M04 – Power Platform & Dynamics 365 Customer Service

Released:

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Lab Environment

During this lab, you will work in a simulated environment with the following computers or virtual machines.

Items Used in this Lab

Item Name	Description
Office 365 Trial	You should have an Office 365 trial account that you can use for this lab.
Dynamics 365 Online Trial	You should have a Dynamics 365 Online Trial that you use for this lab.
Power Apps	You should have a Power Apps Trial that you use for this lab.
Power Automate	You should have a Power Automate Trial that you use for this lab.
Power BI	You should have a Power BI Trial that you use for this lab.
Power BI Desktop	You will need to download this and install it.

Logon Credentials

You will be using the login credentials that are associated with your Office 365 Trial subscription.

Lab Overview

Abstract

During this lab, you will run several exercises that will help you achieve a better understanding of the new service capabilities of Microsoft Dynamics 365 and how they work with the Power Platform. This will include power Apps, Power Automate and Power BI.

Your organization owns multiple hotels all over the country and you receive multiple guests every year. As it stands you receive multiple types of cases and complaints that need to be managed in a central location and taken through a process to completion. Various SLAs will need to be applied to these case types in order to promote a successful resolution.

One of the largest issues in your organization is the fact that there is very little reporting and very little automation that is applied to the data. This makes understanding the pitfalls and issues incredibly difficult.

Luckily, your organization has an implementation of Dynamics 365& Power Platform which can be leveraged to help solve the case management crisis

Learning Objectives

After completing the exercises in this lab, you will be able to:

- Use Data flows to bring data into the Common Data Service
- Use the Data import Wizard
- Create a Model Driven App
- Create Business Process Flows
- Create Flow Approvals & Basic Flows
- Create a Canvas App

Estimated time to complete this lab: *2 to 3* Hours

Lab Completion Requirements

In order to successfully complete this lab, you will need to design a solution that will deliver the ability to accomplish the following:

- Create fields on the Account Entity to hold Hotel information with associated Views & Forms.
- Create an Entity from Scratch using Data Flows
- Create an Entity and Import Data using Data Flows
- Associate child entities to the case entity
- Create a Model Driven Application
- Generate approval Flows
- Generate a Power BI report
- Generate a canvas Application

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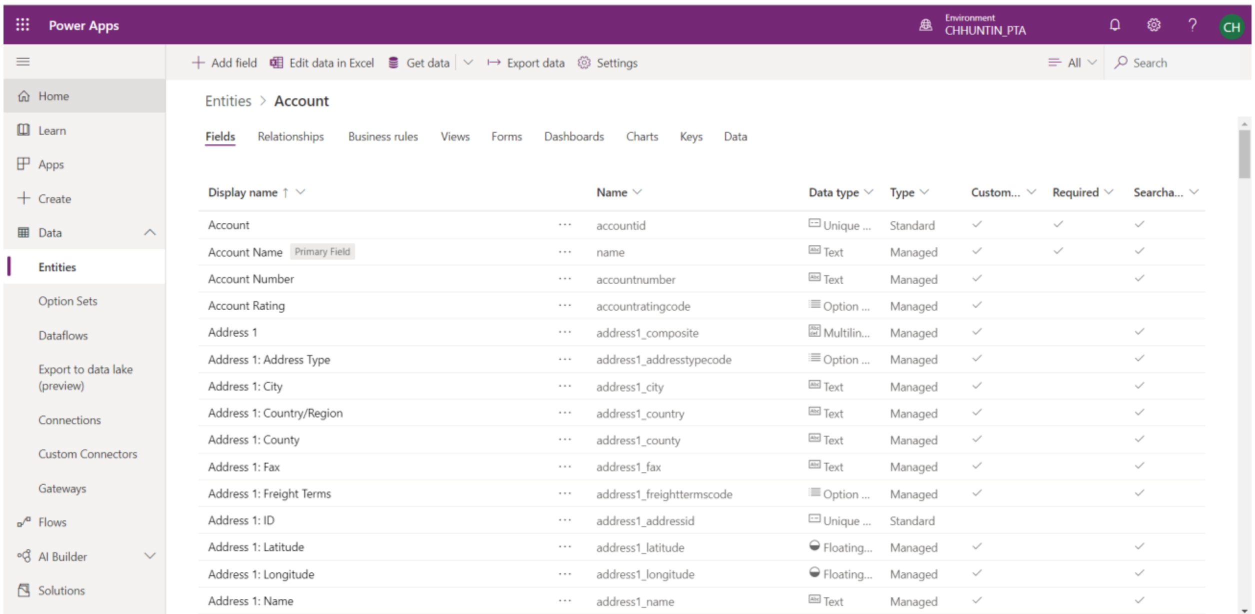
Important: Do not forget to test your work as needed!

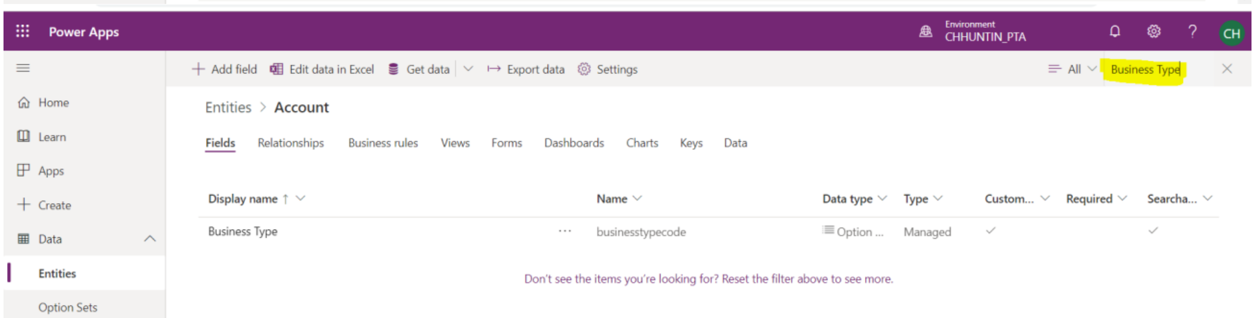
Watch out! The data is the most important part of this process. You need to do all configuration and data imports first, before building any applications.

Step-by-Step 1: Setup Supporting Configuration on the Account

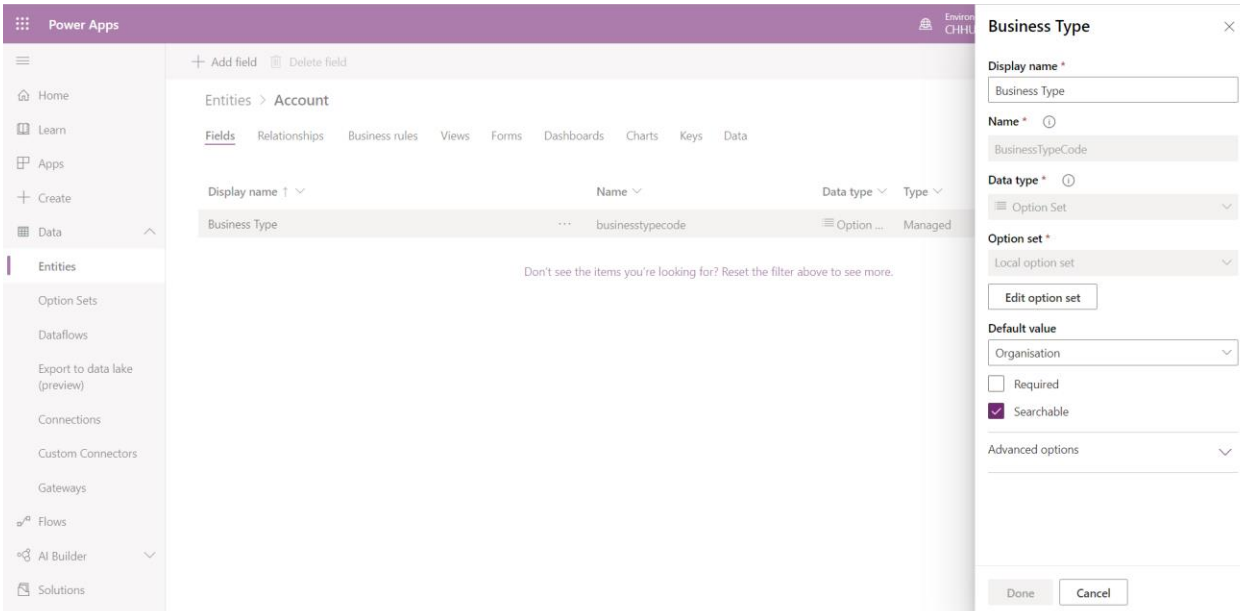
Below are step by step instructions that will guide you through the solution. Here you will add the necessary fields for the data import. Then you will update the Forms and Views with these fields.

1. Navigate to make.powerapps.com and open the “**Data**” Tab, then Select “**Entities**”. In the search box in the top right, search for “Business Type”.

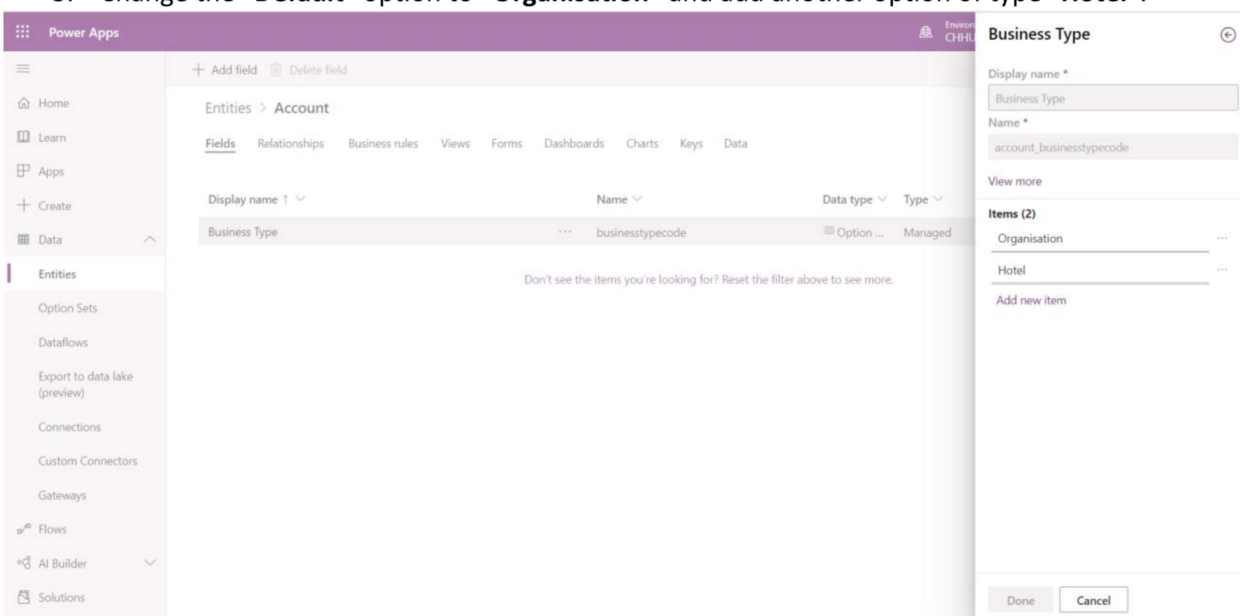




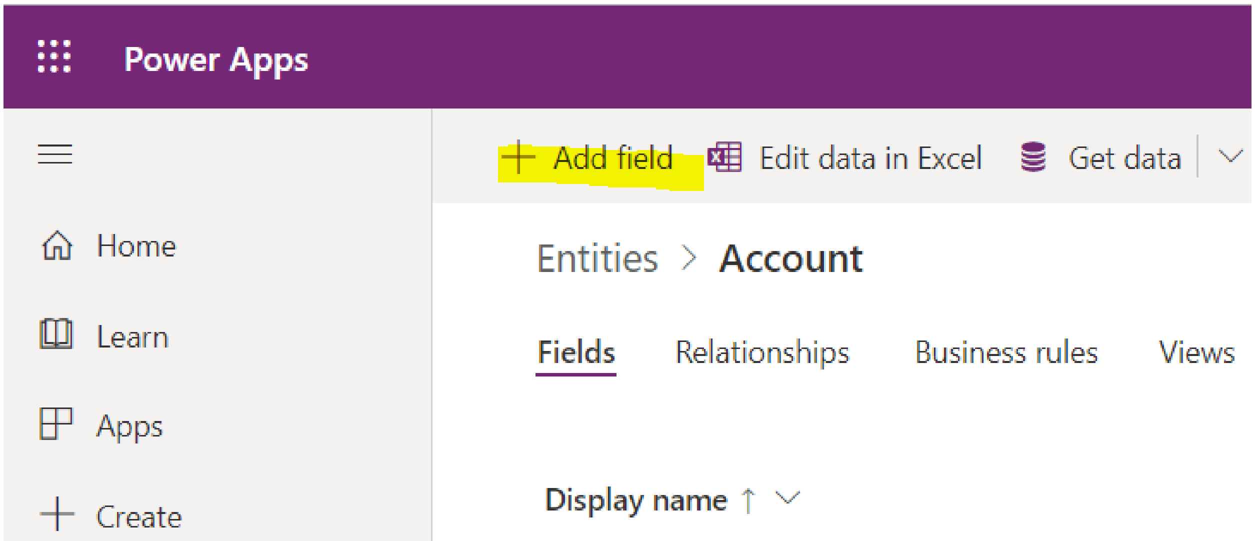
2. Open up the “**Business Type”** field **<u>Mark the Business Type as Searchable</u>** and then select “**Edit Optionset**”.



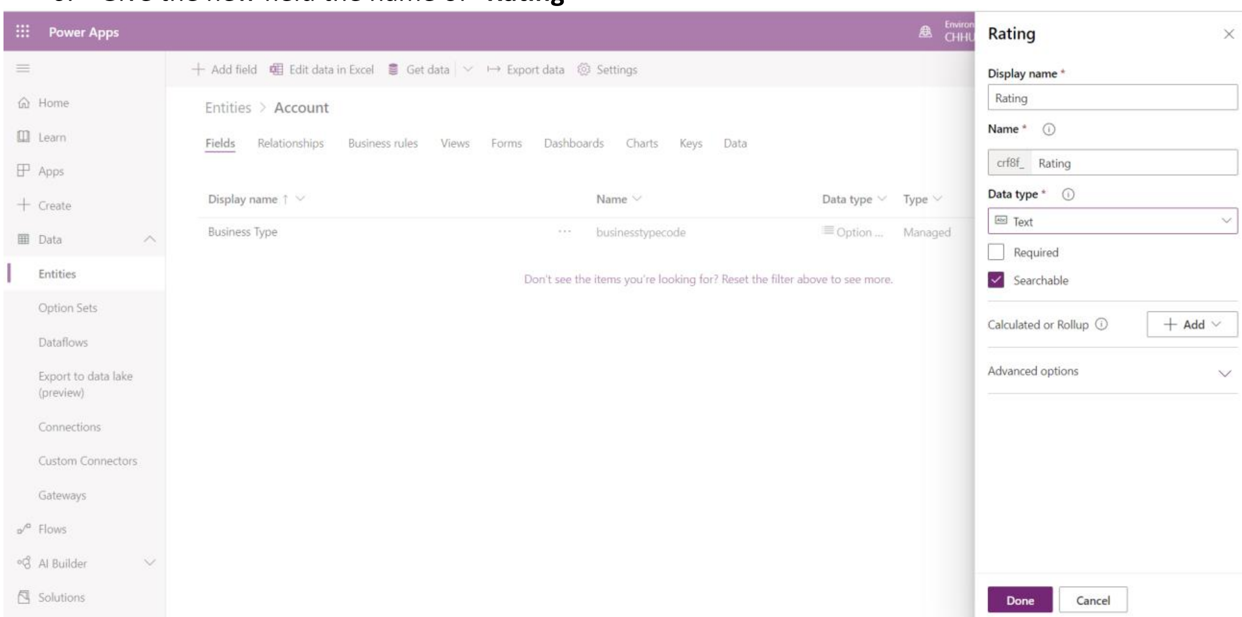
3. Change the “**Default**” option to “**Organisation**” and add another option of type “**Hotel**”.



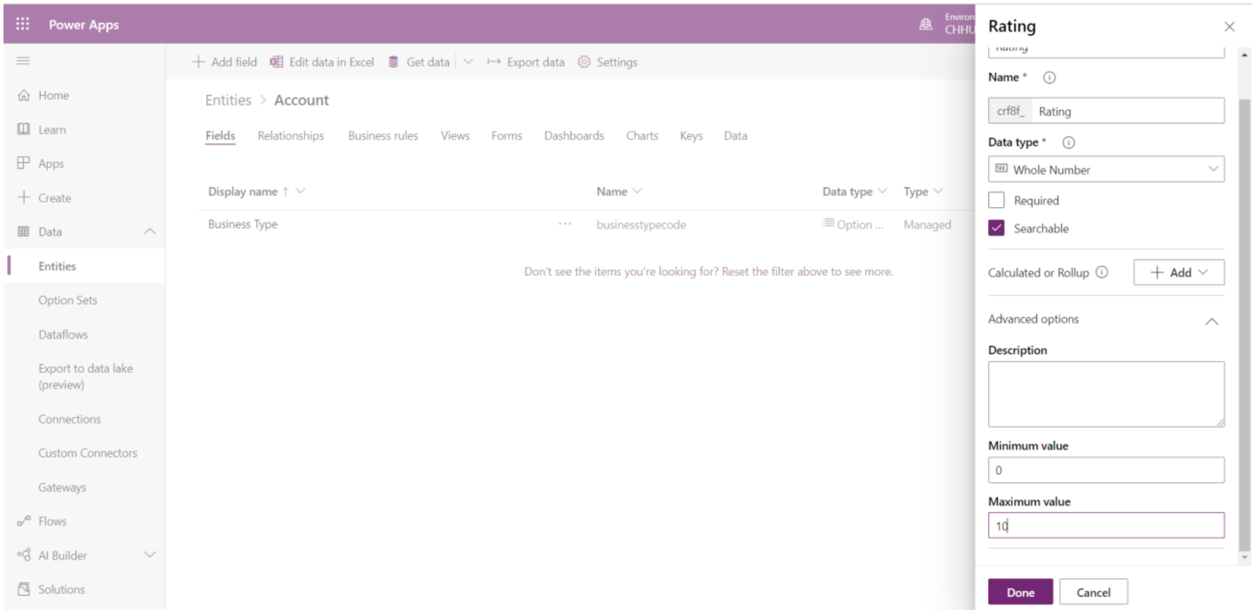
4. Select “**Done**” on both the Optionset screen and the “**Business Type**” entity screen to complete the process.
5. On the top right select “**Add Field**”



6. Give the new field the name of "**Rating**"

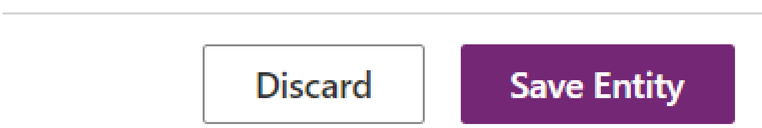


7. Select the "**Whole Number**" data type.
8. Update the minimum value to "**0**" and the maximum value to "**10**".

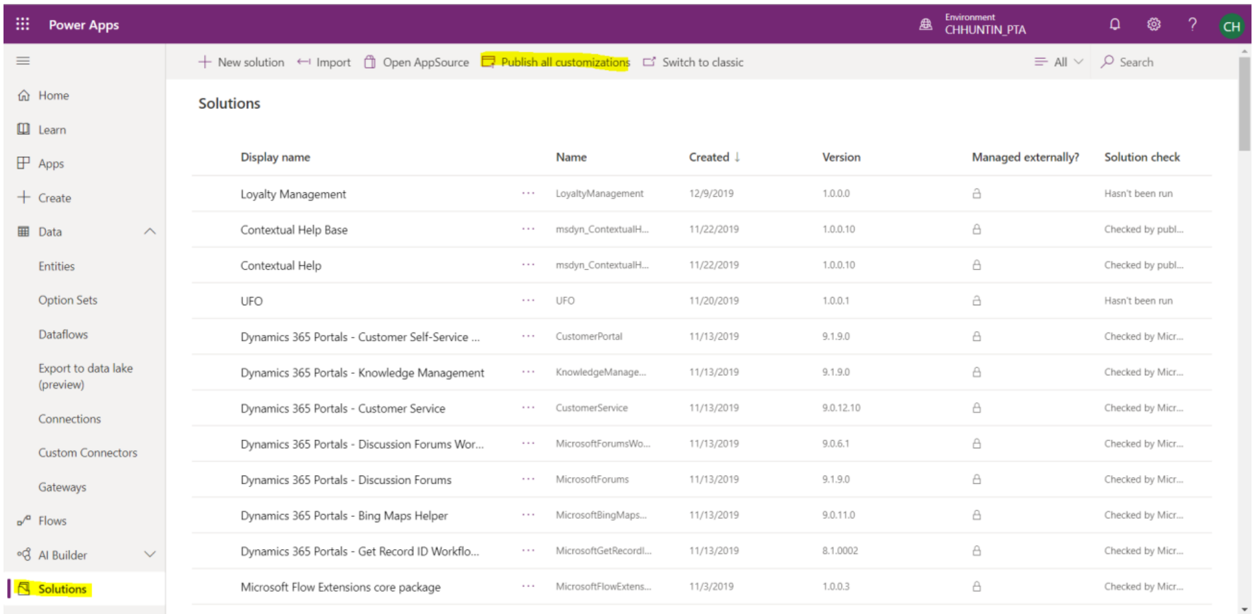


9. Click “**Done**” once completed

10. Click “**Save Entity**” when completed.

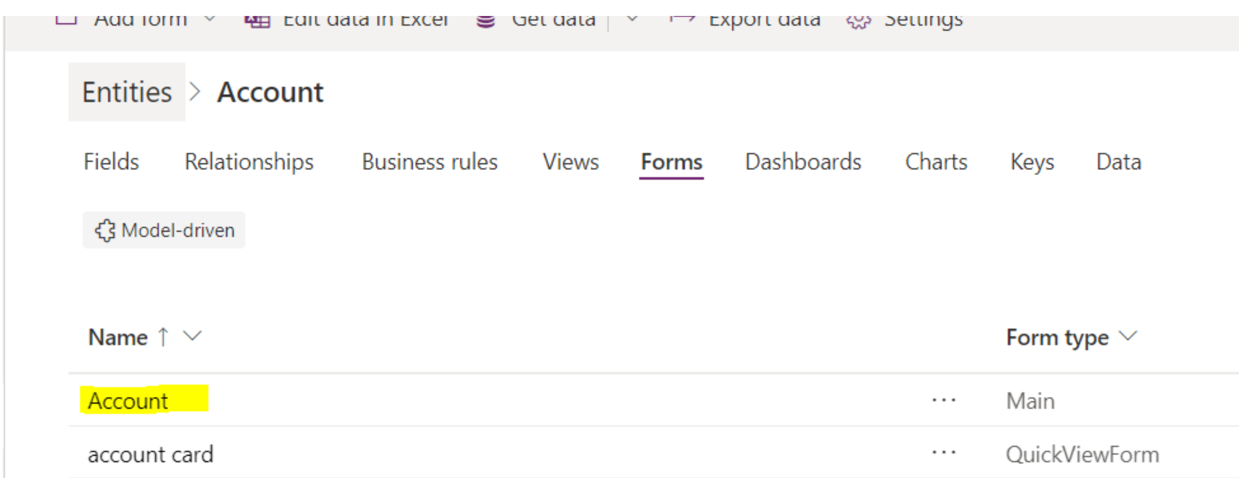


11. Click “**Solutions | Publish All Customisations**”

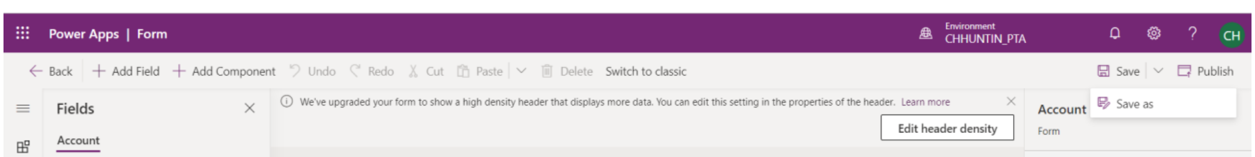


12. Navigate to "**Data | Entities**" and locate the account entity.

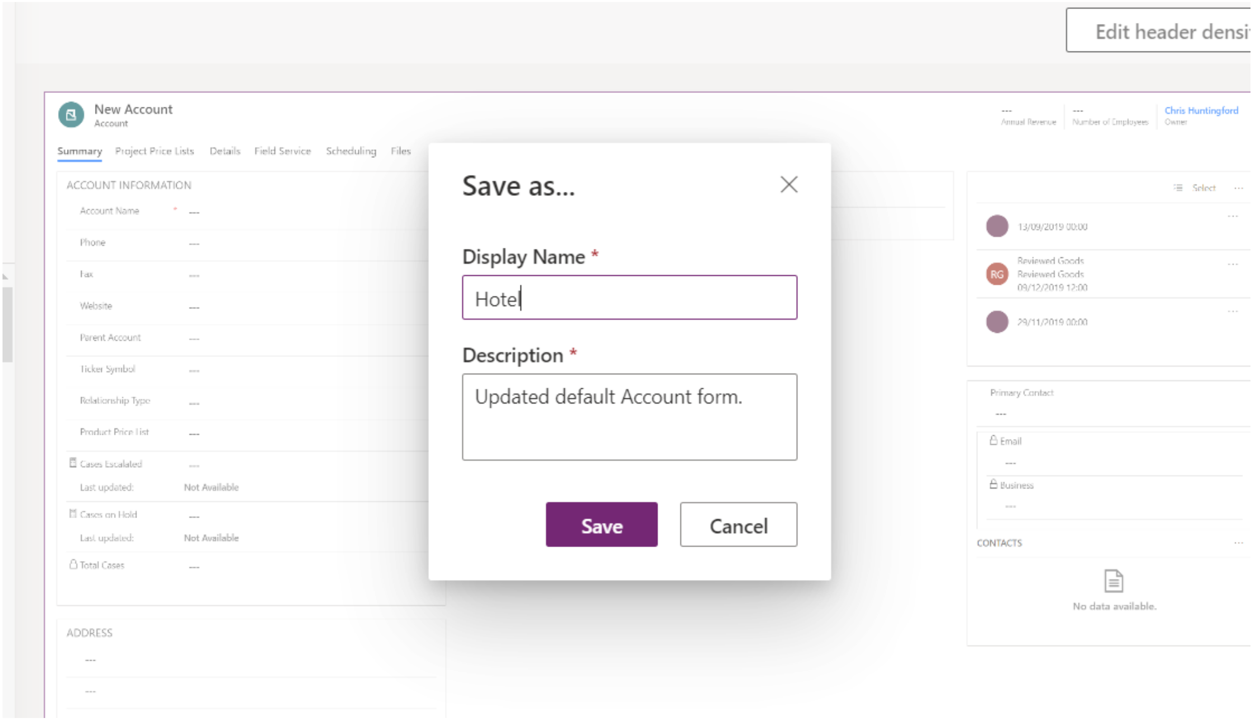
13. Open the Account entity and navigate to "**Forms**"



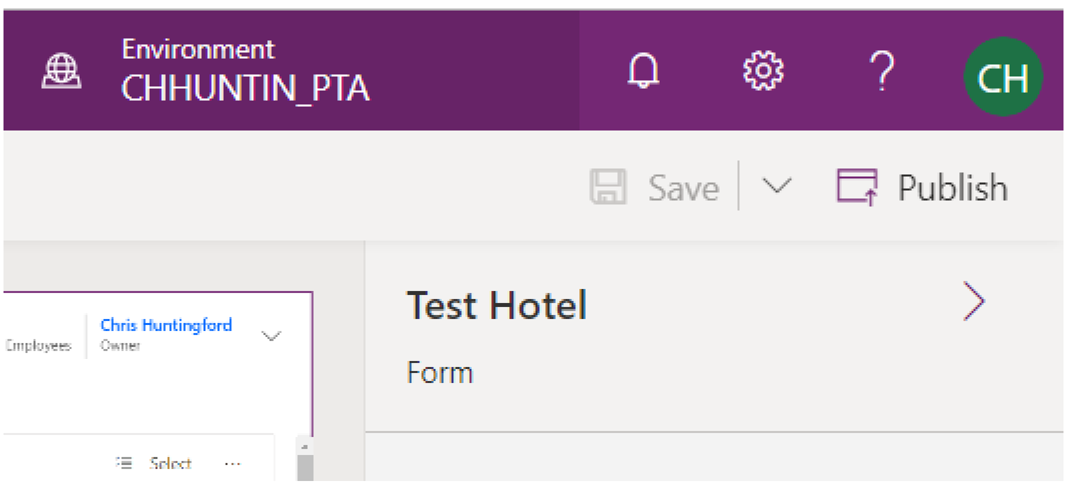
14. Open the default account form and select "**Save As**" from the "**Save**" menu



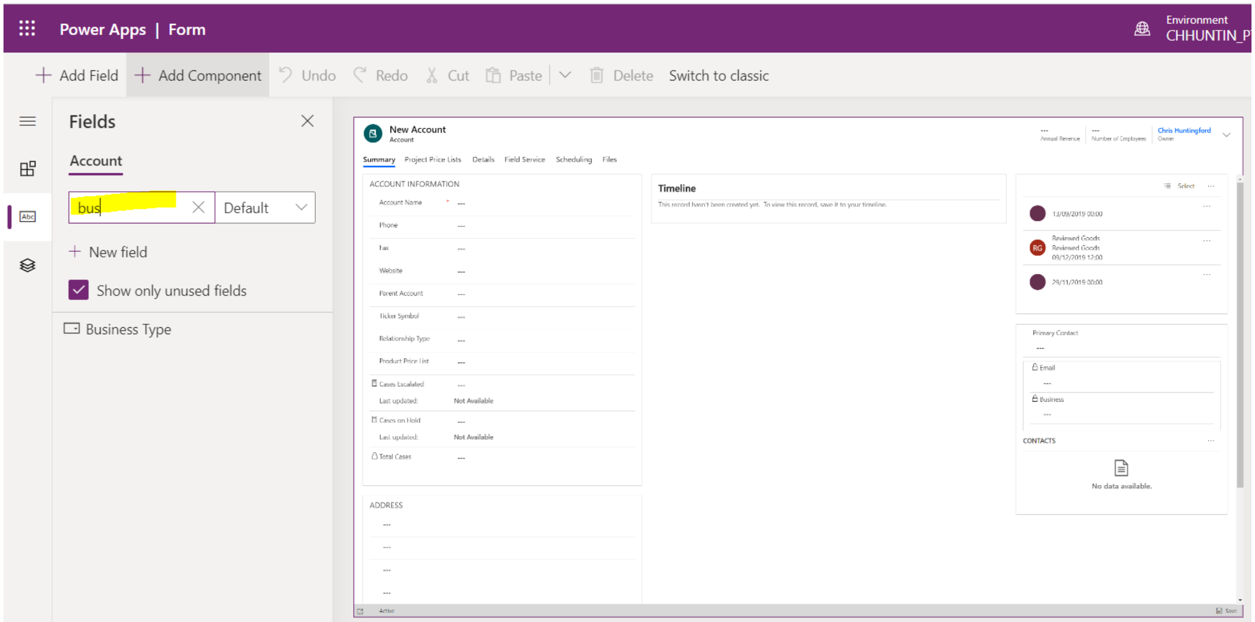
15. Save the form as "Hotel"



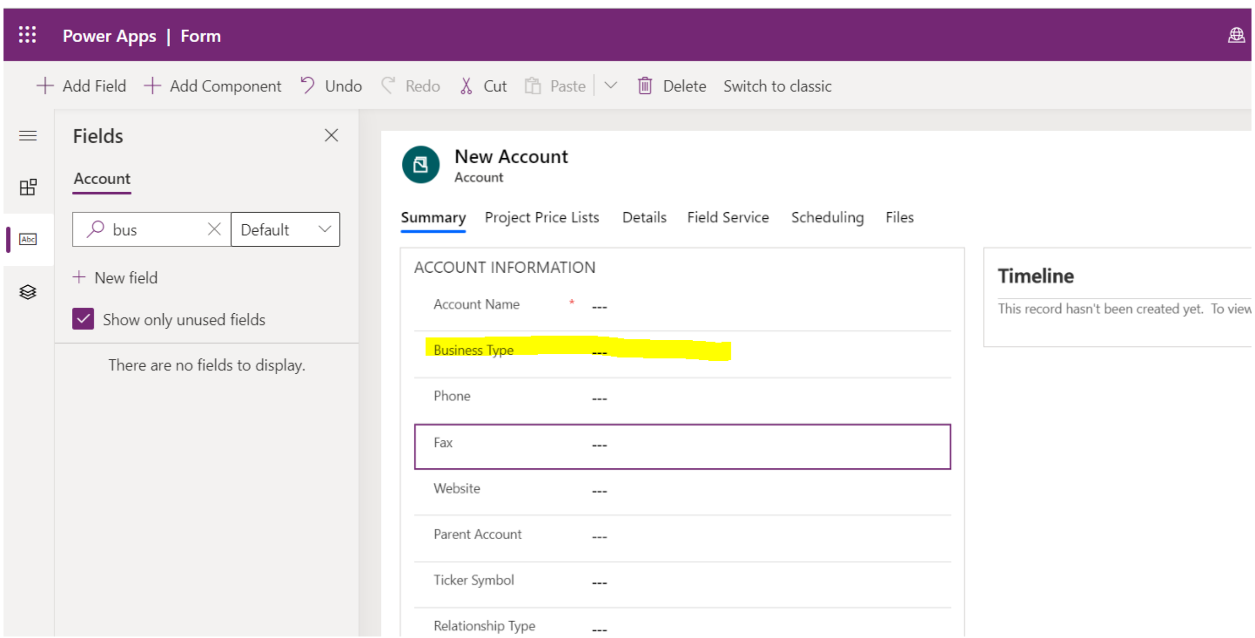
16. You will see the form name on the right hand side



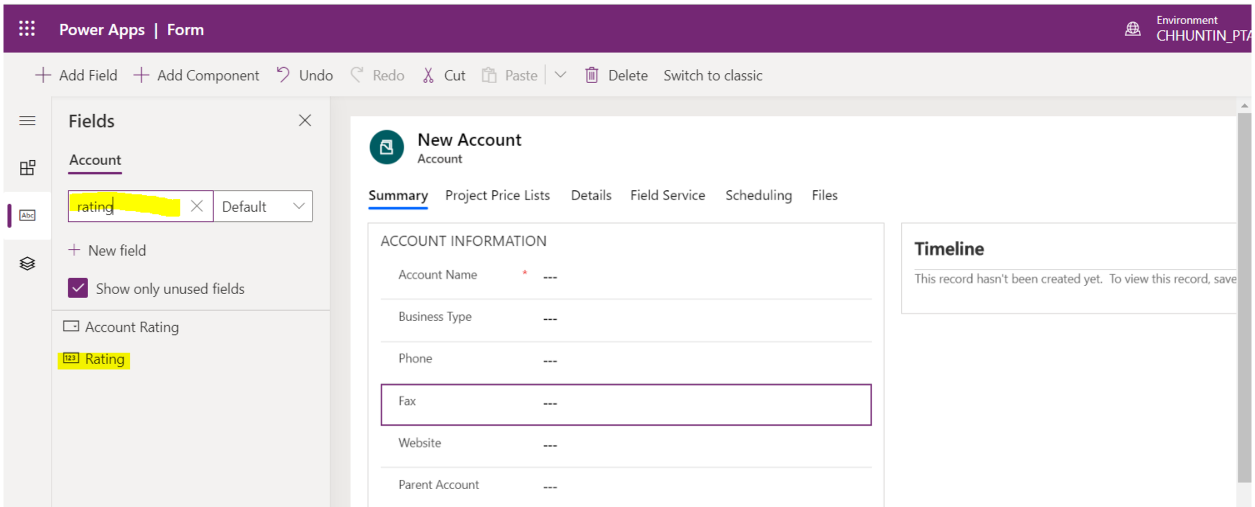
17. In the Field Explorer on the right search for the “Business Type” field that you previously updated.

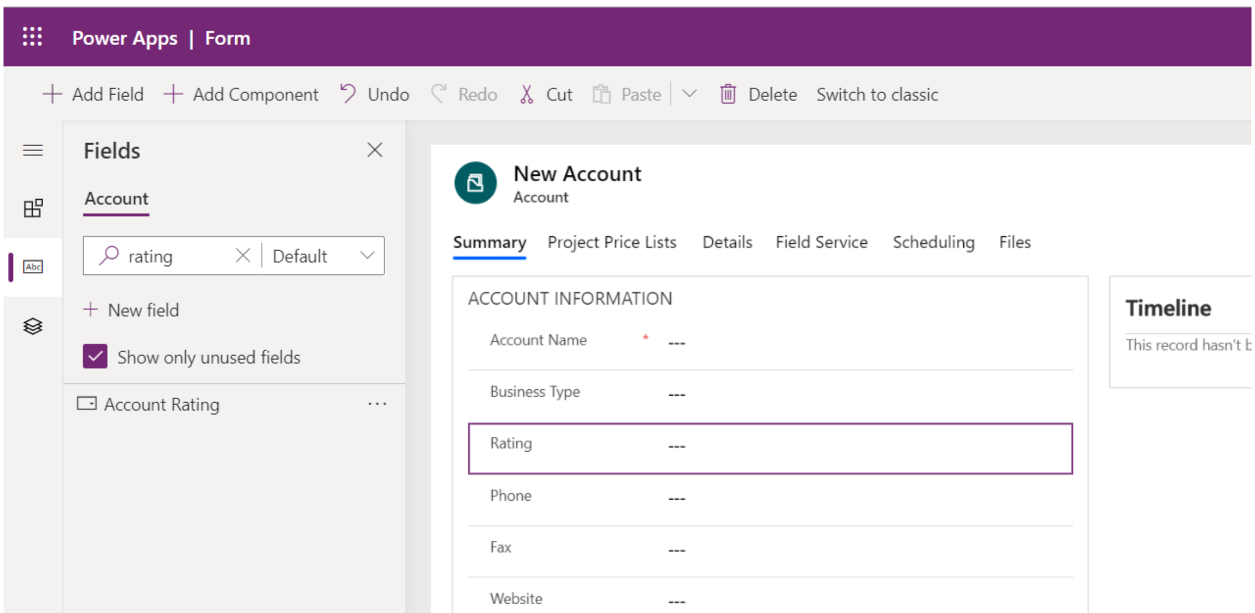


18. Drag and drop this onto the form

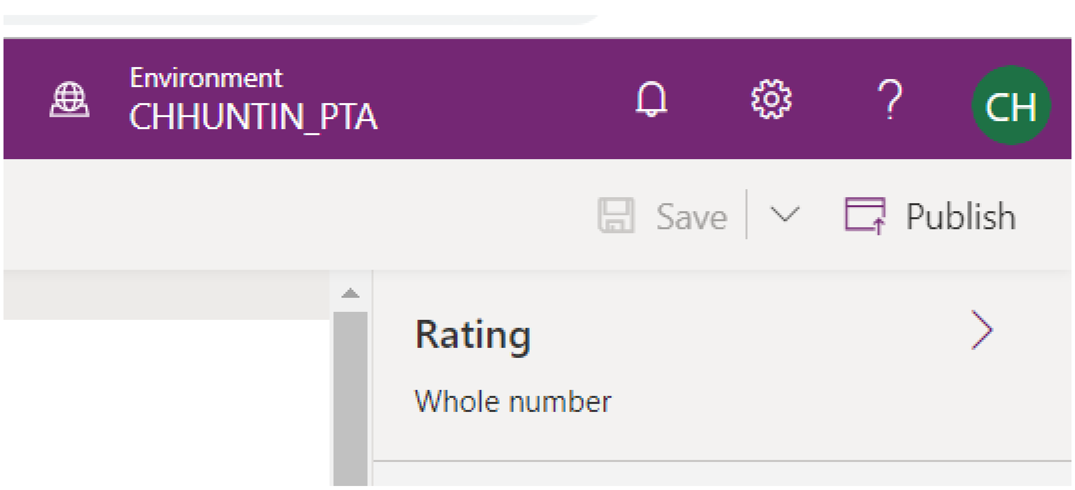


19. In the same manner search for the “Rating” field and add it to the form.

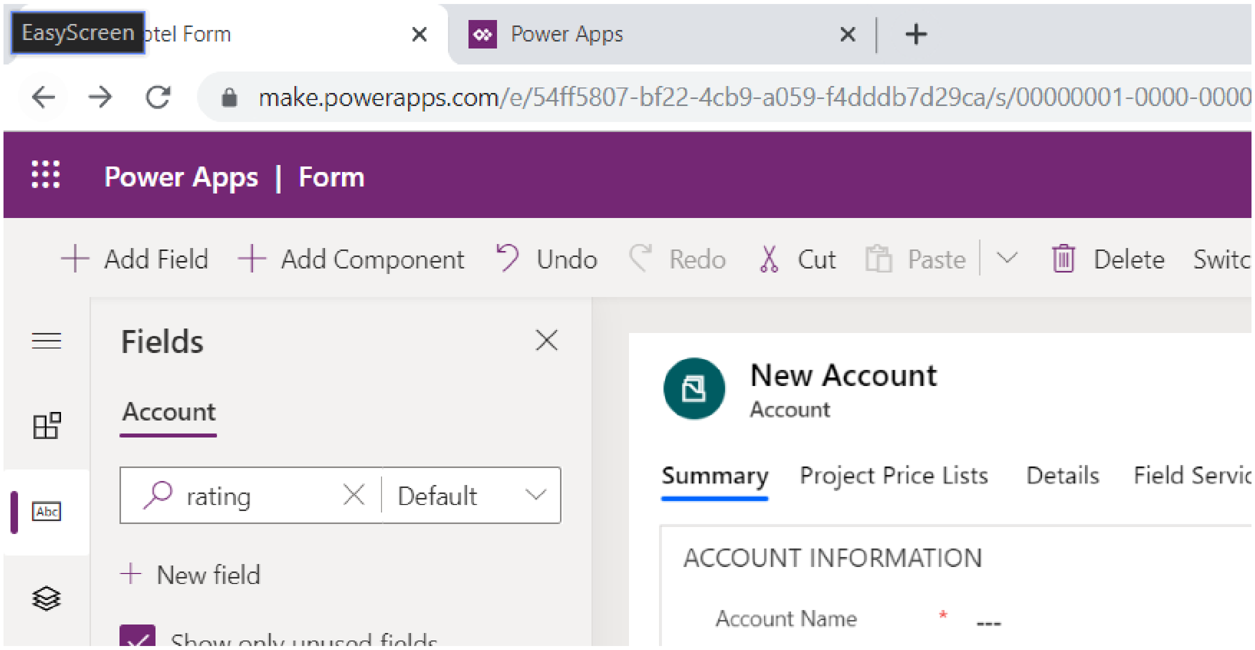




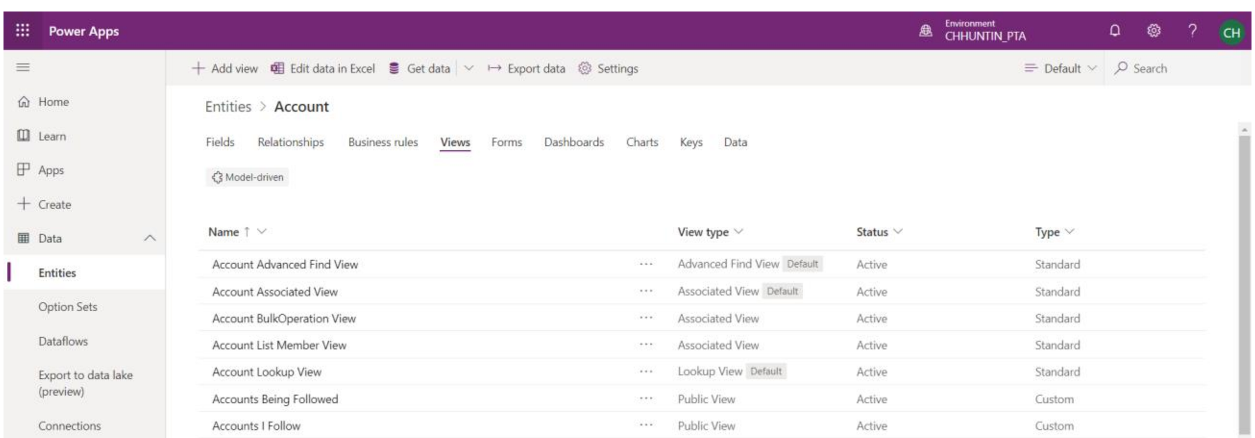
20. Save the form (The save button will be disabled once saved) and then Publish the form.



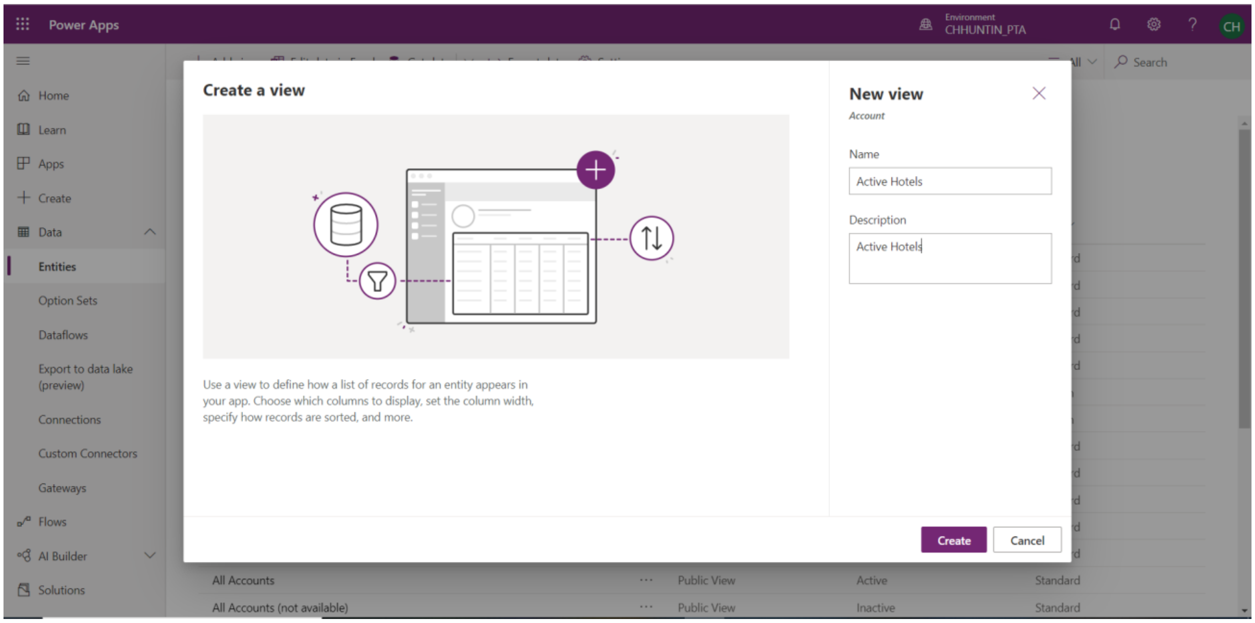
21. The back button may not be available in the Maker Experience form editor. To get back, Make sure you have published and dimply open another browser "**Make.PowerApps.com**" tab, then close the old one. If the back Button is available, navigate back to your main Account entity.



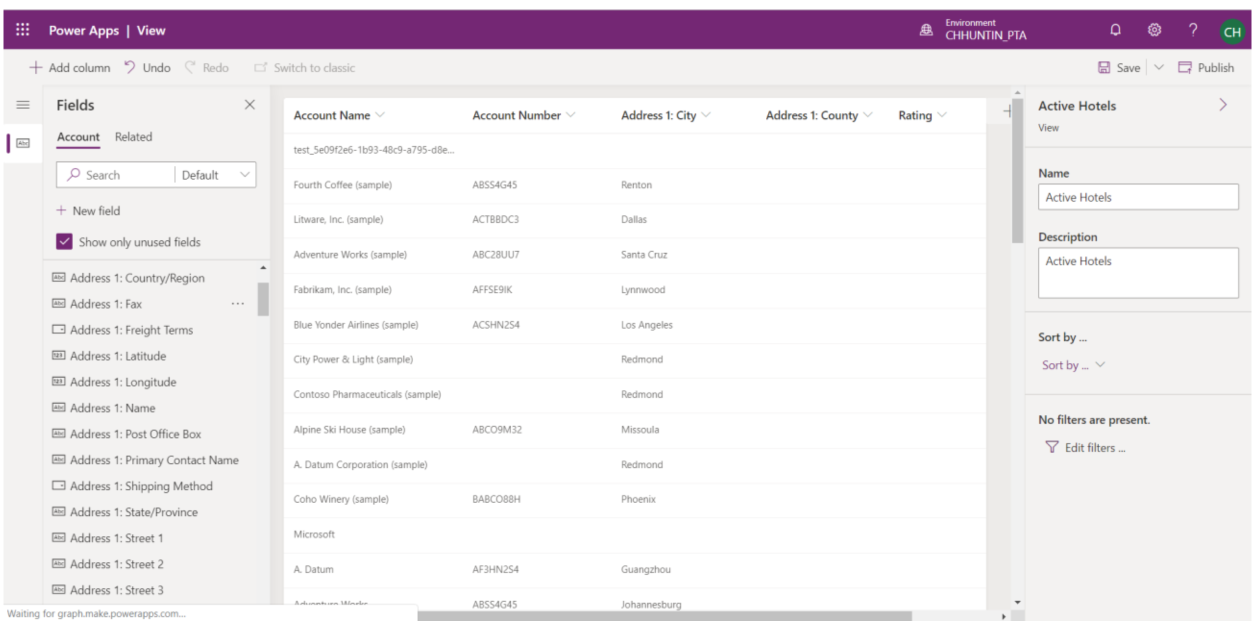
22. Navigate to "**Data | Entities**" and then open the Account entity. Navigate to the "**Views**" section.



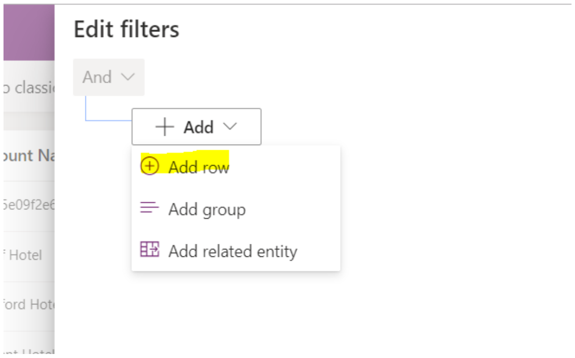
23. Click the "**Add View**" button and give your new view the name "**Active Hotels**" and then click "**Create**".



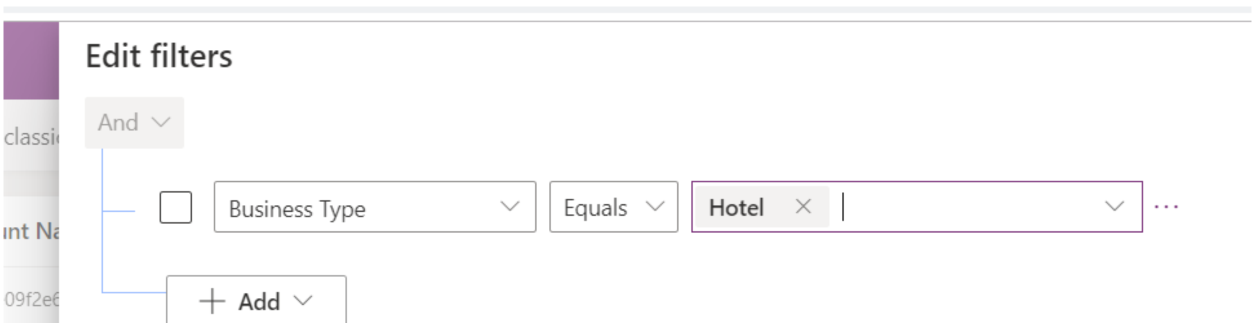
24. In the main view editor drag and drop the following fields into your new view : “**Account Name**” (Will already be in there”, “**Account Number**”, “**Address 1: City**”, “**Address 1: County**”, “**Rating**”.



25. You now need to add a filter to only show hotels. On the right select “Edit Filters”. Start by adding a new row.



26. Select “**Business Type**” from the field list, “**Equals**” from the operator and “**Hotel**” from the optionset values.

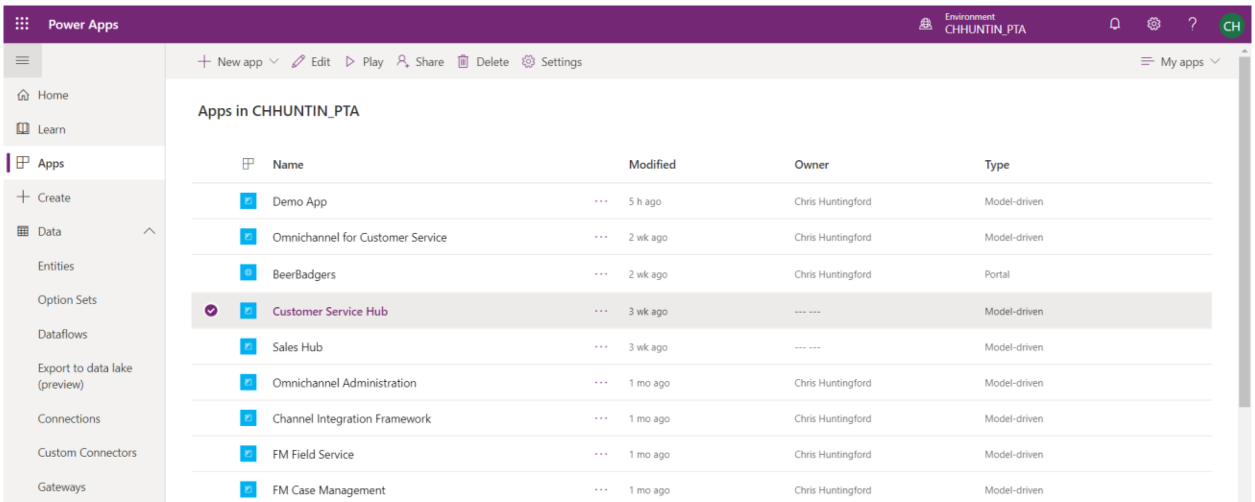


27. Select “**Save**” and then “**Publish**” to commit the changes.
28. Once you have completed these tasks you can navigate to “make.PowerApps.com” and prepare to import data.

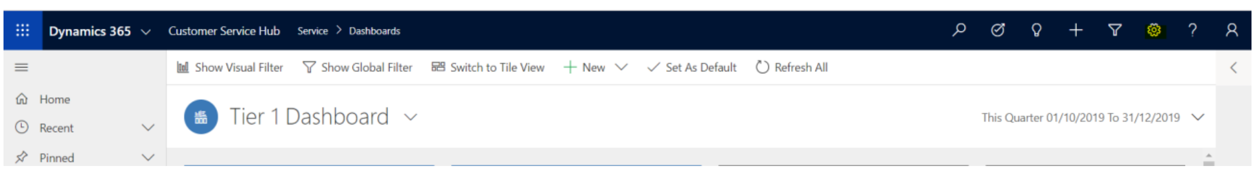
Step-by-Step 2: Importing Data to the Account Entity

Below are step by step instructions that will guide you through the solution. Here you will import the list of provided hotels into the Account entity. You will use the mapping functionality in the Data import Wizard to make sure data is imported to the correct fields.

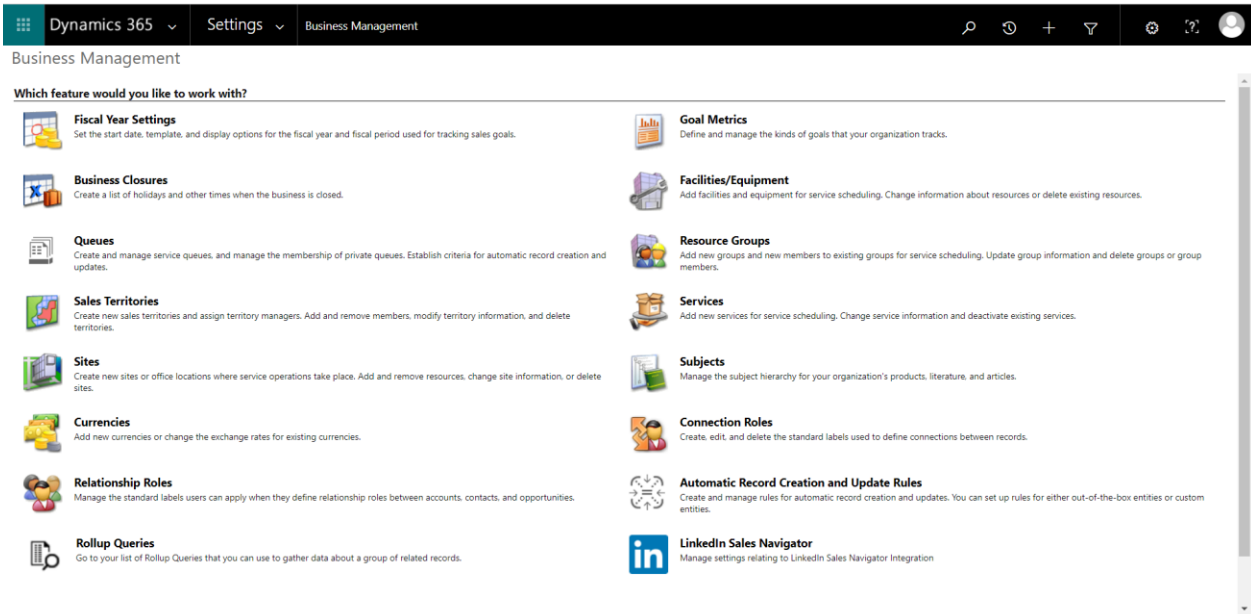
1. Navigate to "**Make.PowerApps.Com**" and select the "Apps" tab.



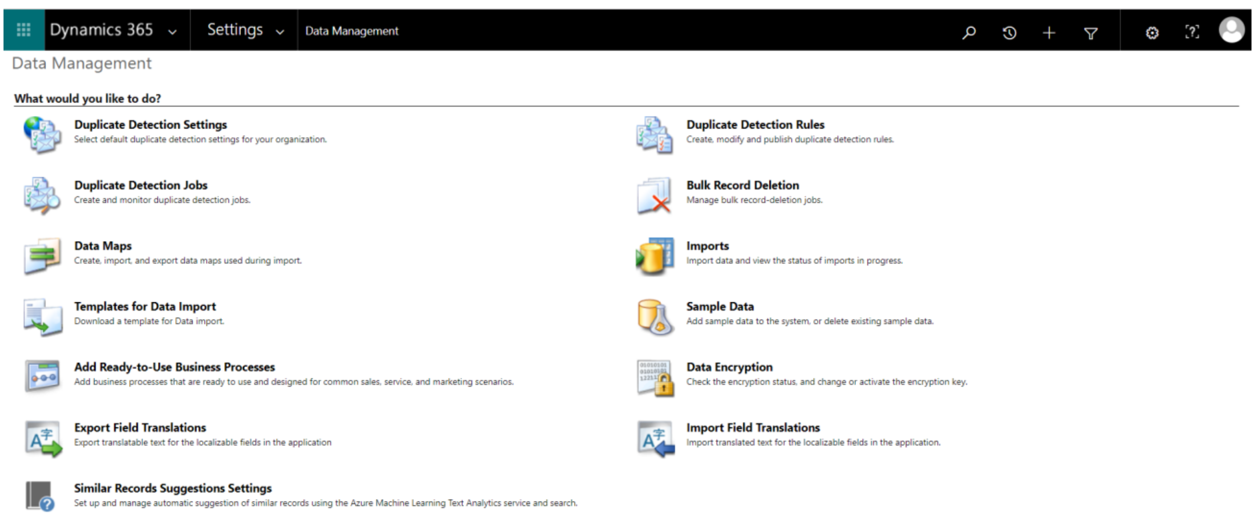
2. Open the "**Customer Service hub**" App, then select the "**Settings Cog**", then select "**Advanced Settings**".



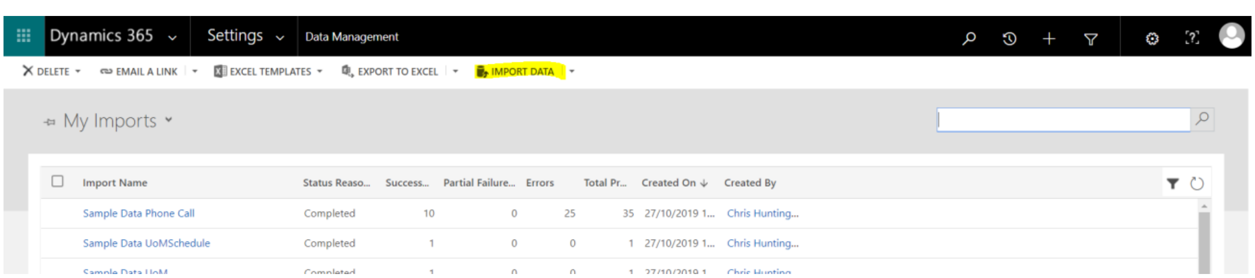
3. You will be navigated to the classic administration interface.



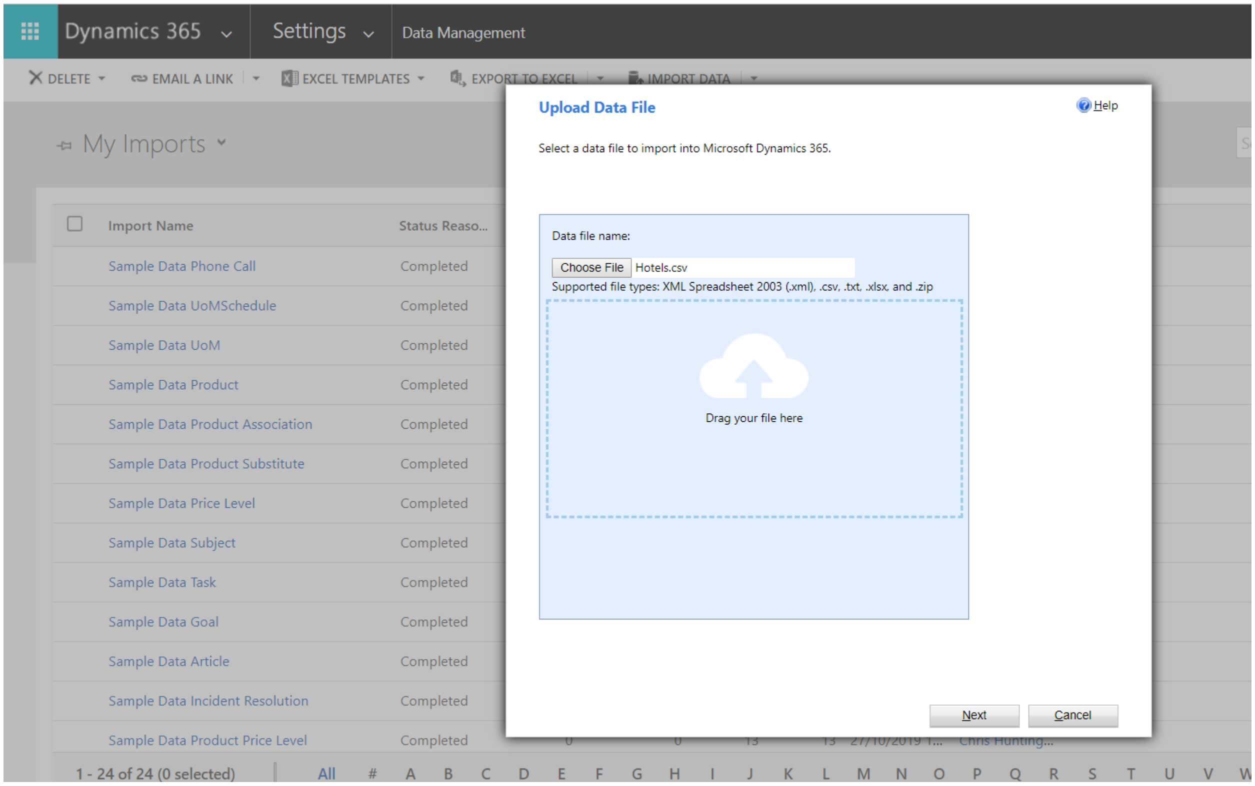
4. Navigate to "**Settings | Data Management**".



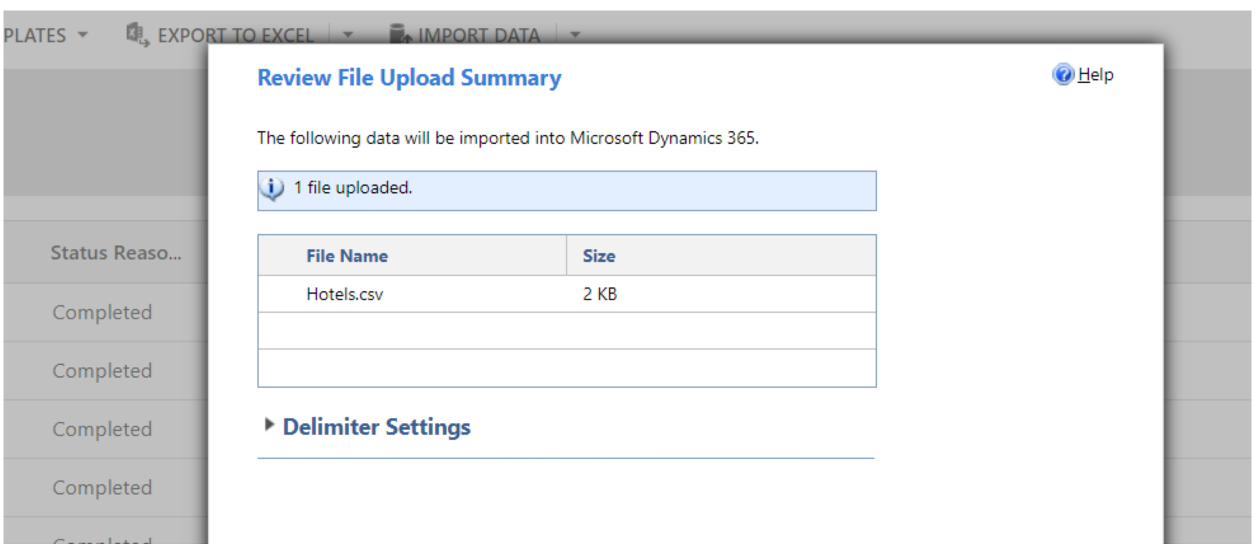
5. Select "**imports**" from the menu



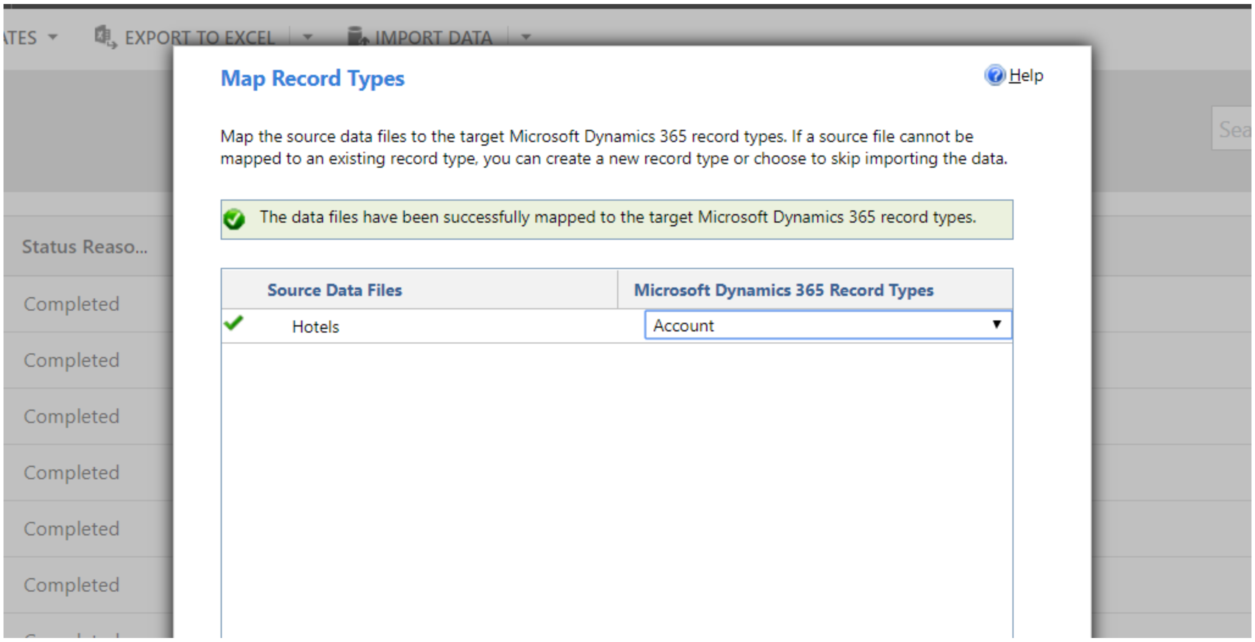
6. Navigate to where you saved the "**hotels.csv**" file and select it, Then select "**Next**".



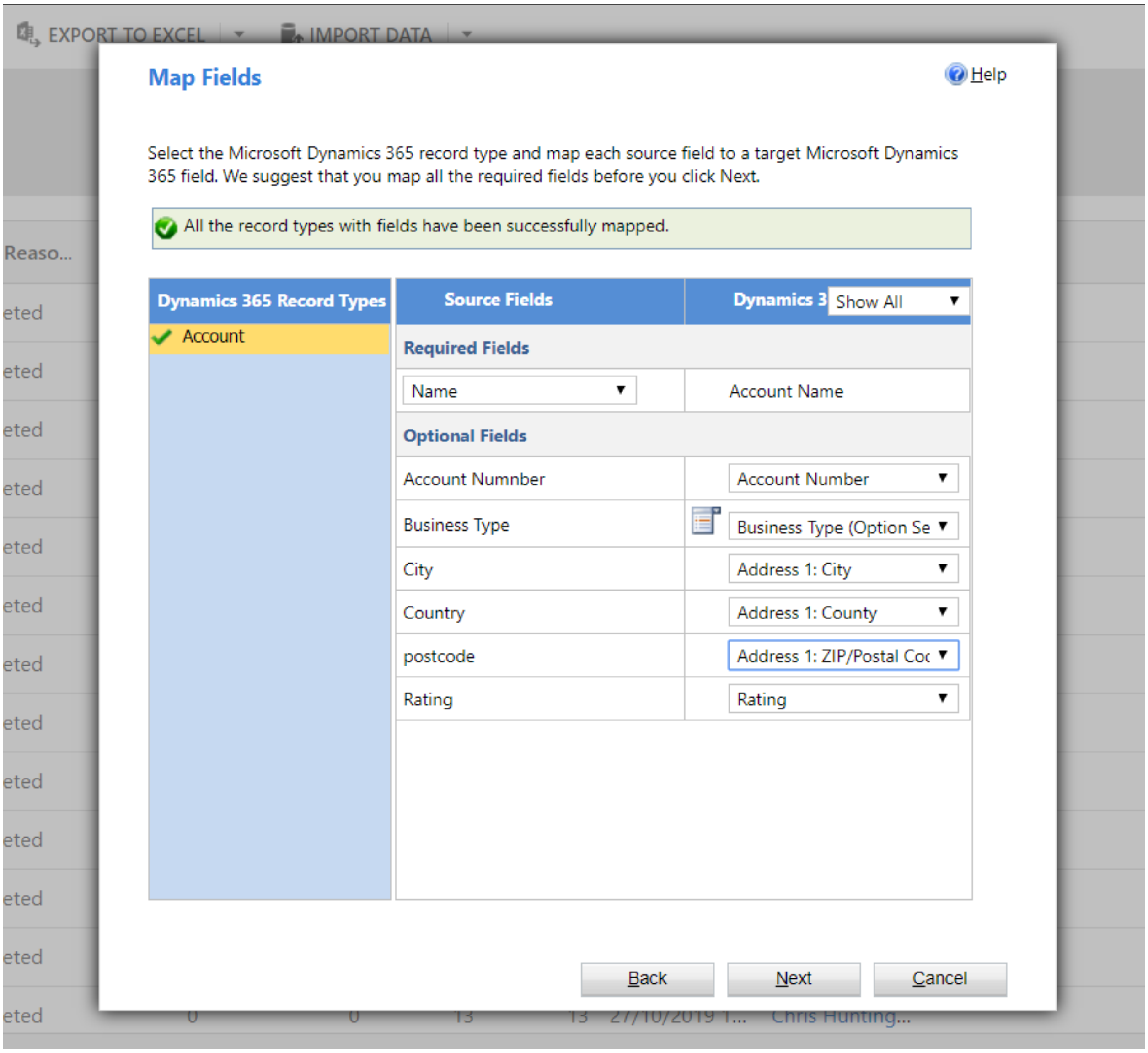
7. Review the File Summary and then select "**next**".



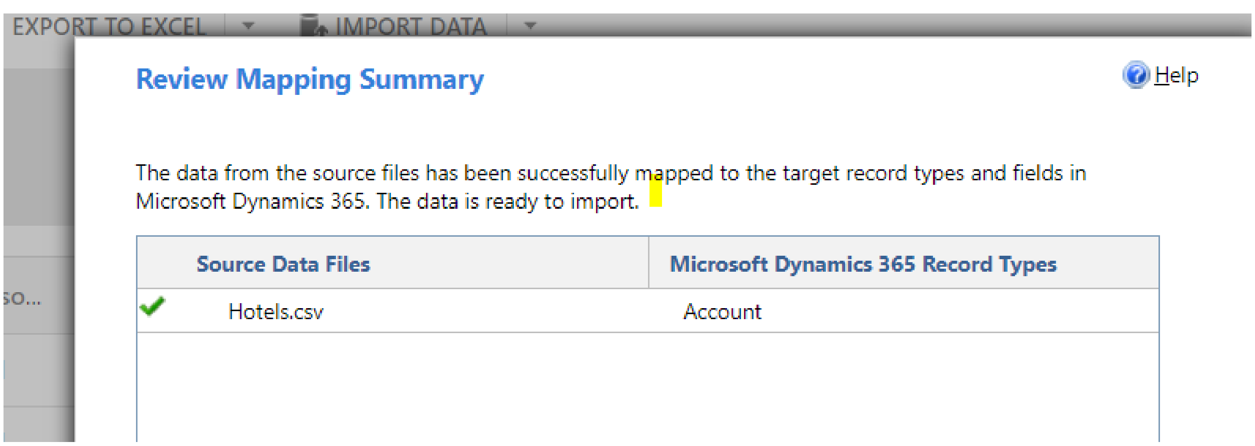
8. Map Hotels to "**Account**" and select "**next**".



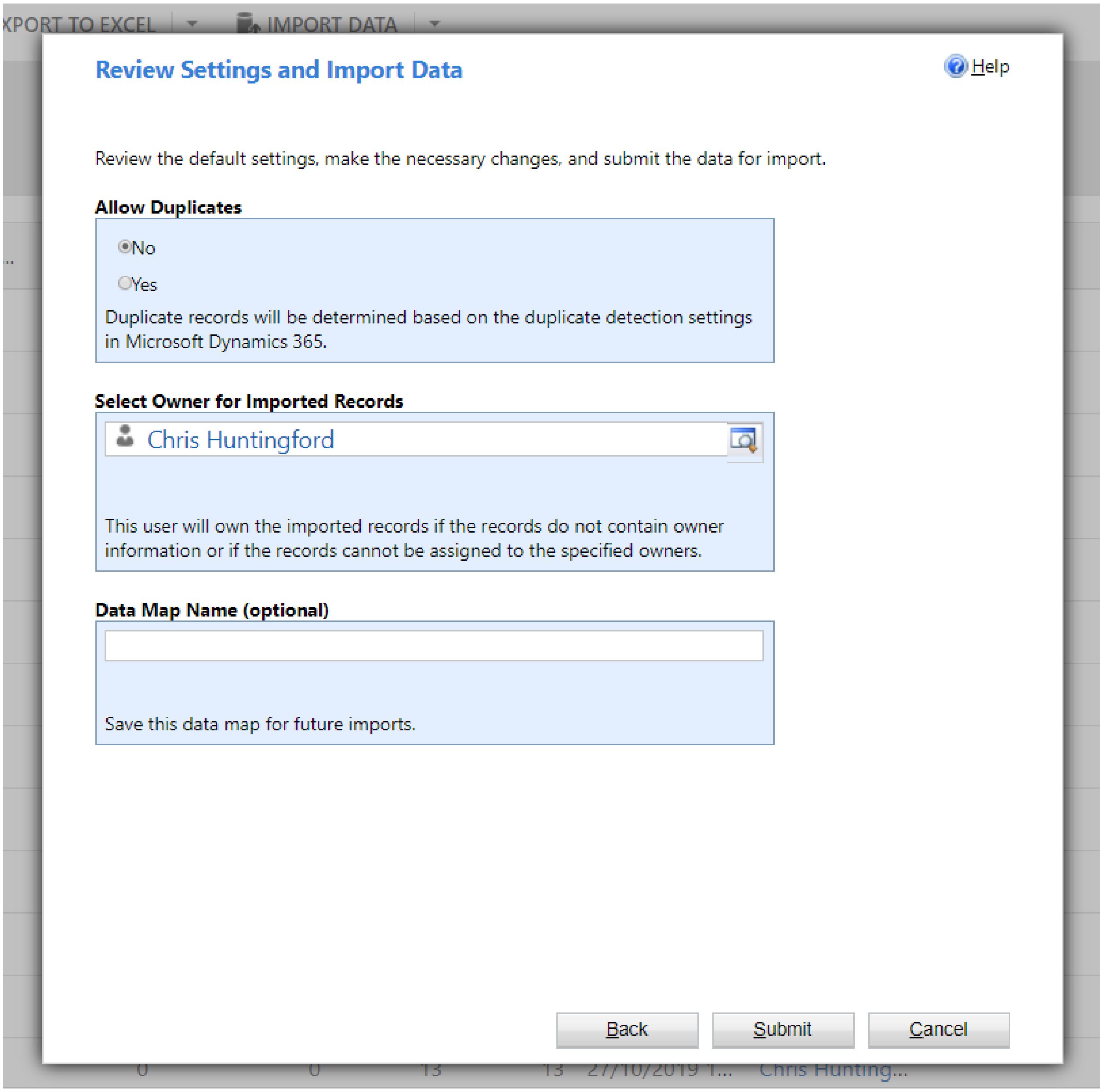
9. Map the following Data source fields to the following Dynamics 365 Attributes, then select "**next**" to import.



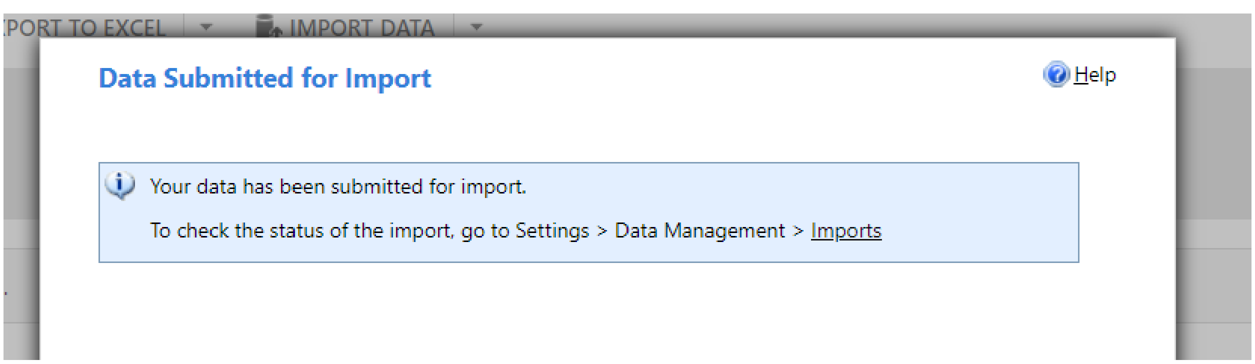
10. Review the Mapping Summary and select “**Next**”.



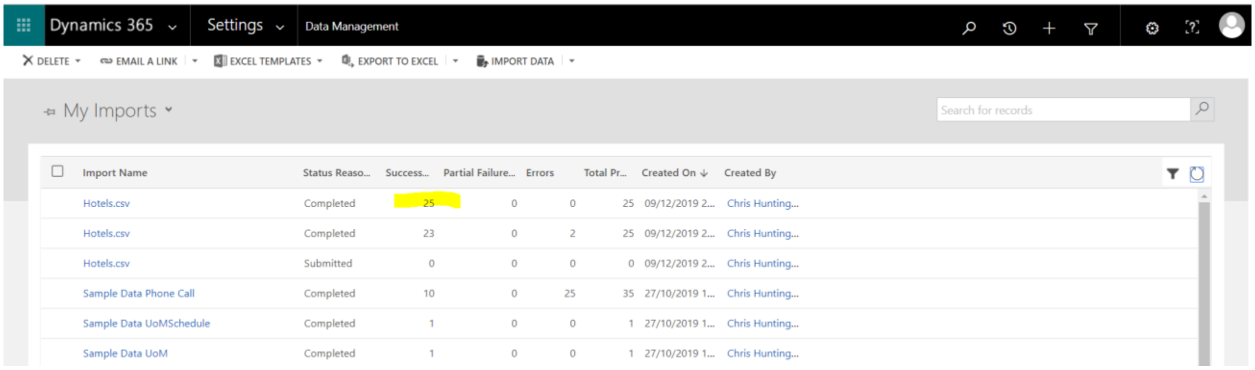
11. Review the settings and import Data by selecting “**Submit**”.



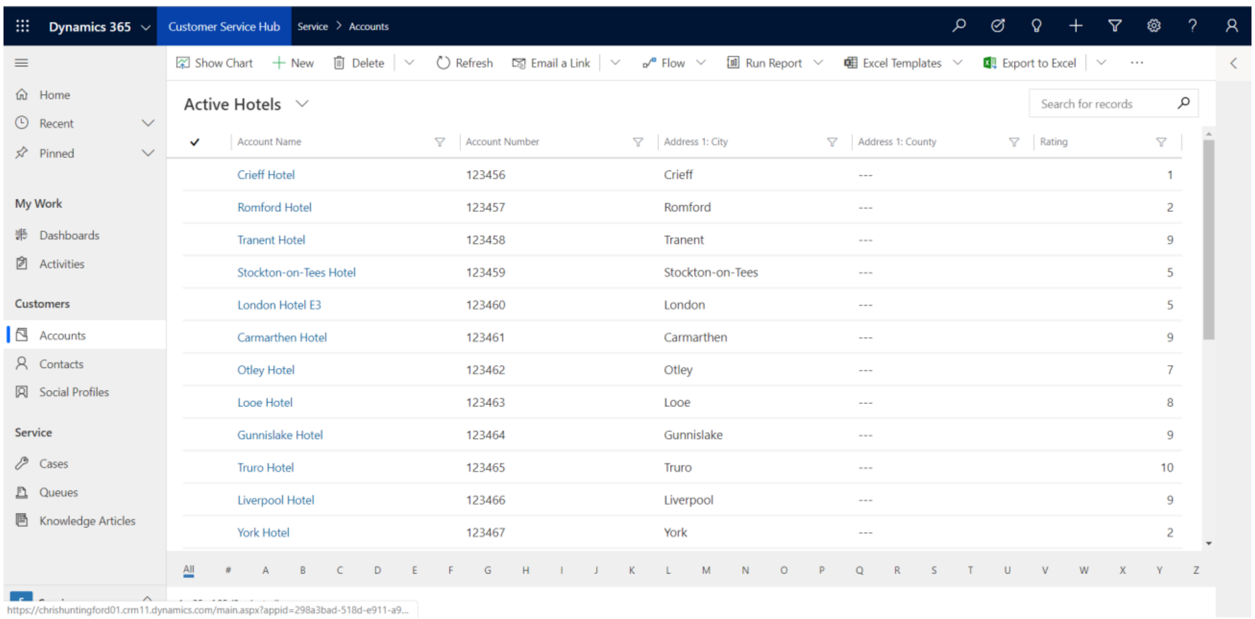
12. Complete the data import by selecting "**Finish**".



13. Review the Data import in the "imports" list. There should be 25 records tat are created.



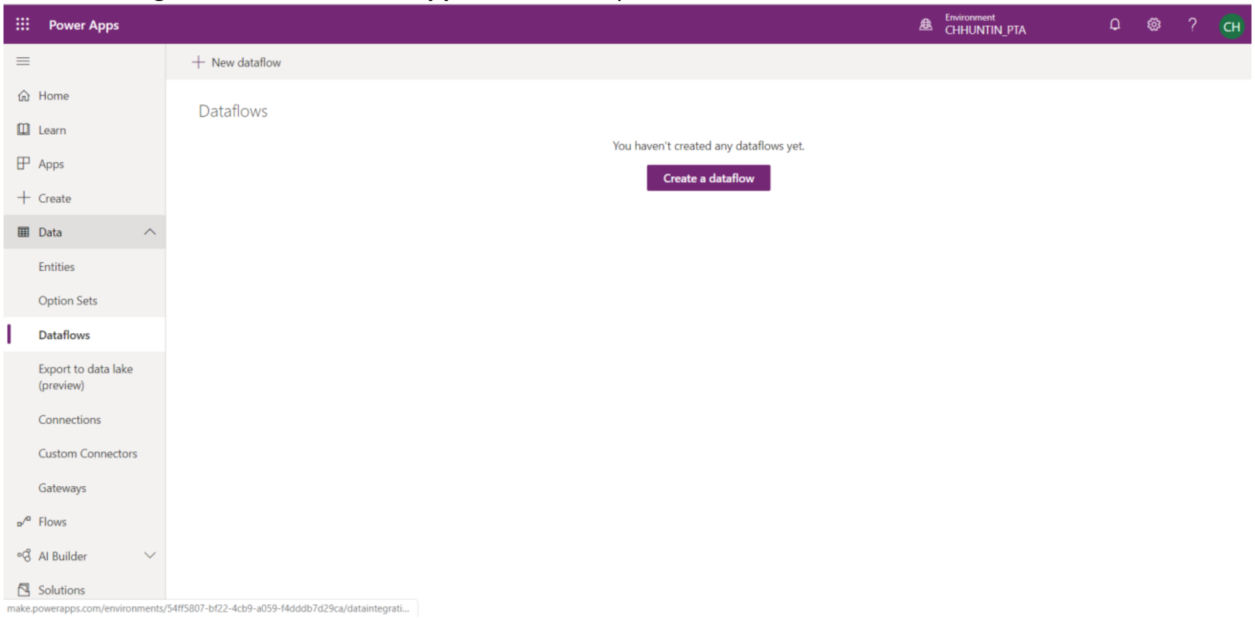
14. Navigate back to your "**Customer Service Hub**" application and then select the "**Accounts**" from the menu. Select the "**Active Hotels**" view and you will see your list of Hotels.



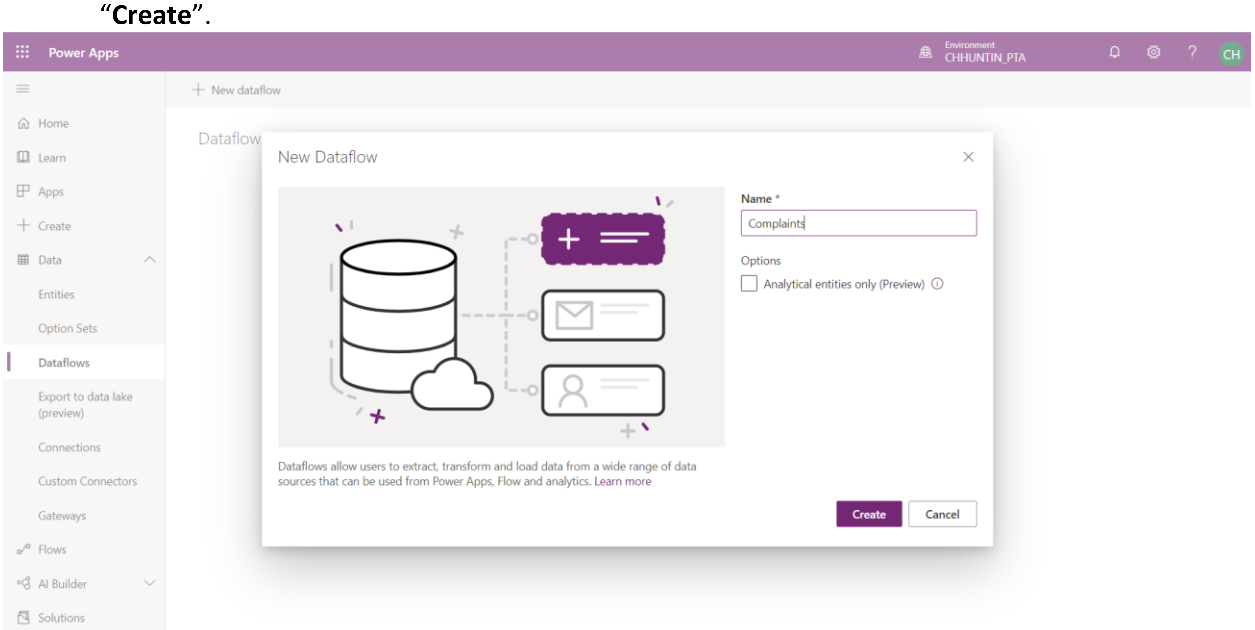
Step-by-Step 3: Importing Complaints

Below are step by step instructions that will guide you through the solution. Here you will use the Data Flow functionality available within the Power Platform to import a custom entity and its associated data.

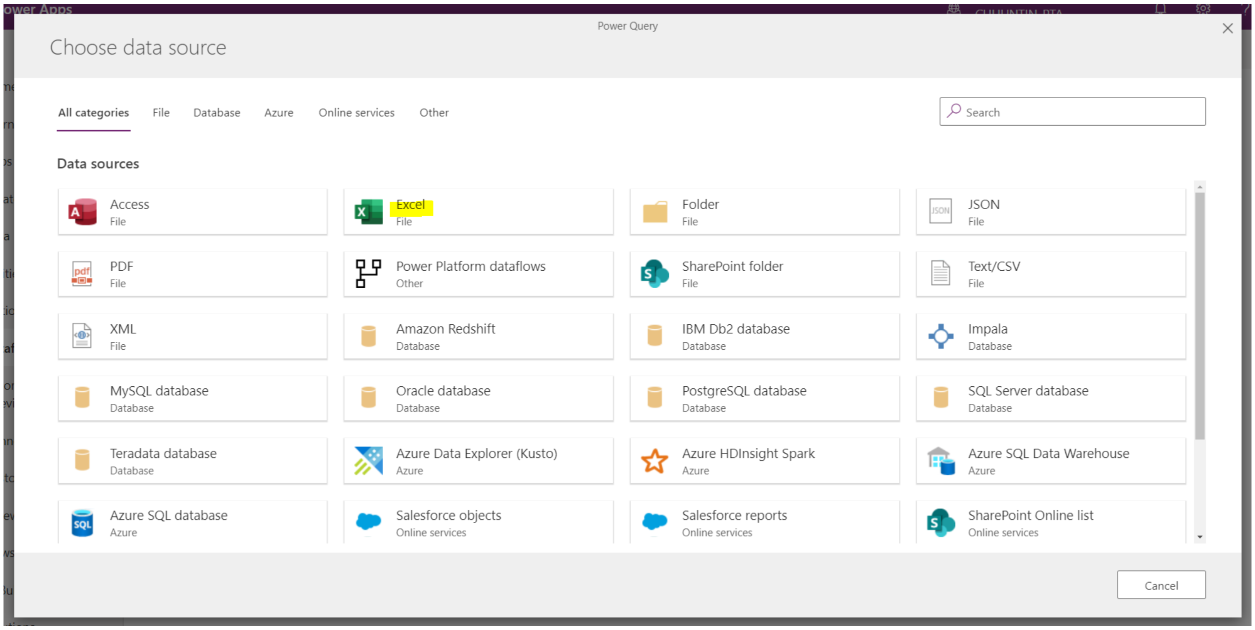
1. Navigate to "**make.PowerApps.com**" and open the "**Data**" tab, then select "**Data Flows**".



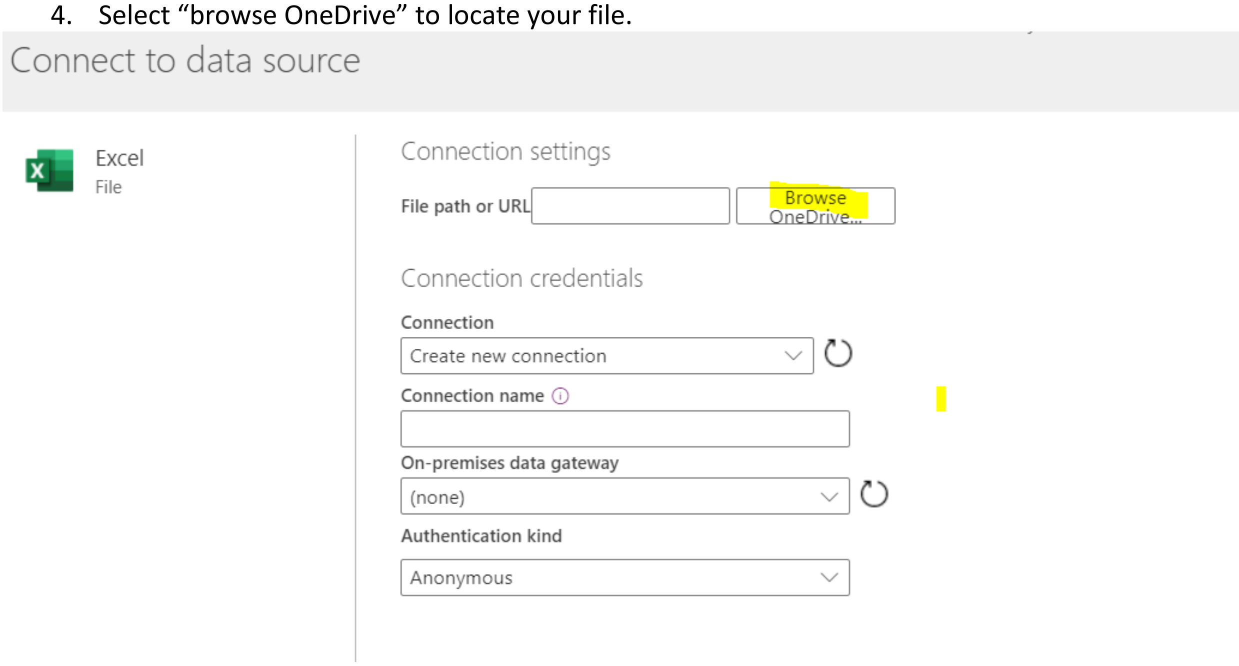
2. Select "**Create a Dataflow**" and give your dataflow the name "**Complaints**", then select "**Create**".



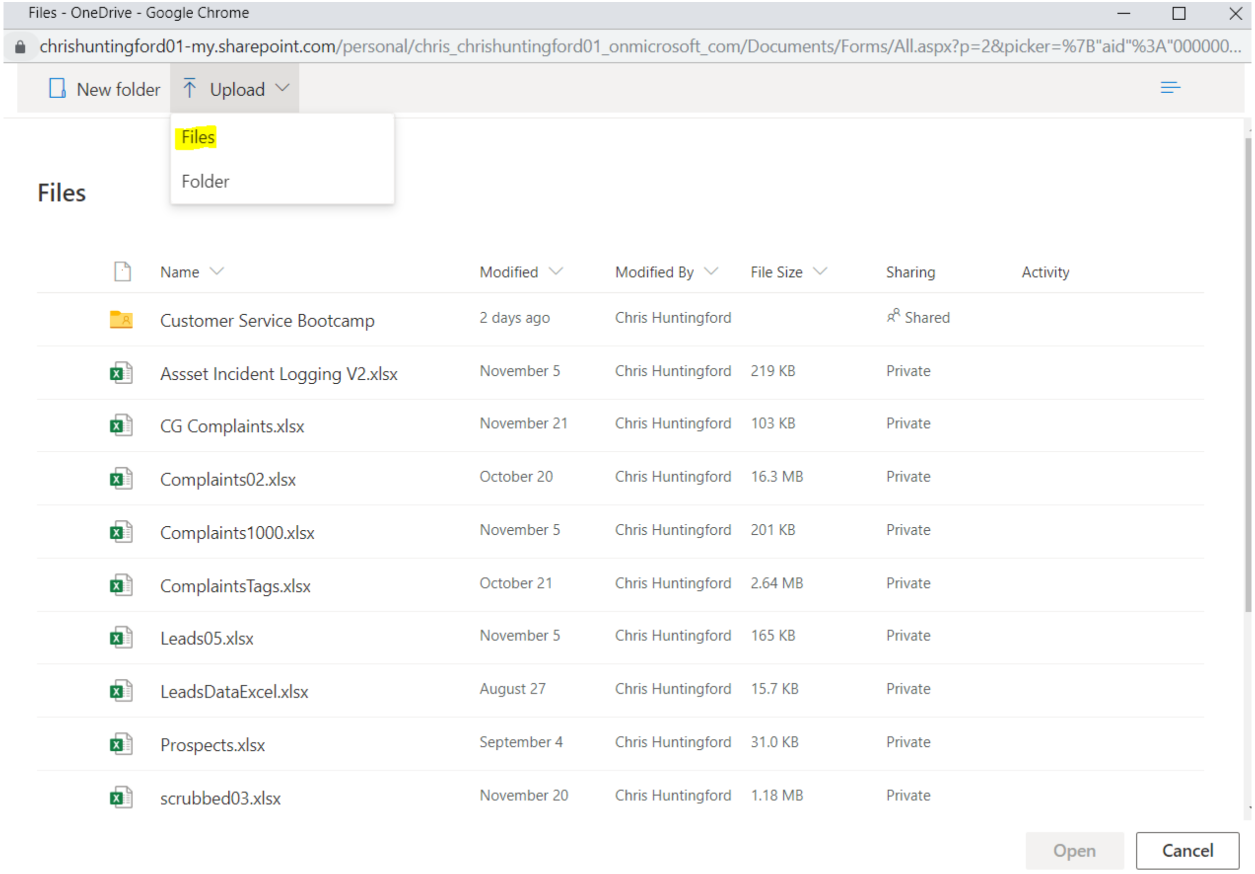
3. Select "Excel" from the list of options.

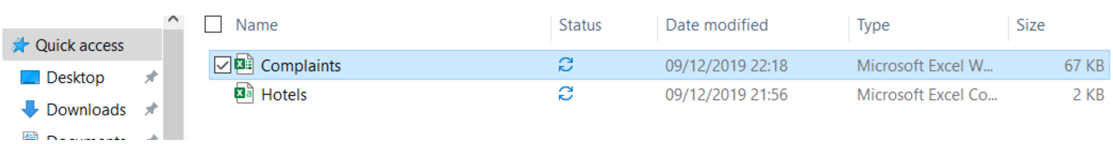


4. Select “browse OneDrive” to locate your file.

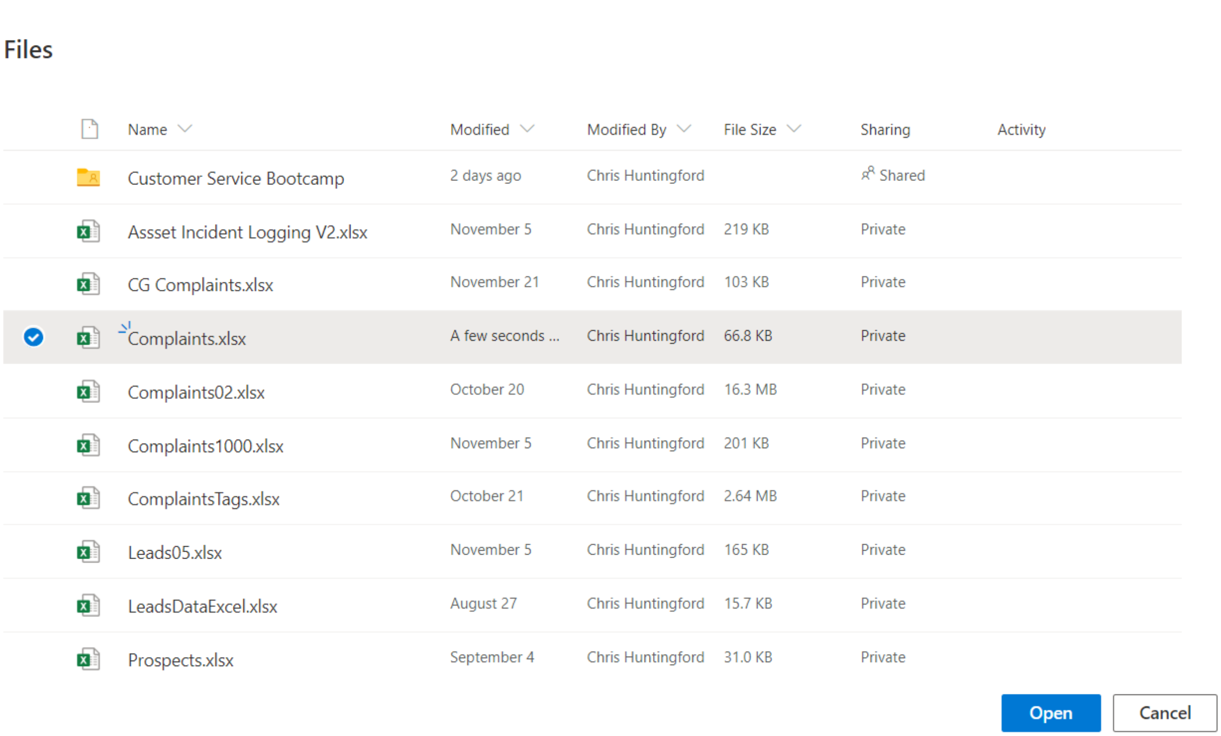


5. A One Drive repository will be exposed to you. Select the “Upload | Files” option and navigate to where you stored the “Complaints.XLS” file.

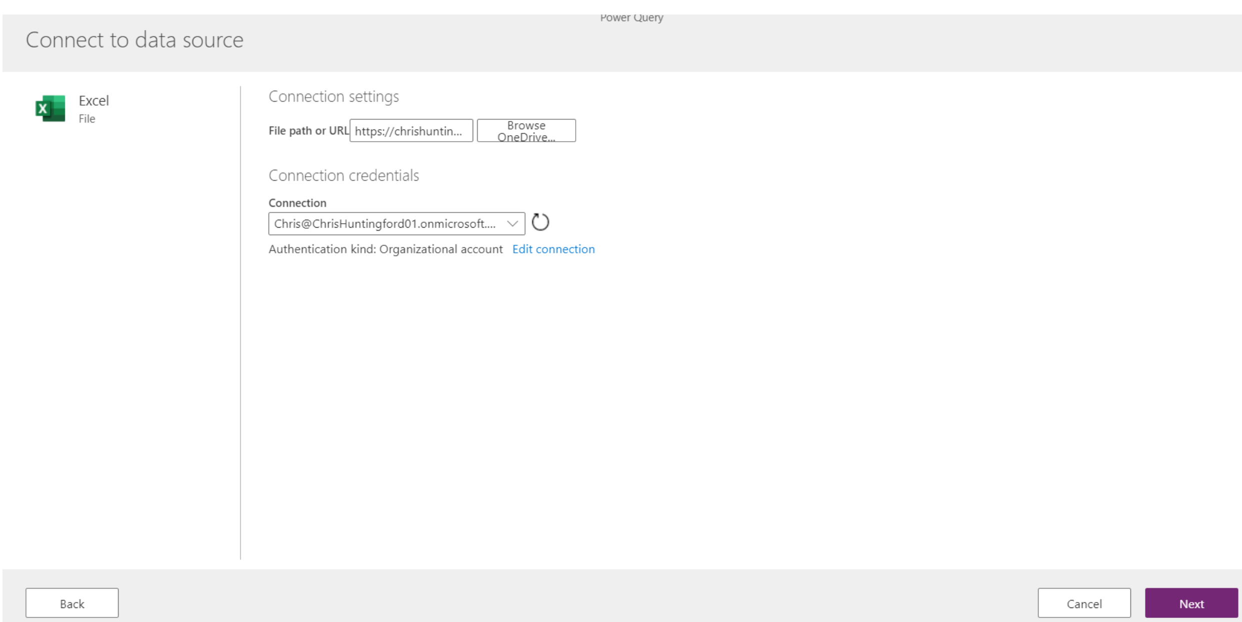




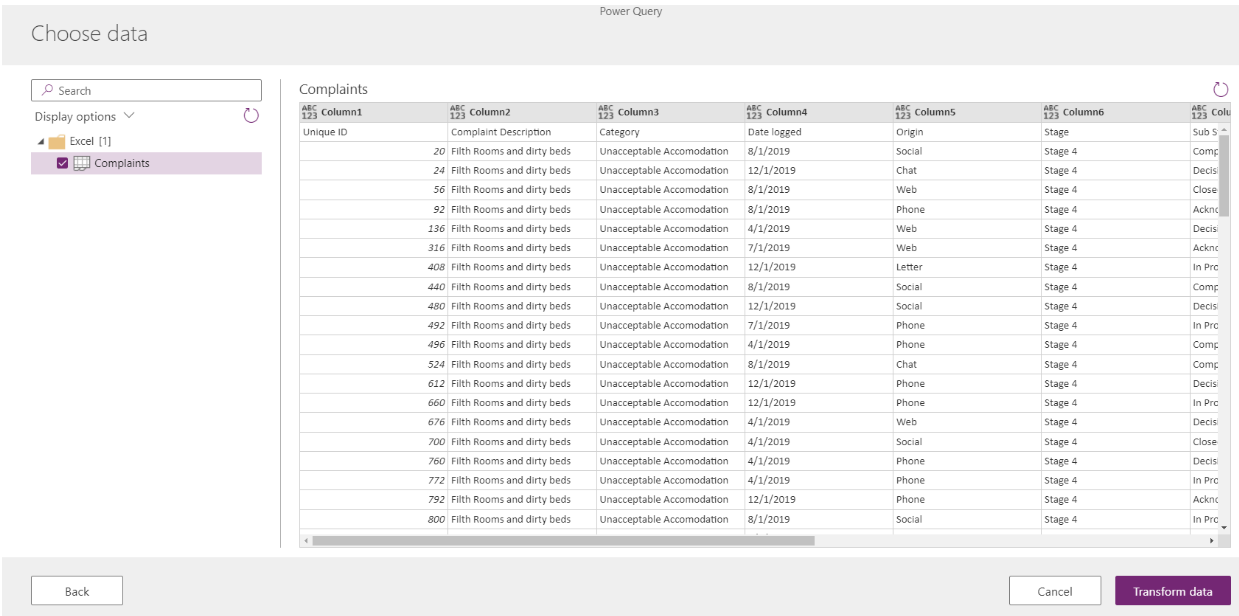
6. The Complaints file will be uploaded to OneDrive, Select “**Open**” to continue the process.



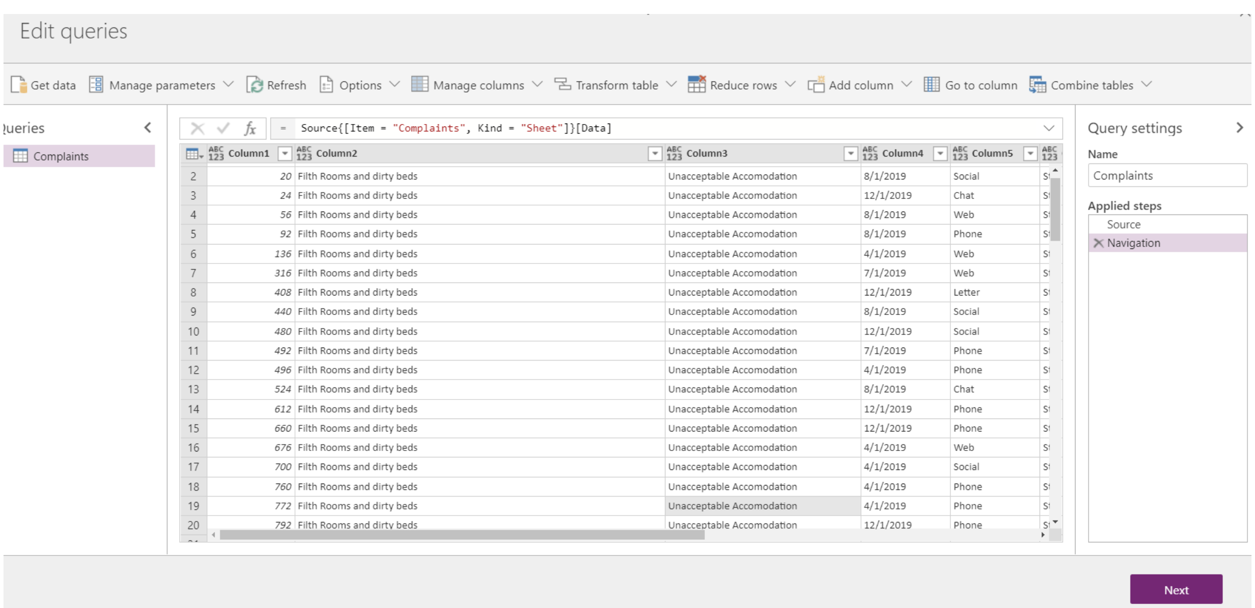
7. The file will then be loaded from source, click “**next**” to continue.



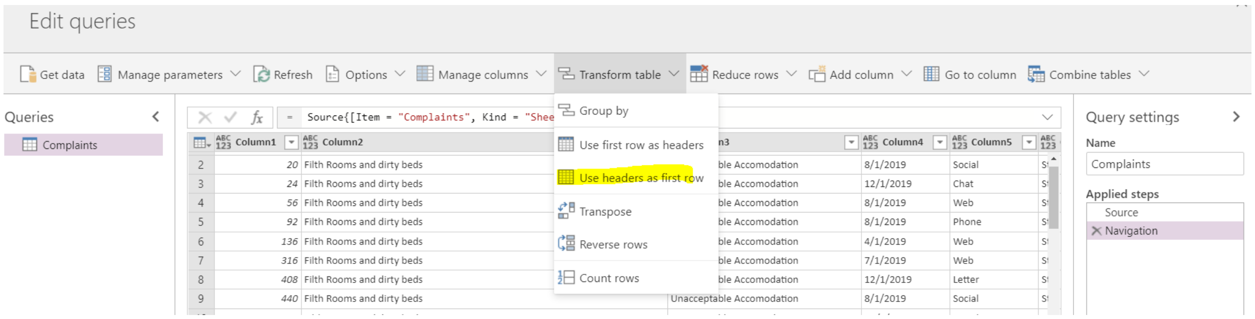
8. You will now be navigated to the “**Power Query**” screen. Select the “**Complaints**” table and select “Transform Data” to continue.



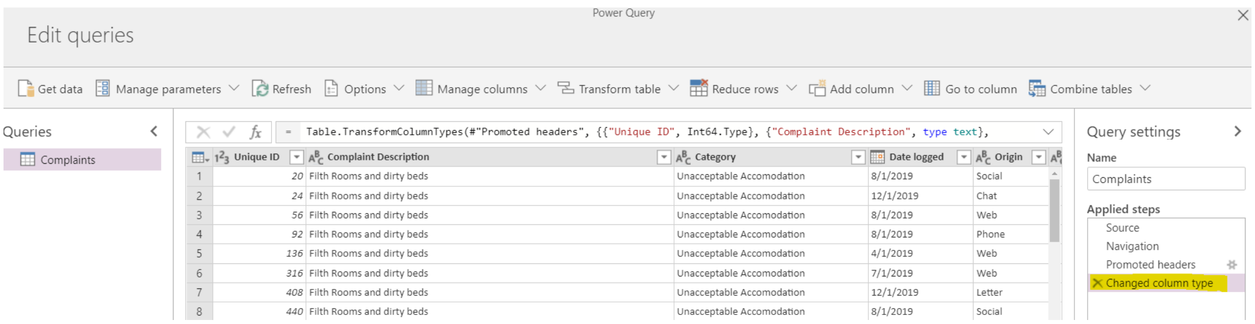
9. You will navigate to the Data Transformation wizard in Power Query where we will now transform the way I which the data is imported into the Common Data Service Entity structure.



10. Firstly, we will make sure that the first row is used as the headers. Navigate to “**Transform Table**” and select “**Use First Row as headers**”.

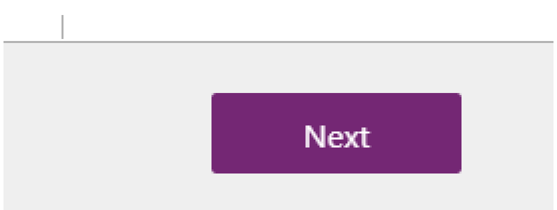


11. This will update the table as well as the “**Applied steps**” on the right-hand side.

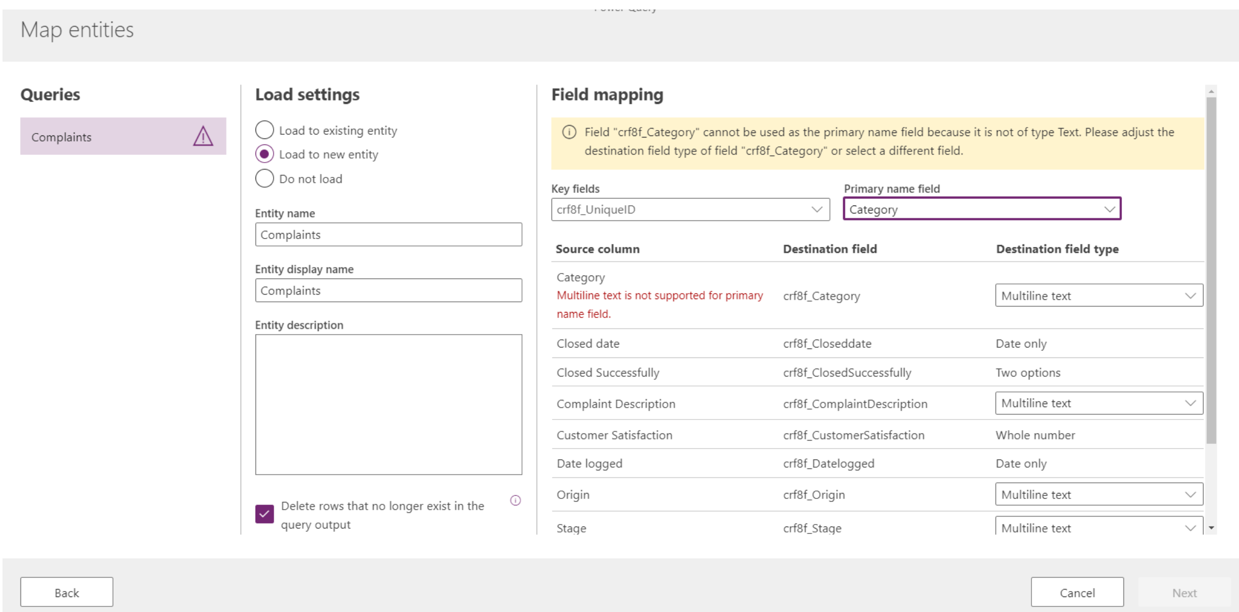


12. You will notice that the field types have been updated for you so that when the creation of the fields and import of the data is done the field types will be as accurate as possible. This will not work for Optionsets and lookups just yet.

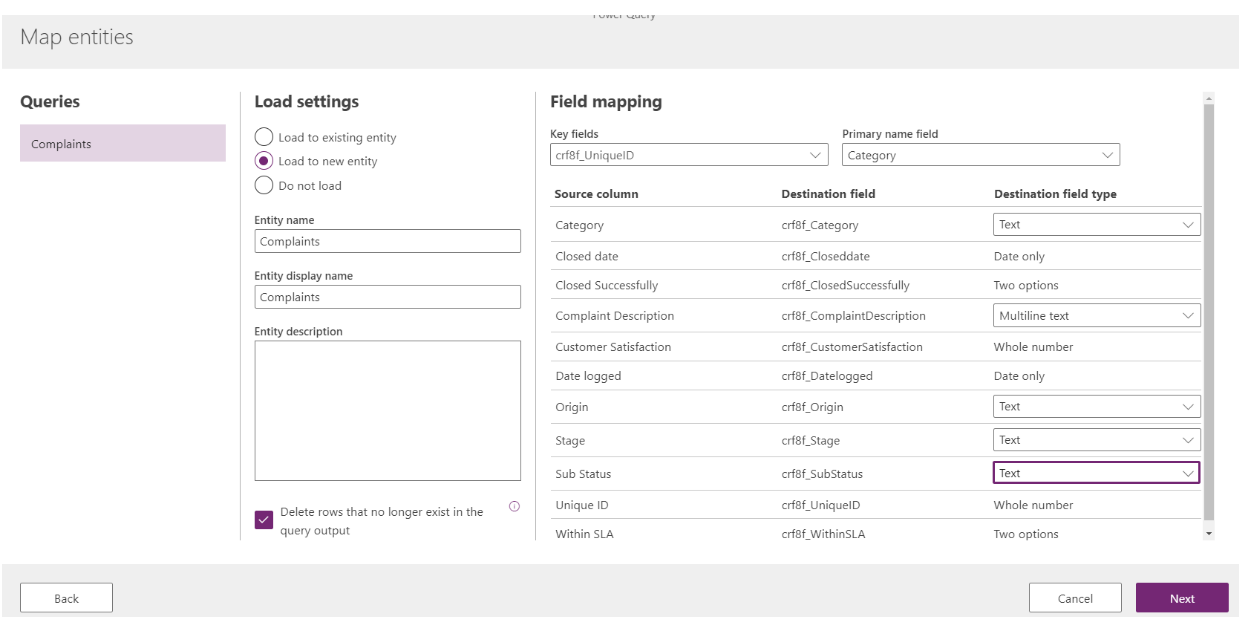
13. To process, click the “**next**” button.



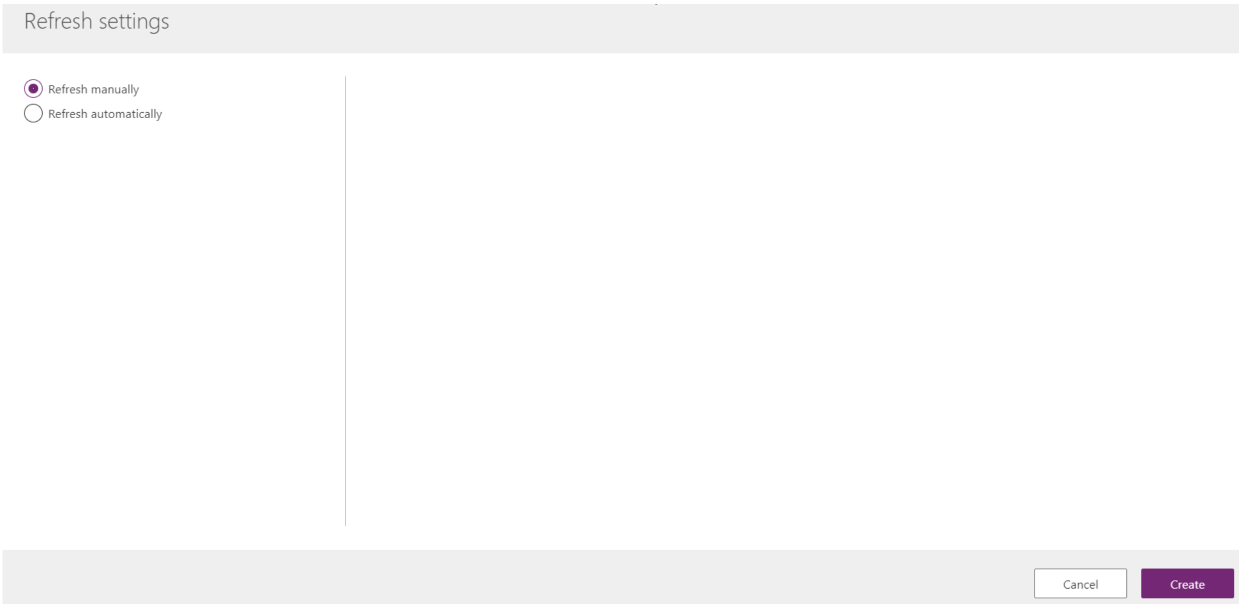
14. The “Map Entities” screen will be displayed. Please follow the exact process shown in the screen below selecting the appropriate options. Make sure to “Load to a new Entity” is selected. This will create a brand new entity in the Common Data Service.



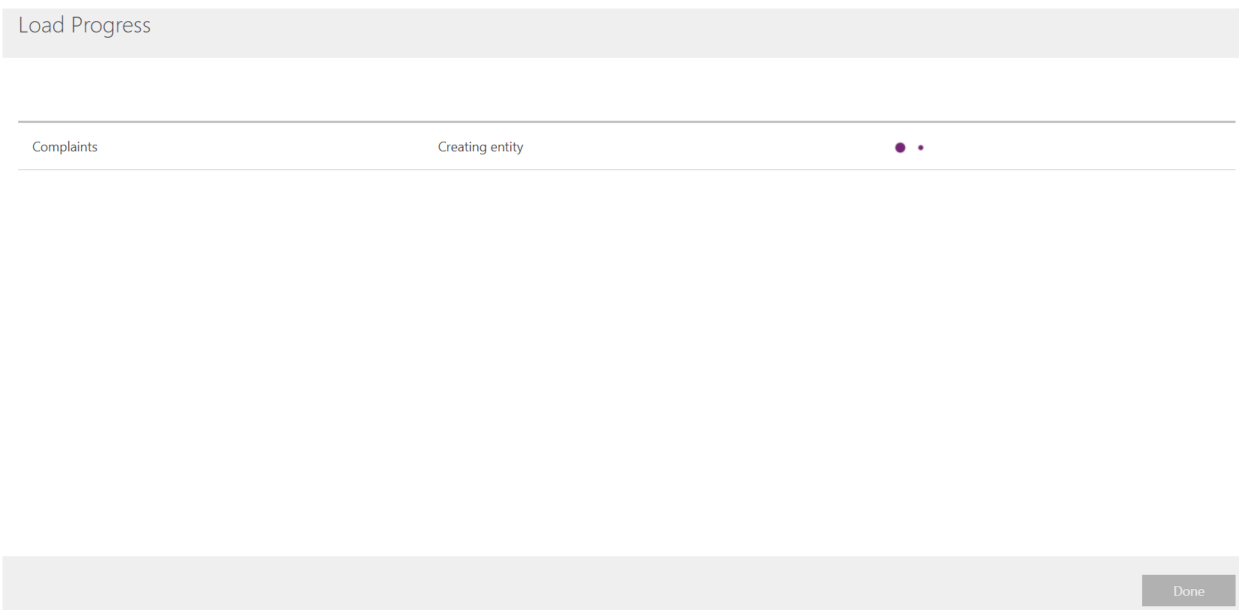
15. You now need to select the relevant data types for the fields. Make sure all fields are selected as "Text" except for the description which needs to be "Multiline Text".



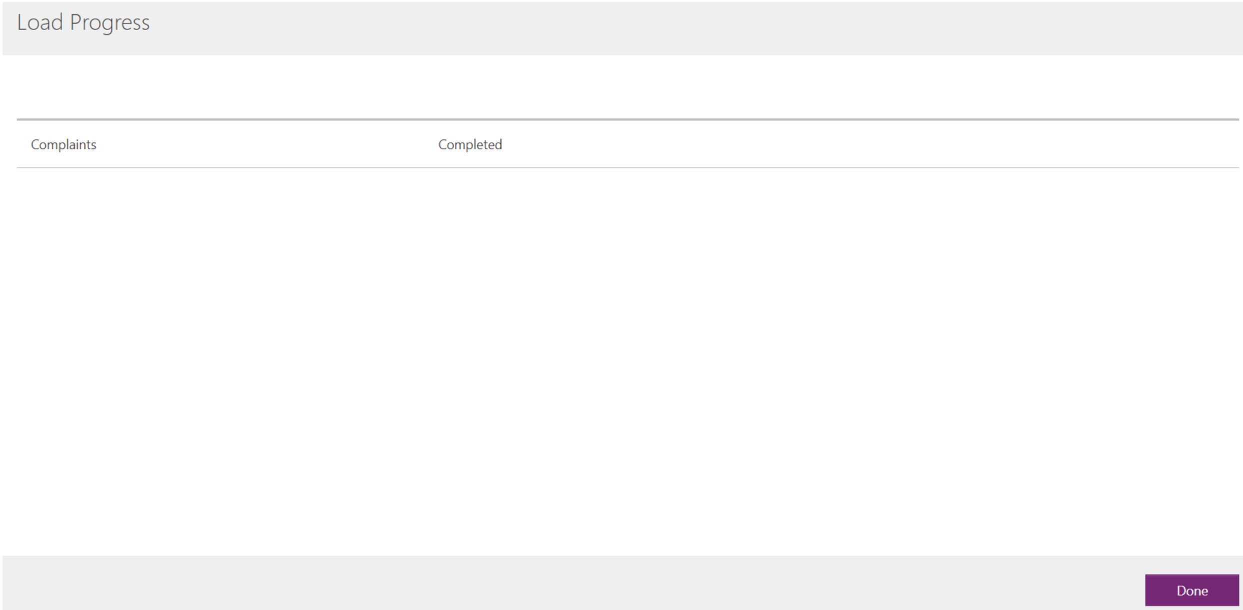
16. Once completed with the field type mapping select "**Next**" to progress the import.
17. You will progress to a "**Refresh Settings**" page, make sure this is set to "**Refresh Manually**" and select "**Create**".



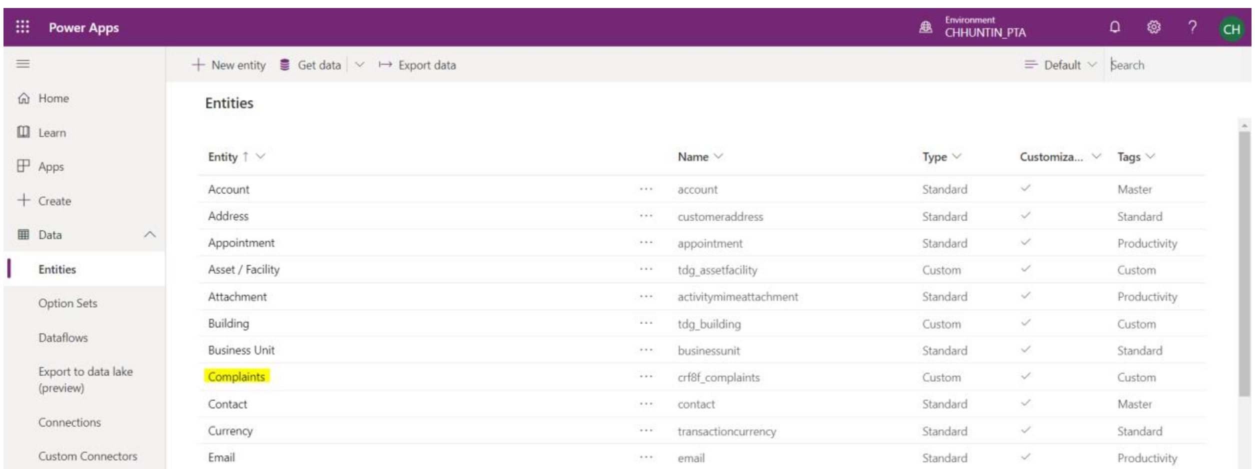
18. This will run through the process of bringing in the data.



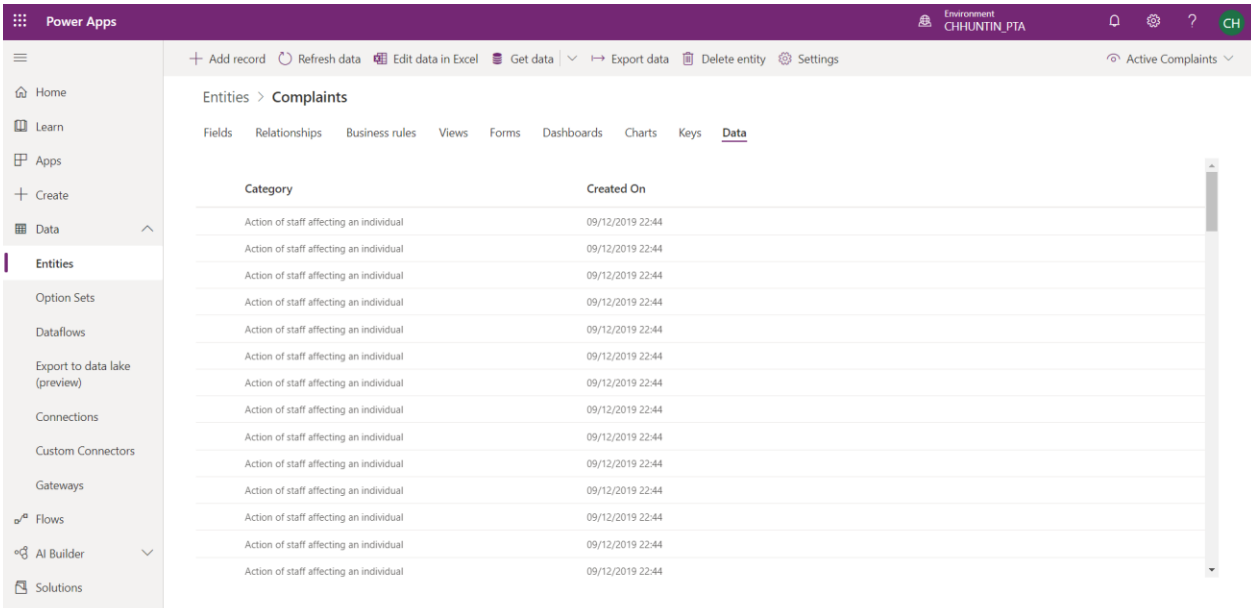
19. Once completed the “**Done**” button will be enabled and you will see a success message. To progress select “**Done**”



20. And navigate to “**Data | Entities**” and select “**Complaints**” to view your new entity.



21. Select the “Data” tab to view the relevant records.


Power Apps
Environment
CHHUNTIN_PTA
CH
Add record
Refresh data
Edit data in Excel
Get data
Export data
Delete entity
Settings
Active Complaints
Home
Learn
Apps
Create
Data
Entities
Option Sets
Dataflows
Export to data lake (preview)
Connections
Custom Connectors
Gateways
Flows
AI Builder
Solutions
Entities > Complaints
Fields
Relationships
Business rules
Views
Forms
Dashboards
Charts
Keys
Data
Category
Created On
Action of staff affecting an individual
09/12/2019 22:44
Action of staff affecting an individual
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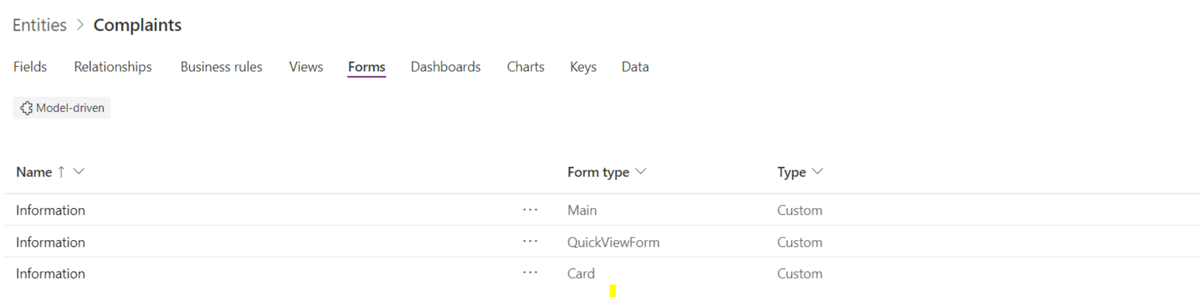
09/12/2019 22:44

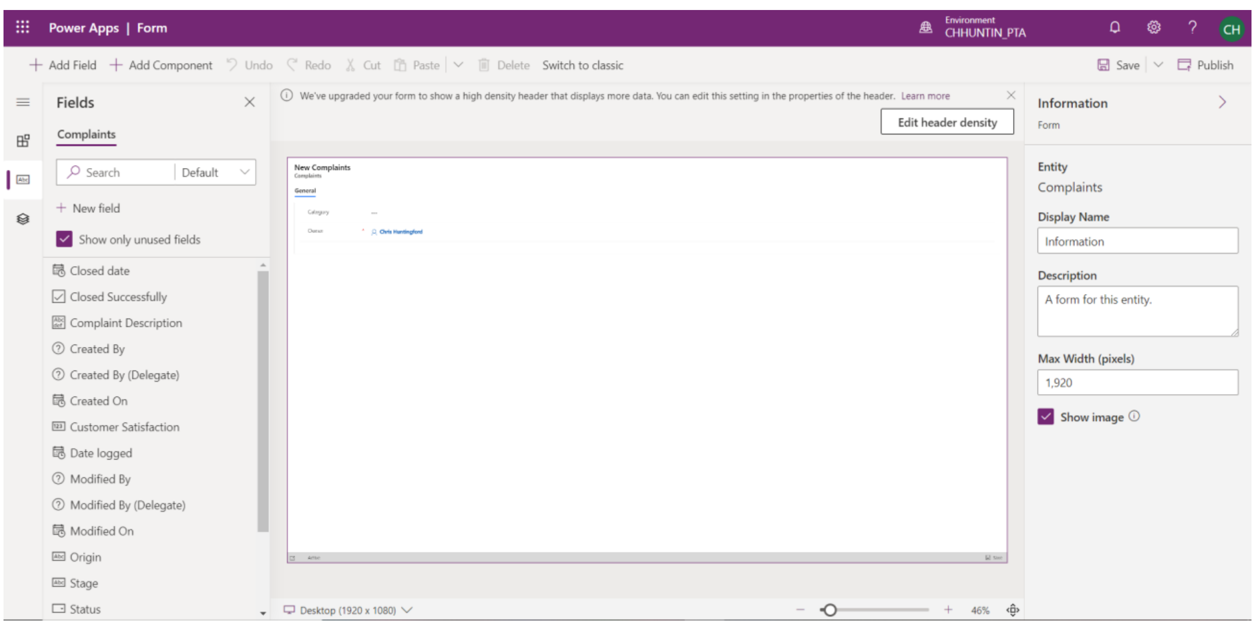
Step-by-Step 4: Configuring the Complaint functionality.

Below are step by step instructions that will guide you through the solution. Here you will be updating Forms, Views and graphs by leveraging the functionality within the Common Data Service.

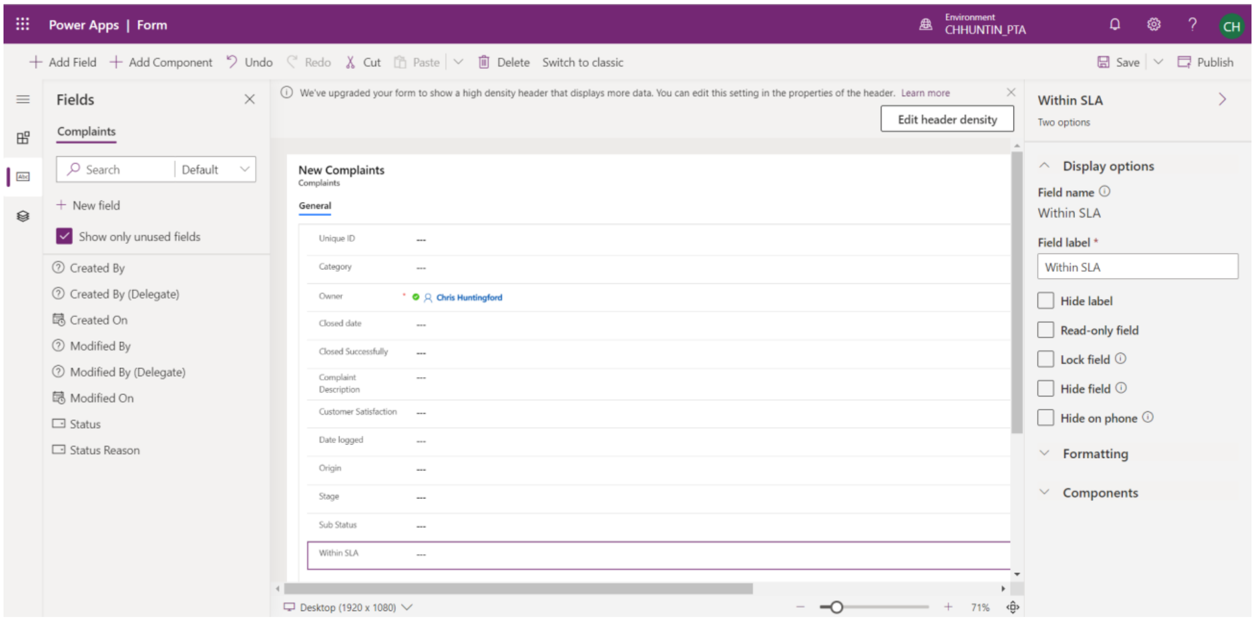
1. Navigate to the "**Forms**" tab within the "**Complaints**" entity.



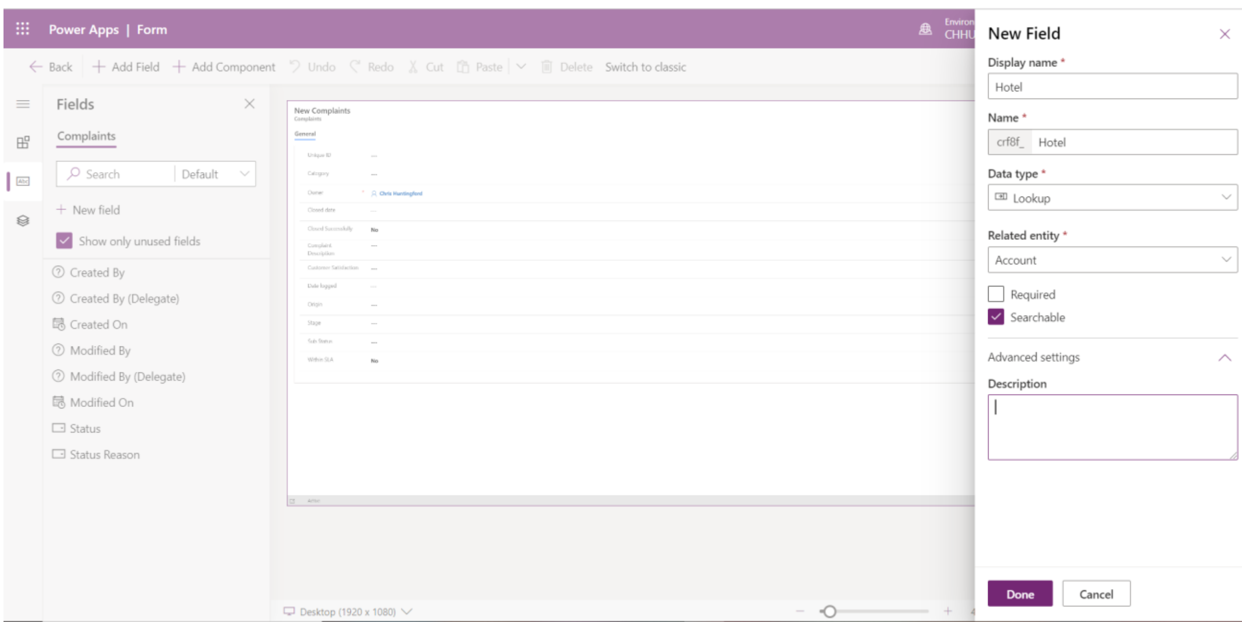
2. Open the "**Information**" form. You will notice that there are very few fields that have been added to the form.



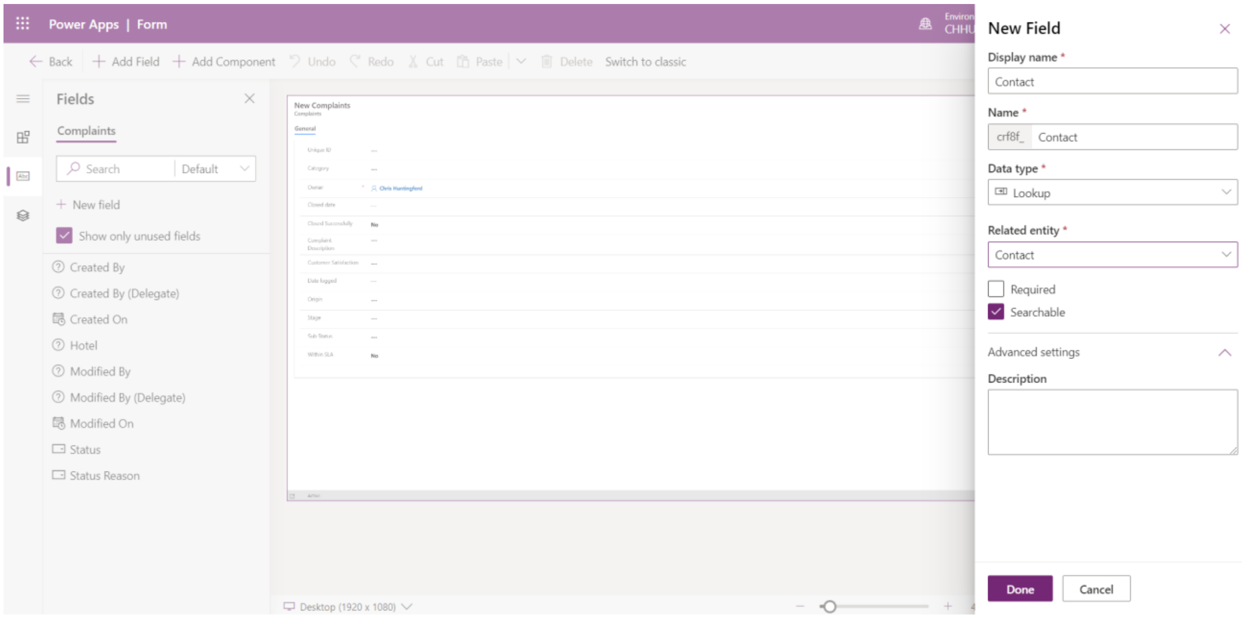
3. Drag and drop the fields shown below onto the form in which ever order you would prefer.



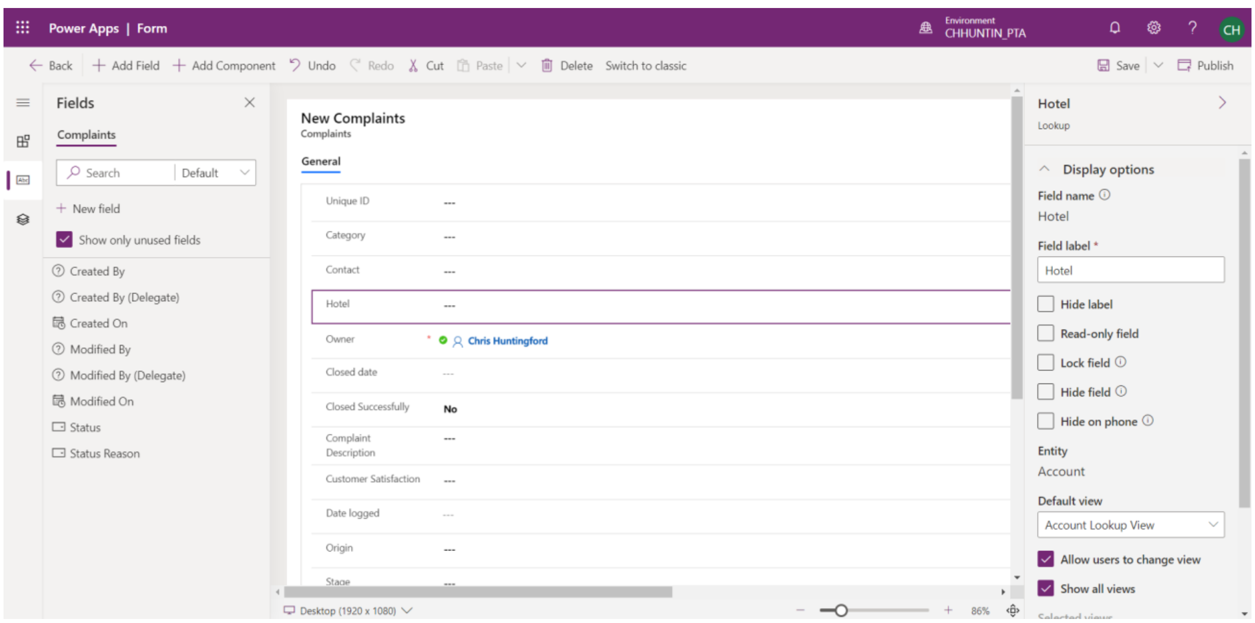
4. In the Field explorer on the left of the form select "**New Field**". Give the field the following metadata:



5. Click "**New Field**" once again and do the sale form "**Contact**" remembering to make sure the lookup is directed to the <u>**CONTACT**</u> entity:

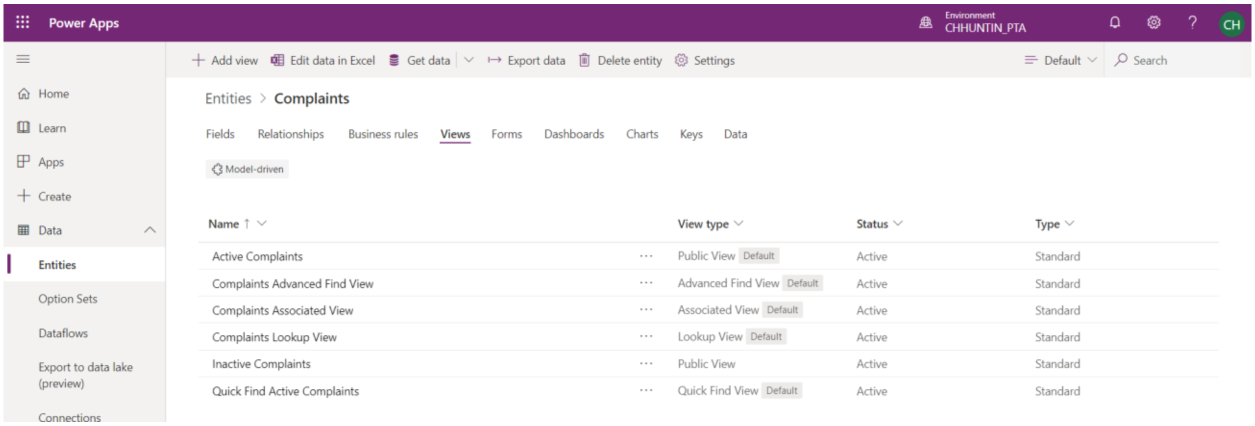


6. Drag and drop the “Hotel” and “Contact” fields onto the form.

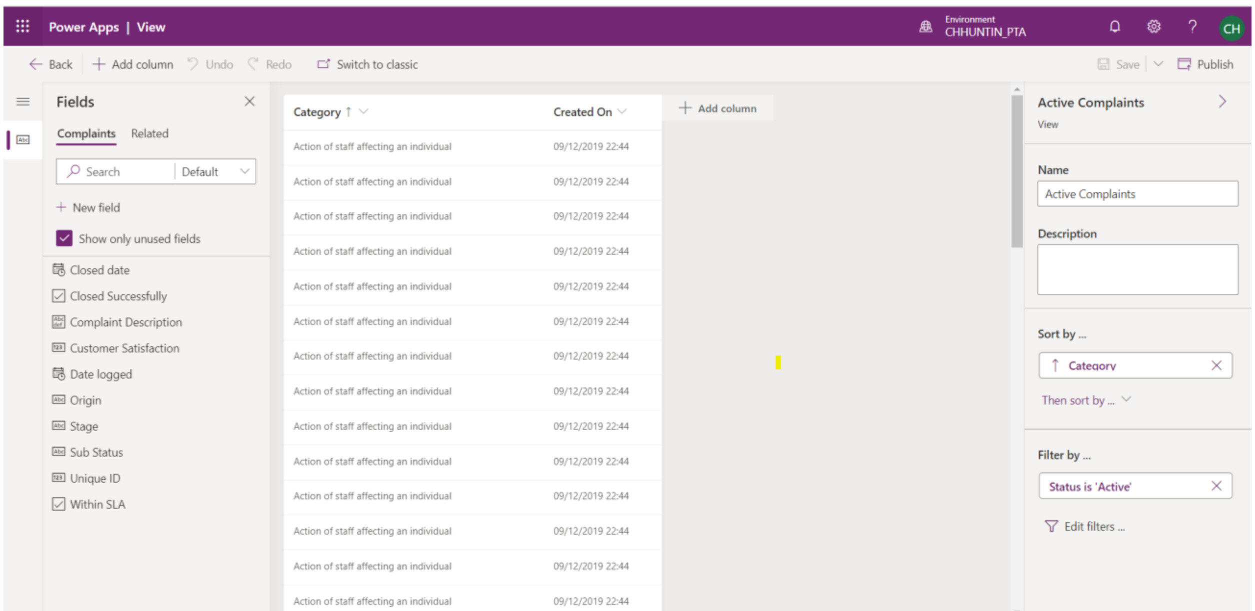


7. To save this select “**Save**” and the “**Publish**” the form.

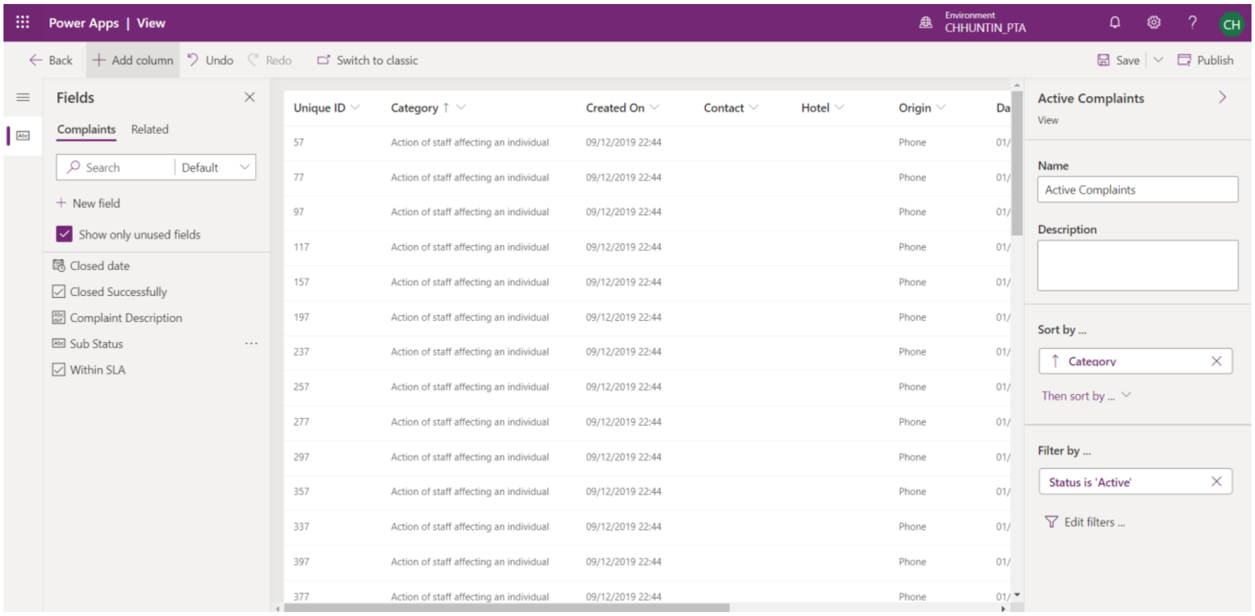
8. Navigate back to “**Make.PowerApps.com**”, select “**Data |Entities**” and open the “**Complaints**” entity. Navigate to the “**Views**” Tab.



9. Open the “Active Complaints” view. You will see very few columns in the view.



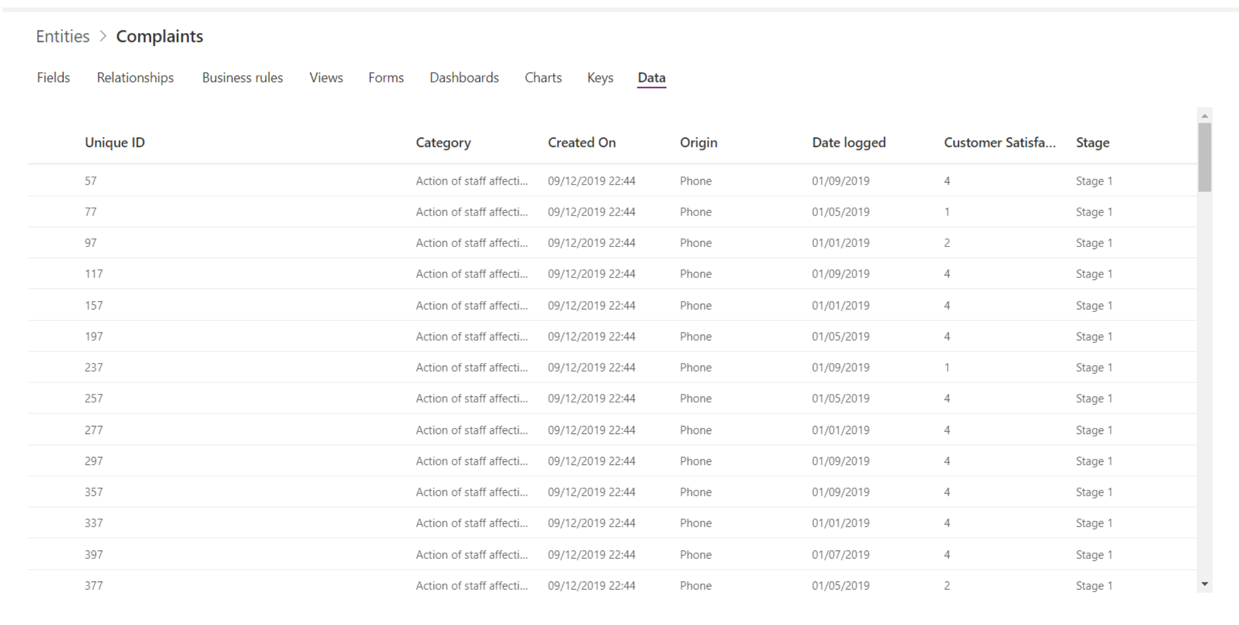
10. Drag and drop the following columns into the view: “**Unique ID**”, “**Category**” (Will already be there”, “**Created On**” (Will already be there”), “**Contact**”, “**Hotel**”, “**Origin**”, “**Date Logged**”, “**Customer Satisfaction**” & “**Stage**”.



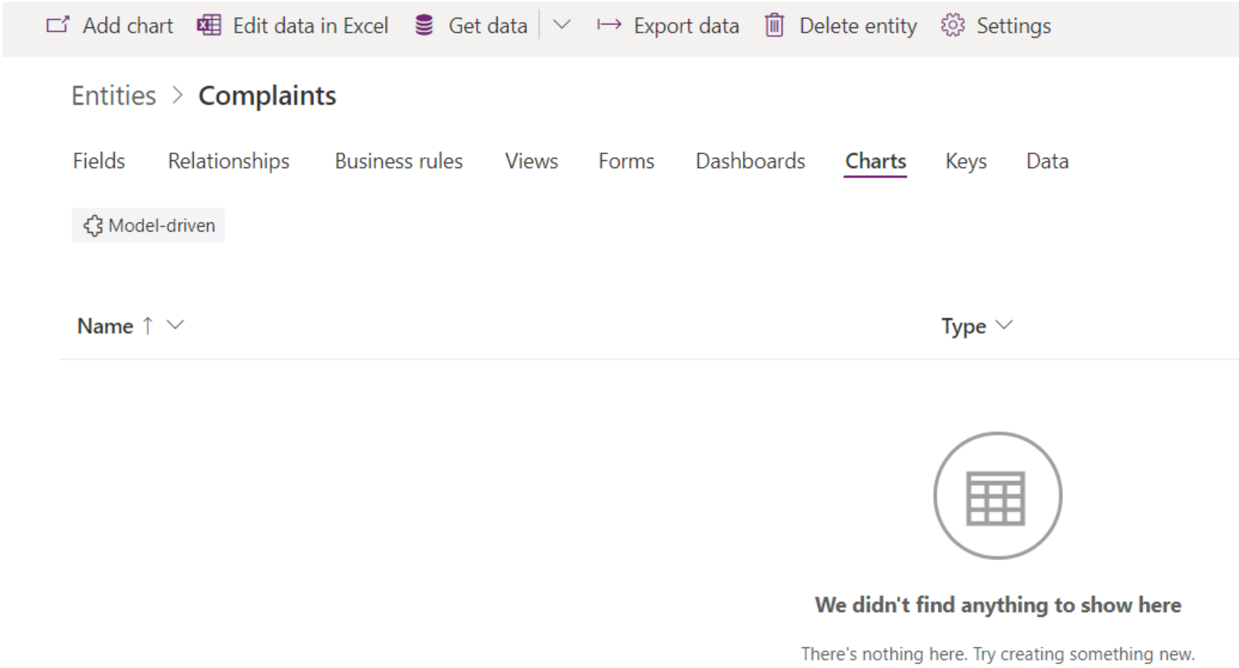
11. Click "**Save**" and then "**Publish**".

12. Select the "back" button to navigate back to the complaints entity.

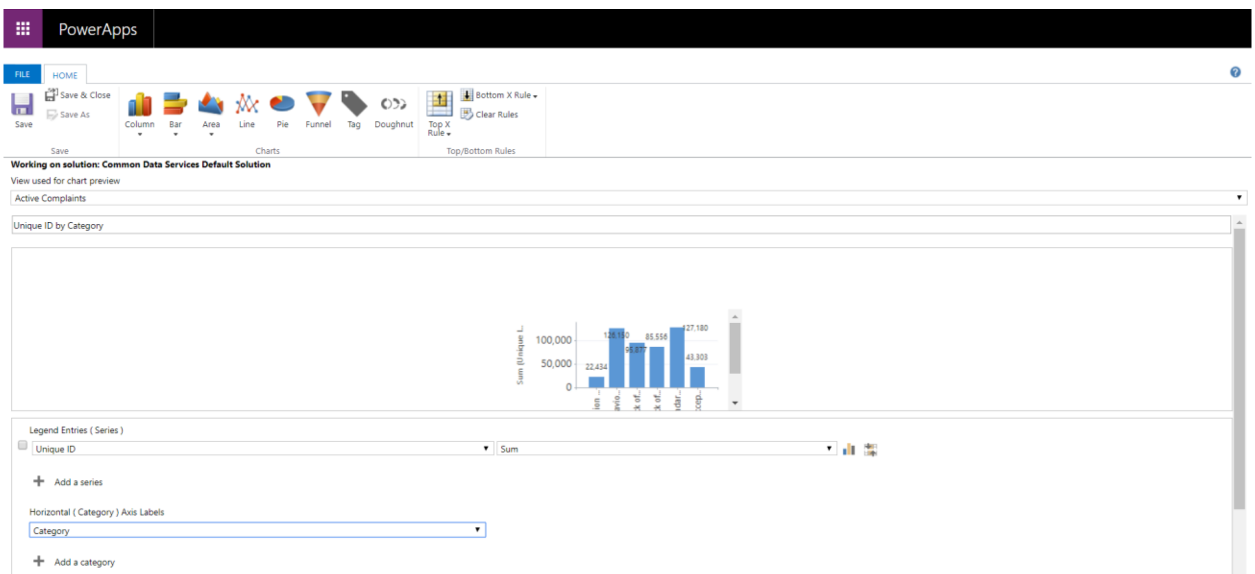
13. Select the "**Data**" tab and you will see your newly crated view.



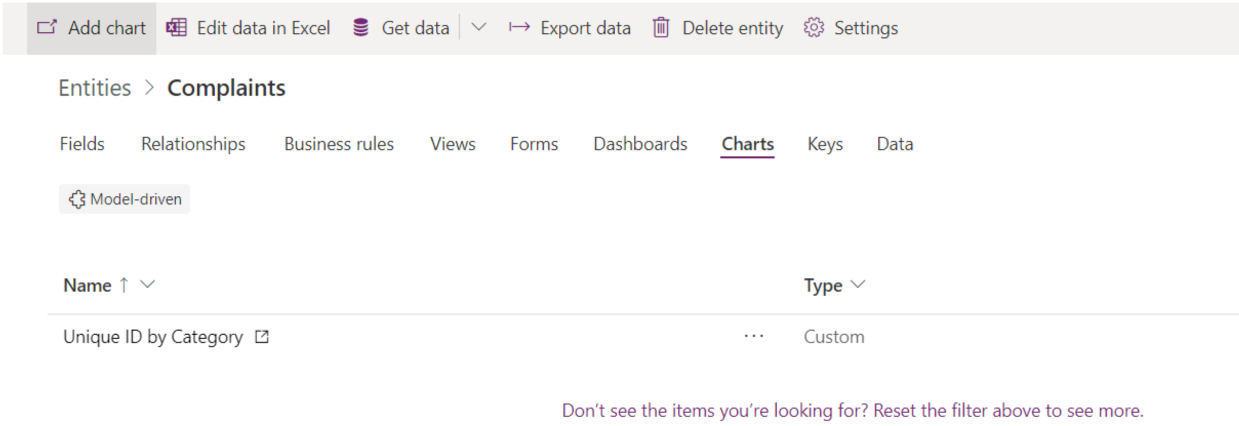
14. Navigate to the "**Charts**" tab in the "**Complaints**" entity. You will see that there are no charts available. Select the "Add Chart" button.



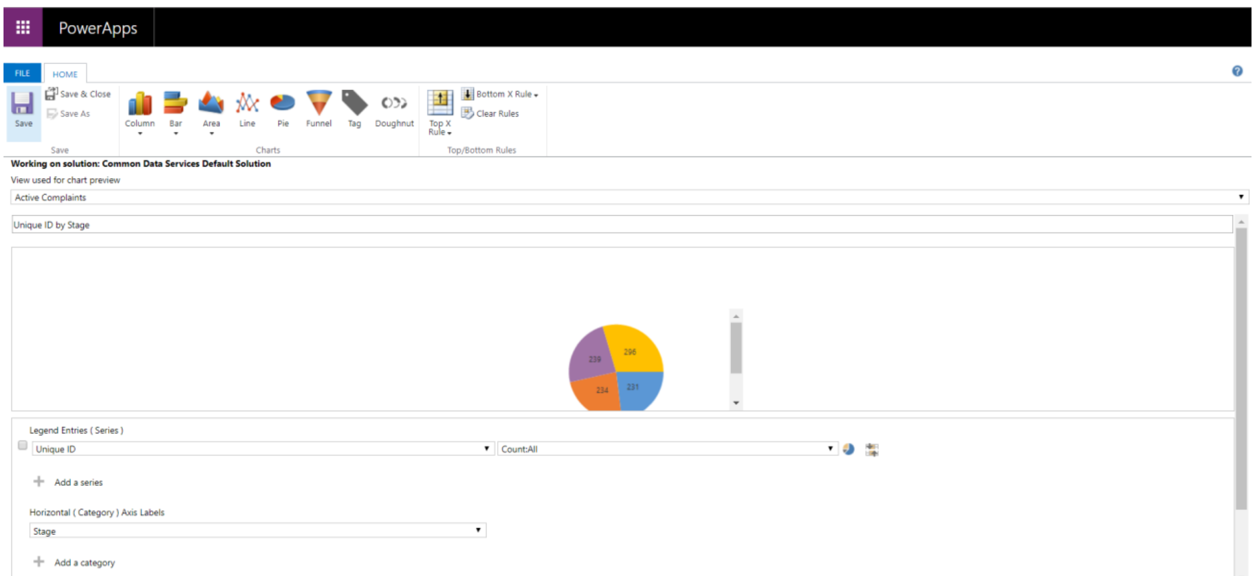
15. The classic Chart Designer will appear… Create a chart by selecting the "**Legend**" as "**Unique ID**" and the "**horizontal**" as "**Category**". Then select "**Save & Close**" from the menu.



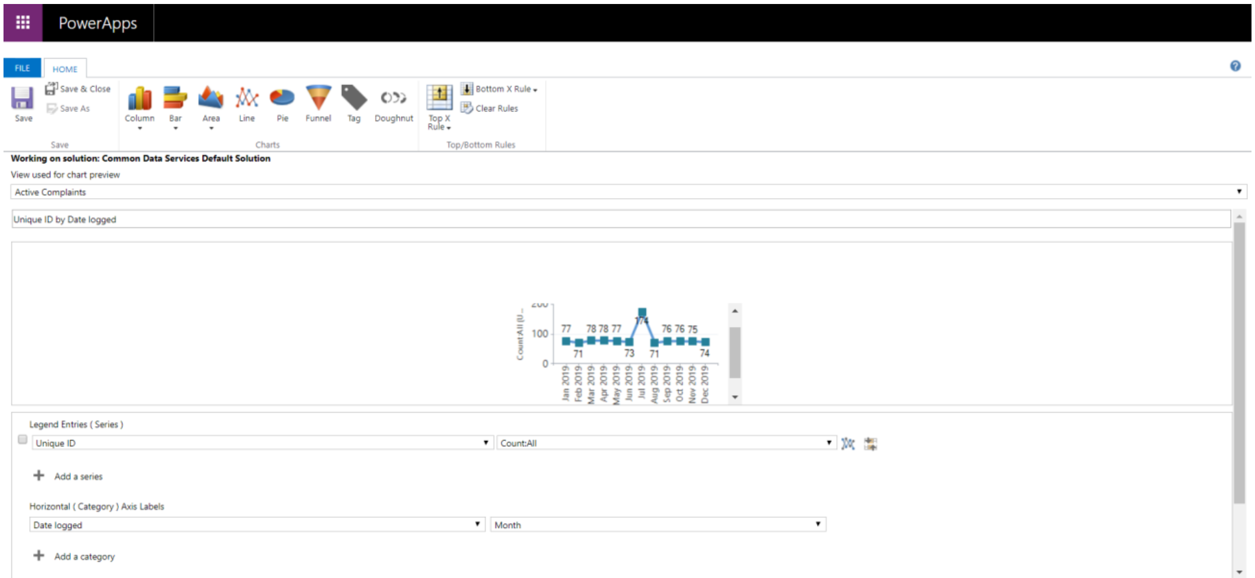
16. You will see your new chart available in the list. Select "Add Chart" to create a new chart.



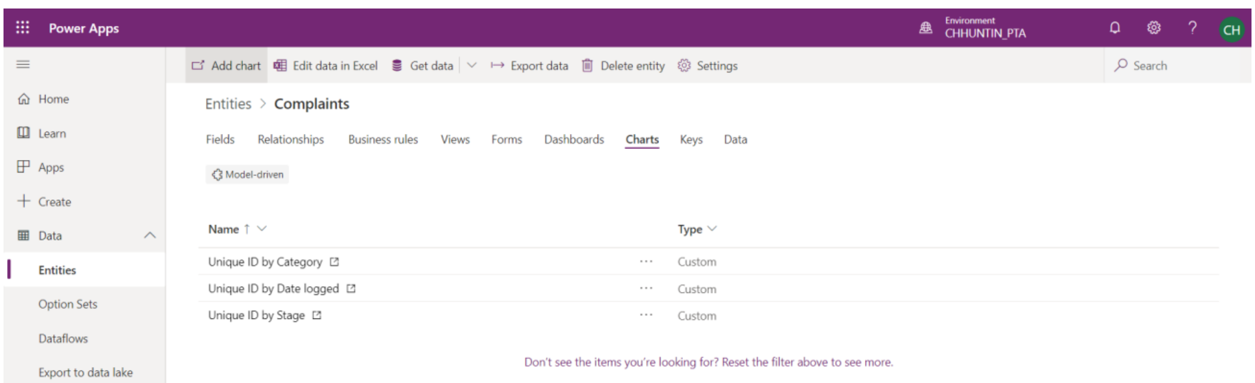
17. This time select the pie chart option from the chart list. Select “**Legend**” as “**Unique ID**” and the “**horizontal**” as “**Stage**”. Then select “**Save & Close**” from the menu.



18. You will see your second chart created in the list. For the last time select “Add Chart”. Make this chart a Line Chart then Select “**Legend**” as “**Unique ID**” and the “**horizontal**” as “**Date Logged**”. Then select “**Save & Close**” from the menu.



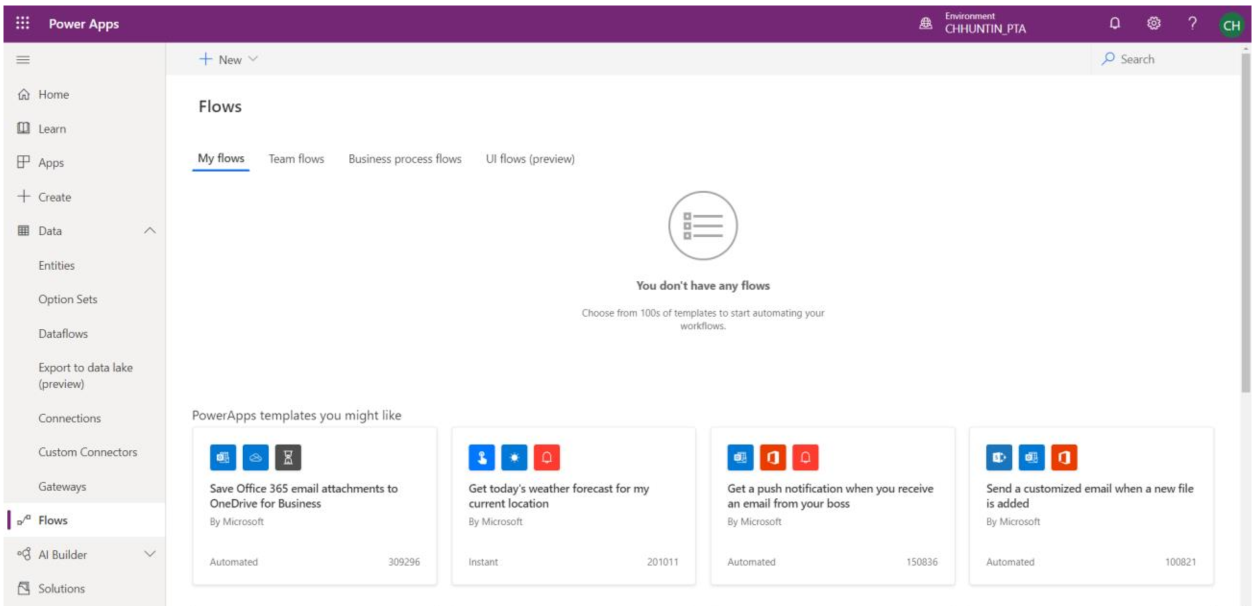
19. You should now have 3 charts in your list in the Common Data Service.



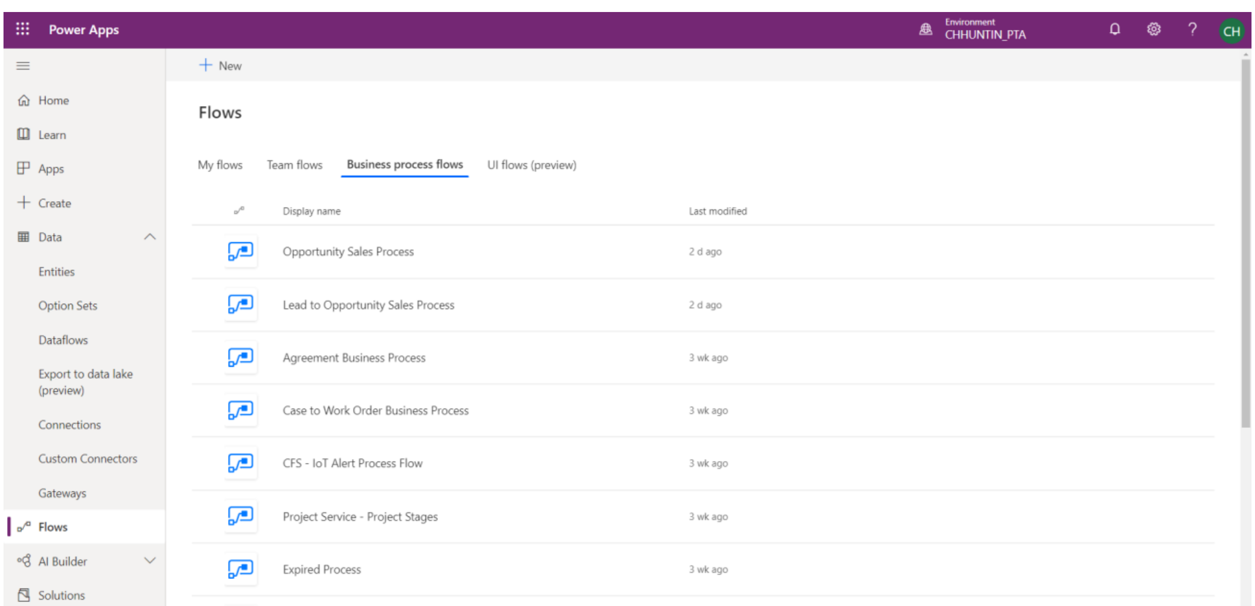
Step-by-Step 5: Creating a Business process Flow

Below are step by step instructions that will guide you through the solution. Here you will leveraging the Business Process Flow functionality within Power Automate to create a Business Process flow for your Complaint entity

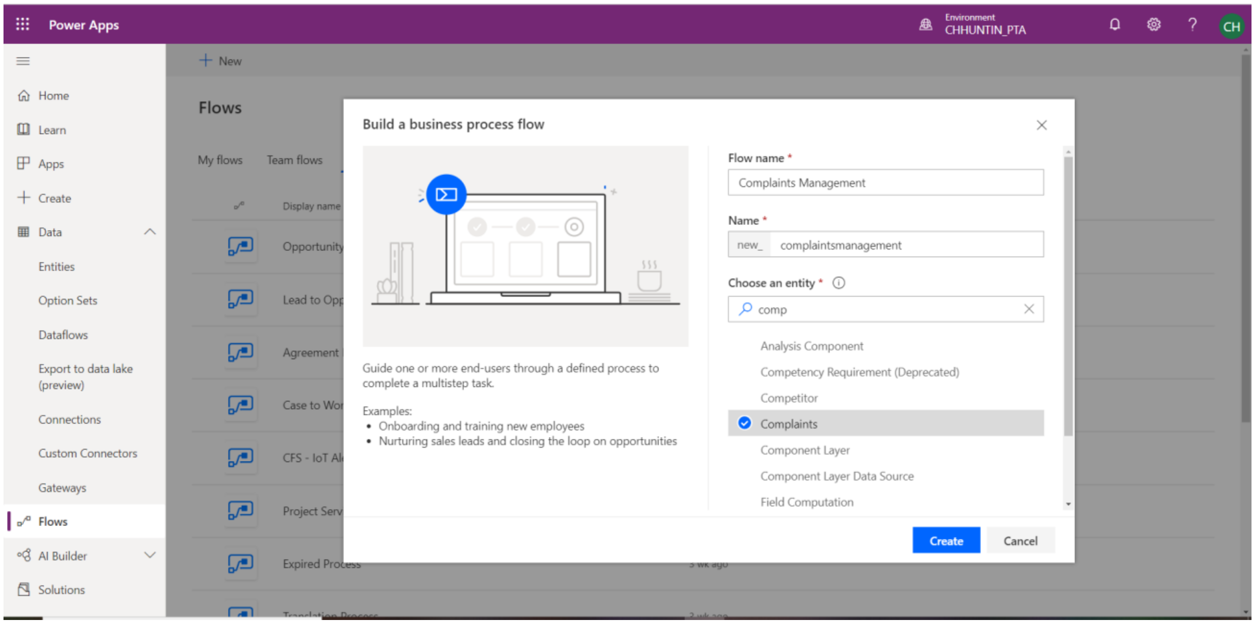
1. Navigate to “make.PowerApps.Com” and navigate to “Flows”.



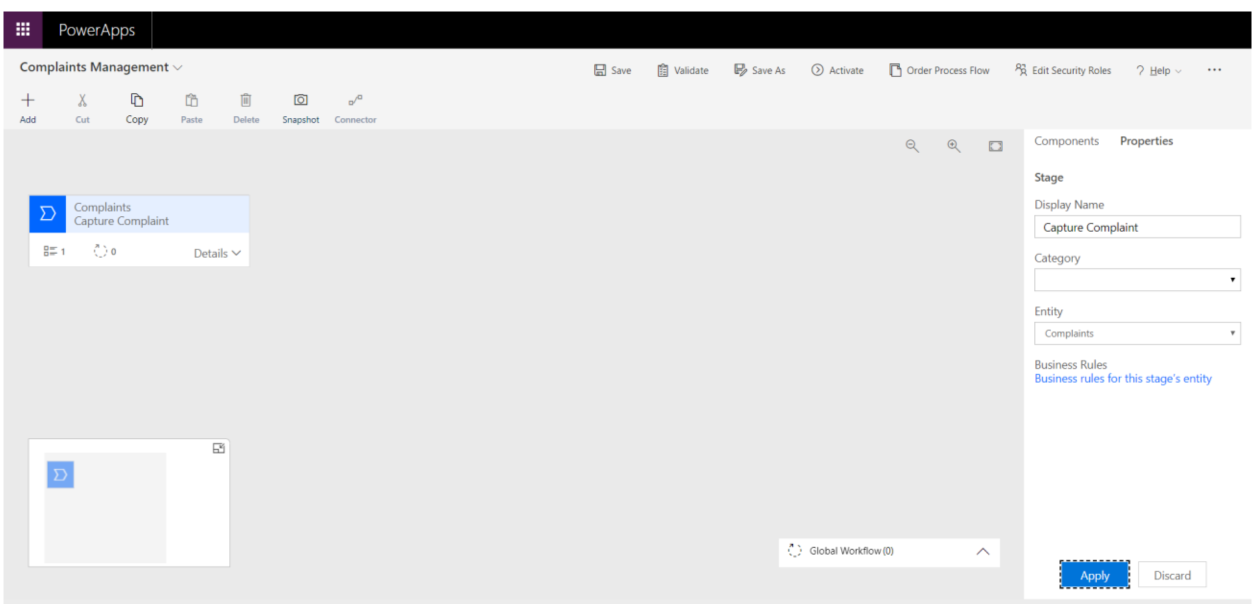
2. Navigate to the “**Business Process Flow**” tab and you will be able to see all of the current business process flows that have already been created.



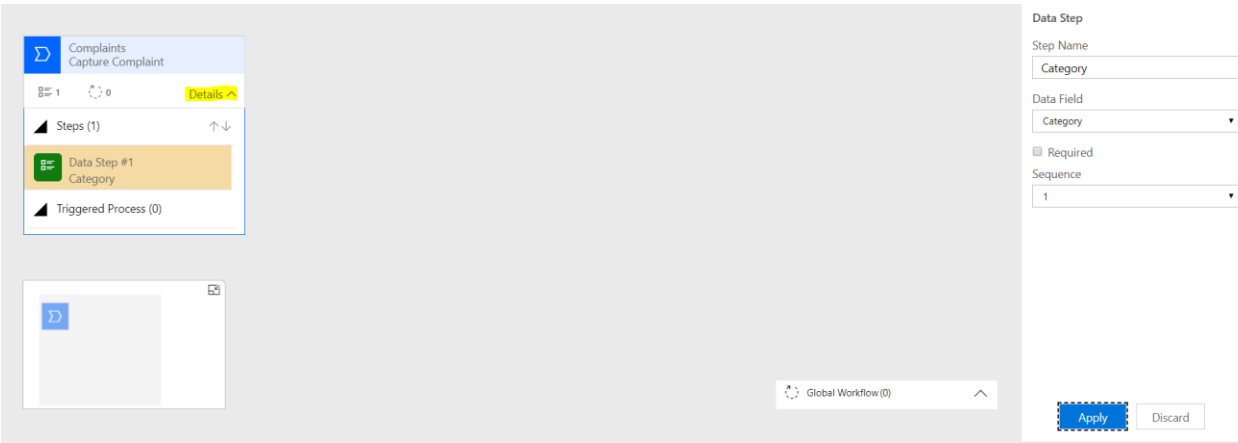
3. To create a new Business Process Flow select the "**New**" button, give your process the name "**Complaints Management**" and select the "**Complaints**" entity from the list.



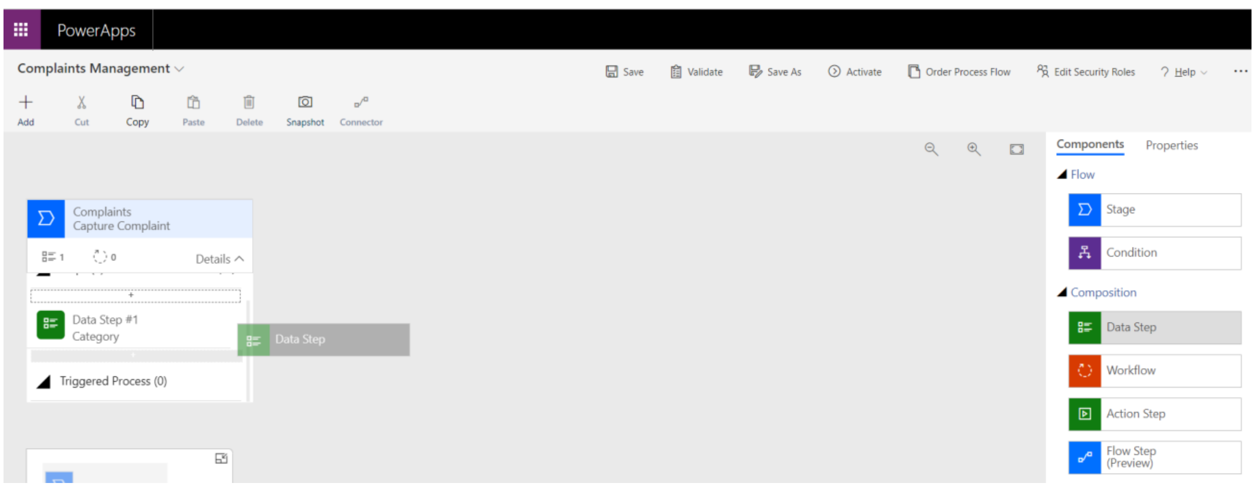
4. You will be navigated to the Business Process Flow editor. Here you can drag and drop components onto the process form to crate your Business Process flow. Firstly click on the first Component and edit the Display name. <u>**PLEASE CLICK THE APPLY BUTTON TO SAVE THIS CHANGE**</u>.



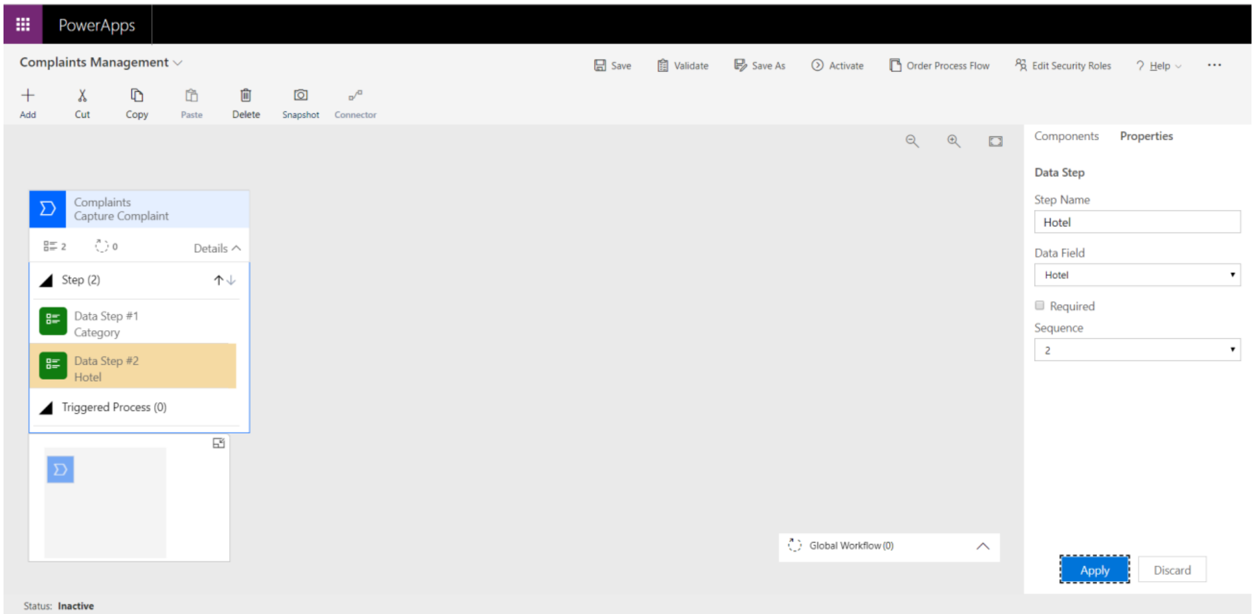
5. Click the "Details" toggle on the "Capture Complaint" component and the data steps will be made visible. Click on the data step and on the right under the properties menu, select the "Category" field. **CLICK APPLY TO SAVE THESE CHANGES**.



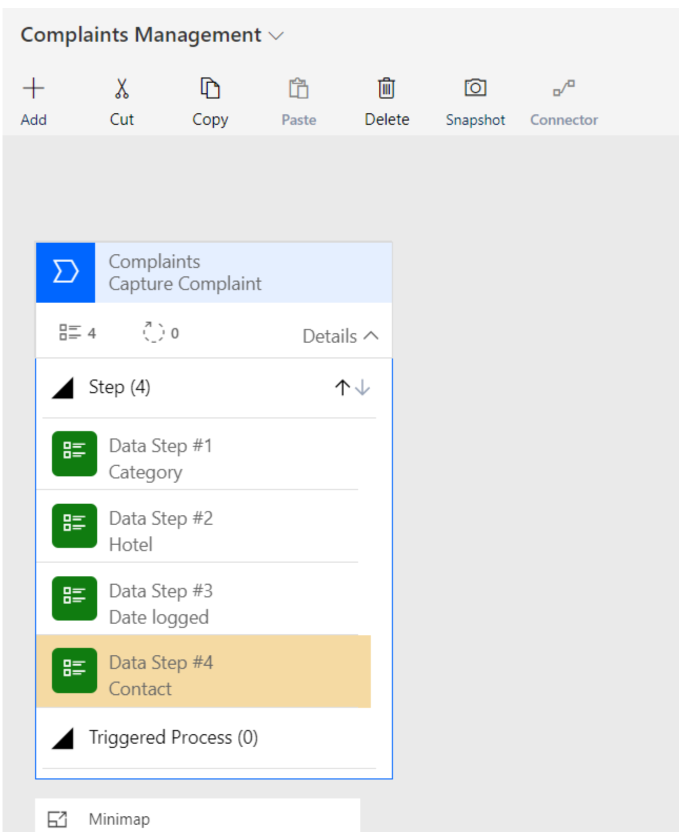
6. To add a new data step component drag and drop the component over from the components list into the stage component in the process form.



7. Select the Hotel option and then select apply to save the changes.

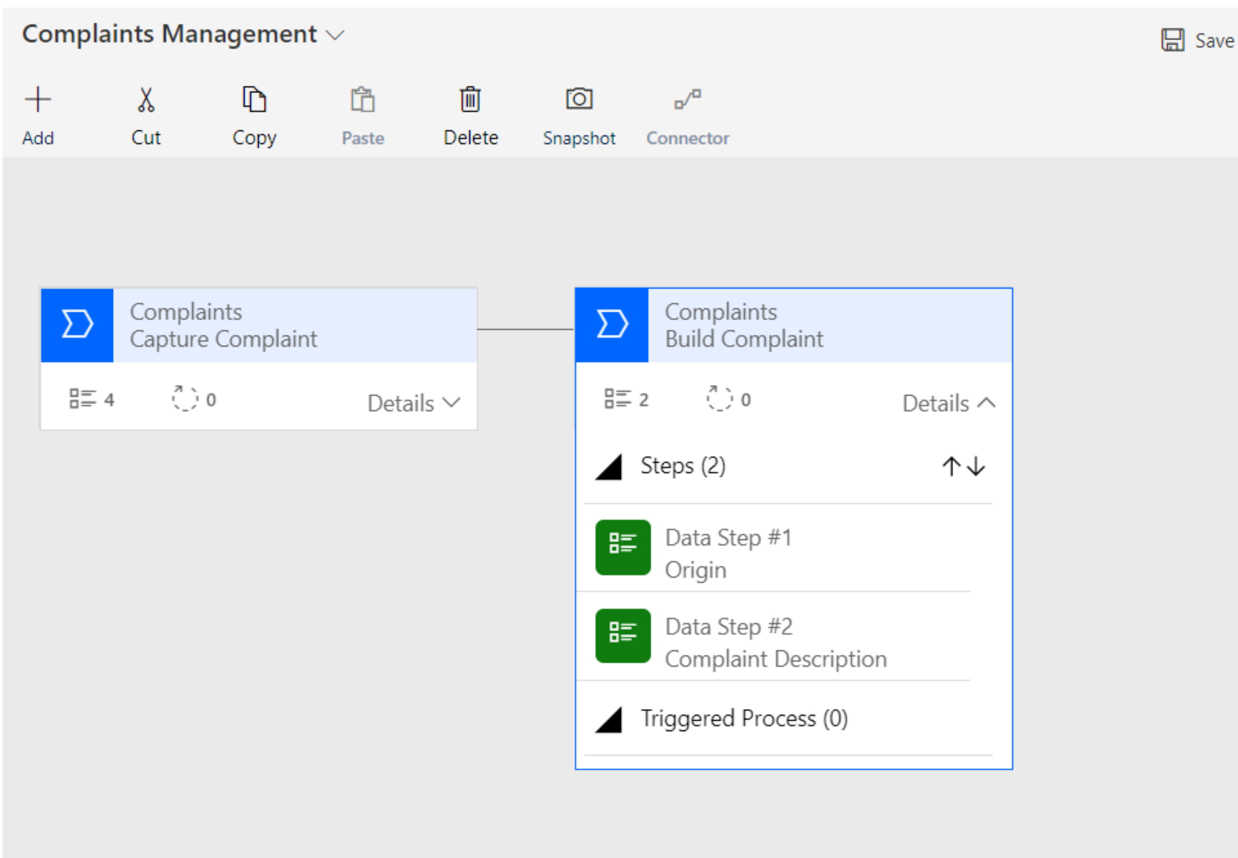


8. Follow the same steps as above for the following fields: “**Date Logged**” & “**Contact**”.

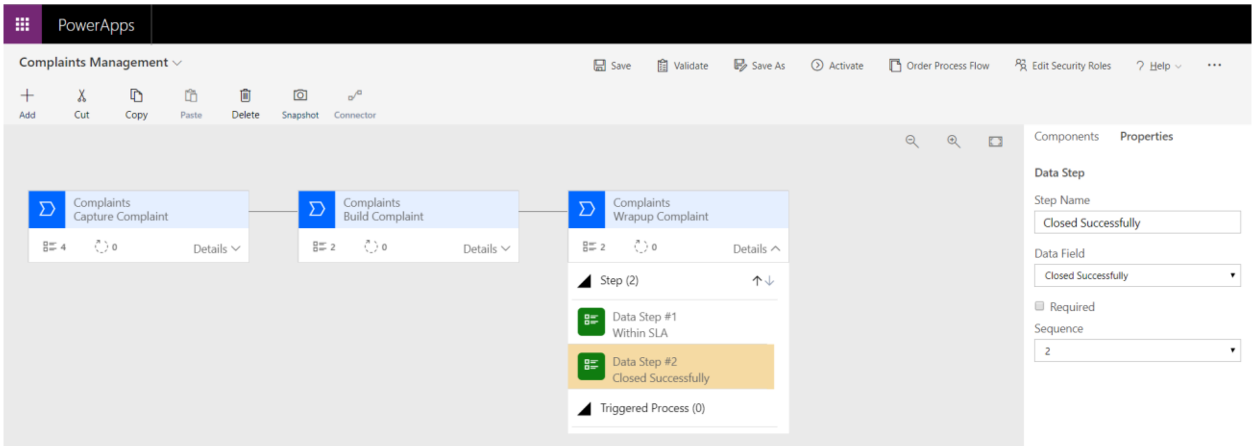


9. Next you need to drag a “**new Stage**” component onto the form to attach to the “**Capture Complaint**” component. To do this navigate to Components on the right and drag the stage across.

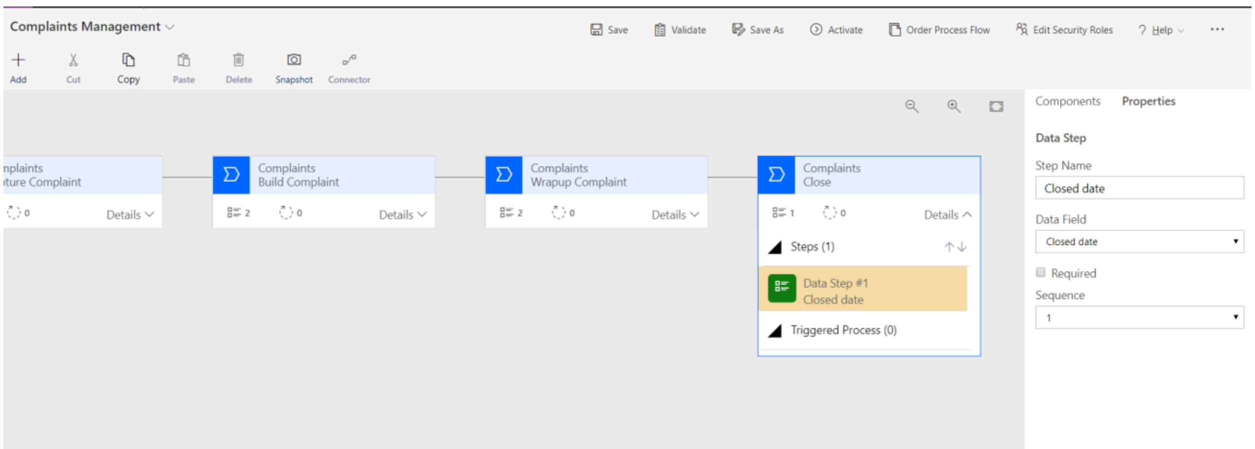
10. In the next step name the stage “**Build Complaint**” and then add data steps for “**Complaint Description**” and “**Origin**”.



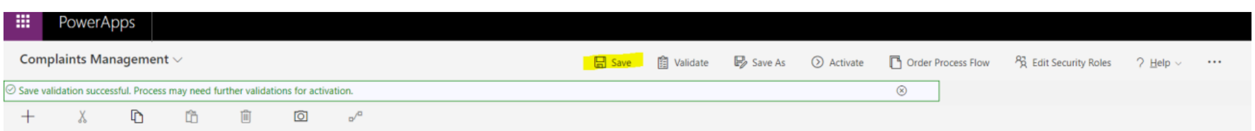
11. Add another stage called “**Wrapup Complaint**” and add data steps for “**Within SLA**” and “**Closed Successfully**”.



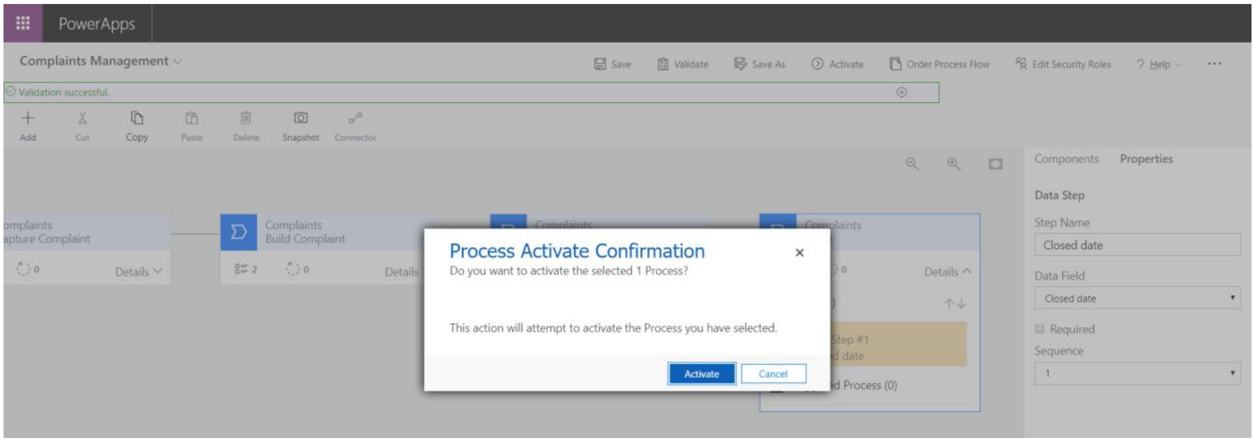
12. Add a final step called “**Close**” And add 1 data step for “**Closed Date**”.



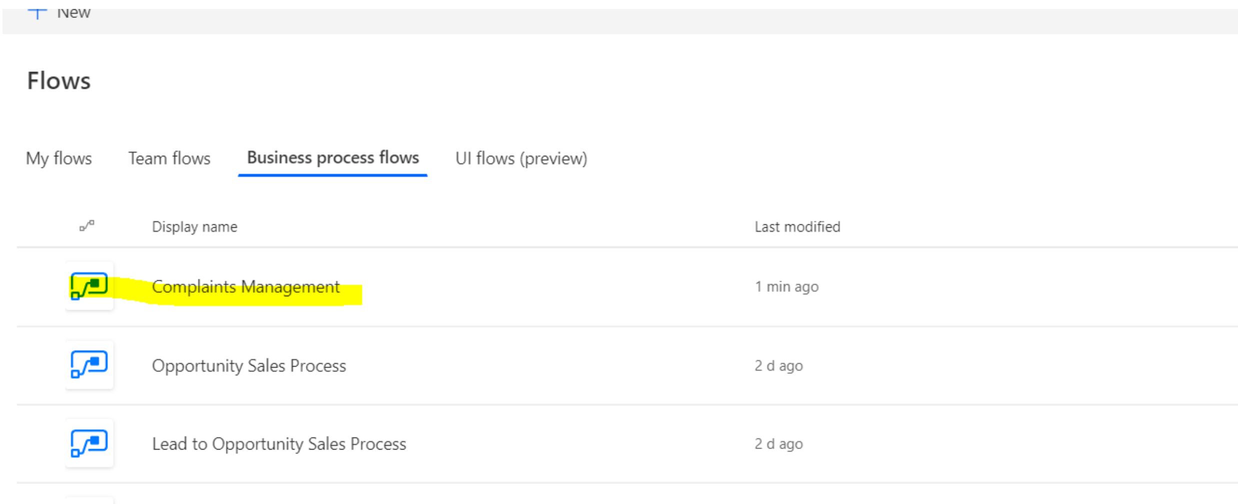
13. Save your complaint Process



14. Activate your complaint Process



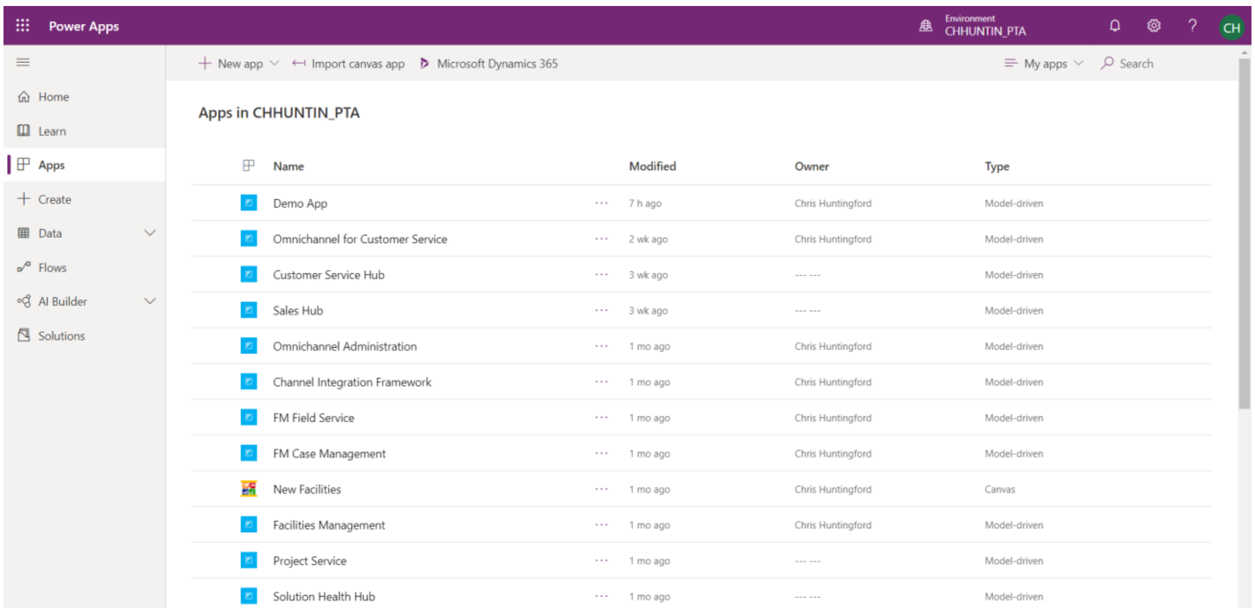
15. Once your complaint process has been activated you can now close the tab and you will see your complaint process in the list.



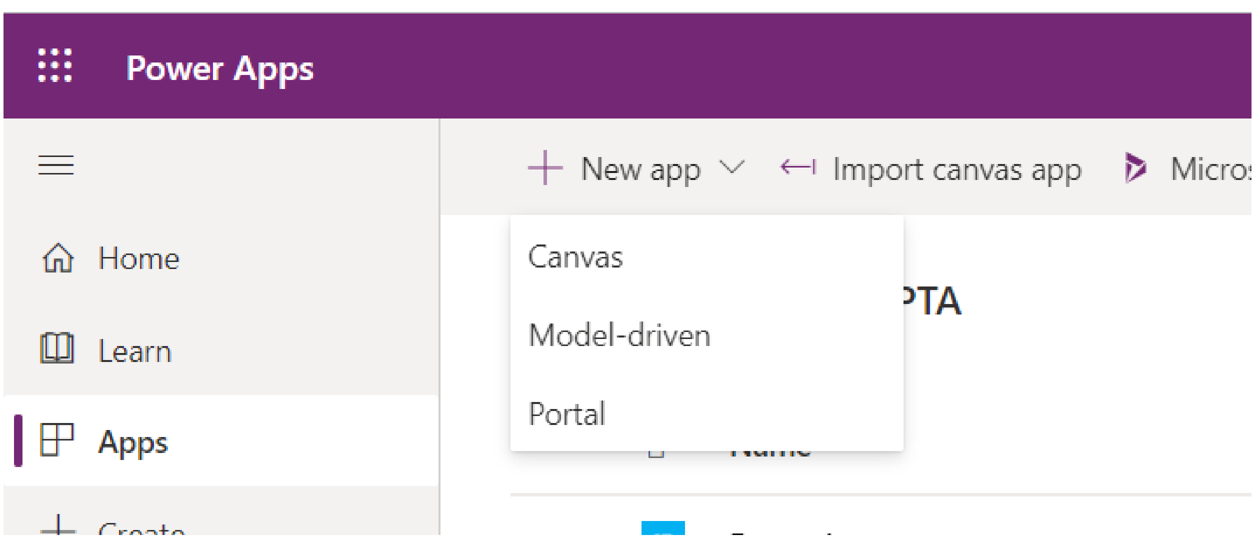
Step-by-Step 6: Creating a Model Driven App

Below are step by step instructions that will guide you through the solution. Here you will leverage the complaints and Accounts functionality you have added within a Model Driven application to manage complaints for each hotel.

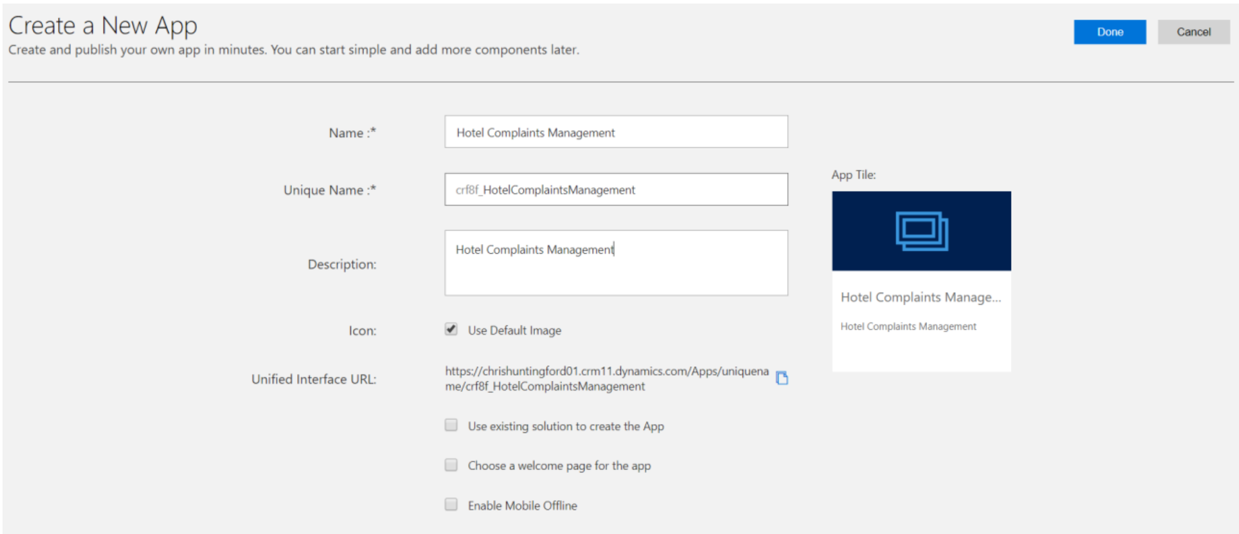
1. Navigate to “**Make.PowerApps.com**” and select “**Apps**” from the menu. You will see your Dynamics 365 applications in the list.



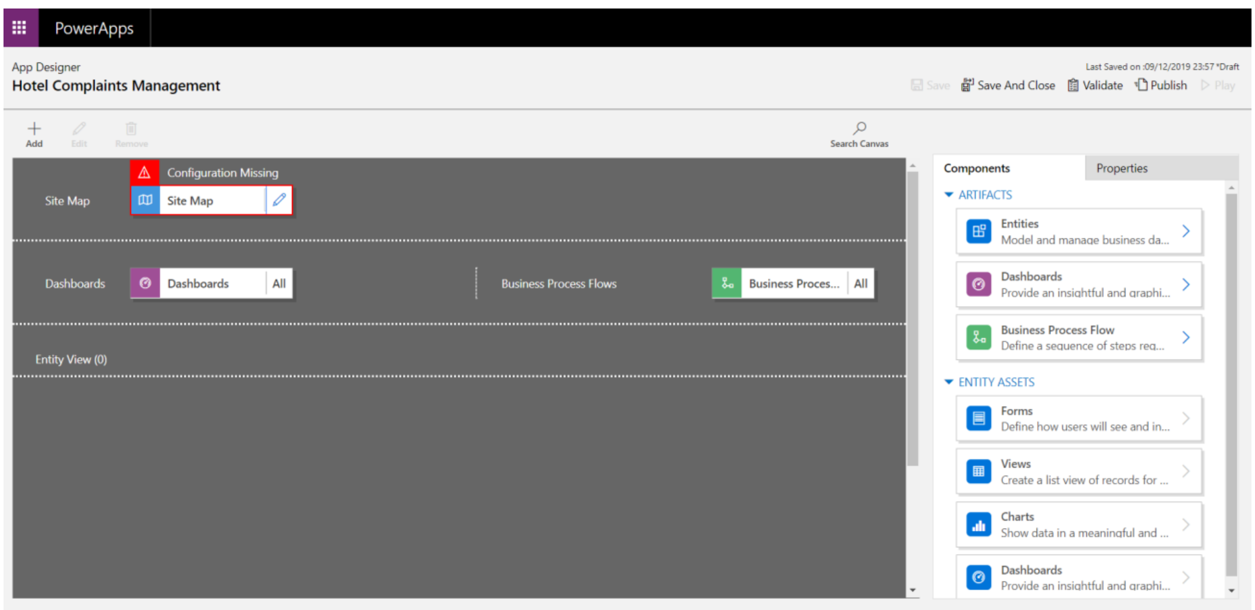
2. Select “New App” and then “Model Driven”



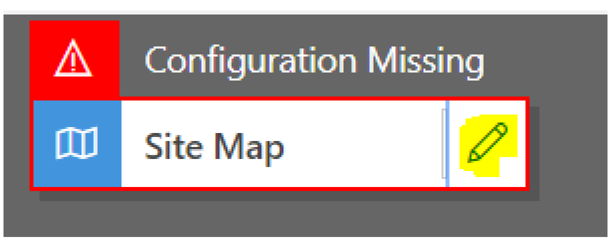
3. Give you app the name “Hotel Complaints Management” and click he “Done” button in the top right.



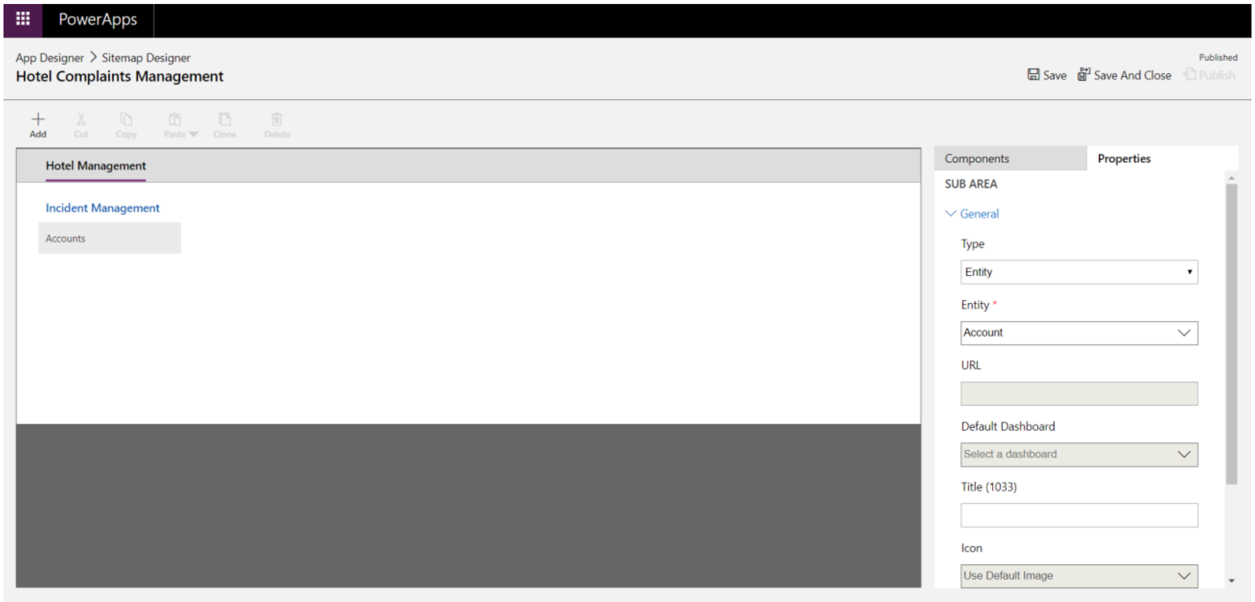
4. You will be navigated to the Model app designer.



5. Select the pencil icon on the right of the “**Site Map**”



6. You will be navigated to the site map editor. Give your "**Area**" component the name "**Hotel Management**". Give your "**Group**" the name "**Incident Management**", then in your "**Sub Area**" select "**Entity**" from the "**Type option**" and select the "**Account**" entity.

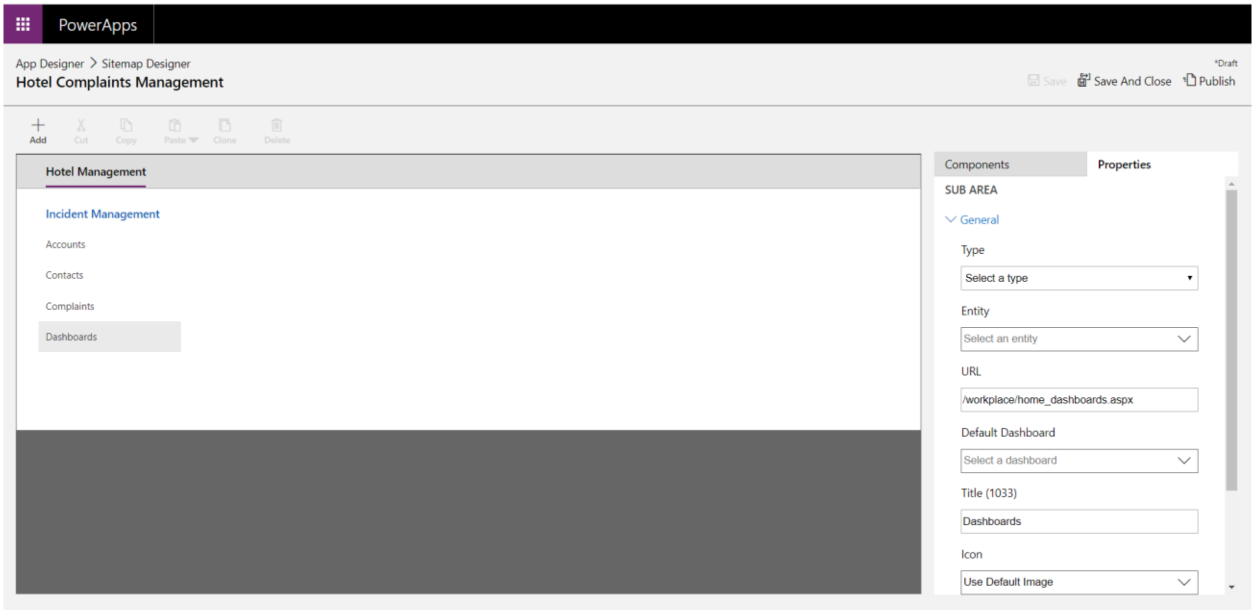


7. To add another "**Sub Area**" drag the sub area component into the sitemap.

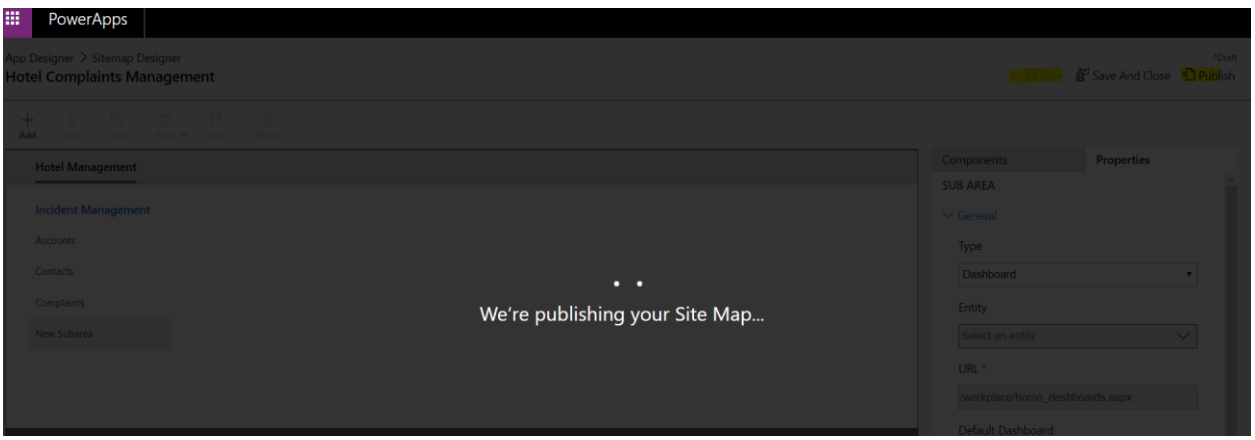
8. Then select the "**Contact**" entity from "**Entity**" optionset.

9. Follow the same process for "**Complaints**"

10. Finally drag over one more Sub Area and select "**Dashboards**" from the "**Type**" Optionset. Make sure to set the title of the sub area to "**Dashboards**".

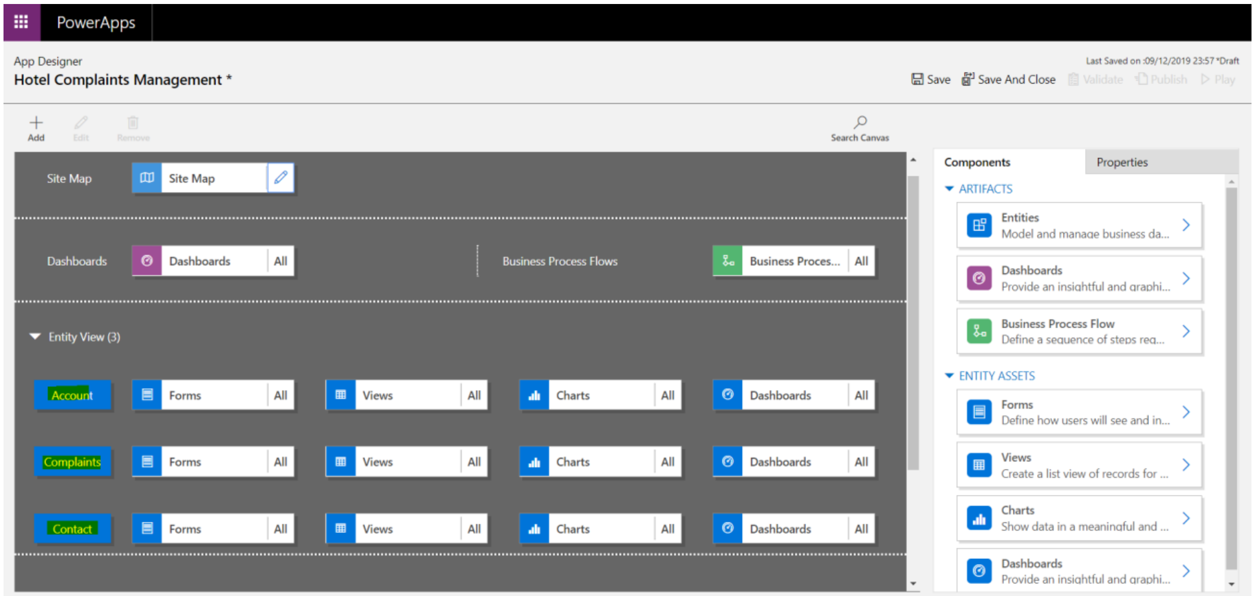


11. From the top right select “Save” and then “Publish”.

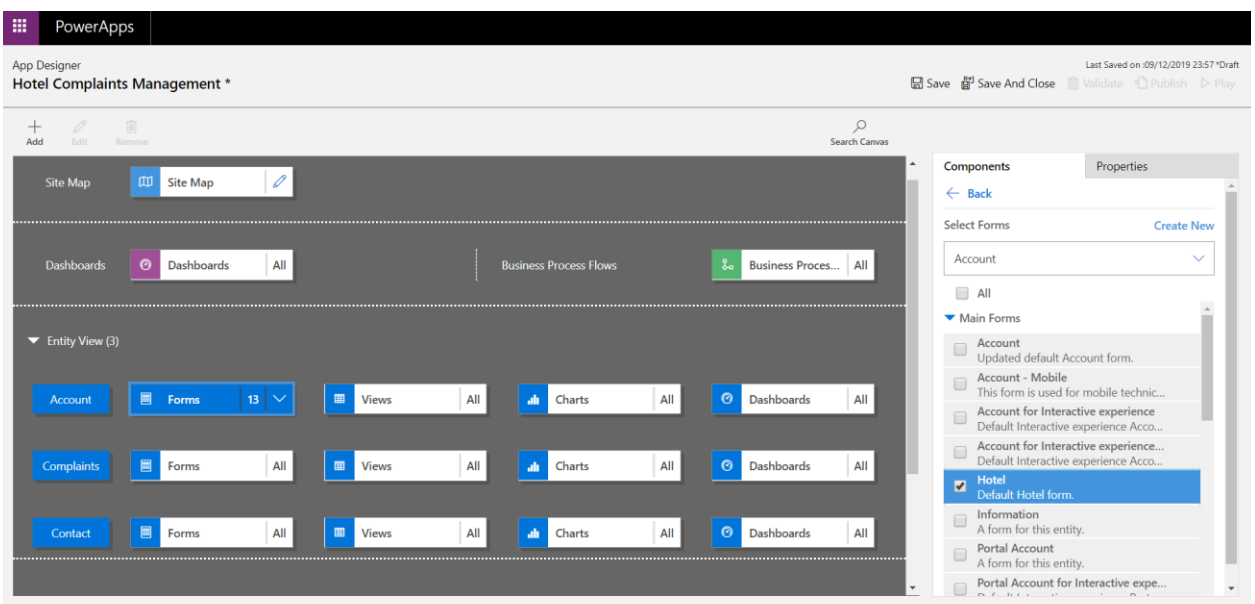


12. Once published select “Save and Close”

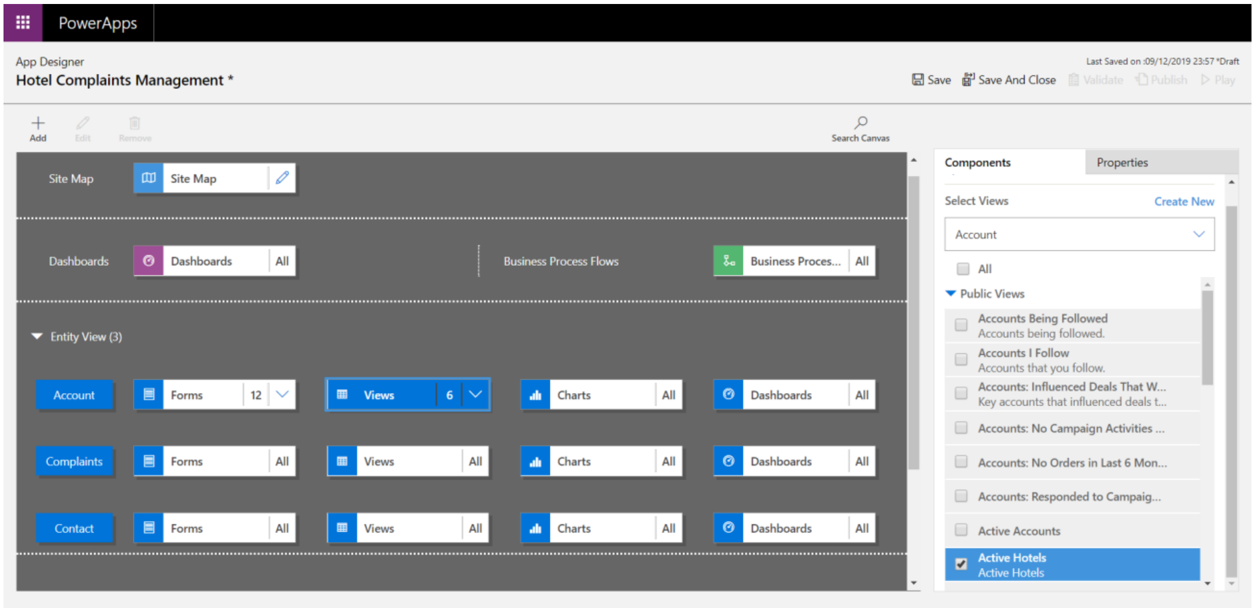
13. You will be navigated back to the main model driven app designer. You will ow see that several entities have been added to the list of entities available in this app.



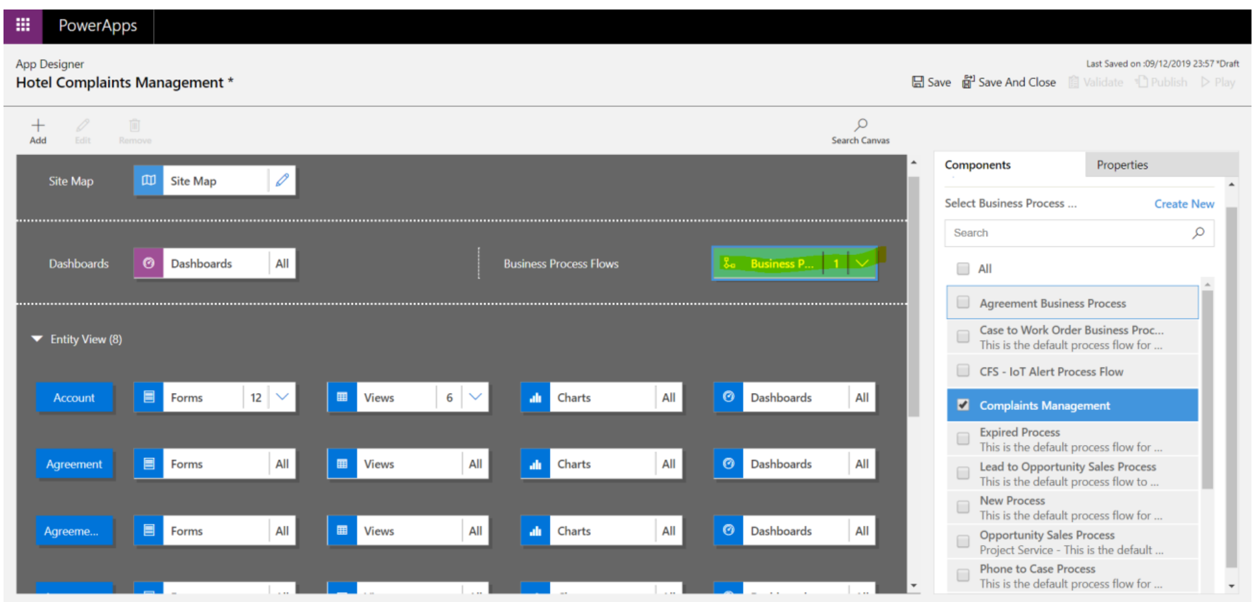
14. On the “**Accounts**” entity select the “**Forms**” component and on the right make sure only the “**HOTEL**” form is selected under the “**Main Forms**” heading. All other **<u>NON MAIN</u>** forms **<u>MUST</u>** be selected.



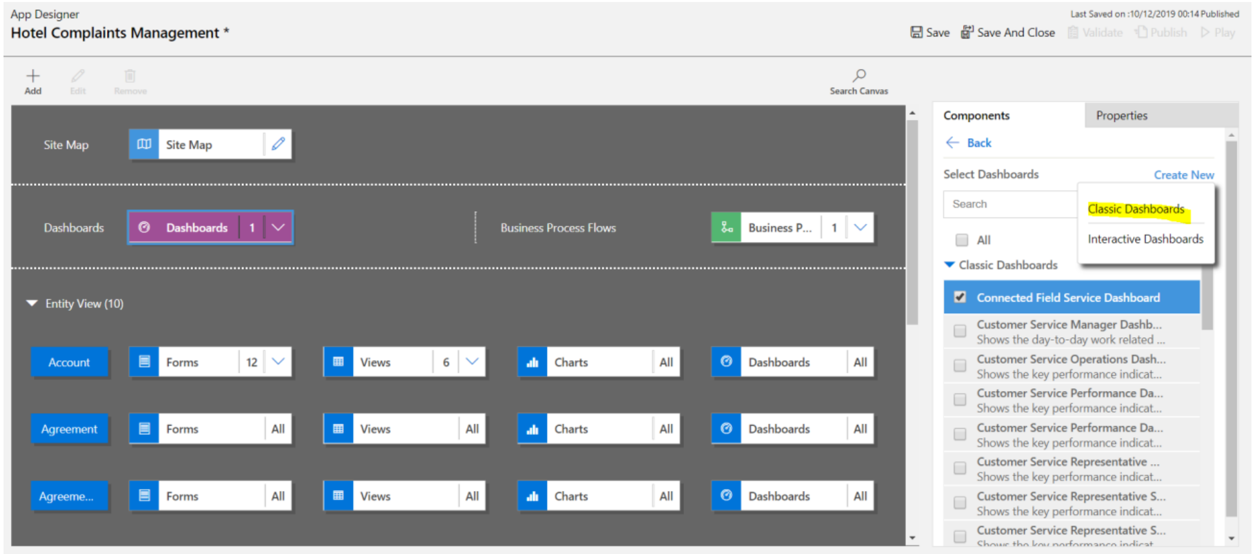
15. Next select the “**Views**” module and make sure only “**Active Hotels**” is selected under your “**Public Views**” section. All other **NON PUBLIC** views **MUST** be selected.



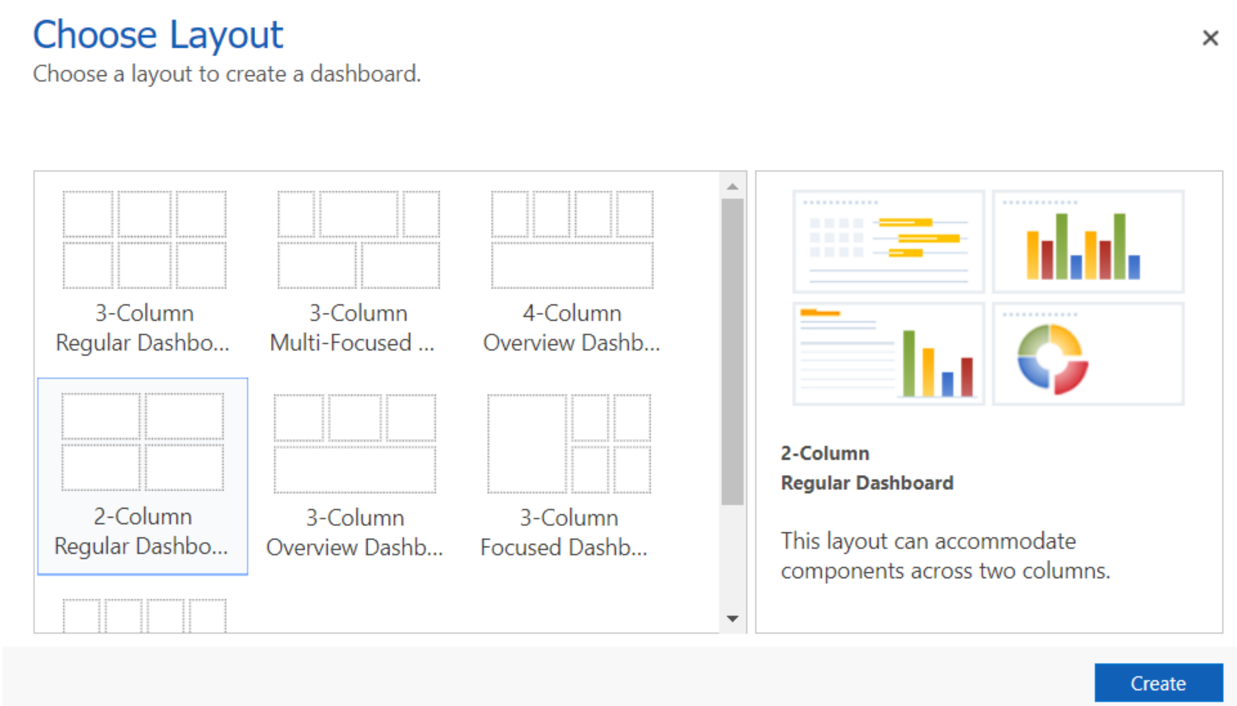
16. Finally select the "**Business Process**" module and ONLY make sure that the "Complaints Management" business process flow is selected. This will add a fourth entity to your list of entities in your app designer.



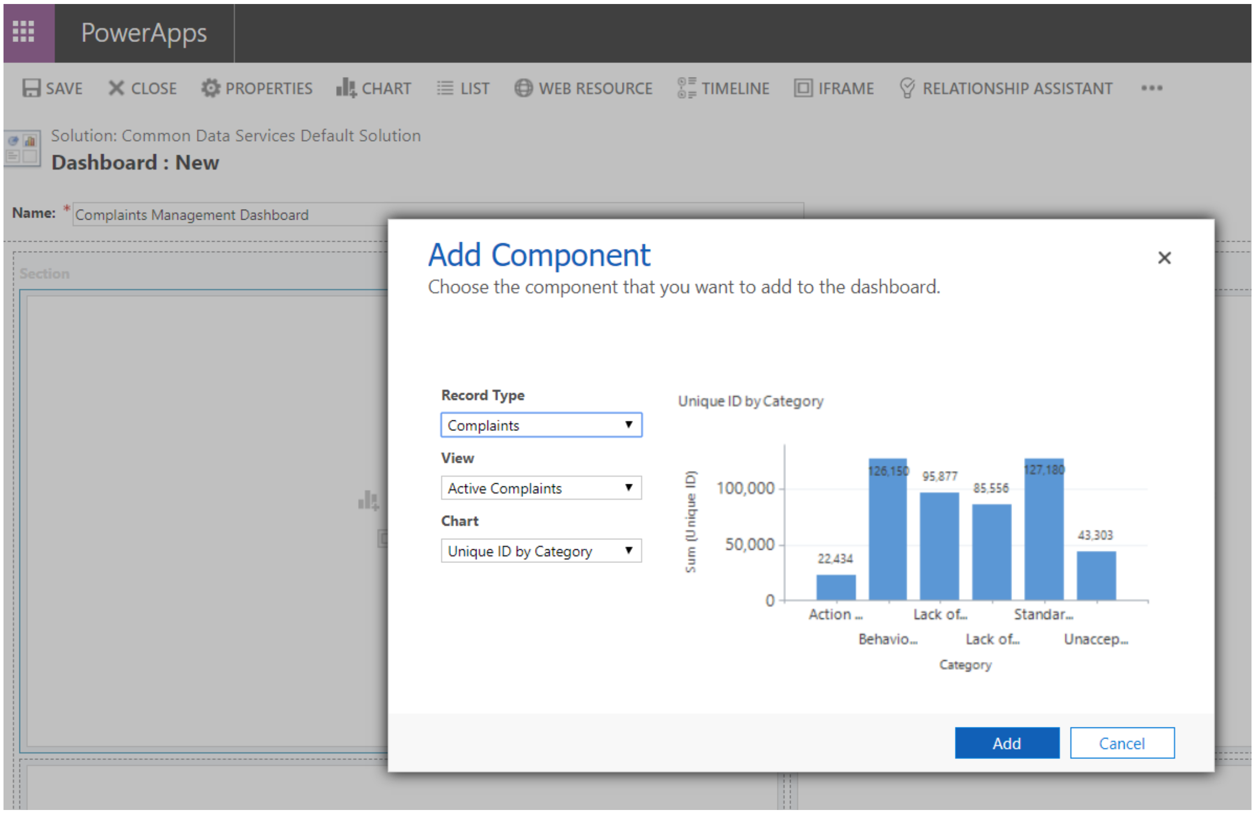
17. Select the "Dashboards" module from the App Designer, select "**Create**" and then "**Classic Dashboards**".



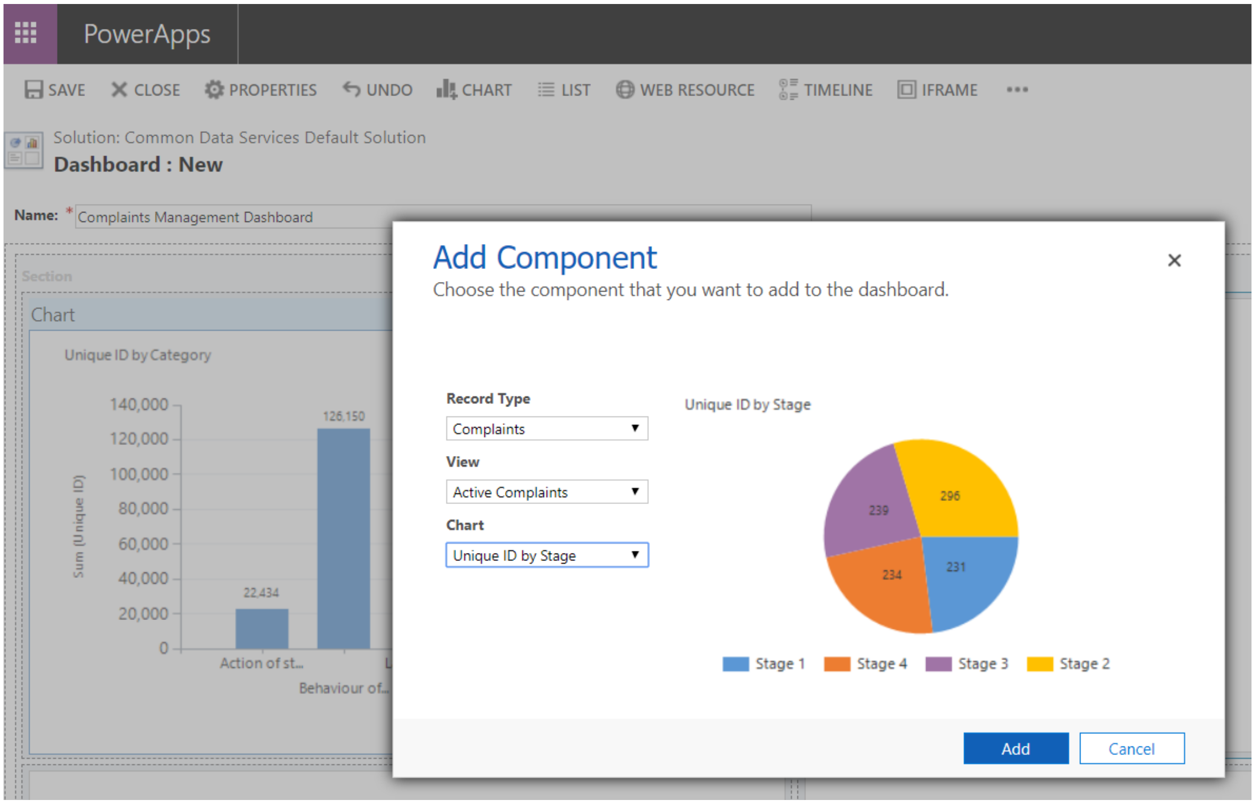
18. This will open the classic dashboard template selector. Select the "**2 Colum Regular Dashboard**" and then click "**Create**".



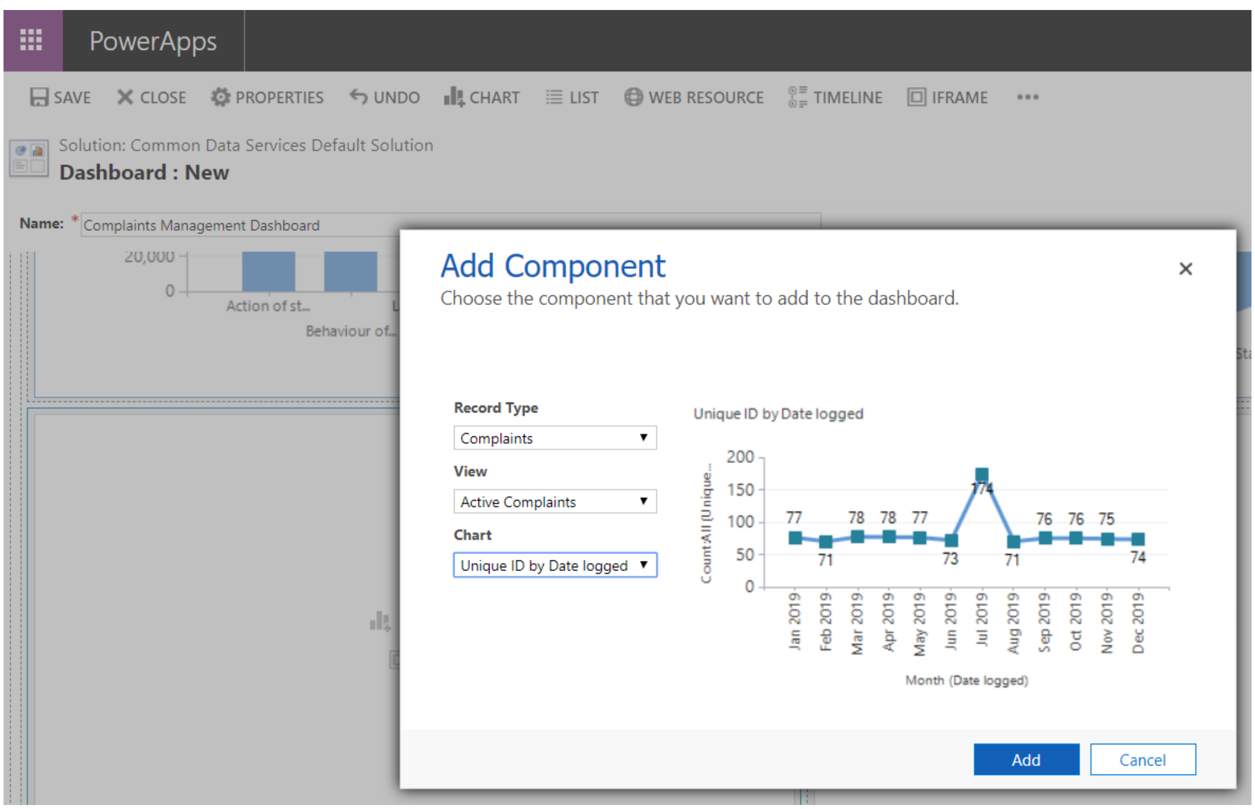
19. Select the Graph Icon from the center of the first tile in the dashboard and make sure you select "**Complaints**" as the entity. Then select "**Active Complaints**" as the view and the first of the 3 graphs you created. Then select "**Add**" to add this to the dashboard.



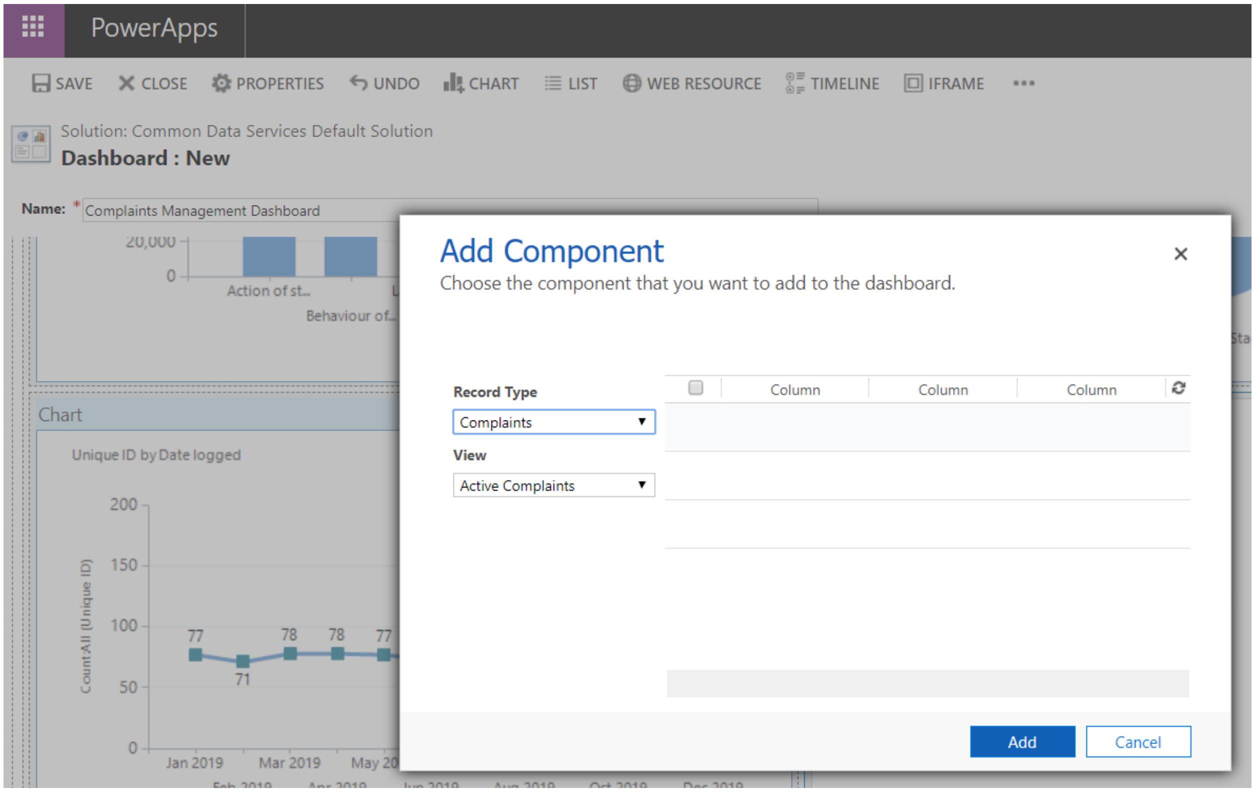
20. Follow the same process in the second Dashboard tile and this time select the second graph you created.



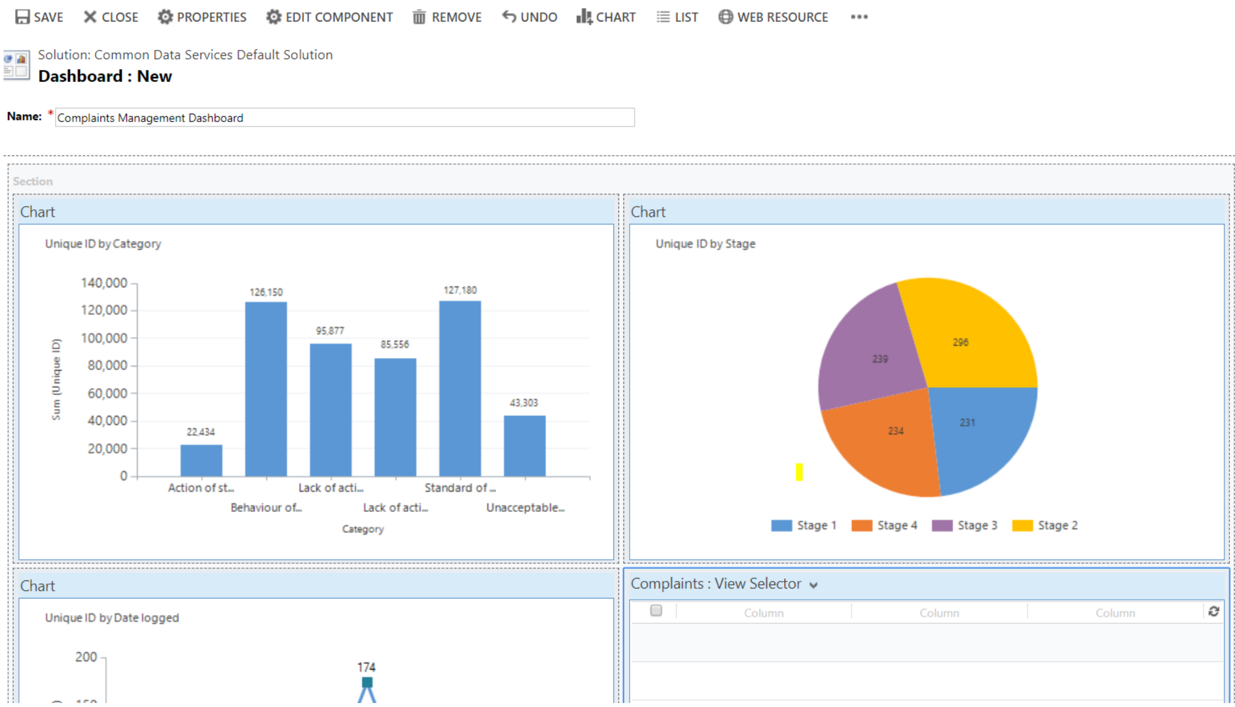
21. Follow the same process as the previous step in the third tile on the dashboard and this time select the third graph you created.



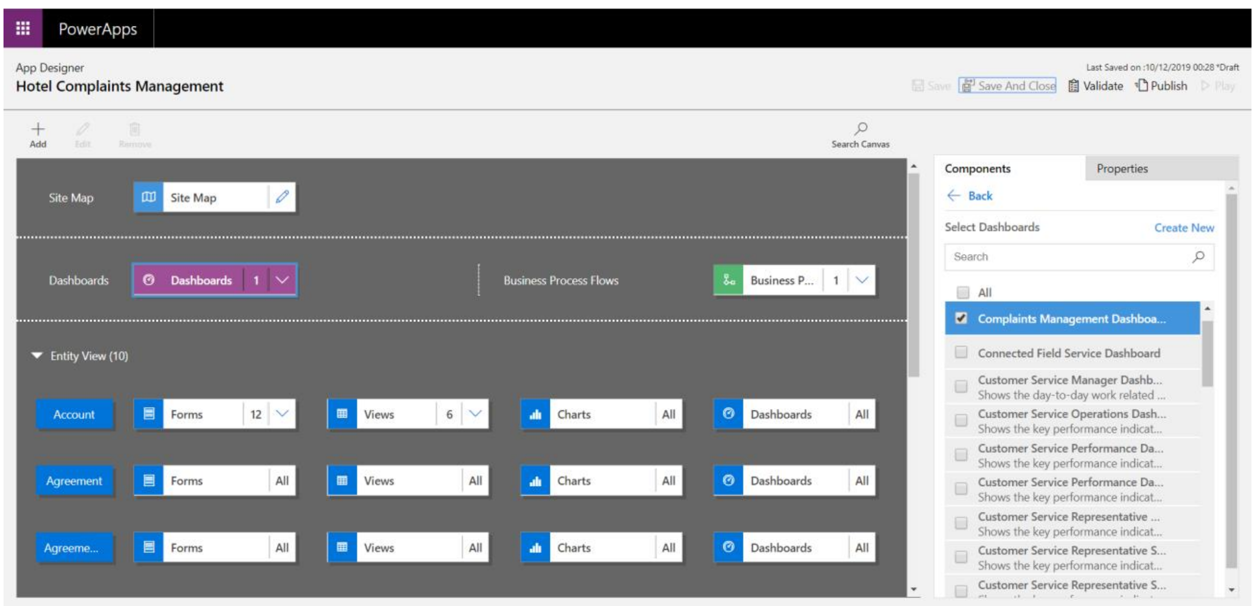
22. In the fourth step, instead of selecting the graph control in the fourth tile, select the “**list**” control. This will then only let you select the “Active Complaints” view.



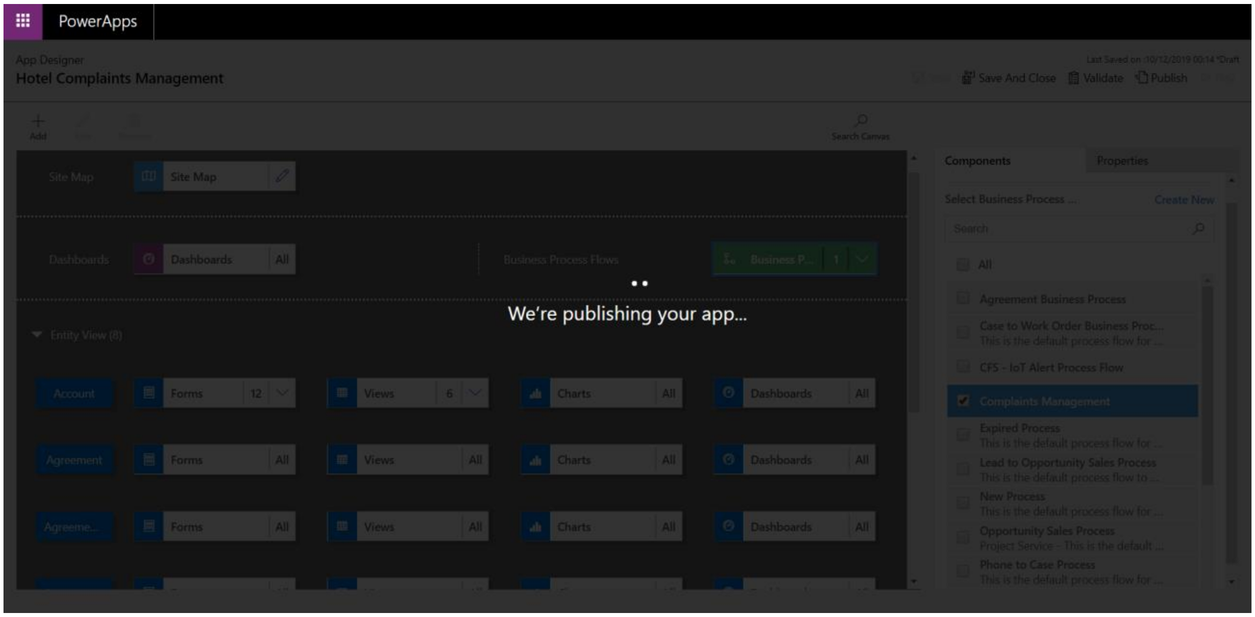
23. Give your Dashboard the name “**Complaints Management Dashboard**” and then “**save**” and “**finally**” close the designer.



24. Make sure that the “Complaints Management Dashboard” is the only one selected in the list.

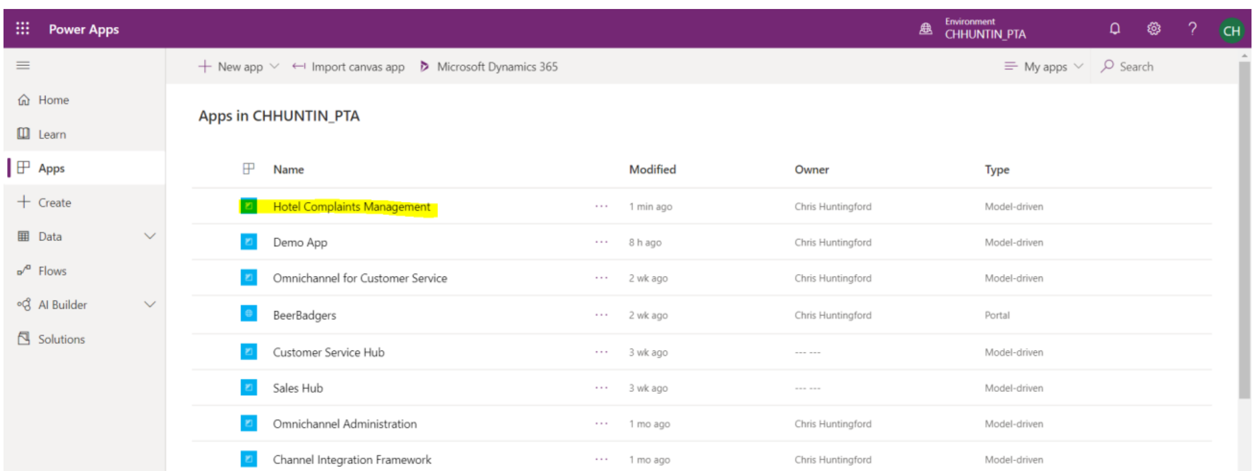


25. On the Top right select “**Save**” and then “**Publish**” your new App.



26. Close the App Designer and navigate "**Make.PowerApps.com**", then select "**Solutions**" from the menu. Click "**Publish all Customisations**".

27. Navigate to "Apps" in the Maker experience and you will see the app you created n the list.

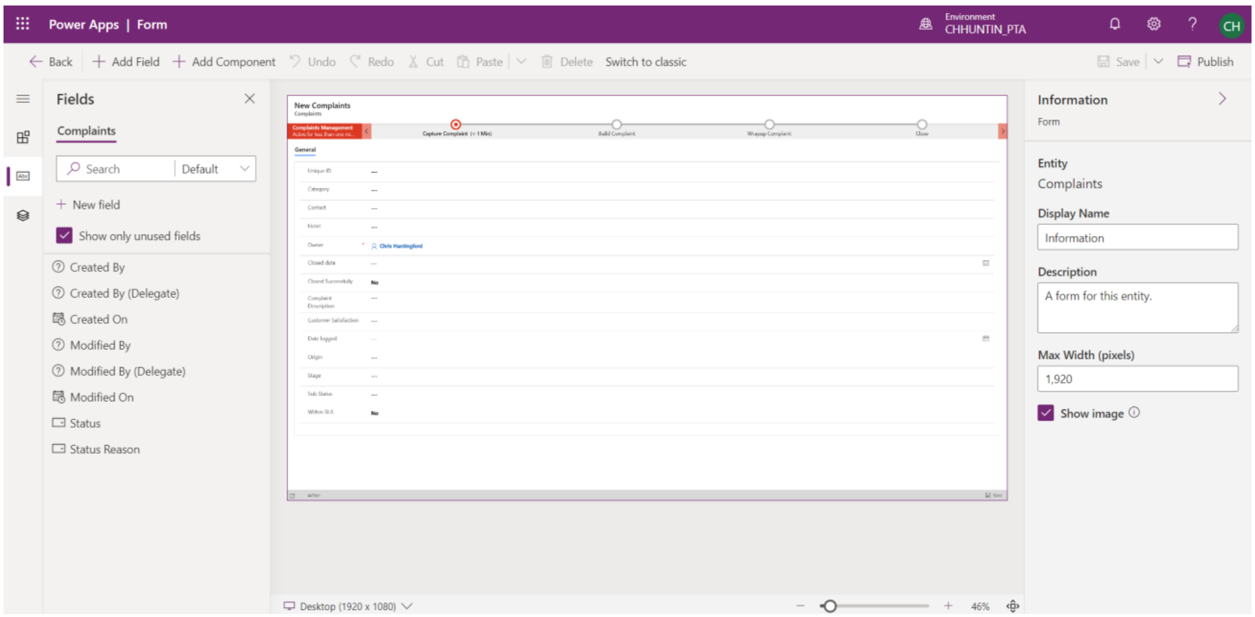


28. Open your App and test out your functionality.

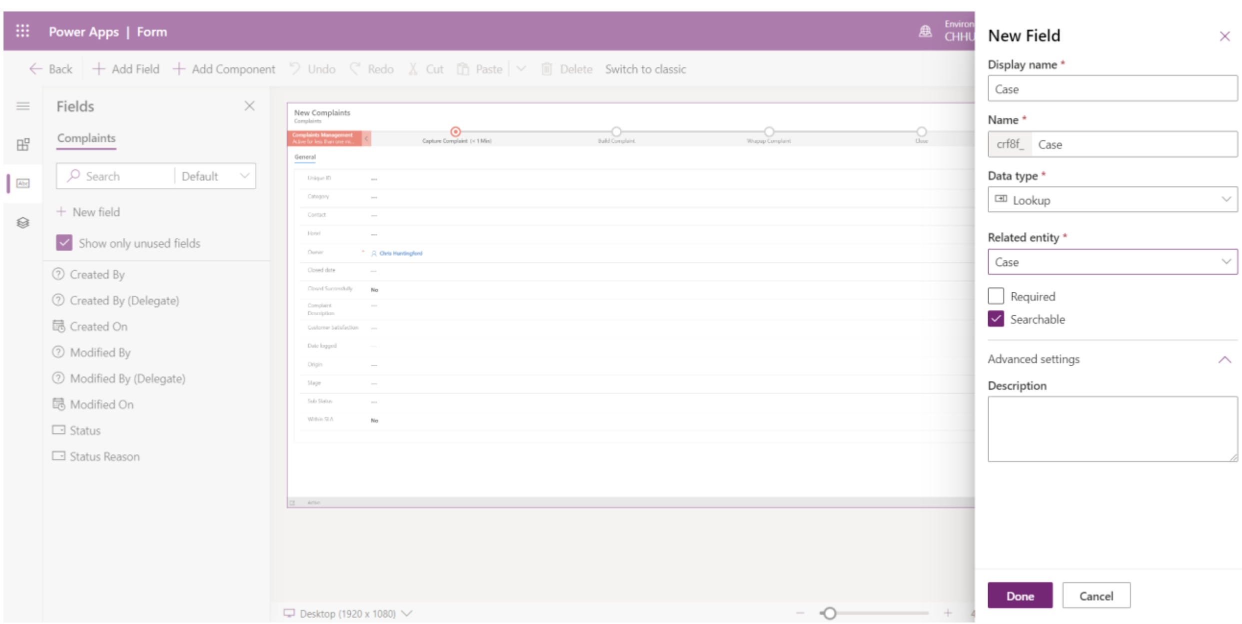
Step-by-Step 7: Associating Complaints to cases.

Below are step by step instructions that will guide you through the solution. Here you will leverage Dynamics 365 case management to link to the case entity. As well as the entity mapping functionality.

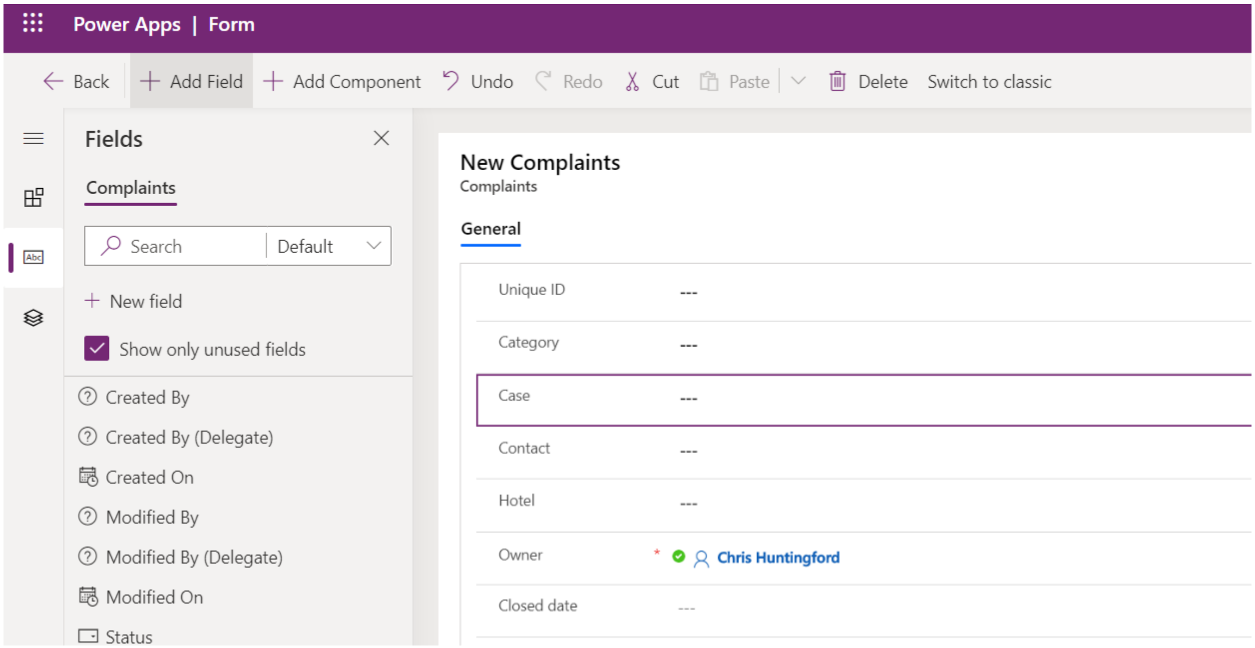
1. Navigate to the Maker experience “**Make.PowerApps.com**” and then select the “**Complaints**” entity. Navigate to the Forms Tab and open the Main “**Information**” form.



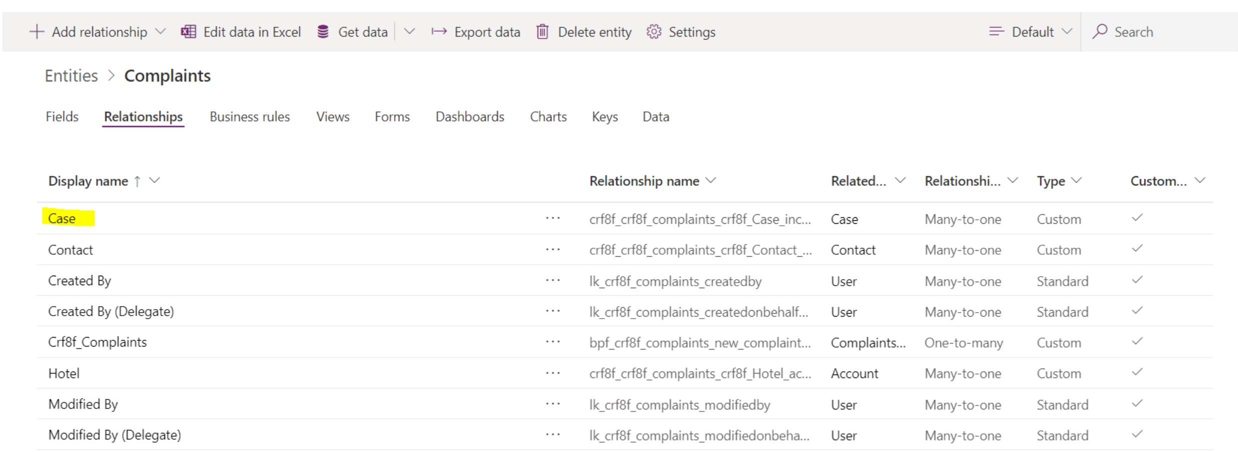
2. Select “New Field” in the field explorer and crate a Lookup field to the “Case” entity.



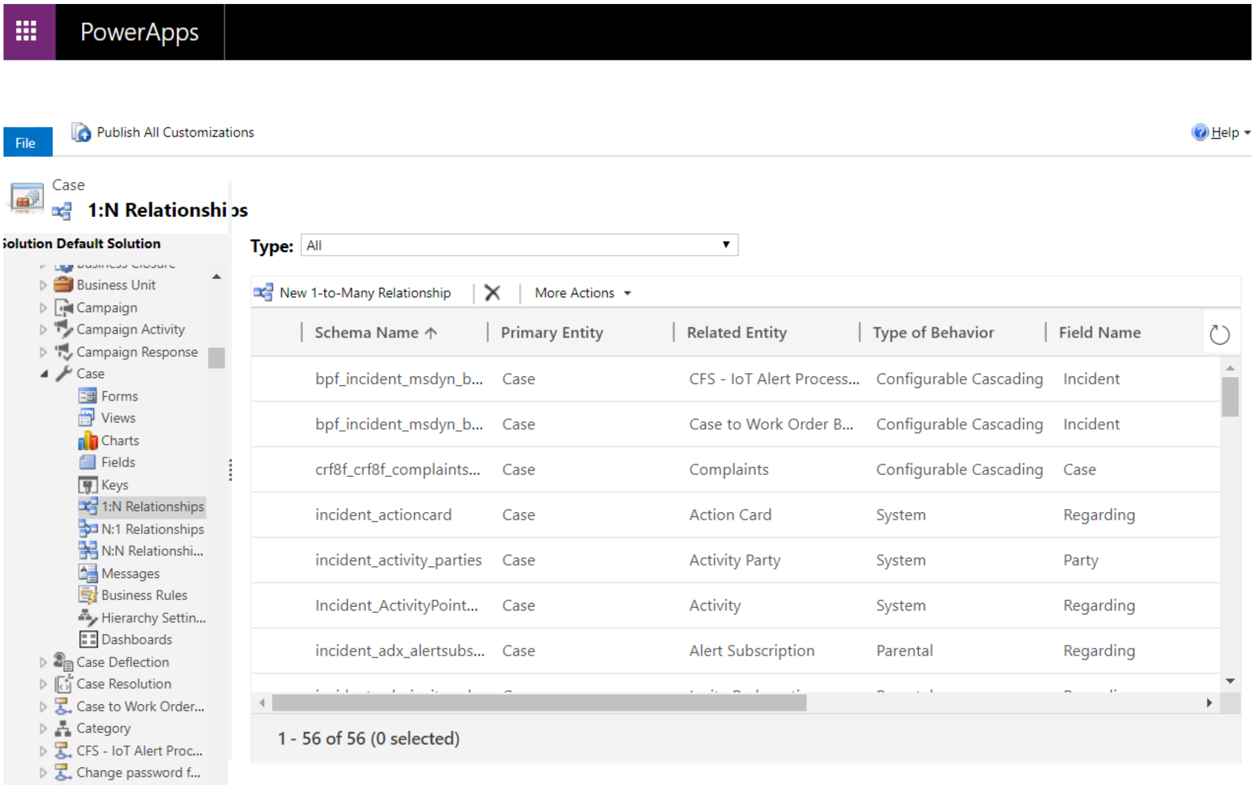
3. Drag and drop the case field onto the form.



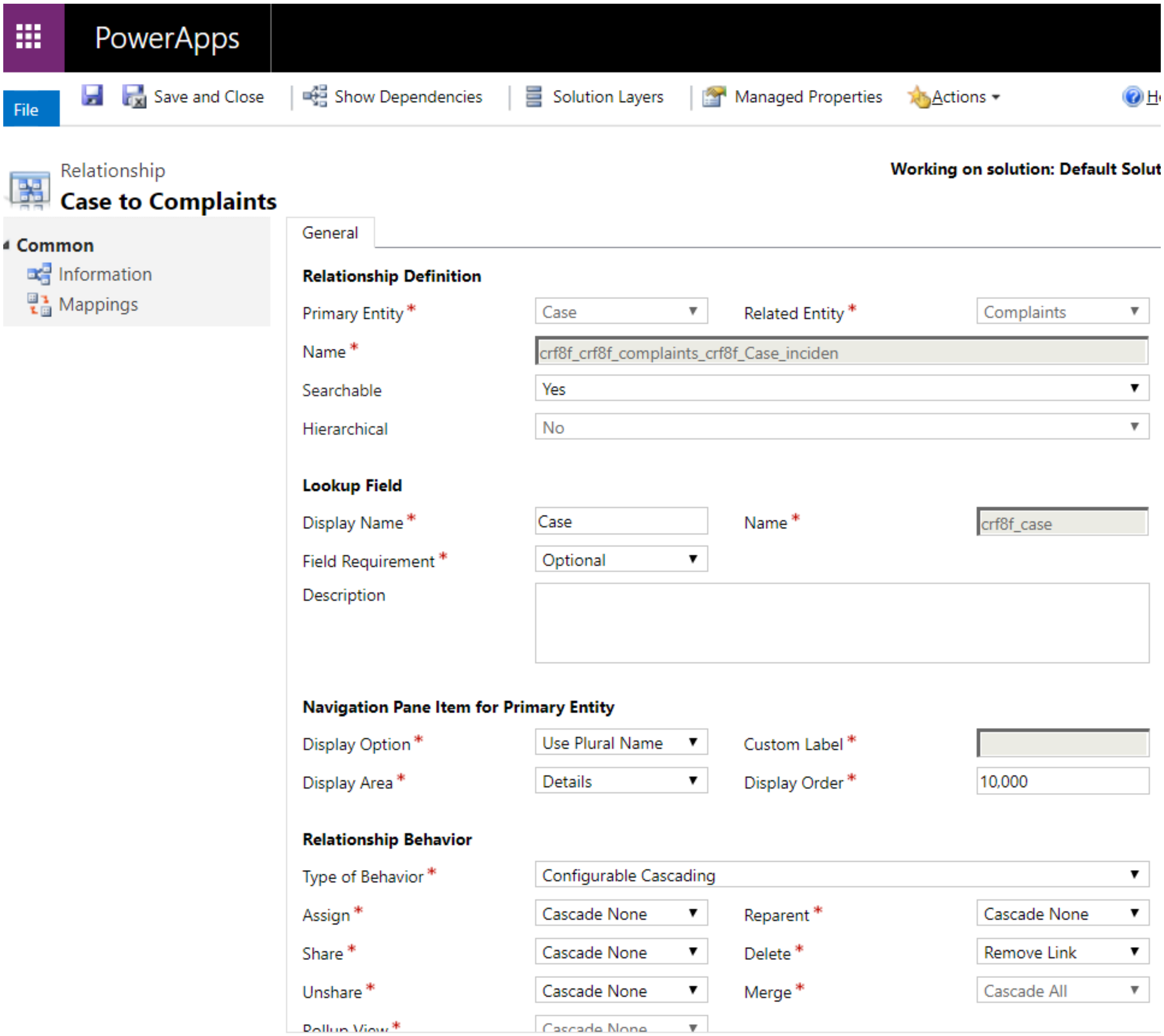
4. Now complaints can be created directly from a case record in Dynamics by leveraging the Business Process flows.
5. Elect "**Save**" and then "**Publish**" on the top right of the form.
6. Navigate back to the "complaints" entity in the maker experience.
7. When you select the "Relationships" tab in the complaints entity you will see that the Case relationship has already been created based on the fact that you generated that lookup field. In this scenario this a "Many to One" where many complaints are associated to 1 case.



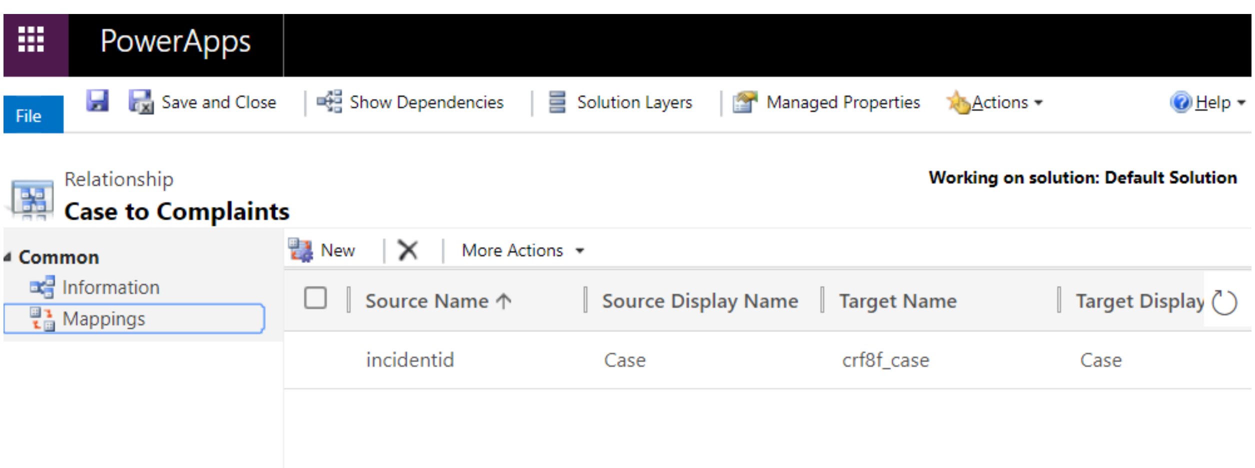
8. Navigate to "**Settings | Customisation | Customise the System**" through the classic solution customisation interface. Navigate to the case entity and then select 1:n Relationships.



9. In the list you will see the relationship where the related entity is “Complaint”. Open that relationship.

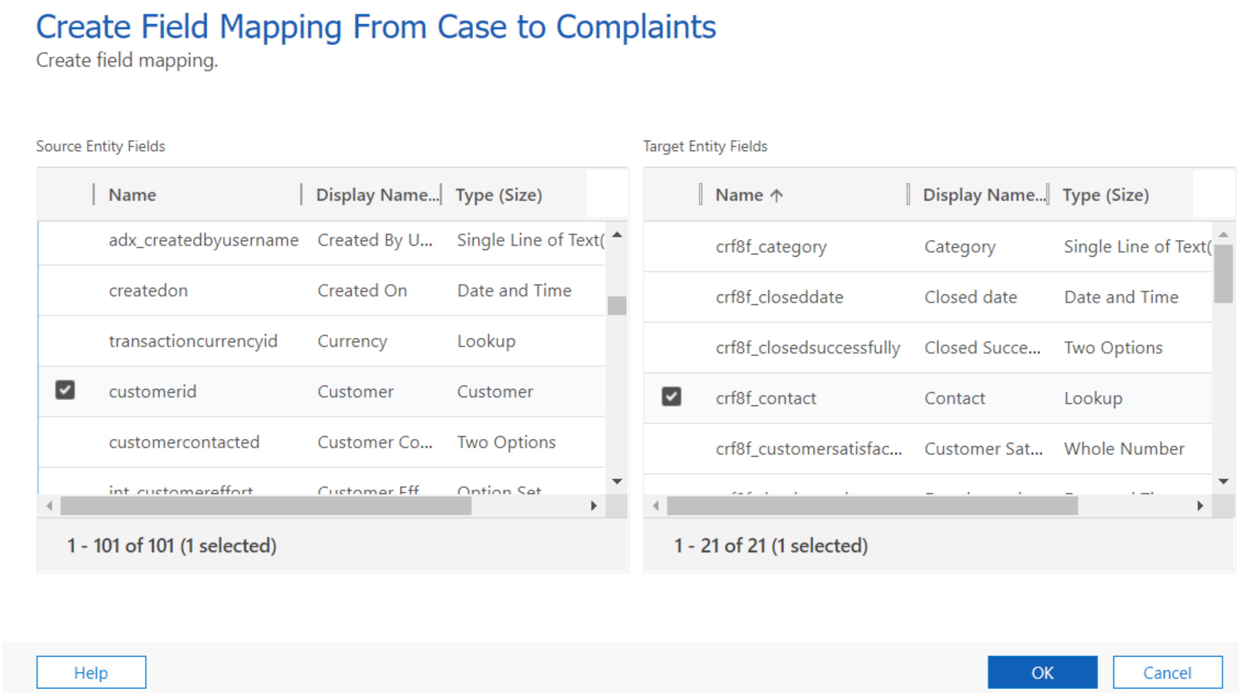


10. Select “Mappings” on the left and you will see 1 mapping for “Case”.

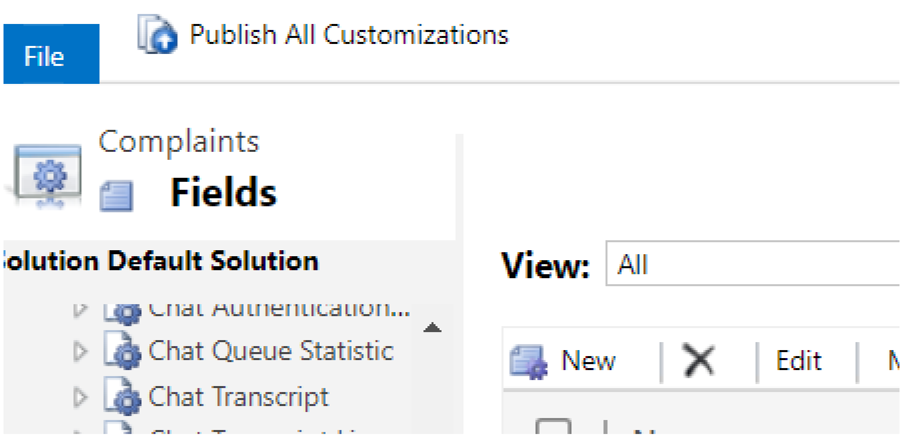


11. Create a new mapping by selecting “New”.

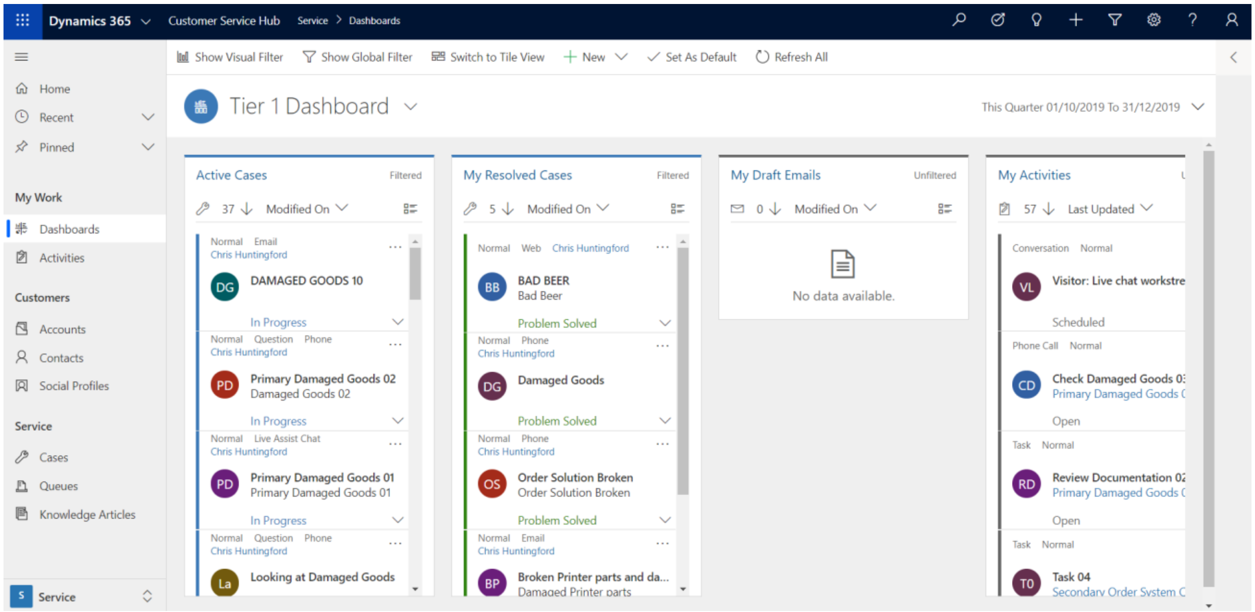
12. Map the “**Customer**” and “**Contact**” attributes to one another, and then select “**OK**”.



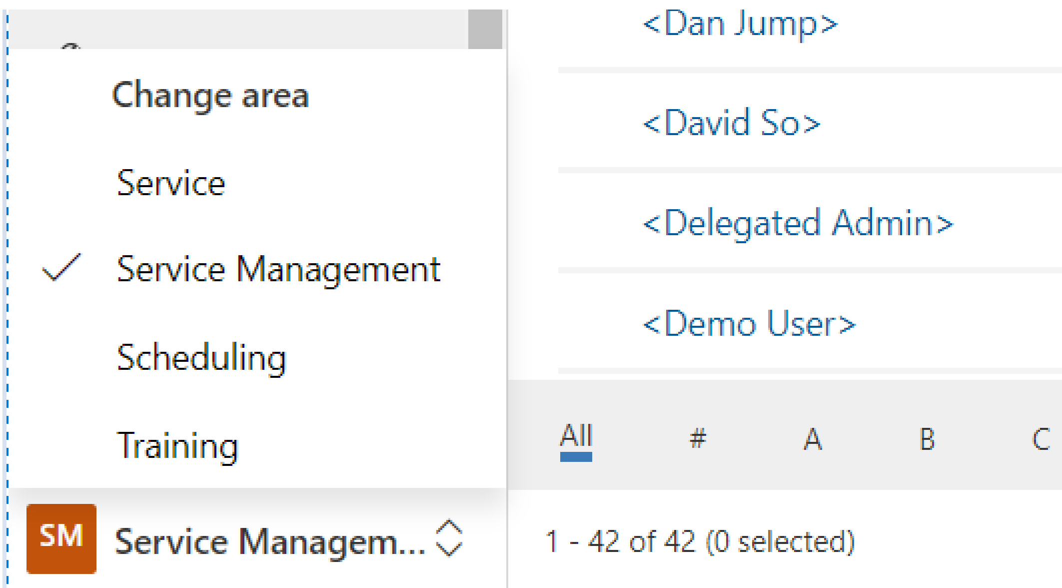
13. Do the same for the “**Description**” = “**Complaint Description**” and then close the entity mapping functionality. Make sure you “Publish all Customisations”.



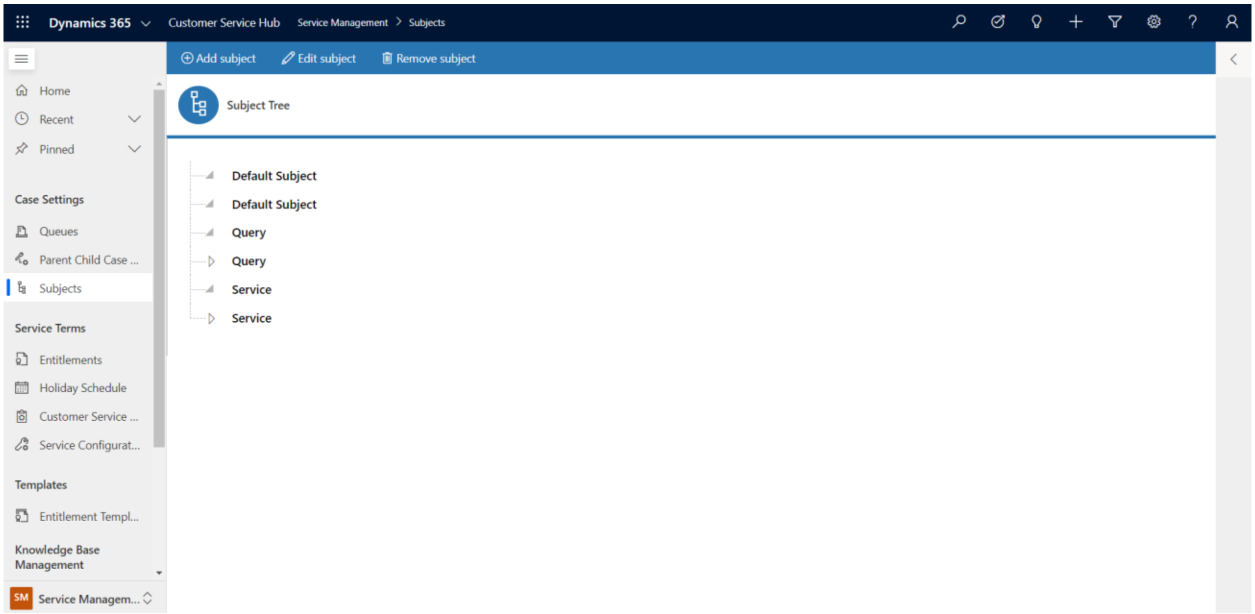
14. Close the classic configuration experience and Navigate back to “**Make.PowerApps.Com**”. Then open your “**Customer Service Hub**” Application.



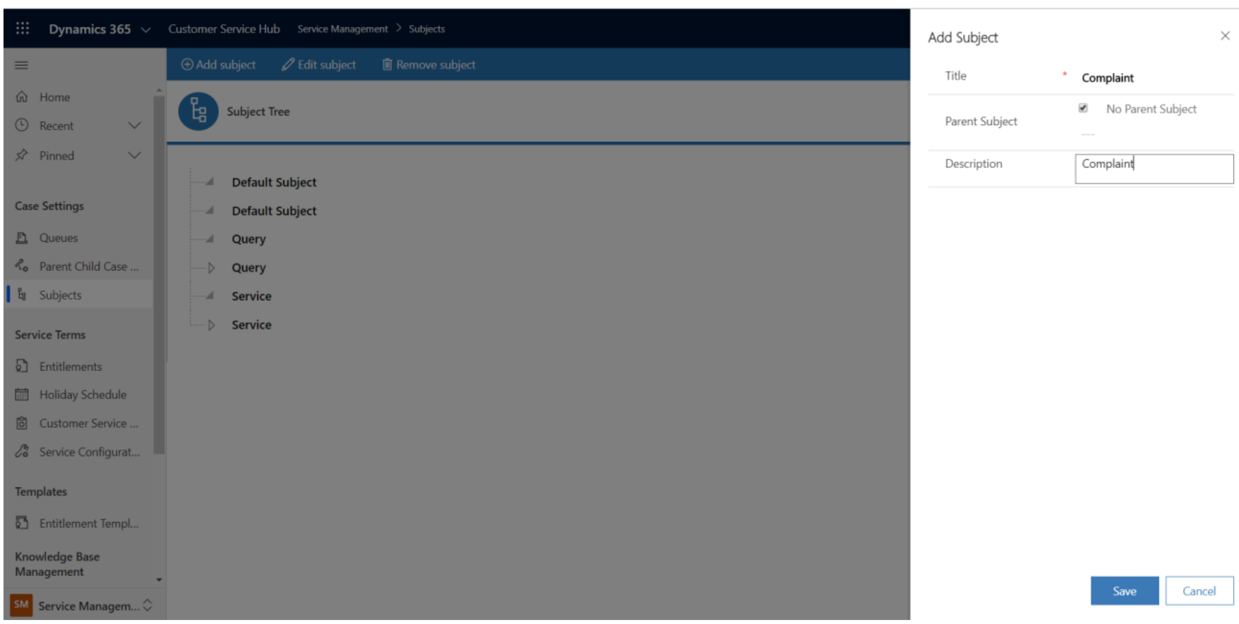
15. Navigate to the very bottom menu and select "**Service Management**".



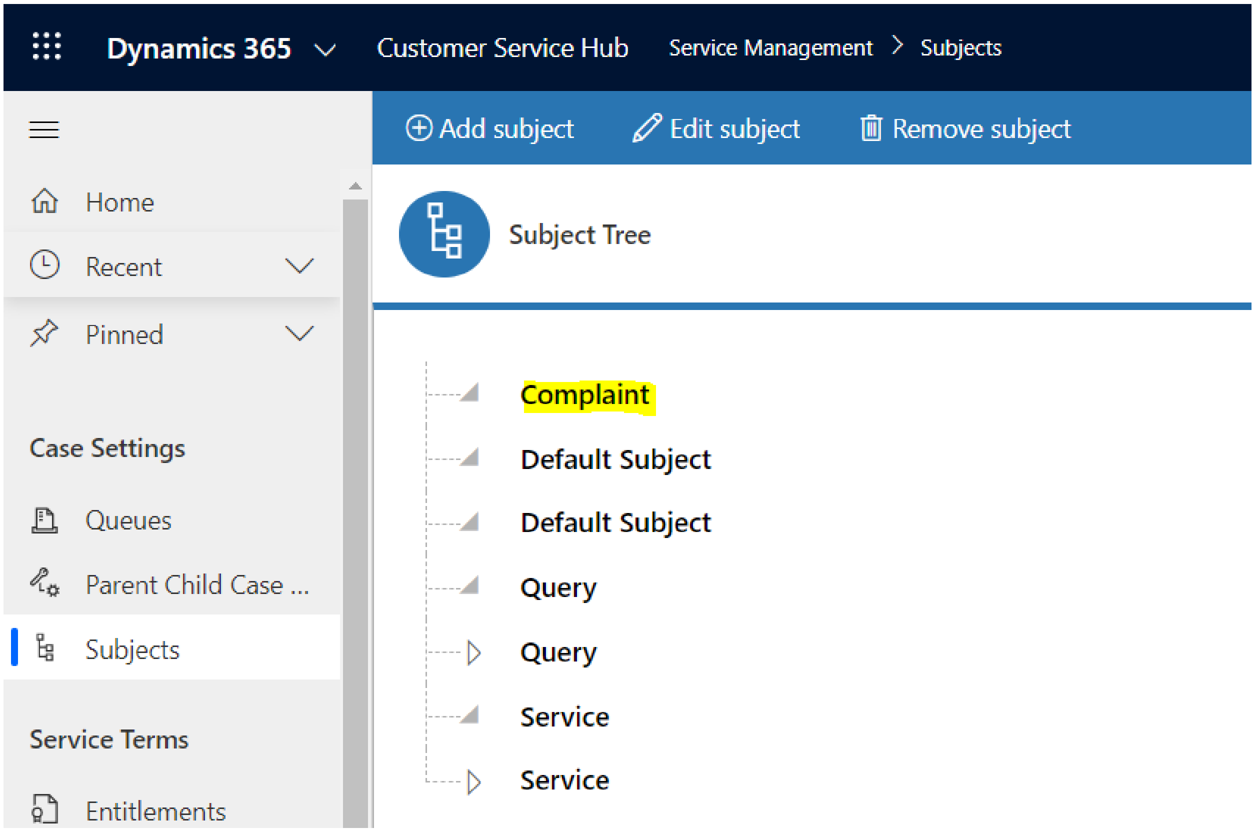
16. Navigate to "**Subjects**" on the left hand menu.



17. Add a new Subject with **NO PARENT** subject and then “**save**”.



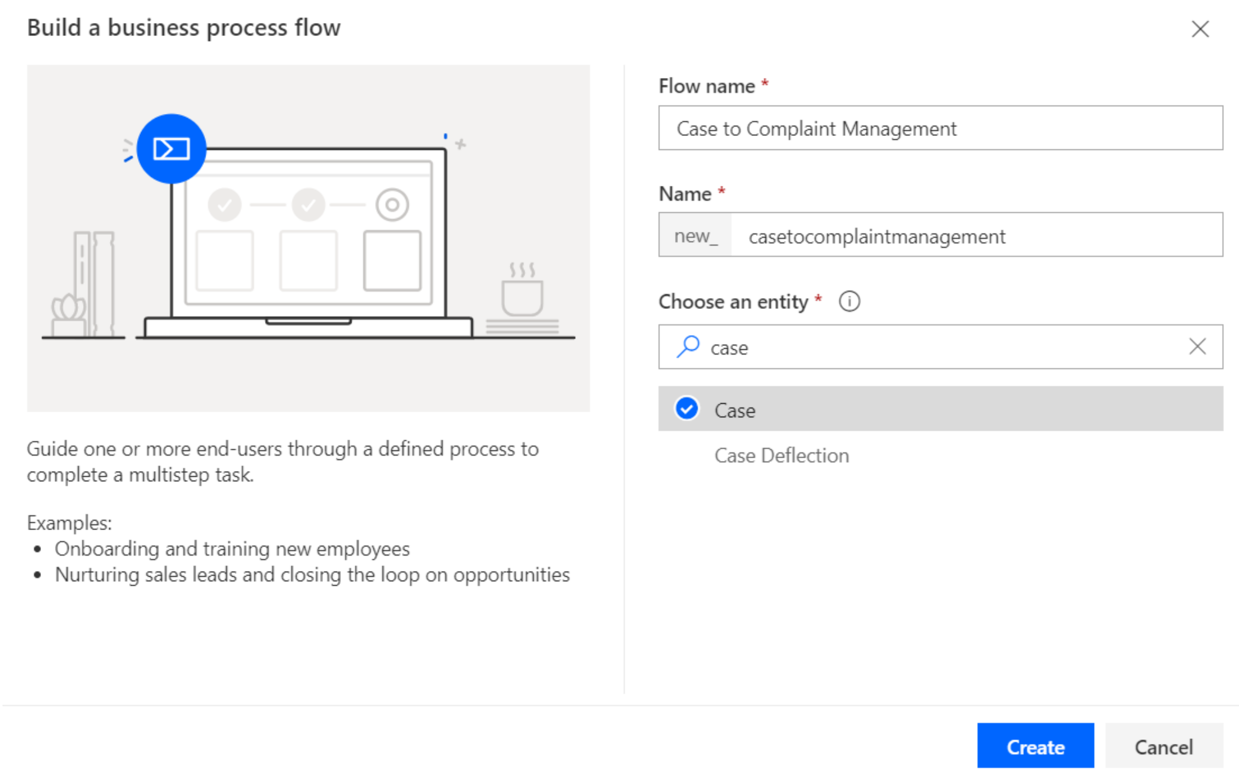
18. You will see complaints have now been added to the subject tree.


Dynamics 365
Customer Service Hub
Service Management
Subjects
Add subject
Edit subject
Remove subject
Home
Recent
Pinned
Case Settings
Queues
Parent Child Case ...
Subjects
Service Terms
Entitlements
Subject Tree
Complaint
Default Subject
Default Subject
Query
Query
Service
Service

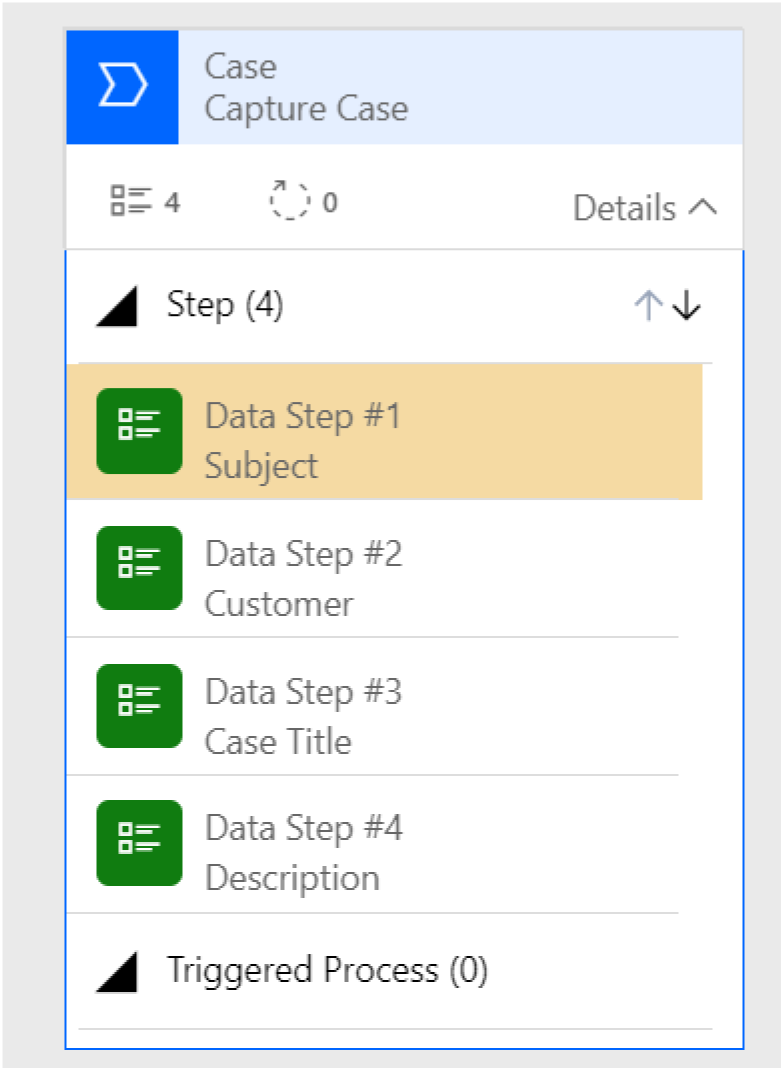
Step-by-Step 8: Manage your case -> Complaint Management Process

Below are step by step instructions that will guide you through the solution. Here you will leverage the core Dynamics 365 Customer Service functionality as well as Power Automates business Process flows to guide a case to complaint capture process to resolution.

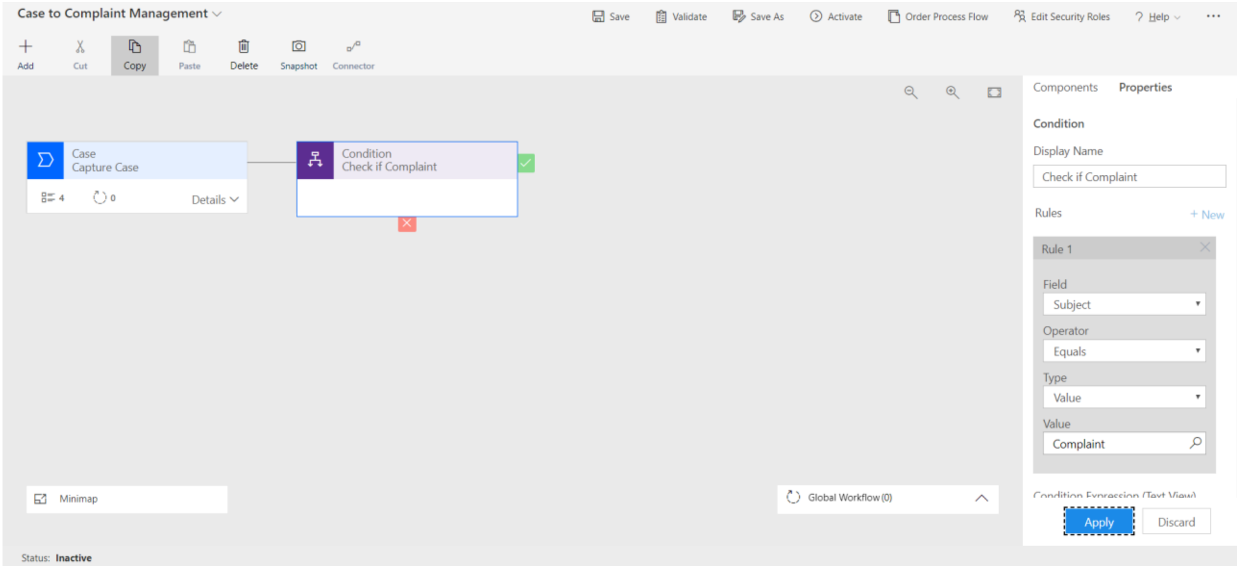
1. Navigate to "**make.PowerApps.Com**" and select "**Flows**" from the menu. Click on the "**Business Process Flows**" tab.
2. Select "**New**" and then crate a new business process flow called "Case to Complaint Management". Make sure you select the associated entity as "**Case**".



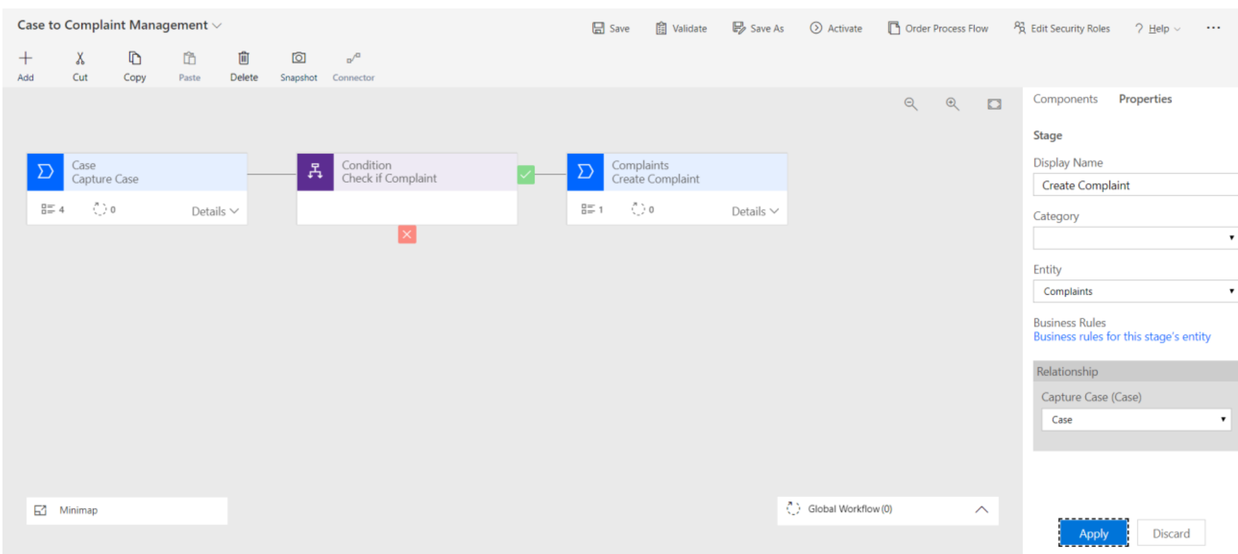
3. In the same manner as you did before, rename the first process component to "Capture Case" and add in data steps for "Subject", "Customer", "Title" & "Description".



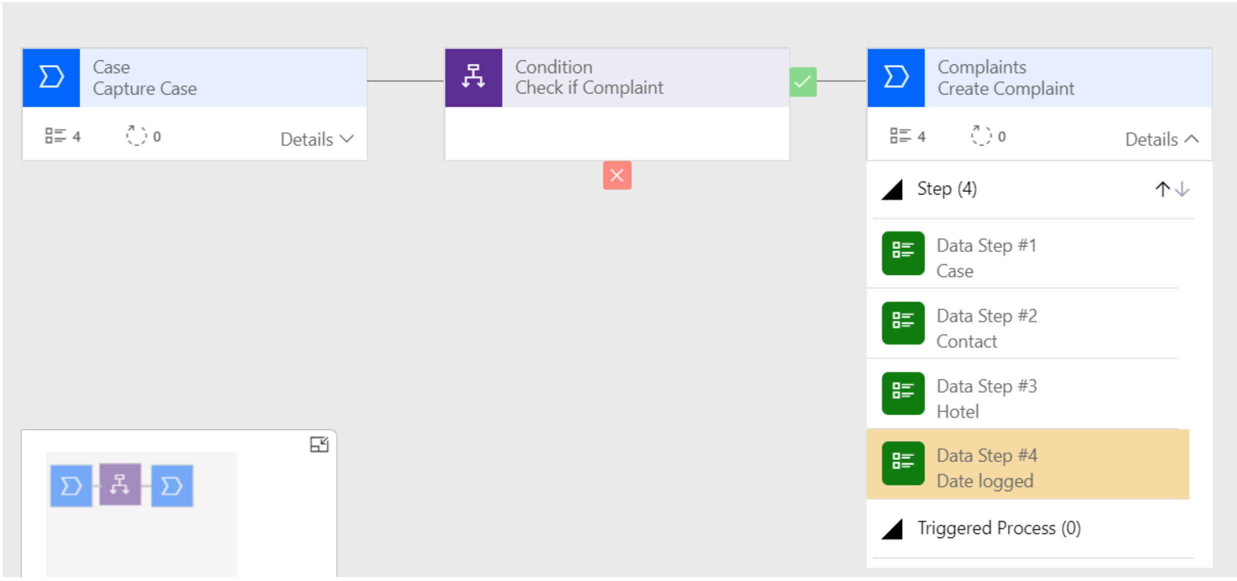
4. Rag a “**Condition**” component onto the process designer and Make sure “**Subject**” is selected as the “**Field**”, the “**Operator**” is “**Equals**”, the “**Type**” is “**Value**” and then “**Complaint**” is selected from the subject tree.



5. Drag a Stage component onto the positive decision node on the condition and make sure that you select the entity as "**Complaints**" and the "**Relationship**" as "**Case**". Give the stage the name "**Create Complaint**". This will allow a transition from the case to the new complaint entity through the business process flow.

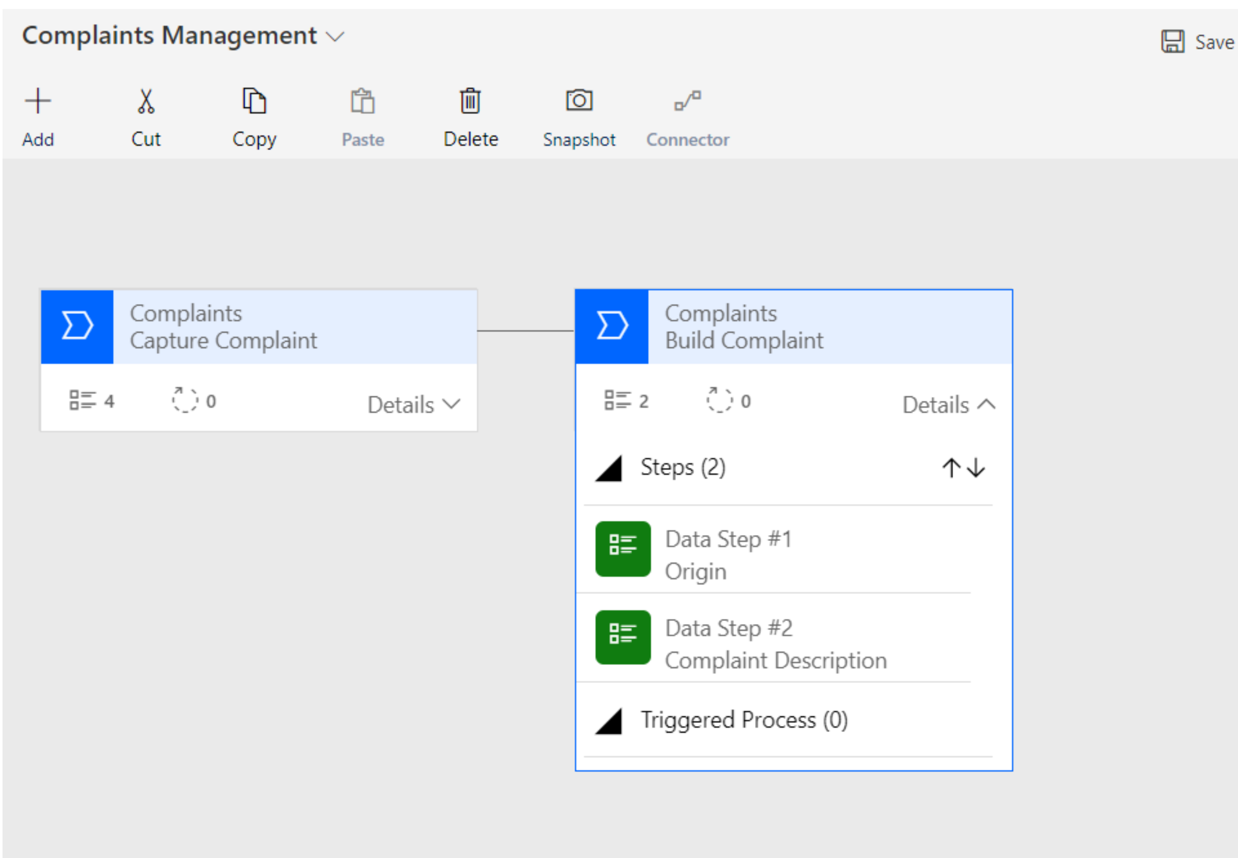


6. Add in the following data steps to the new complaint stage: "**Case**", "**Contact**", "**Hotel**", "**Date logged**".

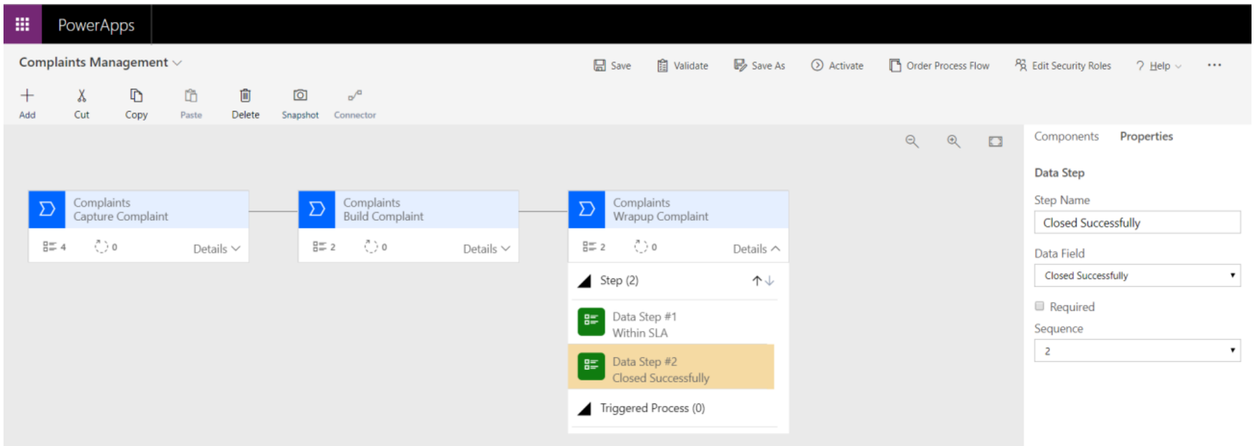


7. Follow the same process as the previous complaint path.

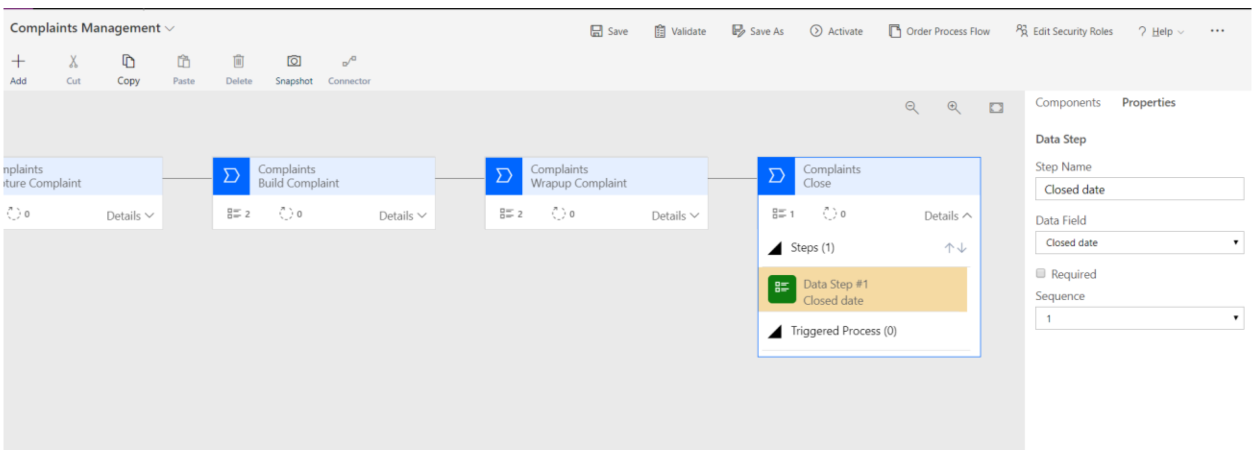
8. In the next step name the stage "**Build Complaint**" and then add data steps for "**Complaint Description**" and "**Origin**".



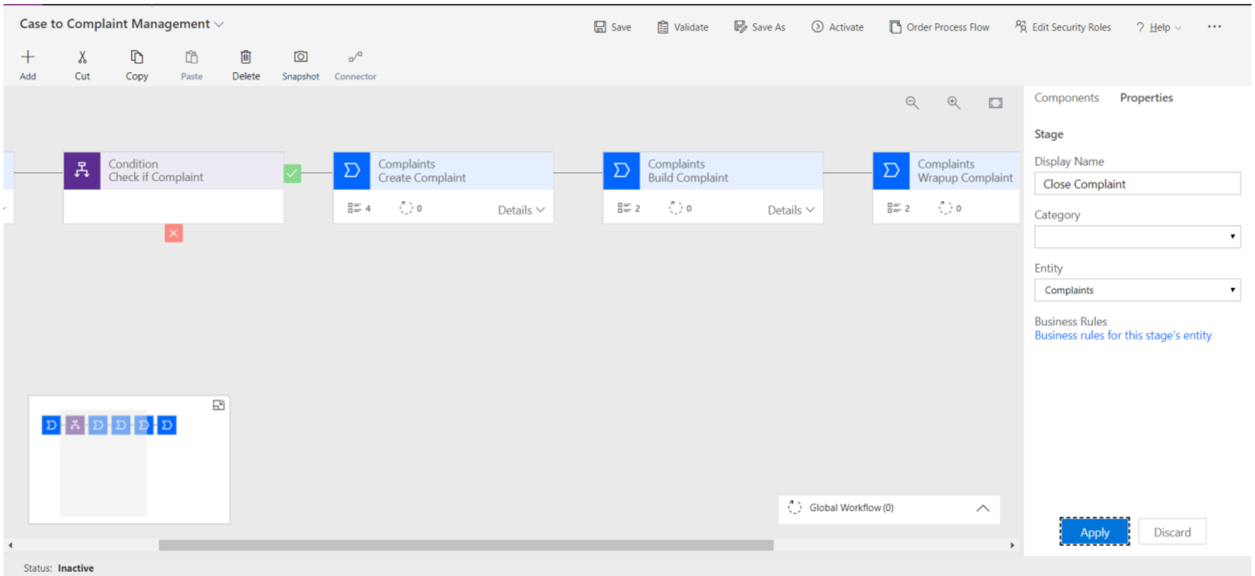
9. Add another stage called "**Wrapup Complaint**" and add data steps for "**Within SLA**" and "**Closed Successfully**".



10. Add a final step called "**Close**" And add 1 data step for "**Closed Date**".

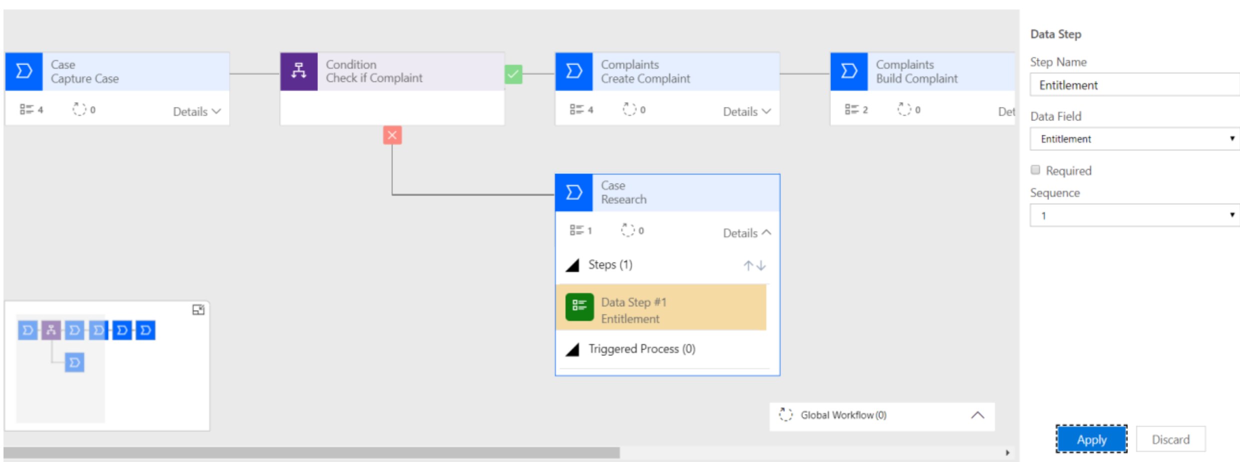


11. After you have added in the rest of the complaint stages the process flow will look like this:

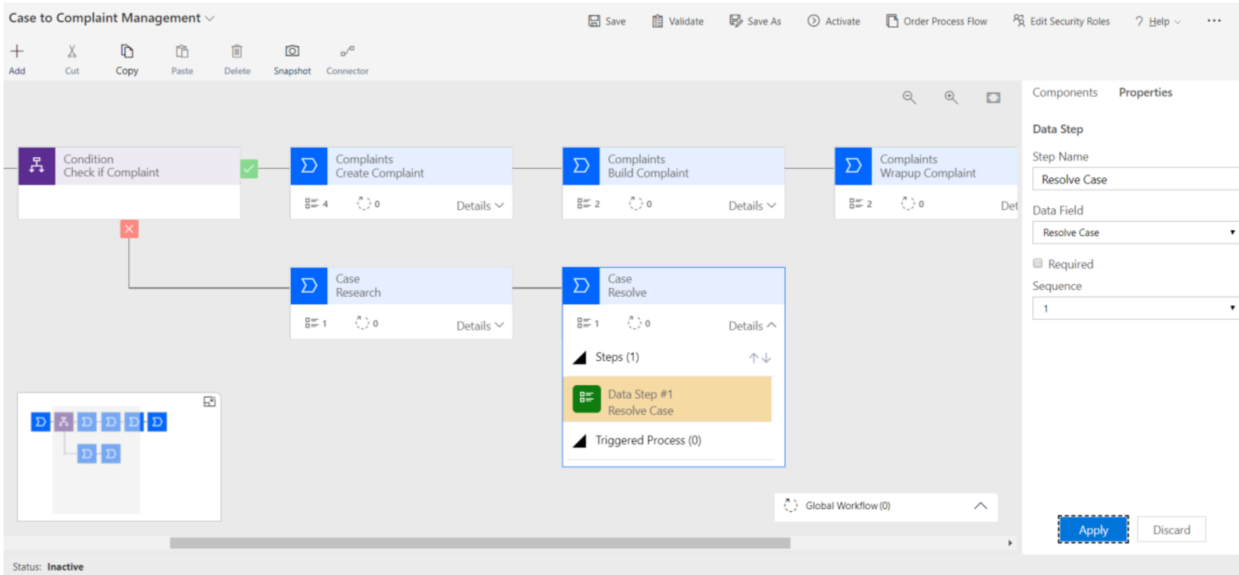


12. You now need to add in the negative path, so that the case can still be progressed if this is not a complaint.

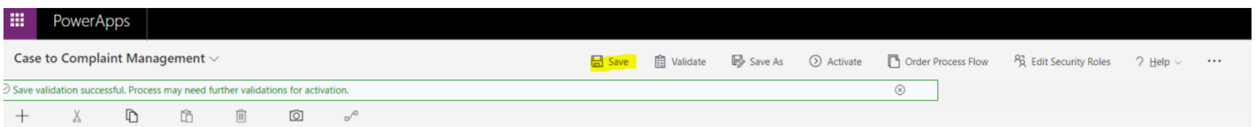
13. Drag a stage component onto the negative path node and call it "Research". Add in a data step for "Entitlement".



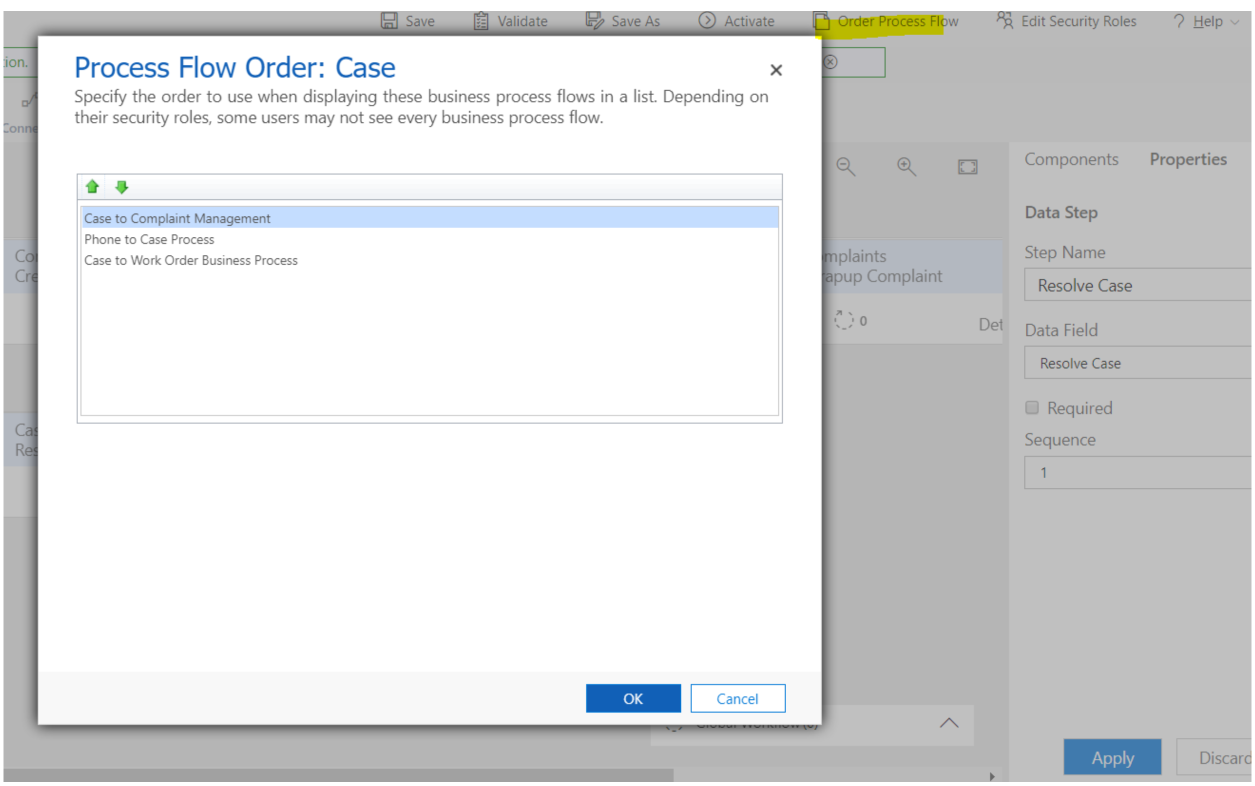
14. Drag in another stage component and call it "Resolve". Include the data step "Resolve Case".



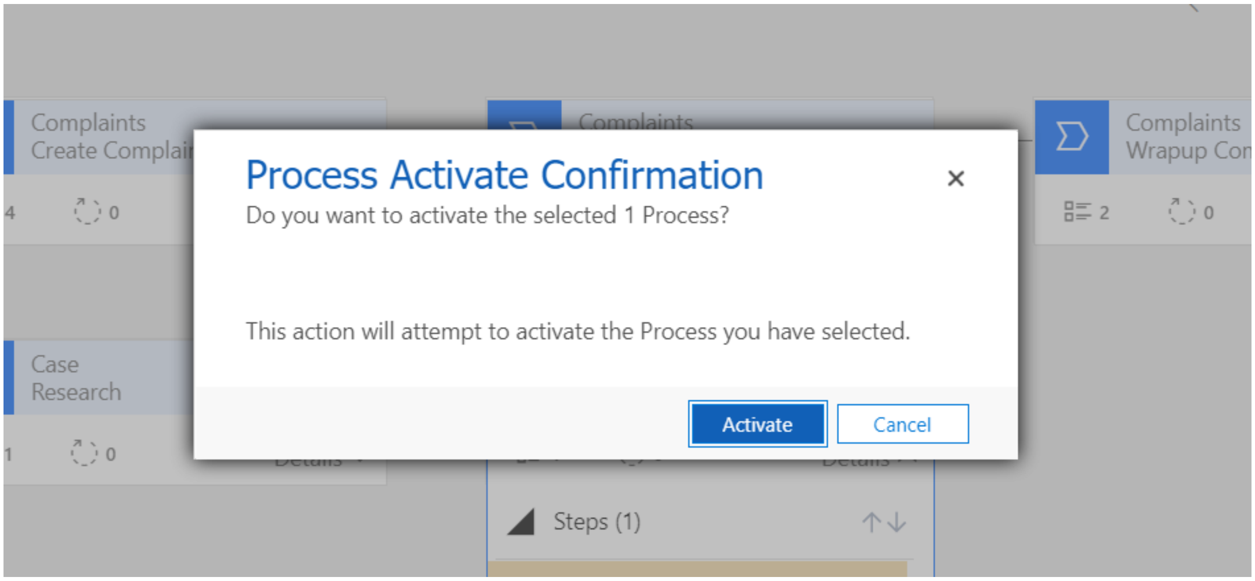
15. Save your Process.



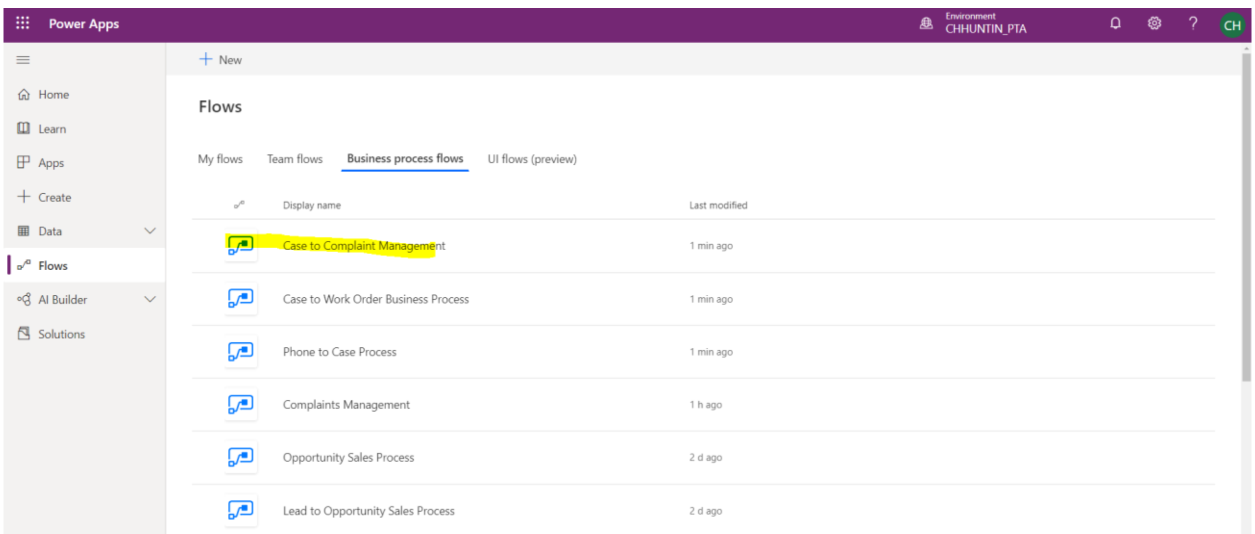
16. Select “**Order Process Flow**” and move the Complaint Management Process to the top of the list. Then select “**Ok**”.



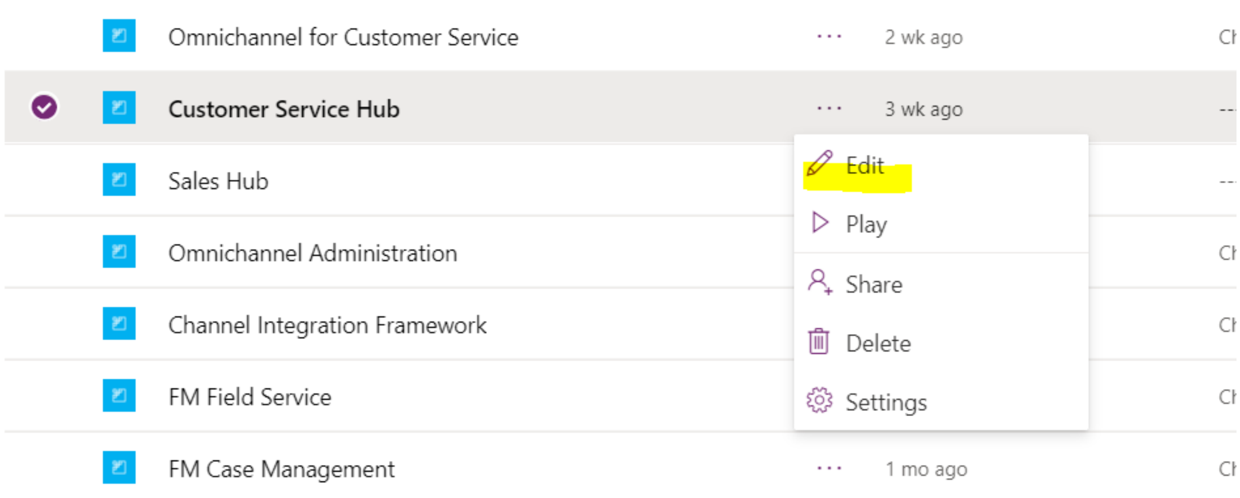
17. “**Activate**” the Process Flow.



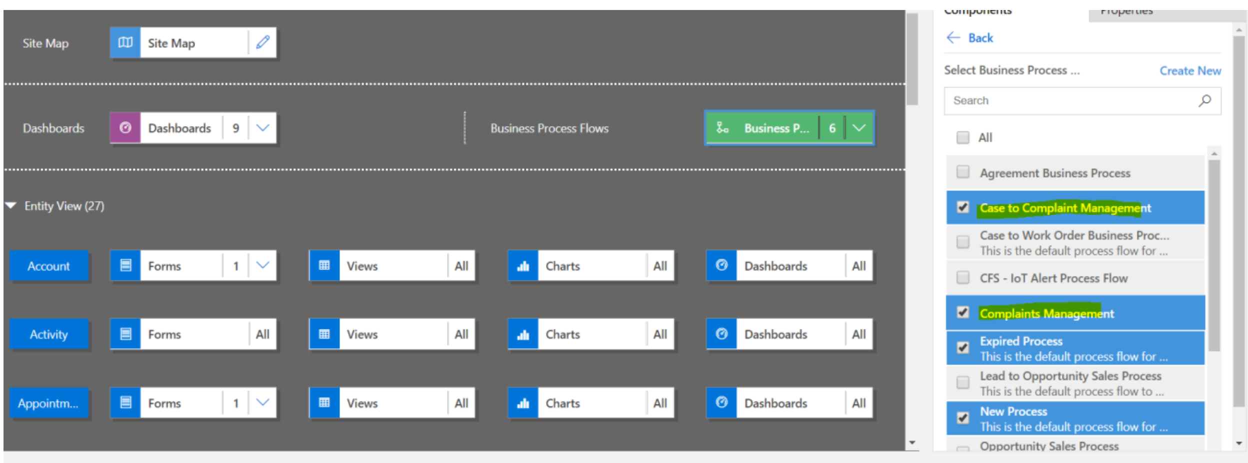
18. Close the Tab and you will see your new process flow in your list.



19. Navigate to the “**Apps**” section in “Make.PowerApps.com” and select the “**Edit**” option in the “**Customer Service Hub**” App.



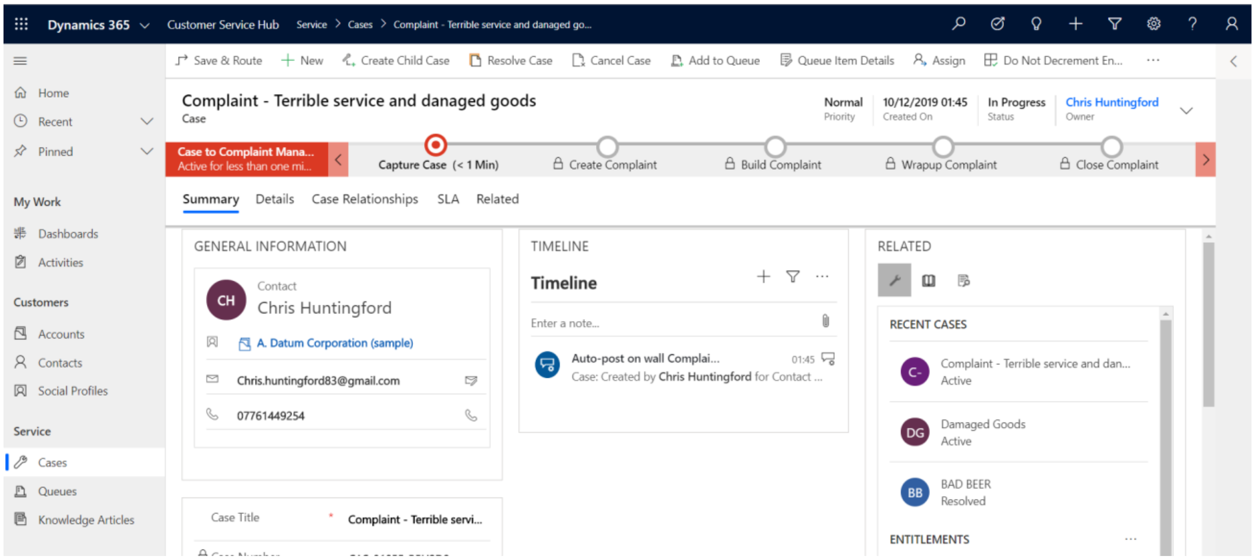
20. This will open the Model Driven App Designer, select the Processes component and make sure both “**Complaint Management**” and “**Case to Complaint Management**” are selected.

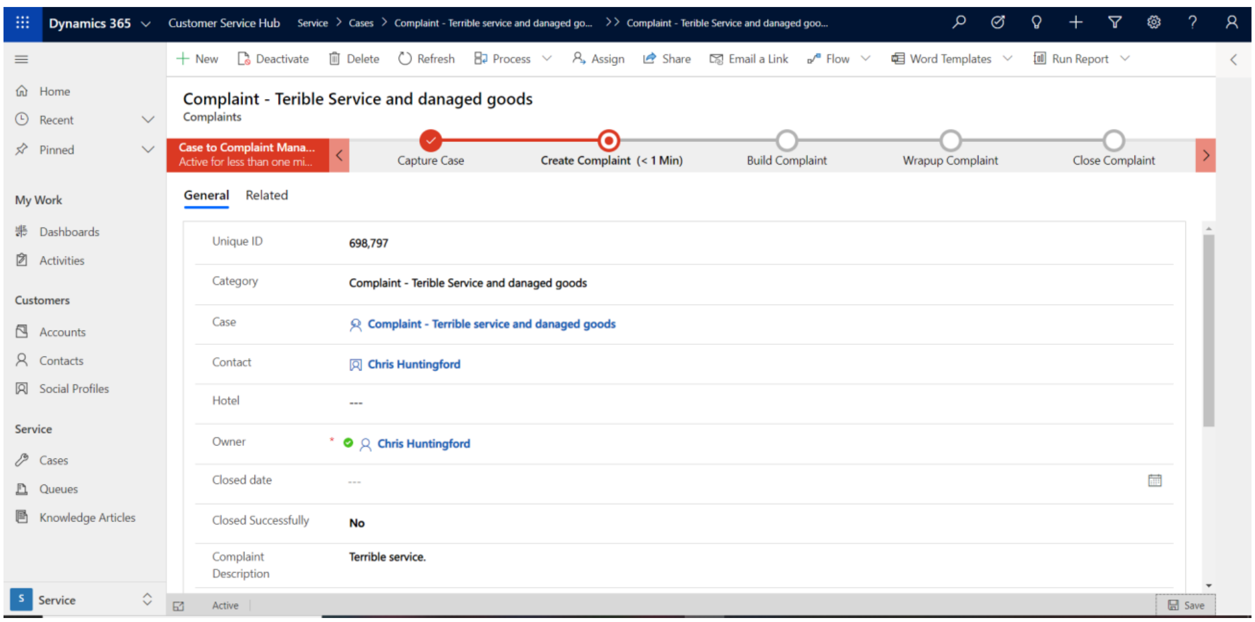


21. “**Save**” and “**Publish**” the changes

22. Close the App designer

23. Go to your customer Service hub app and test out your new process flow.


Dynamics 365
Customer Service Hub
Service > Cases > Complaint - Terrible service and damaged go...
Save & Route
New
Create Child Case
Resolve Case
Cancel Case
Add to Queue
Queue Item Details
Assign
Do Not Decrement En...
Home
Recent
Pinned
My Work
Dashboards
Activities
Customers
Accounts
Contacts
Social Profiles
Service
Cases
Queues
Knowledge Articles
Complaint - Terrible service and damaged goods
Case
Normal
Priority
10/12/2019 01:45
Created On
In Progress
Status
Chris Huntingford
Owner
Case to Complaint Mana...
Active for less than one mi...
Capture Case (< 1 Min)
Create Complaint
Build Complaint
Wrapup Complaint
Close Complaint
Summary
Details
Case Relationships
SLA
Related
GENERAL INFORMATION
Contact
CH
Chris Huntingford
A. Datum Corporation (sample)
Chris.huntingford83@gmail.com
07761449254
Case Title
Complaint - Terrible servi...
TIMELINE
Timeline
Enter a note...
Auto-post on wall Complai...
01:45
Case: Created by Chris Huntingford for Contact ...
RELATED
RECENT CASES
Complaint - Terrible service and dan...
Active
Damaged Goods
Active
BAD BEER
Resolved
ENTITLEMENTS


Dynamics 365
Customer Service Hub
Service > Cases > Complaint - Terrible service and damaged go... >> Complaint - Terible Service and damaged goo...
New
Deactivate
Delete
Refresh
Process
Assign
Share
Email a Link
Flow
Word Templates
Run Report
Home
Recent
Pinned
My Work
Dashboards
Activities
Customers
Accounts
Contacts
Social Profiles
Service
Cases
Queues
Knowledge Articles
Complaint - Terible Service and damaged goods
Complaints
Case to Complaint Mana...
Active for less than one mi...
Capture Case
Create Complaint (< 1 Min)
Build Complaint
Wrapup Complaint
Close Complaint
General
Related
Unique ID
698,797
Category
Complaint - Terible Service and damaged goods
Case
Complaint - Terrible service and damaged goods
Contact
Chris Huntingford
Hotel

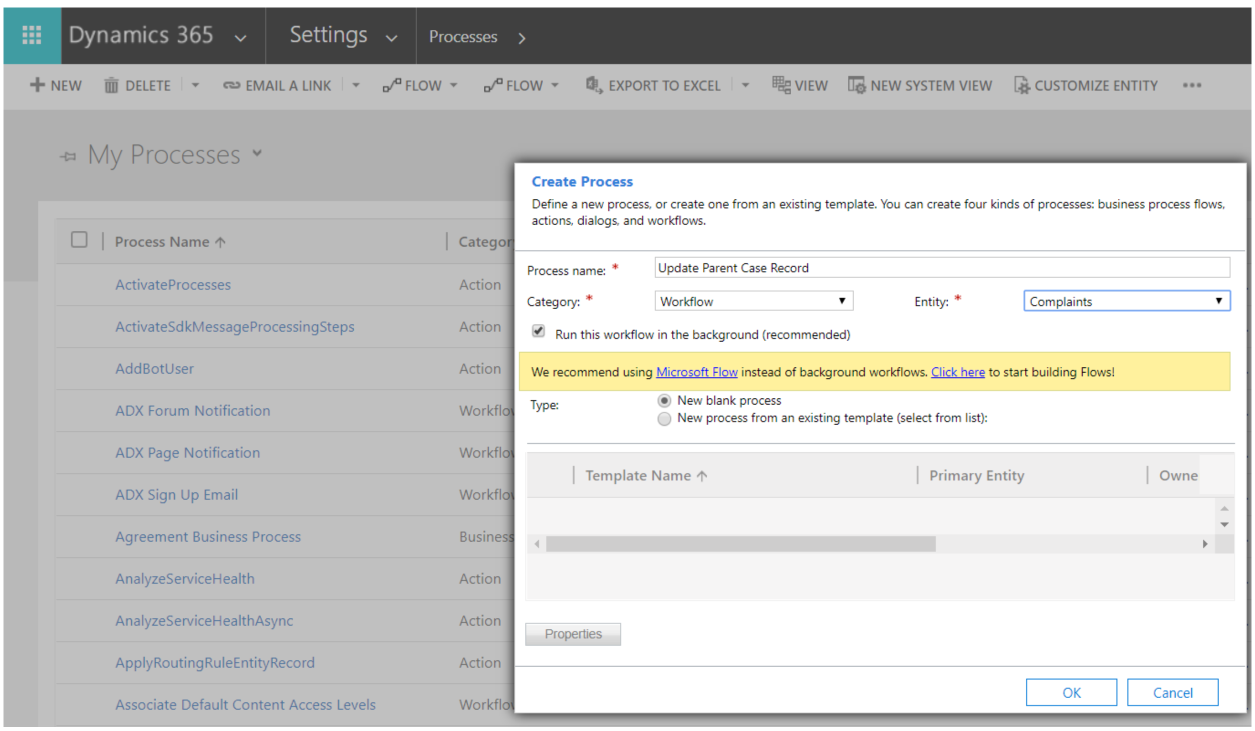
Owner
Chris Huntingford
Closed date

Closed Successfully
No
Complaint Description
Terrible service.
Service
Active
Save

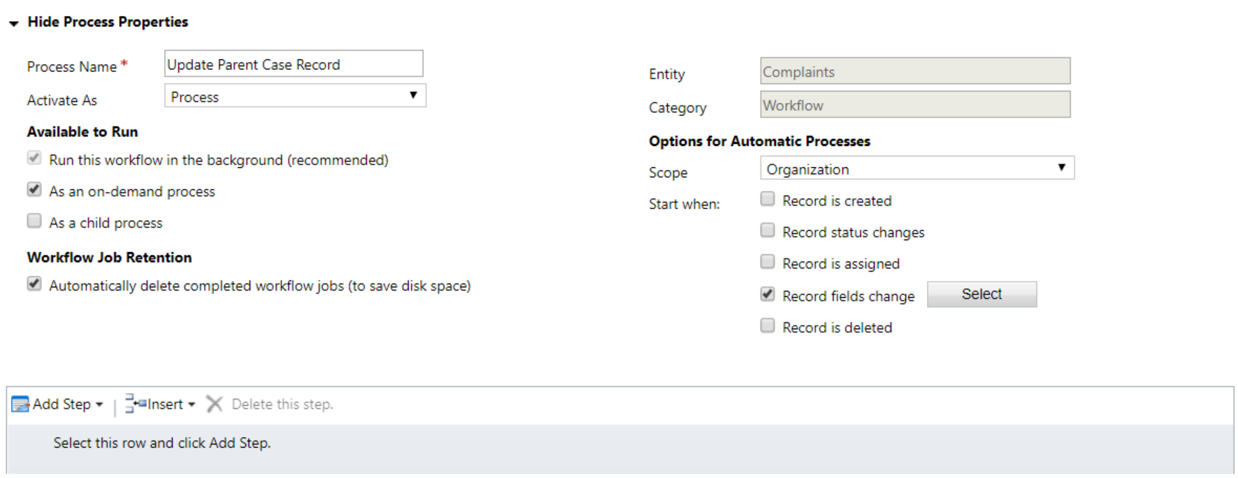
Step-by-Step 9: Update complaint parent case on resolution

Below are step by step instructions that will guide you through the solution. Here you will leverage the core Dynamics 365 Customer Service functionality as well as Classic Workflow functionality to update the parent case as resolved when the closed date is completed on the child complaint.

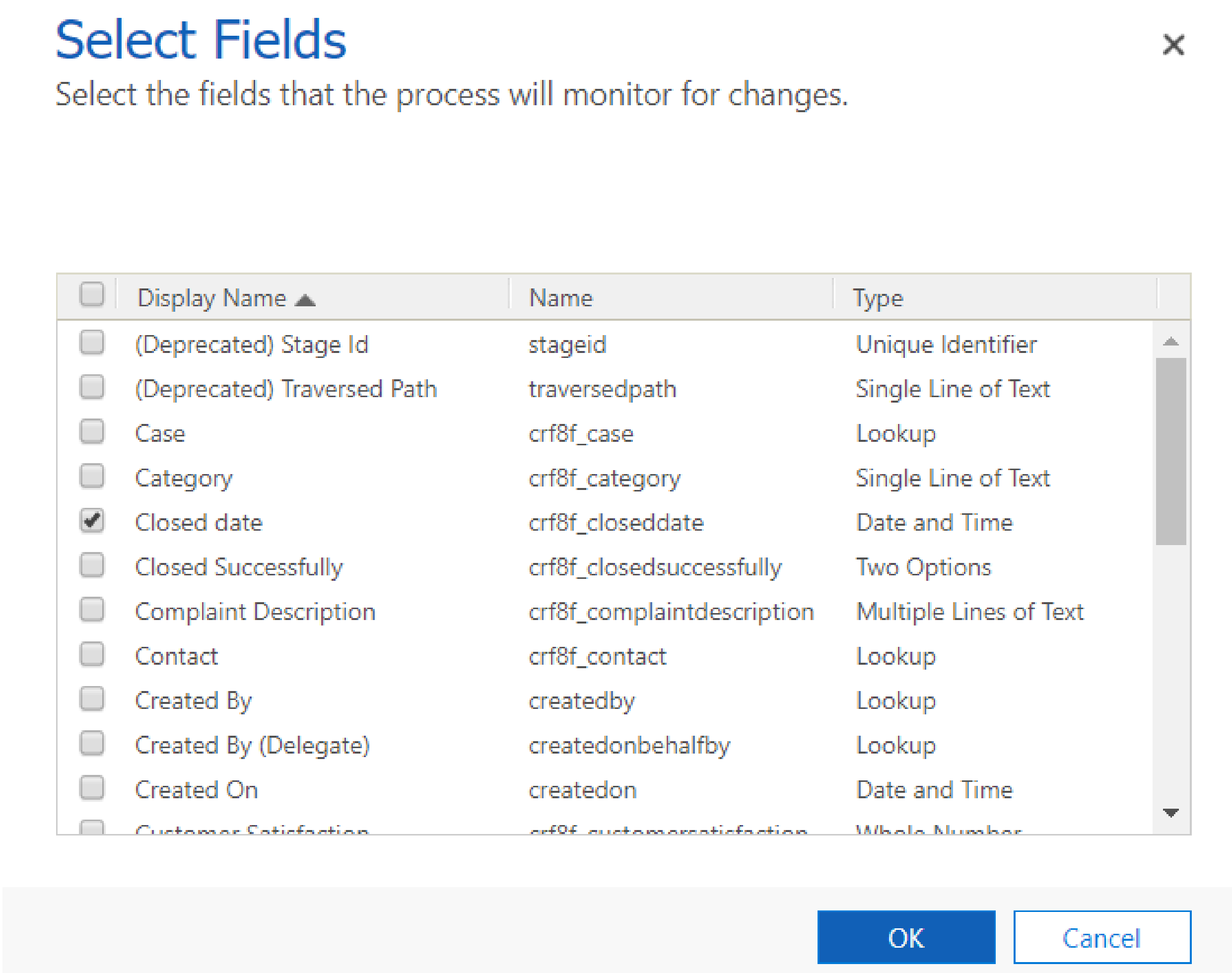
1. Open “**Customer Service Hub**” App and navigate to “**Classic Admin UI | Settings ! Processes**”. Create a new “**Workflow**” flow. Call it “**Update Parent Case Record**”, select “**Complaint**” as the trigger entity. Click “**OK**” when you are ready to build.



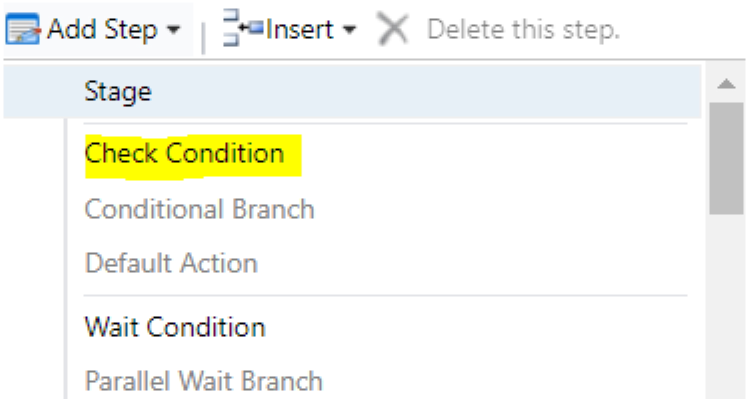
2. Set the “Scope” to “**Organisation**”, make sure the workflow can be run “**On Demand**” as well. Only set the workflow to run when a specific field is updated.



3. In the updated fields list select "**Closed Date**" and then "**OK**".

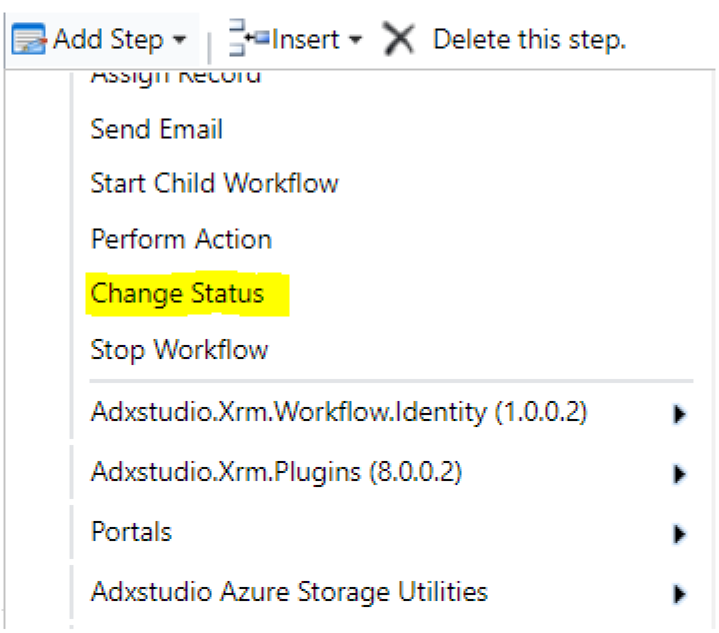


4. Add in a new "Check Condition" step.

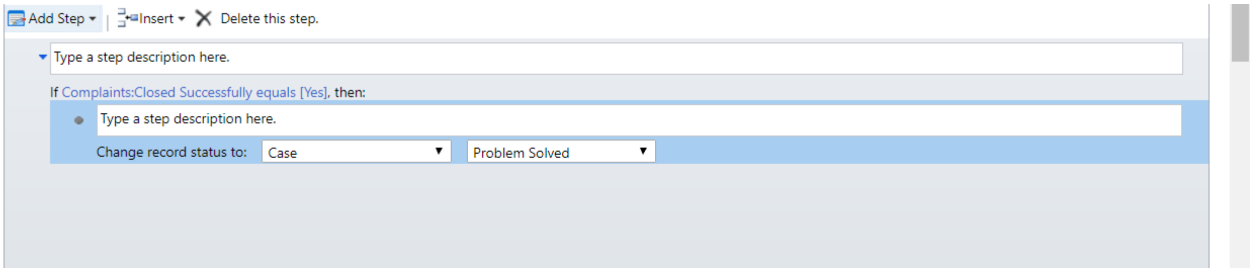


5. Select “**Complaints**” as the core entity, select “**Closed Successfully**” as the primary field, Select “**Equals**” as the operator and select “**Yes**” as the response. Once you have completed this select “**Save and Close**”

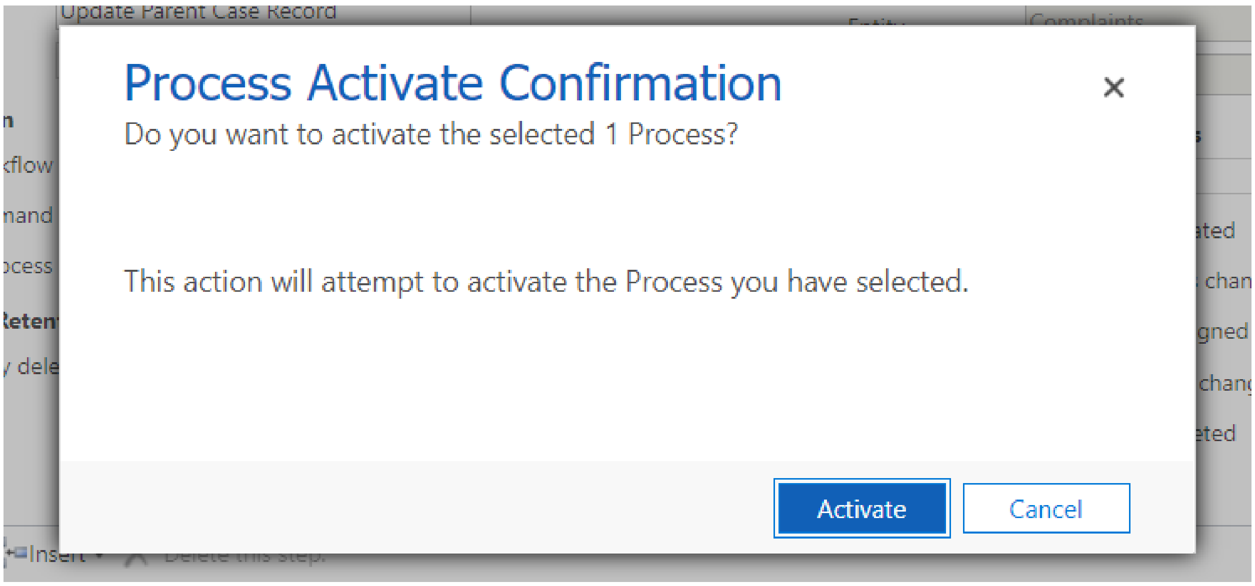
6. Under the Check Condition add in a “Change Status” action.



7. Set the record to “**Case**” and the status to “**Problem Solved**”.



8. “**Save**” and “**Activate**” your new Workflow.



9. Run your case through the complaint process to make sure your workflow works. You should have a resolved case when you update the “Closed Date” on the Complaint.