



Power Platform

App in an ~Hour

App in an hour

Hands-on Lab Step-by-Step

September 2019

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Overview

Lab Prerequisites

Follow the pre-requisite steps described in the document: **00-AppInAnHour Lab Overview.pdf**, that is included in the lab package. Before beginning this lab, confirm that you have provisioned an environment where you will save your apps, flows and database entities. If you are taking this as part of an event, you might be provided an environment that is already configured, and you may proceed.

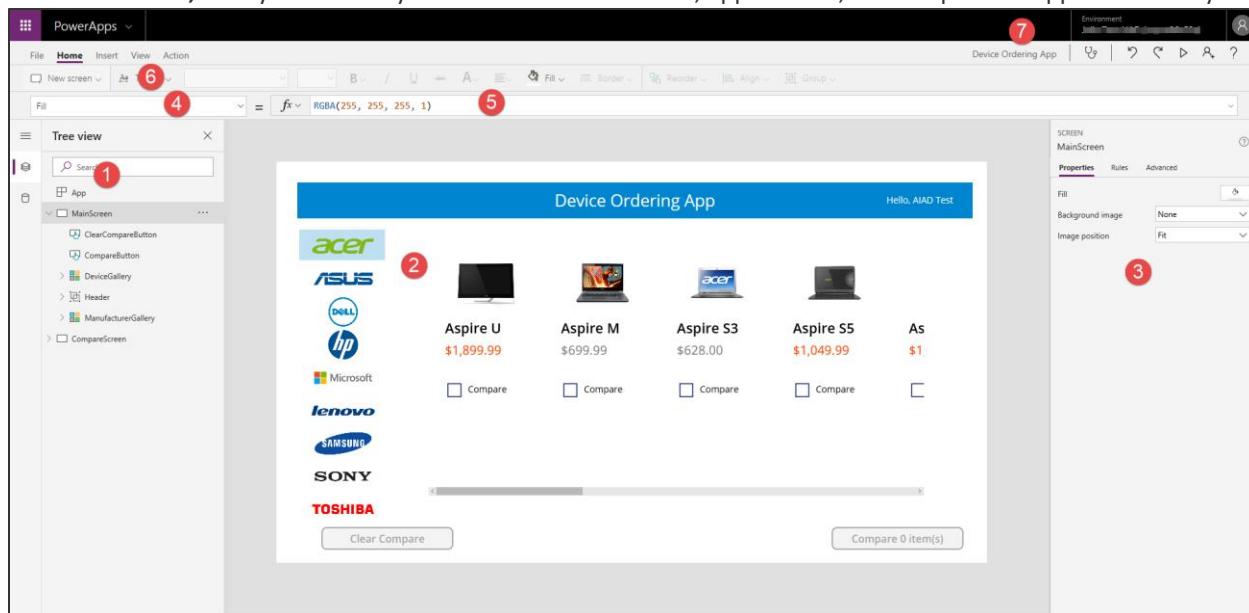
IMPORTANT: Do not proceed before going through the lab pre-requisite steps

PowerApps Canvas Studio Layout

PowerApps Canvas Studio is available as a web application (<http://make.powerapps.com>) that you can use in any modern browser.

PowerApps Studio is designed to have a user interface familiar to users of the Office suite. It has three panes and a ribbon that make app creation feel **like building a slide deck in PowerPoint**. Formulas are entered within a function $f(x)$ bar that is like Excel. Studio components:

1. **Left navigation bar**, which shows all the screens, data sources, and controls in your app
2. **Middle pane**, which contains the app screen you are working on
3. **Right-hand pane**, where you configure properties for controls, bind to data, create rules, and set additional advanced settings
4. **Property drop-down list**, where you select the property for the selected control that you want to configure
5. **Formula bar**, where you add formulas (like in Excel) that define the behavior of a selected control
6. **Ribbon**, where you perform common actions including customizing design elements
7. **Additional items**, here you will find your environment selection, app checker, and the preview app functionality.



Introduction: Conference Management Scenario

Imagine an organization where you have an internal conference and you would like to build an app to allow internal attendees to browse sessions and see the details. You also will need a way for the conference administrators to input the session and venue information.

Solution overview

The Microsoft business application platform technologies enable tech-savvy business users (aka "citizen developers") to build a customized conference management solution. The application user interface and interaction logic are built in PowerApps, and the data is stored in the Common Data Service.

Key features of the solution:

- a. A PowerApps canvas app that conference attendees can use
- b. A PowerApps model-driven app that conference admins can use to setup the data
- c. A PowerApps Business Card Reader
- d. A PowerApps Portal that external speakers can use to submit their session ideas
- e. A Business Process Flow that assists users in session management
- f. A Microsoft Flow that requests approval for sessions depending on capacity

This document will walk through creating the data definitions and the apps.

When you are done your app will look like this:

The screenshot displays a PowerApps canvas application interface. On the left, there is a vertical navigation pane with a blue header labeled 'Sessions'. Below it, four session items are listed with arrows to the right: 'Common Data Service' (2:00 AM-3:00 AM @ Mandalay Bay Room 795), 'Advanced Microsoft Flow' (4:00 AM-4:30 AM @ Mandalay Bay Room 795), 'Intermediate PowerBI' (4:30 AM-5:00 AM @ Mandalay Bay Room 795), and 'Introduction to PowerApps' (6:30 AM-7:00 AM @ Mandalay Bay Room 795). To the right of this pane is a larger area titled 'Session Info' with a back arrow icon. This area contains a title 'Introduction to PowerApps', a descriptive paragraph about the session, and a map of the Las Vegas area with a red dot marking the location. At the bottom, there is a 'Speaker' section featuring a profile picture and the name 'First Last, Program Manager'.

Locale-specific difference in formulas



Before you begin, please note that if your computer has its regional settings set to use the comma ',' for its decimal separator (like in much of Europe) your formulas will need to use a semicolon ';' instead of a comma in your formulas. For example:

En-US `Filter(Machines, OEMsGallery.Selected.MFR=MFR)`

de-DE `Filter(Machines; OEMsGallery.Selected.MFR=MFR)`

These localized formats are indicated with the symbol throughout the document. If you are in the en-US locale, you can ignore any of the formulas indicated by the locale symbol.

Exercise 1 - Prepare the Environment and data model

In this exercise, you will prepare your environment by importing a solution, and creating new entities and fields, you will also add fields to the default forms.

Task 1 – Import starting solution

In this task, you will be importing a starting solution. This solution will be used to contain all the other assets you build as part of this lab. To help speed up your progress we have also pre-created the venue data entity in this solution.

1. Navigate to <https://make.powerapps.com/> and make sure you are the correct environment.
2. Select **Solutions** and click **Import**.

The screenshot shows the 'Solutions' section of the PowerApps portal. On the left is a navigation sidebar with options like Home, Learn, Apps, Create, Data, Flows, AI Builder (preview), and Solutions. The 'Solutions' option is selected and highlighted with a purple bar. At the top of the main content area is a toolbar with buttons for 'New solution', 'Import' (which has a red arrow pointing to it), 'Open AppSource', 'Publish all customizations', and a search bar. Below the toolbar is a table titled 'Solutions' with columns for 'Display name', 'Created', 'Version', and 'Managed ext'. Five solutions are listed: Asset Checkout, Innovation Challenge, Fundraiser, Common Data Services Default Solution, and Default Solution. Each row has a three-dot menu icon on the right.

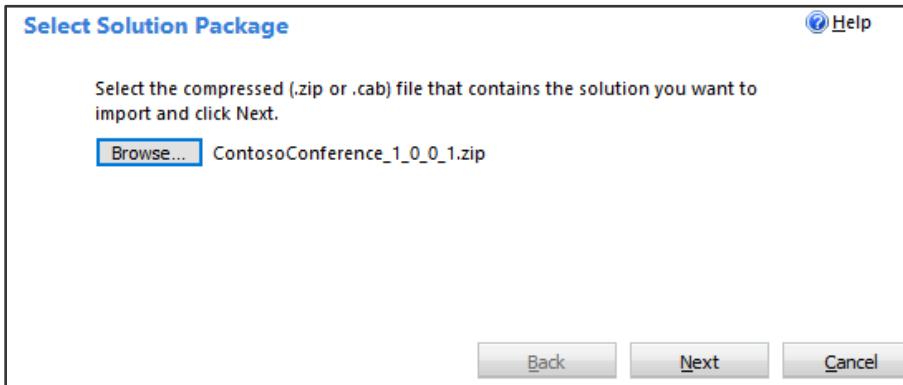
3. Click **Browse**.

The screenshot shows a 'Select Solution Package' dialog box. It contains instructions: 'Select the compressed (.zip or .cab) file that contains the solution you want to import and click Next.' Below the instructions are two buttons: 'Browse...' and 'No file selected.' A red arrow points to the 'Browse...' button.

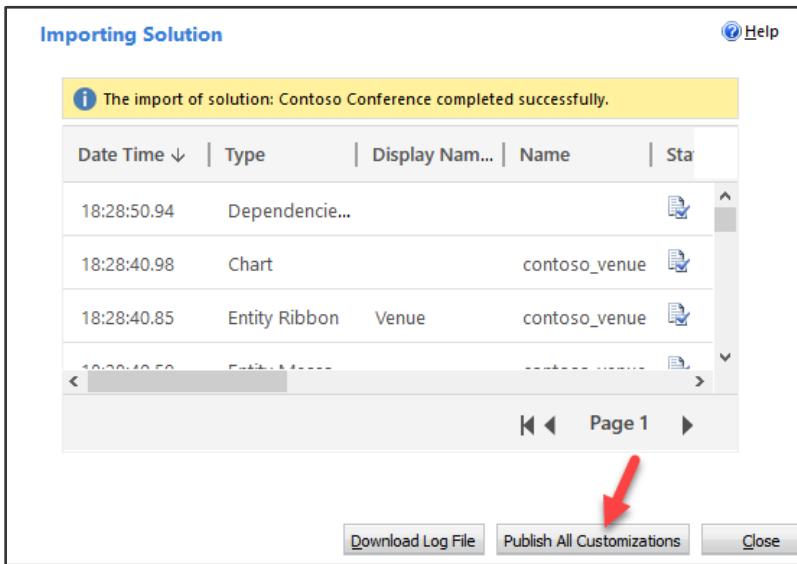
4. Select **ContosoConference** zip file located in the resources folder and click **Open**.

The screenshot shows a Windows File Explorer window displaying a list of files. The files are: 'Conference App.msapp' (MSAPP File, 29 KB) and 'ContosoConference_1_0_0_1.zip' (Compressed (zipp...), 8 KB). The 'ContosoConference_1_0_0_1.zip' file is selected, indicated by a gray selection bar. At the bottom of the window, there is a file name dropdown set to 'ContosoConference_1_0_0_1.zip', a 'Type' dropdown set to 'All Files (*.*)', and two buttons: 'Open' and 'Cancel'.

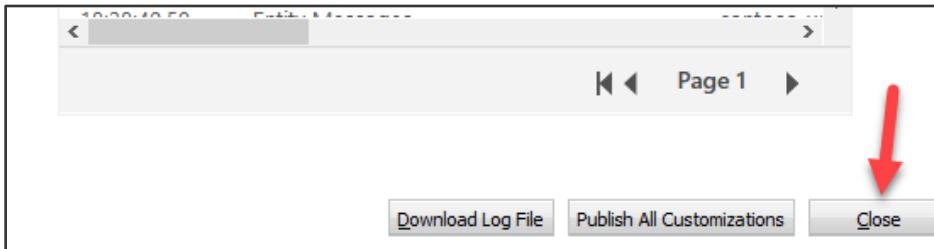
5. Click **Next**.



6. Click **Import** and wait for the importing to complete.
7. Click **Publish All Customizations** and wait for the publishing to complete.



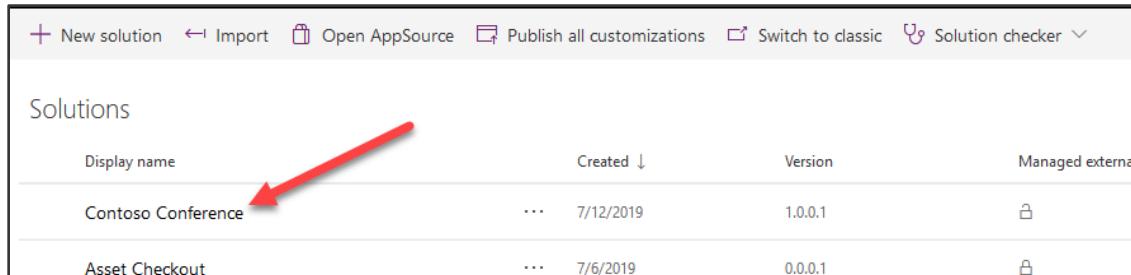
8. Click **Close**.



Task 2 – Create the data model

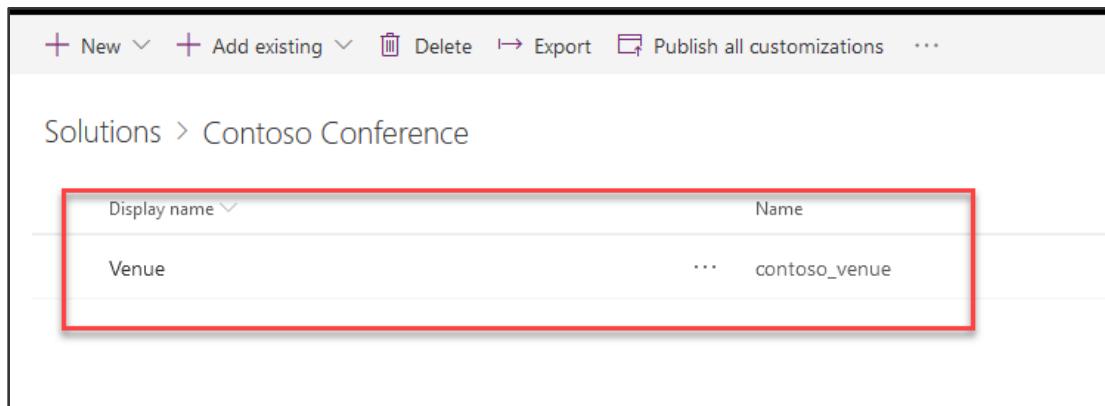
In this task, you will be creating the Session data entity. You will also be creating relationships between it and Users/Venue. Additionally, you will be doing basic edits to the forms for the session entity.

1. Click to open the solution you just imported.



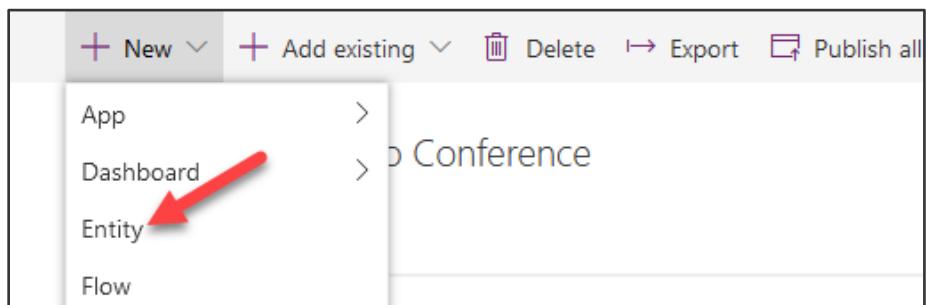
Display name	Created	Version	Managed external
Contoso Conference	7/12/2019	1.0.0.1	
Asset Checkout	7/6/2019	0.0.0.1	

2. The solution should have one entity with the name **Venue**.



Display name	Name
Venue	contoso_venue

3. Click **+ New** and select **Entity**.



4. Enter **Session** for **Display Name** and click **Create**.

New entity

Display name *

Plural display name *

Name * ⓘ

Primary Field ⓘ

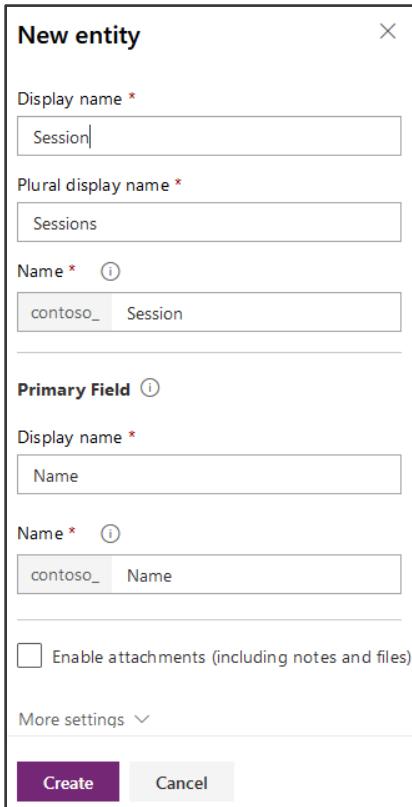
Display name *

Name * ⓘ

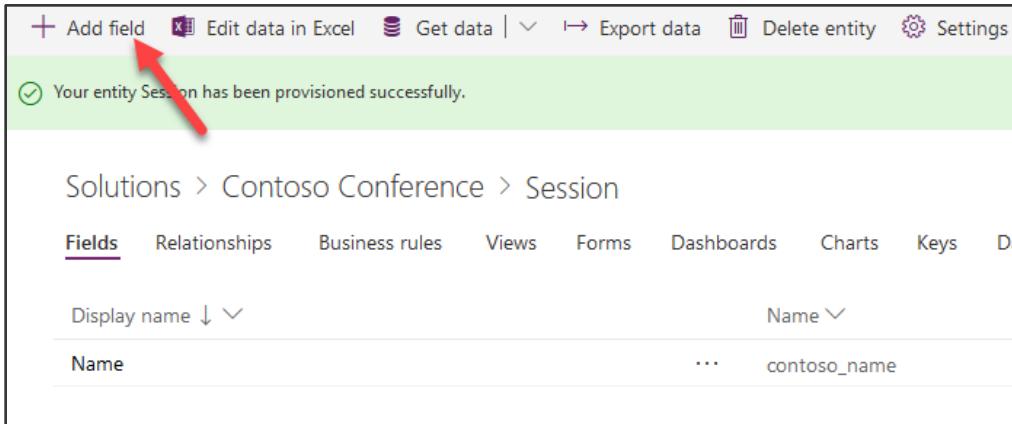
Enable attachments (including notes and files)

More settings ▾

Create Cancel



5. Make sure the **Fields** tab is selected and click + **Add Field**.



+ Add field Edit data in Excel Get data | Export data Delete entity Settings

Your entity Session has been provisioned successfully.

Solutions > Contoso Conference > Session

Fields Relationships Business rules Views Forms Dashboards Charts Keys Data

Display name	Name
Name	contoso_name

6. Enter **Track** for **Display Name** and select **Option Set** for **Data Type**.

Track

Display name *

Name * ⓘ

Data type * ⓘ

Option set *

Required

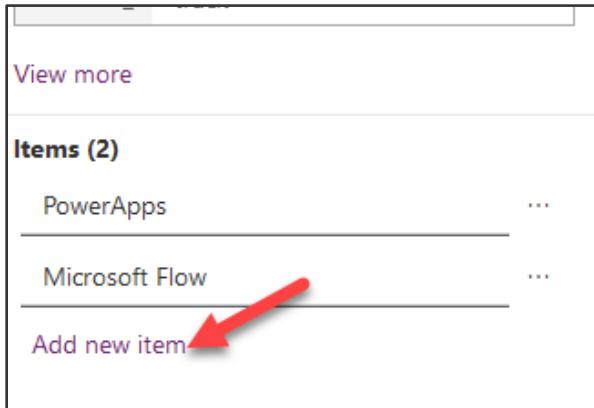
7. Click on the **Option Set** drop down and select **New Option Set**.

The screenshot shows two windows side-by-side. On the left is a dropdown menu titled '+ New option set' containing various option set names: A Yes or No boolean, Activity Type, Authentication Protocol, Category, Channel Activities, Component State, Component Type, Confirm delete appointment series, Connector Type, and Delivery Priority. On the right is the 'Track' configuration dialog. It has fields for Display name (Track), Name (contoso_ Track), Data type (Option Set), and Option set (empty dropdown). A red arrow points to the 'Required' checkbox at the bottom of the dialog.

8. Enter **PowerApps** and click **Add New Item**.

The screenshot shows a list of items under the heading 'Items (1)'. The single item is 'PowerApps'. Below the list is a button labeled 'Add new item' with a red arrow pointing to it.

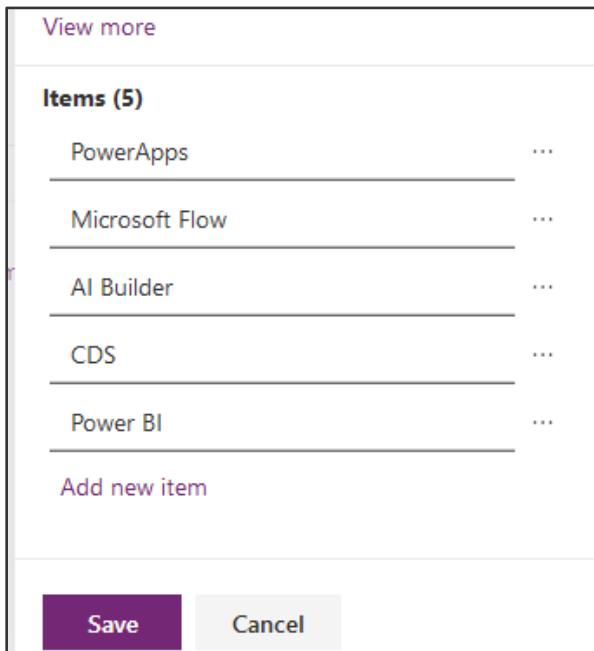
9. Enter **Microsoft Flow** and click **Add New Item**.



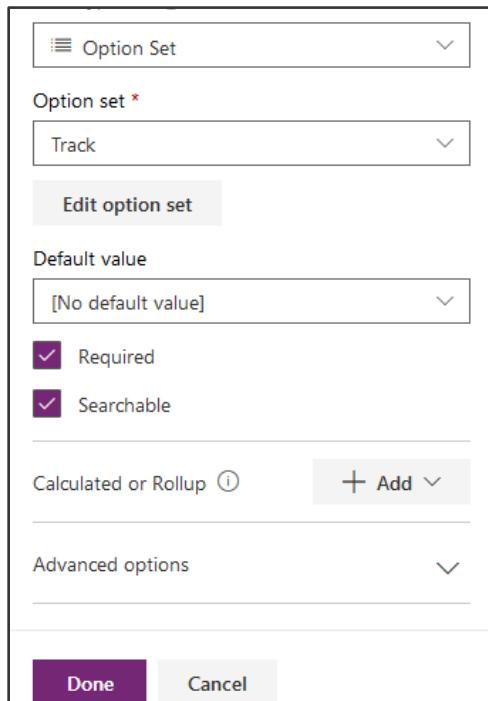
10. Enter **AI Builder** and click **Add New Item**.

11. Enter **CDS** and click **Add New Item**.

12. Enter **Power BI** and click **Save**.



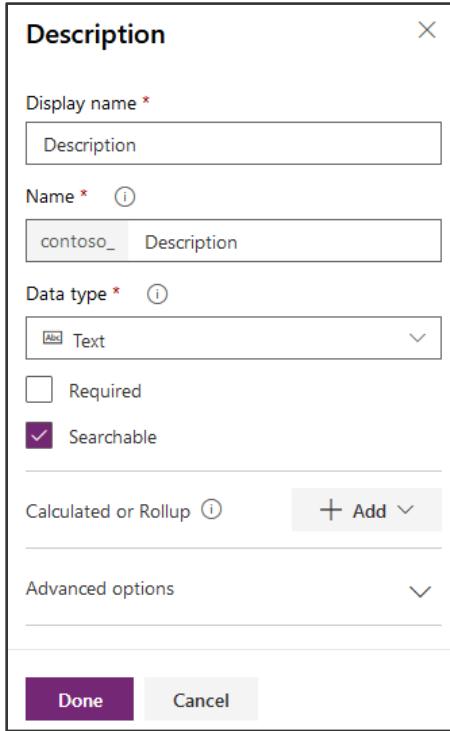
13. Check the **Required** checkbox and click **Done**.



14. Click + Add Field.

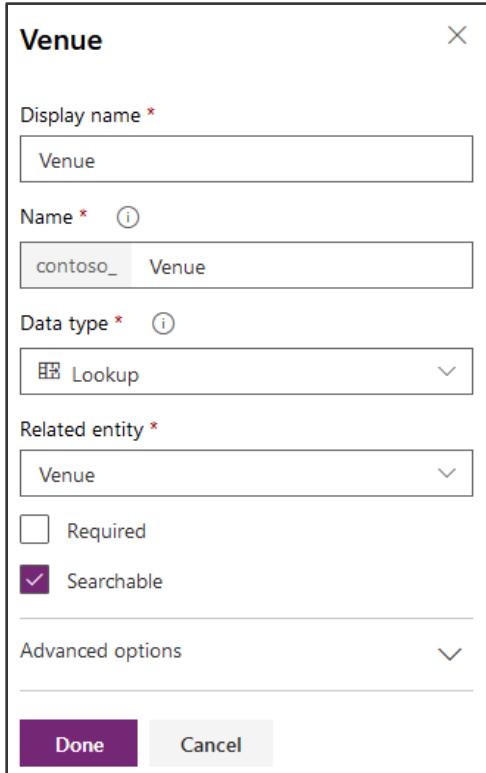
The screenshot shows the 'Session' entity list page. At the top, there are several buttons: '+ Add field' (highlighted with a red arrow), 'Edit data in Excel', 'Get data', 'Export data', and 'Delete entity'. A green success message says 'Your entity Session has been provisioned successfully.' Below the message, the navigation path is 'Solutions > Contoso Conference > Session'. There are tabs for 'Fields', 'Relationships', 'Business rules', 'Views', 'Forms', 'Dashboards', and 'Charts'. The 'Fields' tab is selected. A table lists fields: 'Display name' (contoso_name) and 'Name' (contoso_track). The 'Name' field is currently selected.

15. Enter Description for Display Name, select Text for Data Type, expand Advanced options and set max length to 1,000 and click Done.



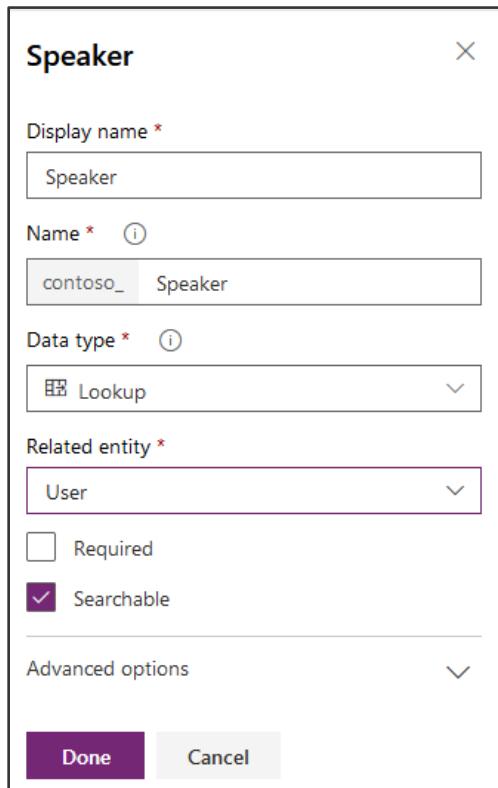
16. Click **+ Add Field**.

17. Add **Display name of Venue**; data type of **lookup**. Select **Venue** as the **related entity** and click **Done**.



18. Click **+ Add Field**

19. Add **Display name of Speaker**, data type of **lookup**, and **User** as the related entity; click **Done**.



20. Add the following additional fields and **Save the entity**.

Display name	Date type	Additional details
Start time	Date and Time	
End Time	Date and Time	
External Speaker	Text	
Capacity	Whole Number	
A/V Requirements	Text	Max length 1000
Room Setup	Text	Max length 1000
ADA Requirements	Text	Max length 1000
Session status	Option Set	Draft; Waiting Approval; Approved; Rejected; Published

21. Select the **Views** tab and click **+ Add View**

Name ↑	View type ↓	Type ↓
Active Sessions	... Public View Default	Custom
Inactive Sessions	... Public View	Custom
Quick Find Active Sessions	... Quick Find View Default	Custom
Session Advanced Find View	... Advanced Find View Default	Custom
Session Associated View	... Associated View Default	Custom
Session Lookup View	... Lookup View Default	Custom

22. Enter **Published Sessions** into **Name** and click **Create**

Create a view

New view X

contoso_Session

Name
Published Sessions

Description

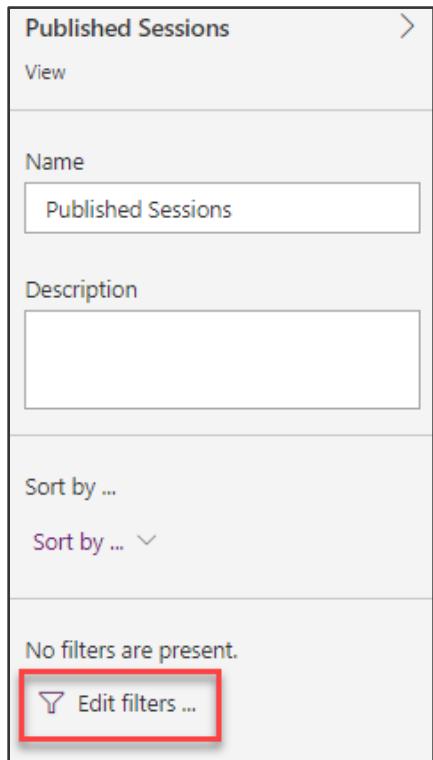
Use a view to define how a list of records for an entity appears in your app. Choose which columns to display, set the column width, specify how records are sorted, and more.

Create **Cancel**

23. Click on **Capacity** to add it as a view header.

24. Add the following fields to your view: **Speaker**, **External Speaker**, and **Track**.

25. On the right of the screen, select **Edit filters**



26. Click **Add** and input **Session Status Equals Published**.



27. Click **OK**

28. Click **Save** and click **Publish**.

29. Close the browser tab.

30. Click **Done**

31. Select the **Forms** tab and click to open the **Main** form.

Solutions > Contoso Conference > Session

Fields Relationships Business rules Views **Forms** Dashboards Charts Keys Data

Model-driven

Name ↓ ▾ Form type ▾

Information ... Quick View Form

Information ... Card

Information ... **Main**

32. Drag the **Description** field and place it below the **Name** field.

Fields

Session

+ New field

Show only unused fields

Created By

Created By (Delegate)

Created On

Description

End Time

SESSION
New Session

General

Name * ---

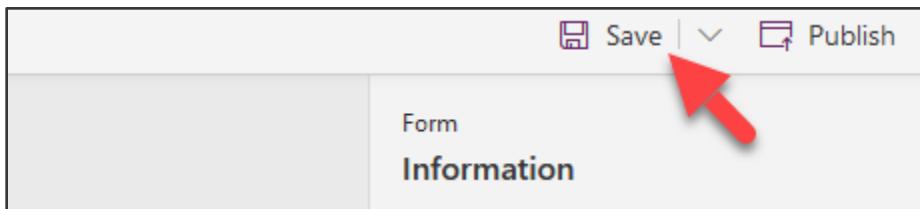
Owner * Description

33. Add the fields you have created to the form.

The screenshot shows a 'SESSION' screen titled 'New Session'. It contains a 'General' section with the following fields:

- Name (marked with a red asterisk)
- Description
- Session Status
- Track (marked with a red asterisk)
- Start Time
- End Time
- Speaker
- External Speaker
- Venue
- Capacity
- ADA Requirements
- A/V Requirements
- Room Setup
- Owner (marked with a red asterisk) with a search icon and placeholder 'AIAH User'

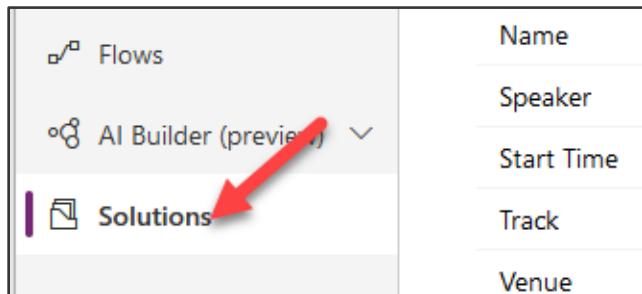
34. Click **Save**.



35. Click **Publish**.

36. Return to the PowerApps maker using your browser back button.

37. Select **Solutions**.



38. Click **Publish All Customizations** and wait for the publishing to complete.

A screenshot of the 'Solutions' list page in PowerApps studio. The top navigation bar includes 'New solution', 'Import', 'Open AppSource', 'Publish all customizations' (which is highlighted with a red arrow), and 'Switch to classic'. The main area shows a table with columns 'Display name', 'Created ↓', and 'Version'. There are no solutions listed in the table.

Exercise 2 - Create Conference Admin App

In this exercise, you will create the model-driven conference administration application.

Model-driven apps are built by composing multiple page types and components built using several focused designers.

Model-driven apps are fully responsive so a single definition works from web to tablet to mobile devices. This is different from the canvas apps which need to choose the mobile vs. tablet when defining the app.

Task 1 – Create the model-driven app

1. Navigate to <https://make.powerapps.com/> and make sure you are in the correct environment.
2. Select **Solutions** and click to open the **Contoso Conference** solution.

A screenshot of the PowerApps Solutions list. The 'Solutions' section shows three entries:

Display name	Created	Version
Contoso Conference	7/12/2019	1.0.0.1
Asset Checkout	7/6/2019	0.0.0.1
Innovation Challenge	7/6/2019	0.0.0.1

A red arrow points to the 'Contoso Conference' row.

3. Click **New | App | Create an App | Model-Driven App**.

A screenshot of the PowerApps App creation navigation menu. The 'App' section shows three options: 'App', 'Dashboard', and 'Entity'. The 'Model-driven app' option is highlighted with a red arrow.

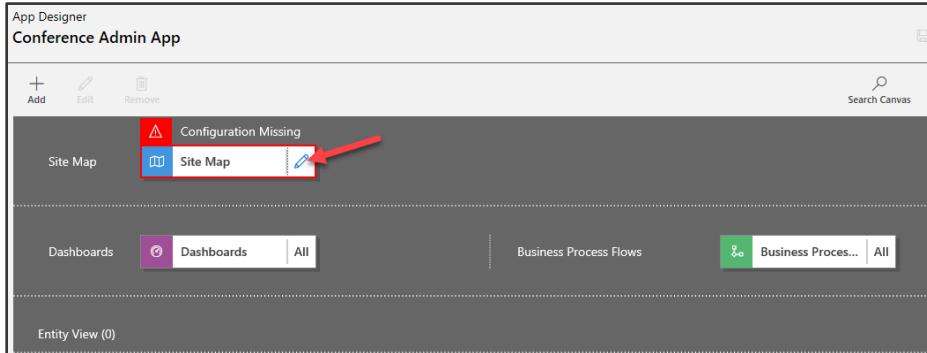
4. Enter **Conference Admin App** for Name and click **Done**.

A screenshot of the 'Create a New App' dialog. The form fields are:

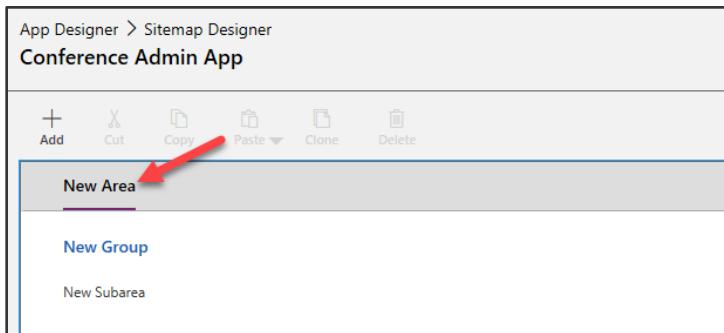
- Name :*
- Unique Name :*
- Description:
- App Tile:

Buttons at the top right are 'Done' and 'Cancel'.

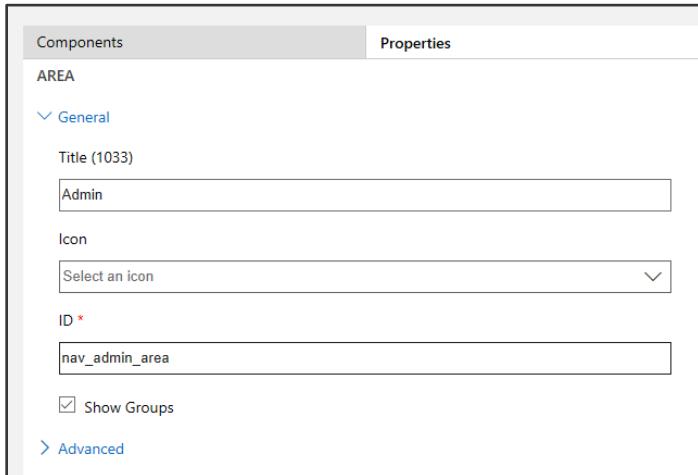
5. Click **Edit Site Map**.



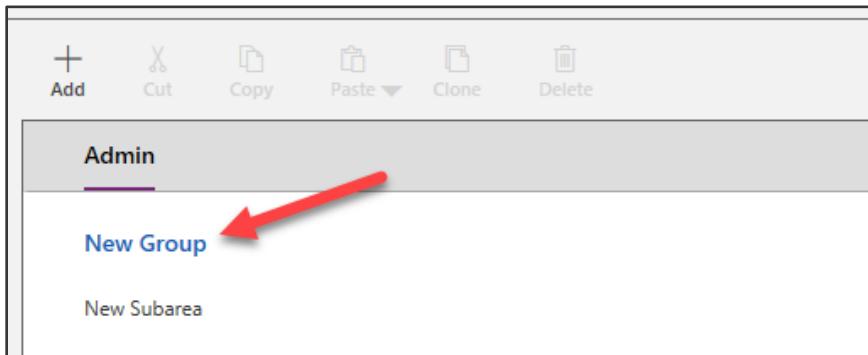
6. Click to select the **New Area**.



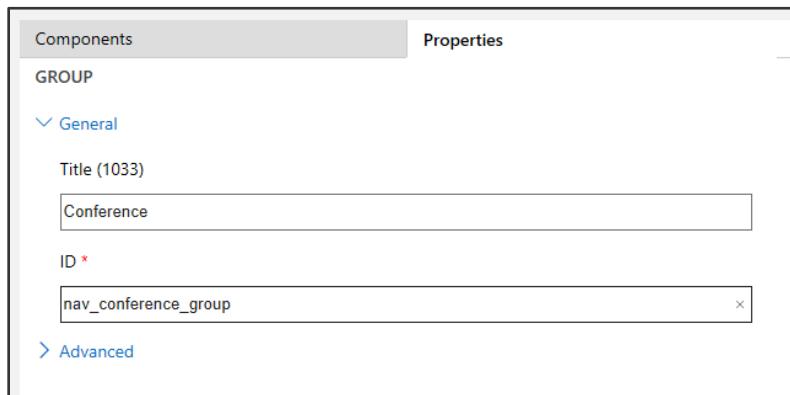
7. Go to the **Properties** pane, enter **Admin** for **Title**, and **nav_admin_area** for **ID**.



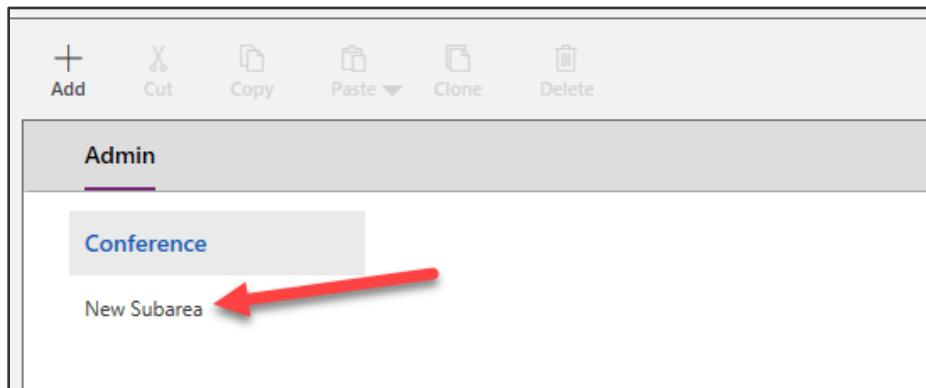
8. Click to select the **New Group**.



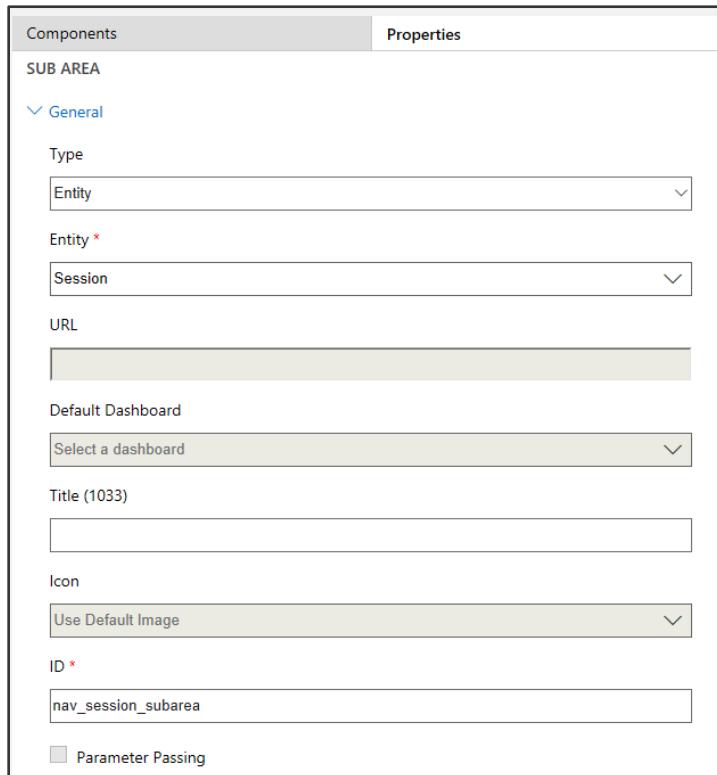
9. Go to the **Properties** pane, enter **Conference** for **Title**, and **nav_conference_group** for **ID**.



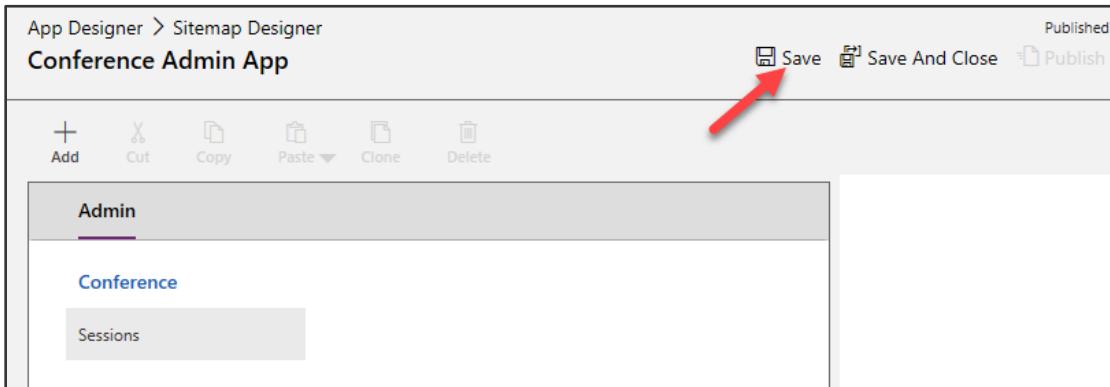
10. Click to select the **New Subarea**.



11. Go to the **Properties** pane and select **Entity** for **Type**, **Session** for **Entity**, and **nav_session_subarea** for **ID**.



12. Your **Site Map** should look like the image below. Click **Save**.



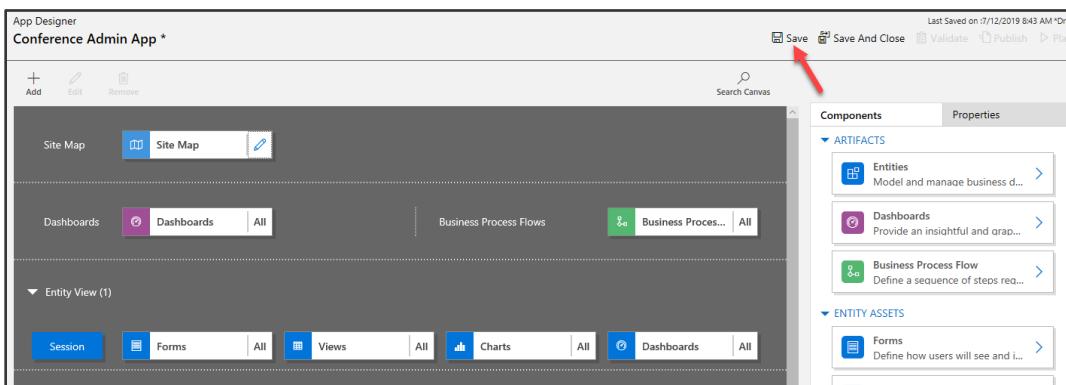
13. Click **Publish** and wait for the publishing to complete.



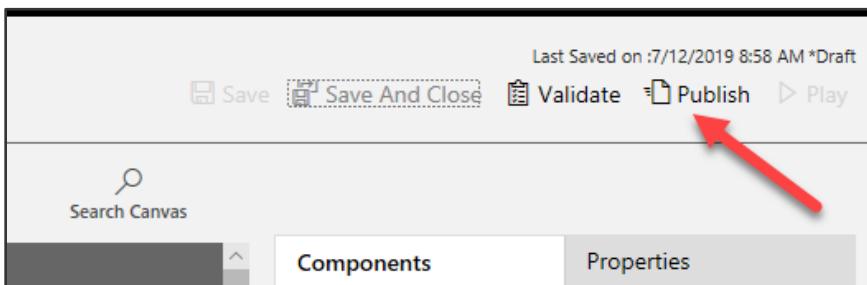
14. Click **Save and Close** to close the Site Map editor.



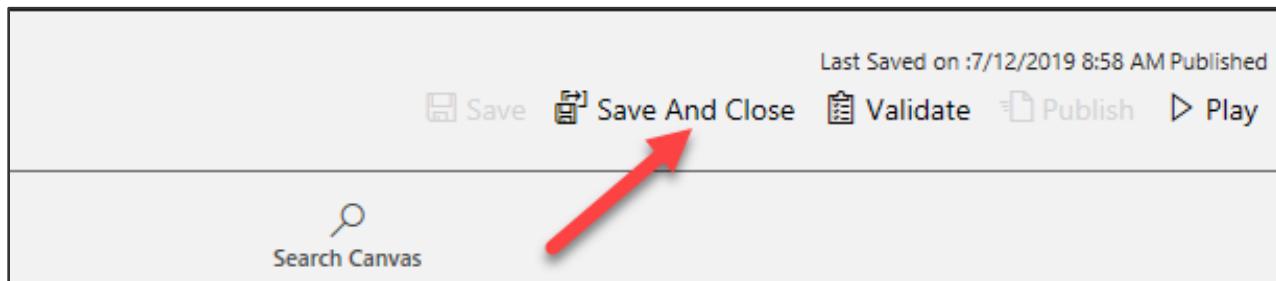
15. Your Model-Driven application should now look like the image below. Click **Save**.



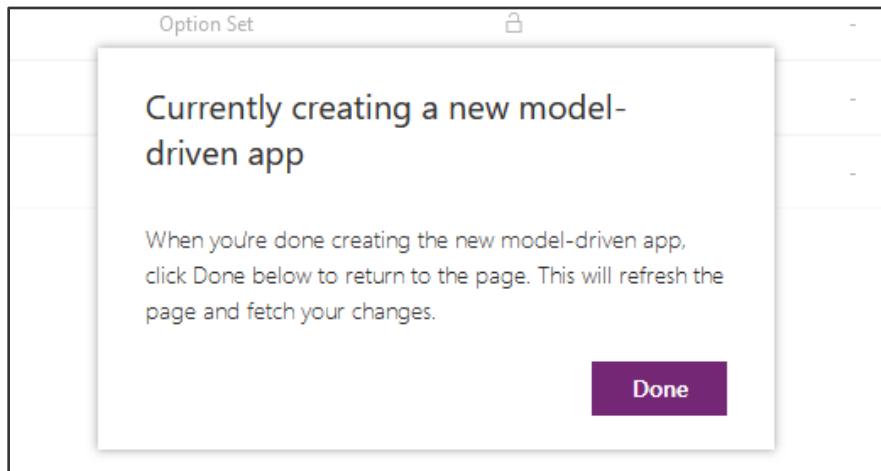
16. Click **Publish** to publish the application.



17. Click **Save and Close** to close the Model-Driven application designer.



18. Click **Done**.



19. Your new application should now be listed under **Apps**.

A screenshot of the Microsoft Dynamics 365 Home page. On the left, there's a sidebar with navigation links: 'Home', 'Learn', 'Apps' (which is selected and highlighted in purple), 'Create', 'Data Entities'. The main content area shows a section titled 'Apps in App in an hour (orgbcba3403)'. Below it, there are four tabs: 'Recent apps' (which is underlined in purple), 'Shared with me', 'Apps I can edit', and 'Org apps'. Under 'Recent apps', there's a table with two rows. The columns are 'Name' and 'Modified'. The first row shows 'Conference Admin App' modified '1 min ago'. The second row shows 'Asset Checkout' modified '5 d ago'. There are three dots next to each row.

Task 2 - Test the Model-Driven Application

In this task, you will test the Conference Admin App and create Venue and Session records.

1. Select **Apps** and click to open the **Conference Admin App**.

Apps in App in an hour (orgbcba3403)

Recent apps Shared with me Apps I can edit Org apps

Name	Modified
Conference Admin App	5 min ago
Asset Checkout	5 d ago

2. Your application should load. Click **+ New**.

Dynamics 365 Conference Admin App Admin > Sessions

Show Chart + New Delete Refresh Email a Link

Active Sessions

Name

3. Enter **Common Data Service** for **Name**, enter **Common Data Service lets you securely store and manage data that's used by business applications** for **Description**. provide future date and time for **Start** and **End** times, select **CDS** for **Track**, and click **Save**.

SESSION New Session

General

Name	Common Data Service
Description	Common Data Service lets you securely store and manage data that's used by business applications
Start Time	9/21/2019 10:00 AM
End Time	9/22/2019 5:00 PM
Track	CDS

4. Click on the **Venue** lookup and click **+ New**.

End Time * 7/19/2019 9:00 AM

Track * CDS

Venue Look for Venue

Speaker No records found. Create a new record.

Owner + New

Change View

5. Provide the information below and **click Save and Close**.

Room: Microsoft Event Center Conference Room Red

Address: 16070 NE 36th Way, Redmond, WA 98052

6. Click on the **Venue** lookup and select the venue you created.

External Speaker ---

Venue Microsoft Event Center Conference Room Red X

Capacity ---

7. Click on the **Speaker** lookup and select the user you are logged in as.

General Related

Name * Common Data Service

Description Common Data Service lets you securely store and manage data that's used by business applications

Start Time 9/21/2019 10:00 AM

End Time 9/22/2019 5:00 PM

Track * CDS

Venue Mandalay Bay Room 795

Speaker First Last

8. Click on **Session Status** and Select **Published**.

SESSION
Common Data Service

General Related

Name	* Common Data Service
Description	Common Data Service lets you securely store and manage data that's used by business applications
Start Time	9/21/2019 <input type="button" value="10:00 AM"/>
End Time	9/22/2019 <input type="button" value="5:00 PM"/>
Track	* CDS
Venue	Mandalay Bay Room 795
Speaker	First Last
Session Status	Published
Owner	* First Last

9. Click on the **Speaker Name**.

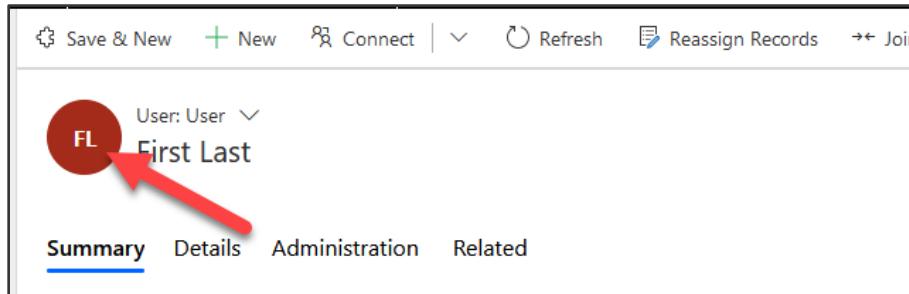
Track	* CDS
Venue	Mandalay Bay Room 795
Speaker	First Last
Owner	* First Last

10. Locate the Tile field and enter **Program Manager**.

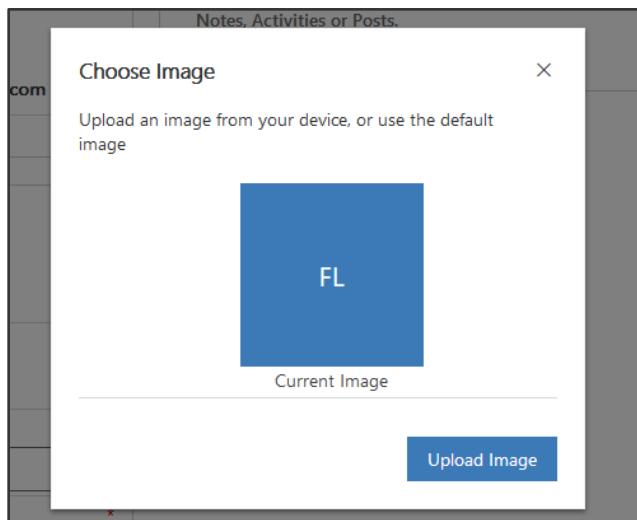
User Information

First Name	* First
Last Name	* Last
Title	Program Manager
Primary Email	* <input type="text"/>

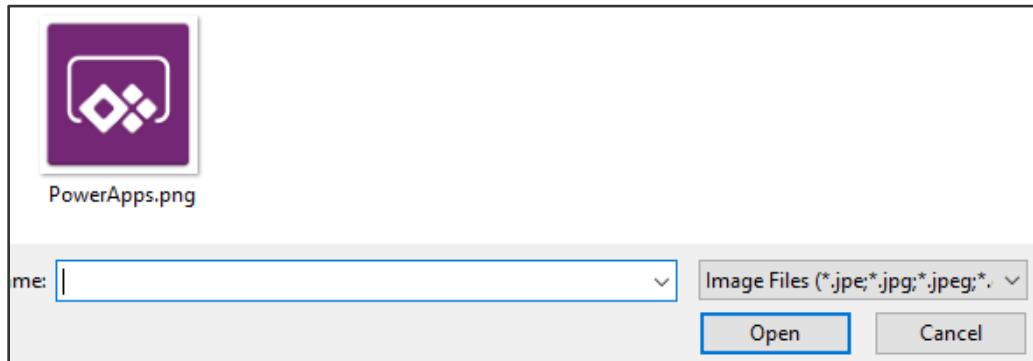
11. Click on the entity Image.



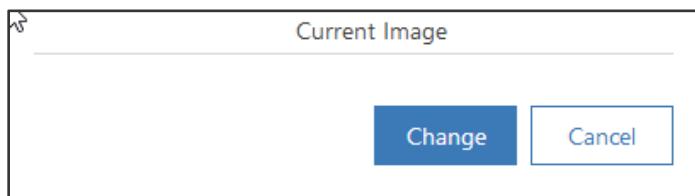
12. Click **Upload Image**.



13. Select the PowerApps image located in the resources folder and click **Open**.



14. Click **Change**.



15. Select **Sessions** and click **+ New**. You will add the following records, make sure to choose **your user as the speaker**, the **venue you added** and **start and end times** in the future.

Name	Status	Track	Description
------	--------	-------	-------------

Advanced Microsoft Flow	Published	Microsoft Flow	Learn advanced Flow skills
Intermediate Power BI	Published	Power BI	Simplify Your Data. Create Custom Dashboards & Reports
Introduction to PowerApps	Rejected	PowerApps	PowerApps lets pro developers programmatically interact with data and metadata.

16. Close the Conference Admin App browser tab/window.

Exercise 3 - Create Conference Attendee App

In this exercise, you will create the conference canvas application that the internal conference attendees will use.

Task 1 – Setup the basic app

1. Navigate to <https://make.powerapps.com/> and make sure you are in the correct environment.
2. Select **Solutions** and open the **Contoso Conference** solution.

Display name	Created	Version
Contoso Conference	7/12/2019	1.0.0.1
Asset Checkout	7/6/2019	0.0.0.1
Innovation Challenge	7/6/2019	0.0.0.1
Fundraiser	7/6/2019	1.0.0.2
Common Data Services Default Solution	7/6/2019	1.0.0.0
Default Solution	7/6/2019	1.0

3. Click **New | App | Canvas | Phone form factor**.

+ New > Add existing > Delete Export Publish all customizations

App > Canvas app > Phone form factor

Dashboard > Model-driven app

Entity

Flow

Name Type

4. Click **Skip**.

Welcome to PowerApps Studio

Here are a few ways to start building an app from a blank canvas.

Create a form >

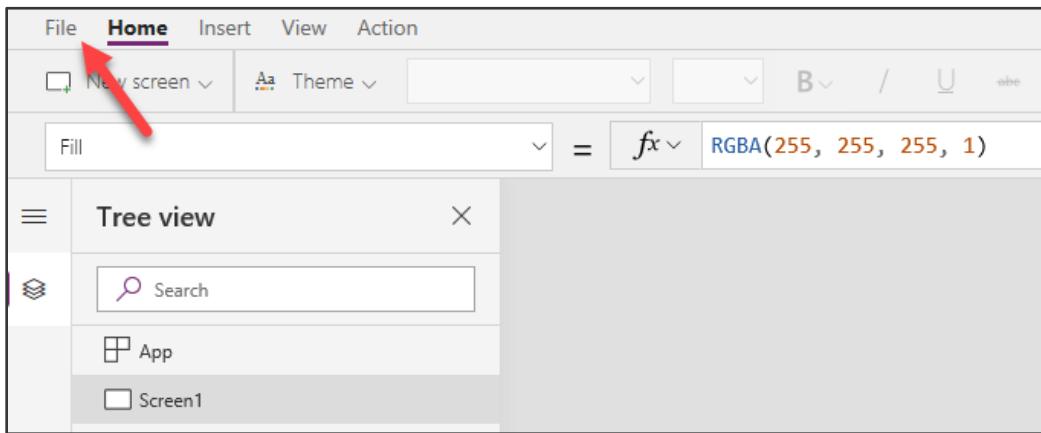
Create a gallery >

Take an interactive tour to see how an app is built >

Don't show me this again

Skip

5. You will first enable Components for the application. Click **File**.



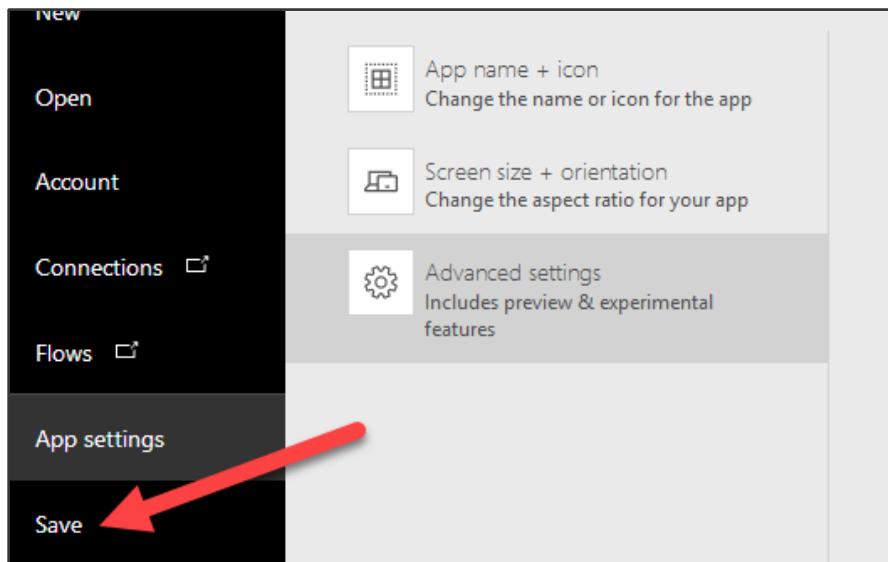
6. Select the **Advanced Settings** tab.

A screenshot of the 'App settings' page. On the left, there are three options: 'App name + icon', 'Screen size + orientation', and 'Advanced settings'. A red arrow points to the 'Advanced settings' option. On the right, there's a search bar and a section titled 'Advanced settings' with a sub-section for 'Data row limit for non-delegable queries'. The value is set to 500.

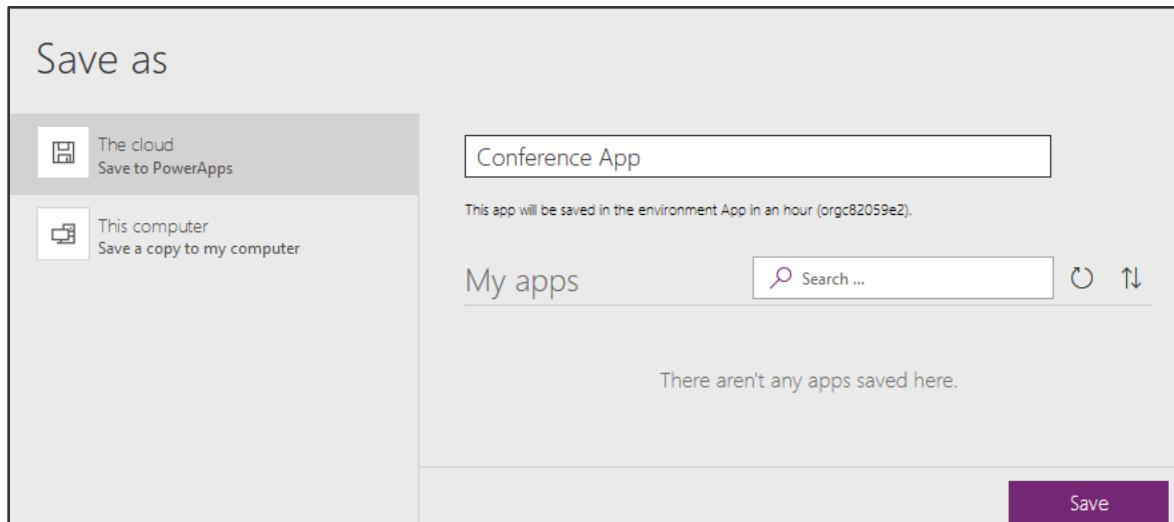
7. Locate **Components** and turn it on.

A screenshot of the 'App settings' page. The 'Advanced settings' option is selected. On the right, there are several toggle switches. One switch for 'Components' is turned 'On' and is highlighted with a red box. Below it is another switch for 'Enable formula bar result view' which is turned 'Off'.

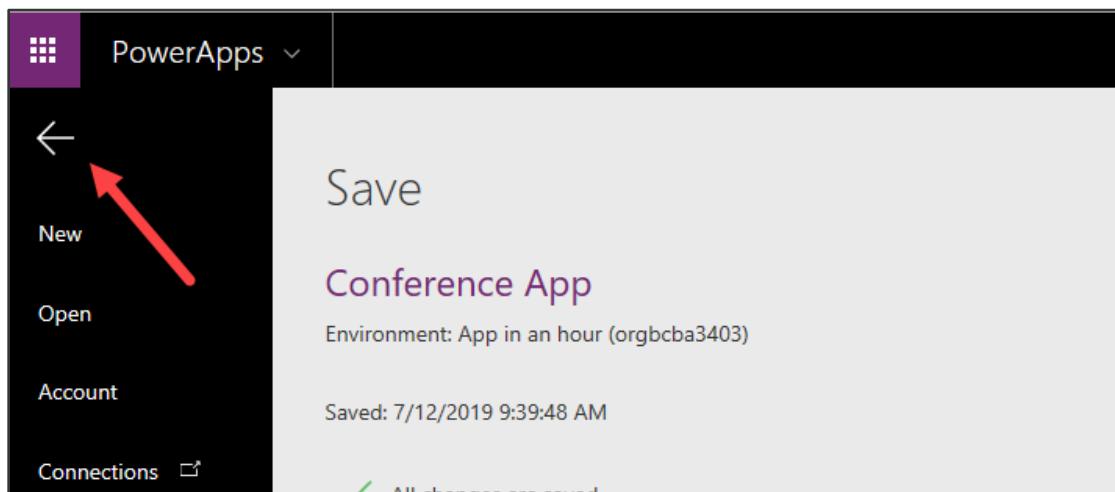
8. Select **Save**.



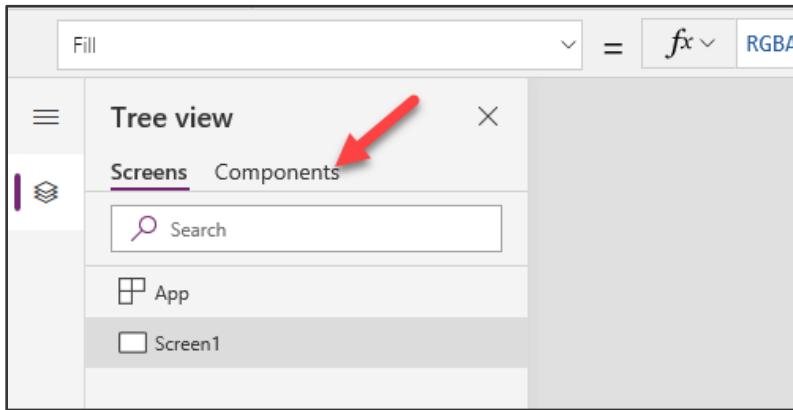
9. Enter **Conference App** for **App Name** and click **Save**.



10. Click on the **designer** back button.



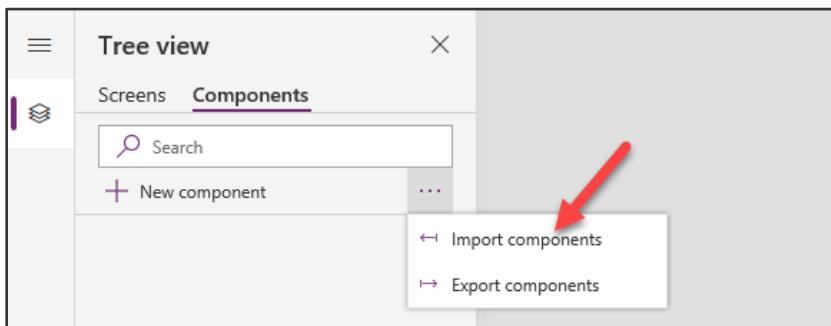
11. You should now have **Components** tab. Click to select the **Components** tab.



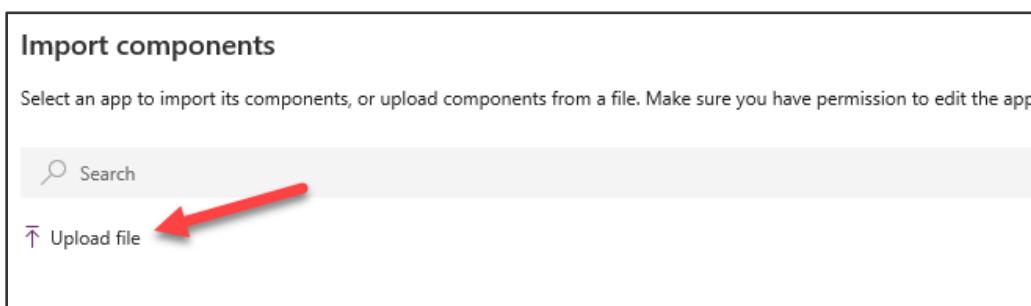
Task 2 – Import pre-existing components

To make it quicker to build your app, we have provided you some reusable canvas components that you will be using to compose your app.

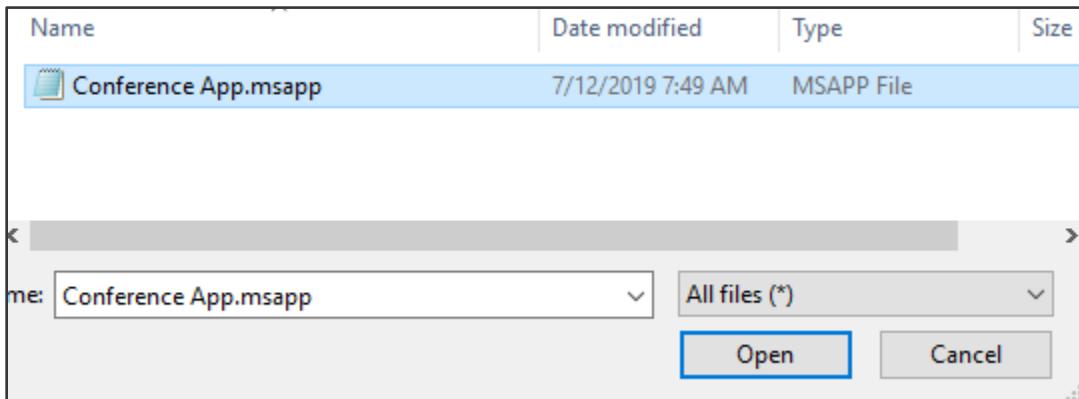
1. Click on the **Components Options** button and select **Import Components**.



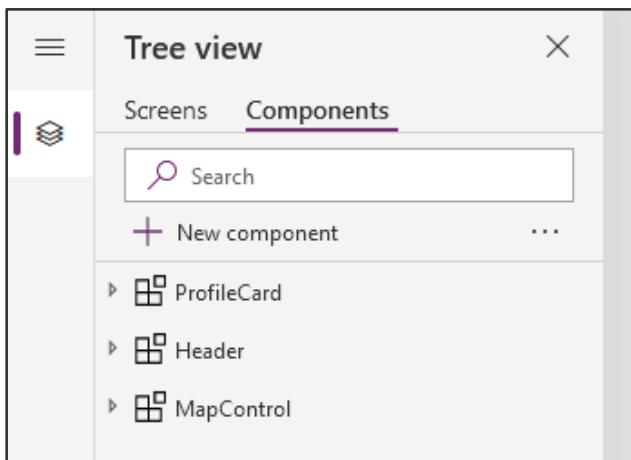
2. Click **Upload File**.



3. Select the **Conference App.msapp** file located in the lab resources folder and click **Open**.

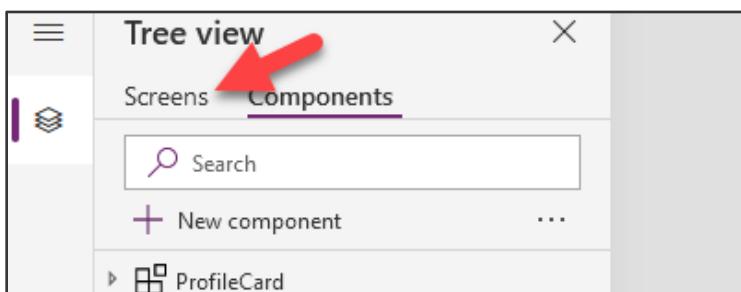


4. Three components should be added.

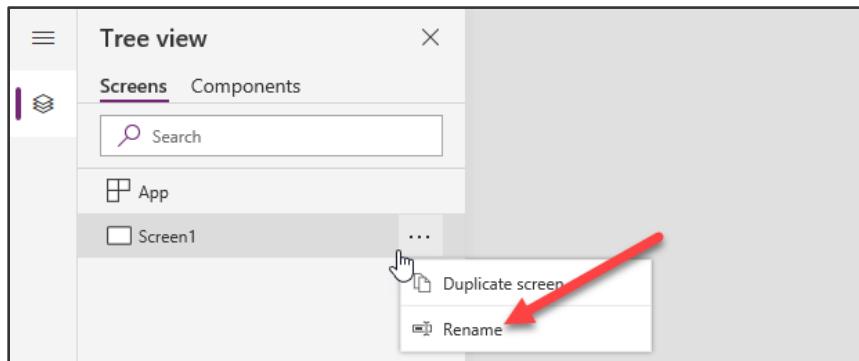


Task 3 – Setup the home screen

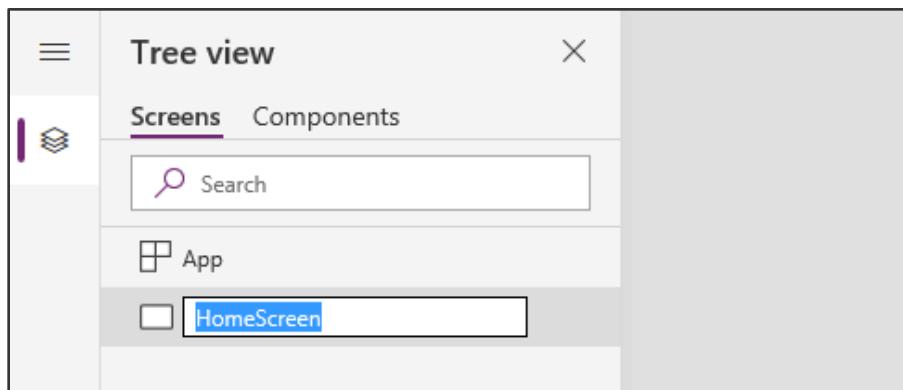
5. Select the **Screens** tab.



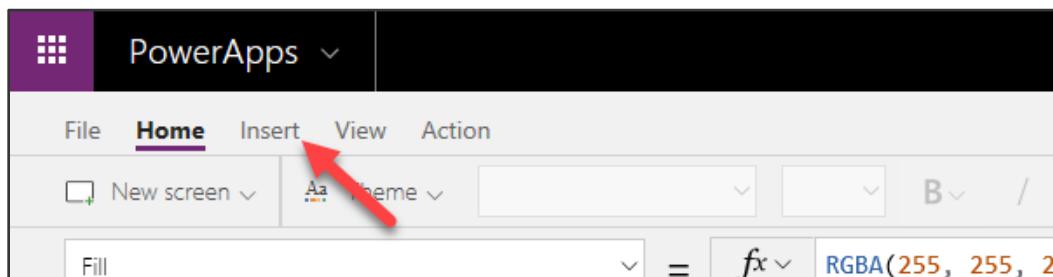
6. Click on the ... button of **Screen1** and select **Rename**.



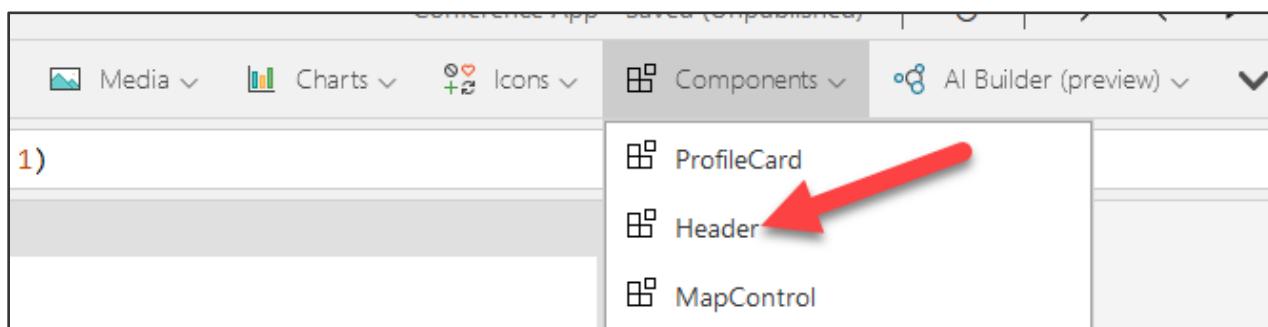
7. Rename it **HomeScreen**.



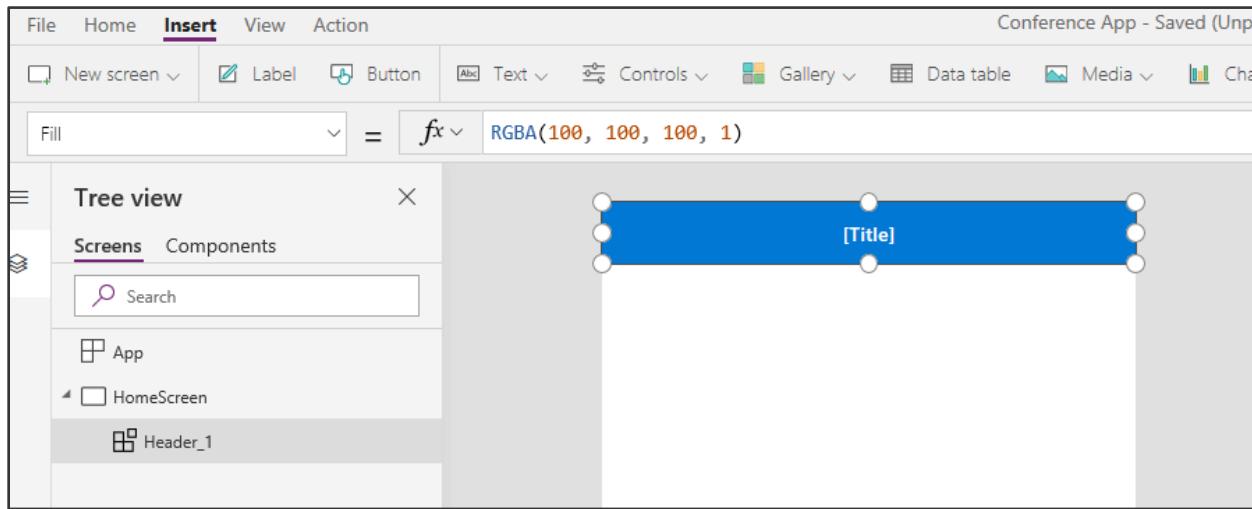
8. Select the **Insert** tab.



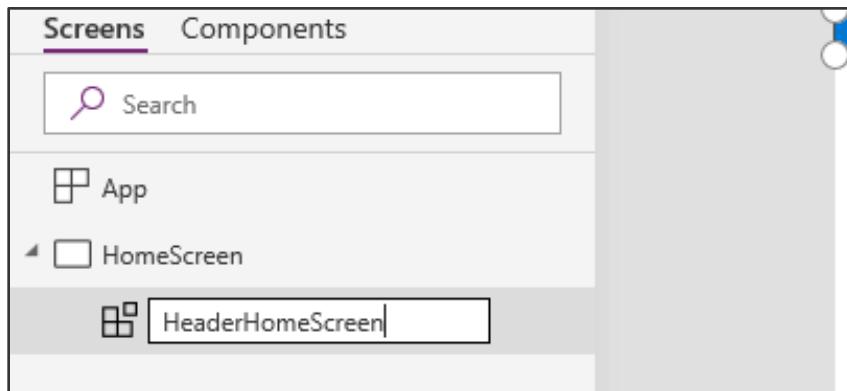
9. Click **Components** and select **Header**.



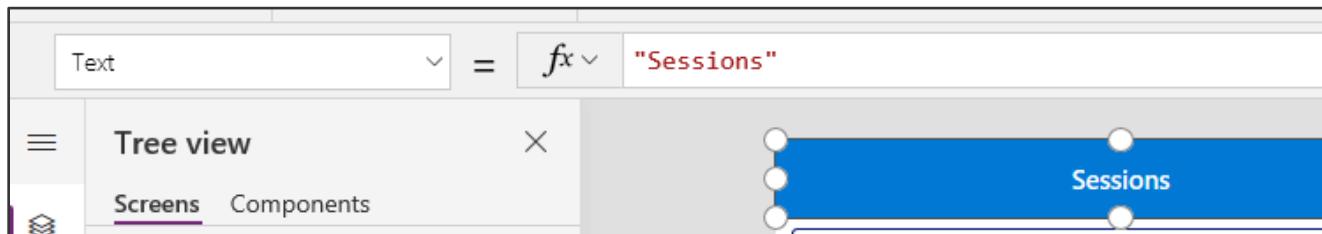
10. The **Header** component should be added to the screen.



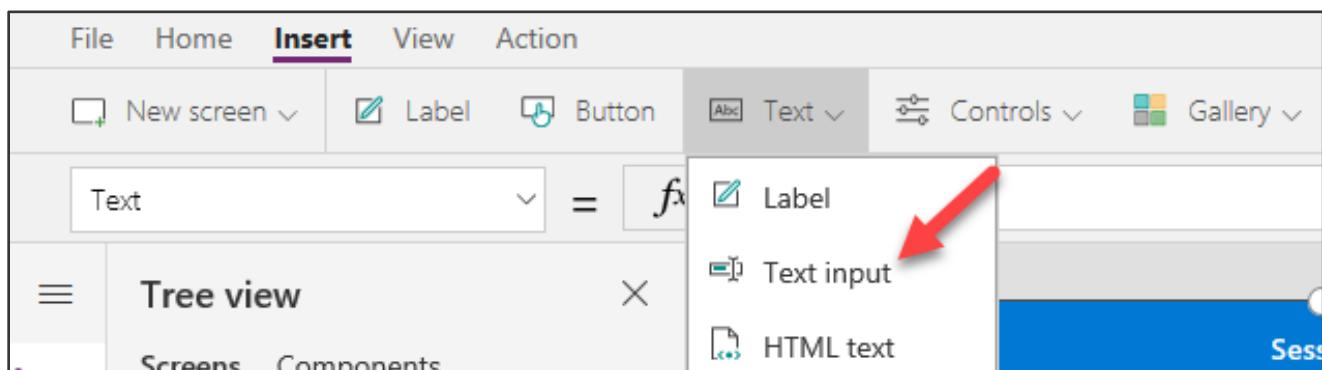
11. Rename the Header **HeaderHomeScreen**.



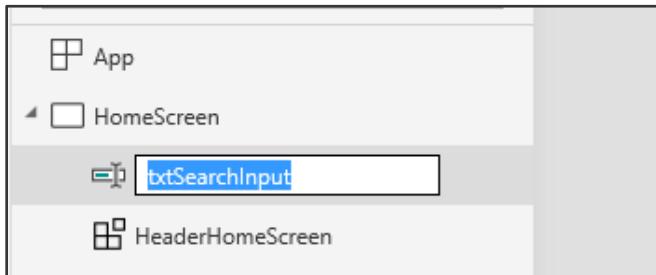
12. Select **HeaderHomeScreen** and change the **Text** value to **Sessions**.



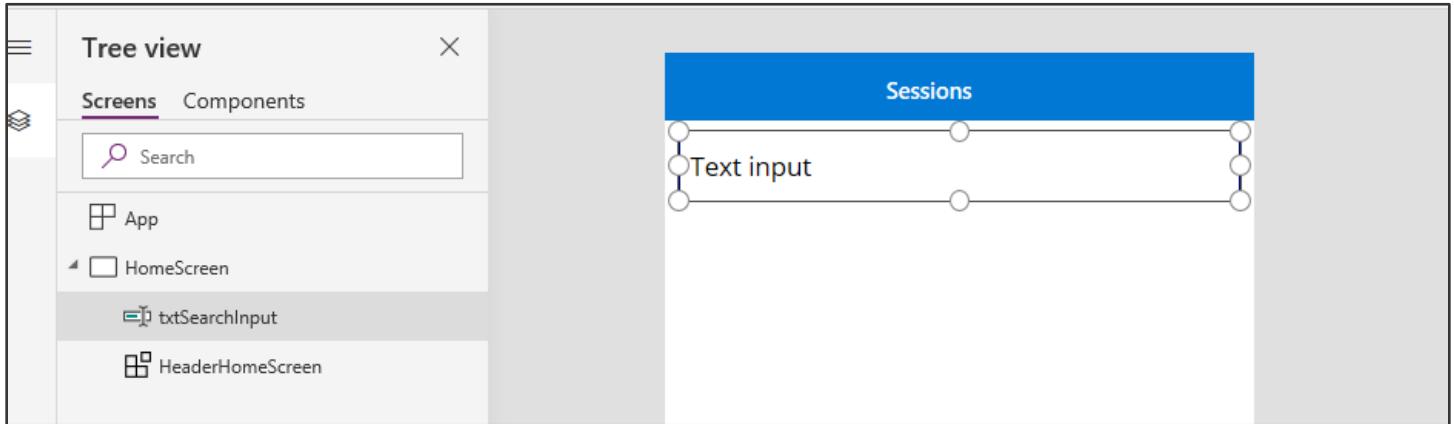
13. Go to the **Insert** tab, click **Text**, and select **Text Input**.



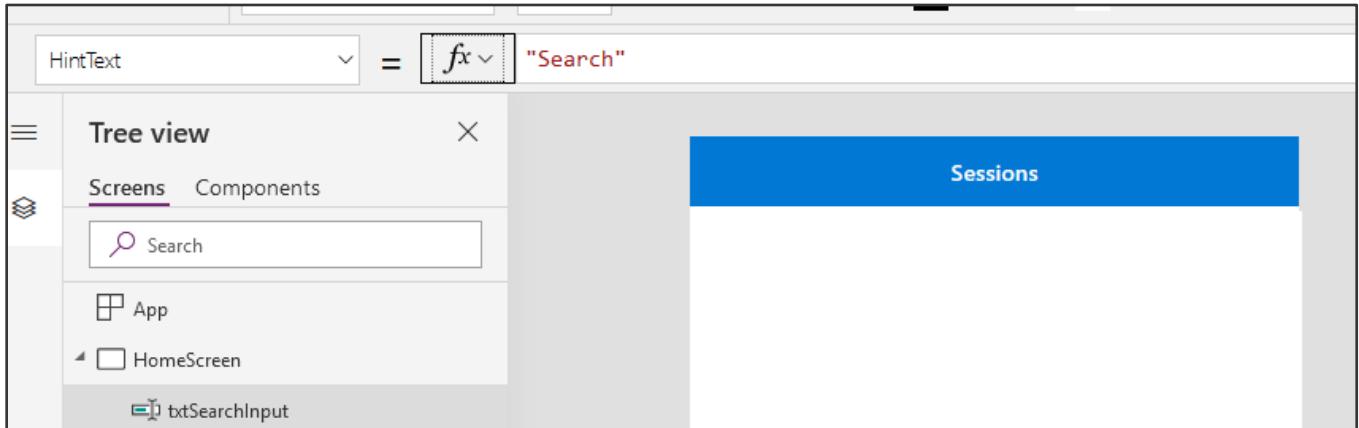
14. Rename the text input **txtSearchInput**.



15. Resize and reposition **txtSearchInput** to fill the width of the screen directly below the header; as shown in the image below.

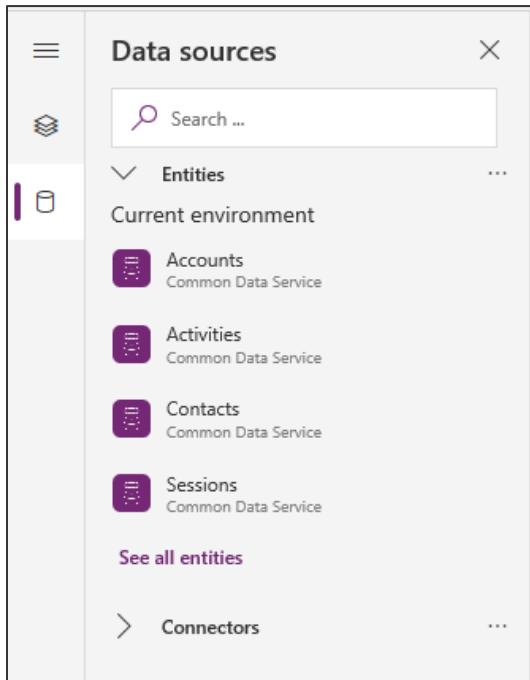


16. Change the **HintText** value to **Search**; and the **Default** text to **''**

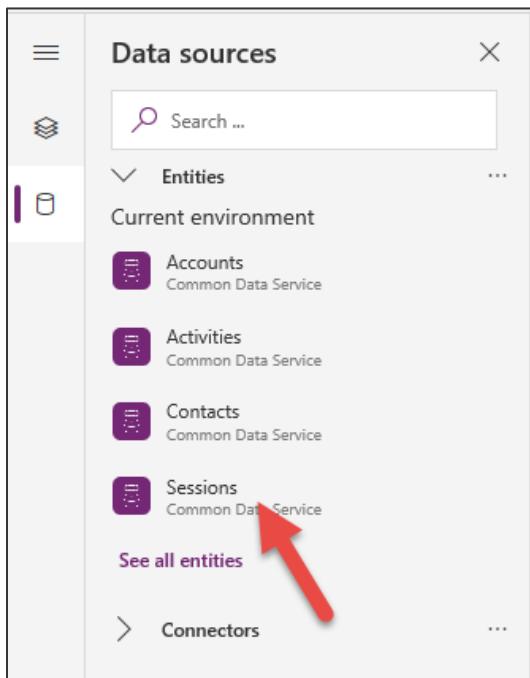


Task 4 – Add a list of sessions

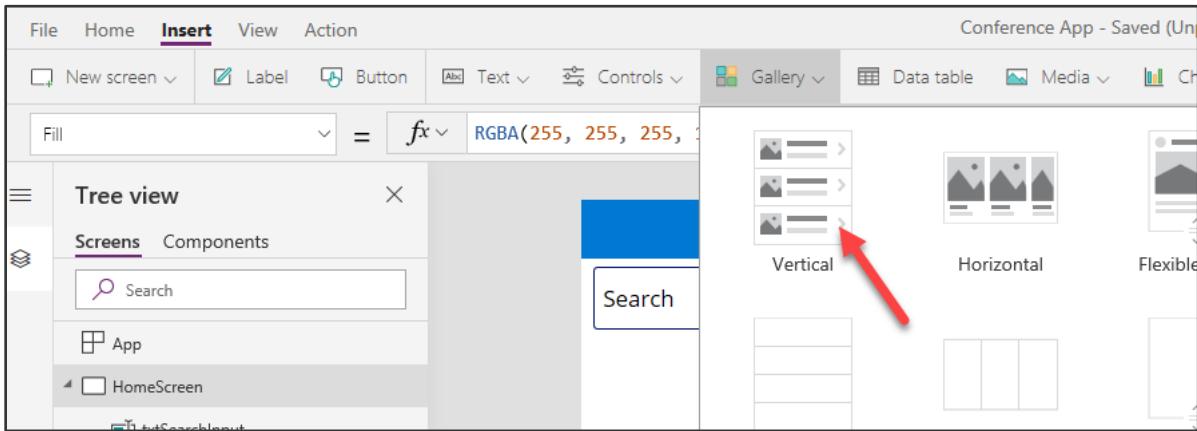
1. Expand Data Sources on the Tree View, notice our CDS entities are already available.



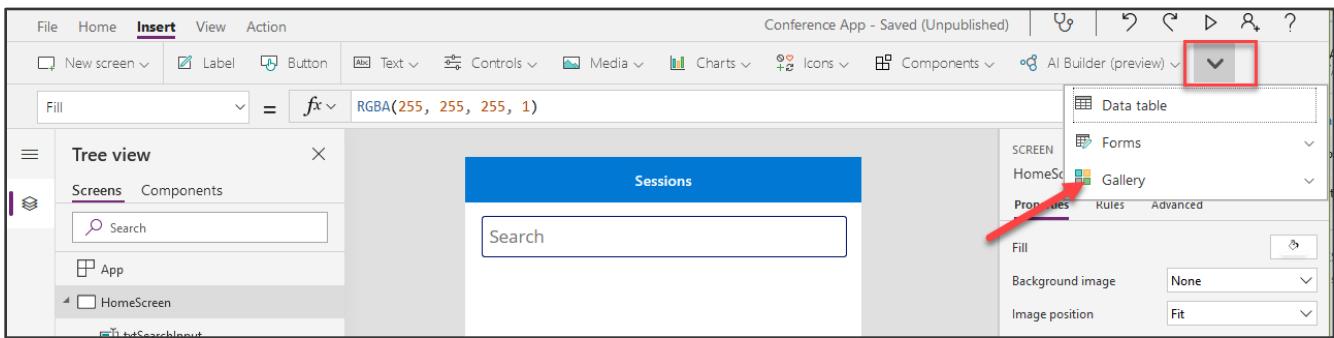
2. Select **Sessions** to connect it.



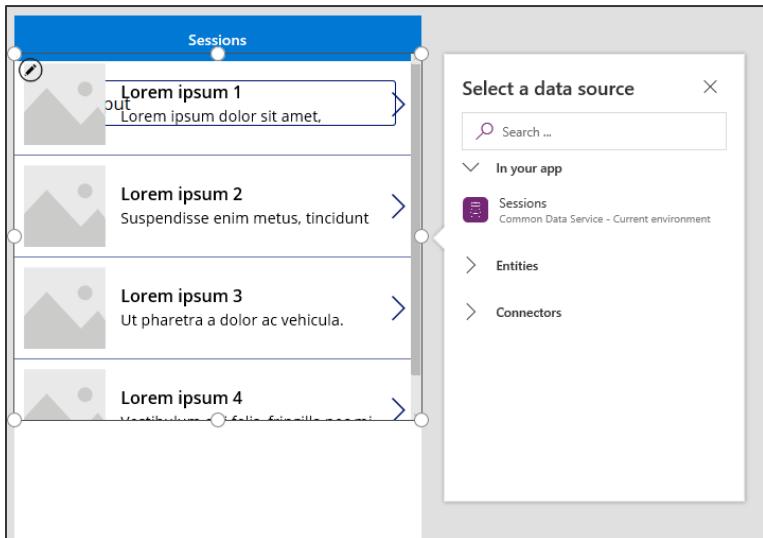
3. Go to the **Insert** tab, click **Gallery** and select **Vertical**.



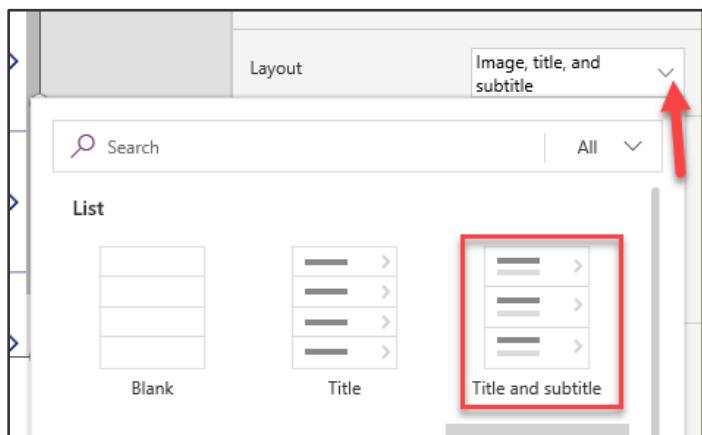
If you don't see the Gallery dropdown Click on the More button and then click Gallery.



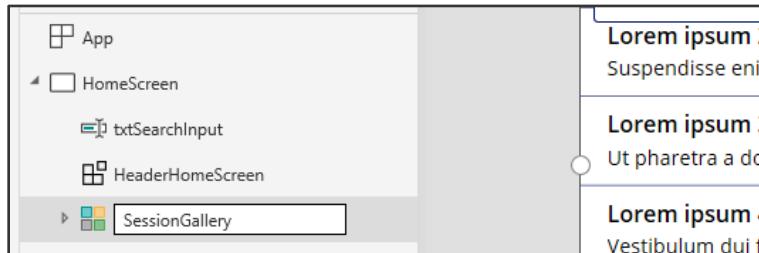
4. Close the **Data** pane.



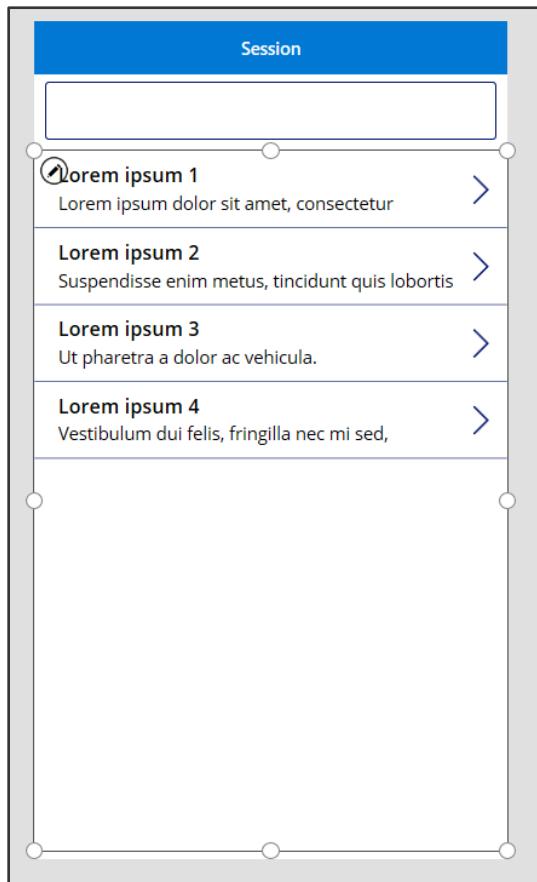
5. Click on the **Layout** dropdown and select **Title and Subtitle**.



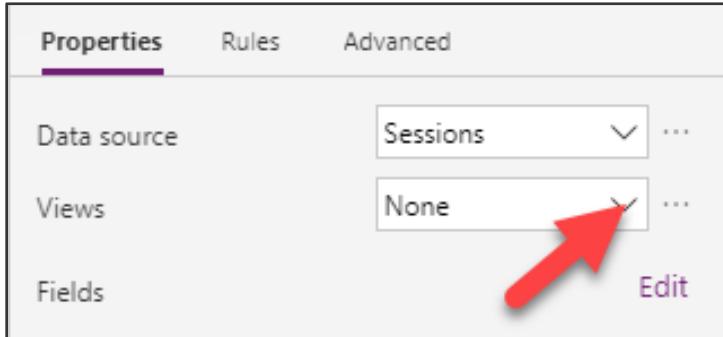
6. Rename the gallery **SessionGallery**.



7. Resize and reposition the **SessionGallery** below the other items on the screen; as shown in the image below.

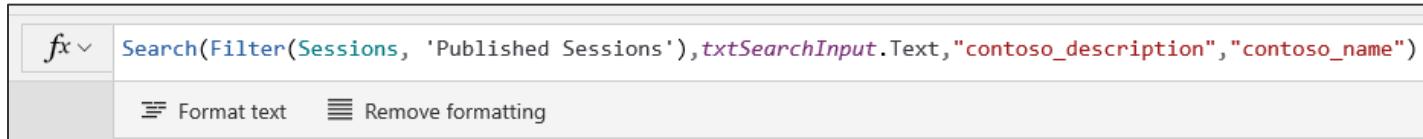


8. Select **SessionGallery** and from the **Properties** tab, change the **Data Source** to **Sessions**. Notice all of the session records we created are now previewed. Now change the **Views** to **Published Sessions**; and now only our published sessions are shown.

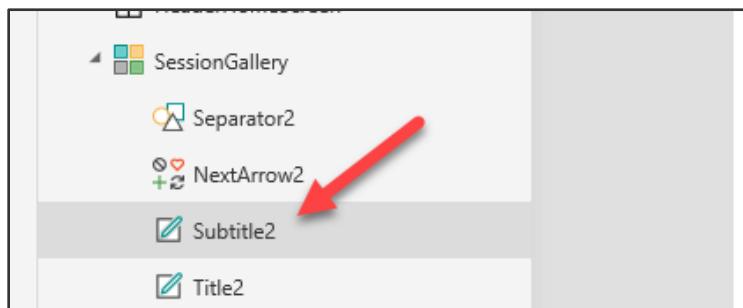


9. While this sets our data source for the gallery, we now will add the search functionality. We will search based on both session name and description. With the SessionGallery selected in the tree view, change the Items property to the following formula:

```
Search(Filter(Sessions, 'Sessions (Views)'.Published Sessions),txtSearchInput.Text,"contoso_description","contoso_name")
```



10. Expand **SessionGallery** and select the **Subtitle**.

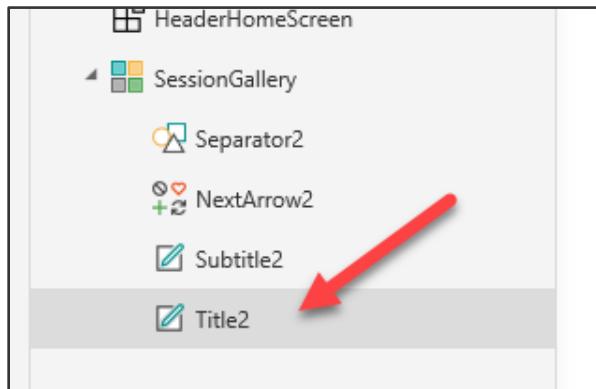


11. Set the Text value of the subtitle to the formula below.

```
Text(ThisItem.'Start Time', ShortTime) & "-" & Text(ThisItem.'End Time', ShortTime) & "@ " & ThisItem.Venue.Room
```

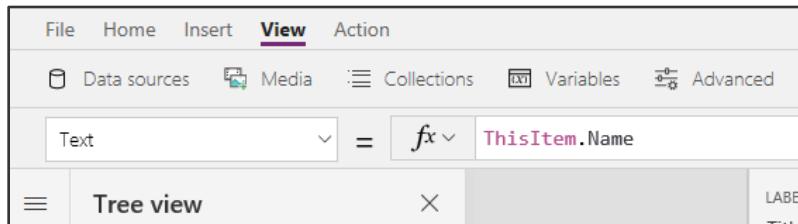


12. Select the **Title**.

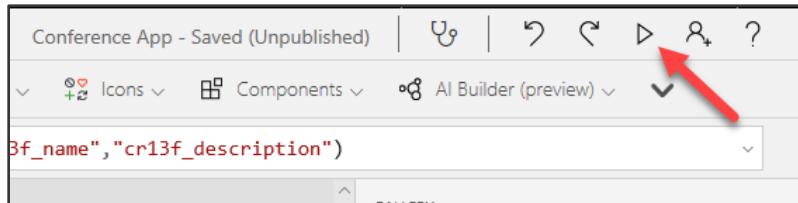


13. Change the **Text** value **Title** to the formula below.

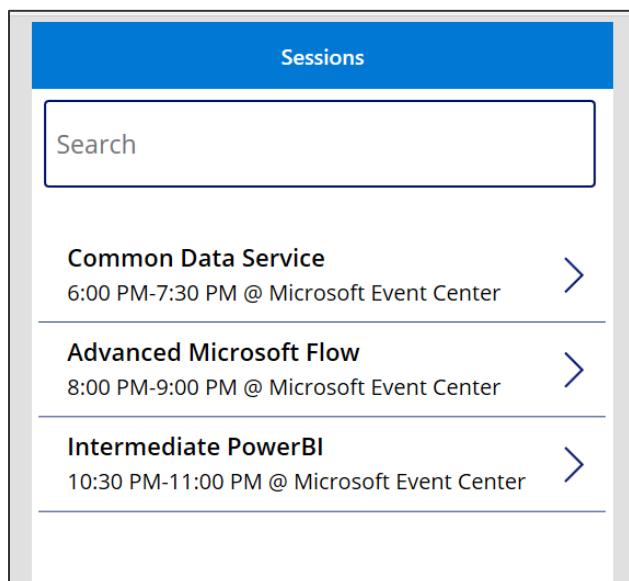
ThisItem.Name



14. Click **Play**.



15. The application will load. Enter text in the search box.



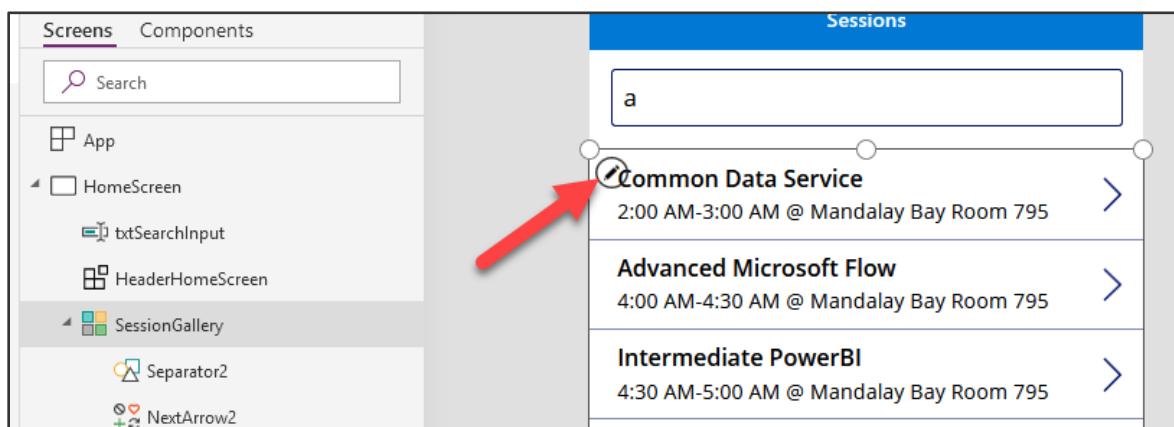
16. Close the preview.



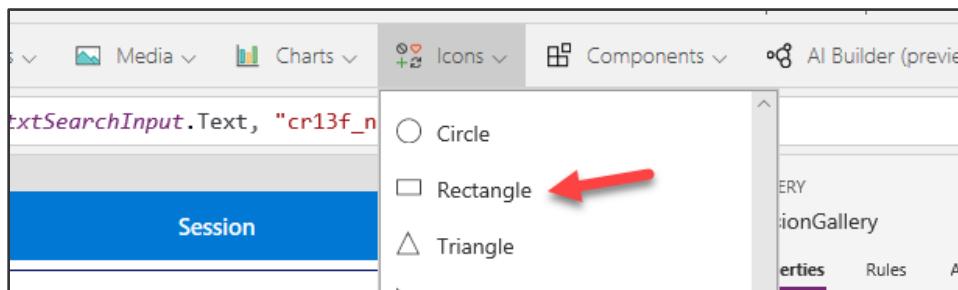
Task 5 – Color code the sessions

In this task, you will be adding a color highlight to each session to indicate which track the session is part of.

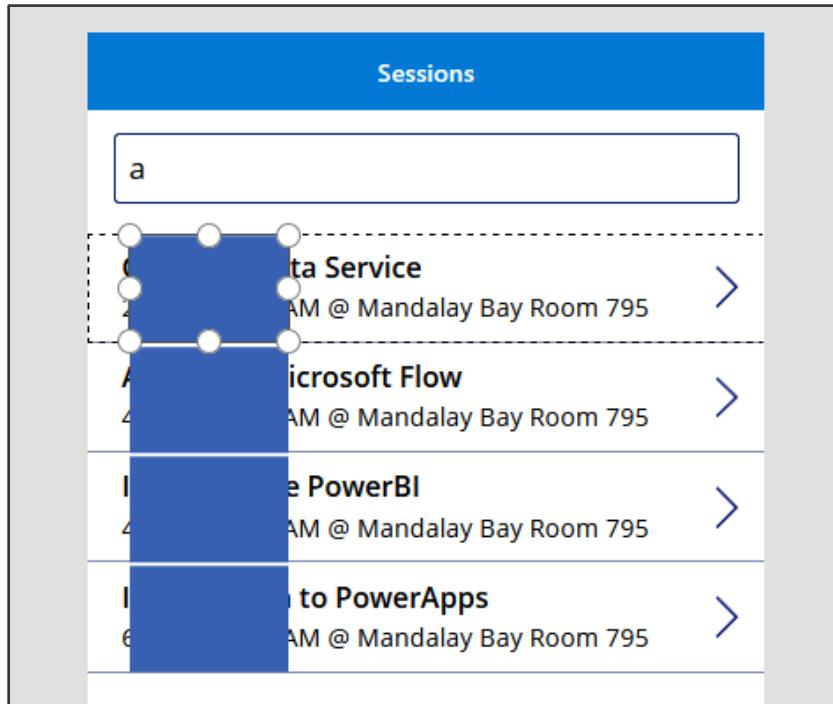
1. Select **SessionGallery** and click on the **Edit** button.



2. Go to the Insert tab, click Icons and select Rectangle.

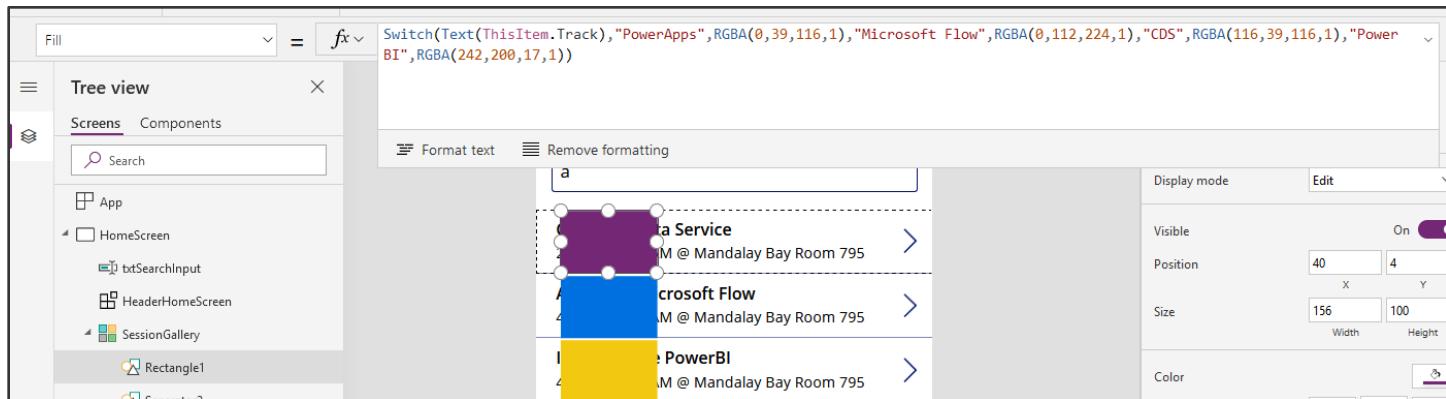


3. Rectangle should be added to the gallery.

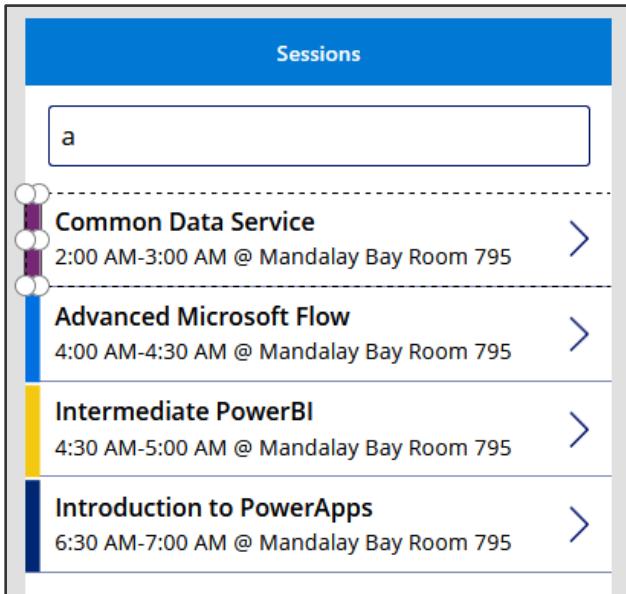


- Set the **Fill** value of the rectangle to the formula below. This formula will show a different color for each session track.

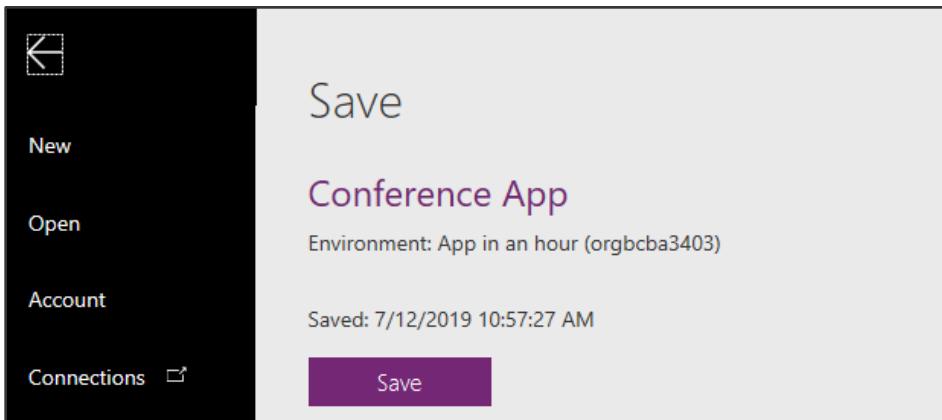
```
Switch(Text(ThisItem.Track), "PowerApps", RGBA(0,39,116,1), "Microsoft Flow", RGBA(0,112,224,1), "CDS", RGBA(116,39,116,1), "Power BI", RGBA(242,200,17,1))
```



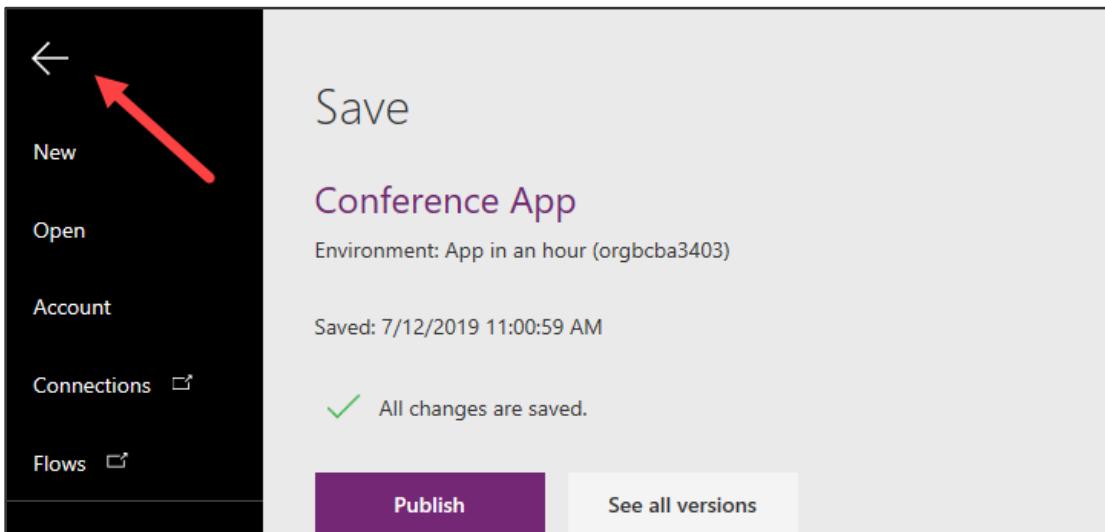
- Resize and reposition the rectangle as shown in the image below.



6. Click **File** and **Save**.



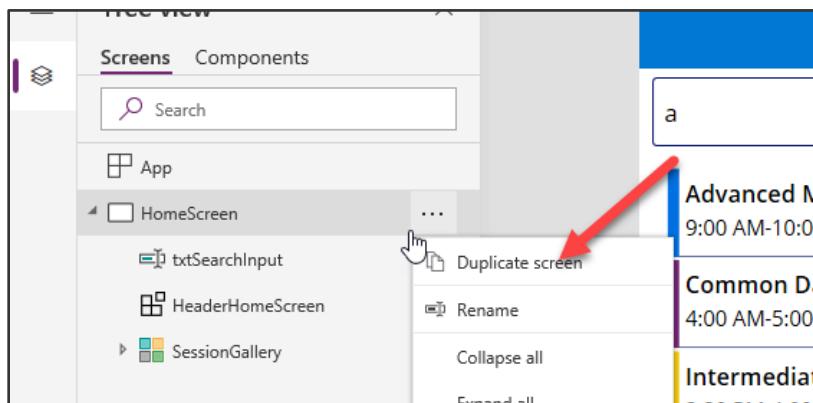
7. Click on the designer back button.



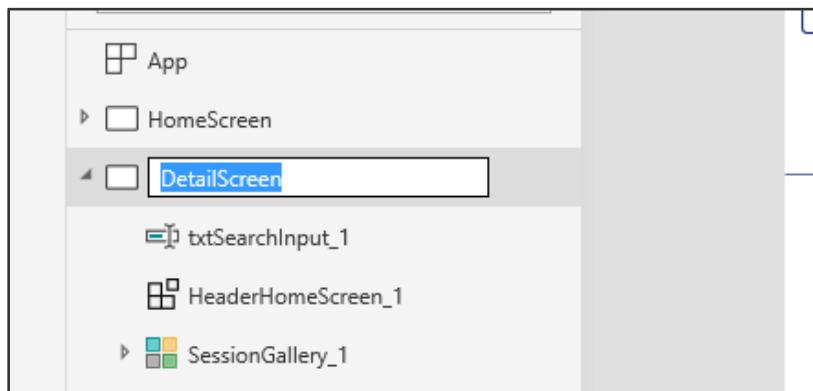
Task 6 - Add Session Details Screen

In this task, you will add the session detail screen to the canvas application.

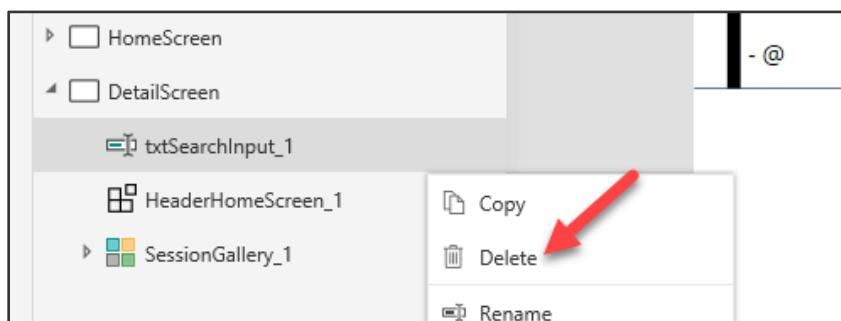
1. Click on the ... button of the **HomeScreen** and select **Duplicate Screen**.



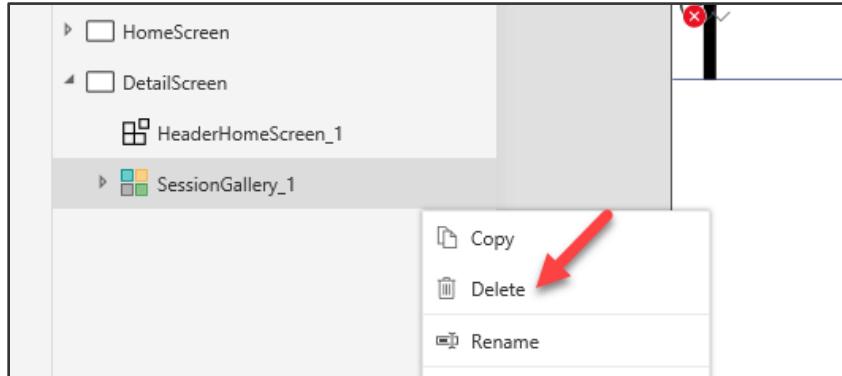
2. Rename HomeScreen_1 to **DetailScreen**.



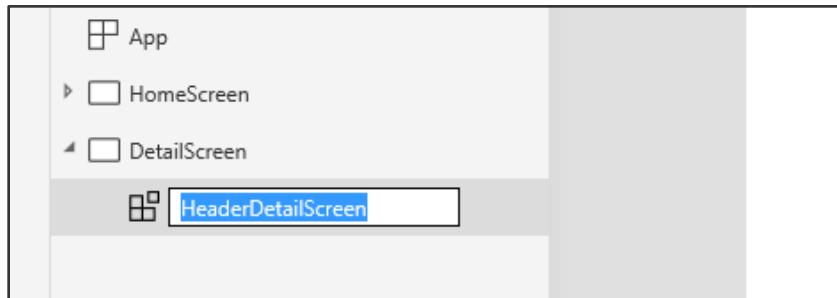
3. Delete **txtSearchInput_1**.



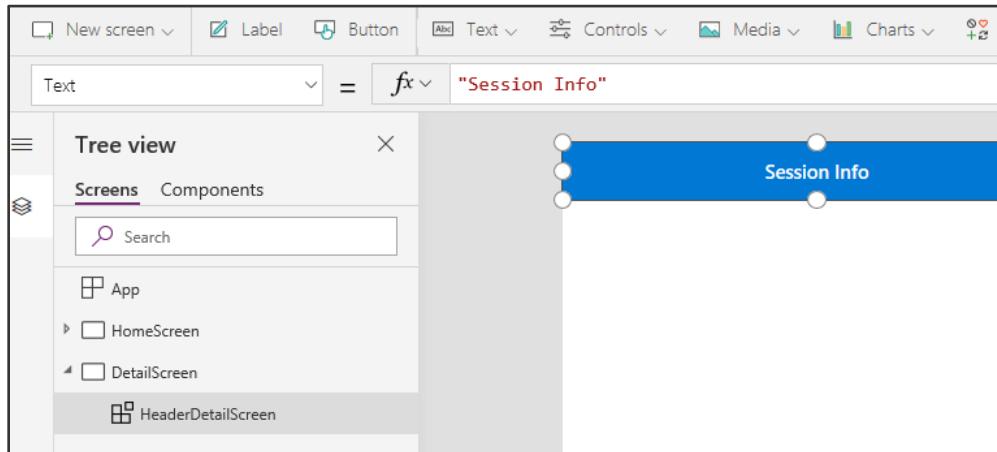
4. Delete **SessionGallery_1**.



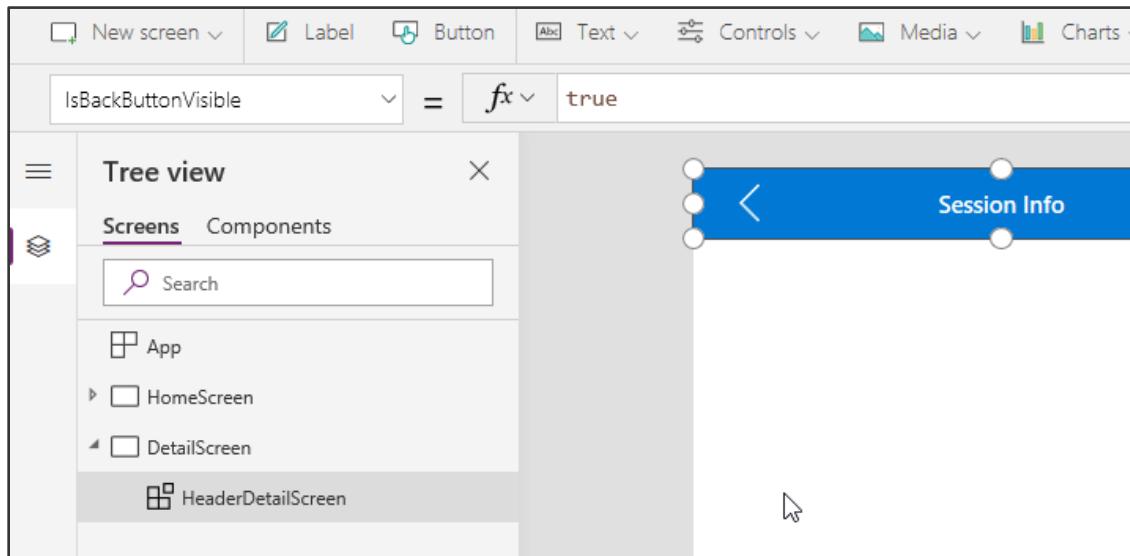
5. Rename HeaderHomeScreen_1 **HeaderDetailScreen**.



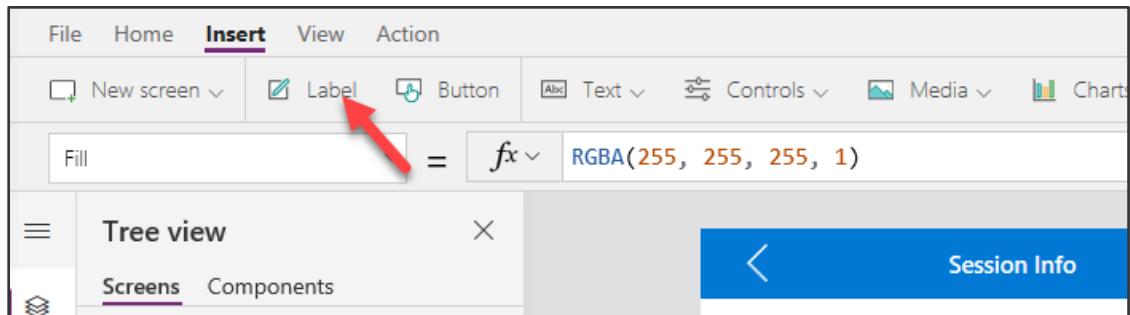
6. Select **HeaderDetailScreen** and set the **Text** value to **Session Info**.



7. Set the **IsBackButtonVisible** value of **HeaderDetailScreen** to **true**.

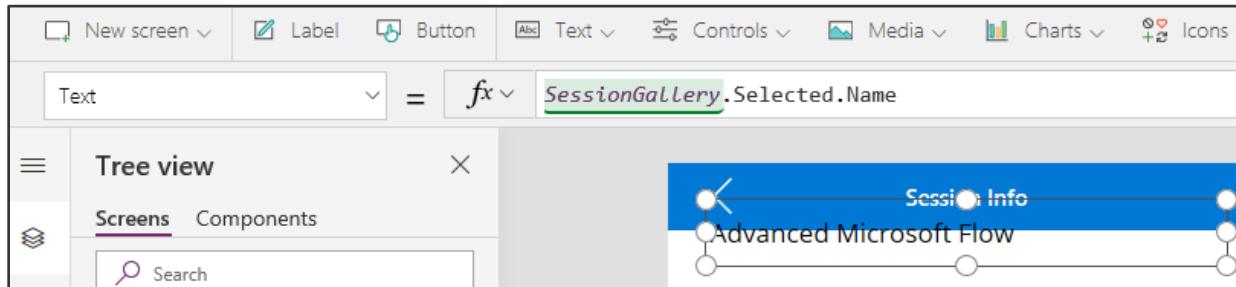


8. Go to the **Insert** tab and click **Label**.

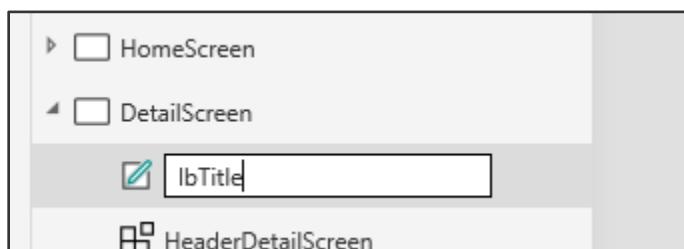


9. Set the **Text** value of the new label to the formula below.

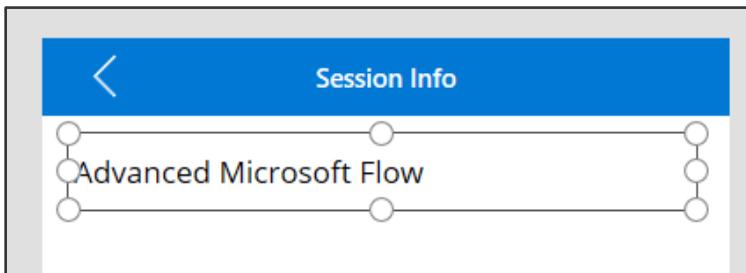
`SessionGallery.Selected.Name`



10. Rename the Label **IbTitle**.



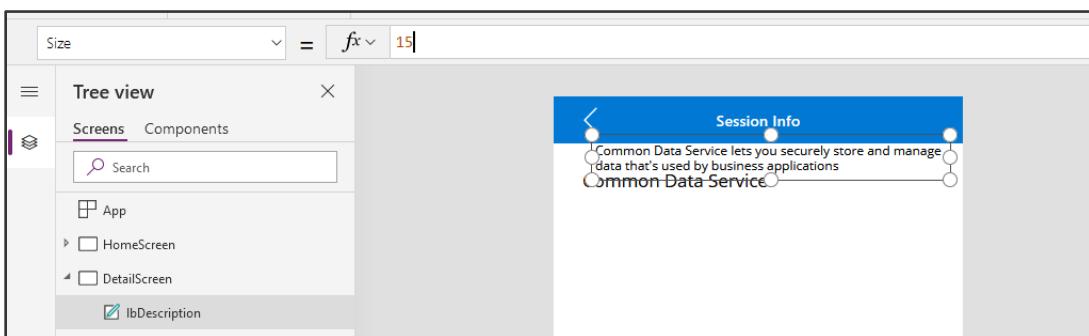
11. Resize and reposition **IbTitle** as shown below.



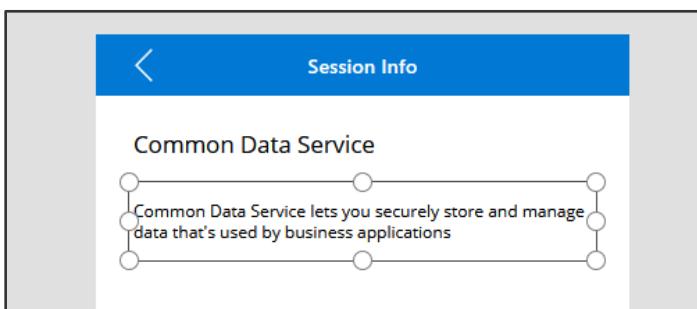
12. Go to the **Insert** tab and click **Label** again.
13. Set the **Text** value of the new label to the formula below.

`SessionGallery.Selected.Description`

14. Rename the new label **IbDescription**.
15. Set the **Size** value of **IbDescription** to **15**.

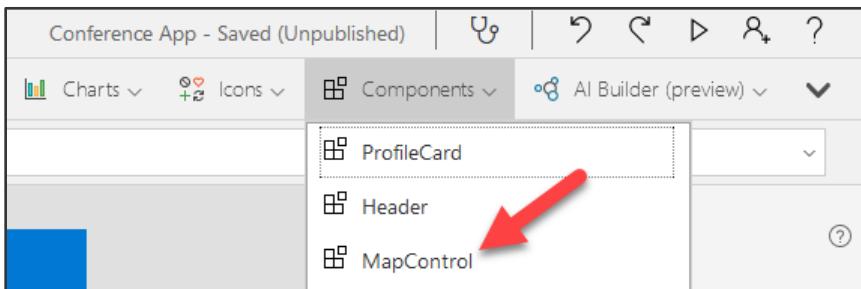


16. Resize and reposition **IbDescription** as shown in the image below.

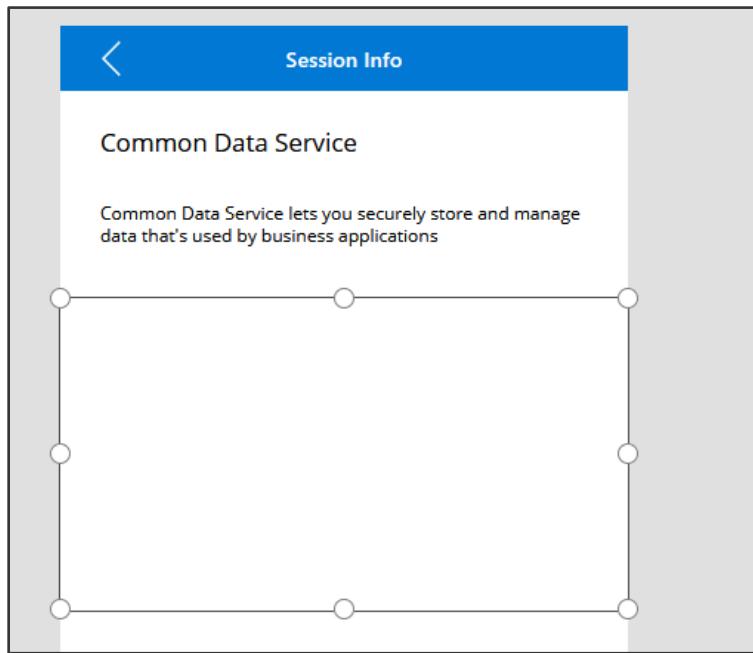


Task 7 – Add a map to the session location

17. Go to the **Insert** tab, click **Components** and select **MapControl**.

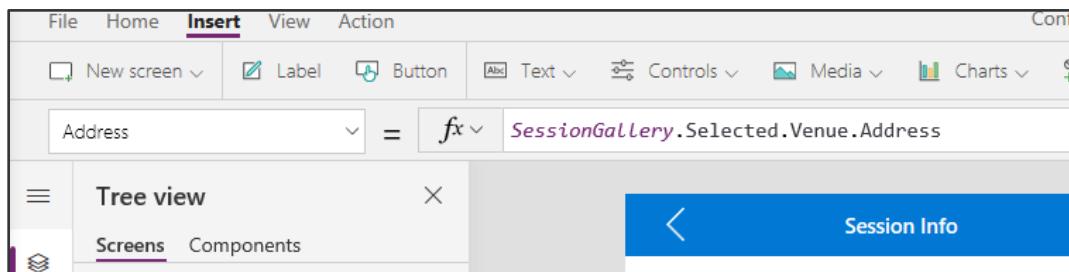


18. Resize and reposition the map control as shown in the image below.

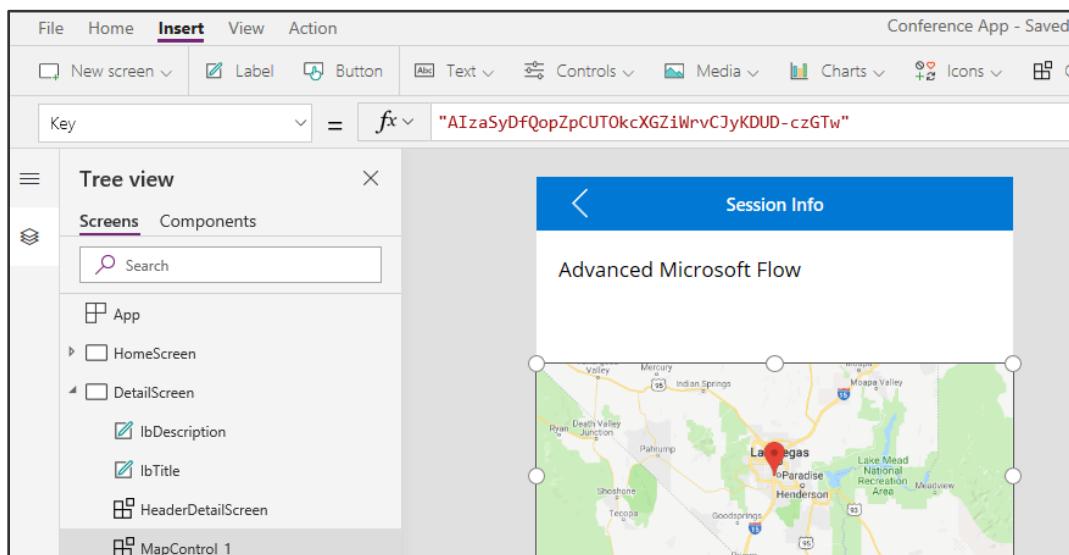


19. Set the Address value of the map control to the formula below.

`SessionGallery.Selected.Venue.Address`



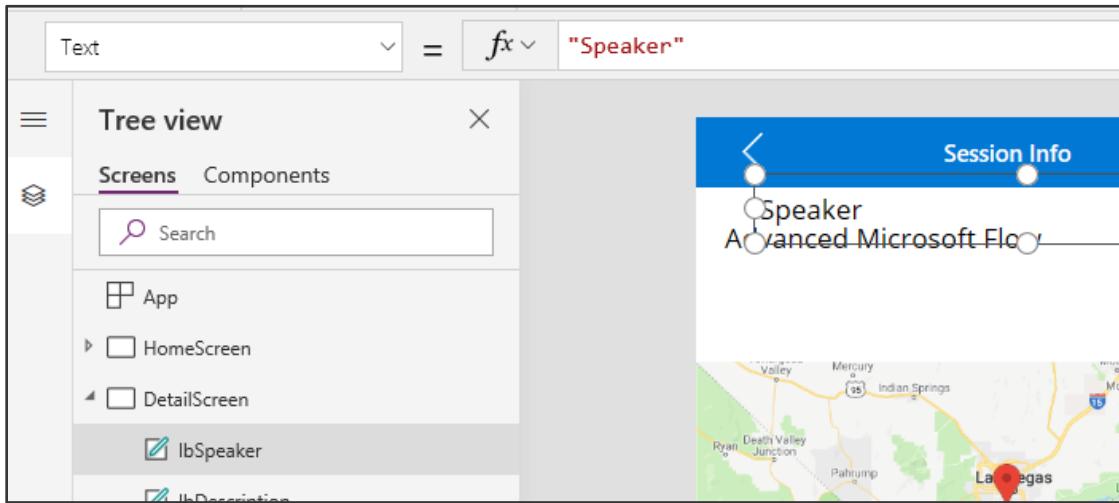
20. Set the Key value of the map control to the "AlzaSyDfQopZpCUTOkcXGZiWrvCJyKDUD-czGTw"



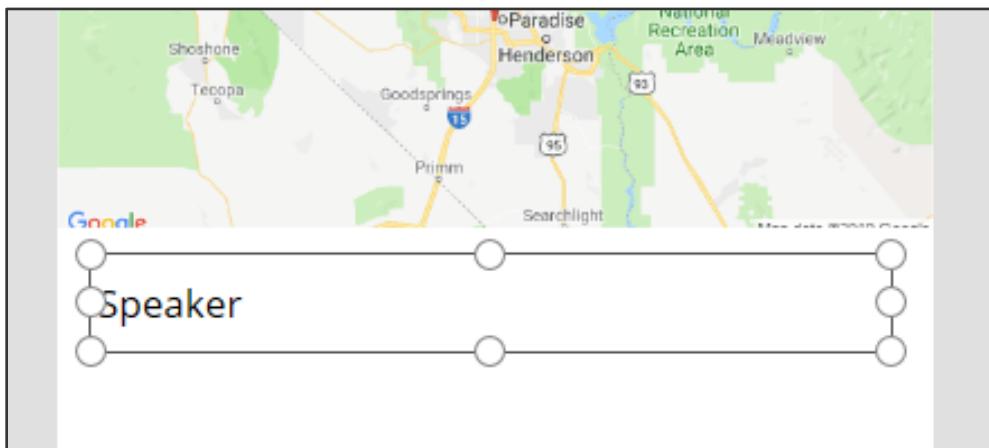
21. Go to the **Insert** tab and click **Label**.

22. Rename the new label **IbSpeaker**.

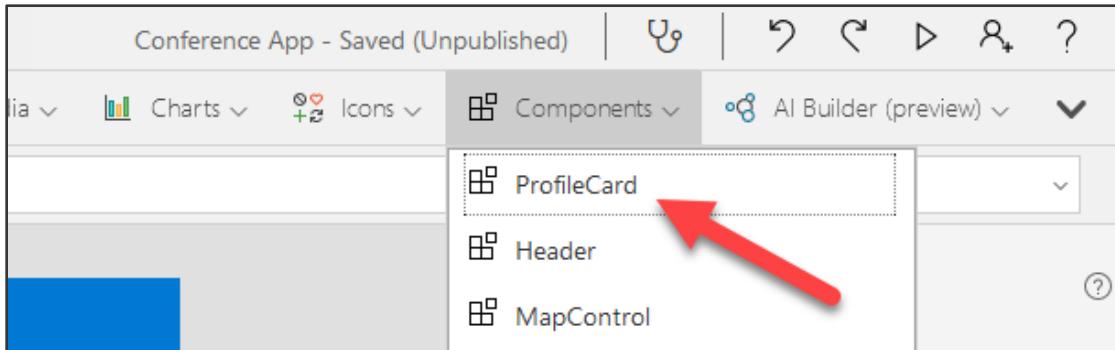
23. Set the text value of **lbSpeaker** to **Speaker**.



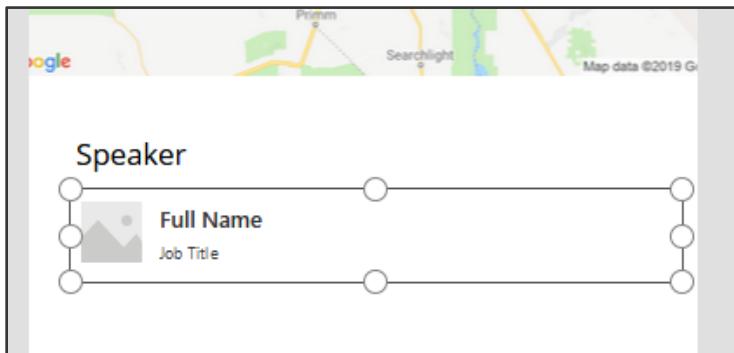
24. Resize and reposition **lbSpeaker** as shown in then image below.



25. Go to the **Insert** tab, click **Components** and select **ProfileCard**.

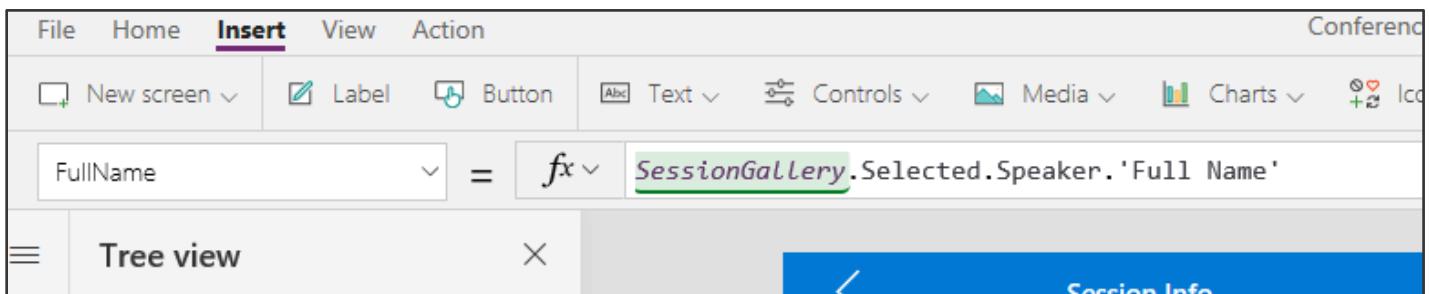


26. Resize and reposition the profile card and shown in the image below.



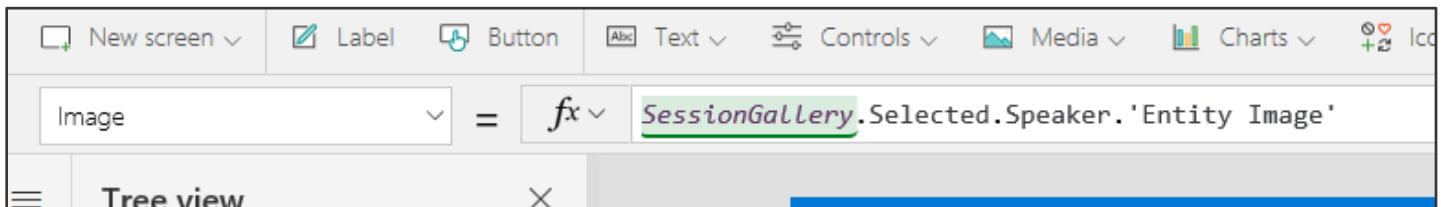
27. Select the profile card and set the **FullName** value to the formula below.

```
SessionGallery.Selected.Speaker.'Full Name'
```



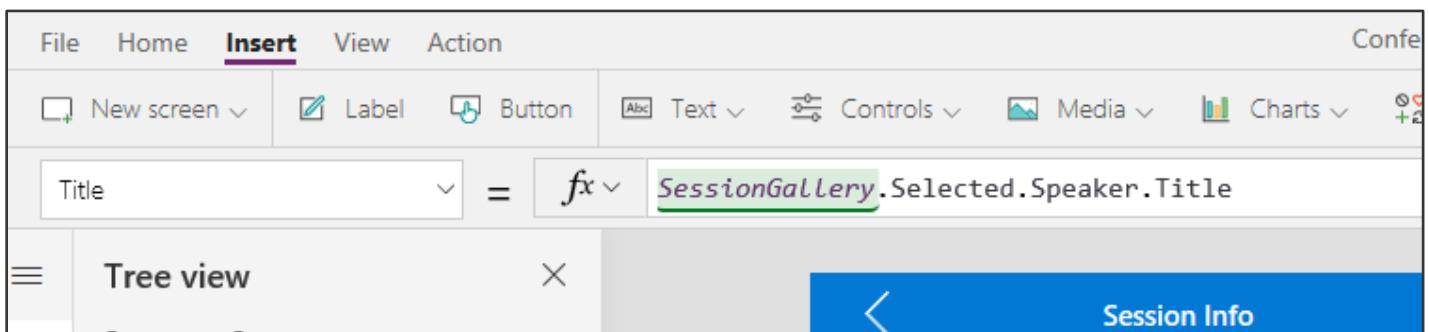
28. Set the Image value of the profile card to the formula below.

```
SessionGallery.Selected.Speaker.'Entity Image'
```



29. Set the Title value of the profile card to formula below.

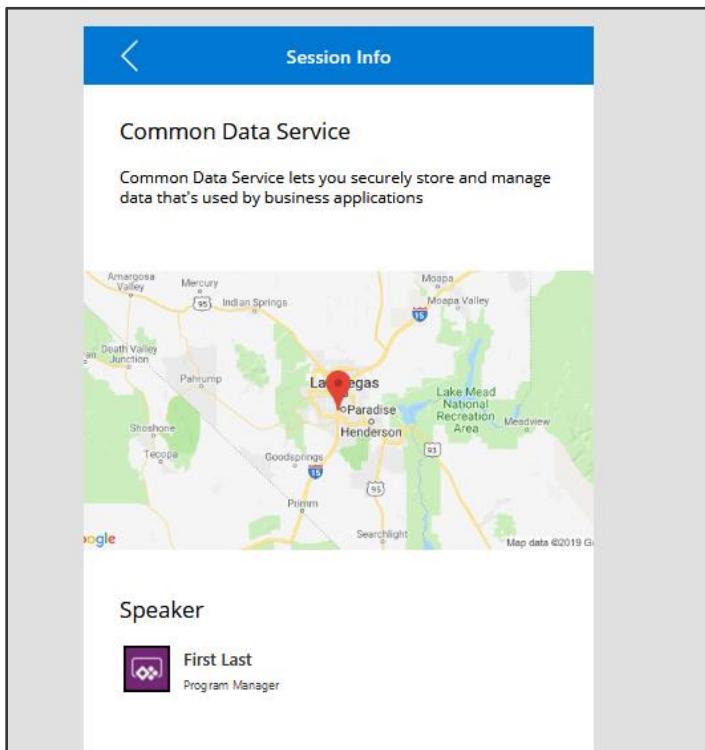
```
SessionGallery.Selected.Speaker.Title
```



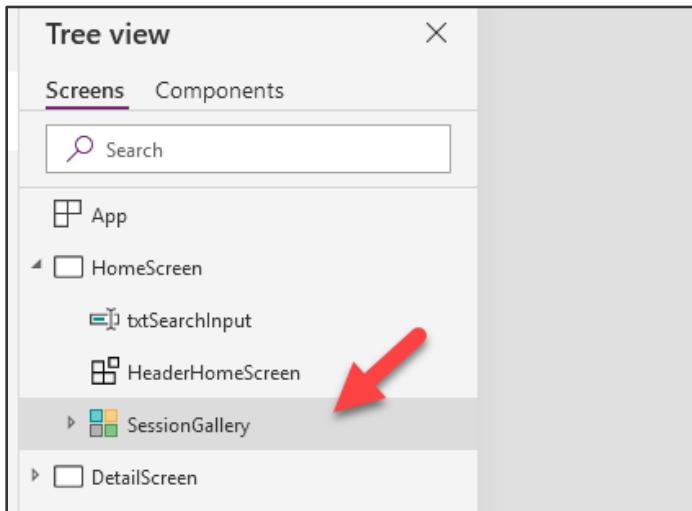
30. Set the value of Title to the following formula

```
SessionGallery.Selected.Speaker.Title
```

31. The Detail Screen should now look like the image below.

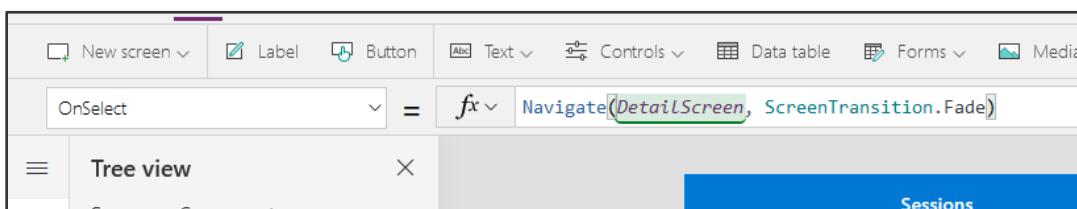


32. Expand the **HomeScreen** and select **SessionGallery**.



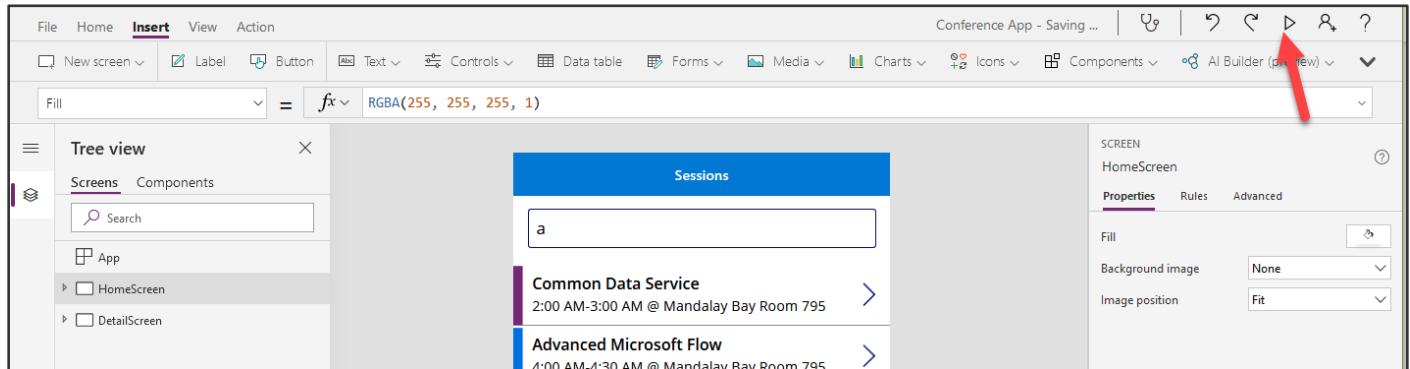
33. Set the **OnSelect** value of the **SessionGallery** to the formula below.

`Navigate([@DetailScreen], ScreenTransition.Fade)`

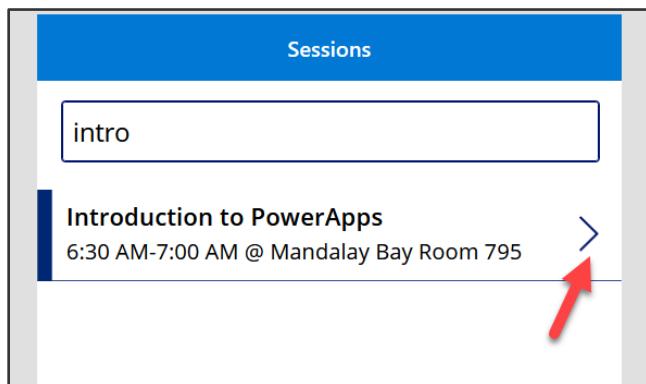


Task 8 – Test the app

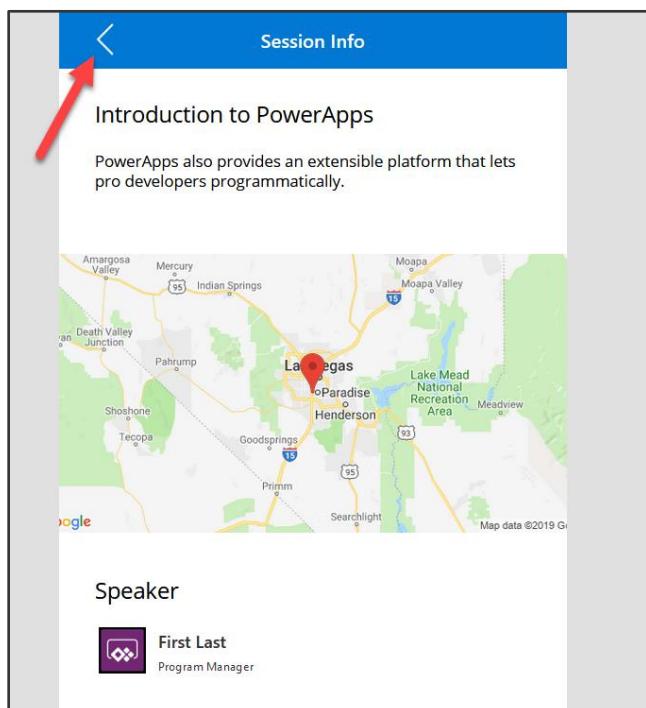
1. Select the **HomeScreen** and click **Play**.



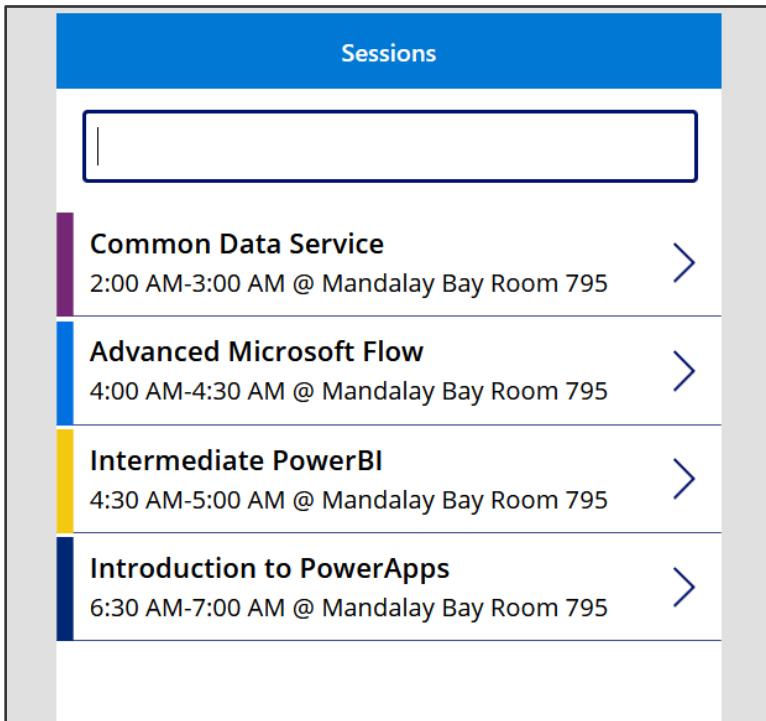
2. Select a session



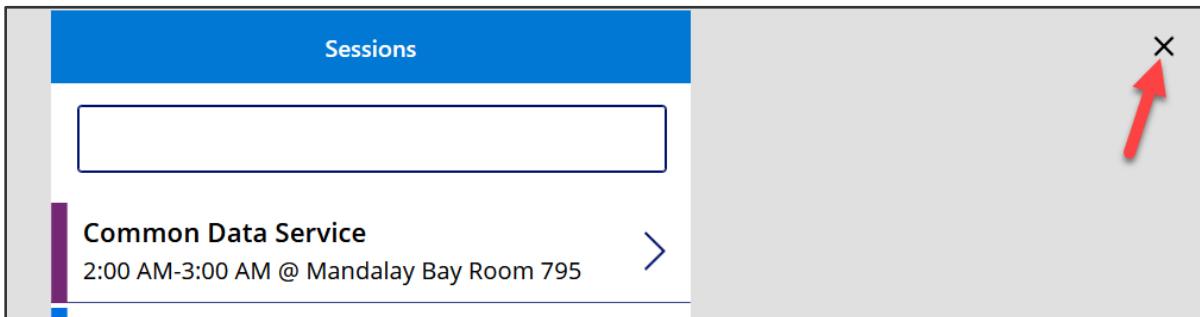
3. The session details should load. Click on the back button.



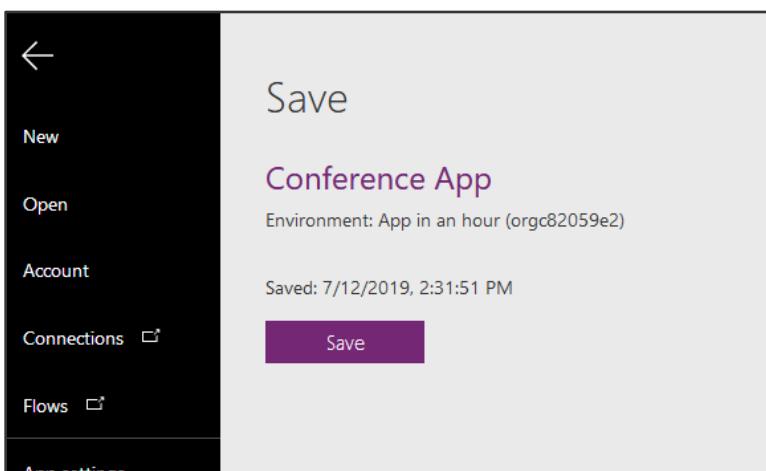
4. The app should go back to the sessions screen.
5. All sessions should load.



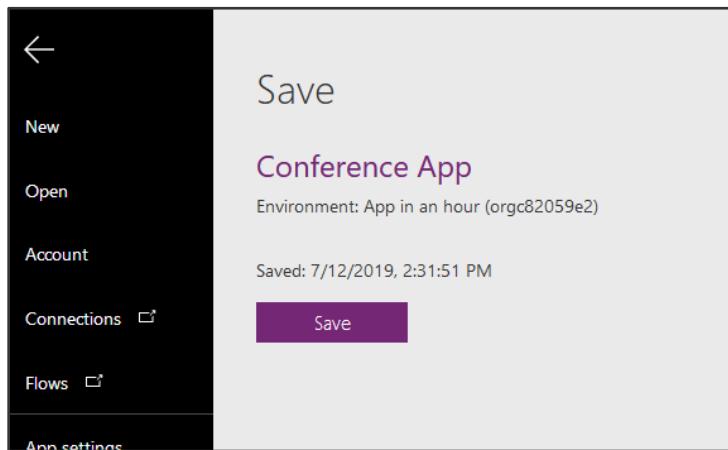
6. Close the preview.



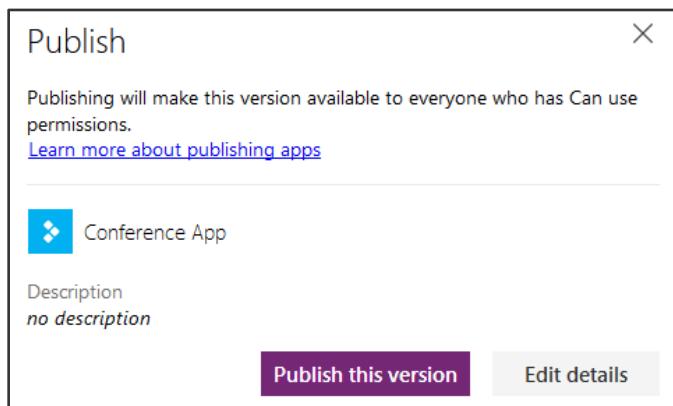
7. Click **File** and **Save**.



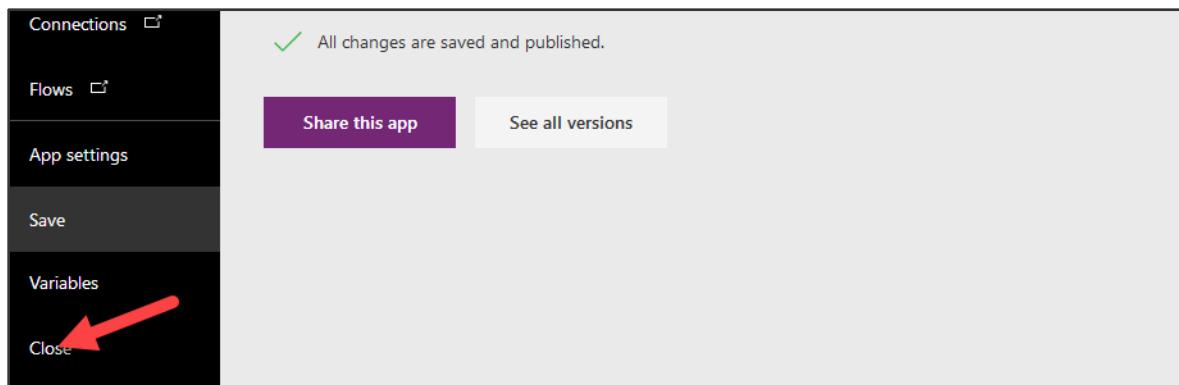
8. Click **Publish**.



9. Click **Publish this Version**.



10. Click **Close**.

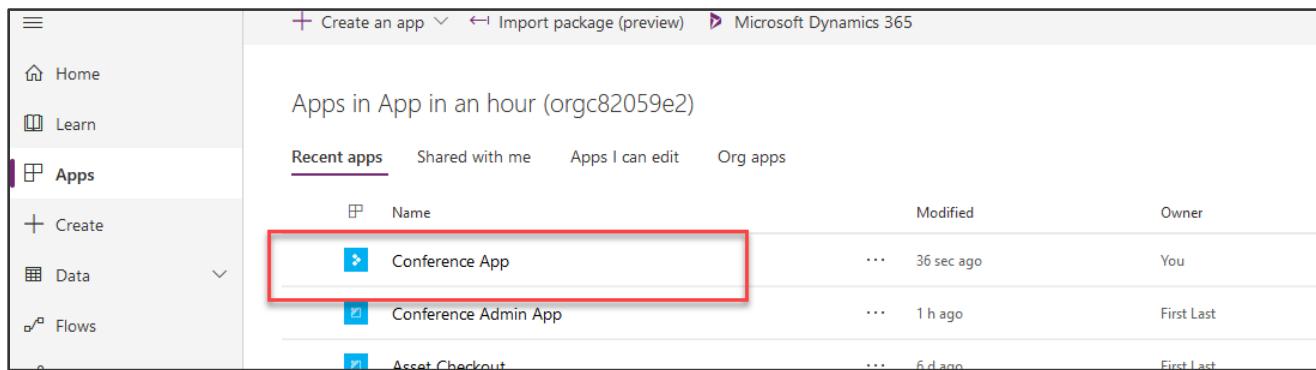


11. Close the app designer browser tab/window.

12. Click **Done**.

13. **Publish All Customizations** for your solution

14. Your Conference App should now be listed under Apps.



The screenshot shows the PowerApps portal interface. On the left, there's a navigation sidebar with options like Home, Learn, Apps (which is selected and highlighted in purple), Create, Data, and Flows. The main area is titled "Apps in App in an hour (orgc82059e2)". Below this, there are four tabs: Recent apps (which is underlined in blue), Shared with me, Apps I can edit, and Org apps. The "Recent apps" tab is active. A table lists three recent apps: "Conference App" (selected and highlighted with a red box), "Conference Admin App", and "Asset Checkout". The columns in the table are Name, Modified, and Owner.

Name	Modified	Owner
Conference App	36 sec ago	You
Conference Admin App	1 h ago	First Last
Asset Checkout	6 d ago	First Last

Congratulations!

You've completed the App in an hour. If you have more time, continue on to more exercises to add a business card reader, PowerApps Portal and automation with both a business process flow and a Microsoft Flow.

Exercise 4 Add Business Card reader to canvas app

Add page to canvas app that has biz card reader and map it to create a new CDS contact record

Task 1 – Provision a portal

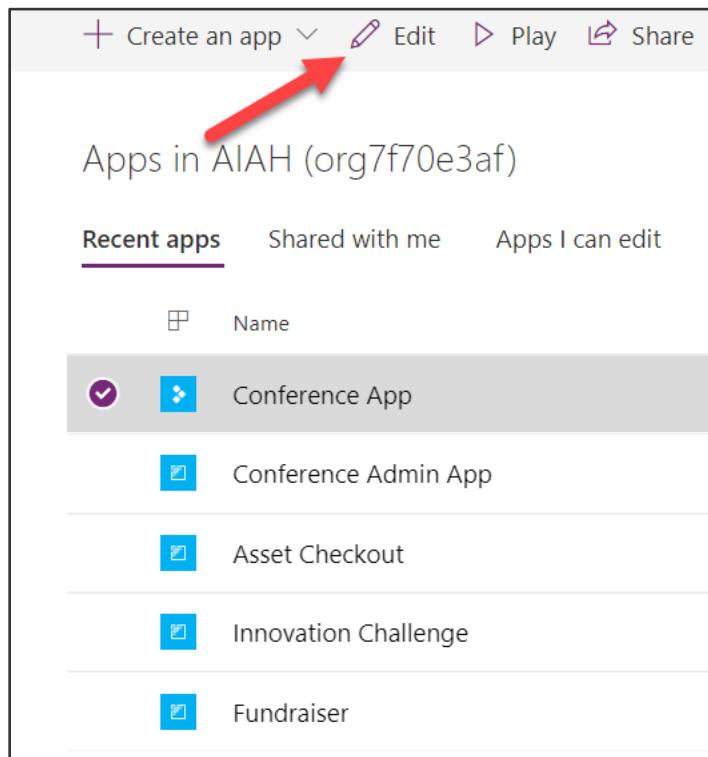
Note: The provisioning process for a portal takes several minutes. Your only action at this point is to get it started. The provisioning will take place in the background while you build out the business card reader in your app.

1. Navigate to <https://make.powerapps.com/> and make sure you are in the correct environment.
2. Select **Apps**
3. Click **Portal (Preview)** from the header
4. Enter a **Name** and **Address** and click **Create**

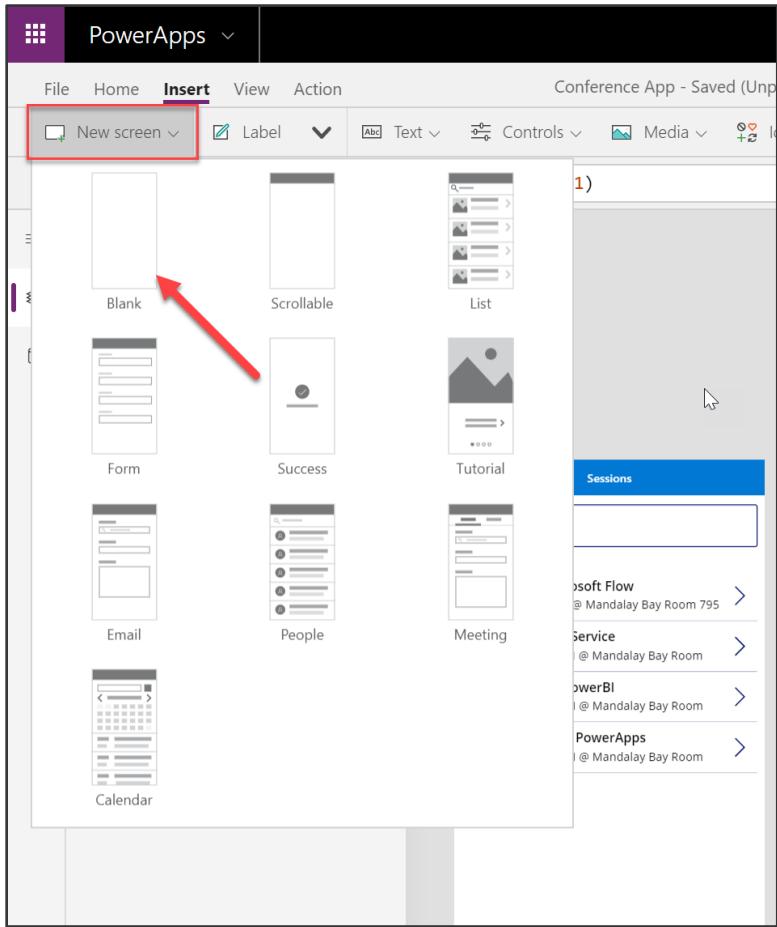
The portal will provision in the background while you complete the remaining tasks.

Task 2 – Add Contact Screen

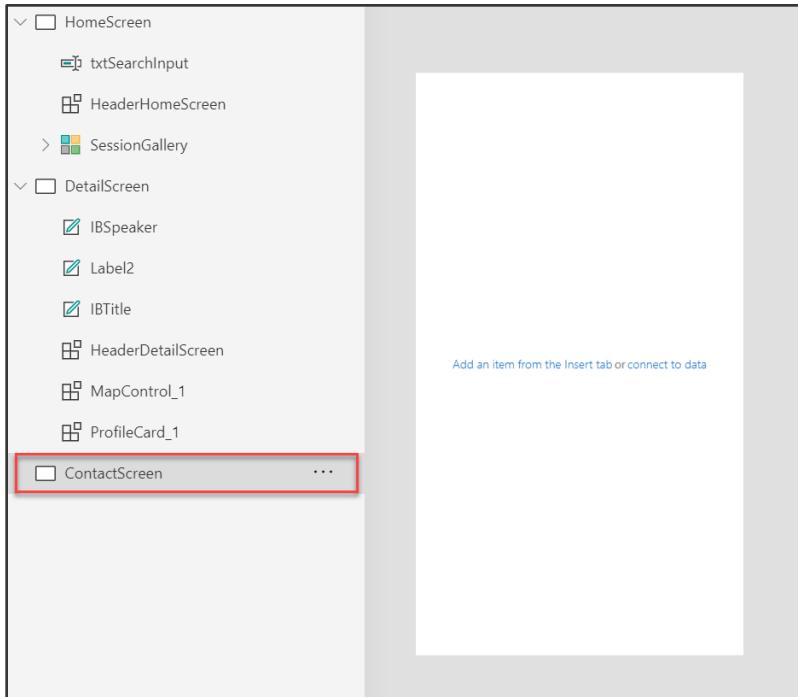
1. Select the **Conference App** and click **Edit**



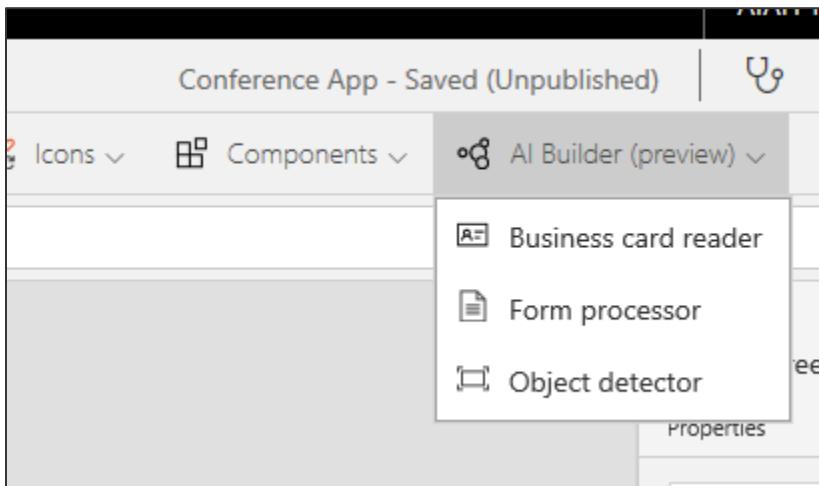
2. From the **Insert** tab, click **New Screen** and select **Blank Screen**



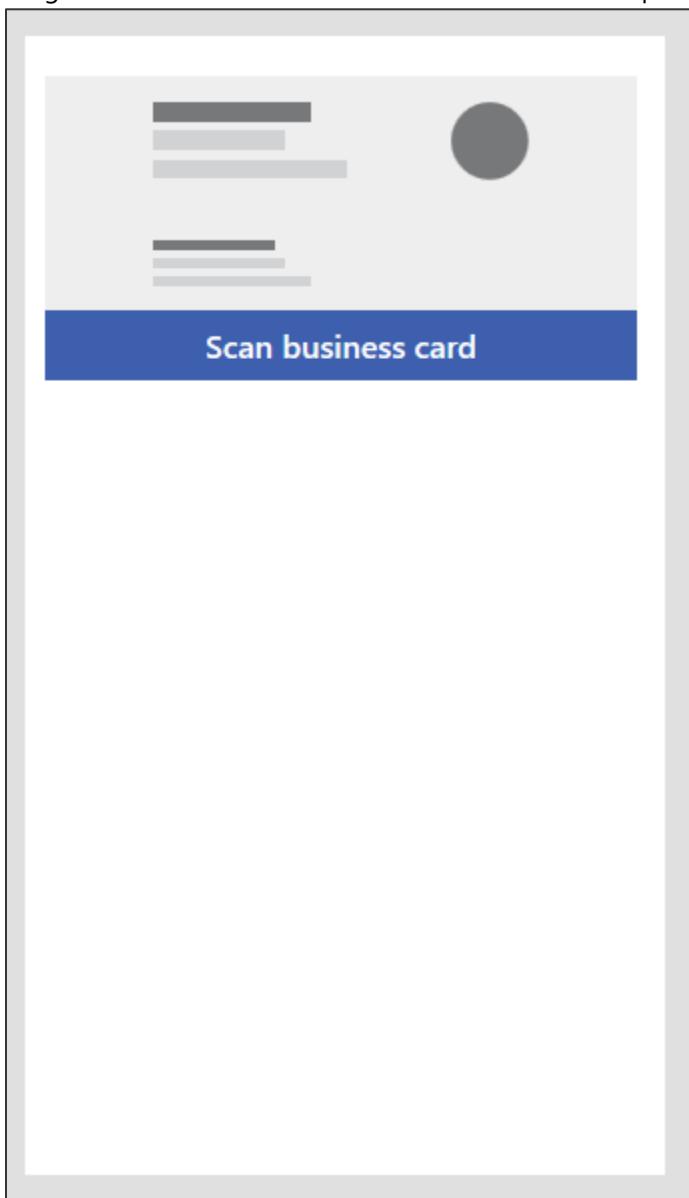
3. Rename the new screen to **ContactScreen**



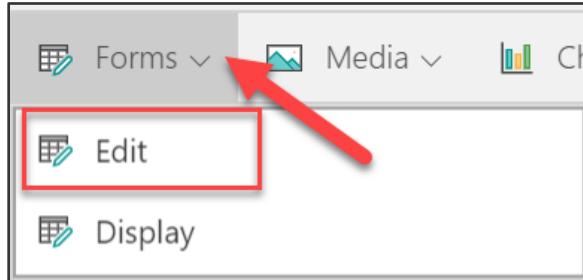
4. From the **Insert tab**, select **AI Builder** and add **Business card reader** to the Contact Screen.



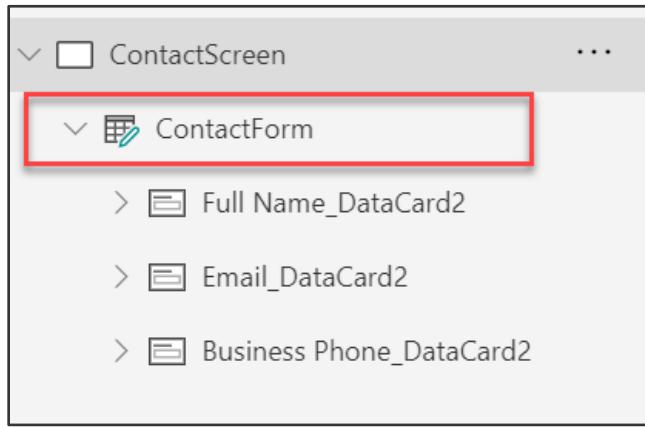
5. Drag and size the card reader to fill the width at the top of the screen.



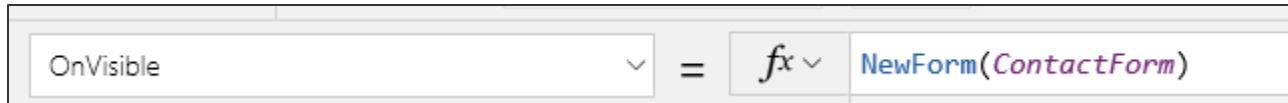
6. From the **Insert** tab, select **Forms** and **Edit**



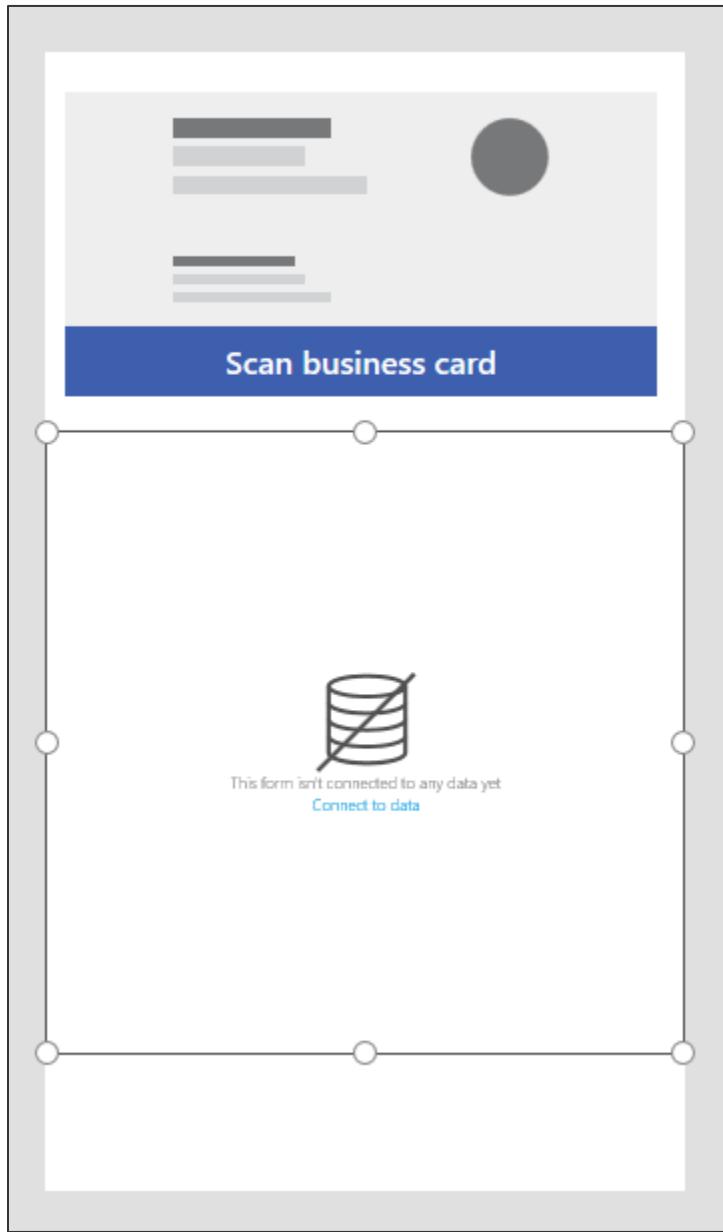
7. Rename the form to **ContactForm**



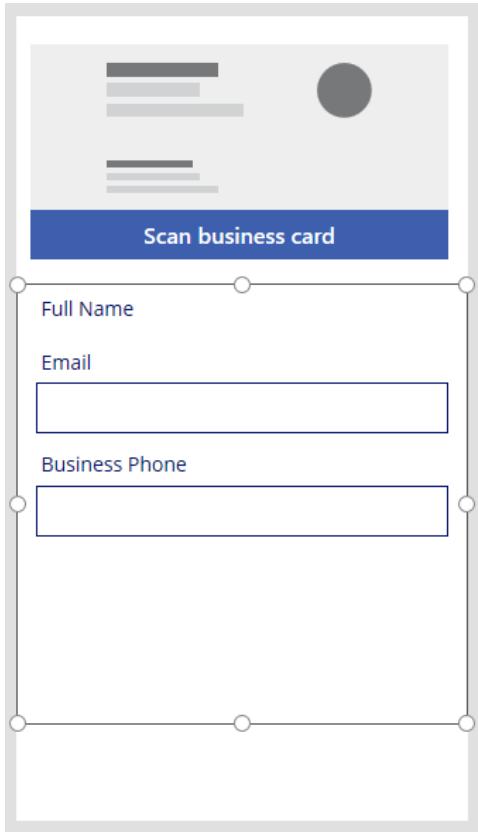
8. Set the **OnVisible** property of the **ContactScreen** to the following formula: **NewForm(ContactForm)**



9. Drag the form to the space below the Business card reader, leaving space for a submit button at the bottom of the screen.



10. Select **ContactForm** and add **Data source of Contacts**. Notice some fields were added. We will now add, remove and reorder for the fields we need.



11. Click **Edit Fields** from the Properties tab to edit the form fields.

The screenshot shows the 'Properties' tab for a 'ContactForm'. The 'Data source' is set to 'Contacts'. The 'Fields' section is highlighted with a red box, and the 'Edit fields' button is visible next to it. Other settings include 'Snap to columns' (On), 'Columns' (1), 'Layout' (Vertical), and 'Default mode' (Edit).

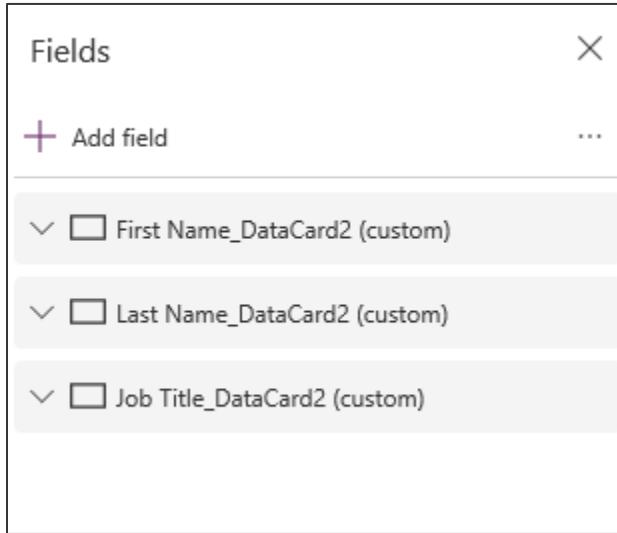
12. Click Add field**13. Add First Name, Last Name, and Job Title. Remove Full Name, Email and Business Phone.**

The image shows two overlapping windows. On the left is the 'Fields' dialog box. It has a header 'Fields' and a close button 'X'. Inside, there's a 'Choose a field' search bar containing 'job', a 'New field' section with three checked items: 'Job Title', 'First Name', and 'Last Name', and two buttons at the bottom: 'Add' and 'Cancel'. A red box highlights the 'Add' button. On the right is the 'Properties' panel for a 'ContactForm' edit control. It includes tabs for 'Properties', 'Rules', and 'Advanced'. Under 'Properties', the 'Data source' is set to 'Contacts'. The 'Fields' section has a 'Edit fields' link. Other settings include 'Snap to columns' (On), 'Columns' (1), 'Layout' (Vertical), 'Default mode' (Edit), 'Visible' (On), 'Position' (X: 0, Y: 520), 'Size' (Width: 635, Height: 388), and 'Color' and 'Border' options. A red box highlights the 'Visible' toggle switch.

14. Reorder the fields until they look like the image below. Fields can be reordered by clicking and dragging or by clicking on the ellipses and selecting Move Up or Move Down.

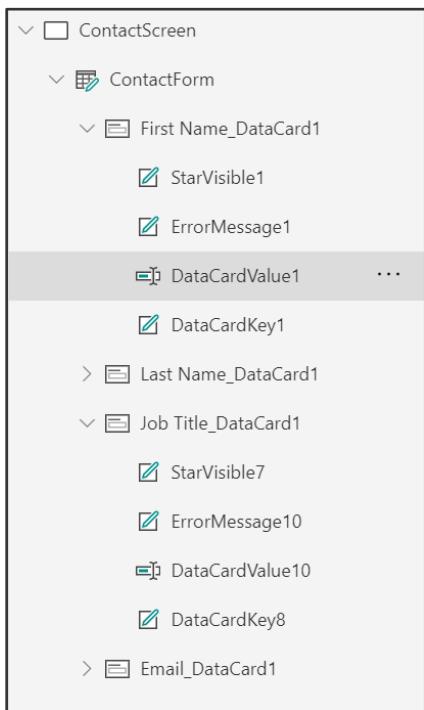
Order of fields:

First Name; Last Name; Job Title

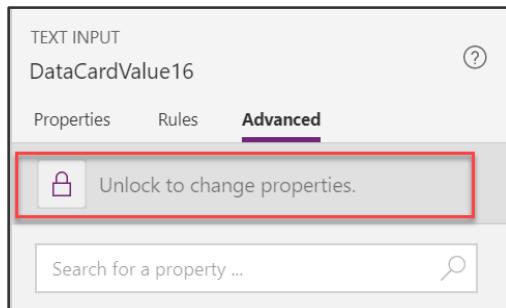
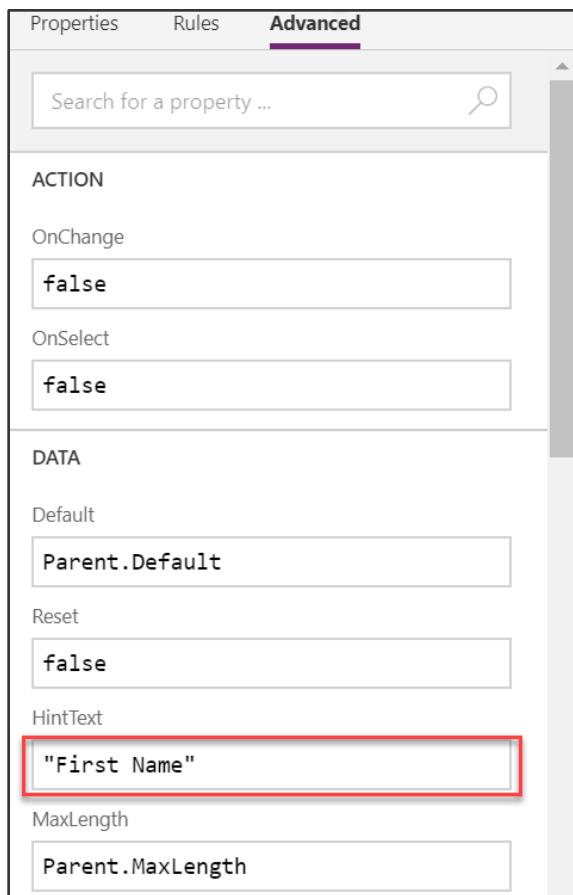


15. Close the data tab.

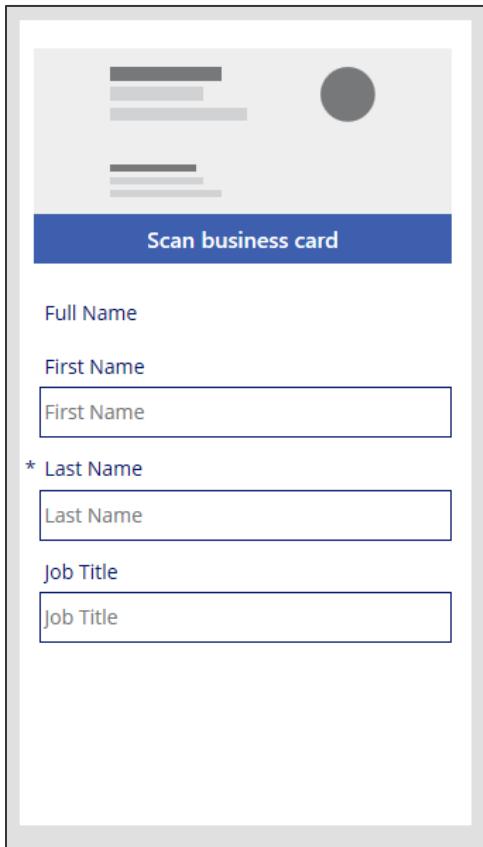
16. Expand **First Name_DataCard1** and select **DataCardValue1** (Note that the number at the end of field names may not match images)



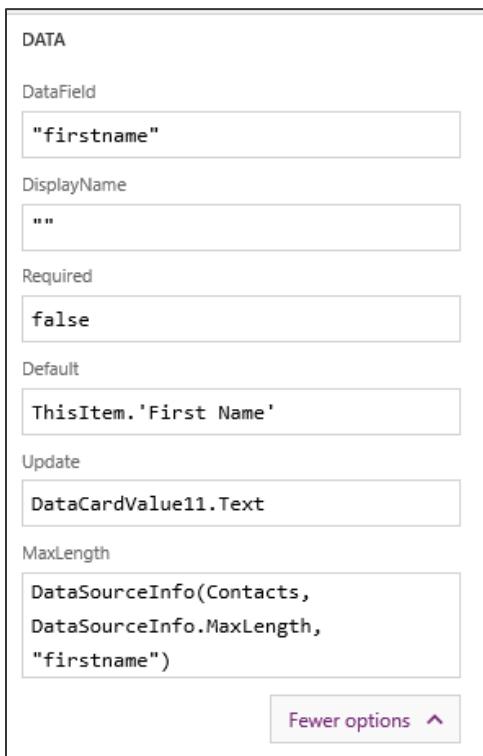
17. Navigate to the **Advanced** tab on the right-hand pane and click to **Unlock**

**18. Change the Hint Text to "First Name"****19. Repeat this for the other fields.**

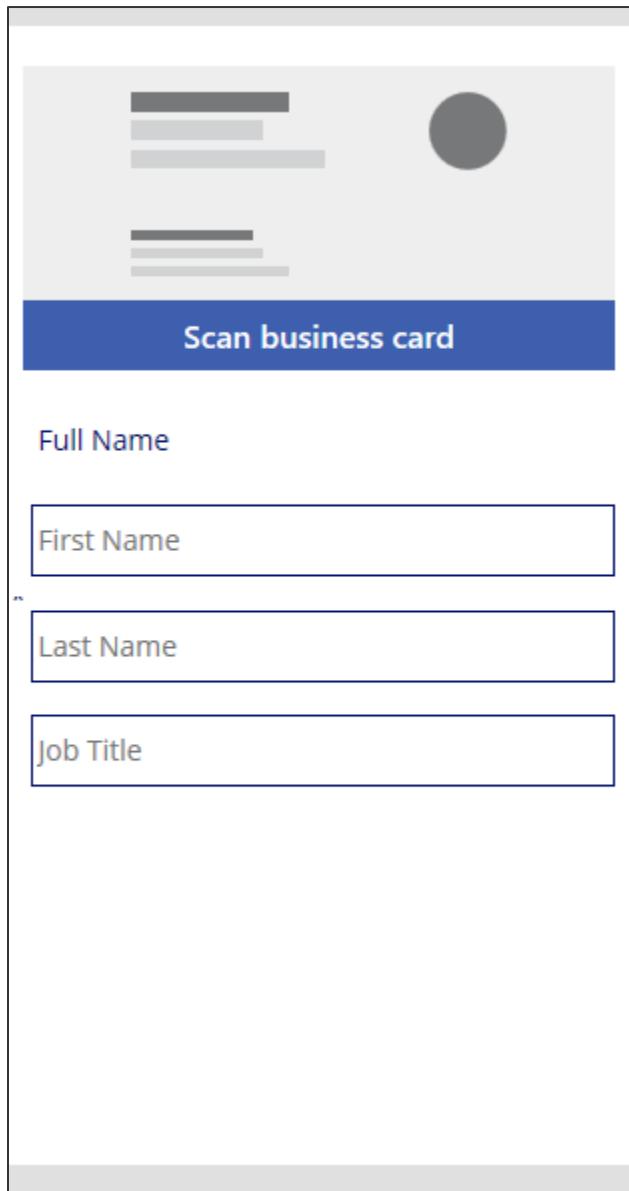
20. Notice now that we have both HintText and Labels on the screen. With such a small screen, we need as much space available as possible. Let's remove the labels and use the HintText alone to guide users.



21. With the First Name data card selected, remove the text in **display name**, leaving it with only the double quotes "".

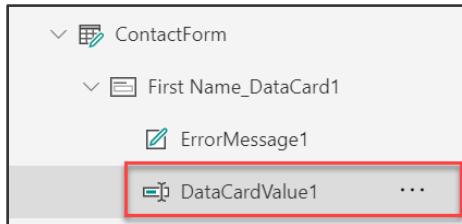


22. Notice the added space on our form. Repeat this for both **Last Name** and **Job Title** fields.



Task 3 – Map to Business Card Reader

1. Expand **FirstNameDataCard** and select **DataCardValue**



- Paste the following formula for the **Default** function. Note, the numbers might be slightly different in your environment, use the auto-complete function to help guide you.

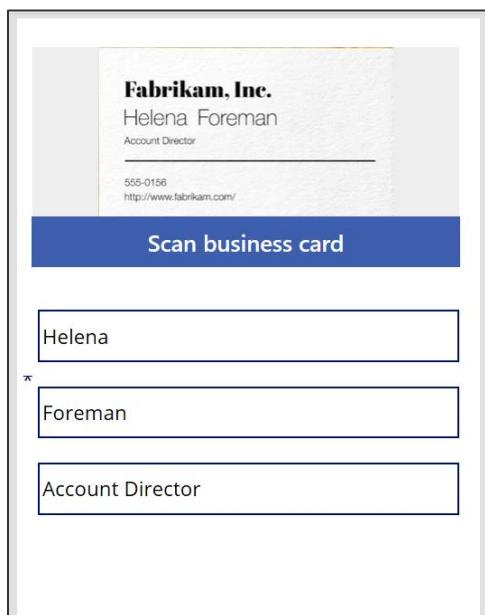
`BusinessCardReader1.FirstName`



- Repeat this formula for the other fields. The pattern is **BusinessCardReader1.FieldName**. If you begin typing the field name in the formula bar, the correct field name will be suggested.
- With the ContactScreen selected; Play your app and test progress so far.

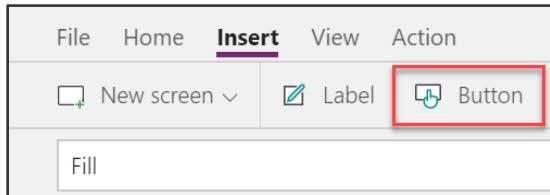


- Click Scan business card and load your sample provided. Notice the mapped fields. Close the player.

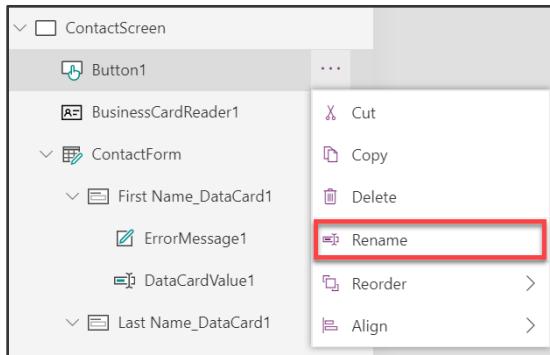


Task 4 – Add Submit Button

- With the ContactScreen selected; from the **Insert** tab add a **Button**. Drag the button to the bottom the screen.



2. Rename the button to **SubmitButton**



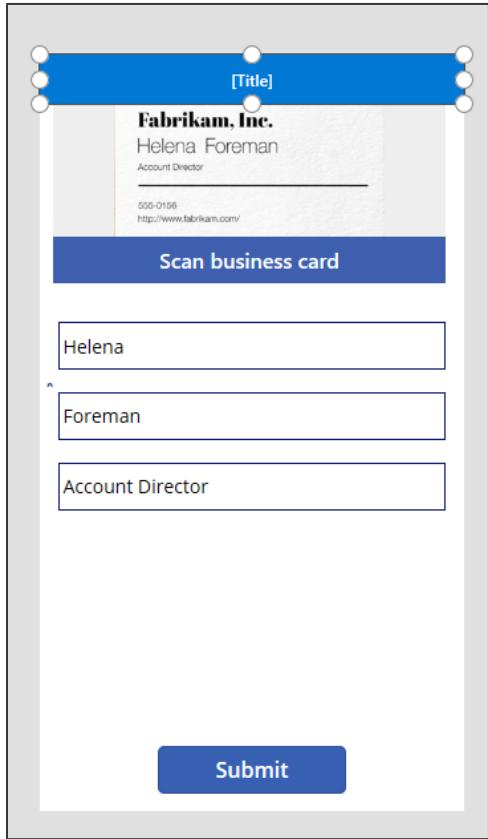
3. Change the button **Text property to **Submit****



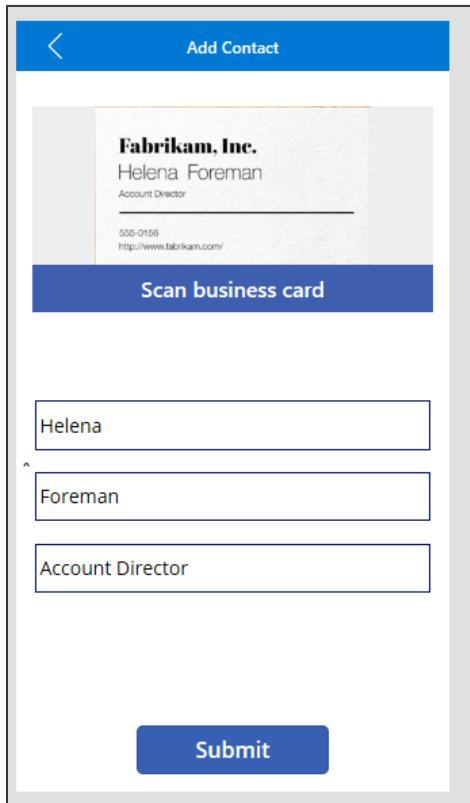
4. Change the **OnSelect Property of the button to**



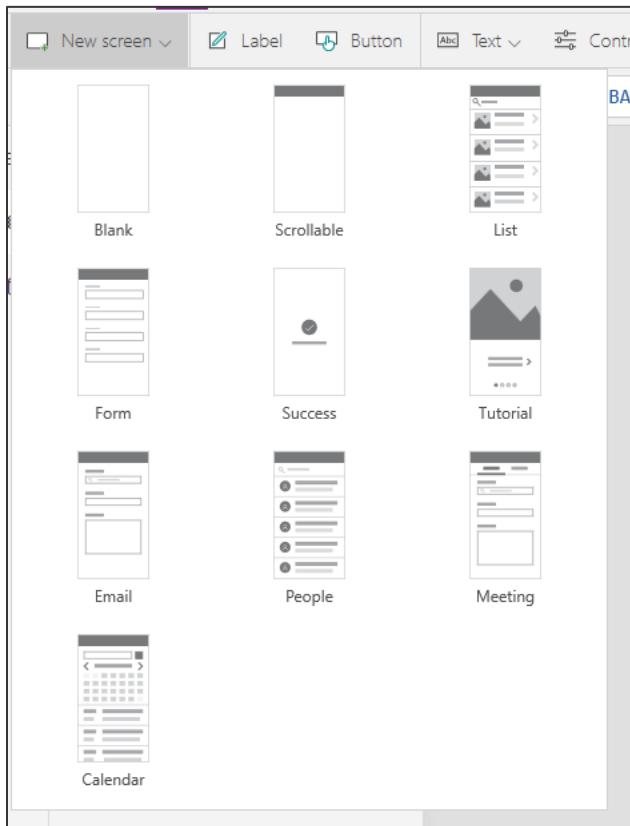
5. Add the Header component to the ContactScreen. From the **Insert tab, select **components**, Header. Rename to **ContactScreenHeader**.**



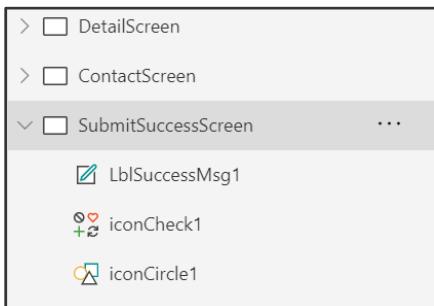
6. Give the page a title Add Contact, set the header IsBackButtonVisible value to true, and Rearrange items on the screen to better fill the space. Feel free to change visual items such as colors, font sizes and so on to make the screen look nicer.



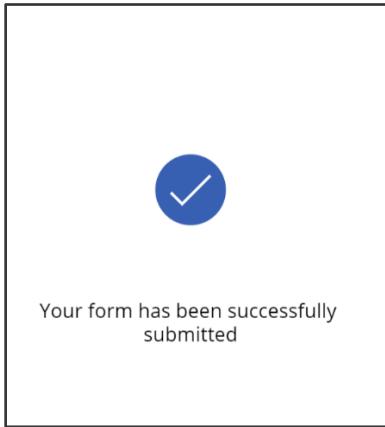
7. Add a new Success Screen



8. Rename the new screen **SubmitSuccessScreen**



9. Change the **LblSuccessMsg1** text property to "Your form has been successfully submitted"

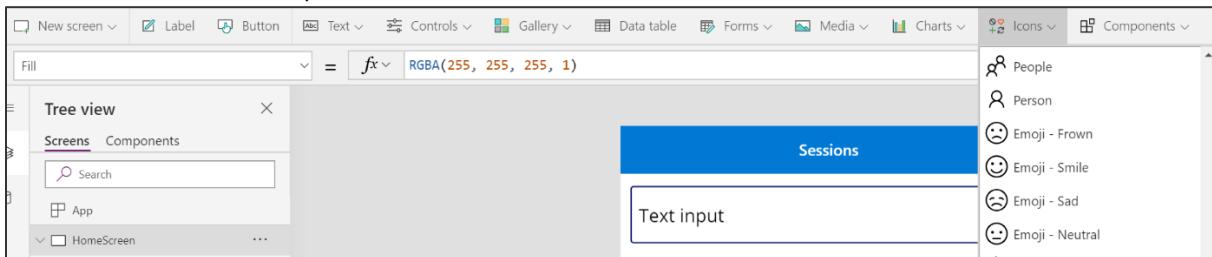


10. Edit the **OnSelect** function of the iconCheck1 to be Navigate(HomeScreen)

Task 5 – Navigate to Contact Screen from Home Page

1. Select the **HomeScreen**

2. Insert a **Person** icon, and place it in the header area.



3. Rename the Icon to **ContactIcon**

4. Change the OnSelect to Navigate(ContactScreen)

5. Save your app

Task 6- Test your app and locate the record

1. From the home screen, play your app.
2. Use the sample provided to test the submission.

3. From make.powerapps.com expand the entities, locate contacts and view the data. Locate the new record.

The screenshot shows a web-based application interface for managing contact data. At the top, there is a navigation bar with the text "Entities > Contact". Below the navigation bar, there is a horizontal menu with several options: Fields, Relationships, Business rules, Views, Forms, Dashboards, Charts, Keys, and Data. The "Data" option is underlined, indicating it is the active tab. The main content area displays two columns of data: "Full Name" and "Email". Under "Full Name", the value "Helena Foreman" is listed. There is also a small red circular icon with a question mark next to the "Email" column header, likely indicating a required field or a help link.

4. **Challenge**- add this to your mobile device and test.

Exercise 5 Make a submission page for external speakers

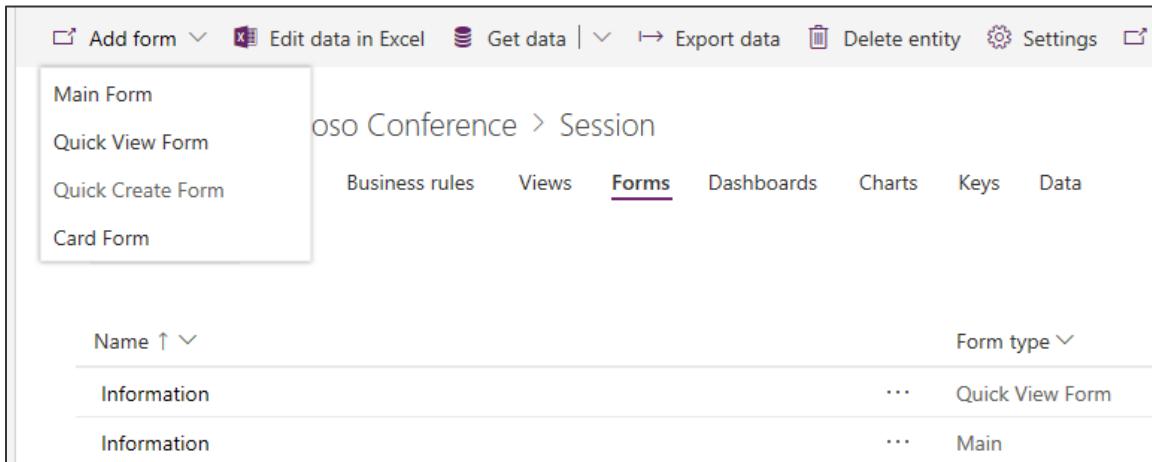
Note: If you did not provision your portal yet, please go back to Exercise 4 and follow the steps to provision the portal.

Task 1 – Add External Speaker Form

1. Navigate to make.powerapps.com
2. **Navigate** to your Solutions and **select** your **Contoso Conference Solution** to edit. Select the **Session** entity.

Display name	Name	Type
Conference Admin App	contoso_ConferenceAdminApp	Model-driven App
Conference Admin App	contoso_ConferenceAdminApp	Client Extension
Conference App	contoso_conferenceapp_ff960	Canvas App
Session	contoso_session	Entity
Session Status	contoso_sessionstatus	Option Set
Track	contoso_track	Option Set
Venue	contoso_venue	Entity
User	systemuser	Entity

3. Go to the **Forms tab** and **Add a new Main Form**.

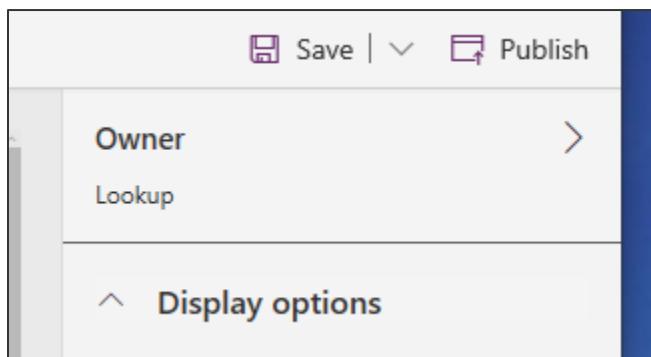


4. The new form will need a name, and the fields that we need for our external speakers to submit session ideas. The new main form will be a copy of the default form, we will edit from there. Click **Save As** in the ribbon and name the form "**Portal Speaker**".
5. Thinking about what details we might need from an external speaker wishing to speak at our events, there are several fields that would not apply. Remove all fields except the following:
 - a. Name
 - b. Description
 - c. Track
 - d. External Speaker

The screenshot shows a 'SESSION New Session' form. It has a 'General' tab selected. The fields are:

- Name: * ---
- Description: ---
- Track: * ---
- External Speaker: ---
- Owner: * AIAH User

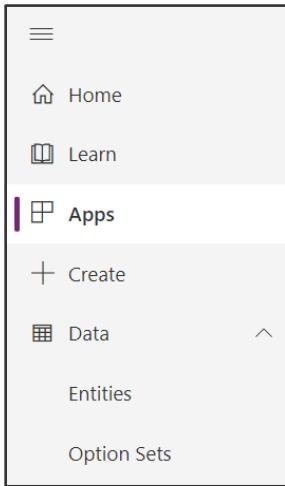
6. When the form is exposed to people outside of our organization, we need to clarify the meaning of a couple of fields. But we don't need to change the underlying metadata. Click on the field and edit the following field labels on the form:
 - a. Name should be "Session Name"
 - b. External Speaker should be "Speaker Name"
7. **Save and Publish** the form.



8. Click the browser back button

Task 2 – Customize Portal

1. From Navigation, click Apps



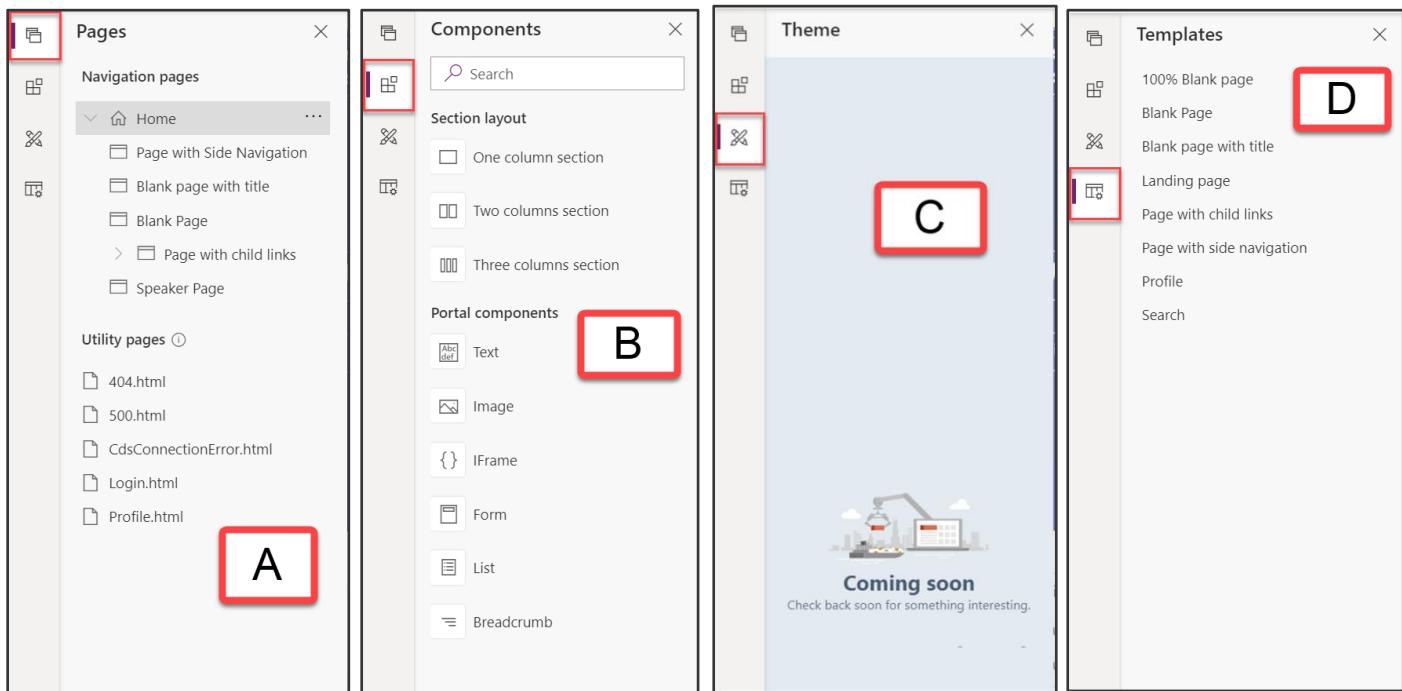
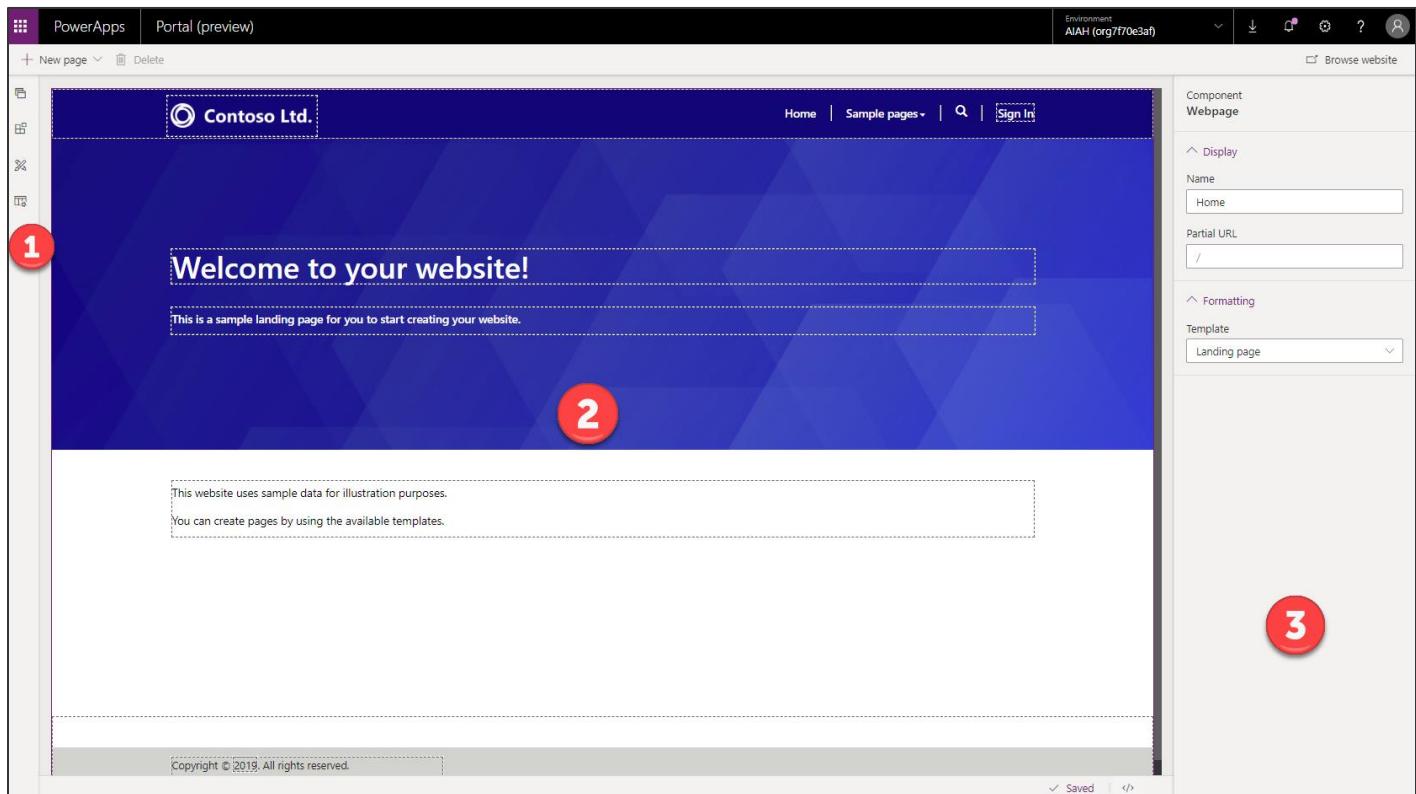
2. Select the Portal you've already provisioned and click **Edit**.

A screenshot of the 'Apps in AIAH' list page. The 'Edit (preview)' button is highlighted with a red box. The page shows three apps: Conference App, External Speaker Portal (which is selected), and Portal Management. The 'Recent apps' tab is selected.

3. This will open the Portal Editor

PowerApps Portal Editor is available as a web application (<http://make.powerapps.com>) that you can use in any modern browser. The components of the editor include:

1. **Left navigation bar**, which expand to include **Pages**, **Components**, **Themes**, and **Templates**
 - a. **Pages** gives you a way to navigate between different portal pages.
 - b. **Components** is where you will select various page components, such as sections or fields.
 - c. **Themes** is currently under development.
 - d. **Templates** which will allow for the creation of new pages with templated components.
2. **Middle pane**, which contains the portal page you are working on. Components, like text, can be directly edited from the middle pane while other components, such as lists and forms, will need to be edited from the Right-hand pane.
3. **Right-hand pane**, where you configure portal properties.

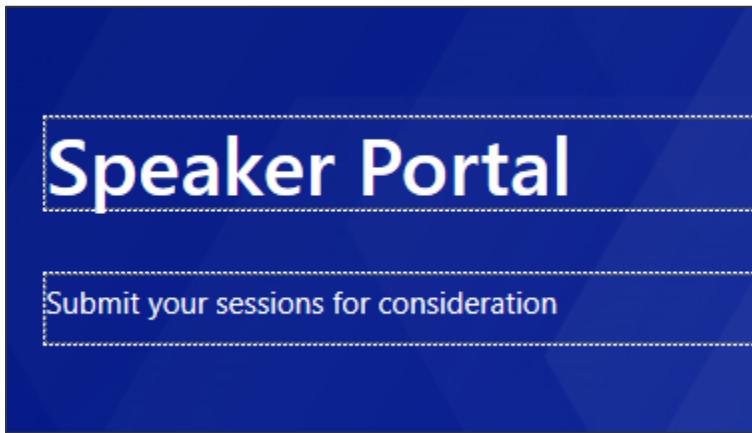


- Click into the welcome message and edit the text to say **Speaker Portal**.

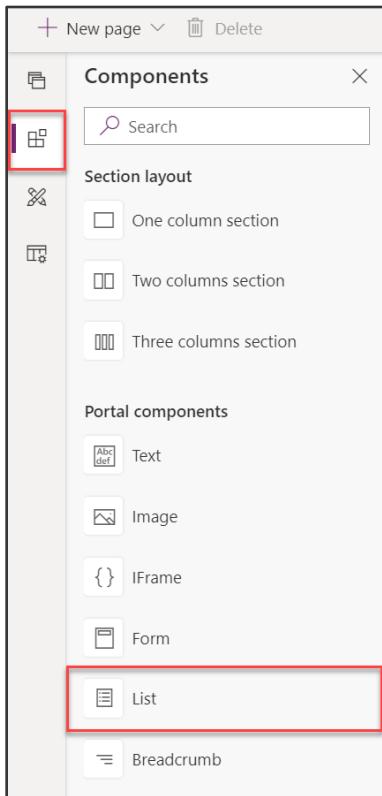
Welcome to your website!

This is a sample landing page for you to start creating your website.

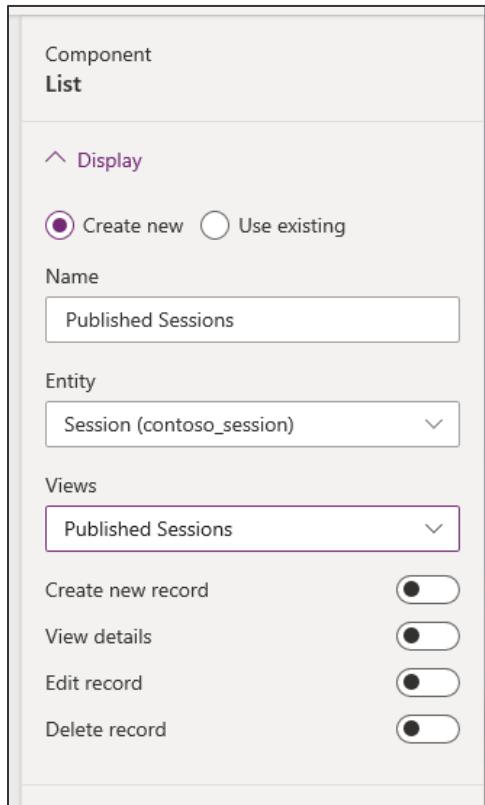
6. Click into the sub header and change the text to "Submit your sessions for consideration".



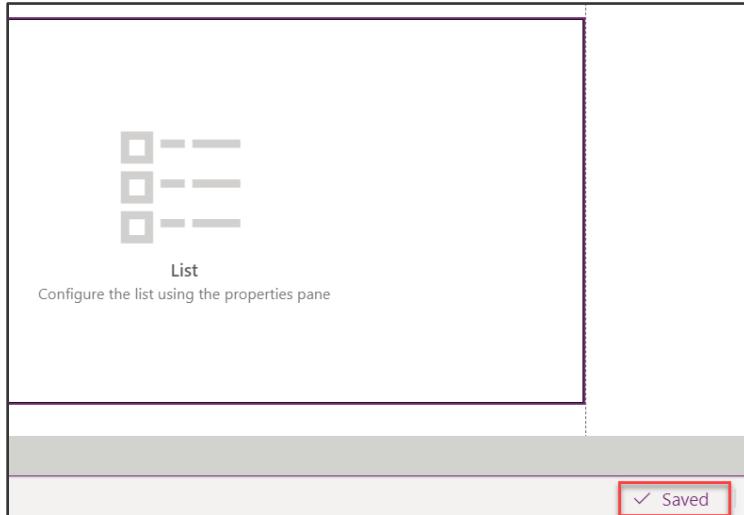
7. Delete the two remaining text blocks.
8. Expand the **Components** navigation in the left-hand navigation. Select **List**.



9. Enter **Published Sessions** for the **Name, Session** for the **Entity**, and choose **Published Sessions** for the View. Don't make any other changes.



10. Click in the white space and wait for the portal to initiate a save.



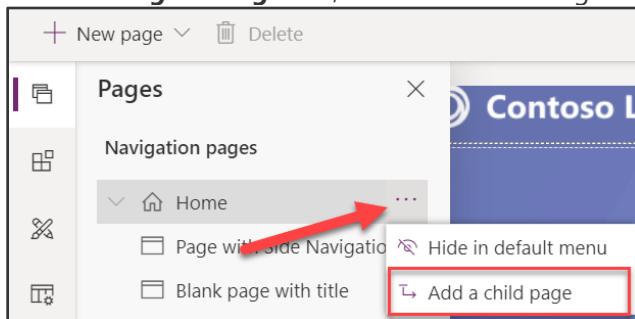
11. Click **Browse Website** in the upper right-hand corner of the screen to view the portal as a webpage. You will see your customizations.

The screenshot shows the 'Speaker Portal' home page. At the top, there's a navigation bar with 'Contoso Ltd.' logo, 'Home', 'Sample pages', a search icon, and 'Sign in'. Below the header, the title 'Speaker Portal' is displayed in large white font. A sub-header 'Submit your sessions for consideration' follows. A table lists speakers with columns: Name, Capacity, Speaker, External Speaker, and Track. The data is as follows:

Name	Capacity	Speaker	External Speaker	Track
Common Data Service		AIAH User		CDS
Advanced Microsoft Flow		AIAH User		Microsoft Flow
Intermediate PowerBI		AIAH User		Power BI

12. Close the tab

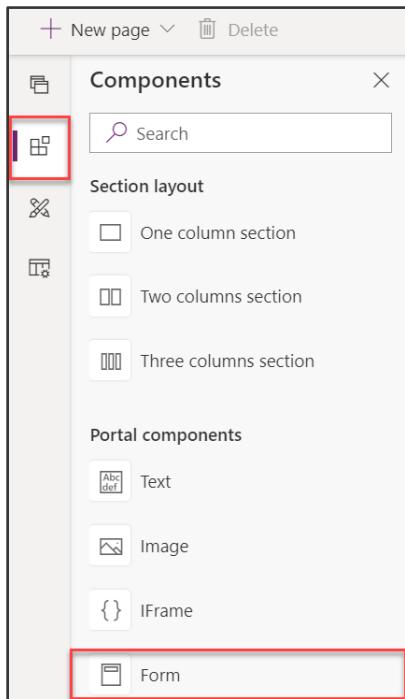
13. From the **Pages navigation**, click the ... to the right of Home and select **Add a child page**.



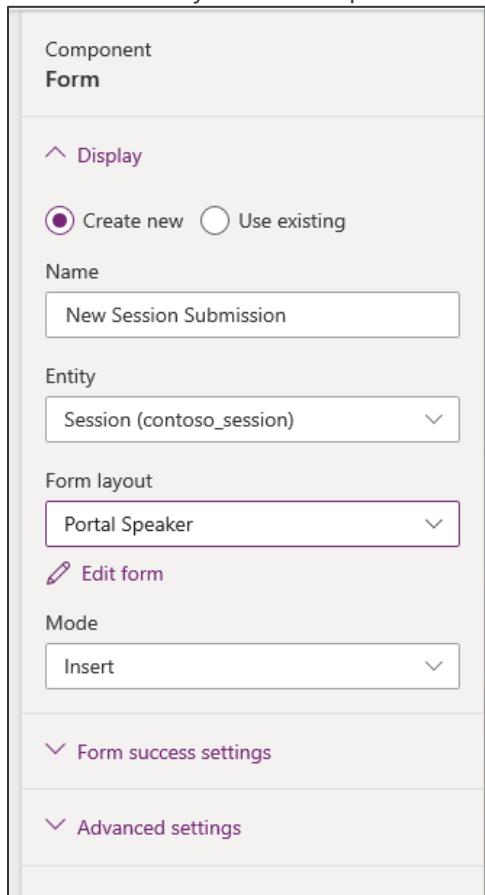
14. Using the right pane, change the Name to **Session Submission**, the partial URL to **session-submission**, and the template to **Blank page with title**.

The screenshot shows the configuration dialog for the 'Session Submission' page. It has two sections: 'Display' and 'Formatting'. In the 'Display' section, the 'Name' is set to 'Session Submission' and the 'Partial URL' is set to 'session-submission'. In the 'Formatting' section, the 'Template' is set to 'Blank page with title'. A red box highlights the 'Blank page with title' dropdown in the 'Template' section.

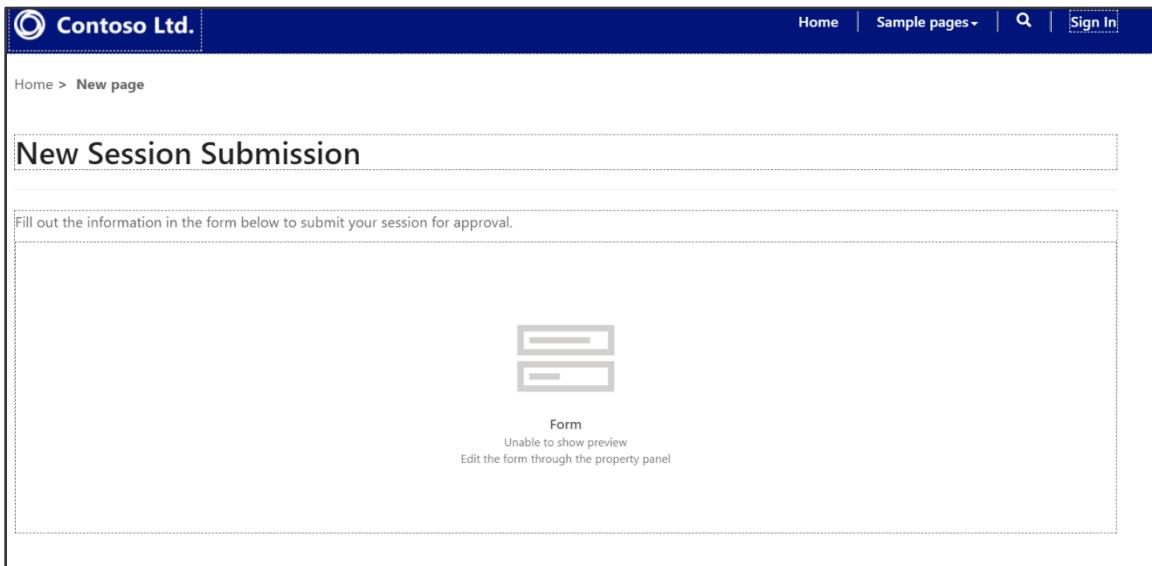
15. From the **Components navigation** select **Form**.



16. Change the form components to:
- Name:** New Session Submission
 - Entity:** Session (contoso_session)
 - Form layout:** Portal Speaker

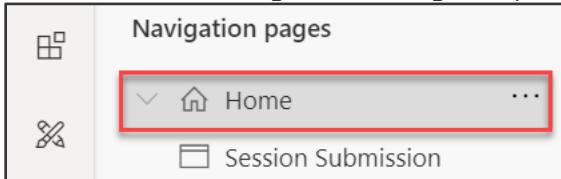


17. Click into a blank space to save the form.
18. Edit the page text to "New Session Submission."



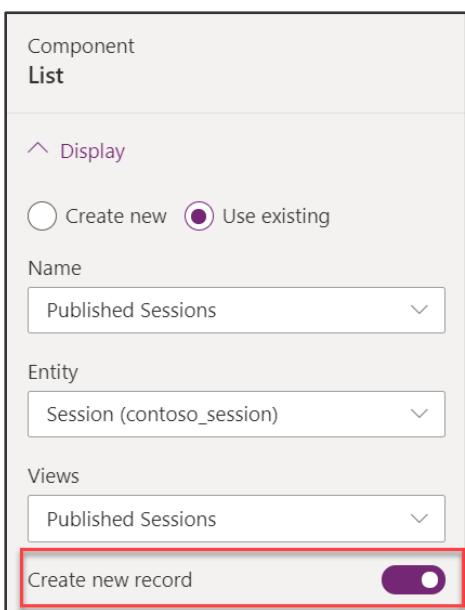
19. Click **Browse Website**. The **Main Form** will appear on the webpage as an editable form.

20. Close the tab and, using the left navigation pane, navigate back to the **Home** page.

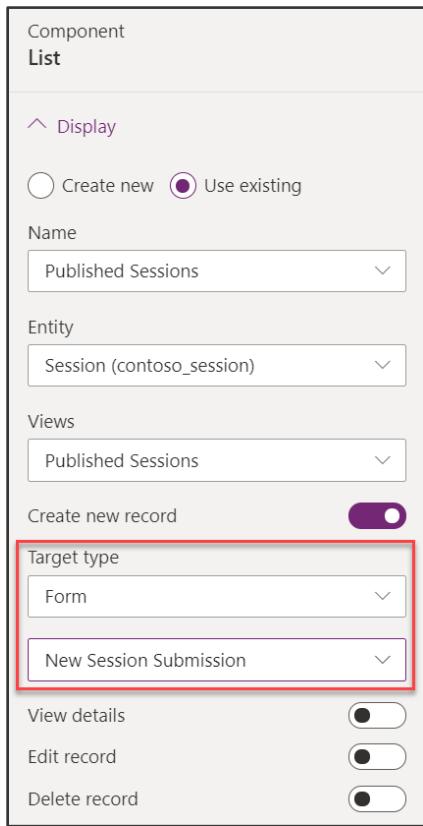


21. Select the Home Page **List**.

22. From the right-hand pane, turn **Create new record** on



23. Keep the **Target Type** at **Form** and set the **Form** to **New Session Submission**



24. Initiate a save action by clicking in white space on the portal page.

Task 3 – Test

1. Select **Browse Website**
2. Click on the **+Create** button above the list view

The screenshot shows the 'Speaker Portal' website. At the top, it says 'Speaker Portal' and 'Review upcoming speaker sessions and submit sessions for consideration.' Below this is a table listing sessions:

Name ↑	Capacity	A/V Requirements	Session Status
Advanced Microsoft Flow			Published
Common Data Service			Published
Intermediate PowerBI			Published
Introduction to PowerApps			Published

In the top right corner of the table area, there is a blue button with a white plus sign and the word 'Create'. This button is also highlighted with a red box.

3. Fill out the form.

The screenshot shows a 'Create' dialog box with the following fields:

- Session Name *
- Description
- Track *
- Speaker Name

Below these fields is a CAPTCHA section with the text "HDMN.J" and a button to "Generate a new image". There is also a link to "Play the audio code". A text input field contains the CAPTCHA code "Enter the code from the image" and a red placeholder "Enter the code from the image". A blue "Submit" button is at the bottom.

- Because we are using the Published Sessions view, you won't immediately see your submission. If you want to see it; navigate to make.powerapps.com.
- Click **Data | Entities | Session | Data**
- Review the data list. Your newly created session should appear on the list.

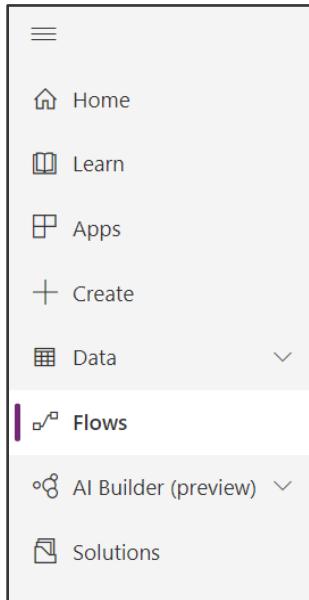
Entities > Session					
Fields	Relationships	Business rules	Views	Keys	Data
Name					
Advanced Microsoft Flow					
Common Data Service					
Intermediate PowerBI					
Introduction to PowerApps					
Introduction to PowerApps Portals					

Exercise 6: Add a Business Process Flow for session management

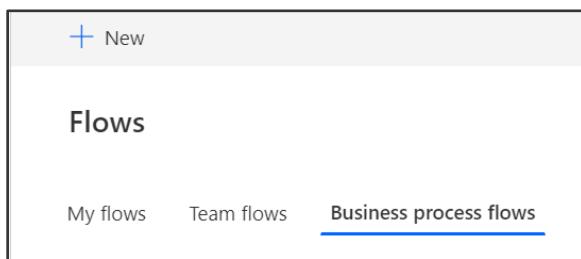
Now that we have created the possibility of more sessions, we need to better manage the intake process. To do so, we will create a Business Process Flow. The business process flow we are creating will be an over-simplified process. In reality we'd have more detailed steps, and automation triggered by our user's actions on the records.

Task 1 – Create business process flow

1. Navigate to <https://make.powerapps.com/> and make sure you are in the correct environment.
2. Select **Flows** and click **Business process flows**



3. Click **+New**



4. Name the Business Process Flow **Create Session Management** and choose **Session** as the **Common Data Service entity**.

Create business process flow

Display name *

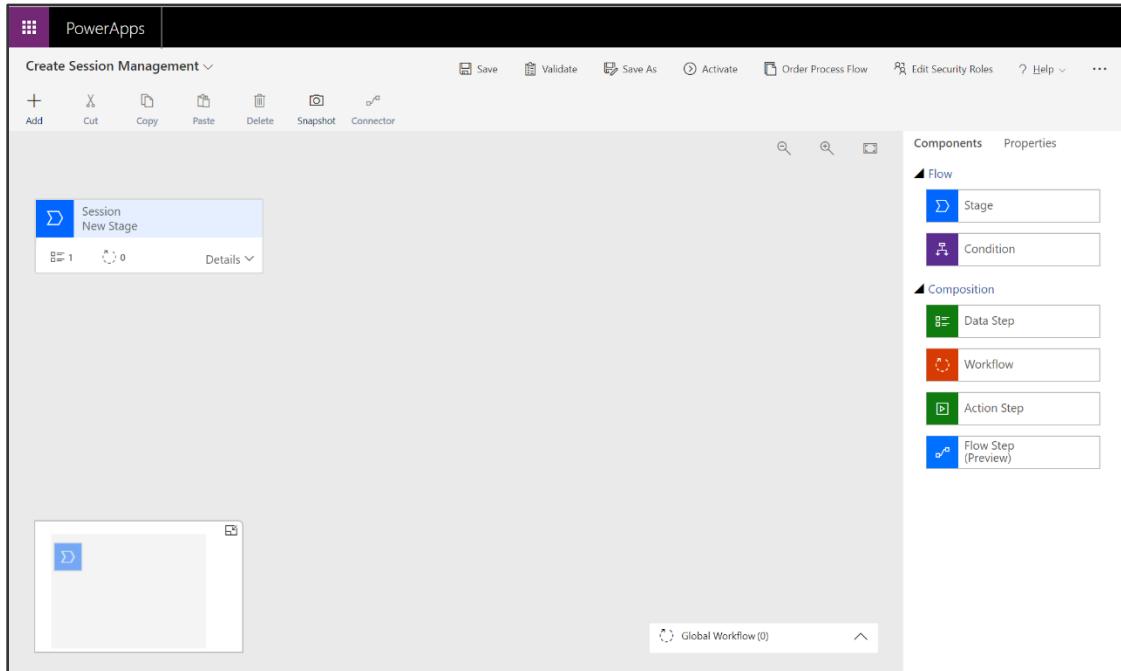
Name *

 ⓘ

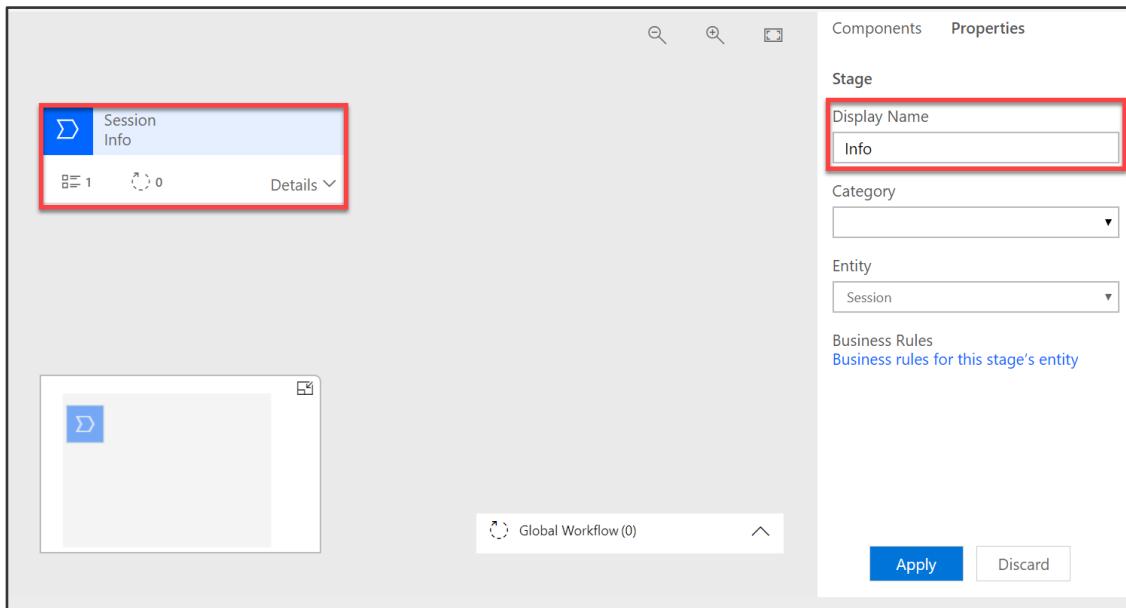
Common Data Service entity *

 ⓘ

5. You will be navigated to the Business Process Flow Designer.



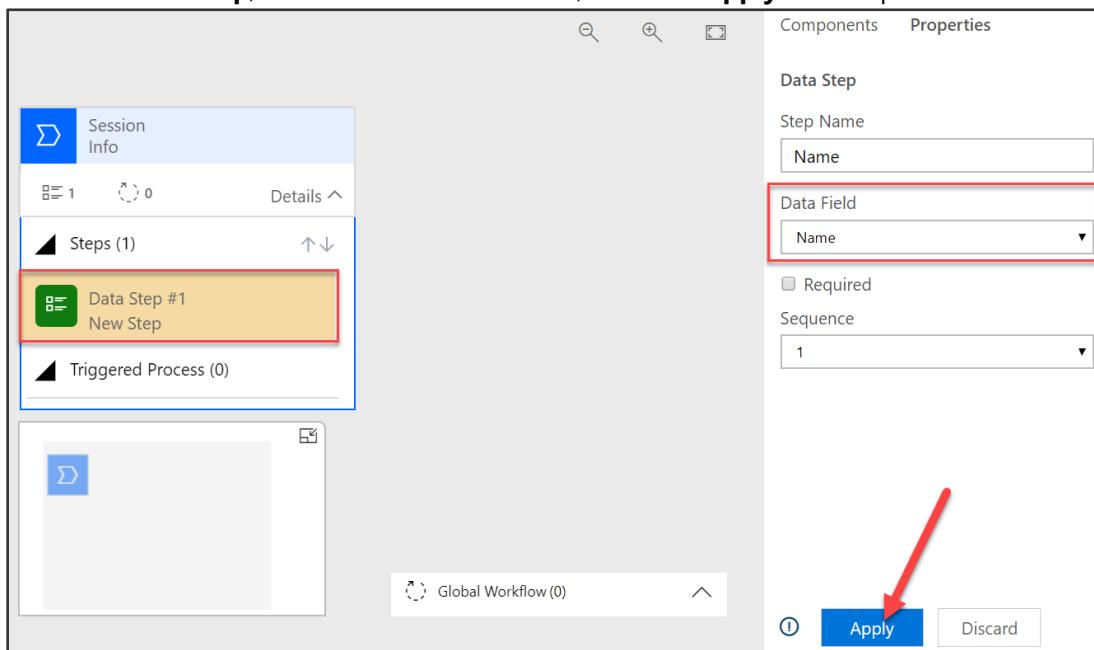
6. Select the **New Stage** and change the Display Name to **Info** and click **Apply**



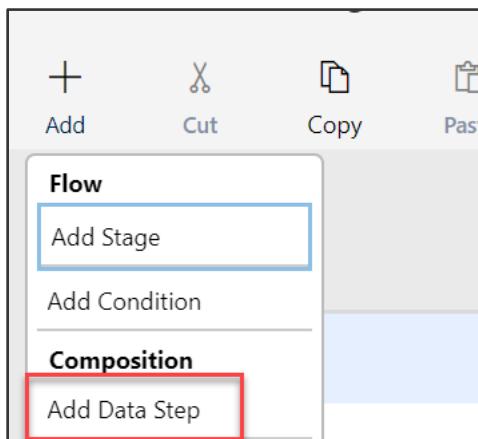
7. Click Details



8. Select the Data Step, select Name for Data Field, and Click Apply. The Step Name will auto-fill for you.



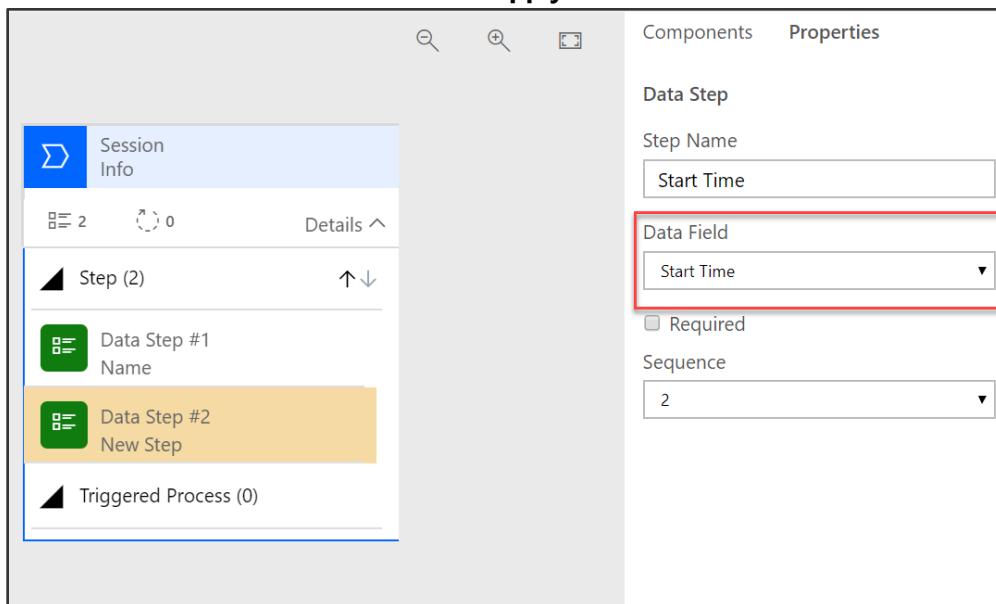
9. Click Add and select Add Data Step.



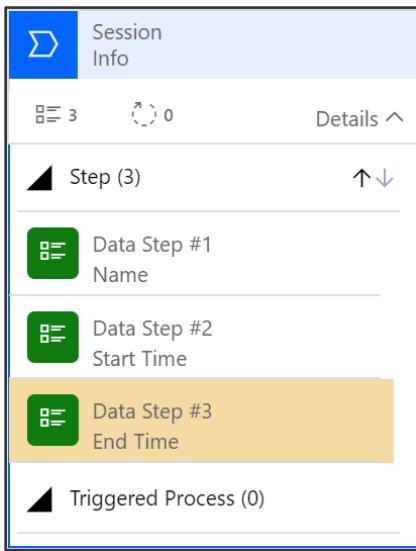
10. Click on the small + under Data Step #1



11. Select **Start Time** for Data field and click **Apply**

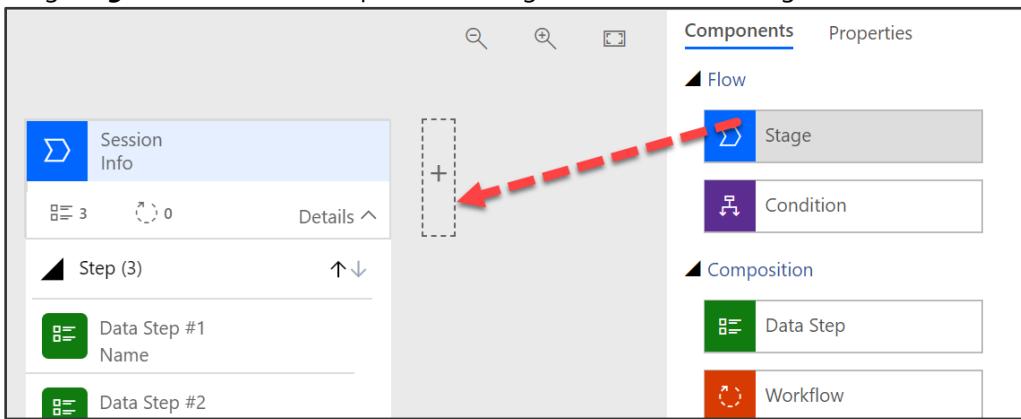


12. Add another Data Step, select **End Time** for Data Field and click **Apply**

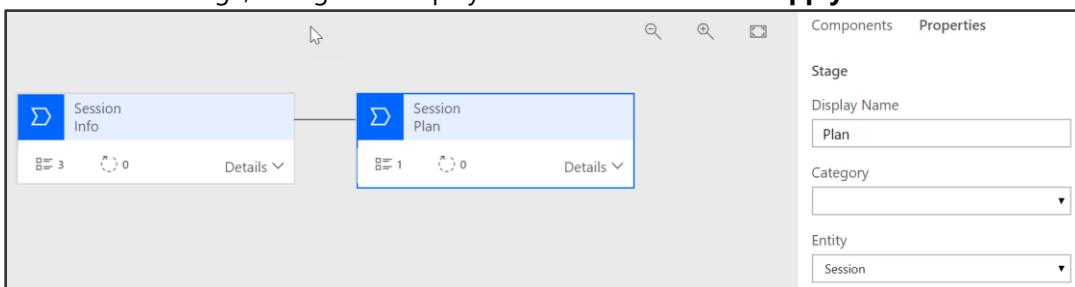


13. Select the Components tab

14. Drag Stage to the canvas and place to the right of the Session stage



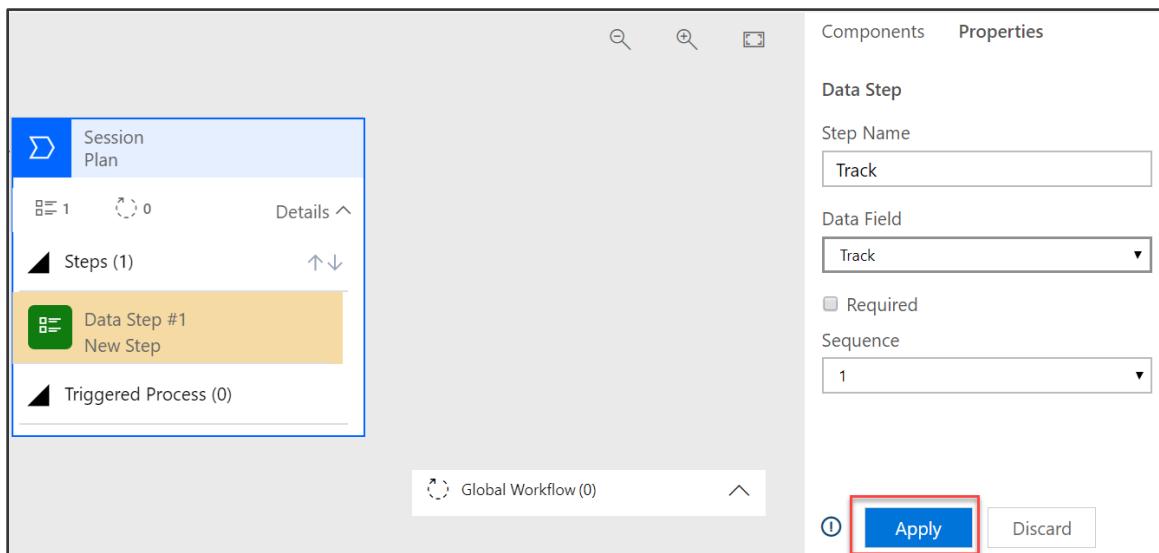
15. Select the new stage, change the Display Name to Plan and click Apply



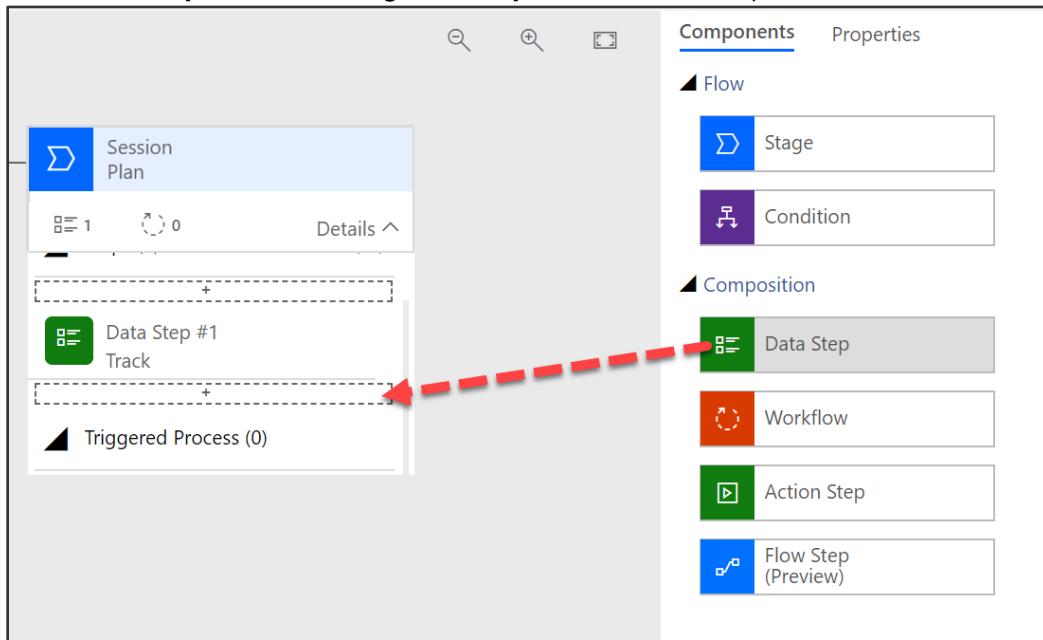
16. Click Details



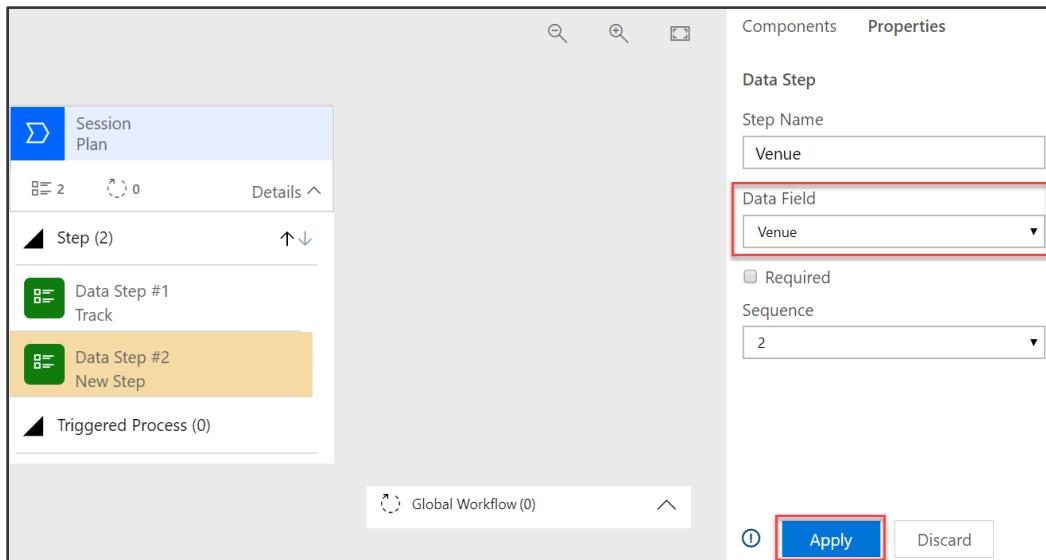
17. Select the existing Data Step, select Track for Data Field, and click Apply



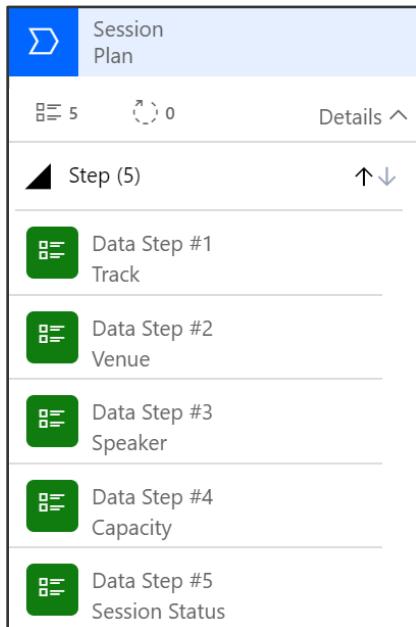
18. Select the **Components** tab, drag **Data Step** to the canvas and place under the **Track** Data Step



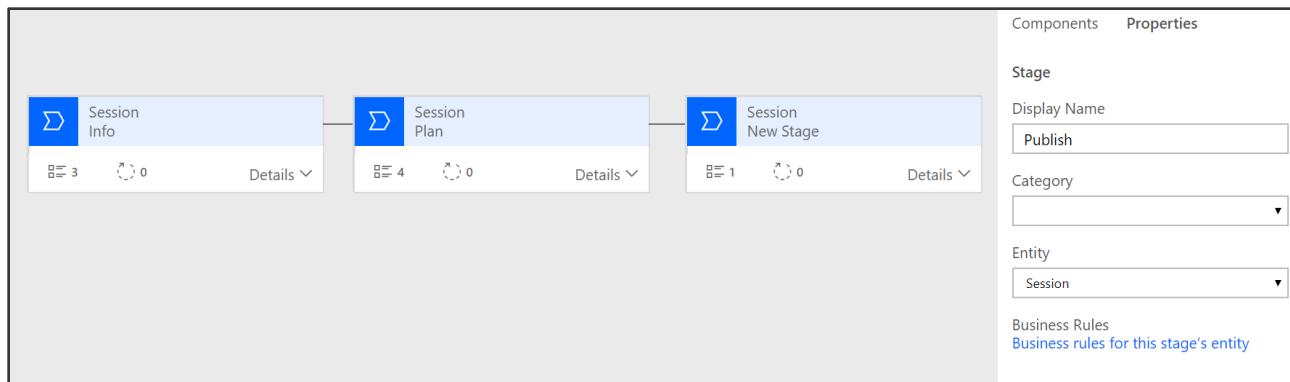
19. Select **Venue** for Data Field and click **Apply**.



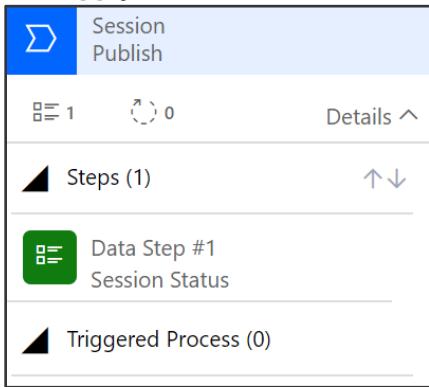
- 20.** Repeat the steps above and add two more steps to the **Plan** stage. Select **Speaker**, **Capacity**, and **Session Status** as the Data Fields.



- 21.** Add another stage and name it **Publish**

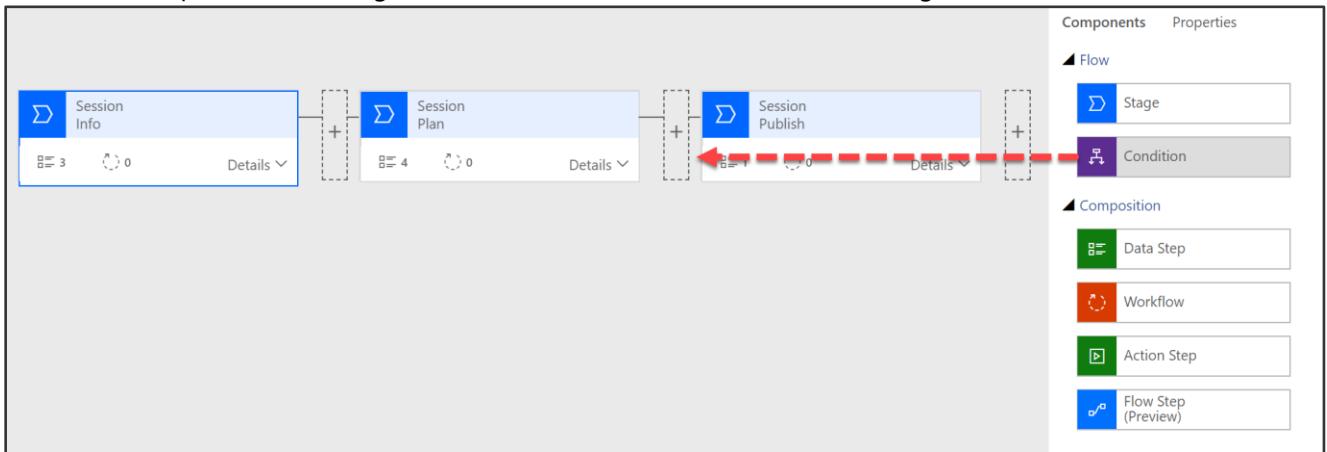


- 22.** Select the existing Data Step and set it to **Capacity**. Add an additional Data Steps and set it to **Session Status** and click **Apply**



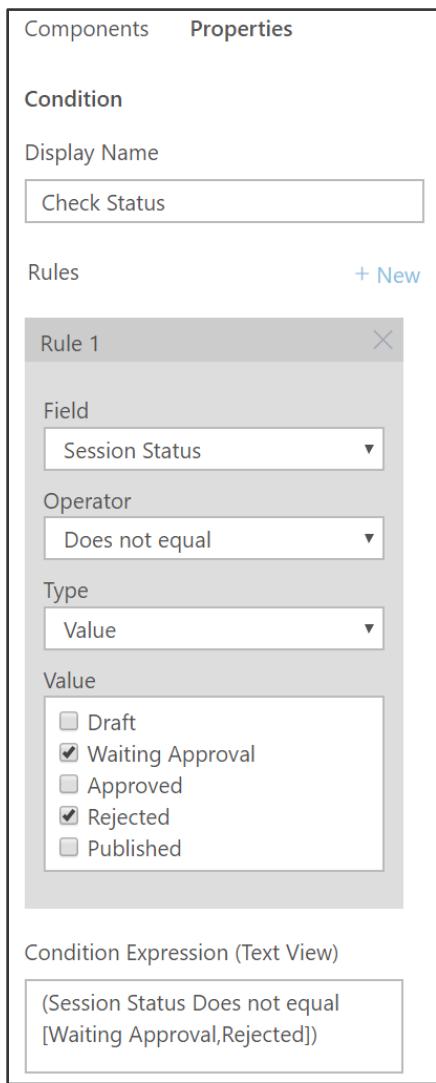
Task 2 – Add a branch condition

- Select the Components tab, drag **Condition** between the Plan and Publish Stages

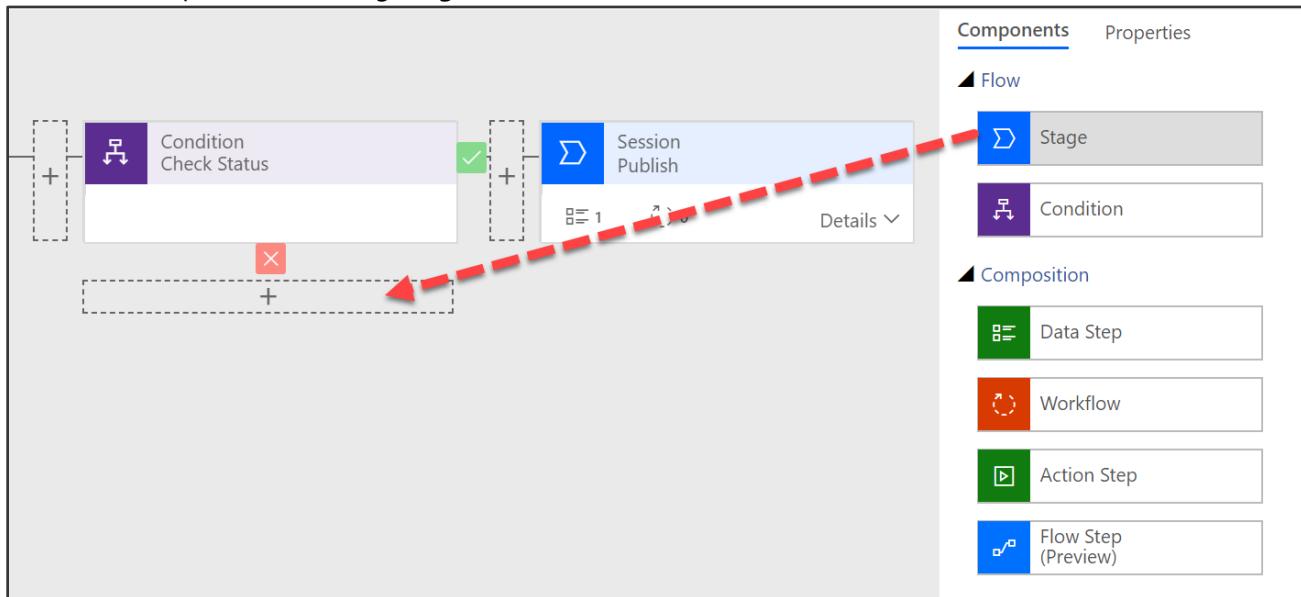


- Rename the condition **Check Status**

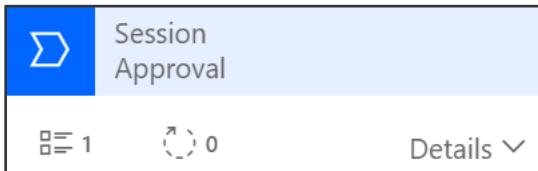
- Add the following conditions to the **Rule 1** so that it matches the image below, click **Apply**.



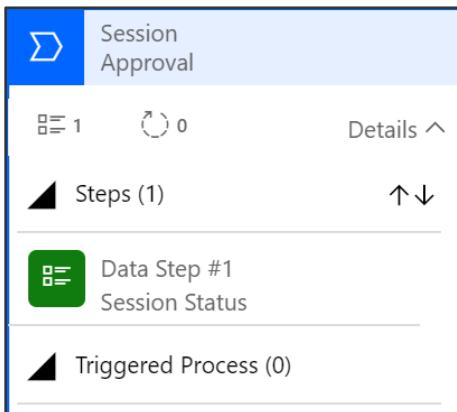
4. Select the Components tab, drag **Stage** to below the Condition



5. Rename the stage to **Approval** and click **Apply**



6. Select the Data Step and set it to **Session Status**



7. Save and Activate the Business Process Flow

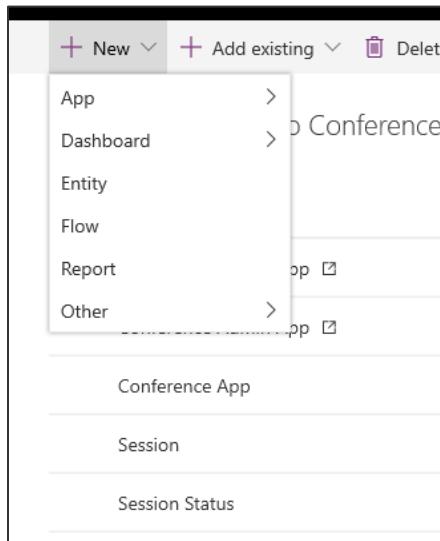


8. Open your model-driven Conference app and test the Business Process Flow by adding a new session record.
9. Open one of your previously created records. You will not see the business process flow here. Because the record was created prior to activation of the business process flow, you need to manually relate the business process flow to your record. Click the Process item in the ribbon.
10. Select switch process, and select the process you just created.

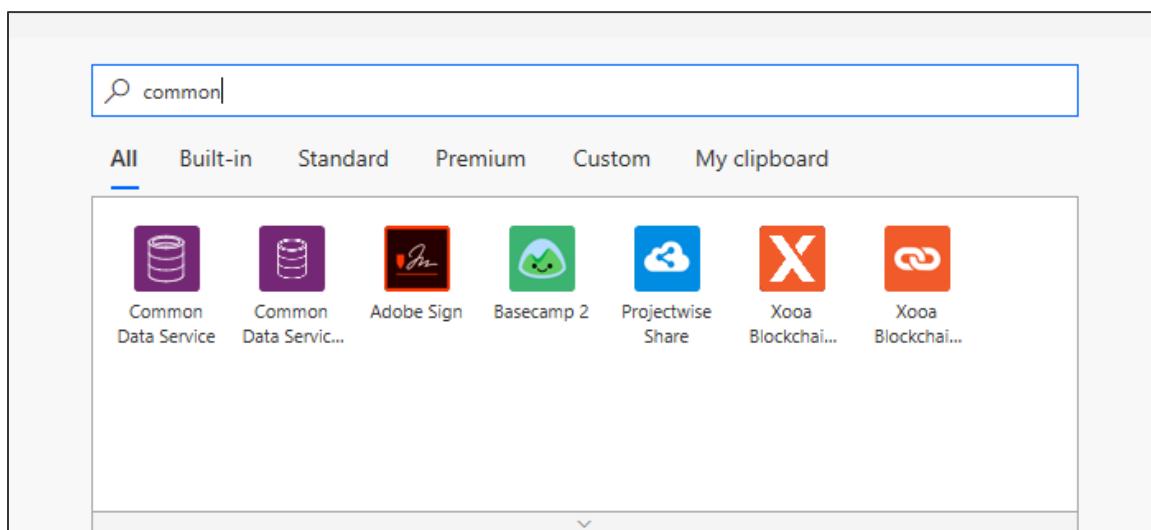
Exercise 7 Build a flow to approve session

Task 1 – Create a flow

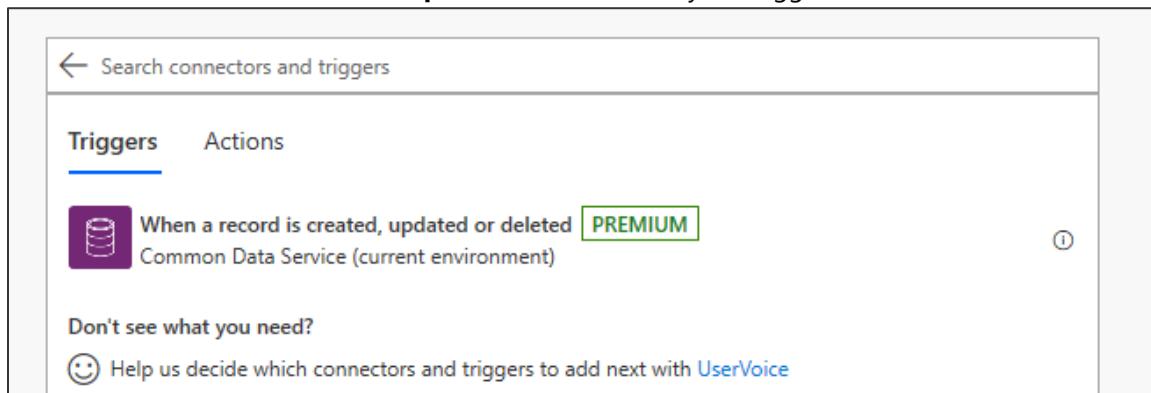
1. Navigate to <https://make.powerapps.com/> and make sure you are in the correct environment.
2. Select your Contoso Conference Solution. Choose New and select **Flow**



3. Search for Common Data Service and select Common Data Service (current environment). You may have to hover over the icons to ensure you have the desired selection.



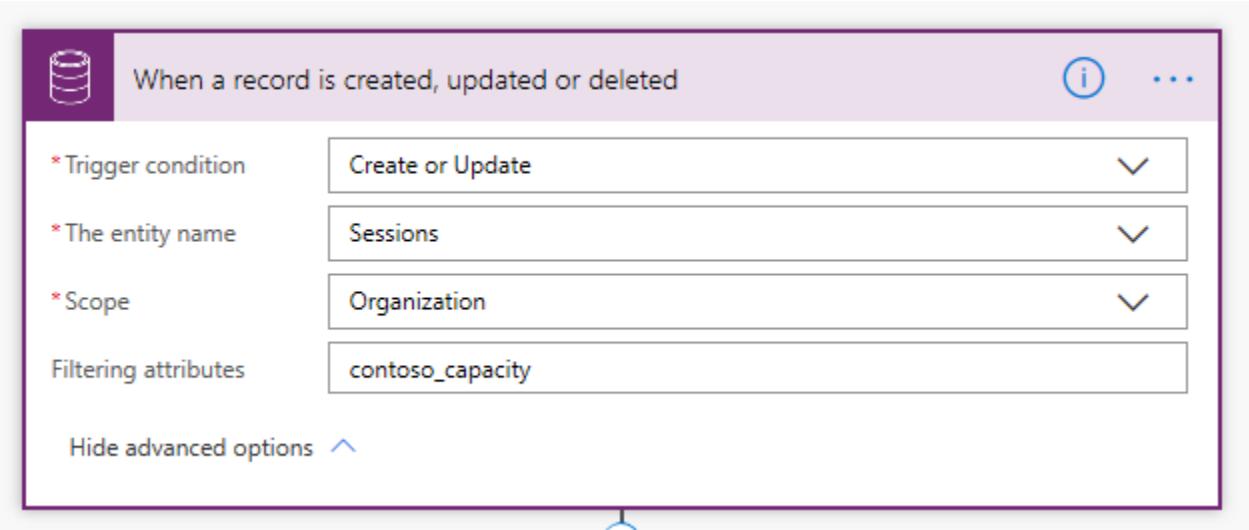
4. Select **When a record is created, updated or deleted** as your trigger.



The screenshot shows the 'Search connectors and triggers' interface. The 'Triggers' tab is selected. A purple icon of a database is followed by the text 'When a record is created, updated or deleted'. A green box labeled 'PREMIUM' is next to it. Below this, it says 'Common Data Service (current environment)'. There is also a small info icon (i) and a link to 'UserVoice'.

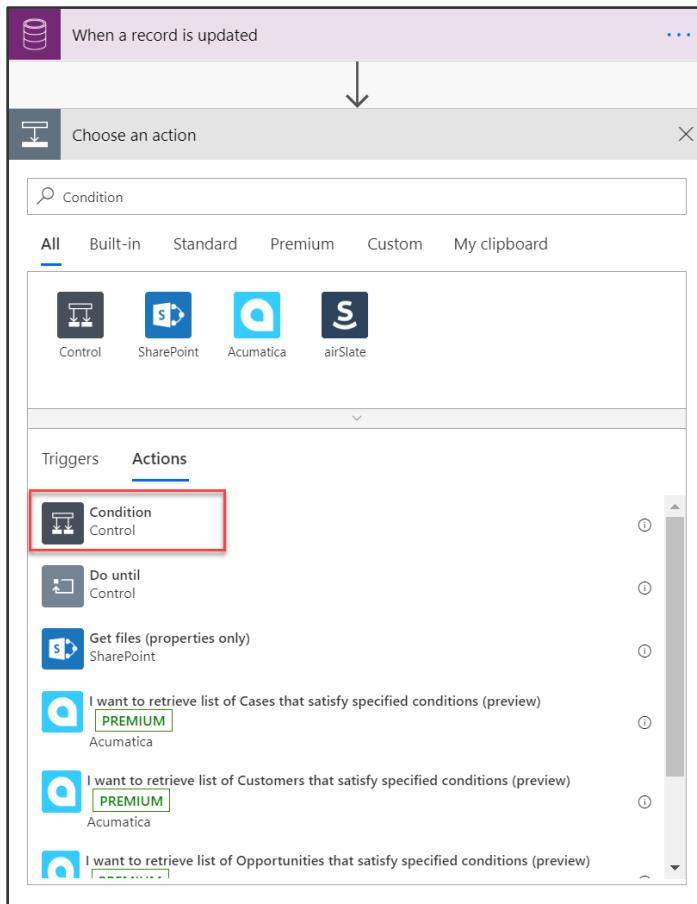
5. Choose the following:

- Trigger condition: **Create or Update**
- The entity name: **Sessions**
- Scope: **Organization**
- Filtering attributes (Advanced options): **contoso_capacity**

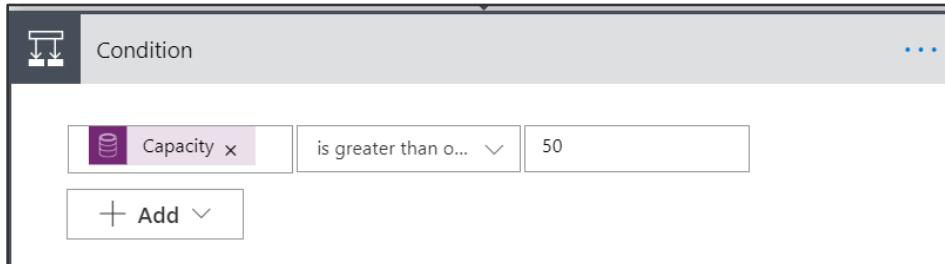


The screenshot shows the configuration dialog for the 'When a record is created, updated or deleted' trigger. It has fields for Trigger condition (set to 'Create or Update'), Entity name ('Sessions'), Scope ('Organization'), and Filtering attributes ('contoso_capacity'). There is also a 'Hide advanced options' button.

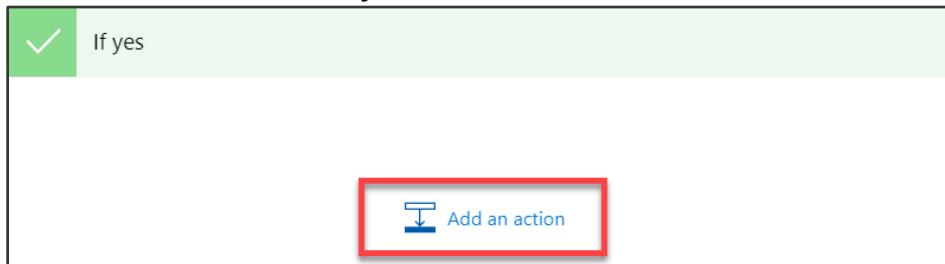
6. Click **+New step** and select the **Condition** action



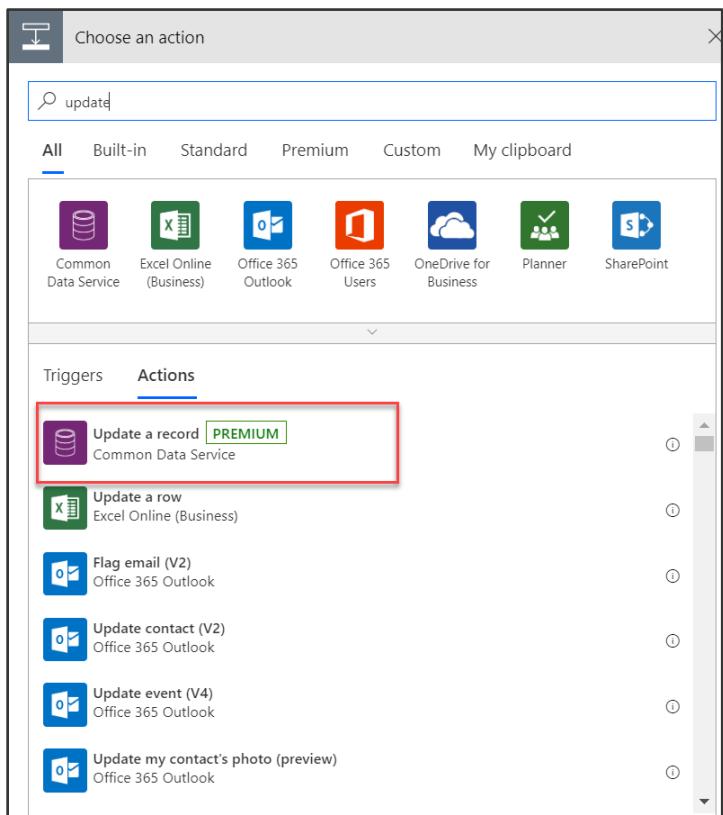
7. Enter Capacity, is greater than or equal to, and 50



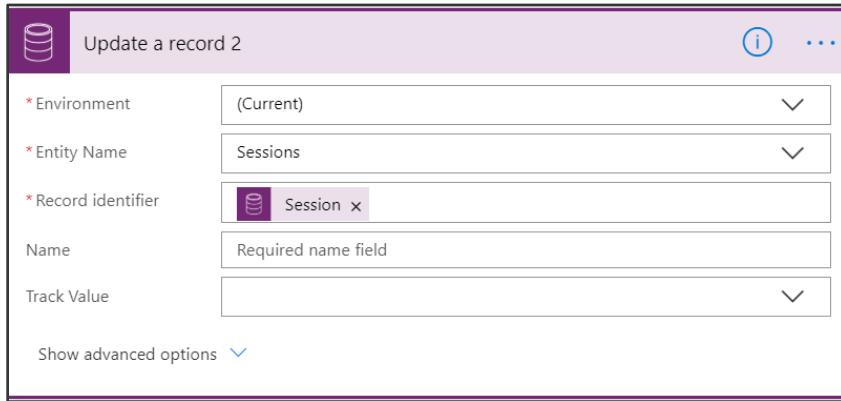
8. Click Add an action for the If yes condition



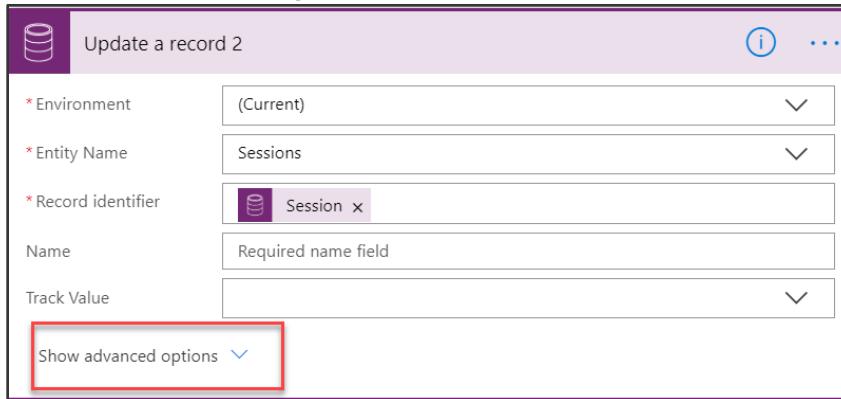
9. Choose Update a Record



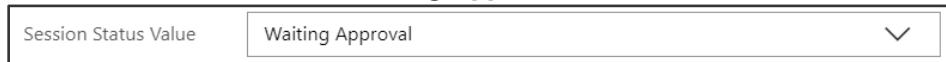
10. Select **Current for the **Environment**, **Sessions** for the **Entity**, and **Session** for the **Record Identifier****



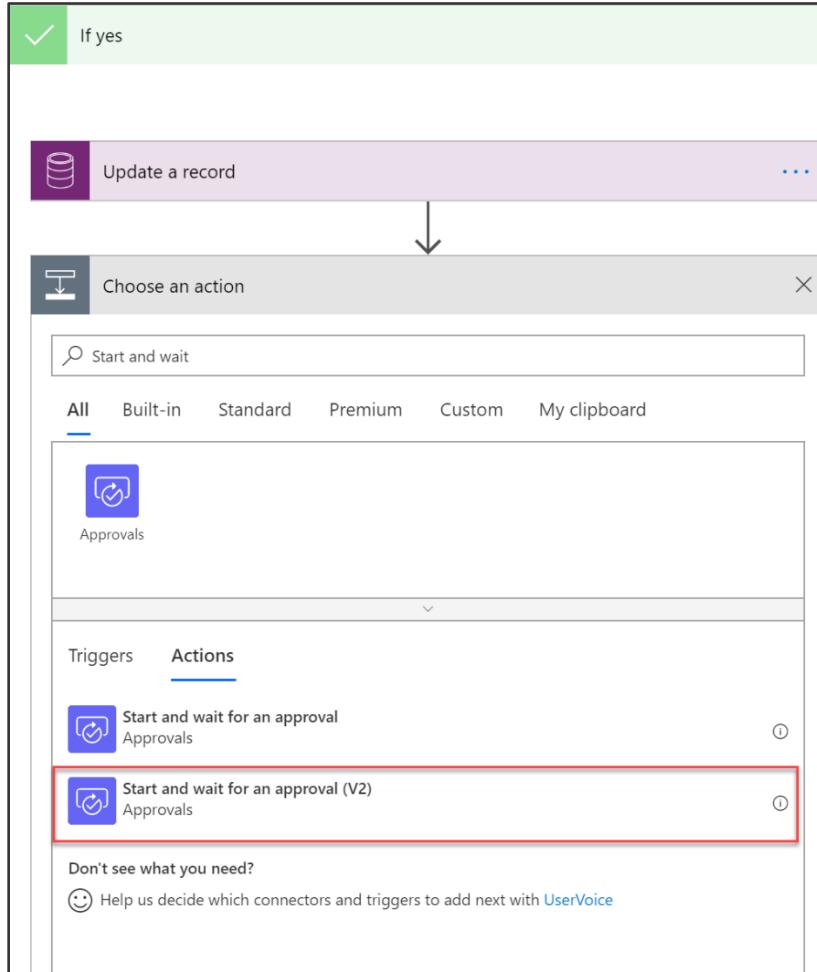
11. Click **Show Advanced Options**



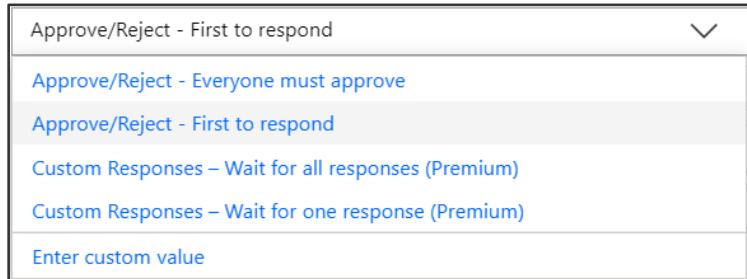
12. Set Session Status Value to Waiting Approval



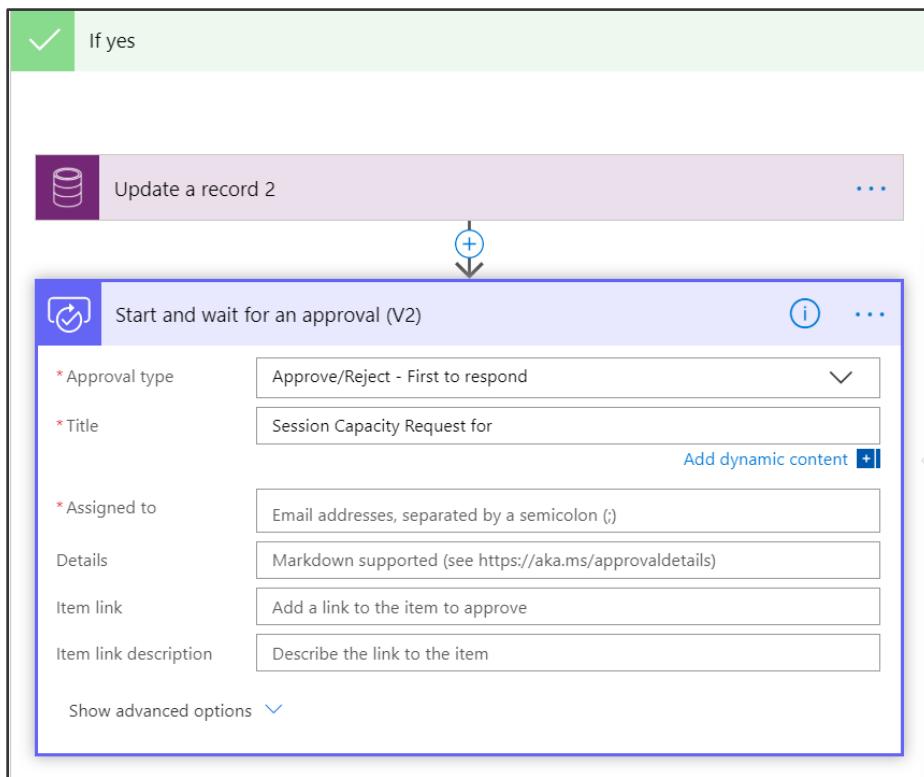
13. Click **Add an action** from under **Update a Record**, then search for and select **Start and wait for an approval (V2)**. **Make sure you pick the action labeled V2!**



14. In the **Approval type** dropdown select **Approve/Reject – First to Respond**.



15. Enter **Session Capacity Request for** in the title, then search for and select **Name** from the **Dynamics Content**.

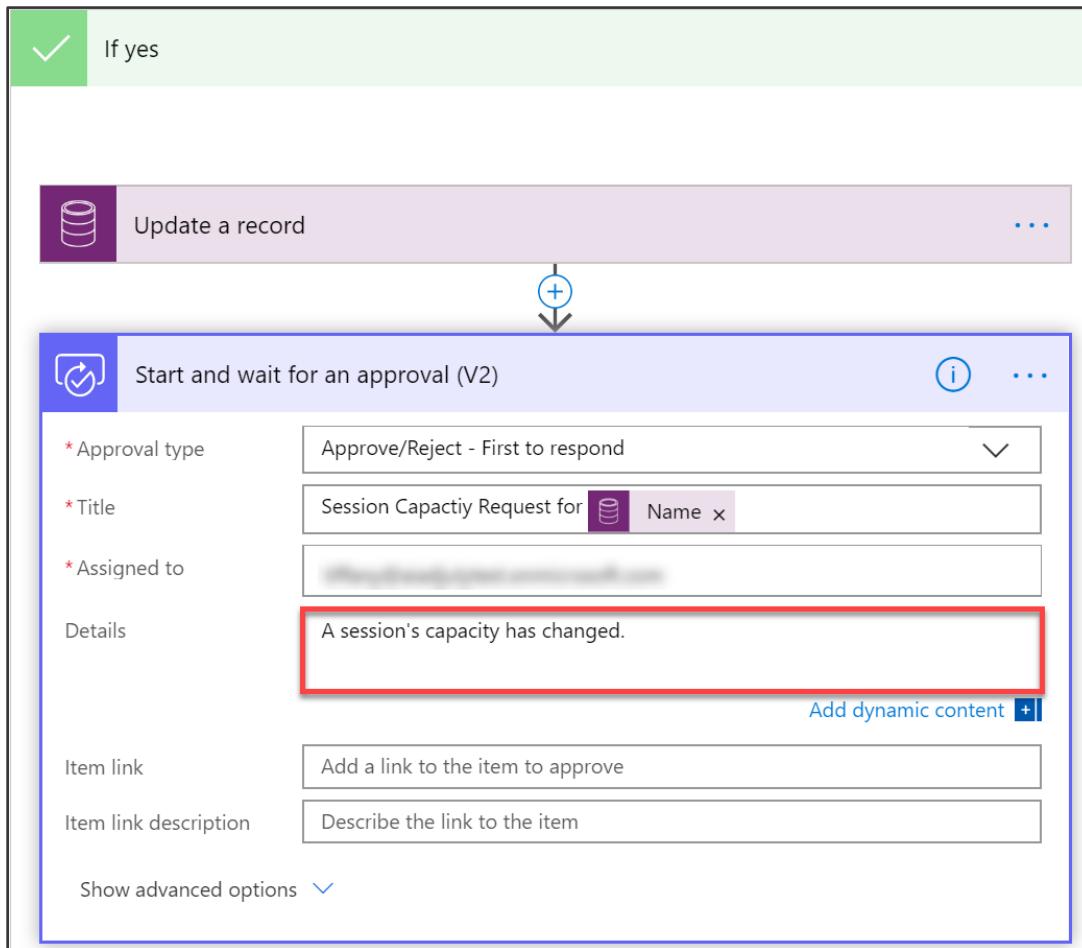


16. Search in Dynamic Content and select Name

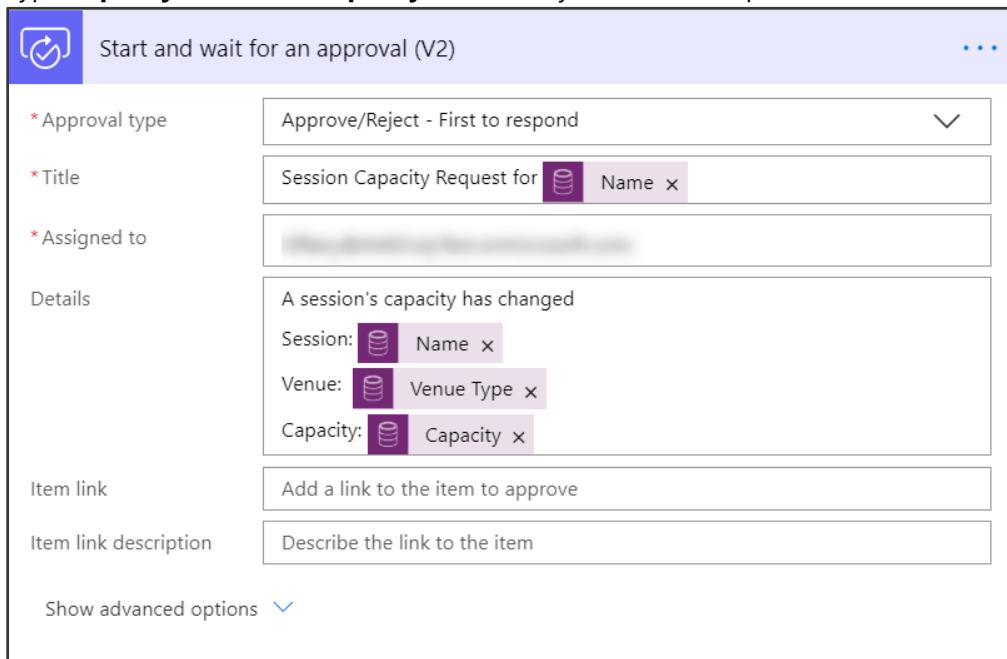
The screenshot shows the same 'Start and wait for an approval (V2)' step from the previous image. To its right is a 'Dynamic content' pane. The pane has tabs for 'Dynamic content' and 'Expression', with 'Dynamic content' selected. A search bar at the top of the pane shows the text 'Name'. Below the search bar, a list of items is displayed, including 'External Speaker Name' and 'Name'. The 'Name' item under 'External Speaker Name' is highlighted with a red box. Other items listed include 'Update a record', 'When a record is updated', and another 'External Speaker Name' entry.

17. Select the **Assigned to** field and enter your student user.

18. In the **Details** field, type **A session's capacity has changed** and hit <enter>

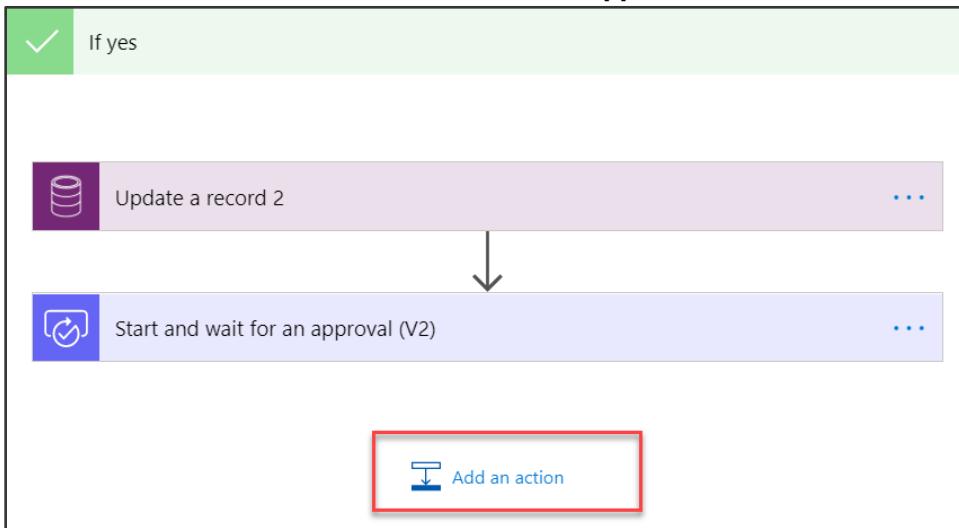


19. Type **Session:** and Select **Name** from the Dynamic content pane.
20. Type **Venue:** and select **Venue** from the Dynamic content pane.
21. Type **Capacity:** and select **Capacity** from the Dynamic content pane.



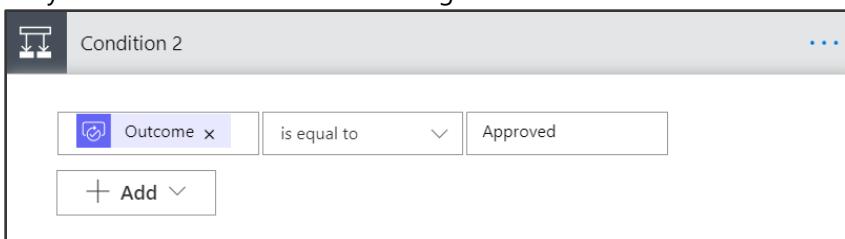
22. Save the flow**Task 2 – Add a condition**

1. Click **Add an action** under **Start and wait for an approval (V2)**

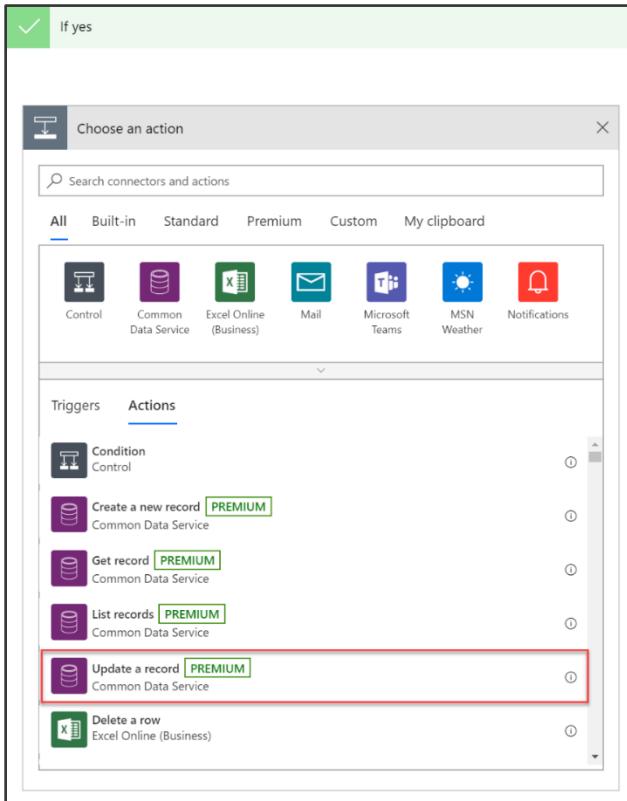


2. Select **Condition**

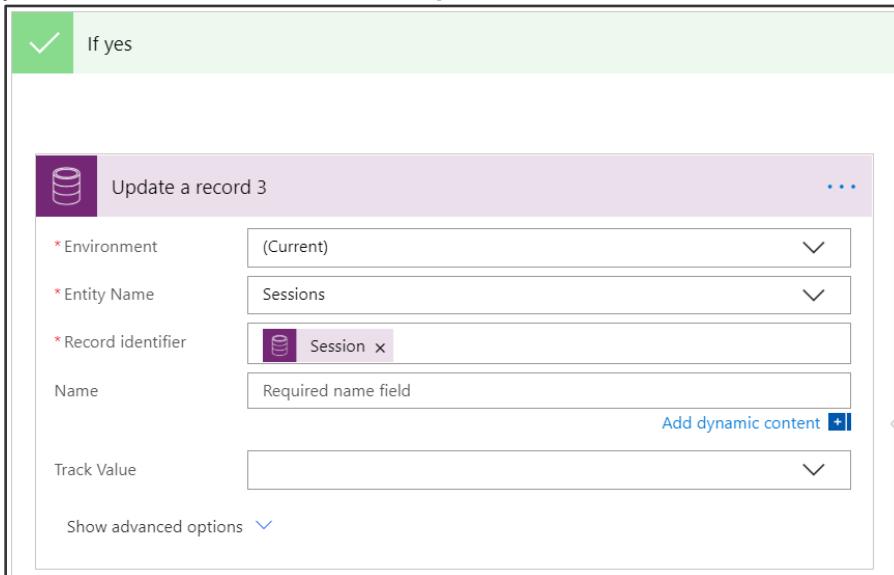
3. Set your **Condition** to match the image below



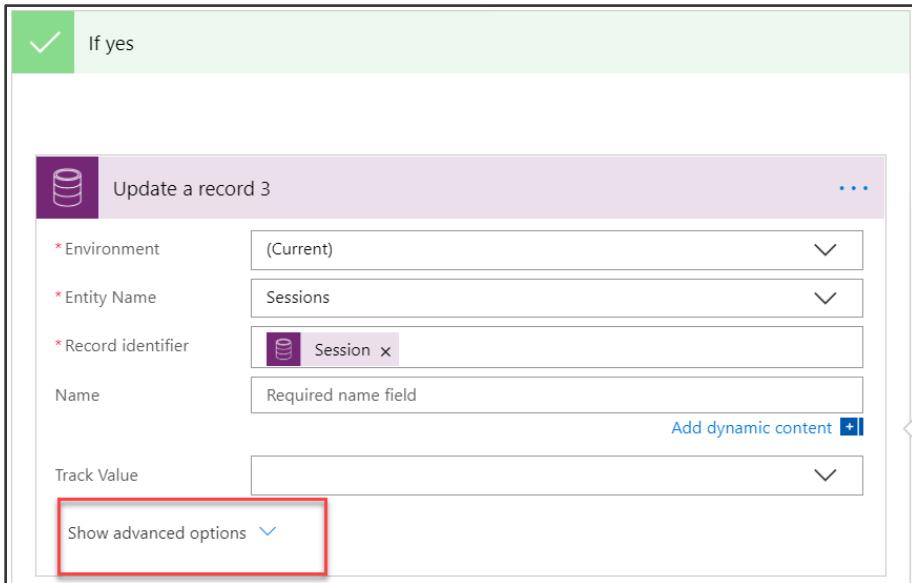
4. Choose **Update a record** for your action **If Yes**



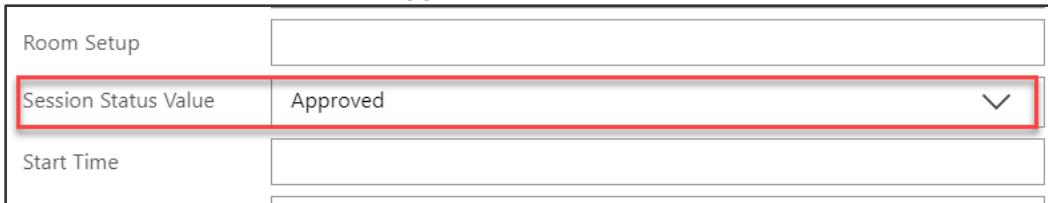
- Select **Current** for the **Environment**, **Sessions** for the **Entity**, and **Session** for the **Record Identifier**. Make sure you select the Session record from **Update a record**.



- Click to expand **Advanced options**

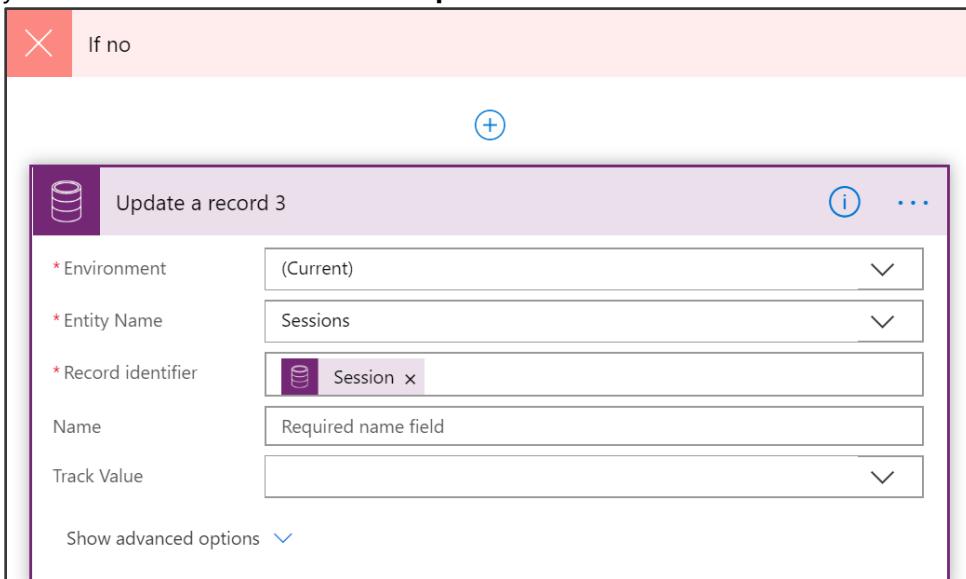


7. Set the Session Status Value to Approved

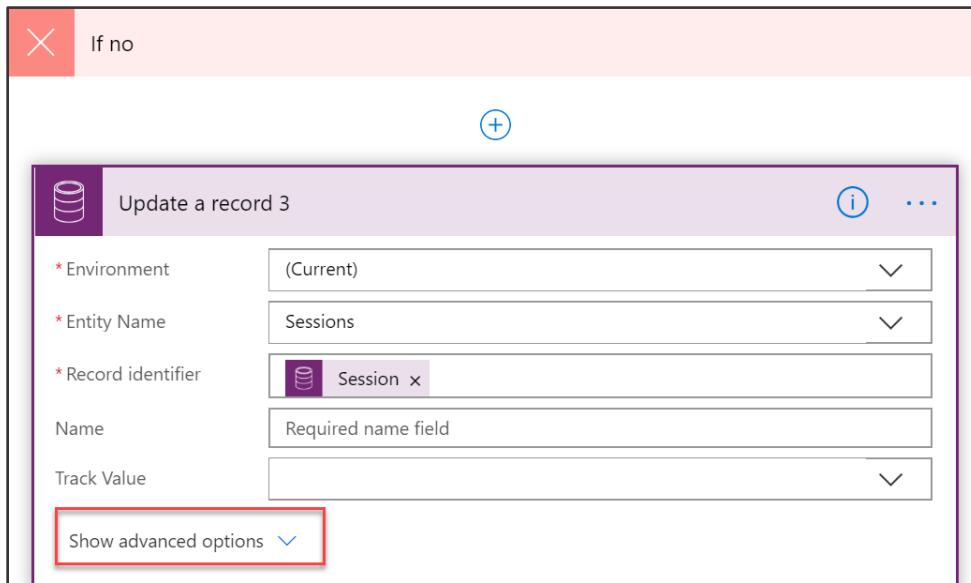


8. Click on Add an action under the If no condition and select Update a record

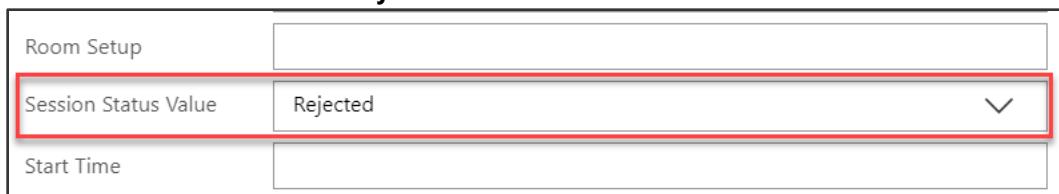
9. Select Current for the Environment, Sessions for the Entity, and Session for the Record Identifier. Make sure you select the Session record from **Update a record**.



10. Click to expand Advanced options



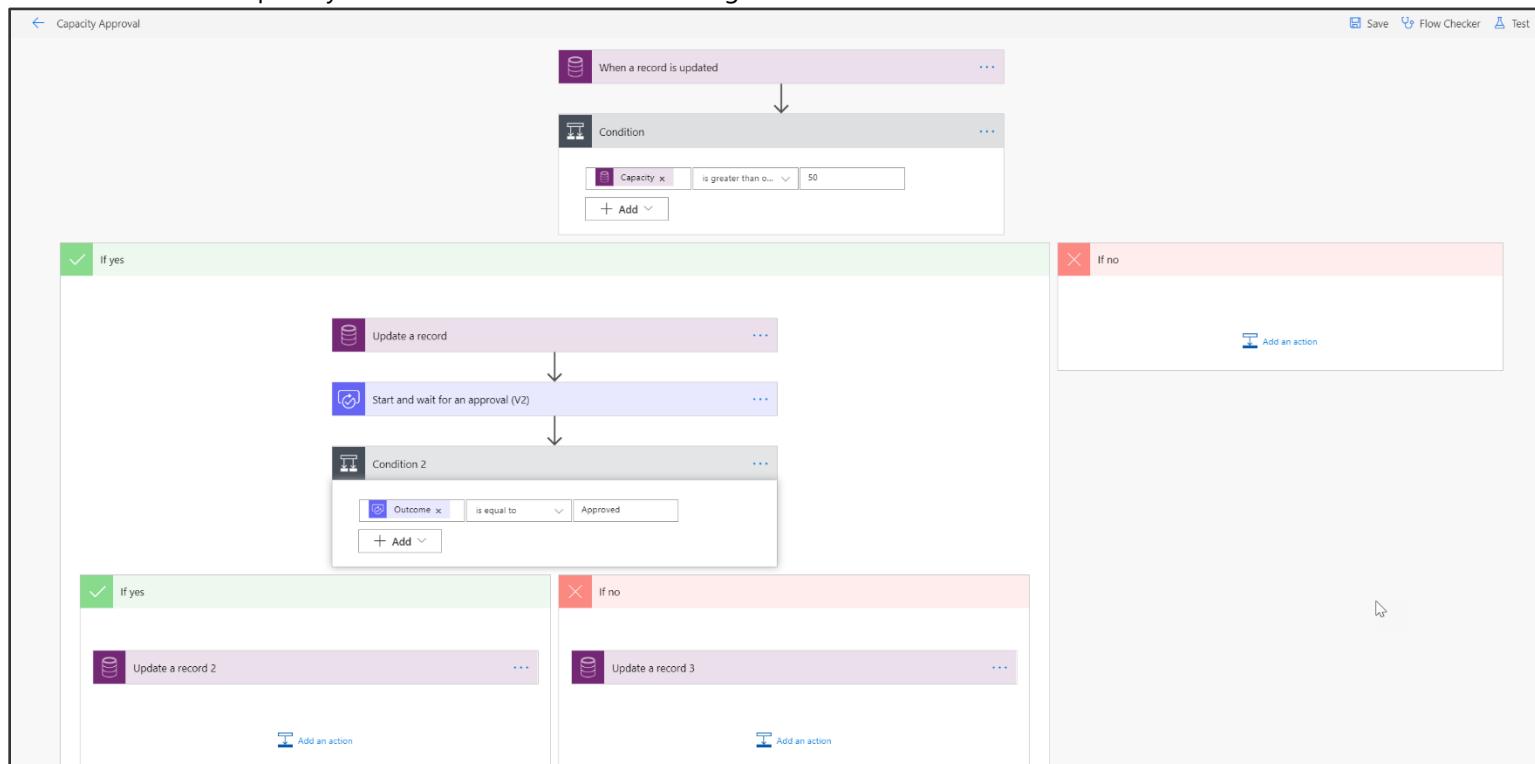
11. Set Session Status Value to Rejected



12. Save the Flow

Task 3 – Set If No Value

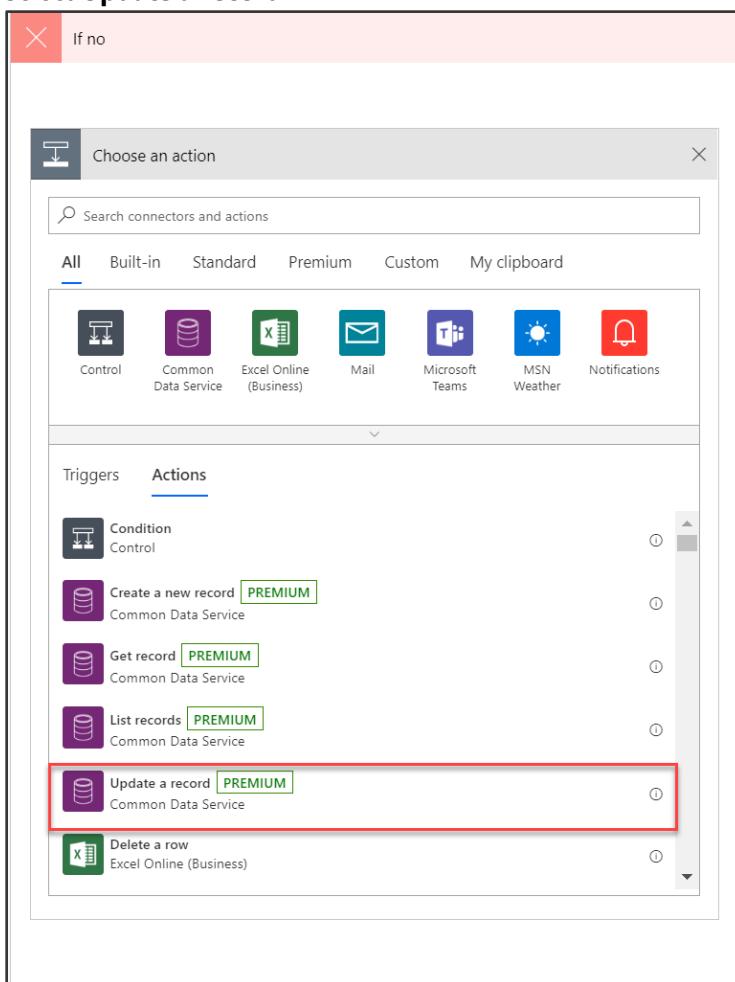
- At this point your flow should look like the image below



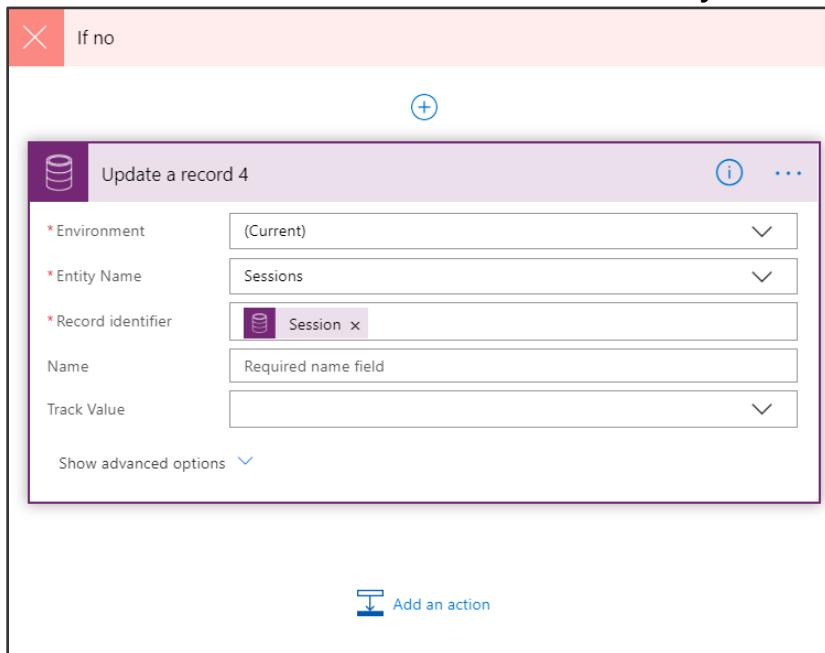
2. Click **Add an action** under the If no conditional outcome



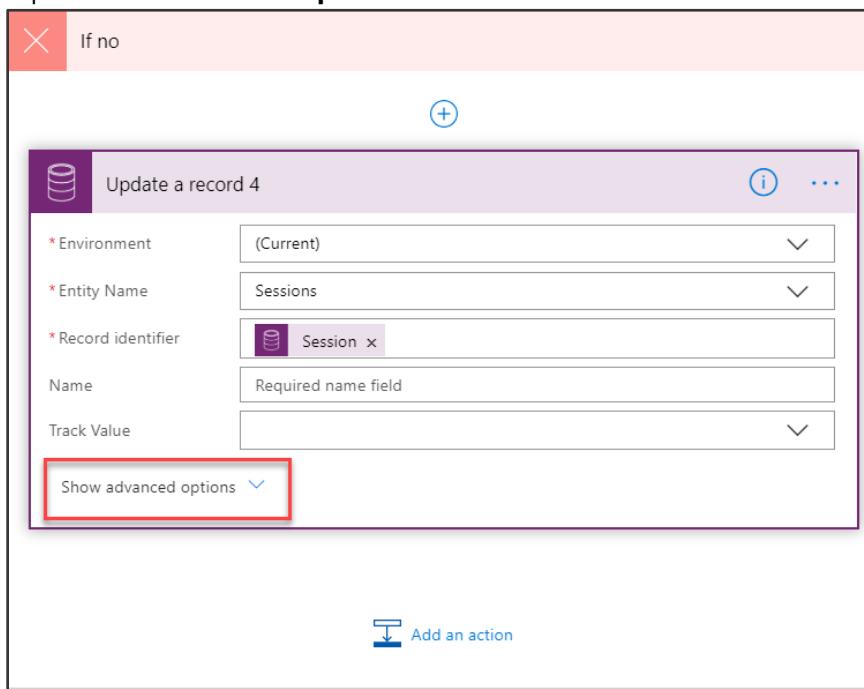
3. Select **Update a record**



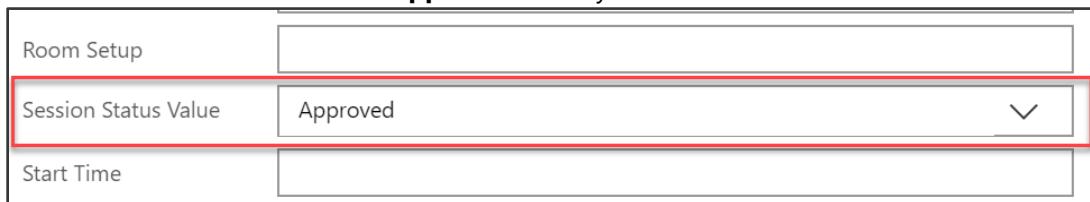
4. Select **Current** for the **Environment**, **Sessions** for the **Entity**, and **Session** for the **Record Identifier**.



5. Expand **Show advanced options**



6. Set the **Session Status Value** to **Approved**. Save your Flow.



Task 4 – Test flow

Testing your flow is optional for this exercise.

To test, select the  Test icon in the upper right-hand corner of the flow screen. Then, navigate to the Conference Admin app and update three Session records as follows:

1. Capacity 20
2. Capacity 55
3. Capacity 85

You should receive two approval request emails.

Refresh the Conference Admin App and review the three Session record

1. Capacity 20: Status is Approved
2. Capacity 55: Status is Waiting Approval
3. Capacity 85: Status is Waiting Approval

Approve the one for the Capacity of 50 and Reject the other. Then, refresh and review the three records.

4. Capacity 20: Status is Approved
5. Capacity 55: Status is Approved
6. Capacity 85: Status is Rejected