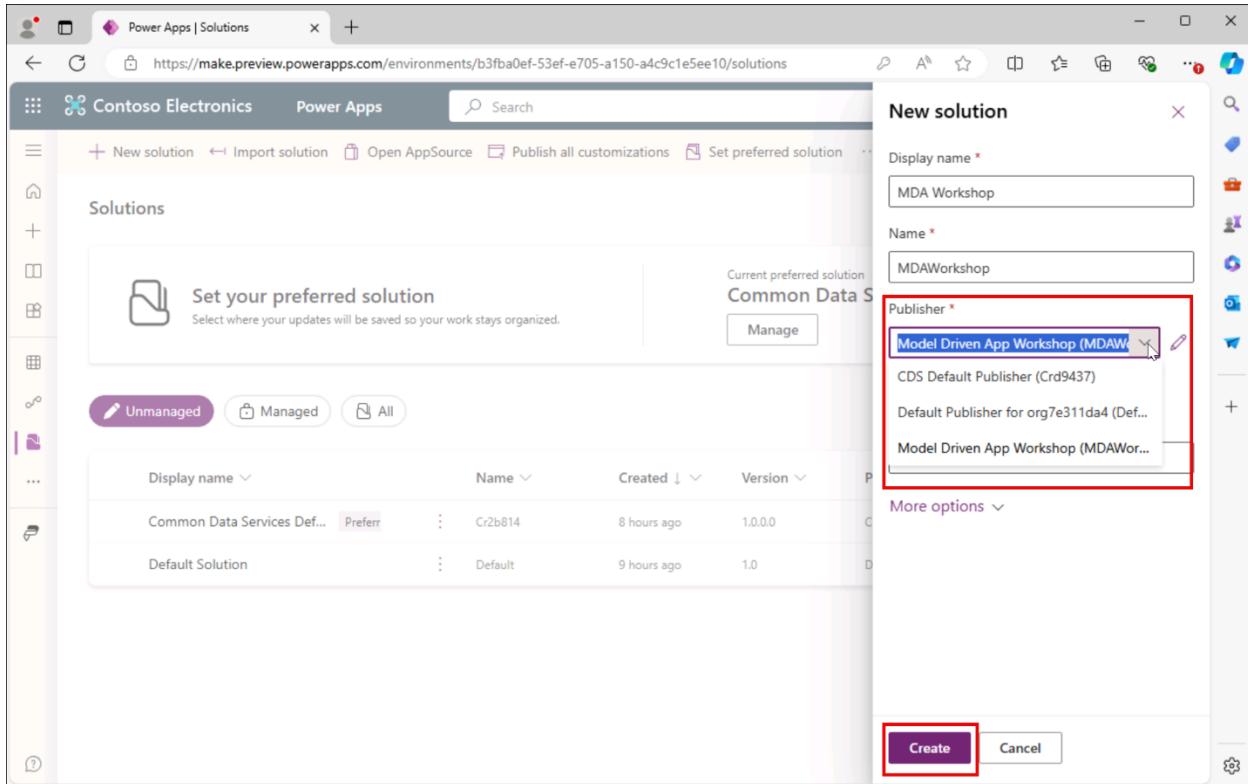
Preview of new object name

mda_Object

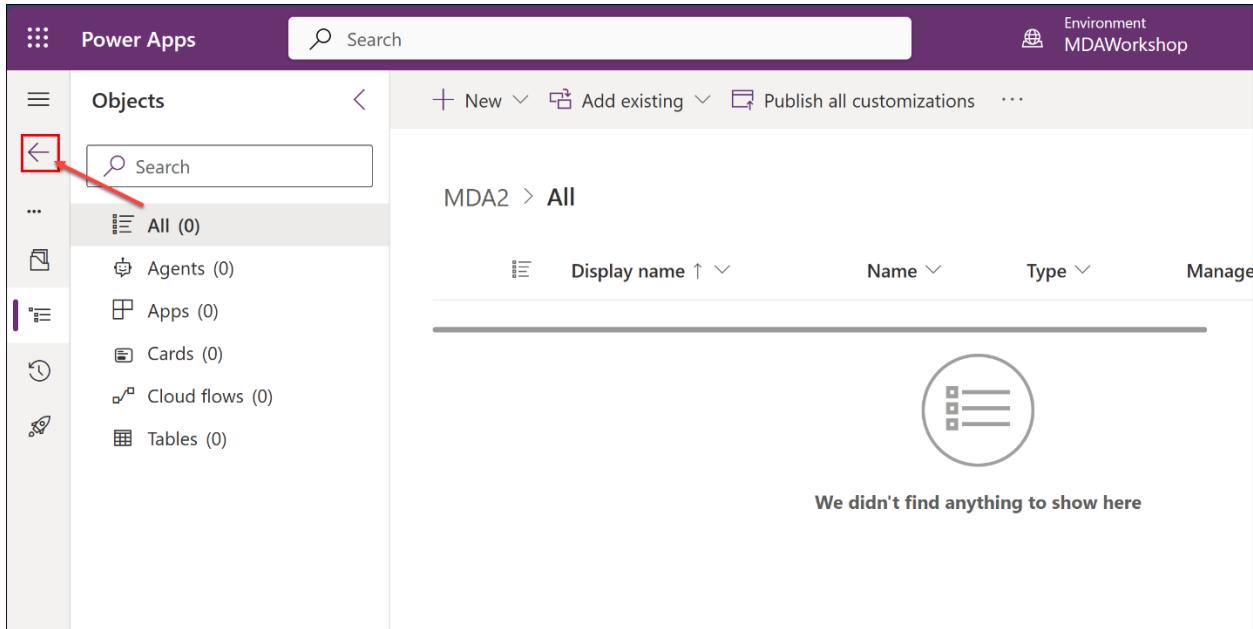
Save Cancel

14. Select **Save**.

15. Choose the new publisher as part of the new solution and select **Create**.



16. You will be in the newly created solution, select the back arrow.



17. Select the new solution you created, click on the ellipsis (...), and choose **Set Preferred Solution** followed by **Apply**. This ensures that everything created will be added by default to this solution.

The screenshot shows the Power Apps home page with the 'Solutions' section selected. A modal dialog titled 'Set your preferred solution' is open, prompting the user to select where their updates will be saved to keep work organized. Below the dialog, the 'MDA Workshop' solution is listed in the 'Unmanaged' category. The solution details show it was created 22 seconds ago. A context menu is open for this solution, with the 'Set preferred solution' option highlighted by a red box.

Display name	Name	Created
MDA Workshop	MDAWorkshop	22 seconds ago
Common Data Services Def...	Edit	3 days ago
Default Solution	Delete	3 days ago

Set your preferred solution
Select where your updates will be saved so your work stays organized.

Current preferred solution
Common Data Services
Manage

Unmanaged Managed All

MDA Workshop

Common Data Services Definition
Preferred solution

Default Solution

⋮

⋮ Edit
Delete
Export solution
Deploy
Solution checker
Show dependencies
Set preferred solution
See history

Part 2: Use Copilot to Define and Build a Data Model

Instructions

- From the Power Apps home page, enter the following prompt in the **Let's build an app. What should it do?** textbox:

Build an event management app that has events with name, details, and dates. Each event has many unique sessions with session type, room, start time, end time. An event can have many registrations with registration number, status, and special requests.

The screenshot shows the Microsoft Power Apps home page. On the left, there is a navigation sidebar with options like Home, Create, Learn, Apps, Tables, Flows, Solutions, and More. Below that is a section for Power Platform. The main area features a large banner with the heading "Let's build an app. What should it do?". It includes four buttons: "Collect RSVPs", "Track sales leads", "List inventory", and "Manage inspections". A red box highlights a text input field where "Event" is typed. Below the banner, there are three cards: "Start with data", "Start with a page design", and "Start with an app template". Underneath these is a section titled "Your apps" with a table showing one item: "Power Pages Management".

2. Select the arrow icon to proceed. Copilot will begin building the data model.

The screenshot shows the "Create new tables" page. The top navigation bar includes "Power Apps | App | Create new tables". The main content area has a progress bar at the top with the text "We're setting up your app, and the data behind it ...". Below the progress bar is a large, faint watermark-style image of a table with six circular icons representing data entities.

3. After a few moments, a table relationship diagram representing the data model of an event management app should appear.

The screenshot shows the Power Apps Studio interface for creating new tables. Three tables are present: **Registration**, **Event**, and **Session**. Relationships are defined between them. The **Event** table has two many-to-one relationships: one to **Registration** and one to **Session**. The **Session** table has one many-to-one relationship to **Event**. The Copilot sidebar on the right displays AI-generated content about event management and provides a prompt to "Add an end time field to the session table".

4. For the **Session** table, click on the ellipsis (...), and choose **View Data** to display a table of data.
5. If any column is missing (e.g., the **End Date and Time**), enter a prompt to add it:

Add an end time field to the session table

Select the arrow icon, and the **End Date and Time** field will appear in the columns with sample data.

The screenshot shows the Power Apps Studio interface with the **Session** table selected. An additional column, **End Time**, is highlighted with a red box. The Copilot sidebar on the right contains a prompt: "Add an end time field to the session table".

Session Type*	Room	Start Time	Event
Keynote	Room A	10/1/2023 9:00 AM	Tech Conference
Workshop	Room B	10/1/2023 11:00 AM	Tech Conference
Panel Discussion	Room C	10/1/2023 2:00 PM	Tech Conference
Networking	Room D	10/1/2023 4:00 PM	Tech Conference
Closing Remarks	Room A	10/1/2023 5:00 PM	Tech Conference
Enter text	Enter text	Enter or pick date	Select lookup

6. If the **Session Type** column is free-form text, enter the following prompt:

Make session type an option set in the session table

The **Session Type** field should now appear as an option set column.

The screenshot shows the Power Apps 'Create new tables' interface. At the top, there's a navigation bar with 'Power Apps | App | Create new tables', a search bar, and a Copilot sidebar. The main area displays three tables: 'Registration', 'Event', and 'Session'. Relationships between them are shown as lines. Below these is the 'Session' table, which has columns: 'Session Type', 'Room', 'Start Time', 'End Time', and 'Event'. A row for 'Networking' is selected, and its details are visible in the preview pane at the bottom. A red box highlights the 'Session Type' column header. The Copilot sidebar on the right provides AI-generated feedback, including a suggestion to 'Add an end time field to the session table' and a note that 'The End Time column has been added to the Session table.'

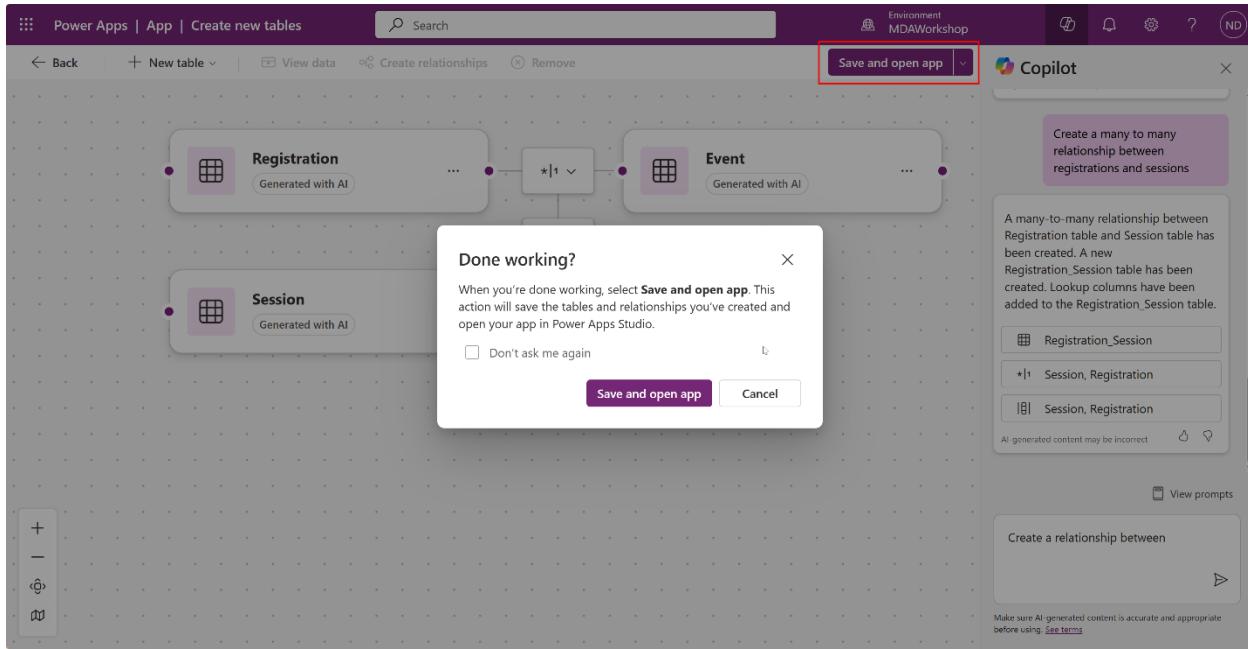
Part 3: Create the Model-Driven App

Instructions

- Once satisfied with your data model, select the dropdown beside **Save and Open App** and choose **Model-driven app**.

This screenshot shows the same 'Create new tables' interface as the previous one, but the Copilot sidebar is more prominent. It shows a relationship being created between the 'Registration' and 'Session' tables. A red box highlights the 'Model-driven app' option in the Copilot sidebar. The sidebar also contains other AI-generated suggestions like 'Canvas app' and 'A many-to-many relationship between Registration table and Session table has been created. A new Registration_Session table has been created. Lookup columns have been added to the Registration_Session table.'

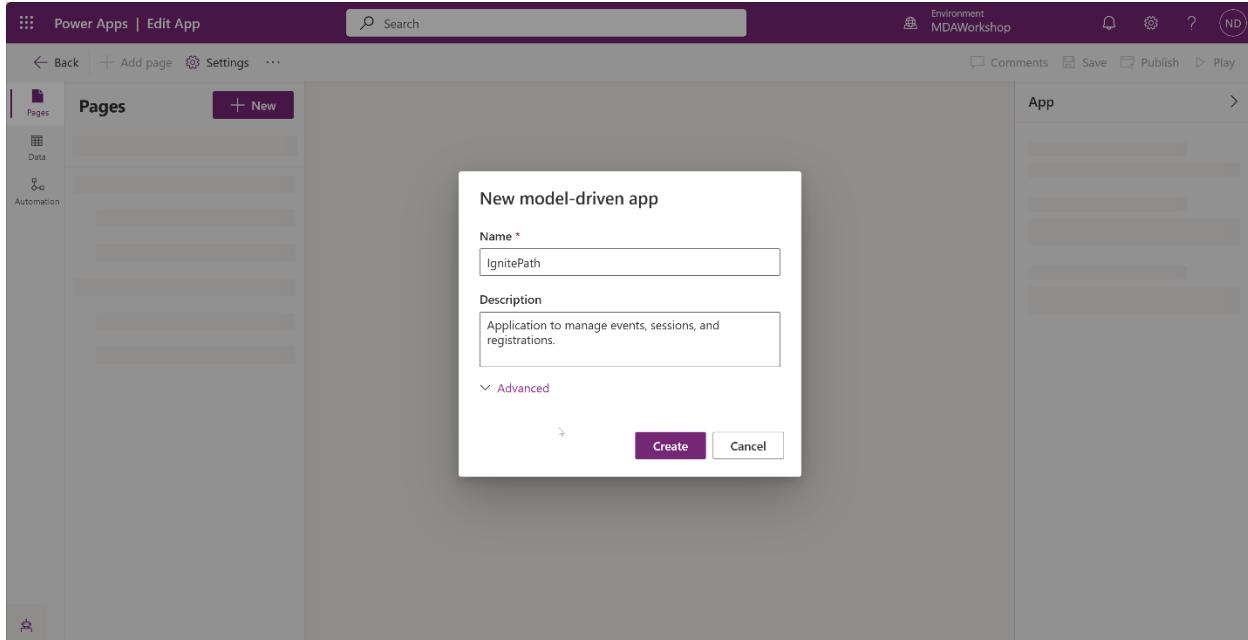
- Select **Save and Open App**. On the pop-up screen, select **Save and Open App** again.



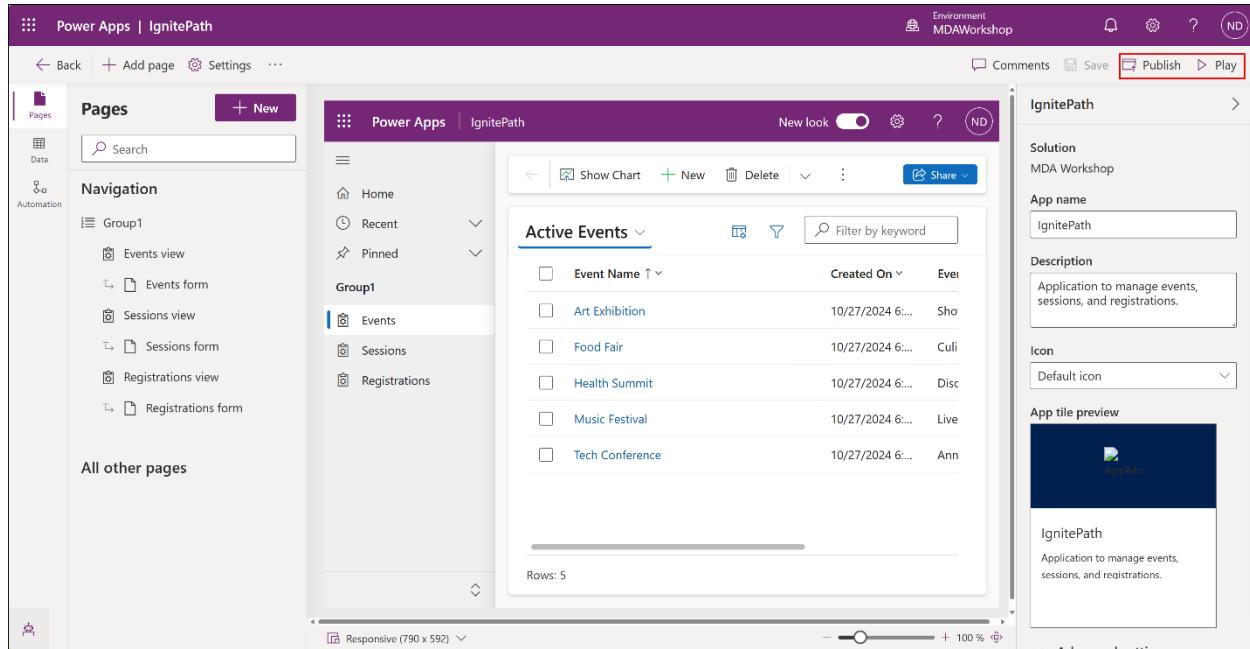
3. Copilot will begin building your app.
4. Provide the following **name** and **description** for your app and select **Create**.

Name: Ignite Path

Description: Application to manage events, sessions, and registrations.



5. The app will generate, and after a few moments, the Model-Driven App Designer will appear. Select **Publish** and then **Play**.



If you received any kind of error message while publishing, simply retry to publish.

6. You now have a working model-driven app, with views, forms, and data relationships, along with the available standard features of a model-driven Power App.

Part 4: Business Process Flows

Create a new Business Process Flow

1. Open your solution and from the main menu, select **+ New > Automation > Process > Business process flow**

The screenshot shows the Power Apps Objects list. The left sidebar shows categories: All (9), Agents (0), Apps (1), Cards (0), Cloud flows (0), DTableSearch (1), DTableSearchEntity (3), Site maps (1), and Tables (3). The main area lists objects under Automation, including Cloud flow, Dataflow, Desktop flow, Process, Action, Business process flow, Workflow, IgnitePath, Registration, and Session. The Business process flow object is highlighted.

2. Enter in the following details for the name and table for the Business Process flow:

Display Name: Session Preparation and select **Session** as the table. Then select **Create**.

The screenshot shows the Power Apps Objects list. The left sidebar shows categories: All (0), Agents (0), Apps (0), Cards (0), Cloud flows (0), and Tables (0). The main area shows a new business process flow being created. The right pane displays the 'New business process flow' dialog. It includes a description: 'Use business process flows to define a set of steps for people to follow to take them to a desired outcome.' The 'Display name *' field contains 'Session Preparation'. The 'Name *' field contains 'mda_sessionpreparation'. The 'Table *' field contains 'Session'. At the bottom are 'Create' and 'Cancel' buttons.

This may take a few moments to open.

3. The canvas will open with the first stage in your business process flow. Expand the title section and change the business process flow name to Session prep checklist

Power Apps

Session Preparation

Process Name *	Session Preparation	Primary Entity
Owner	Nick Doelman	Category
Name *	mda_sessionpreparation	Business Process Flow
Description		

4. Change the display name of the stage to **Proposal**. Select **Apply**.

Power Apps

Session Preparation

Add Cut Copy Paste Delete Snapshot Connector

Session New Stage

Components Properties

Stage

Display Name **Proposal**

Category

Entity Session

Business Rules Business rules for this stage's entity

Global Workflow (0)

Apply Discard

Status: Inactive

5. From the menu, choose **+ Add** and select **Add Stage** from beneath the **Flow** section.

Session Preparation ▾



Add



Cut



Copy



Paste



Delete

Flow

Add Stage



Add a new stage to the process flow.

Add Condition

Composition

Add Data Step

Add Workflow

Add Action Step

Add Flow Step (Preview)

Details ▾

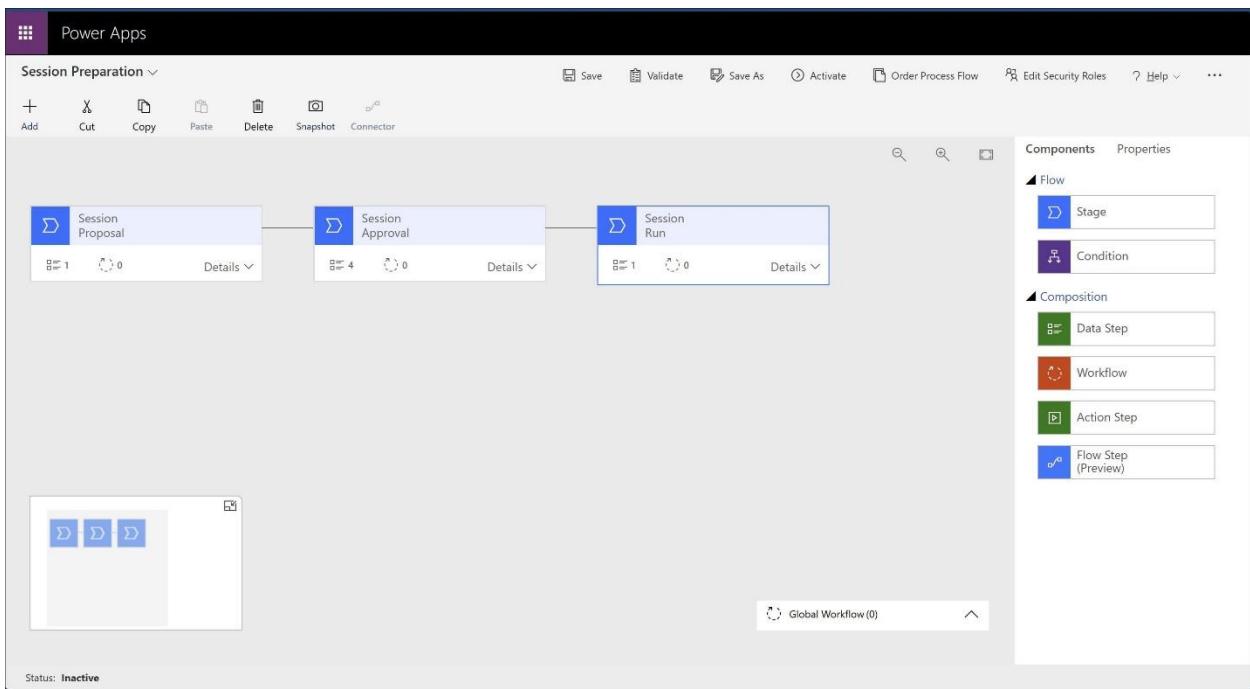
6. Then select the + that appears to the right of the current stage in the canvas.



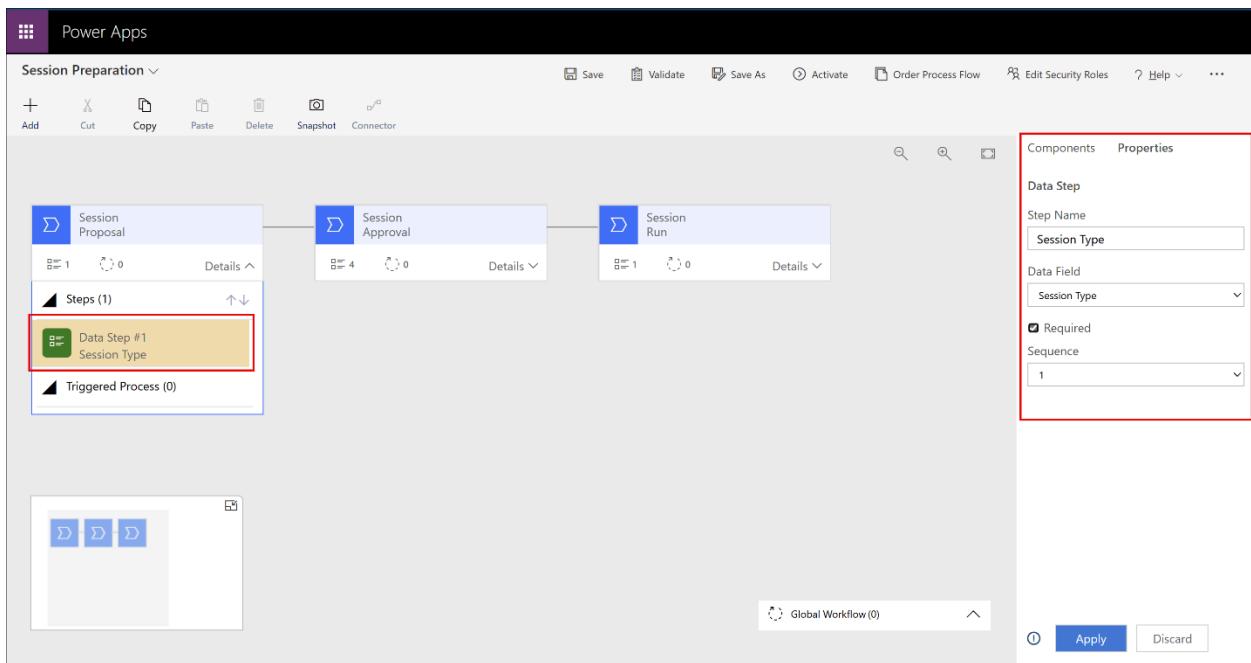
7. Repeat and add the following stages to your business process flow, be sure to select **Apply** after adding and updating each step:

Approval

Run



8. Expand the first stage by selecting **Details** on the stage and then expand the **Steps** section. Select the data step and choose the **Session Type** data field (or a different data field depending on what you created in your table.) Select **Apply** and then move on to choose the next stage: **Approval**.



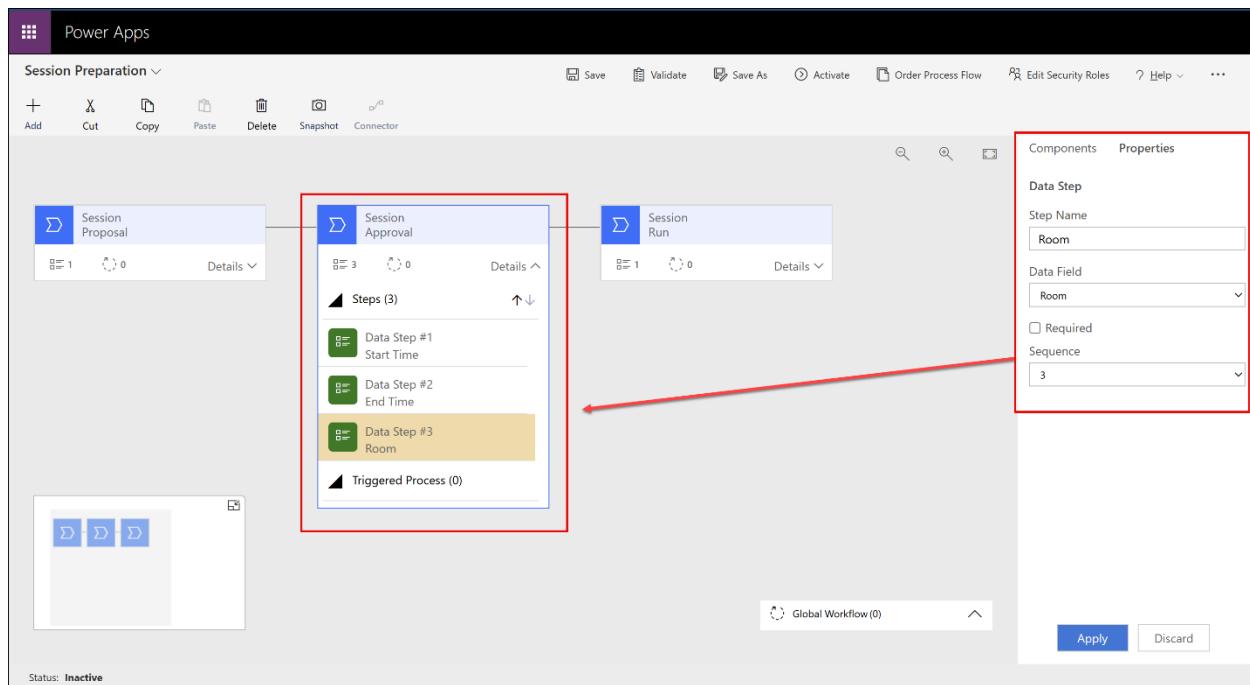
9. Expand the *Approval* stage and add additional data steps.



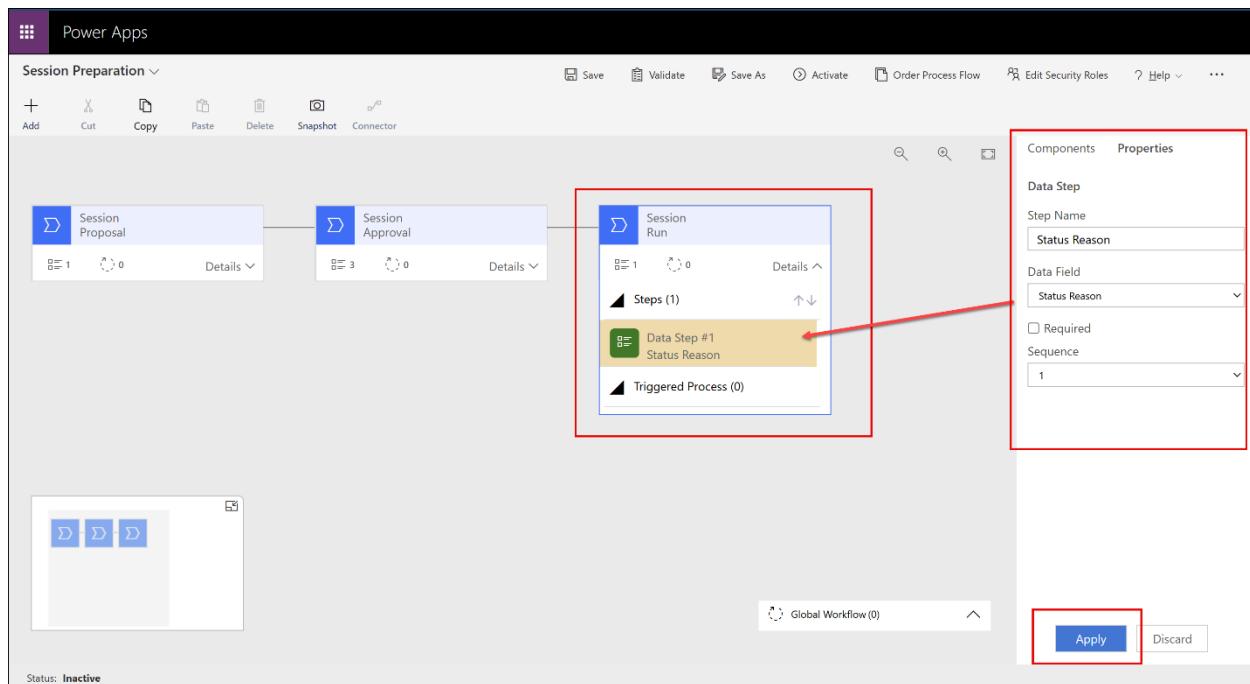
10. For example,

- *Start Time*
- *End Time*
- *Room*.

Be sure to select **Apply**.

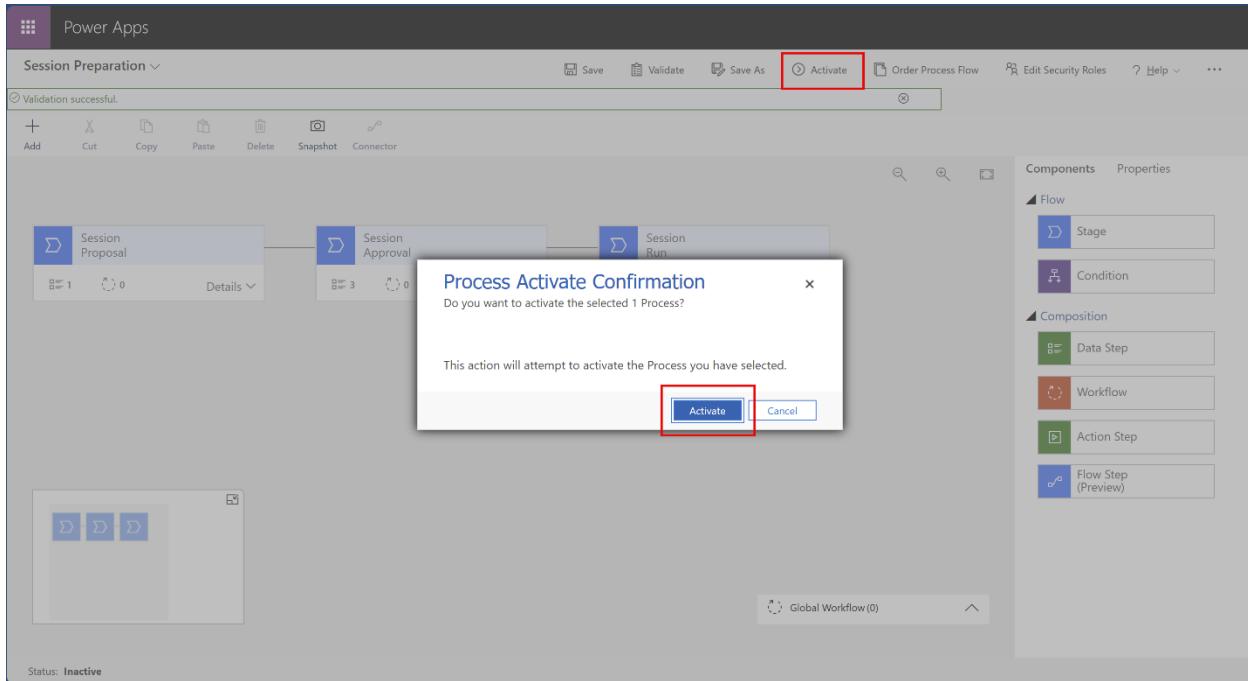


11. For the remaining step, add the *Status Reason* field (or any other field that makes sense for your table). Be sure to select **Apply**.

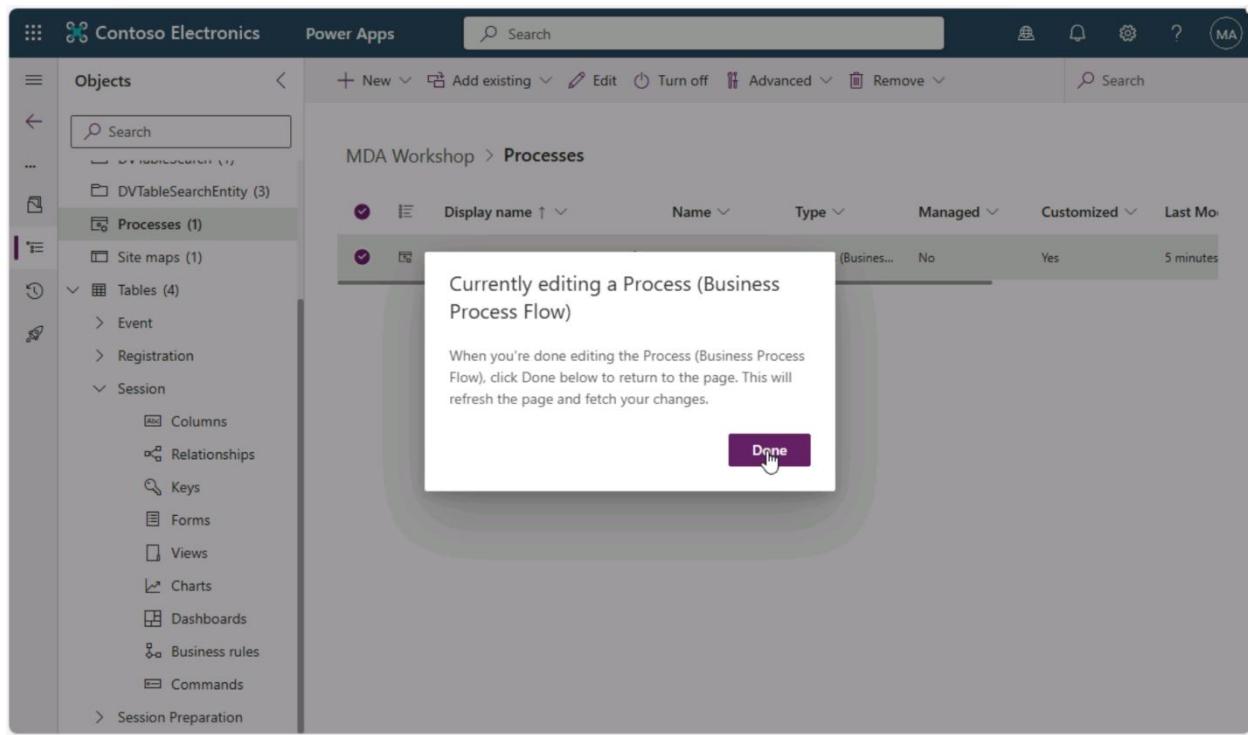


12. Select **Save**

13. Select **Activate** to activate your business process flow. If you get any validation errors, resolve these first.



14. Close the business process flow window and choose **Done**.



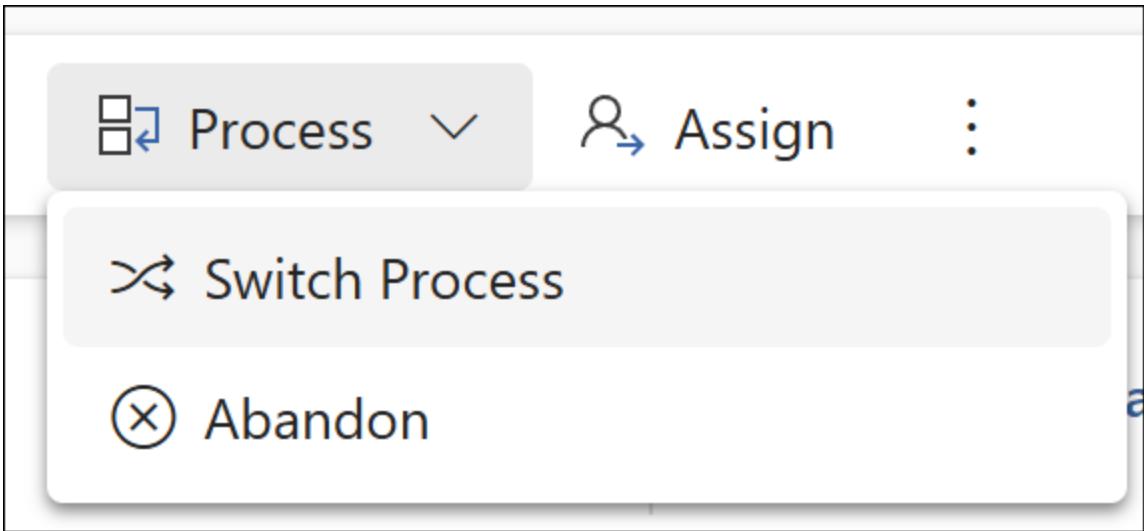
15. Navigate back to the solutions list on the Power Apps home page and choose **Publish all customizations**.

The screenshot shows the Microsoft Power Apps Solutions page. On the left, there's a navigation bar with options like Home, Create, Learn, Apps, Tables, Flows, Solutions, More, and Power Platform. The Solutions section is selected. At the top, there are buttons for New solution, Import solution, Open AppSource, Publish all customizations (which is highlighted with a red box), and a search bar. Below this, a modal window titled "Set your preferred solution" asks where updates will be saved. To the right, it shows the "Current preferred solution" as "MDA Workshop" with a "Manage" button. The main area lists solutions: "MDA Workshop" (Display name, Name: MDAWorkshop, Created: 24 minutes ago, Version: 1.0.0.1, Publisher: Model driven ap..., Status: Hasn't been run); "Common Data..." (Display name, Name: Cr2b814, Created: 11 hours ago, Version: 1.0.0.0, Publisher: CDS Default Publ..., Status: Hasn't been run); and "Default Solution" (Display name, Name: Default, Created: 11 hours ago, Version: 1.0, Publisher: Default Publisher..., Status: Not supported for analy...).

16. Start your model-driven app and create a new **Session** record, and **Save** the record. Note how you see the business process flow progress bar across the top of the form. Step through the process to see how a user could measure progress of their task and update the appropriate information at each stage.

The screenshot shows a Microsoft Power Apps form for a "Session" record. The title bar says "Power Apps | IgnitePath". The left sidebar has sections for Home, Recent, Pinned, Committee Management, Events, Sessions (which is selected), and Registrations. The main form shows a "Session Preparation" step (Active for 17 days) and a "Proposal" step. A progress bar at the top indicates the flow from Preparation to Proposal. The form fields include: Room (Mediterranea), Owner (Nick Doelman), Session Type (Networking), Start Time (10/2/2023), End Time (10/2/2023), and Event (Tech Conference). A modal window titled "Approval (16 D)" is open, showing "Active for 16 days" and fields for Start Time (10/2/2023 at 4:00 AM), End Time (10/2/2023 at 5:00 AM), and Room (Mediterranea). There is a "Run" button and a "Next Stage" button in the modal.

17. To activate a business process flow on an existing record, choose **Process** and select **Switch Process**.



18. Select the process

The screenshot shows a 'Switch Process' dialog box. The title is 'Switch Process' and there is a close button 'X' in the top right corner. Below the title, a message says 'Select a different process.' There is a search bar with a checkmark icon and the placeholder 'Instance Name'. To the right of the search bar are filters for 'Modified On' and 'Modified By'. A list of processes is displayed, with 'Session Preparation' selected and highlighted by a red box. To the right of the list, the date '2024-11-05' and the name 'Angeliki Pa...' are shown. At the bottom left is a link 'Archived Processes >>'. At the bottom right are two buttons: a blue 'OK' button with a red border and a white 'Cancel' button.

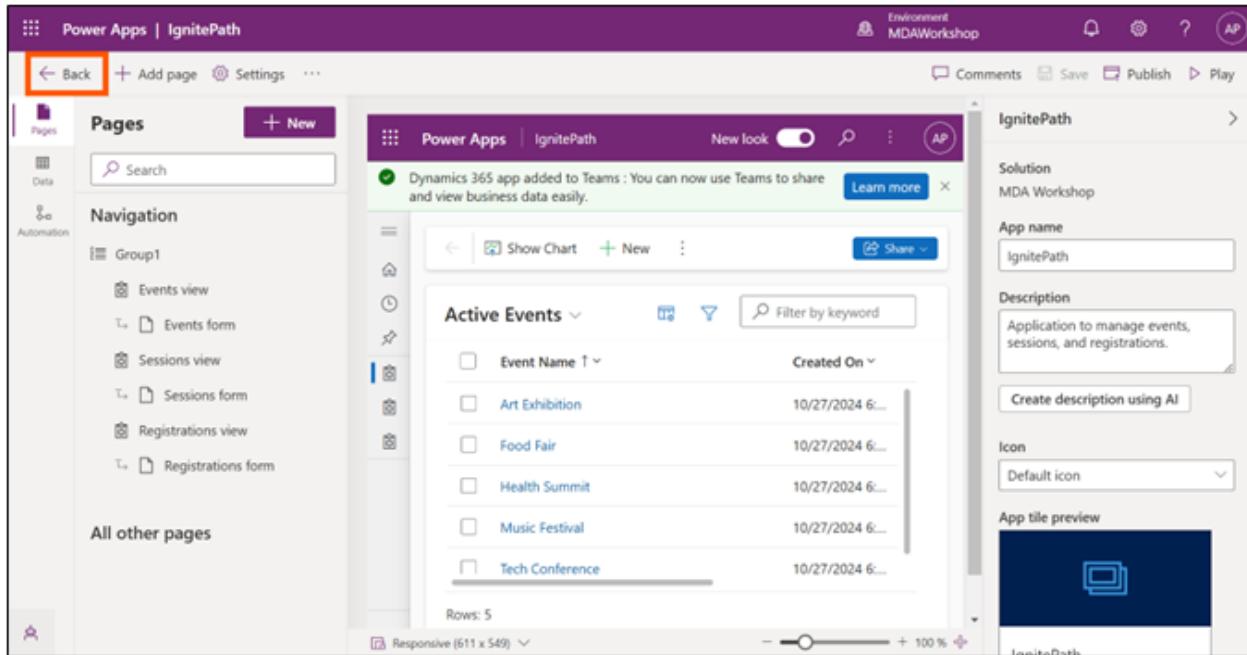
Part 5: Modify forms and views

Instructions

Whilst we have out-of-the-box views and forms, there are many ways to customize them.

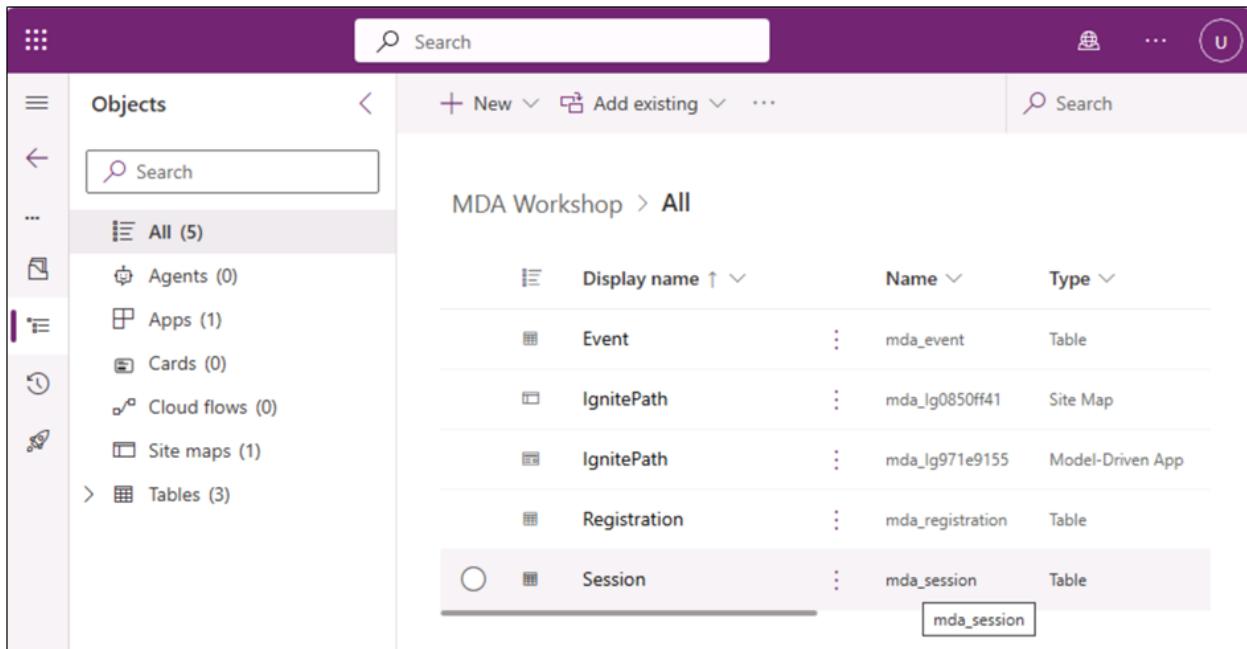
Let's explore this. Go back to your solution app tab with your new IgnitePath app.

1. Select **Back**.



The screenshot shows the Power Apps studio interface. On the left, there's a navigation sidebar with 'Pages' selected. A red box highlights the 'Back' button in the top-left corner of the main content area. The main content area displays a list of 'Active Events' with columns for 'Event Name' and 'Created On'. To the right, there's a panel for managing the 'IgnitePath' app, including fields for 'App name' (set to 'IgnitePath'), 'Description' (a placeholder text), and 'Icon' (set to 'Default icon').

2. You should be in the solution.



The screenshot shows the Microsoft Dataverse 'Objects' list. The left sidebar shows categories like 'Objects', 'Agents', 'Apps', 'Cards', 'Cloud flows', 'Site maps', and 'Tables'. An arrow points to the 'Tables' category, which is expanded to show three items: 'Event', 'IgnitePath', and 'Registration'. Below these, another 'Tables' category is shown. The main list area shows a table with columns 'Display name', 'Name', and 'Type', listing 'Event' (Table), 'IgnitePath' (Site Map), 'IgnitePath' (Model-Driven App), 'Registration' (Table), and 'Session' (Table). The 'Session' row has a red box around its 'Name' field, 'mda_session'.

3. Now, select the arrow left of the **Tables** to expand the list of available tables you built.

The screenshot shows the Microsoft Power Apps interface. On the left, there's a navigation pane titled 'Objects' with a search bar. Below it, under 'Apps (1)', there are several items: Cards (0), Cloud flows (0), Copilots (0), DVTableSearch (1), DVTableSearchEntity (3), Processes (1), Site maps (1), and Tables (3). The 'Tables (3)' item is highlighted with a red box. The main area shows a table titled 'MDA Workshop > Apps' with one row: IgnitePath (mda_1g744683da, Model-Driven App, No, Yes, 6 days ago).

4. As the list expands, select the arrow on the left of *Session*.

This screenshot is similar to the previous one, but the 'Tables (3)' item has been expanded, revealing three sub-items: Event, Registration, and Session. The 'Session' item is now highlighted with a red box.

5. Now the list has expanded, select **Forms** so we can customize the main record form for the sessions.

The screenshot shows the Microsoft Power Apps interface. On the left, there's a navigation pane titled 'Objects' with a search bar. Below it, there are several categories: 'Processes (1)', 'Site maps (1)', 'Tables (3)' (which is expanded to show 'Event', 'Registration', and 'Session'), and 'Forms'. The 'Forms' item under 'Session' is highlighted with a red box. The main content area shows a table titled 'MDA Workshop > Apps' with one row: 'IgnitePath' (Name: mda_lg744683da, Type: Model-Driven App, Managed: No, Customized: Yes, Last Modified: 6 days ago). The top right of the screen shows the environment name 'MDAWorkshop'.

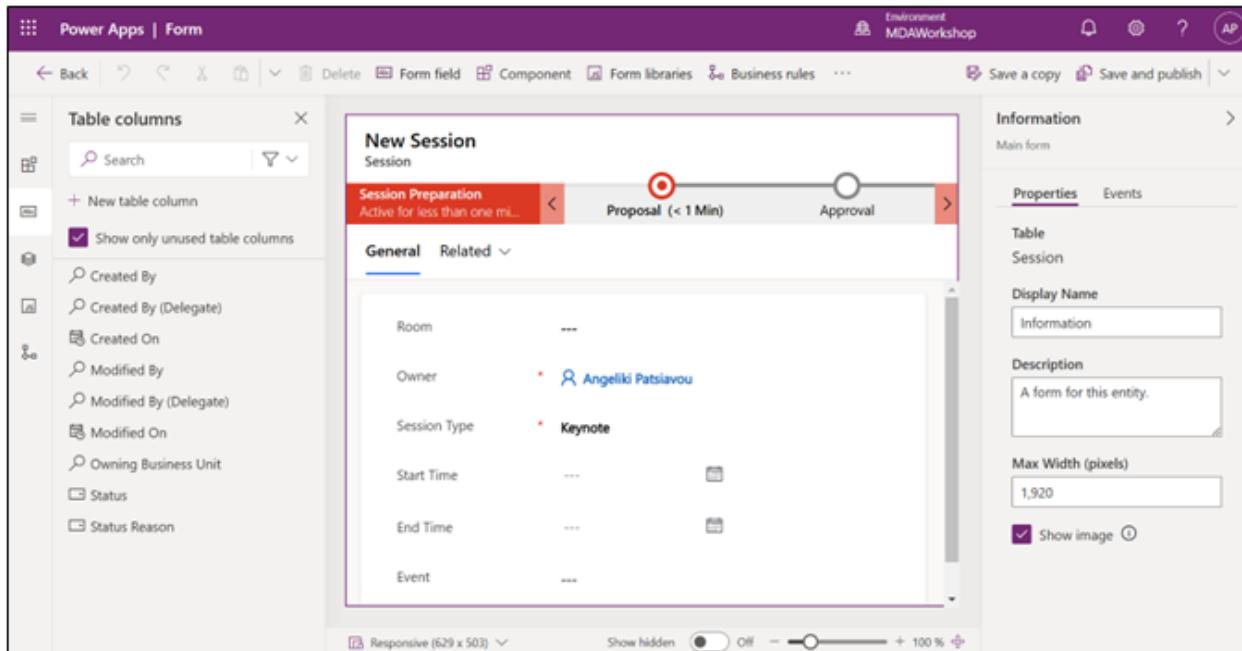
Just as a reminder, when we created our app with Copilot, we get by default a **Main Form** called **Information**.

6. Select the **Information** form so we can edit it.

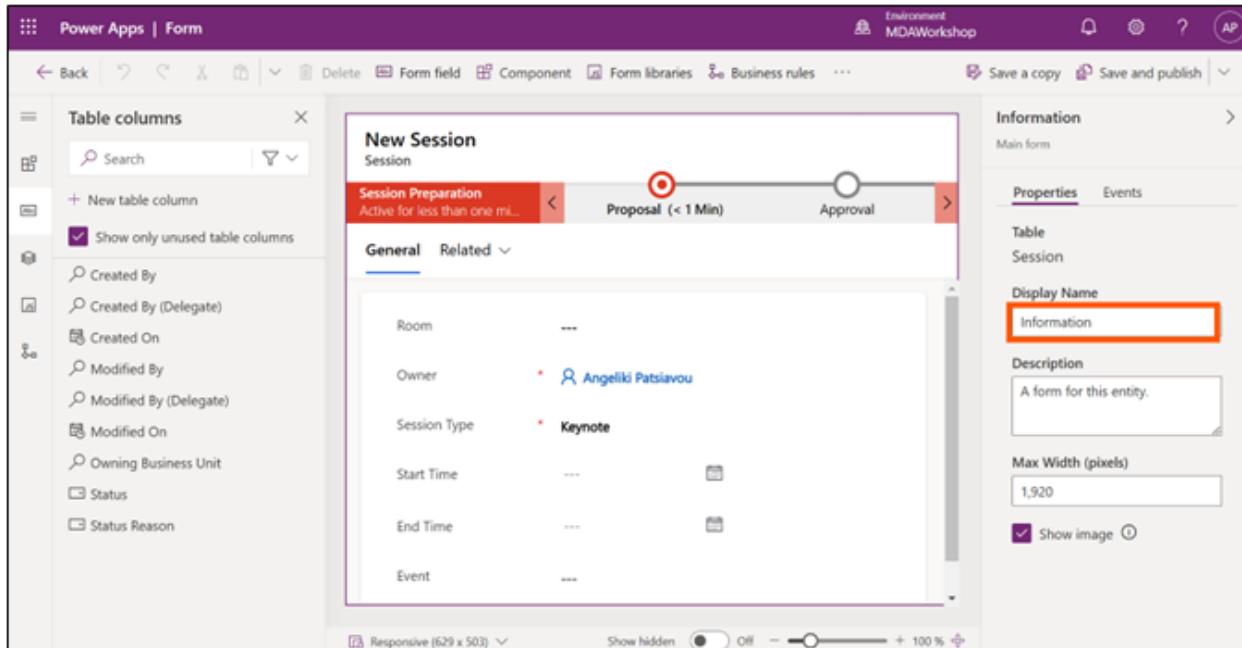
This screenshot is similar to the previous one but focuses on the 'Forms' list for the 'Session' table. The 'Forms' item in the navigation pane is highlighted with a red box. In the main content area, the 'Forms' list for the 'Session' table is shown with three entries: 'Information' (Name: Information, Form type: Card, Status: On, Managed: No, Customized: Yes, Customizable: Yes), 'Information' (Name: Information, Form type: Quick View, Status: On, Managed: No, Customized: Yes, Customizable: Yes), and 'Information' (Name: Information, Form type: Main, Status: On, Managed: No, Customized: Yes, Customizable: Yes). The 'Main' form is highlighted with a red box. The top right of the screen shows the environment name 'MDAWorkshop'.

We can now see what the default Main Form looks like as Copilot has created it.

7. Let's make small amends to personalise it.



8. First, let's amend the **Display Name** of the Main Form from *Information* to **Session Catalog Profile**.



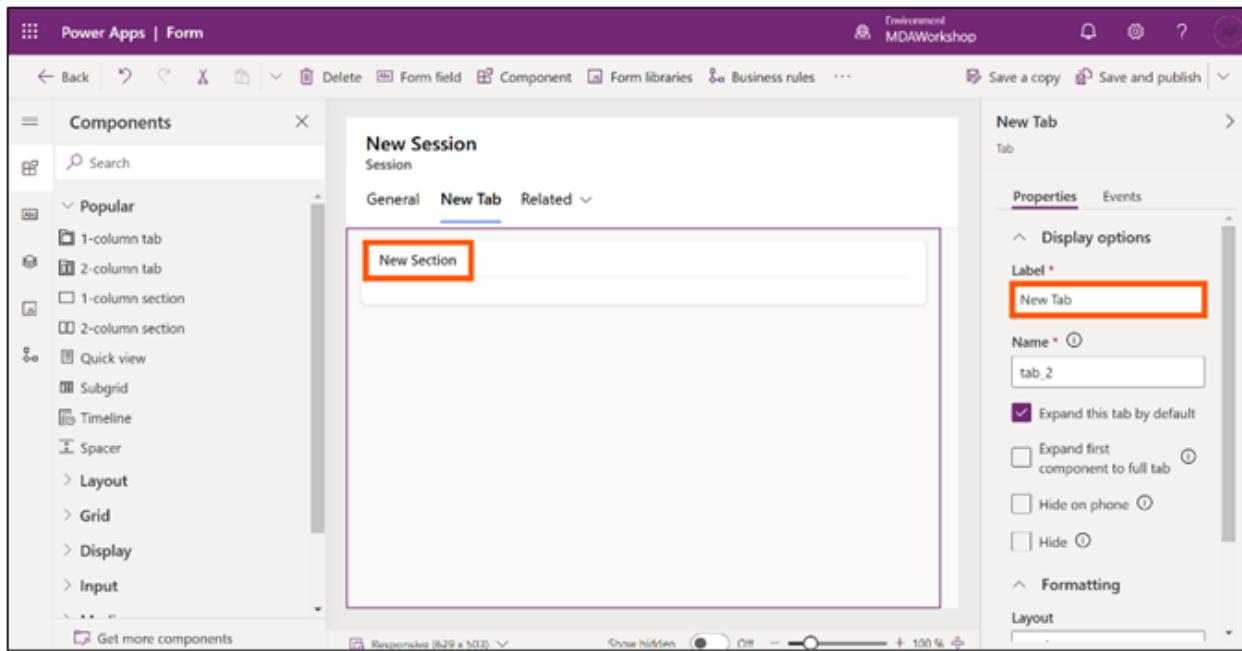
9. Select the **Components** icon at the top left.

The screenshot shows the Power Apps Form builder interface. On the left, a sidebar titled 'Table columns' is open, showing a list of columns: Created By, Created By (Delegate), Created On, Modified By, Modified By (Delegate), Modified On, Owning Business Unit, Status, and Status Reason. A red box highlights the 'Table columns' icon in the sidebar. The main area is titled 'New Session' and contains tabs for 'General' and 'Related'. Under 'General', there are fields for Room (with a dropdown menu), Owner (a lookup field set to Angeliki Patslavou), Session Type (set to Keynote), Start Time, End Time, and a large text input field labeled 'Event'. The properties panel on the right is set to 'Event' and shows various display options and label settings.

10. Select the 1-column tab. This will add a new tab to the right of the **General** tab.

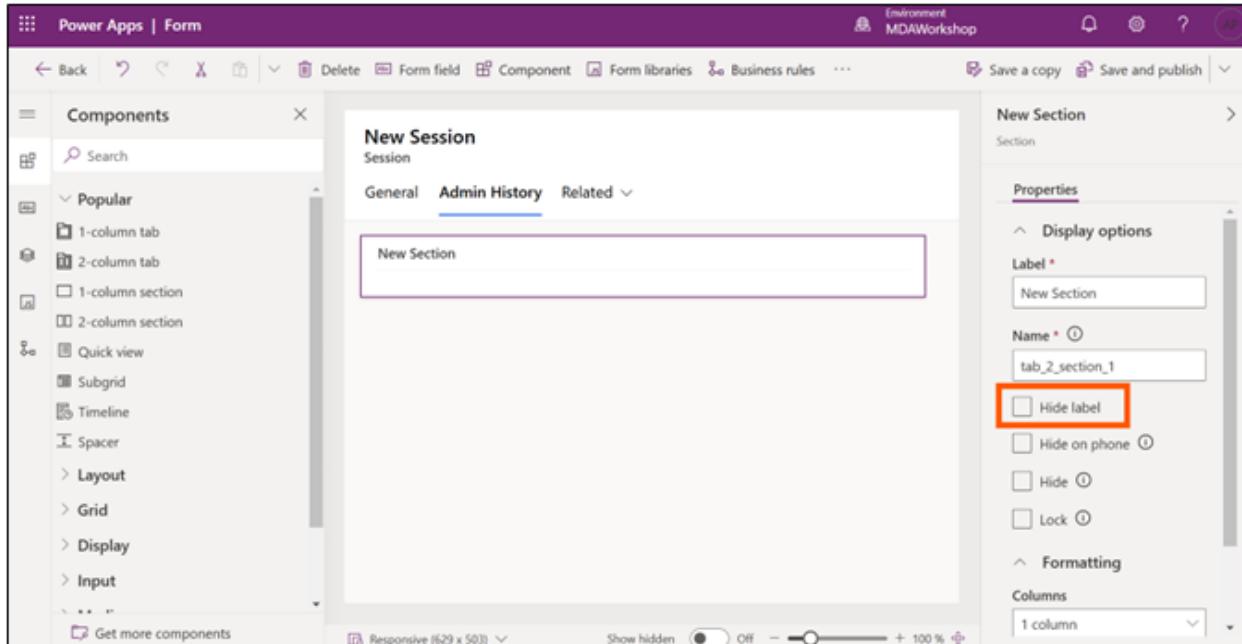
The screenshot shows the Power Apps Form builder interface with the 'Components' sidebar expanded. The 'Popular' section is open, and the '1-column tab' option is highlighted with a red box. The main area is titled 'New Session' and contains the same fields as the previous screenshot. The properties panel on the right is set to 'Event' and shows various display options and label settings.

11. Now, let's amend the New Tab label to Admin History. Then, select **New Section**.

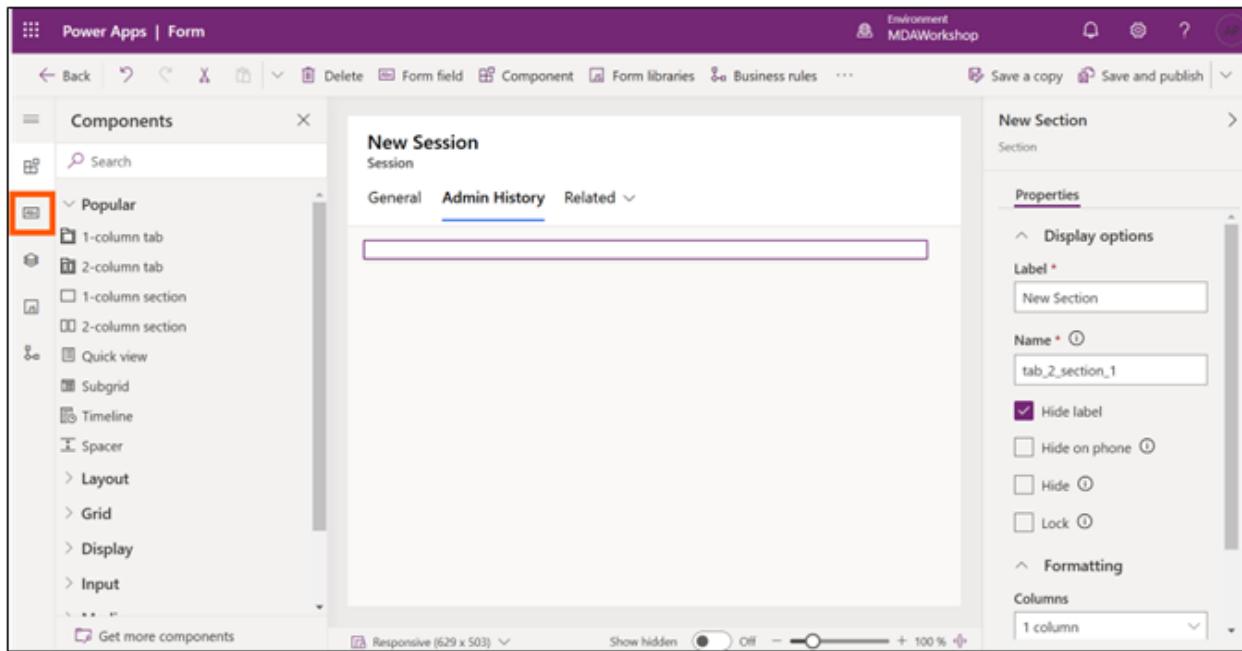


12. This has opened the section details.

13. We do not want to show a label as it is a simple informational tab, so select **Hide label**.



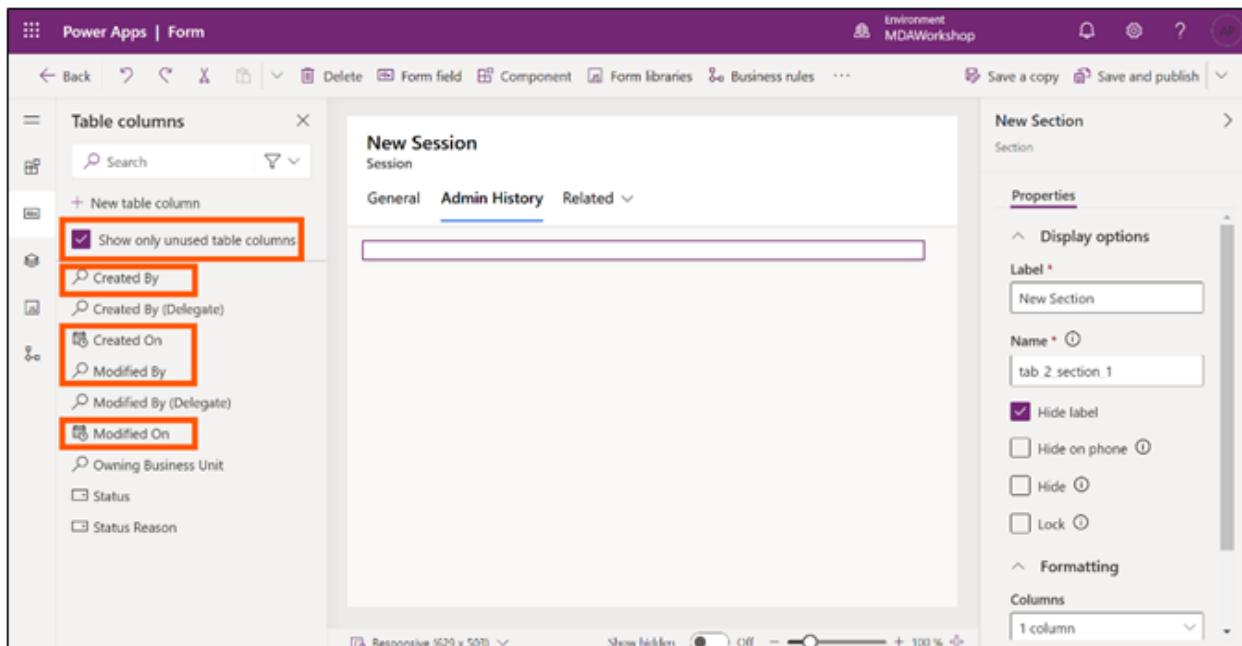
14. Let's select the **Table columns** icon to go back to our columns list.



15. Let's drag and drop the following columns into our new section:

- Created By
- Created On
- Modified By
- Modified On

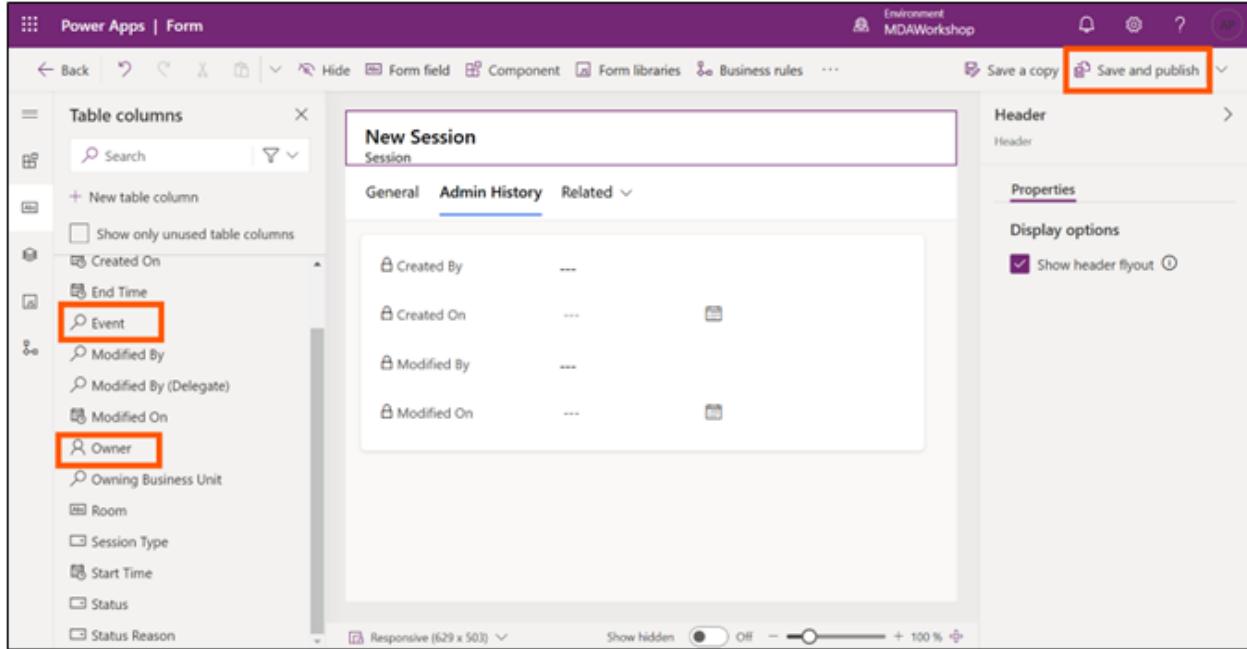
16. Also, untick **Show only unused table columns**.



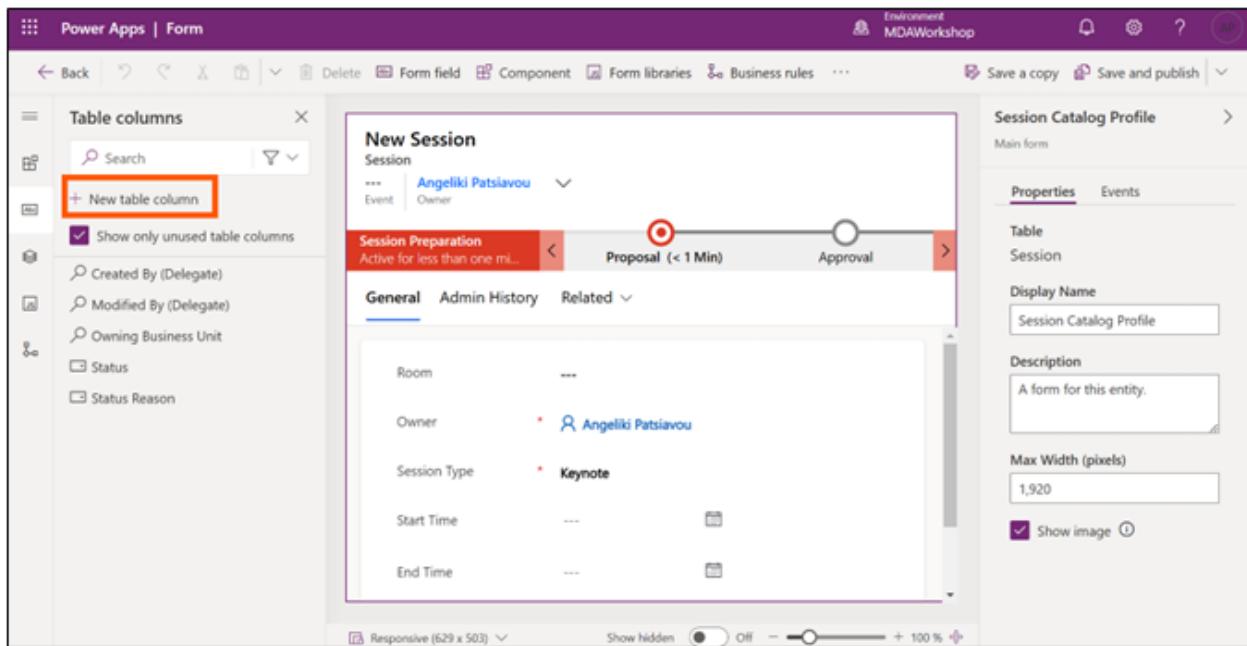
We would like to add in the header flyout some key record data.

17. In particular, let's drag **Event** and **Owner**.

18. We are ready to select **Save and publish**.



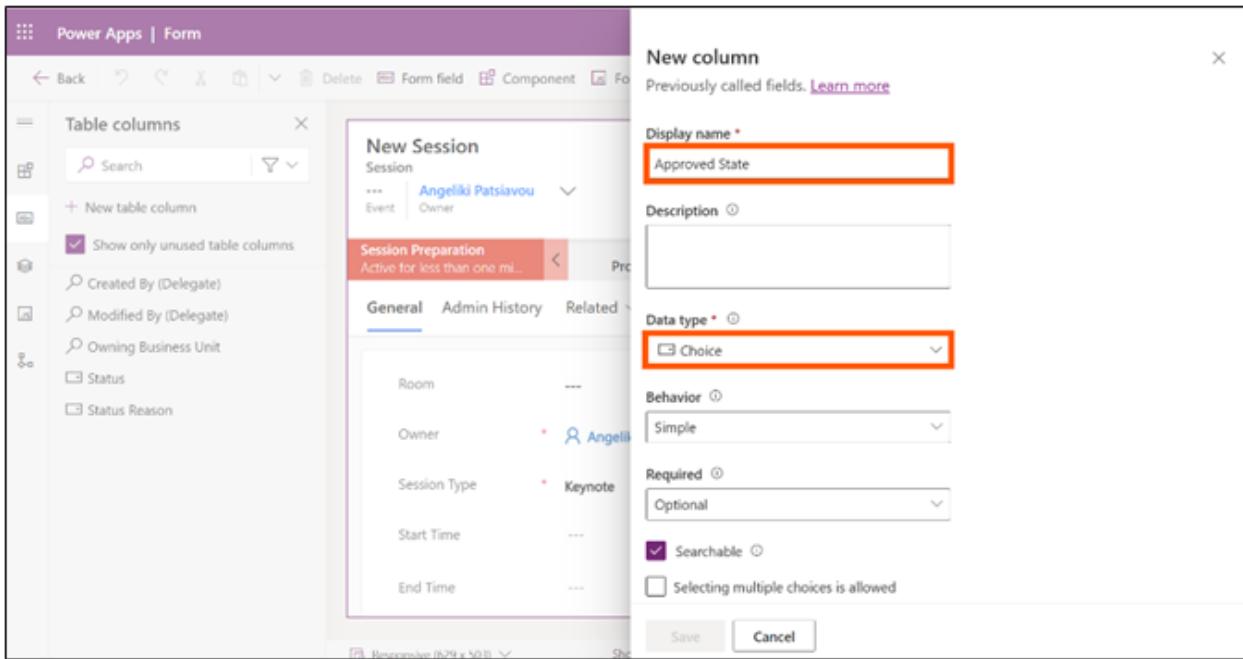
19. Select + New table column.



20. In the new side panel, let's give our new column the **Display name** of Approved State.

21. Please also select **Data type** as **Choice**.

22. Scroll down.

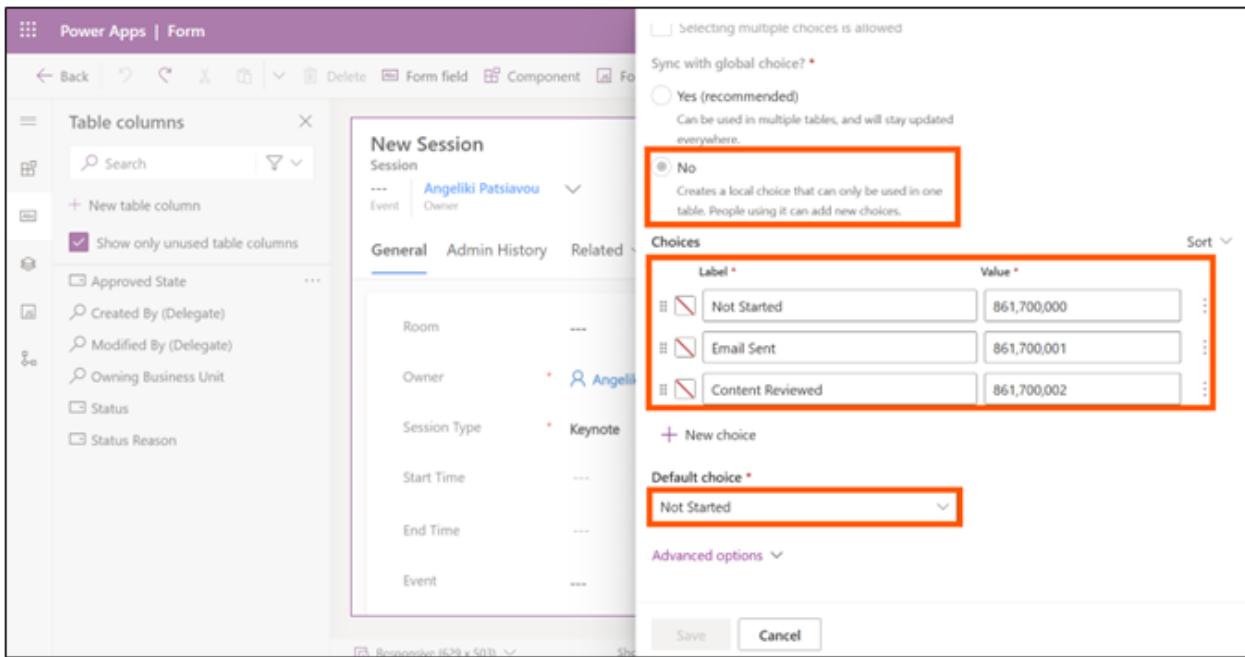


23. Select **No** in the **Sync with global choice?** radio button.

24. In **Choices**, add:

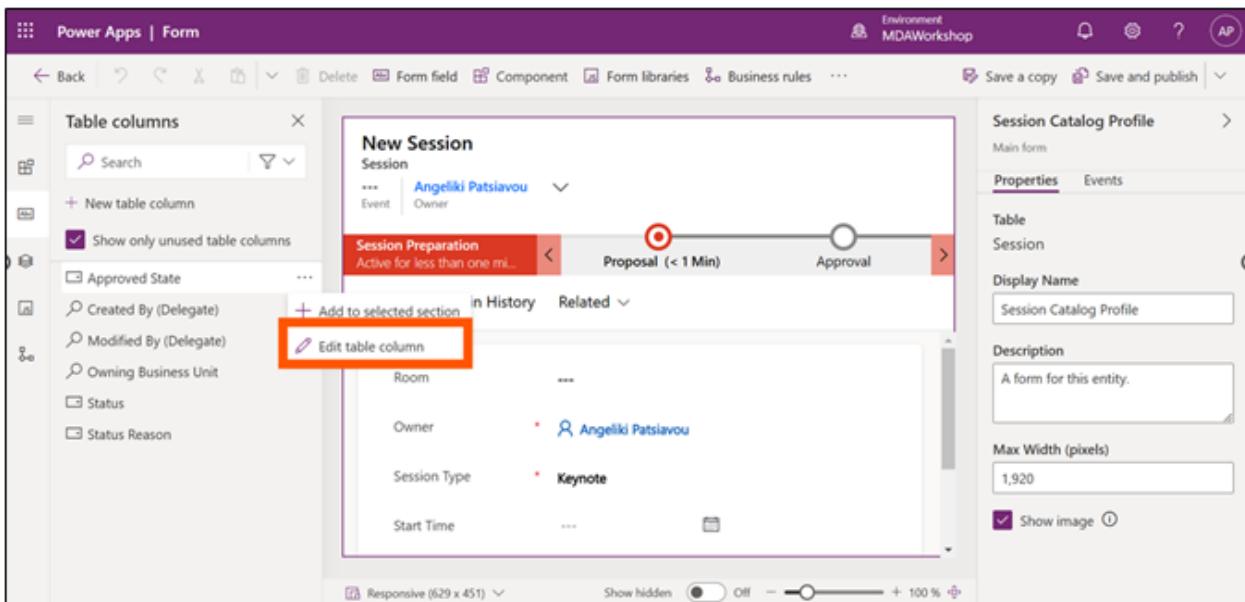
- Not Started
- Email Sent
- Content Reviewed

25. In **Default choice**, select **Not Started**.



26. Select **Save**.

27. After it saves, select from the ellipsis of the **Approved State** and select **Edit table column**.

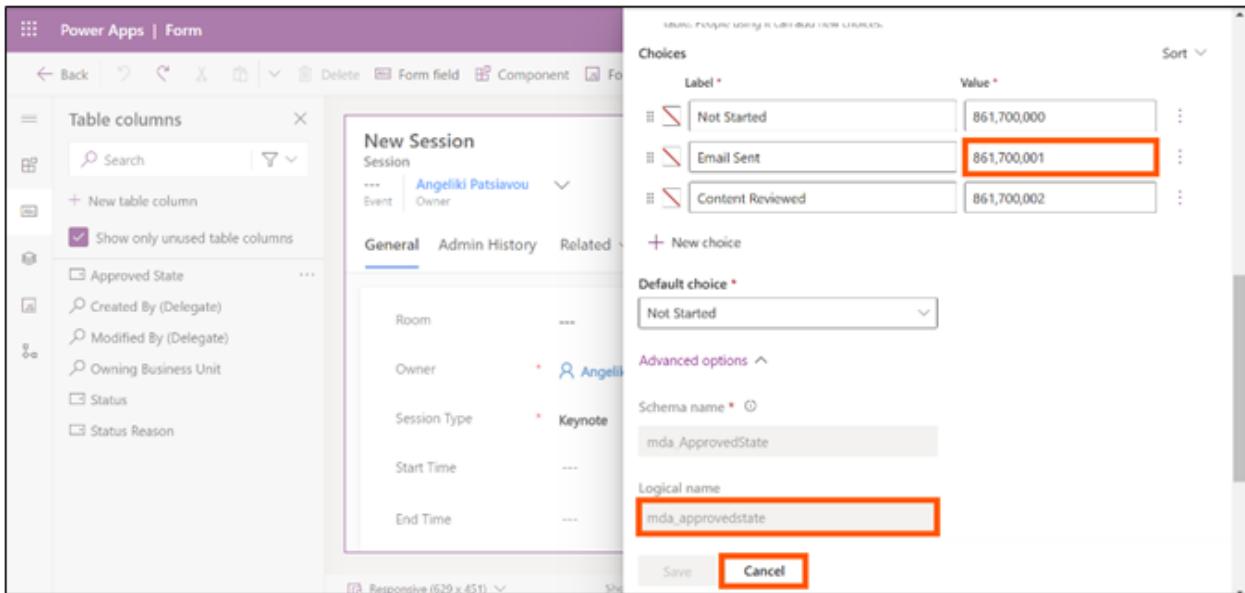


Use **Notepad** to copy the values

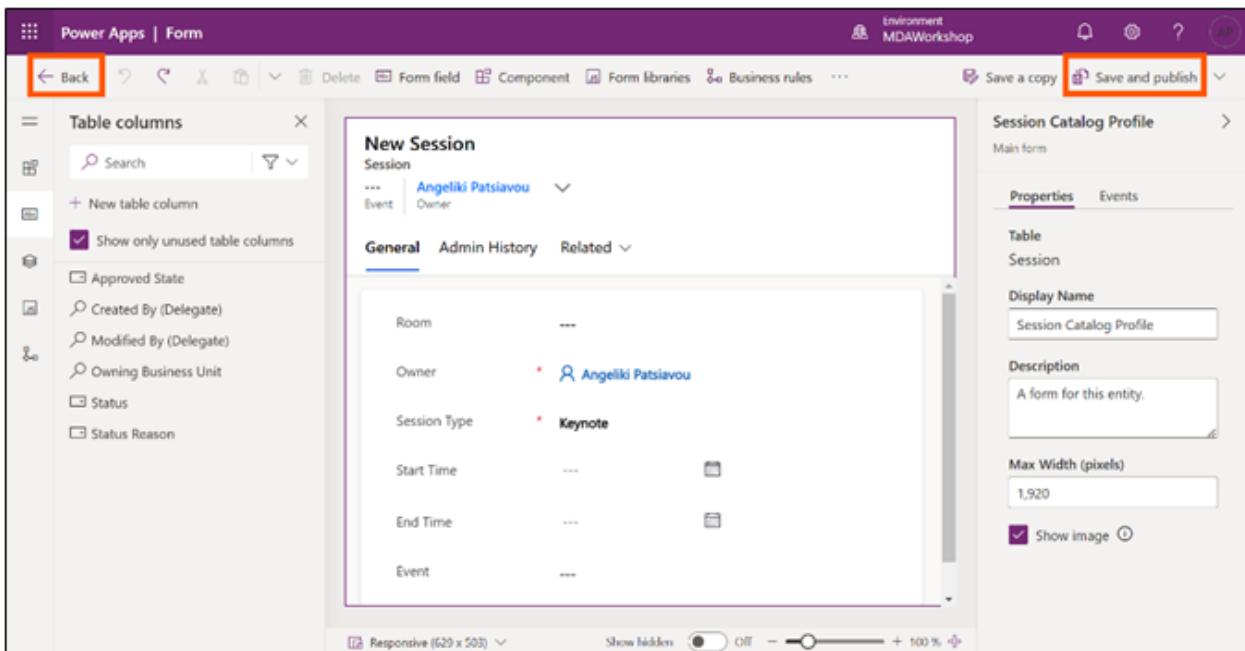
Note down the following as we will use it later in our Power Automate flow, the values may appear different in your environment:

- Integer Value of Email Sent: 861700001
- Logical name of Approved State: mda_approvedstate

28. Then, select the **Cancel** button.



29. Select **Save and publish** and then select **Back**;



30. Select **Processes**.

The screenshot shows the Power Apps portal interface. The left sidebar is titled 'Objects' and lists various categories: All (10), Apps (1), Cards (0), Cloud flows (0), Copilots (0), DVTableSearch (1), DVTableSearchEntity (3), Processes (1) (which is highlighted with a red box), Site maps (1), and Tables (3). The main content area shows a list of forms under 'MDA Workshop > Tables > Session > Forms'. The columns are Name, Form type, Status, Managed, Customized, and Customizable. The data rows are:

Name	Form type	Status	Managed	Customized	Customizable
Information	Card	On	No	Yes	Yes
Information	Quick View	On	No	Yes	Yes
Session Catalog Profile	Main	On	No	Yes	Yes

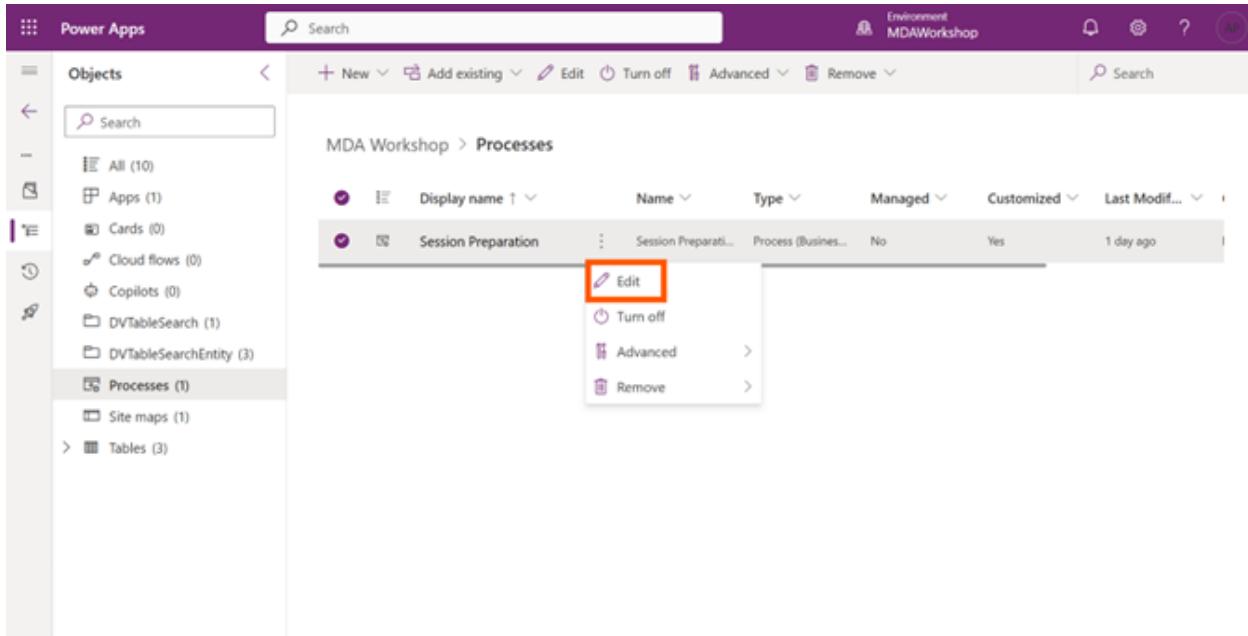
31. Select the three ellipsis dots on the right of **Session Preparation**.

The screenshot shows the Power Apps portal interface. The left sidebar is titled 'Objects' and lists various categories: All (10), Apps (1), Cards (0), Cloud flows (0), Copilots (0), DVTableSearch (1), DVTableSearchEntity (3), Processes (1) (which is highlighted with a red box), Site maps (1), and Tables (3). The main content area shows a list of processes under 'MDA Workshop > Processes'. The columns are Display name, Name, Type, Managed, Customized, and Last Modified. The data row is:

Display name	Name	Type	Managed	Customized	Last Modified
Session Preparation	Session Preparation	Process (Business)	No	Yes	1 day ago

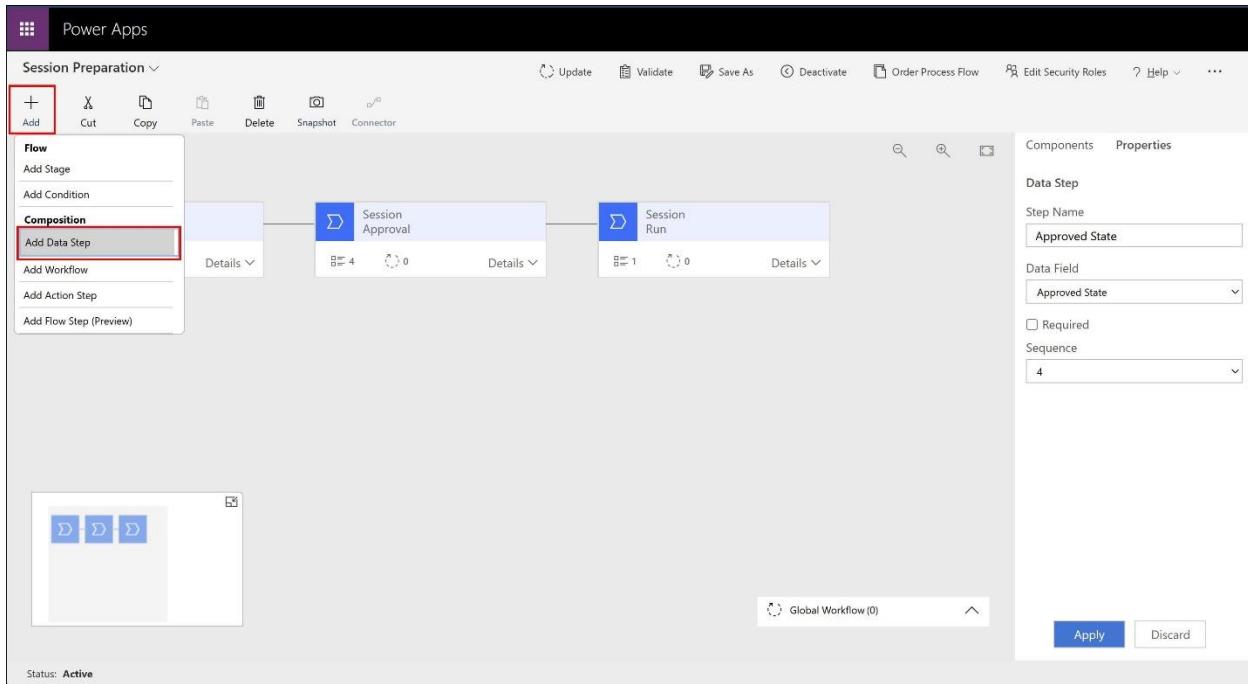
32. Select **Edit**.

The Business Process Flow editor for the session preparation lifecycle will open in a new tab.



33. Select + Add and then select Data step

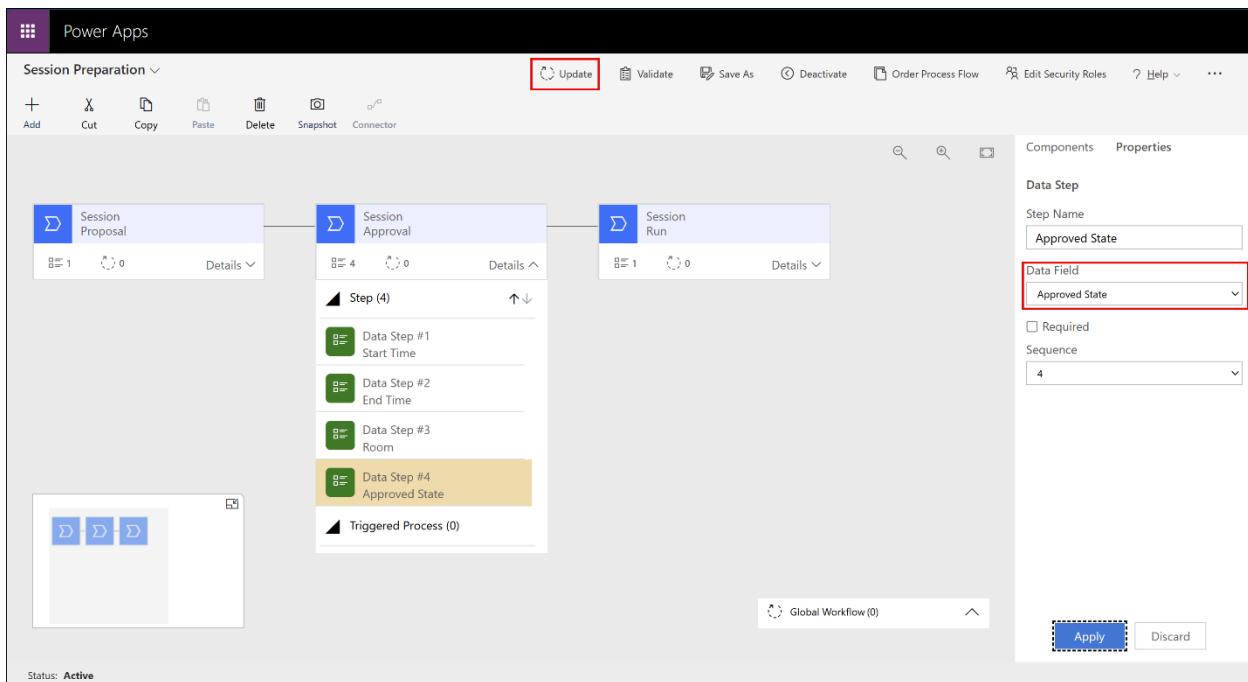
Our intention is to add a new column for content review in the **Approval** stage, select the **Approval** stage box.



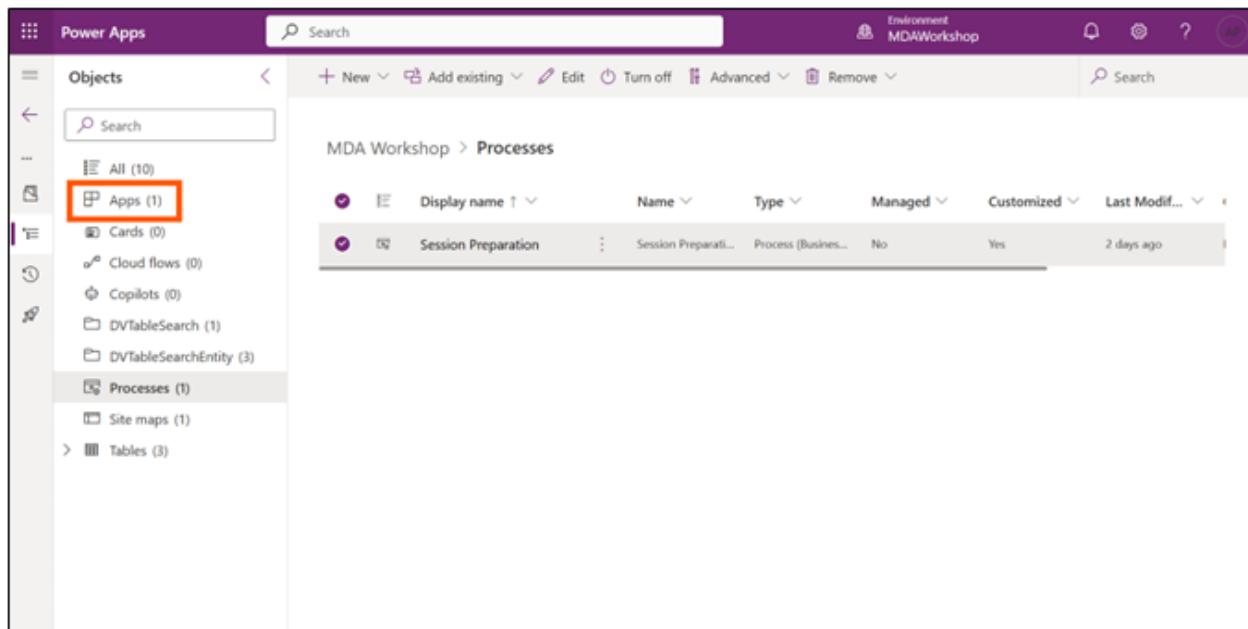
You will see a **Data Step** was added as a **New Step** at the bottom of the **Approval** stage.

34. Select **Approved State** in the **Data Field** and select **Apply** after.

35. Select **Update** to save your changes to the Business Process Flow.



36. Go back to the maker portal in your previous tab and select **Apps**.



37. Select the **Publish all customizations** button.

This will save all the changes we just made.

Part 6: Build a Power Automate flow for your app

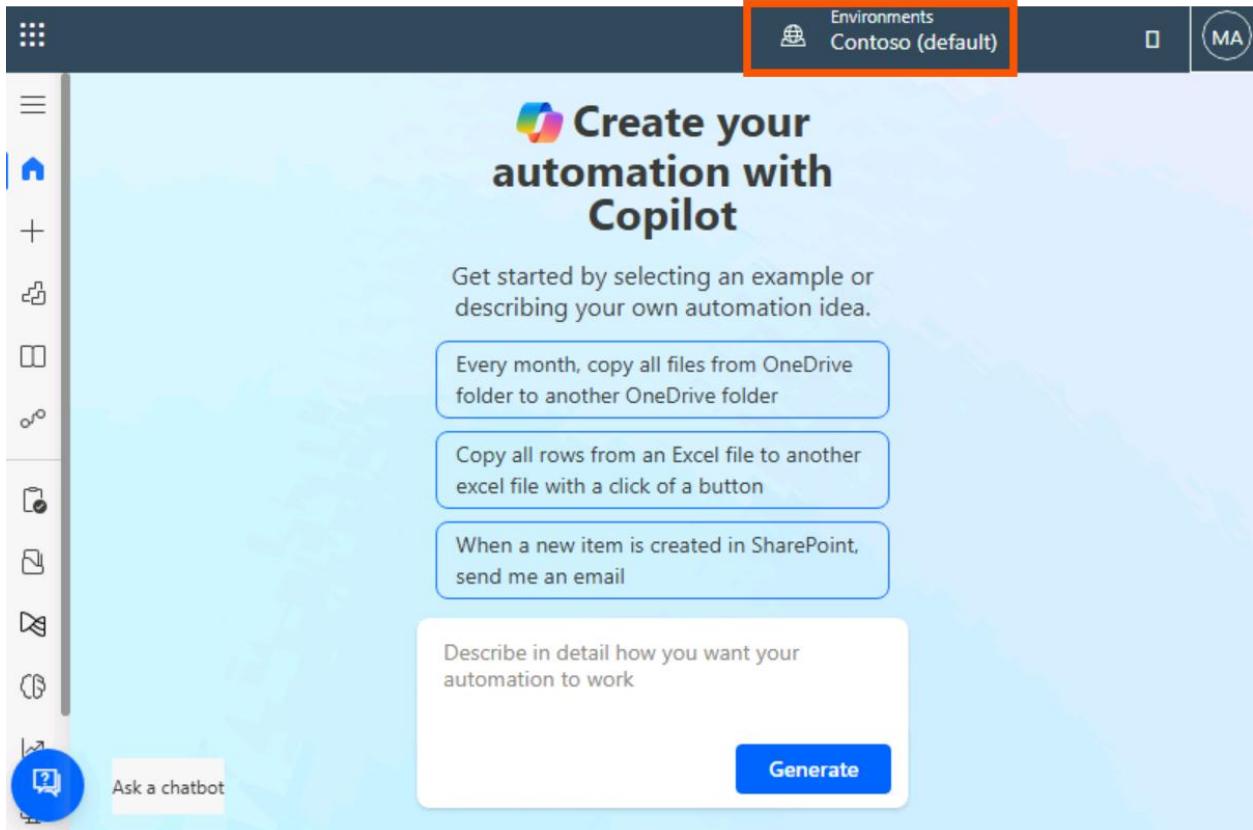
Instructions

1. Go to <https://make.powerautomate.com/>

We are ready to build our session content review flow.

But first, we have to change our environment.

2. Select the environment selector; it will say something like **Contoso (default)**.



3. Select the developer environment used earlier.

The screenshot shows the Power Automate web interface. On the left is a navigation sidebar with options like Home, Create, Templates, Learn, My flows, Approvals, Solutions, Process mining, AI hub, Automation center (previous), Desktop flow activity, and More. Below the sidebar is a 'Power Automate' button and an 'Ask a chatbot' link. The main area has a title 'Create your automation with Copilot' and a sub-section 'Get started by selecting an example or describing your automation idea.' It lists three examples: 'Every month, copy all files from OneDrive folder to another OneDrive folder', 'Copy all rows from an Excel file to another Excel file with a click of a button', and 'When a new item is created in SharePoint, send me an email'. Below these is a text input field 'Describe in detail how you want your automation to work...'. To the right, a 'Select environment' dialog is open, showing a list of environments: MSFT (default) (selected), MDAWorkshop (highlighted with a red box), EventDemo-EDM-US, EMEA Demo 2024, BCDemo2024, Angeliki Patsiavou, Nick Doeiman, PlannerEval, and Other environments (0). A search bar and a 'Filter' button are also present in the dialog.

We are now ready to ask Copilot in Power Automate to create our automated email flow.

4. Copy and paste the below prompt and select the **Generate** button to get started.

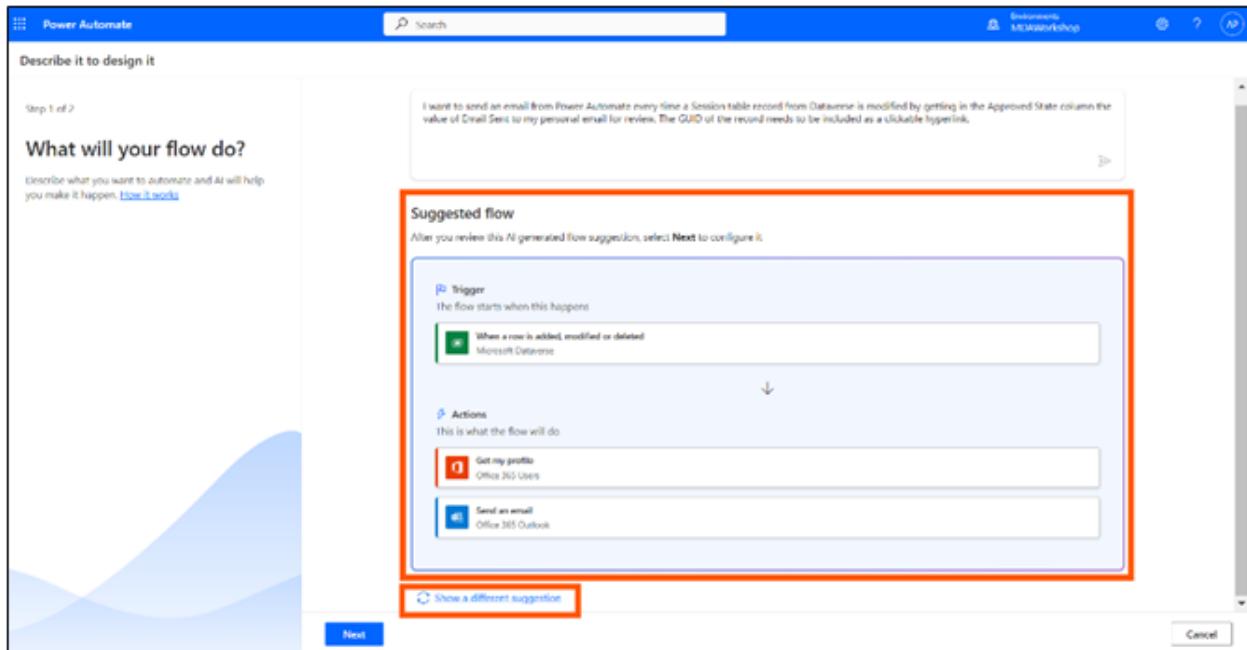
I want to send an email from Power Automate every time a Session table record reaches the Approved State value of Email Sent to my personal email for review. The GUID of the record needs to be included as a clickable hyperlink.

This screenshot shows the same Power Automate interface as the previous one, but with a red box highlighting the 'Generate' button in the 'Describe in detail how you want your automation to work...' text input field. The rest of the interface, including the sidebar, examples, and environment selection dialog, appears identical to the first screenshot.

Copilot has started giving us some ideas.

5. We can either hit **Next** and start configuring, or if we would like to see a different version, select **Show a different suggestion**.

This will give an alternative approach to explore.



In total, we need one trigger and two actions: One to "Get a row by ID" and a second one after to "Send an email (V2)". If you see more or less actions e.g. no "Send an email (V2)", that is ok. We can add it.

6. Now we see an alternative version of the flow. It is a good start and has 2 out of the 3 steps we want to configure. Select the **Next** button.

Step 1 of 2

What will your flow do?

Describe what you want to automate and AI will help you make it happen. [How it works](#)

Suggested flow

After you review this AI generated flow suggestion, select **Next** to configure it.

Trigger
The flow starts when this happens
When a row is added, modified or deleted
Microsoft Dataverse

Actions
This is what the flow will do

- Get a row by ID
Microsoft Dataverse
- Get my profile
Office 365 Users

Condition
True

Send an email
Office 365 Outlook

Next **Activate Windows** Go to Settings to activate Windows **Cancel**

- In this step you confirm that the connection reference for the flow steps so far is set up. If so, the green ticks appear as in our case. Fix the connection reference if a green tick is missing.

Step 2 of 2

Make sure everything's ready

To run the flow, make sure all your data sources are connected. [How it works](#)

Review your connected apps and services

A green check means that connection's ready to go.

App / Service	Owner	Status	...
Microsoft Dataverse	admin@WWLx731087.o...	✓	...
Office 365 Users	admin@WWLx731087.o...	✓	...
Office 365 Outlook	admin@WWLx731087.o...	✓	...

Trigger
The flow starts when this happens
When a row is added, modified or deleted
Microsoft Dataverse

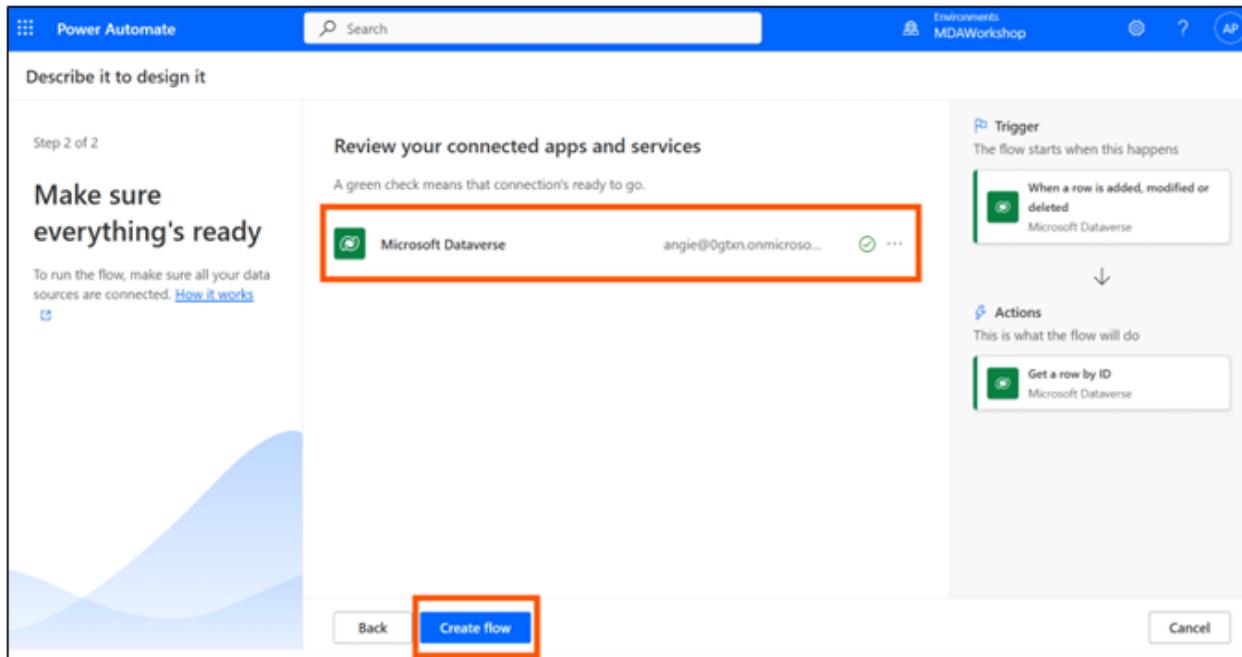
Actions
This is what the flow will do

- Get a row by ID
Microsoft Dataverse
- Get my profile
Office 365 Users

Condition
True

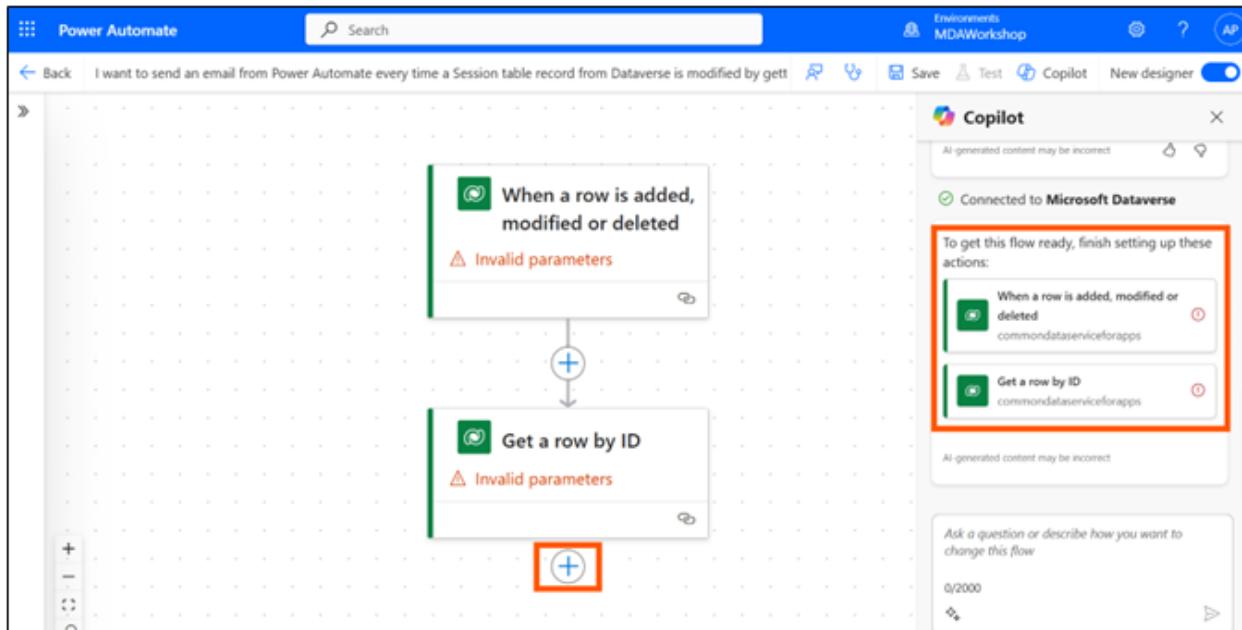
Send an email
Office 365 Outlook

- Since we are good to go, we can select the **Create flow** button.



The first version of our flow is visible in the Designer.

9. If Copilot suggested a condition step, please delete it.
10. We are being asked to update its details either directly by selecting each step e.g. **When a row is added, modified or deleted**, or to converse with Copilot further.



11. Let's start with our trigger of **When a row is added, modified or deleted**.
12. In **Table Name**, select **Sessions** as these are the records with the **Approved State** column.

Scope can stay as 4. As a reminder, this is the integer for Organisation. In real life, choose based on your security model.

Also, as a reminder for the integers:

- User: 1
- Business unit: 2
- Parent: Child business unit: 3
- Organization: 4

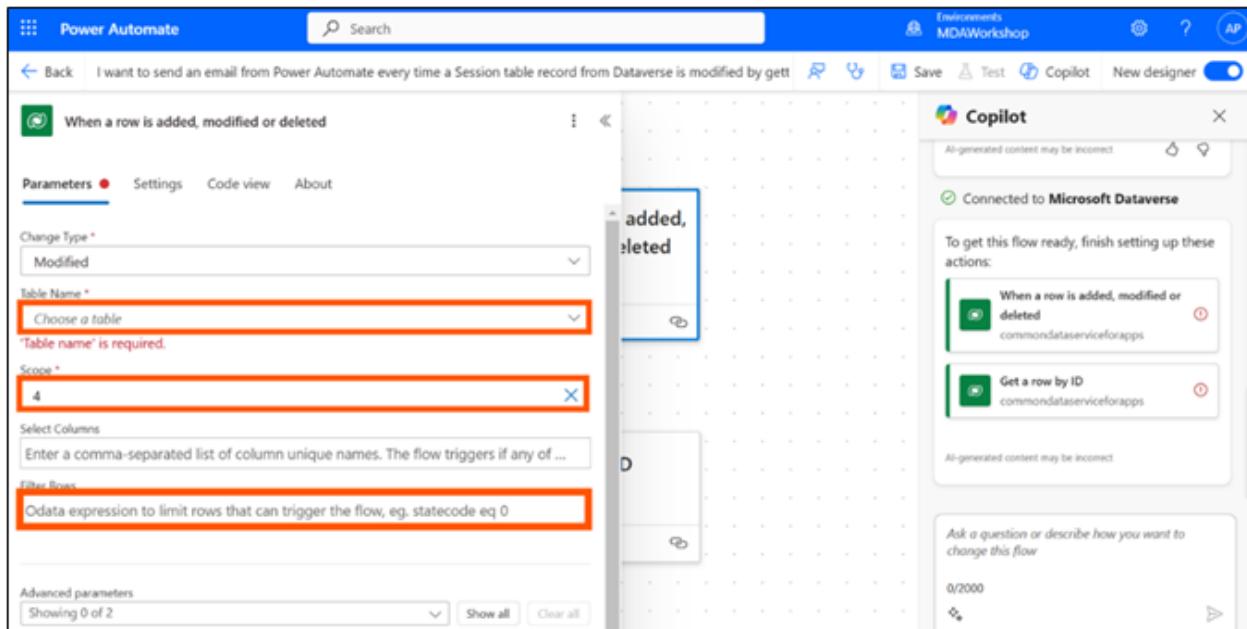
13. We also want to add an Odata expression in **Filter Rows** so that the flow only triggers when our value of Approved State is Email Sent.

This is why we have handy in our notepad the following:

- Integer Value of Email Sent: 861700001
- Logical name of Approved State: **mda_approvedstate**

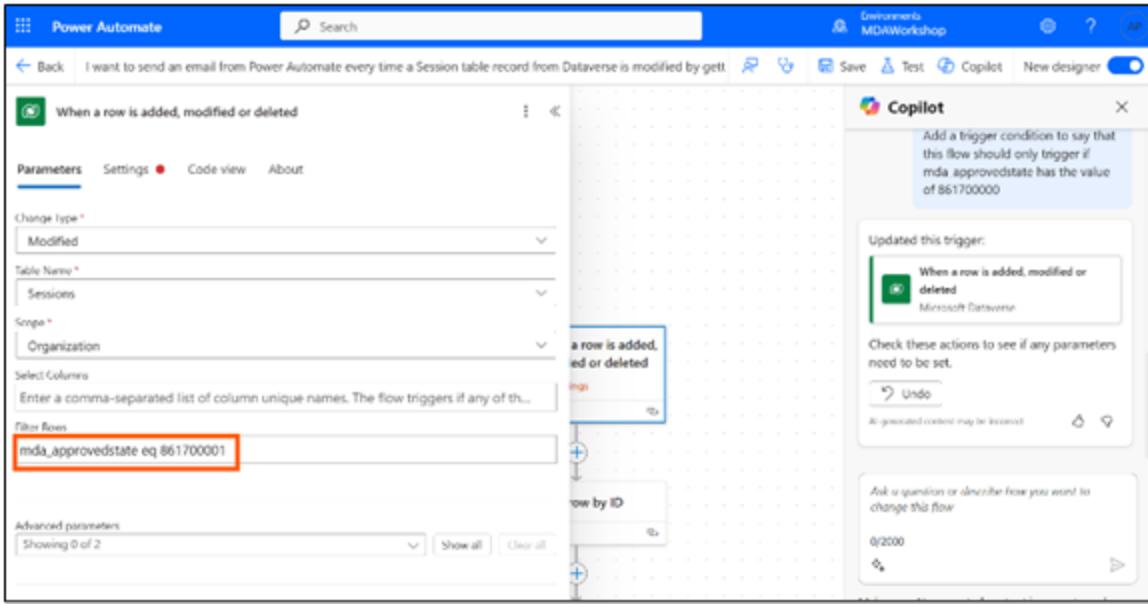
14. We can either write the expression, or prompt Copilot by saying:

Update Filter Rows with a single condition so that this row is only triggered when mda_approvedstate gets the value of 861700001.

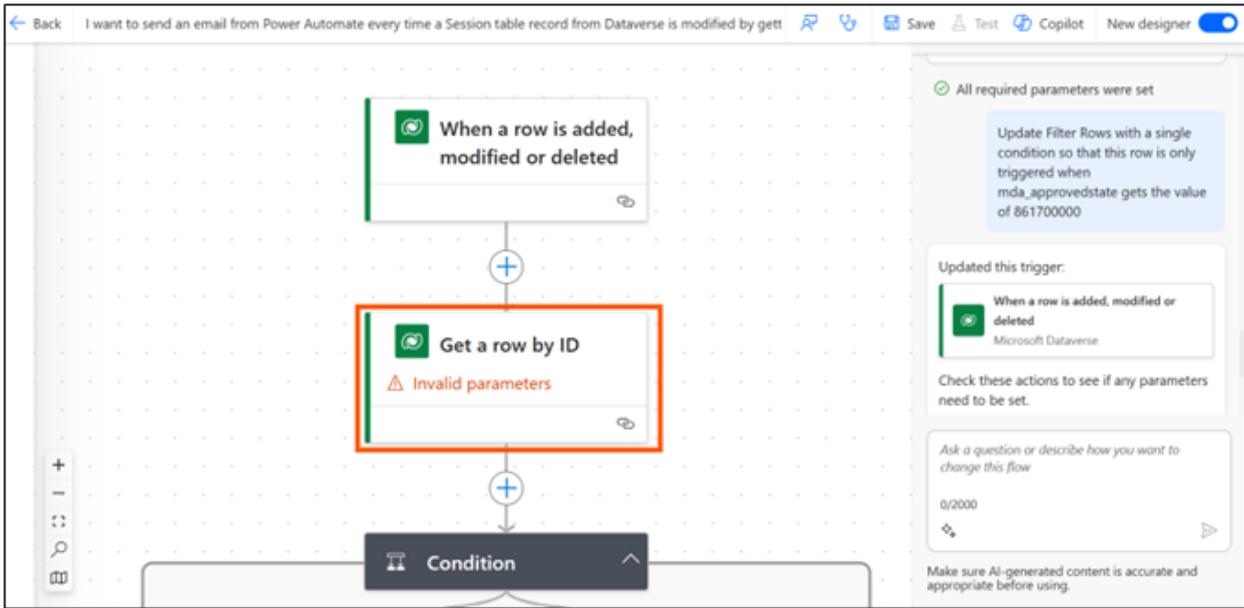


15. We now have our Odata expression and we are reminded of our prompt in our Copilot sidebar on the right.

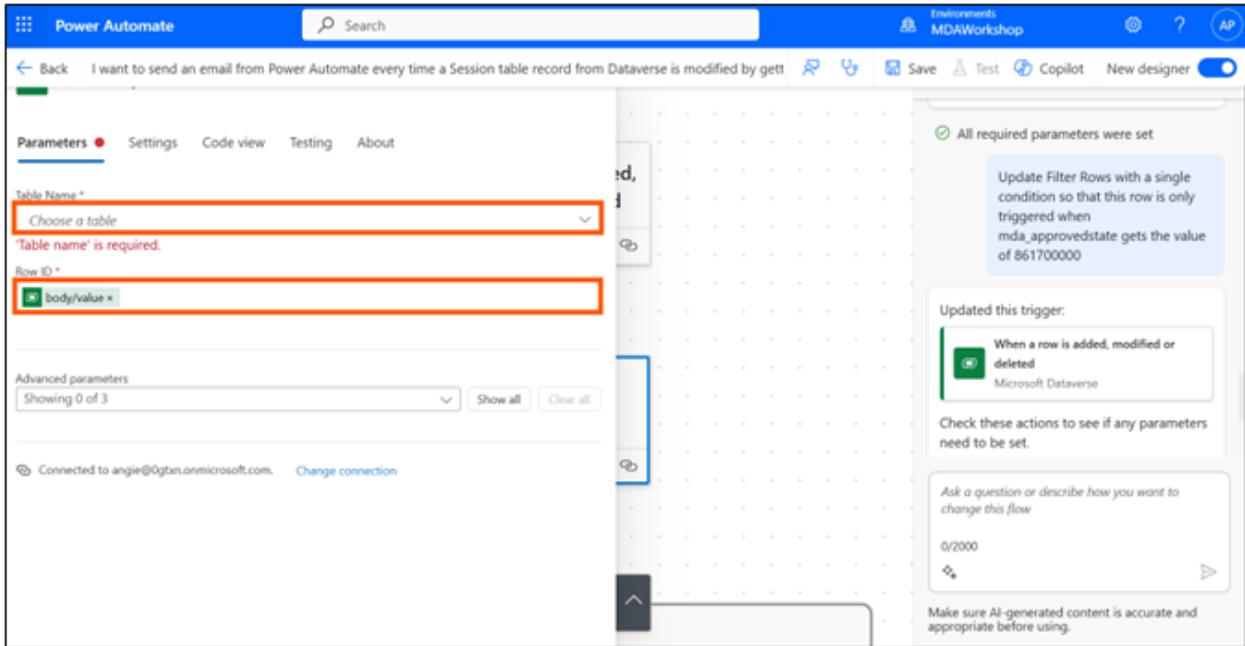
As a reminder, you need the integer value for the Odata query. Alternatively, you can use Trigger conditions in Settings.



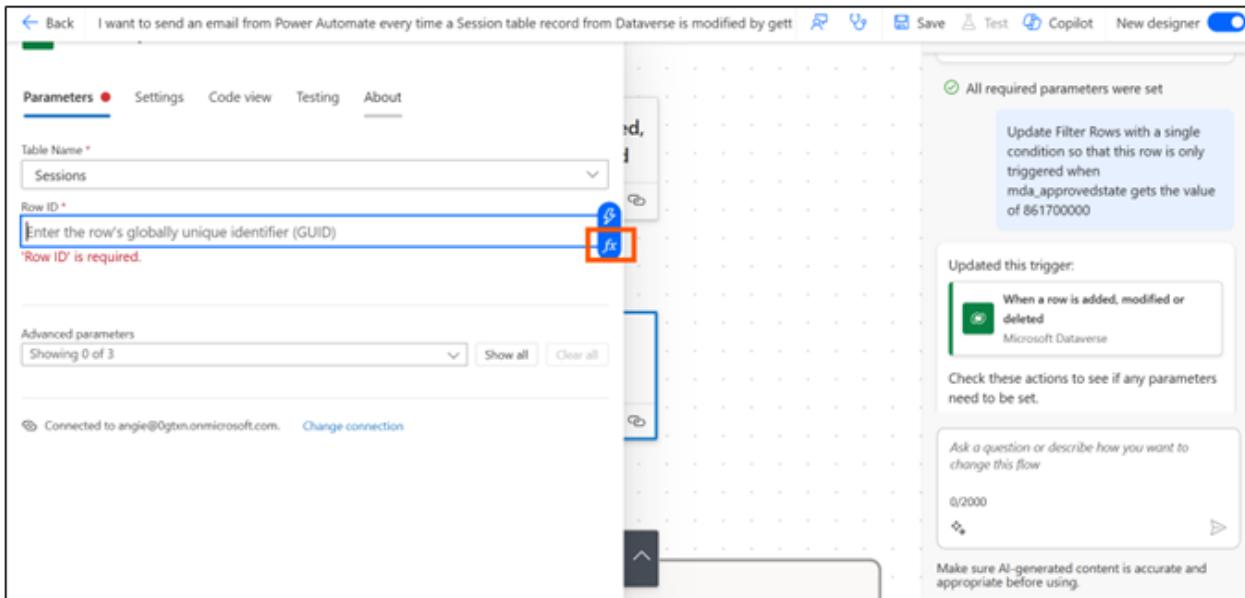
16. Close the trigger and select the **Get a row by ID** step.



17. We need to update the **Table Name** to **Sessions** and the **Row ID** to the dynamic variable of **Sessions**.



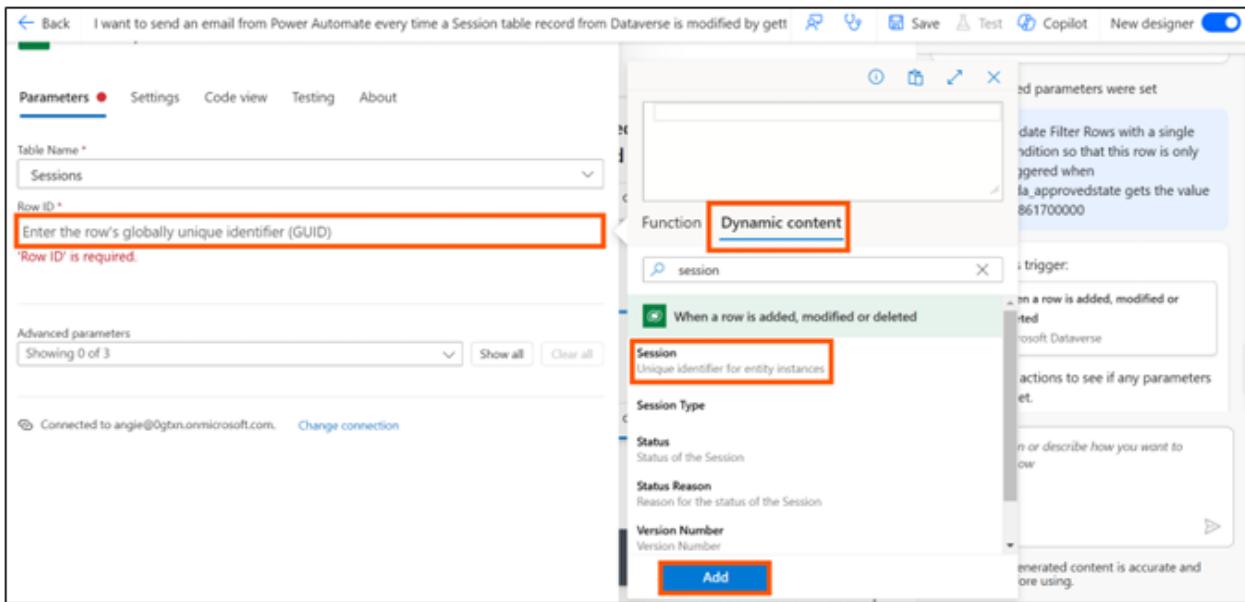
18. To update the **Row ID**, first select the fx icon. A side popup appears.



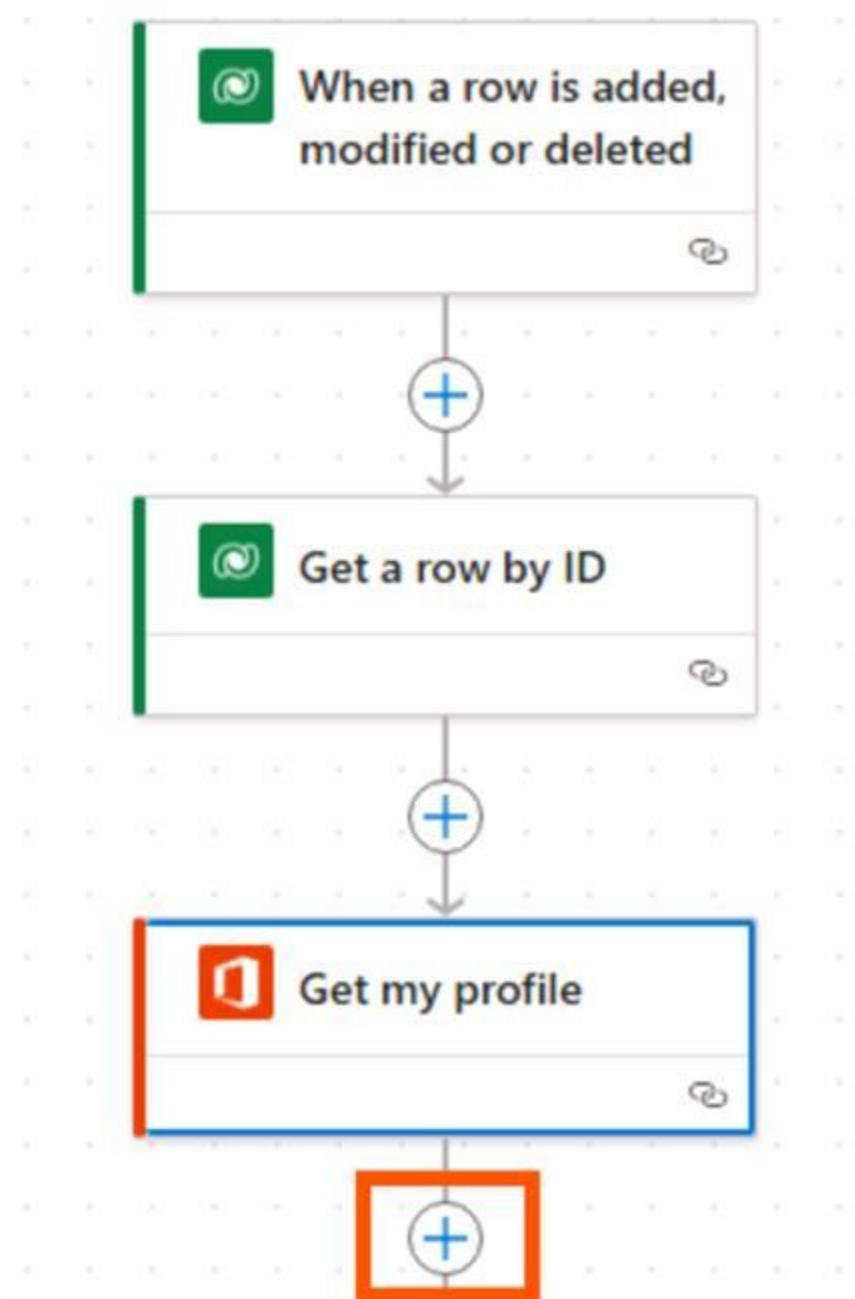
19. Select **Dynamic content**.

20. Select **Session** to get the GUID.

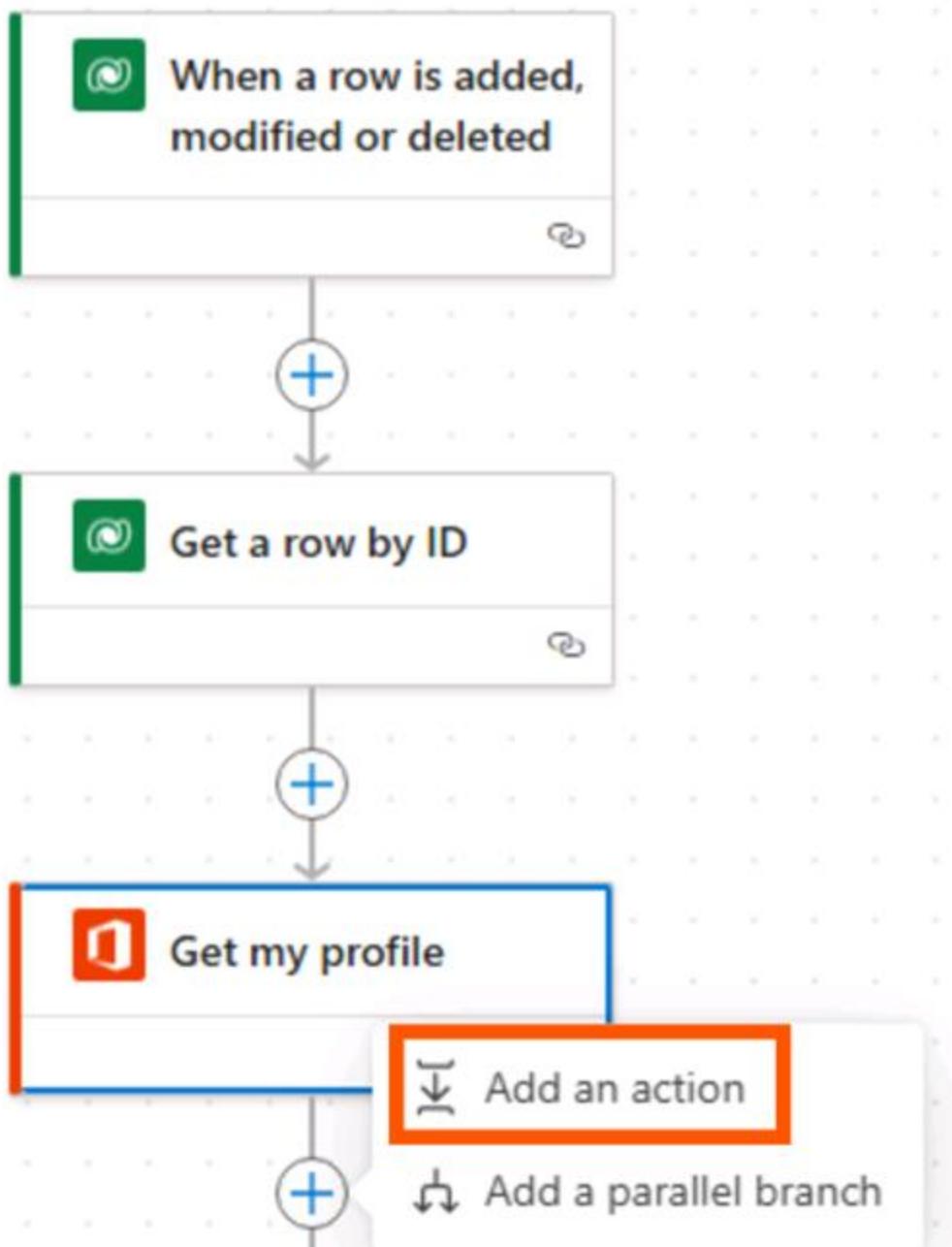
21. Select the **Add** button.



22. We are now ready to add a new step to send an email. Let's delete the Condition step first.
23. Now we have moved away from our second step, we can select the + icon to add our next step.

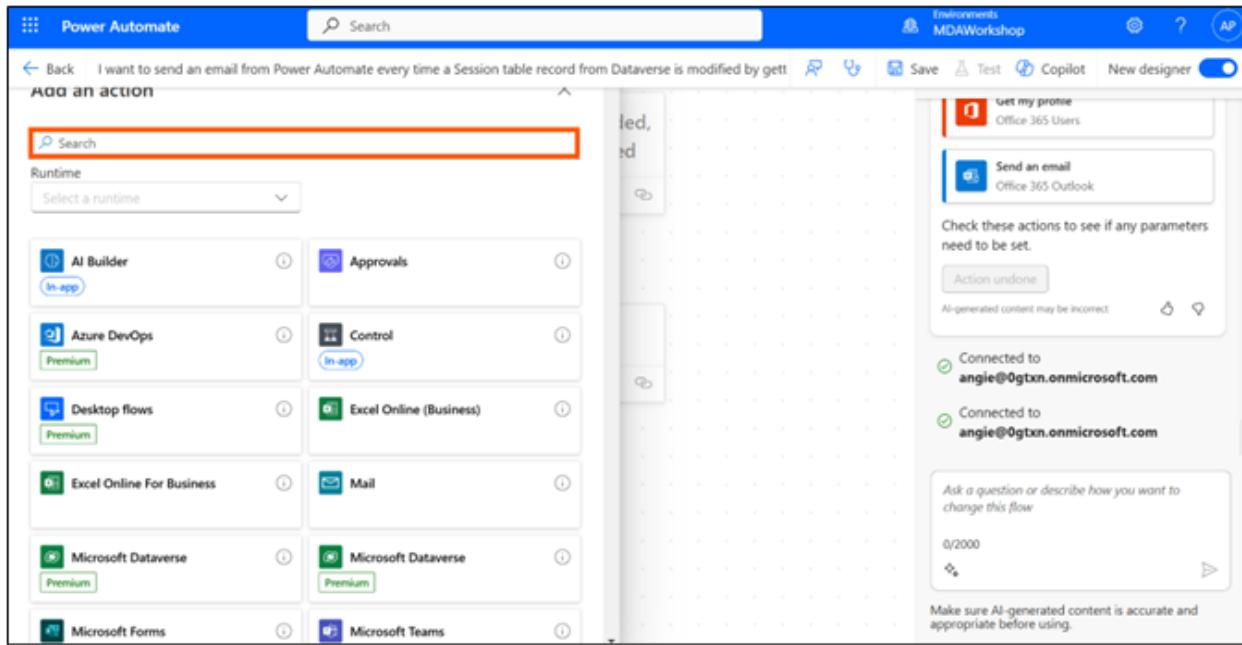


24. Select **Add an action**.



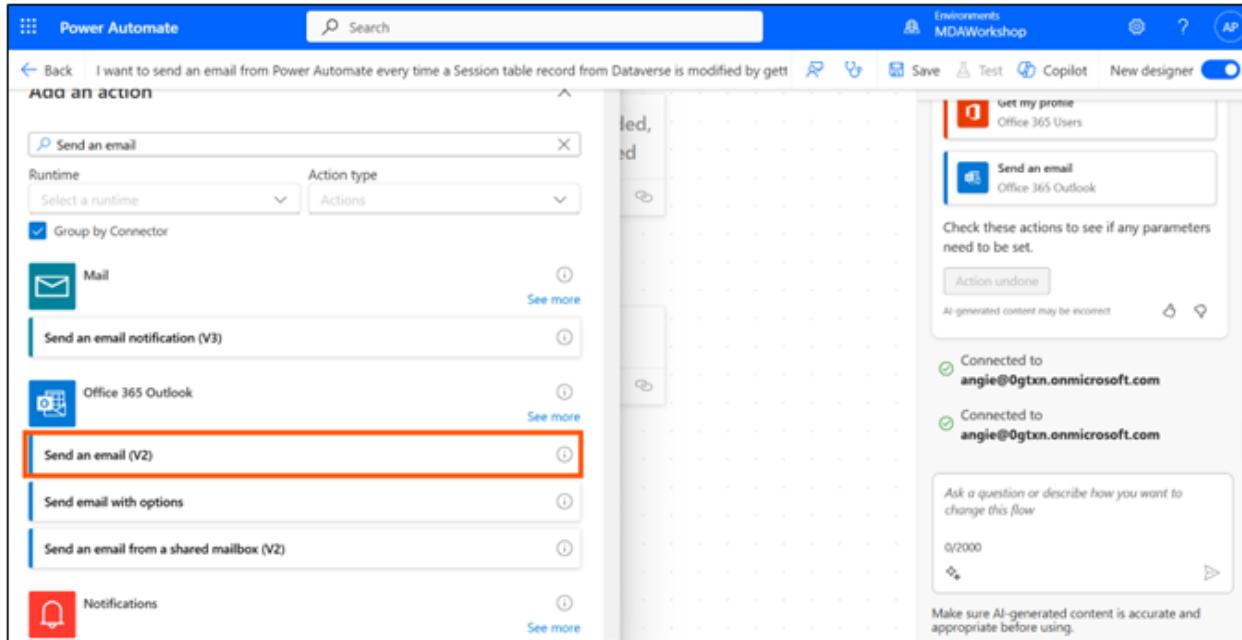
25. A series of actions appear.

26. Type in the Search box Send an email.



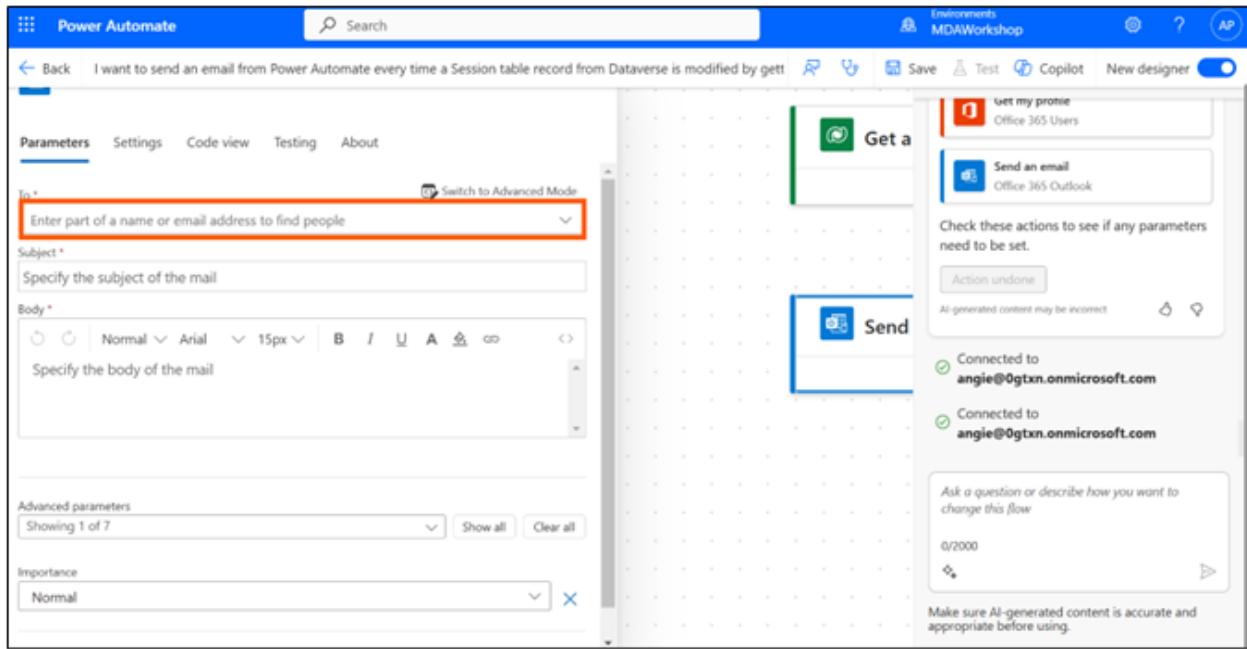
27. Select **Send an email (V2)**.

The step will be added, and its configuration window will pop up.



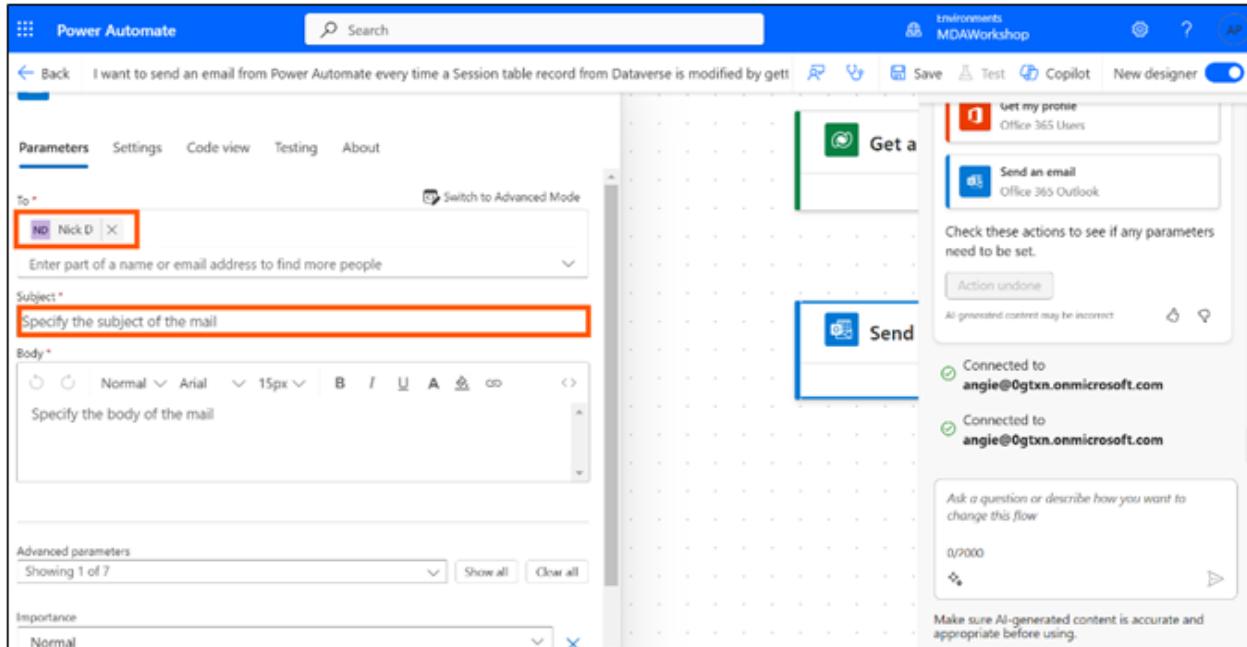
28. Add in the **To** area your personal email.

This way you can see the automated email come straight through to your inbox.



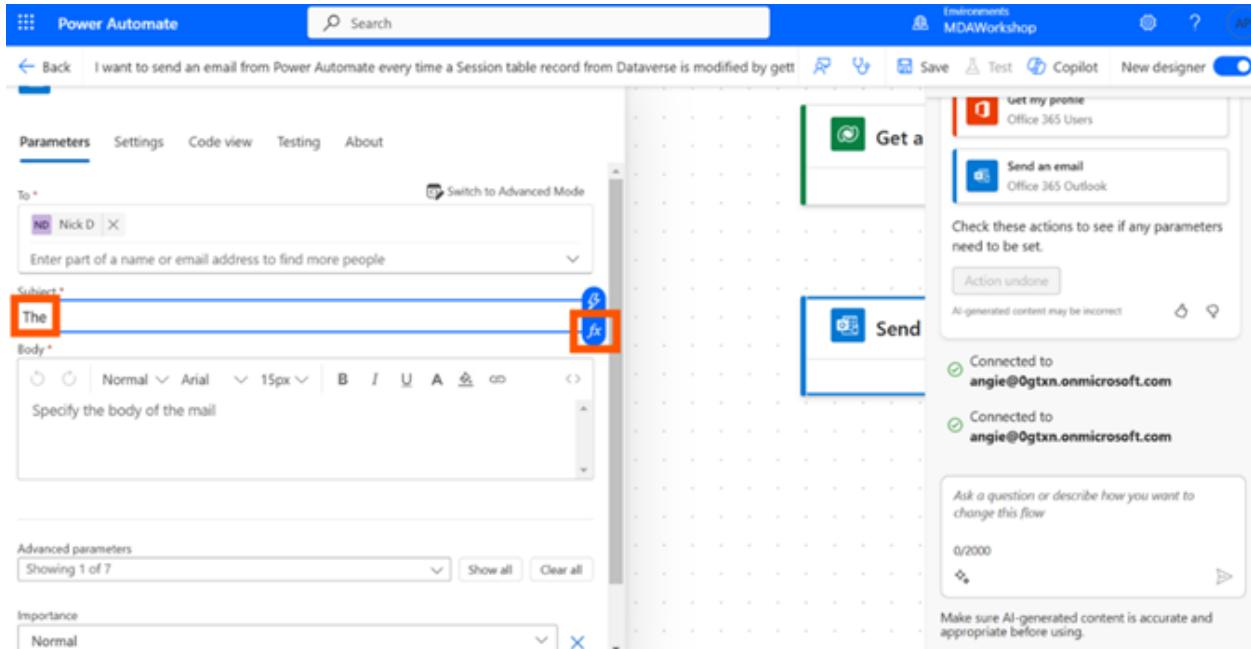
29. Another way is to type in the name of a user from your tenant.

We can also add a **Subject**. To make things more engaging, we will add a dynamic variable.



30. First, type the word The in the **Subject**.

Then, select the **fx** expression icon.



31. Select the **Function** tab.

32. Let's add an expression to add a dynamic value for the Session type in the subject line.

Type in the

box
outputs('Get_a_row_by_ID')?['body/mda_sessiontype@OData.Community.Display.V1.Formatte
dValue']

This expression allows us to extract the label of the choice column for the Session Type instead of the integer value.

33. Select the **Add** button.

The screenshot shows a user interface for creating dynamic content. At the top, there are four icons: a blue circle with an 'i', a blue clipboard, a blue arrow pointing left, and a blue 'X'. Below these is a large empty text area with a blue border. Underneath the text area, the word "Function" is highlighted with an orange border. To the right of "Function" is the text "Dynamic content". Below this section is a search bar with a magnifying glass icon and the placeholder text "Search". A pink header bar contains the text "fx String functions" and has scroll arrows on its right side. The main content area lists several functions:

- concat(text_1, text_2?, ...)**
Combines any number of strings together
- substring(text, startIndex, length?)**
Returns a subset of characters from a string.
- slice(text, startIndex, endIndex?)**
Returns a section of a string defined by the start index and the en...
- replace(text, oldText, newText)**
Replaces a string with a given string
- guid()**
Generates a globally unique string (GUID)

At the bottom of the list is a blue button with the word "Add" in white text.

34. Now we have the dynamic label value for **Session Type**, continue typing in the **Subject** line is ready for your review.

To *

N nickd@0gtxn.onmicrosoft.com X

Enter part of a name or email address to find more people

Subject *

The **fx** outputs(...) is ready for your review

35. Let's type up the **Main Body** of the email.

We will have a mix of static text, dynamic content and hyperlink.

36. Type up the following static text. Please follow the above method each time to select the **fx** icon and the **Function** tab to type up your expressions as per instructions in Italics.

Dear approver,

The *add as per above method the expression*: outputs('Get_a_row_by_ID')?['body/mda_sessiontype@OData.Community.Display.V1.FormattedValue'] session, owned by *add as per above method the expression* outputs('Get_a_row_by_ID')?['body/_ownerid_value@OData.Community.Display.V1.FormattedValue'], is ready for your review as part of the *add as per above method the expression* outputs('Get_a_row_by_ID')?['body/_mda_eventid_value@OData.Community.Display.V1.FormattedValue'].

You can view this session as well as a list of all active sessions [here](#).

Highlight the word **here** and add as a hyperlink the link of the Active Sessions view from the app.

Thank you for your continued support, The Conference Committee

The screen shot shows the code view.

Send an email (V2)

Parameters Settings Code view Testing About

To *

Carina Claesson

Enter part of a name or email address to find more people

Subject *

The body/mda_session... x is ready for your review

Body *

Normal Arial 15px B I U A

```
<p class="editor-paragraph">Dear approver,</p><br><p class="editor-paragraph">The body/mda_session... x session, owned by body/_ownerid_v... x , is ready for your review as part of the body/_mda_event... x .</p><br><p class="editor-paragraph">You can view this session as well as a list of all active sessions <a href="https://carinaclaesson.crm4.dynamics.com/main.aspx?appid=76995b1e-c7a2-ef11-8a69-0022489ea02d&pagetype=entitylist&etn=mda_session&viewid=083c92bc-d419-459d-a808-b71db3d3d2a0&viewType=1039" class="editor-link"><b><strong class="editor-text-bold">here</strong></b></a>.</p><br><p class="editor-paragraph">Thank you for your continued support, The Conference Committee</p>
```



37. As a reminder, to get the **Active Sessions** view URL, do the following:
38. Go to our **IgnitePath** app and into the Active Sessions table view.
39. Copy the URL for this page.

The screenshot shows a Microsoft Dynamics 365 Power Apps interface. The URL bar at the top contains the address <https://orgafacb2d8.crm.dynamics.com/main.aspx?appid=...>, which is highlighted with a red box. The main content area displays a list titled "Active Sessions" with the following data:

	Room ↑	Created On	Session Type	Start Time	End
<input type="checkbox"/>	Room A	11/17/2024 5:...	Keynote	10/16/2023 6:00 ...	10/...
<input type="checkbox"/>	Room B	11/17/2024 5:...	Workshop	10/16/2023 8:00 ...	10/...
<input type="checkbox"/>	Room C	11/17/2024 5:...	Panel Discussion	11/21/2023 10:00...	11/...
<input type="checkbox"/>	Room D	11/17/2024 5:...	Live Performance	12/6/2023 6:00 PM	12/...
<input type="checkbox"/>	Room E	11/17/2024 5:...	Cooking Demo	10/1/2023 11:00 ...	10/...
<input type="checkbox"/>	Room Z	11/17/2024 6:...	Panel Discussion	11/22/2024 8:00 ...	11/...

40. Go back to our Power Automate flow and the Email **Body**.

41. Highlight the word **here** and select the hyperlink icon.

You can view this session as well as a list of all active sessions **here**

42. Add the **Active Sessions** URL for that **here** word.

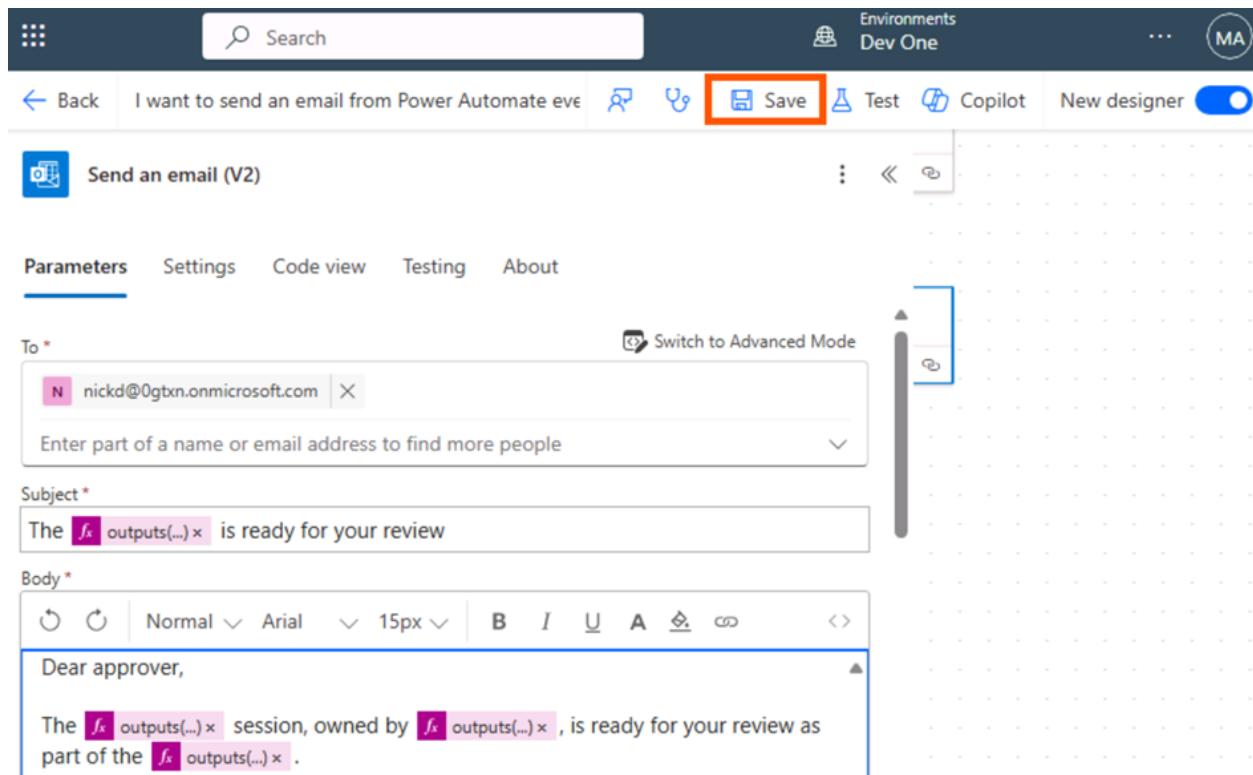
Select the tick icon.

You can view this session as well as a list of all active sessions **here**.

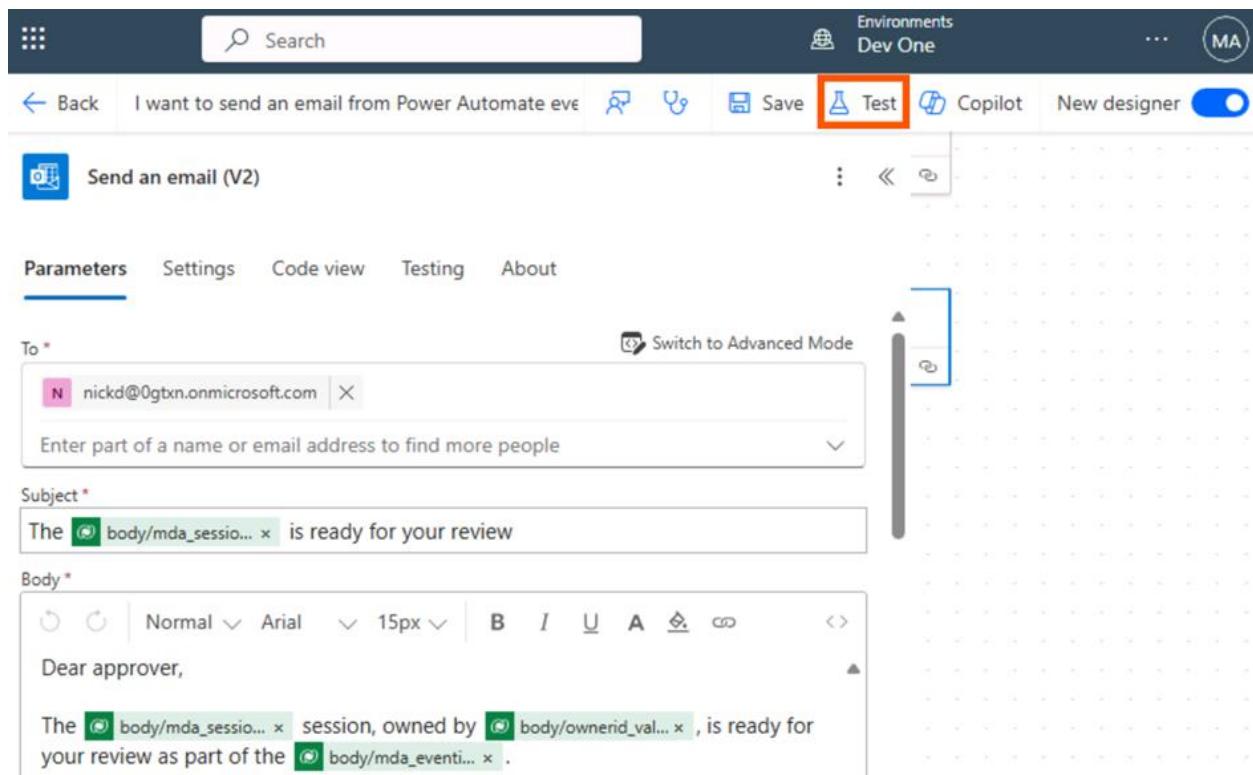
<https://mdaworkshop.crm.dynamics.com/mair>

Thank you for your continued support,
The conference committee

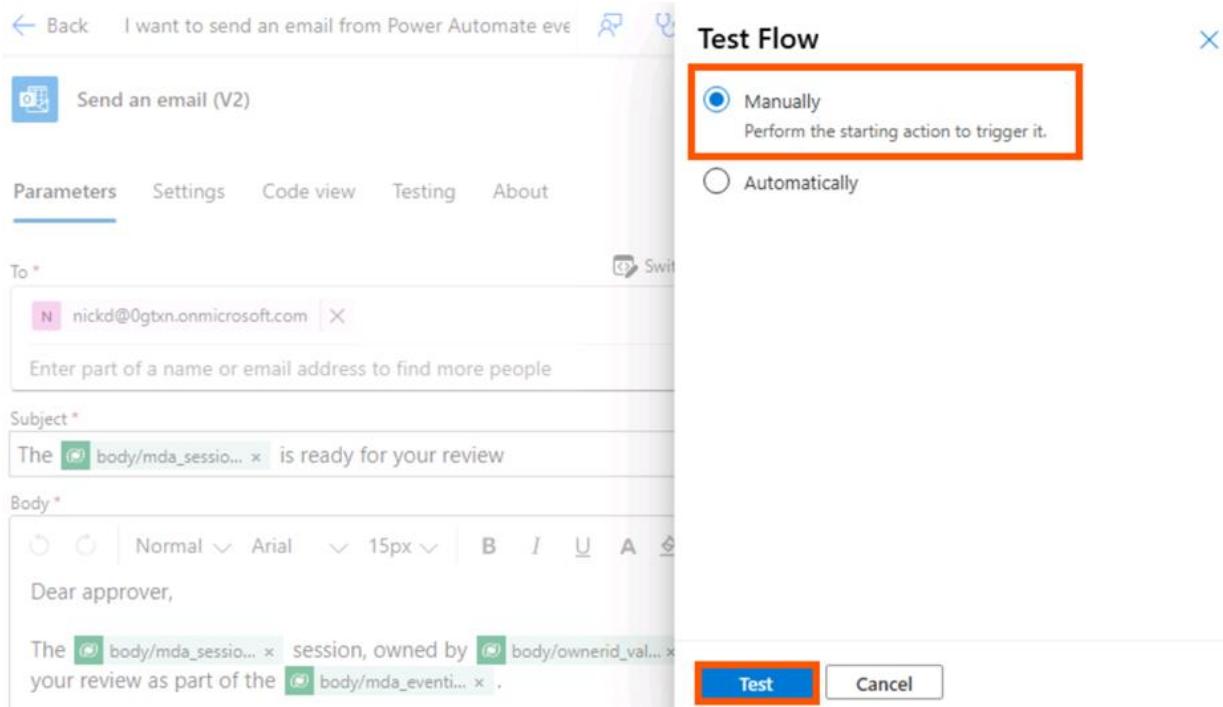
43. Select the **Save** button.



44. Time to select the **Test** button and see what we have.

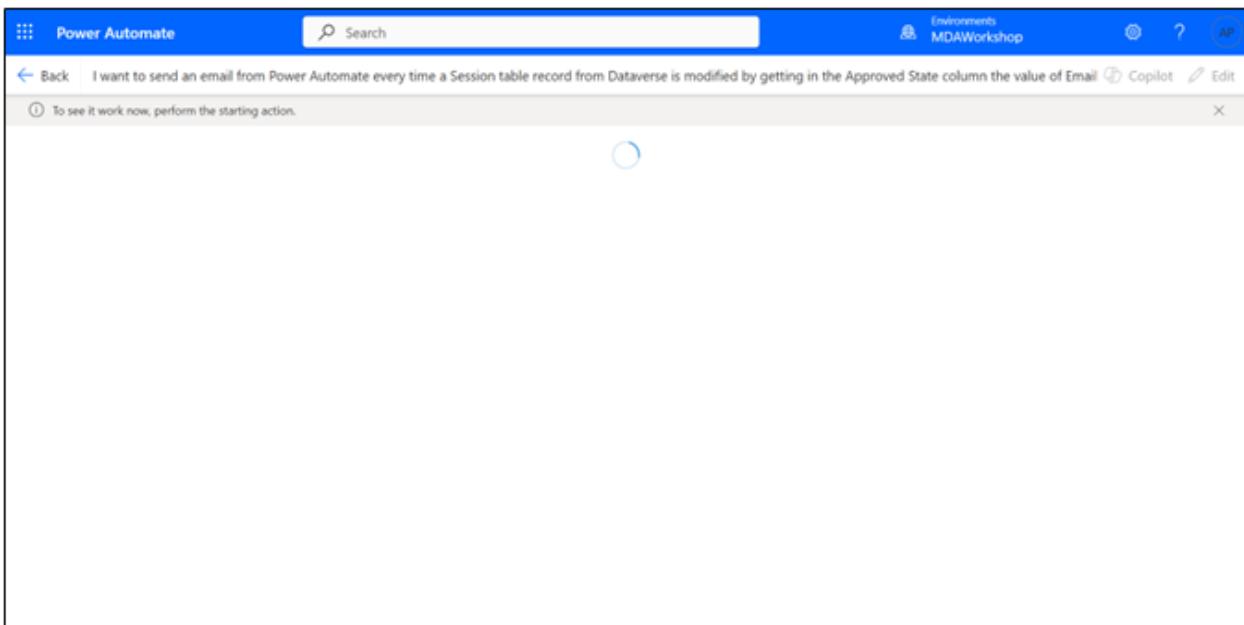


45. Select **Manually** for the **Test Flow** method and then select the **Test** button.



46. The flow is awaiting for us to manually trigger it.

47. Let's go back to the **IgnitePath** app to do that.



48. Back in the **IgnitePath** app, in the **Active Sessions** view, select a session record (e.g. **Room A** and open it.)

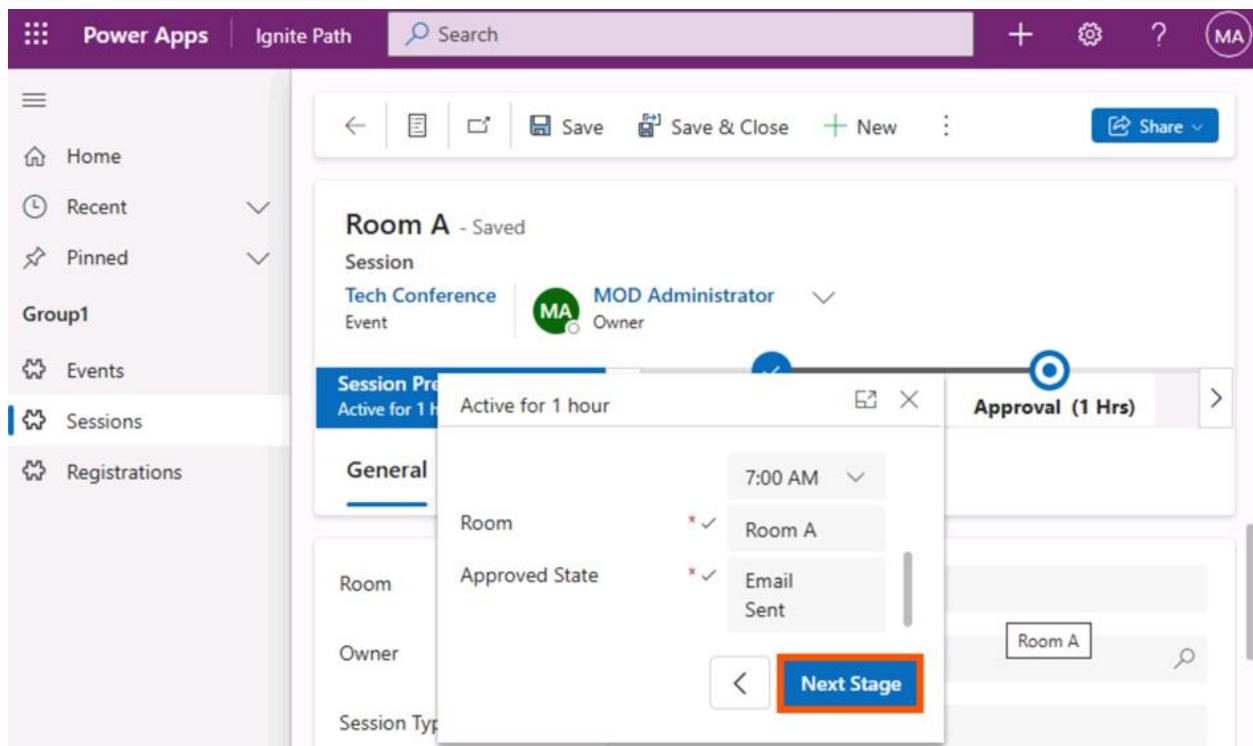
The screenshot shows the Power Apps portal interface. The left sidebar has a navigation menu with items like Home, Recent, Pinned, Group1, Events, Sessions (which is selected), and Registrations. The main area is titled "Active Sessions" and displays a list of sessions. The columns are Room (with a sorting dropdown), Created On, and Session Type. There are six records listed: Room A (11/17/2024 5:00 PM, Keynote), Room B (11/17/2024 5:00 PM, Workshop), Room C (11/17/2024 5:00 PM, Panel Discuss), Room D (11/17/2024 5:00 PM, Live Perform), Room E (11/17/2024 5:00 PM, Cooking Den), and Room Z (11/17/2024 5:11 PM, Panel Discuss). The "Room A" row is highlighted with a red box.

Room	Created On	Session Type
Room A	11/17/2024 5:00 PM	Keynote
Room B	11/17/2024 5:00 PM	Workshop
Room C	11/17/2024 5:00 PM	Panel Discuss
Room D	11/17/2024 5:00 PM	Live Perform
Room E	11/17/2024 5:00 PM	Cooking Den
Room Z	11/17/2024 5:11 PM	Panel Discuss

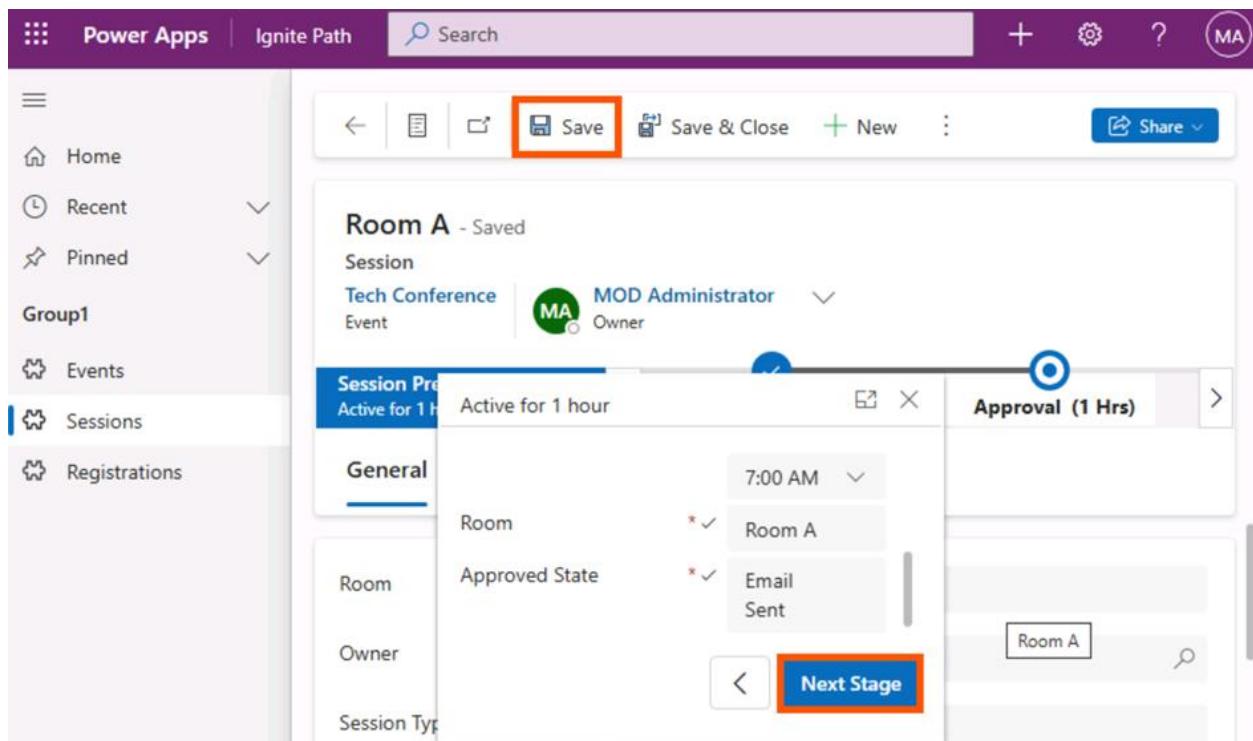
49. If the business process flow doesn't appear, choose **Process** and select **Switch Process**.

The screenshot shows the Power Apps process editor. At the top, there are tabs for "Process" (selected) and "Assign". Below the tabs, there are two options: "Switch Process" (highlighted with a blue box) and "Abandon".

50. In the **Room A** record, go to the **Approval** stage and change the value of **Approved State** from **Not Started** to **Email Sent**.



51. Select the **Save** button.



52. You should now see the email in your inbox of the selected email!

The Workshop is ready for your review ➔ Inbox



Angeliki Patsiavou <angie@Ogtxn.onmicrosoft.com>

Dear approver,

The Workshop session, owned by Nick Doelman, is ready for your review as part of the Tech Conference.

You can view this session as well as a list of all active sessions [here](#).

Thank you for your continued support,

The Conference Committee

Bonus content

Create a new Business Rule

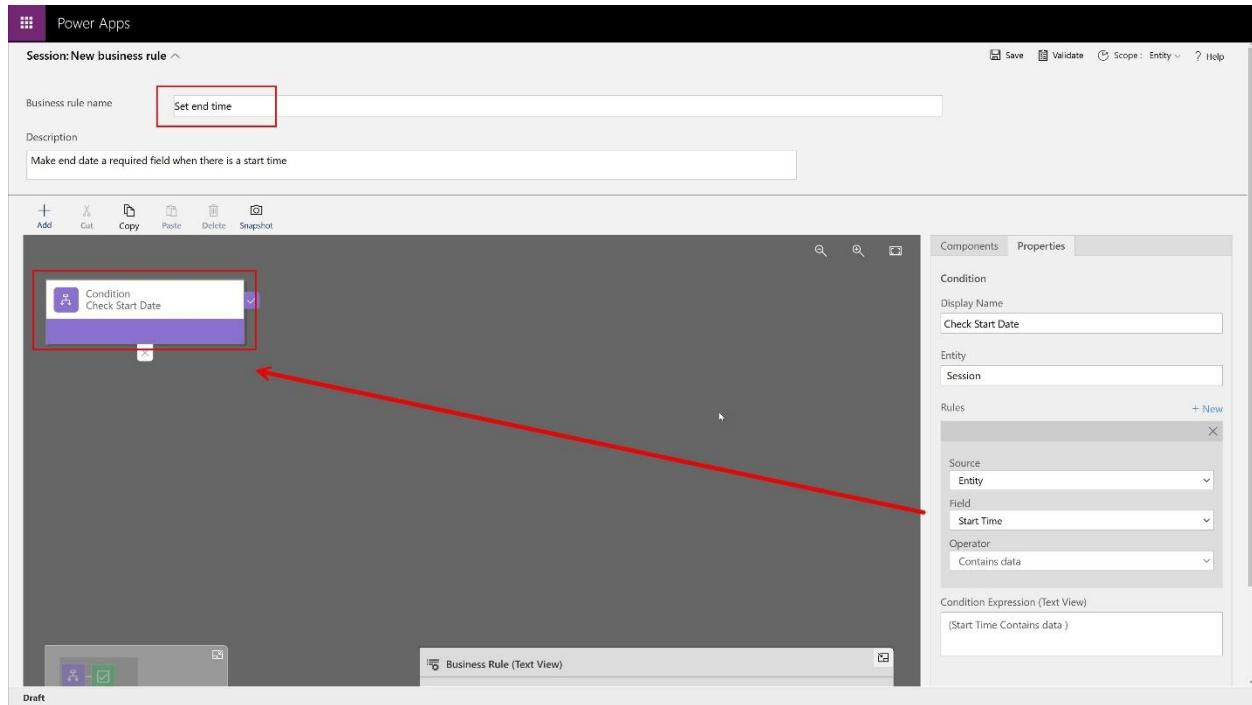
Instructions

1. Open up your solution and in the hierarchy, navigate to **Tables > Session > Business Rules**.
The select **+ New business rule**.

The screenshot shows the Power Apps Studio interface with the following details:

- Header:** Power Apps, Search bar, Environment MDAWorkshop, ND button.
- Left Sidebar:** Objects (Cards (0), Cloud flows (0), DVTableSearch (1), DVTableSearchEntity (3), Processes (1), Site maps (1), Tables (3) - Event, Registration, Session, Session (Columns, Relationships, Keys, Forms, Views, Charts, Dashboards), Business rules).
- Top Bar:** + New business rule (highlighted with a red box), Add existing business rule, Advanced dropdown, Search bar.
- Content Area:** MDA Workshop > Tables > Session > Business rules. A table with columns: Name ↑, Status, Scope, Customized. Below the table, it says "We didn't find anything to show here".

2. Expand the title section and give the business rule the name Set end time and select the **Condition** statement in the canvas. In the right hand properties window, update the **Display Name** to Make end time required, and select the *Start Time* field and *Contains data* as the operator. Select **Apply** at the bottom of the window.



3. Select **+ Add** and choose **Add Set Business Required** from the menu.

Session: Set end time ▾

+
Add

X
Cut

Copy

Paste

Delete

Snapshot

Flow

Add Condition

Actions

Add Recommendation

Add Lock/ Unlock

Add Show Error Mes...

Add Set Field Value

Add Set Default Value

Add Set Business Re...

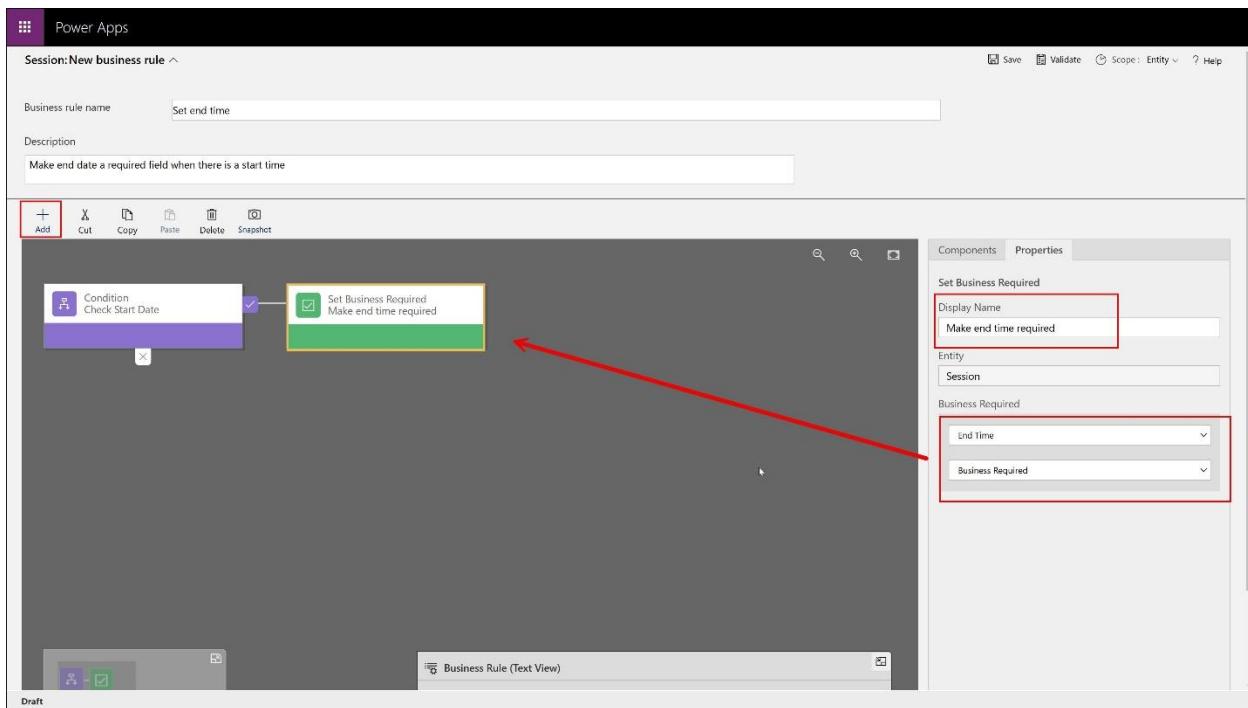
Add a new Set Business Required action to the business rule.

Add Set Visibility

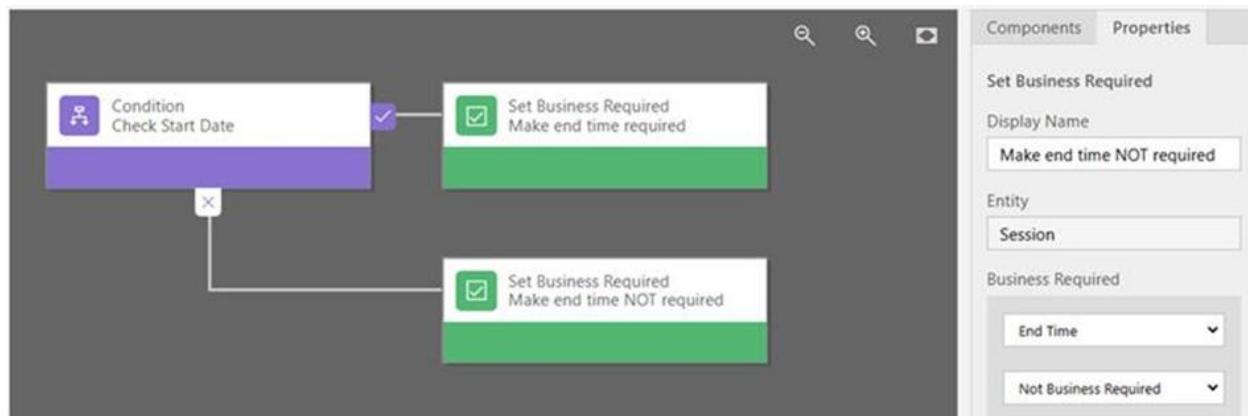
Start Date



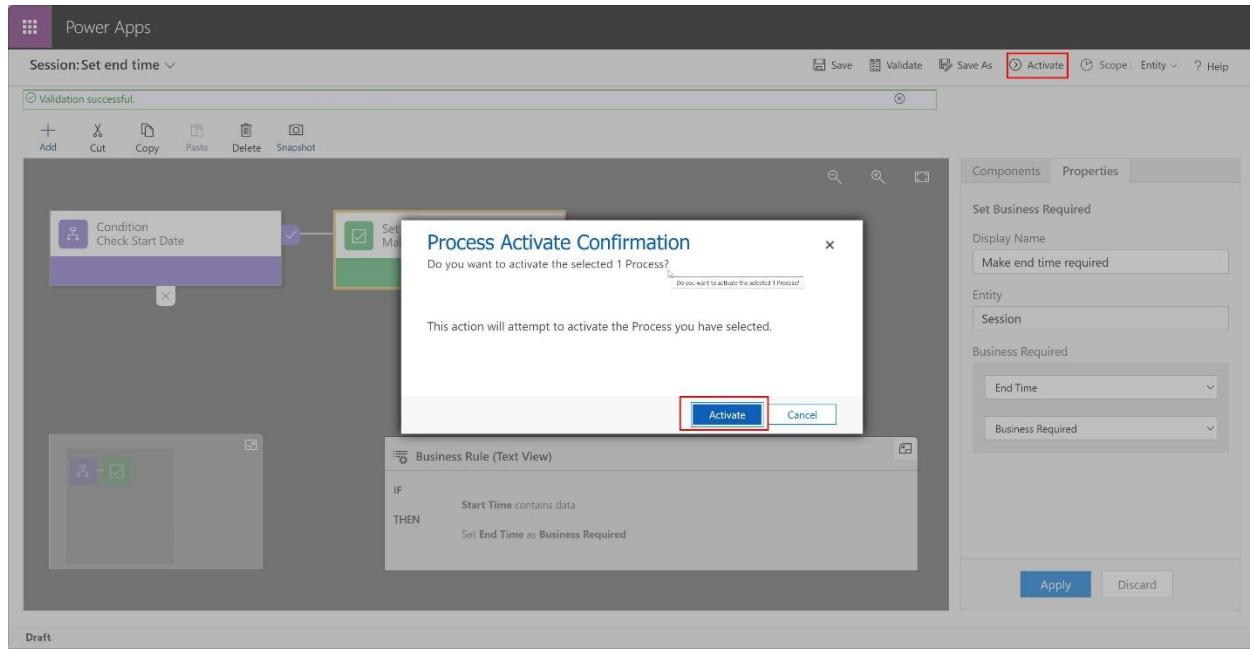
4. Select the *Set Business Required* panel and in the right hand window change the display name and set the *End time* field to **Business Required**. Select **Apply** (not shown on screen shot)



5. If you have time, you can add the other condition to make the end date field NOT required.



6. Select **Save**, and then choose **Activate** from the main menu and select **Activate** again on the pop-up window to activate your business rule.

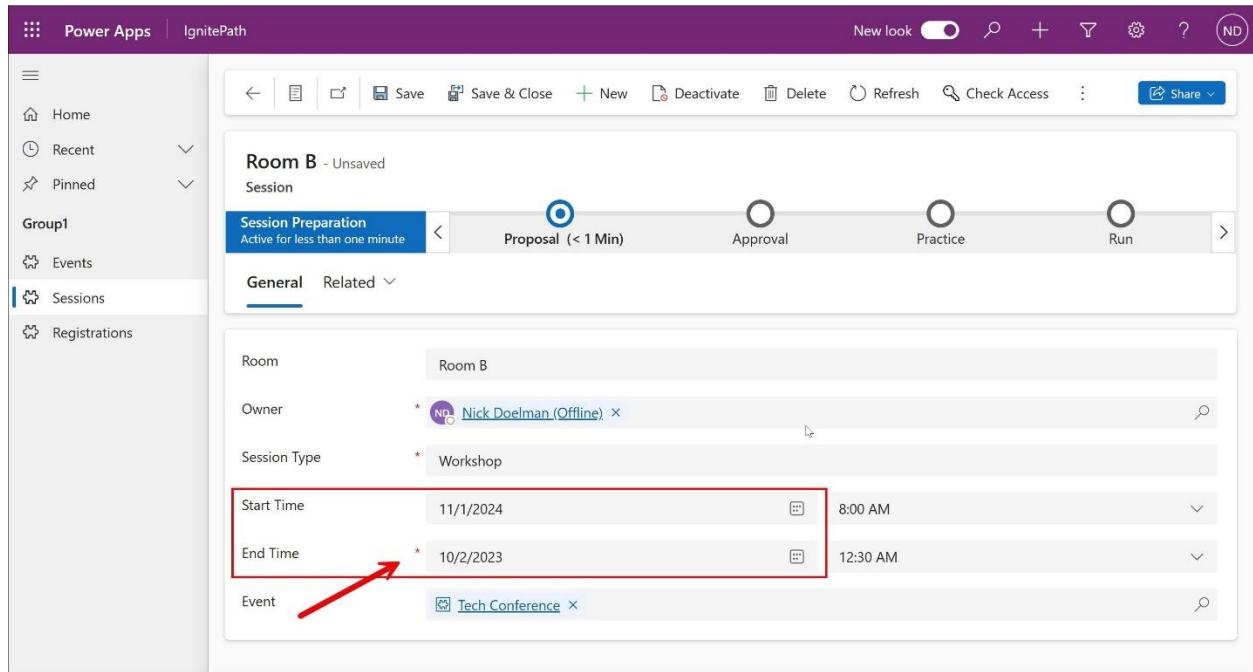


7. Select **Publish all customizations** from the Power Apps home page.

The screenshot shows the Power Apps home page. The navigation bar includes "Power Apps", "Search", "Environment MDAWorkshop", and other icons. The main area shows a "Solutions" section with a "Set your preferred solution" card for "Common Data Services Default Solution". Below this is a table of solutions:

Display name	Name	Created	Version	Publisher	Solution checked
MDA2	MDA2	2 hours ago	1.0.0.0	Model driven ap...	Hasn't been run
MDA Workshop	MDAWorkshop	1 week ago	1.0.0.0	Model driven ap...	Hasn't been run
Common Data S	Cr5692f	2 weeks ago	1.0.0.0	CDS Default Publ...	Hasn't been run
Default Solution	Default	2 weeks ago	1.0	Default Publisher...	Not supported

8. Launch the model-driven app and select a session record. Notice how the *End time* field becomes mandatory once the *Start time* field has data.



Ref

<https://github.com/readyxrm/mdalabs>

End