Microsoft Cloud for Financial Services in a Day

Unified customer profile

Step-by-Step Lab

Contents

Overview

Learning Objectives

In this lab, you will learn how to do the following:

- Explore the Data Model related to UCP
- Explore the Unified customer profile (UCP) application and controls
- Create new records within Unified customer profile (UCP)
- Extend Unified customer profile (UCP)

Prerequisites

- None

Unified customer profile

The **Unified customer profile** application shows a 360-degree perspective of the customer consolidated into a unified dashboard. It offers an accurate, consistent, and cohesive source of truth about the customer. This customer information can be leveraged to provide personalized experiences, reveal important opportunities, prevent potential loss, or churn, and improve customer satisfaction.

Key capabilities of Unified customer profile include:

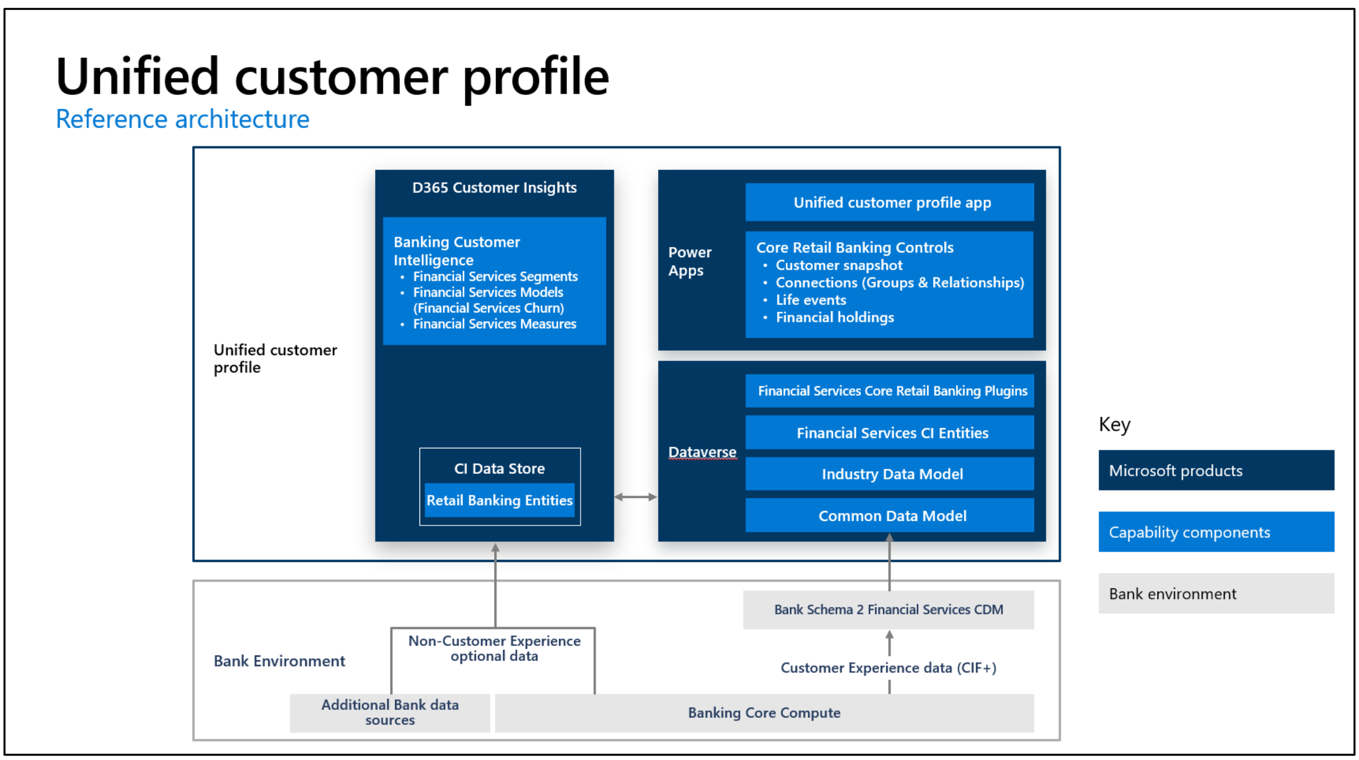
- **Summary:** Consists of an at-a-glance summary of the customer, their personal details, life moments, financial holdings, and credit and debit cards.
- **Connections:** Help capture relationships between a customer and its related Groups and contacts. This helps in understanding the overall financial strength of the customer in reference to the relationships/groups (such as household) that they participate in.
- **Financial holdings:** View detailed information about all the financial holdings associated with the customer.

Industry Prioritized Scenarios

- Unified customer profile focuses on both **Deliver differentiated Customer Experience and Empower Employees** priority scenarios. It helps you benefit from a data-first experience that brings together financial details, Life events, and household information into a single view. It also helps centralize your customer data in a single place via Microsoft Dataverse and the industry data model.

Reference Architecture

- Below is the reference architecture of Unified customer profile



Exercise 1: Understand the Unified customer profile (UCP) Data Model

In this exercise, you will learn about the Unified customer profile (UCP) data tables.
The UCP data model is built atop the FinancialServiceCommon and RetailBankingCoreDataModel layers in Dataverse.
Visit FSI docs for Data model link on Microsoft Docs to learn more about the FSI data model.

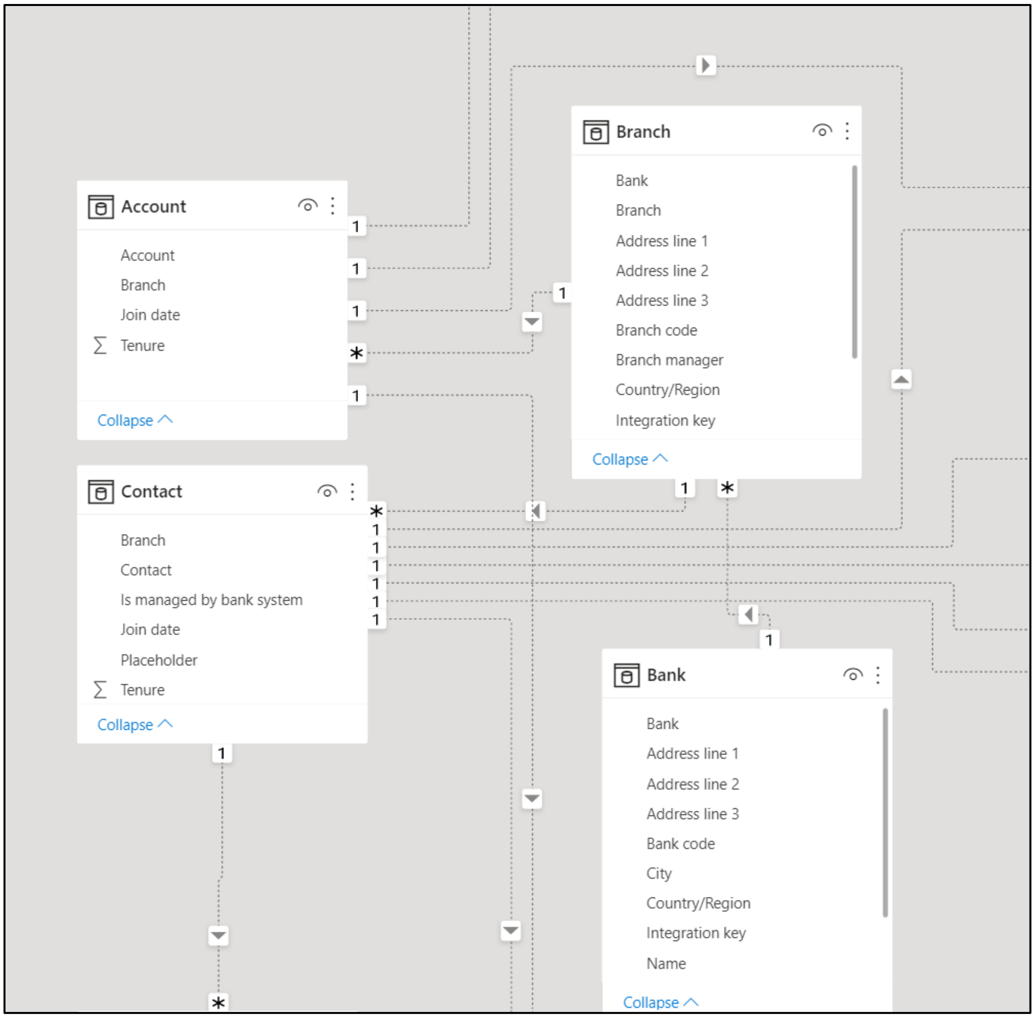
Task 1: Understand Customer and Bank data and relationships

In this task, you will explore the main tables related to Unified customer profile. Select each table name to navigate to the Microsoft Docs page that goes into detail about each table.

UCP Table Definitions

Contact(customer)	Person with whom a business unit has a relationship, such as customer, supplier, and colleague.
Account	Business that represents a customer or potential customer. The company that is billed in business transactions.
Bank	The bank that the branch is associated with.
Branch	The branch of the main bank, when borrower applies for a loan at a branch

See next page for the UCP Entity Relationship Diagram.



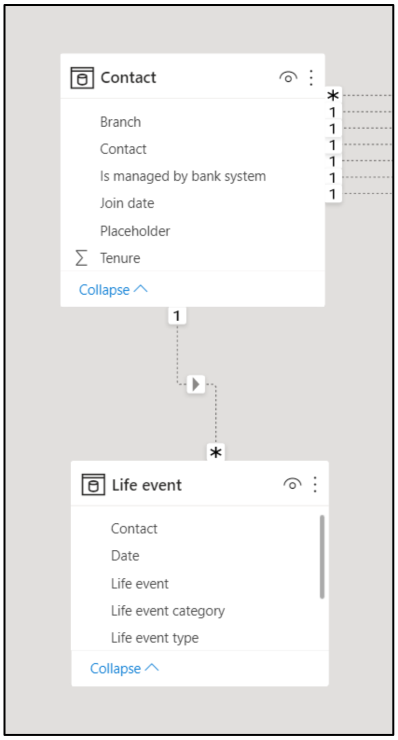
Task 2: Understand Life event data tables and relationships

In this task, you will understand the main tables related to Life event data. Select each table name to navigate to the Microsoft Docs page that goes into detail about each table.

Life event Data Table Definitions

Life Moment	Significant milestones in a customer's personal life which can impact their financial situation, such as attending college, marriage, having a child, retirement, etc.

See next page for the Life event data Entity Relationship Diagram.



Task 3: Understand Financial data tables and relationships

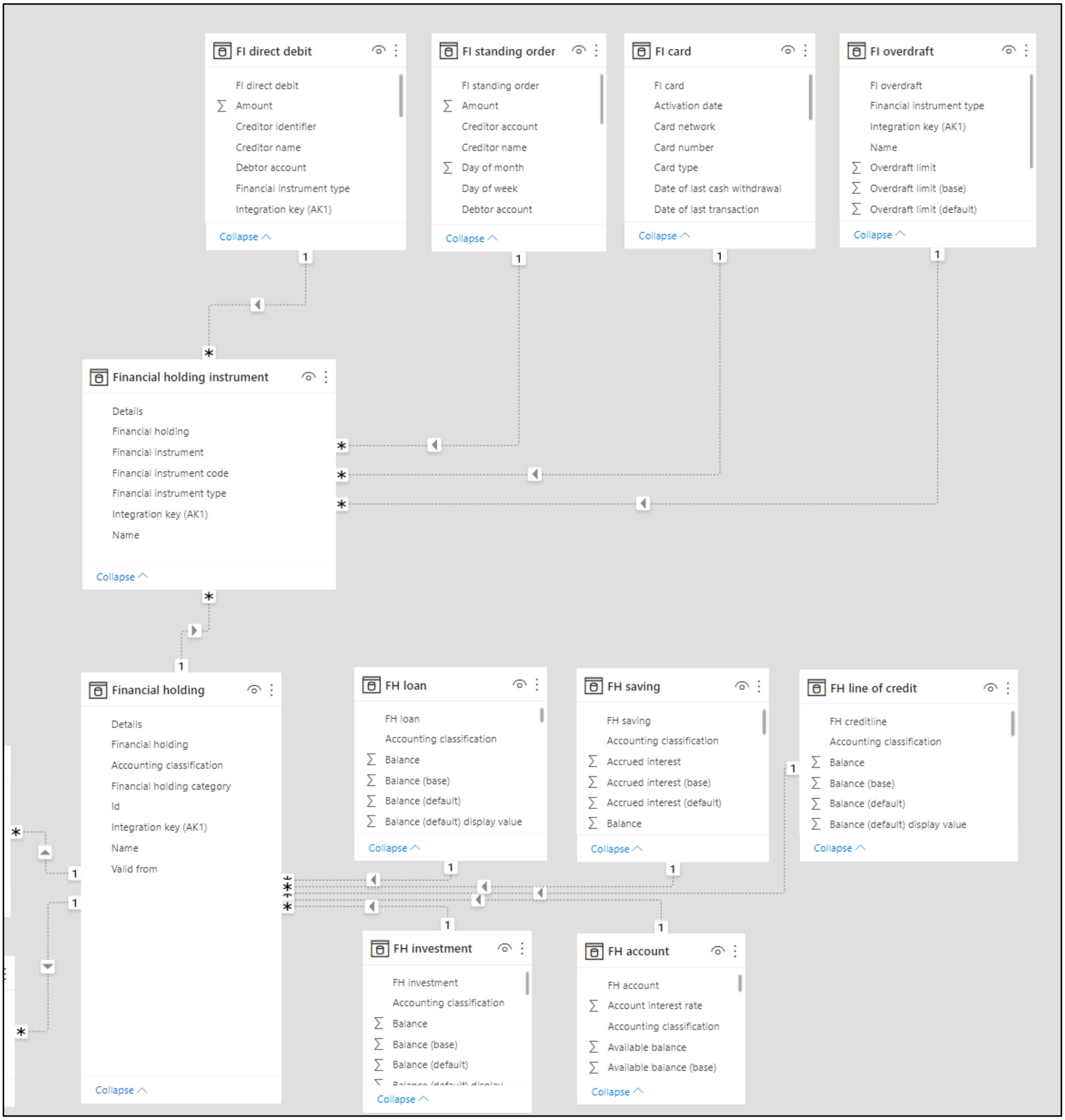
In this task, you will understand the main tables related to customer financial data – including different types of financial holdings, financial instruments and customer financial holdings. Select each table name to navigate to the Microsoft Docs page that goes into detail about each table.

Financial Data Table Definitions

Financial holding	Accounts, loans, investments, credit lines and savings accounts held by a customer.
FH loan	Loans held by the customer with the financial institution.
FH saving	Savings accounts held by the customer at the financial institution.
FH line of credit	A deposit account holding that allows the holder to make deposits and withdrawals through financial holding instruments. An account can be interest bearing.
FH investment	A deposit account holding that allows the holder to make deposits and withdrawals through financial holding instruments. An account can be interest bearing.
FH account	A deposit account holding that allows the holder to make deposits and withdrawals through financial holding instruments. An account can be interest bearing.
Financial holding instrument	A deposit account holding that allows the holder to make deposits and withdrawals through financial holding instruments. An account can be interest bearing.
FI direct debit	An automated payment system whereby an account holder authorizes a creditor to debit the customer's bank account at regular intervals.
FI standing order	An instruction order from an account holder for a set amount of money to be removed from an account at regular intervals and paid to or transferred to another account.

[FI card]()	An instruction order from an account holder for a set amount of money to be removed from an account at regular intervals and paid to or transferred to another account.
[FI overdraft]()	An extension of credit associated with a checking account allowing the account holder to continue withdrawing funds when an account reaches zero.
[Customer financial holding]()	Financial holdings owned by the customer.

See next page for the Financial Data Entity Relationship Diagram



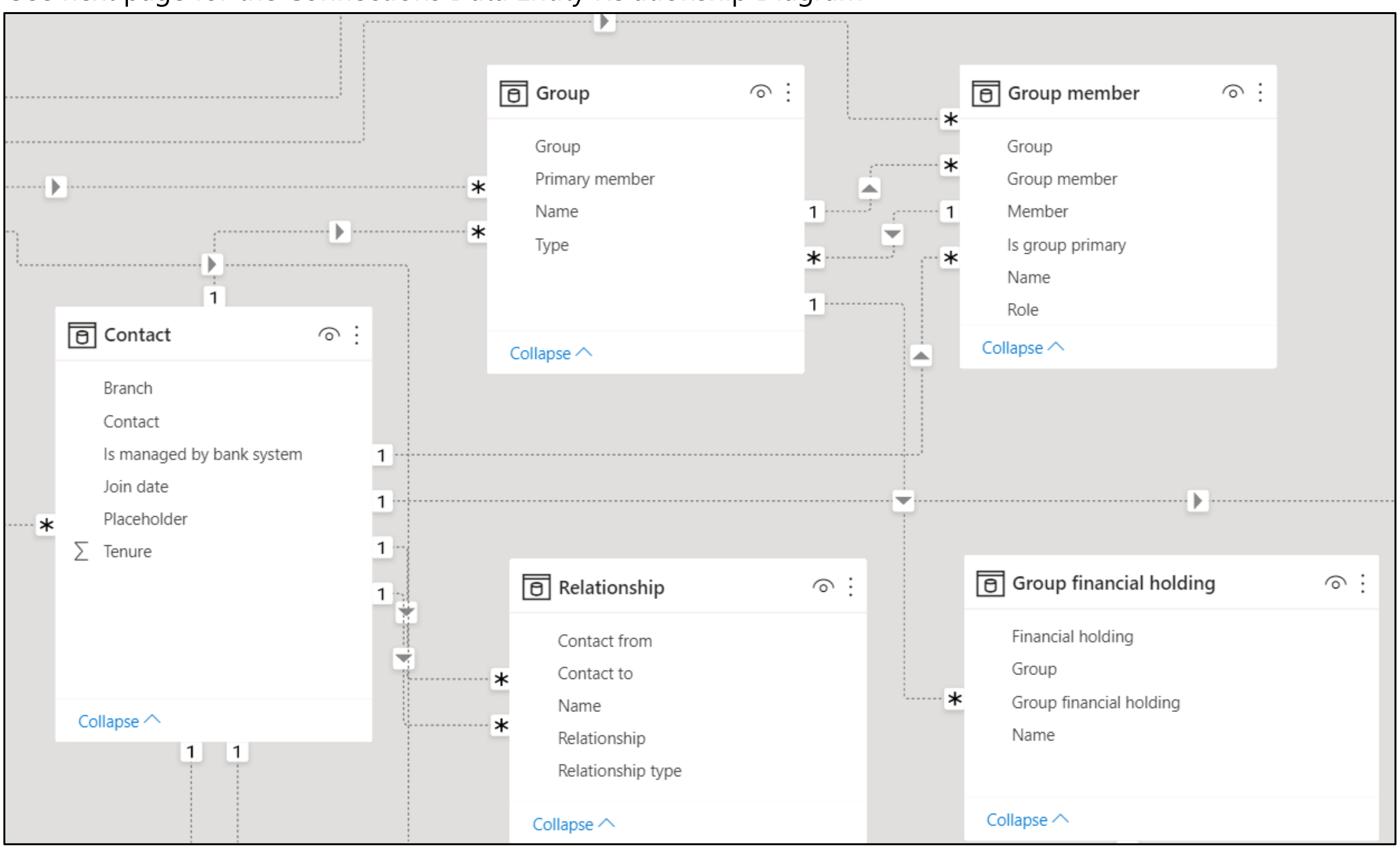
Task 4: Understand Connections data tables and relationships

In this task, you will understand the main tables related to customer connections – including groups (eg: households) and relationships . Select each table name to navigate to the Microsoft Docs page that goes into detail about each table.

Connections Data Table Definitions

Group	An association of several customers allowing e.g. the representation of households
Group member	An association between a customer and a Group
Group Financial Holding	Financial holdings associated with a Group, to be included in the group's total assets and liabilities.
Relationship	Denotes an association between one contact to another (not as part of the larger group) where there is not necessarily a direct association of finances. For example, a spouse, lawyer, child or grandparent.

See next page for the Connections Data Entity Relationship Diagram

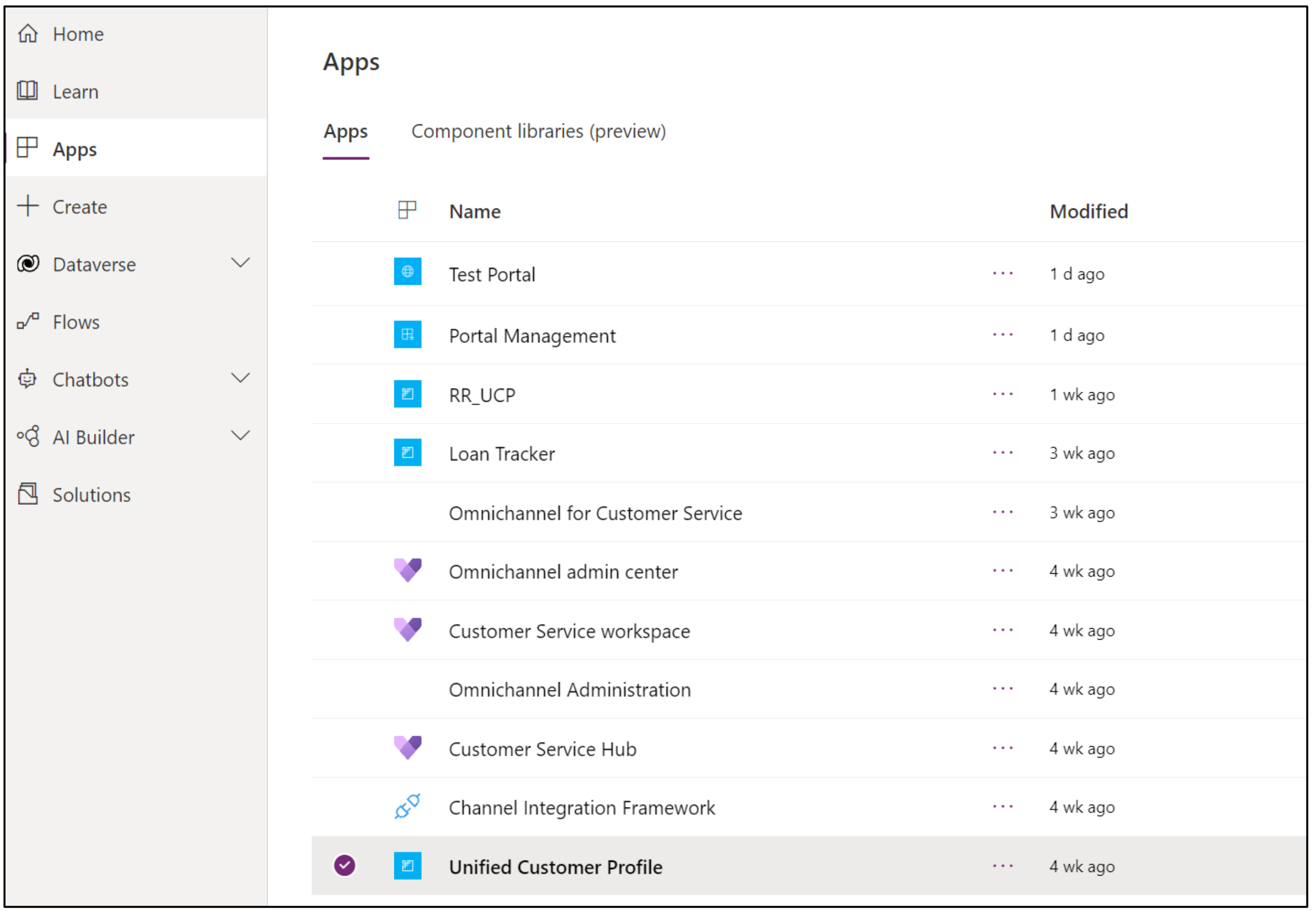


Exercise 2: Explore Unified customer profile application

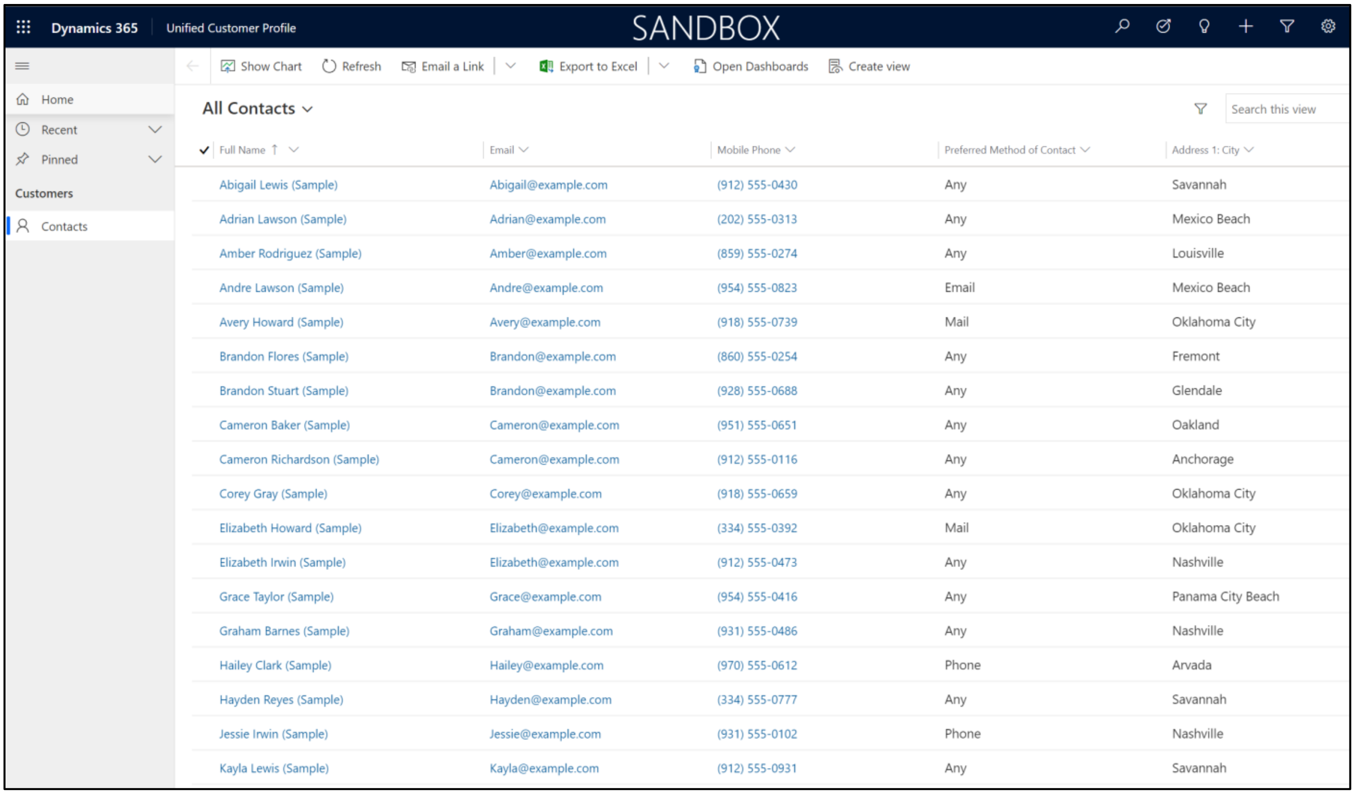
In this exercise, you will launch the Unified customer profile application and navigate through the tabs and controls to understand each component and how it wires to the Data Model behind.

1. Navigate to Power Apps in an In-Private or Incognito window.
2. Select the proper **Environment** in the upper right. (Your assigned number)

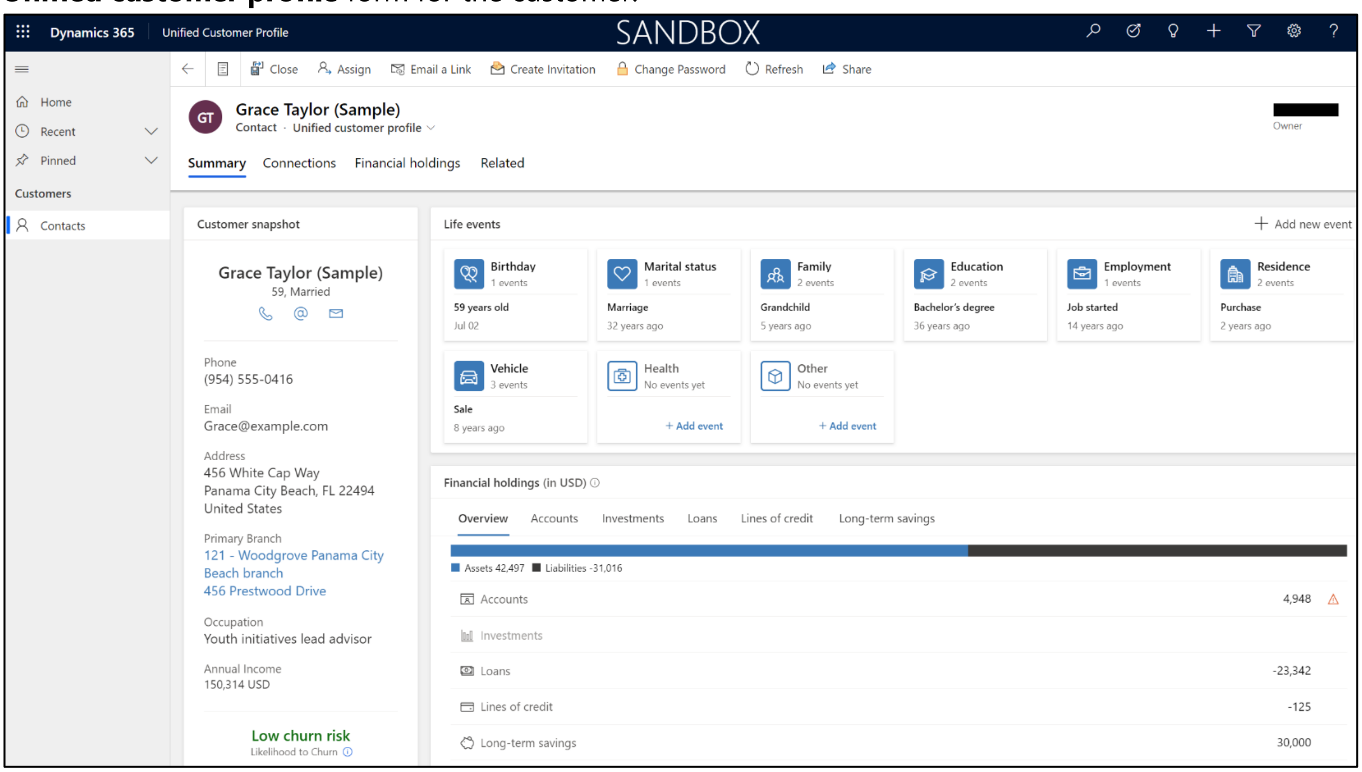
3. In Power Apps, select **Apps** in the left sitemap. Select and open **Unified customer profile.**



4. It should launch the application in a new tab and you should land in the **Contacts** view showing a list of all contacts.



5. Click on **Grace Taylor (Sample)** to open up the record in the application. This should launch the **Unified customer profile** form for the customer.



Now that the UCP form has loaded, we will explore all the tabs on the form and its controls one by one.

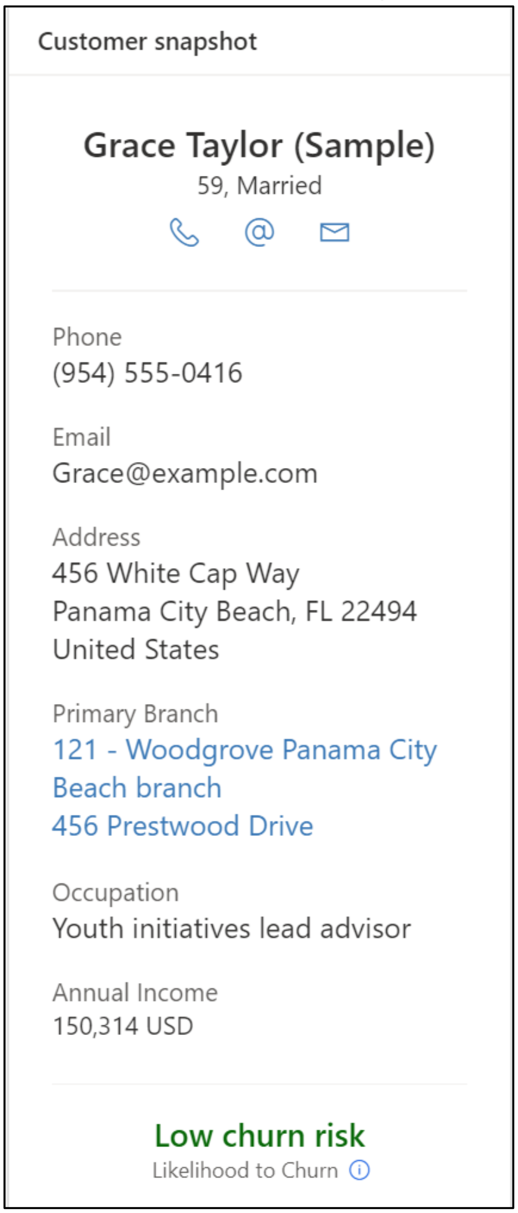
Task 1: Explore the Summary Tab

The **Summary** tab consists of the below PCF controls that are componentized to provide the flexibility to choose and customize the views you want to develop –

- Customer Snapshot
- Life events
- Financial Holdings
- Main Household
- Cards

1. Examine the **Customer Snapshot** control. The snapshot of the customer shows personal information (for example, name, demographics, and branch information) and the preferred channel of communication.
   Note - The Customer snapshot area can be enriched with customer intelligence-driven information like churn score. This information is enabled through Customer Intelligence add-in for UCP which will be covered in another lab.

   Note the information showing up on the control and the Dataverse table columns it is derived from

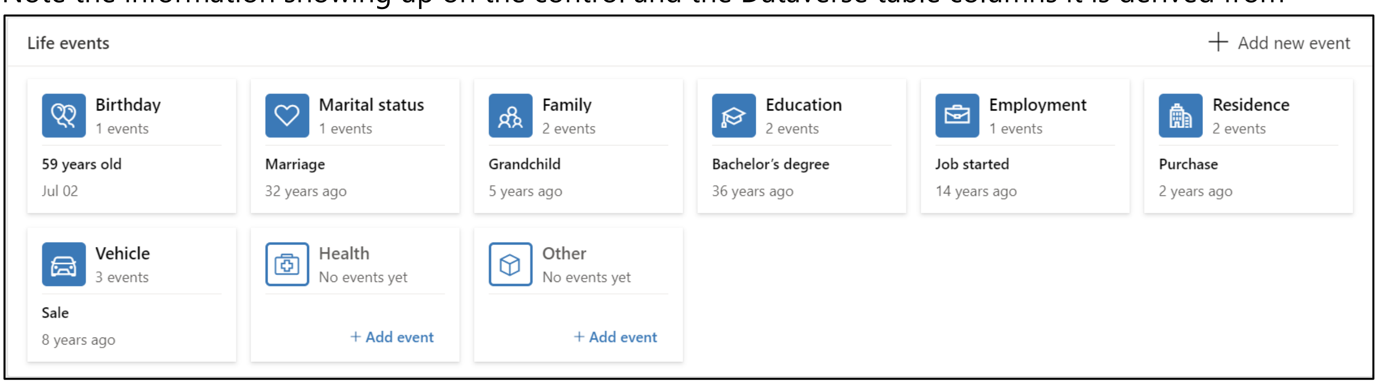


Customer Snapshot fields and table column mappings

Grace Taylor(Sample)	Contact.fullname
59,Married	Contact.Birthdate, Contact.familystatuscode
Symbols for Preferred symbols of communication	Contact.preferredcontactmethodcode
Phone	Contact.telephone1
Email	Contact.emailaddress1
Address	Contact.address1_composite
Primary Branch	Contact.msfsi_branch
Occupation	Contact.jobtitle
Annual Income	Contact.annualincome

2. Examine the **Life events** control. It provides insight into the customer and their family's past and future milestones. It can help identify upcoming opportunities, devise personalized offers, and provide a consistent engagement experience. Each category in the Life events area, such as Marital Status, can include multiple Life event entries.

Note the information showing up on the control and the Dataverse table columns it is derived from



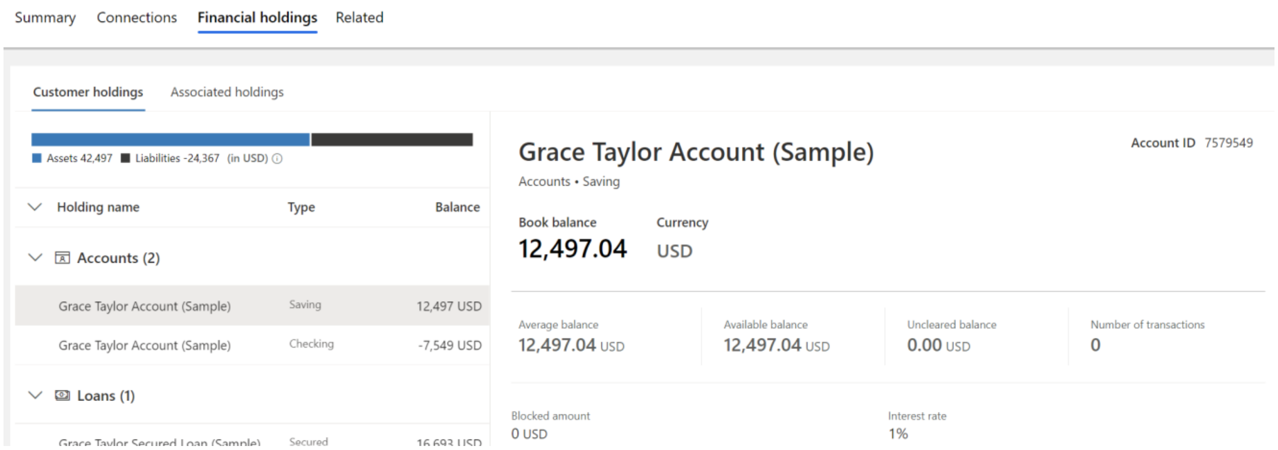
Life events fields and table column mappings

Family	msfsi_lifemoment.msfsi_lifemomentcategory (Only Birthday Life event category maps to Contact.birthdate field)

2 events	<Number of Life event records in that Life event Category >
Grandchild	msfsi_lifemoment.msfsi_lifemomenttype
5 years ago	<Time elapsed since last event in that Life event Category>

3. Examine the **Financial Holdings** control. It provides an at-a-glance view of the customer's relationship with the bank, showing wallet share, assets and liabilities, and other aspects of the customer's holdings with the bank. The **Customer holdings** tab under the **Financial Holdings** tab provides high-level information on the customer's financial holdings. The default selection is an overview of the customer's assets and liabilities, including relevant alert indicators on the right of the area.

   Note the information showing up on the control and the Dataverse table columns it is derived from



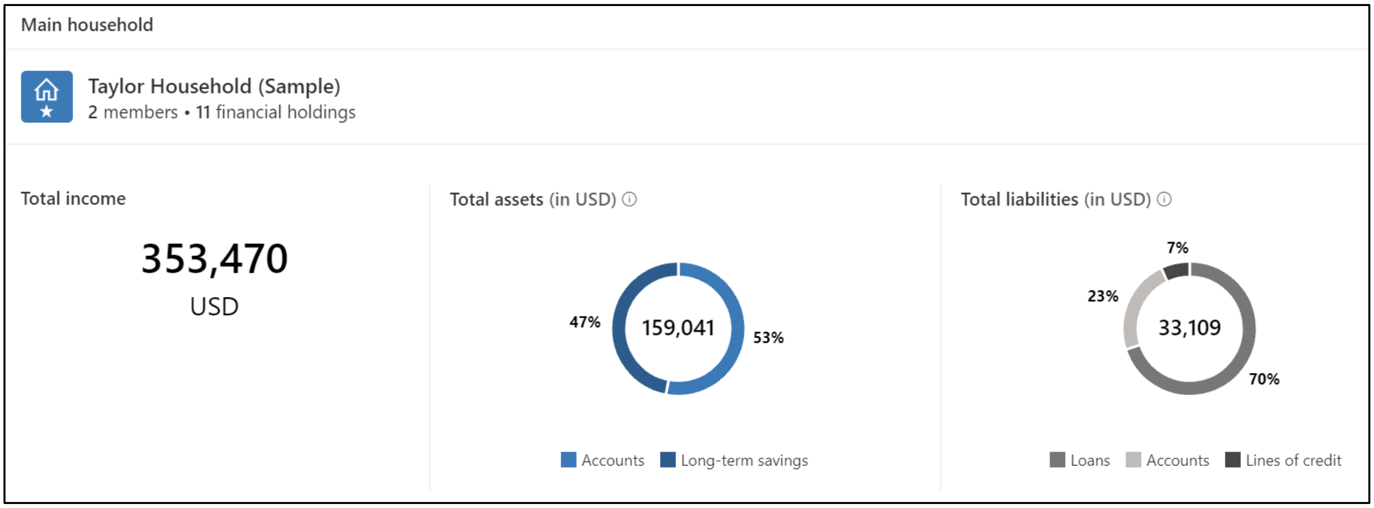
   Financial Holdings fields and table column mappings

Overview tab	
Assets (Bar)	Sum of positive Balance amounts
Liabilities (Bar)	Sum of negative Balance amounts
Accounts	FH_accounts [sum of balances by type of account; in the summary view this is based on balance_default (i.e. in the bank's default currency)]
Investments	FH_investments [sum of balances by type of investment; in the summary view this is based on balance_default (i.e. in the bank's default currency)]
Loans	FH_loans [sum of balances by type of loan; in the summary view this is based on balance_default (i.e. in the bank's default currency)]
Lines of Credit	FH_linesofcredit

	[sum of balances by type of line of credit; in the summary view this is based on balance_default (i.e. in the bank's default currency)]
Long-term savings	FH_longtermsavings [sum of balances by type of line of credit; in the summary view this is based on balance_default (i.e. in the bank's default currency)]

4. In the **Connections** tab, examine the **Household** control. It shows

   Note the information showing up on the control and the Dataverse table columns it is derived from

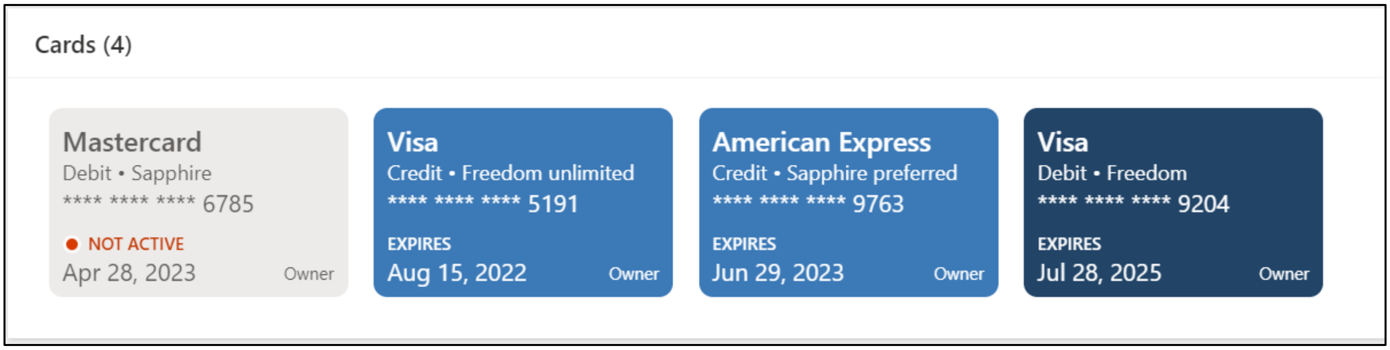


Household fields and table column mappings

Taylor Household(Sample)	Group.msfsi_Name
2 members	Count of GroupMember.id
11 financial holdings	Count of GroupFinancialHolding.id (connected to that Group)
Total income	
Total assets (in USD)	Sum of positive balances for FinancialHolding.balance_default retrieved via relevant GroupFinancialHolding)
Total liabilities (in USD)	Sum of negative balances for FinancialHolding.balance_default retrieved via relevant GroupFinancialHolding)

5. On the **Summary** tab, examine the **Cards** control (scroll down). It shows the credit and debit cards held by the customer. It can be enriched with insights such as alerts on expiring cards and cards pending activation.

   Note the information showing up on the control and the Dataverse table columns it is derived from



Cards felds and table column mappings

Mastercard	msfsi_fi_card.msfsi_cardnetwork
Debit	msfsi_fi_card.msfsi_cardtype
Sapphire	msfsi_fi_card.msfsi_productname
**** **** ****6785	msfsi_fi_card.msfsi_cardnumber
Not Active	msfsi_fi_card.status
Apr 28, 2023	msfsi_fi_card.msfsi_expirydate

Congratulations! You have explored the Unified customer profile app and its featured data within a customer record.

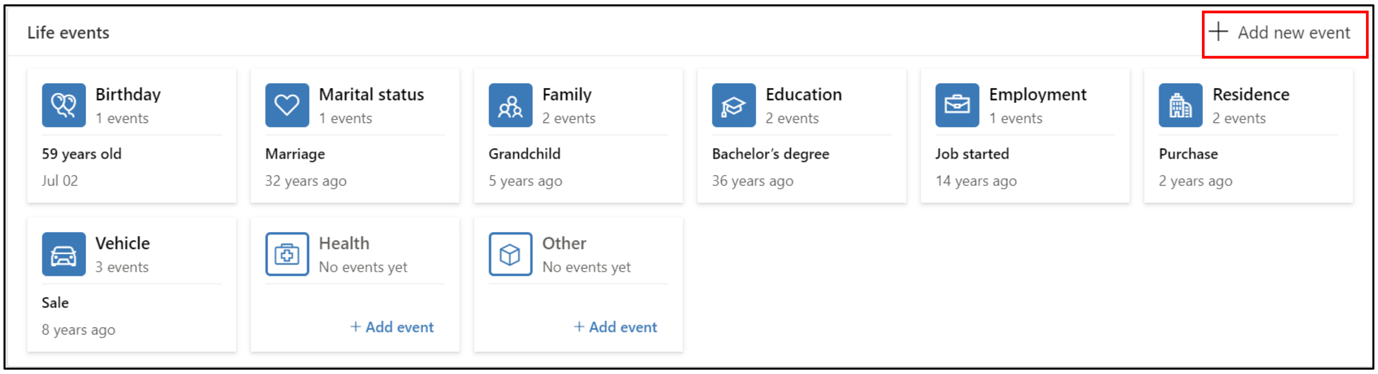
Exercise 3: Edit details in Unified customer profile

In this exercise, you will be adding and editing records and see those changes reflect in UCP. Most of the information in UCP comes in from financial core systems and hence is not editable. But a few edit scenarios are supported and those will be covered here.

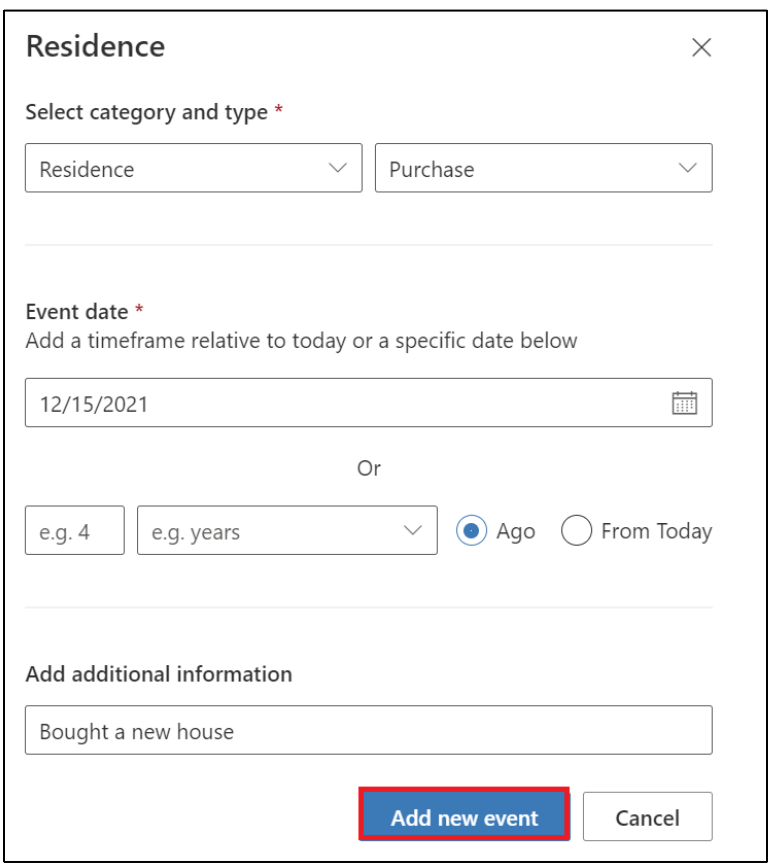
Task 1: Add, edit, delete a Life event

In this task, we will create a new life event, edit its details and then delete it.

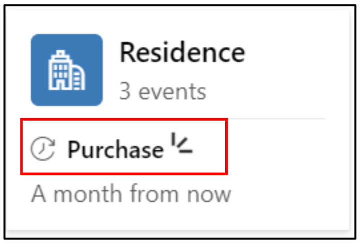
1. In the UCP view we have been working with, locate the Life events control. Click on **Add new event**.



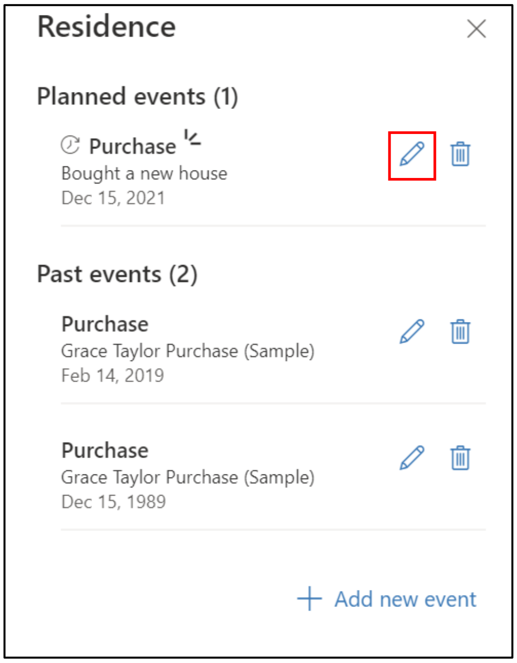
2. In the dialog box that opens, set the following properties and click on **Add new event** button.
   a. **Select category and type** – Residence, Purchase
   b. **Event date** - <Any date in future>
   c. **Add additional information** – Bought a new house



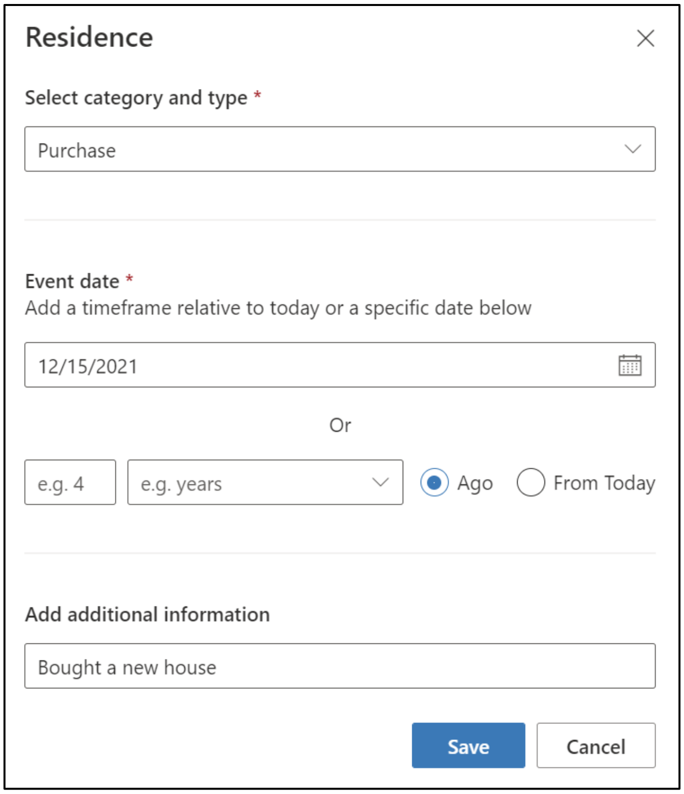
3. Note the add event reflecting in the **Residence** Life event control.



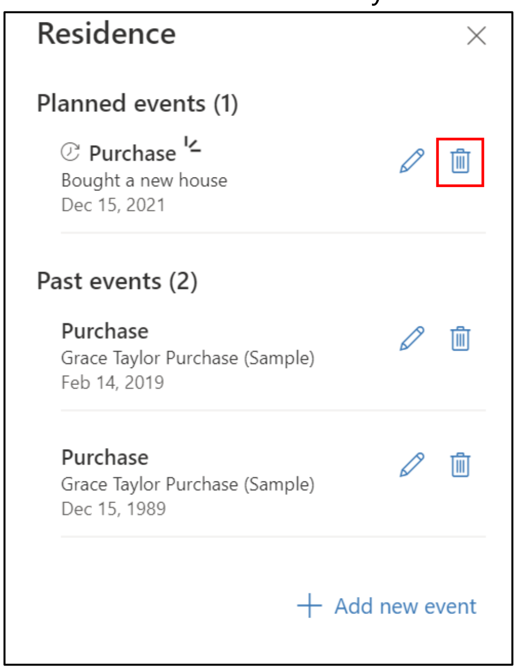
4. Click on the **Residence** control to view details. Click on the **Edit** icon to edit the Life event details



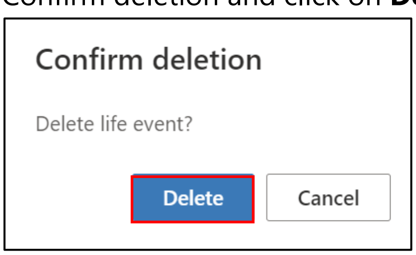
Life event edit dialog will pop up, edit any of the details and see it reflect back in the Life event control.



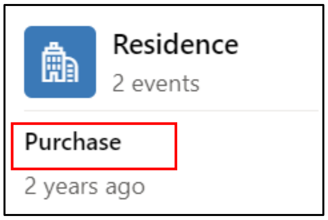
5. You can also delete the newly added event by clicking on the delete icon



Confirm deletion and click on **Delete** button



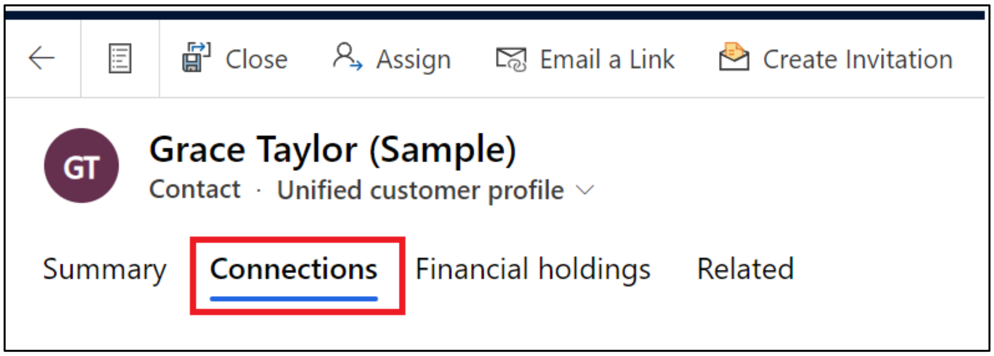
6. Note the change reflect on the **Residence** Life event control



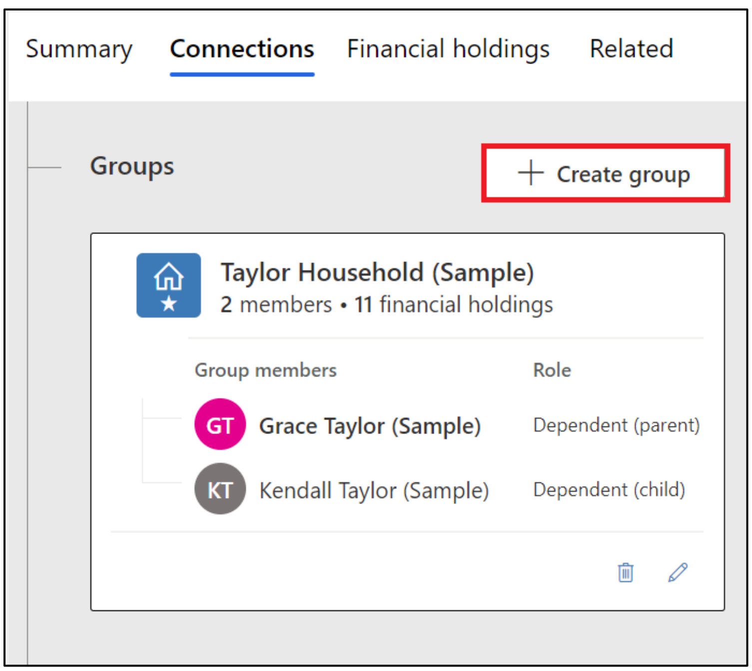
Task 2: Add, edit, delete a Group

In this task, we will create a new group, edit its group members, its group financial holdings and then delete it.

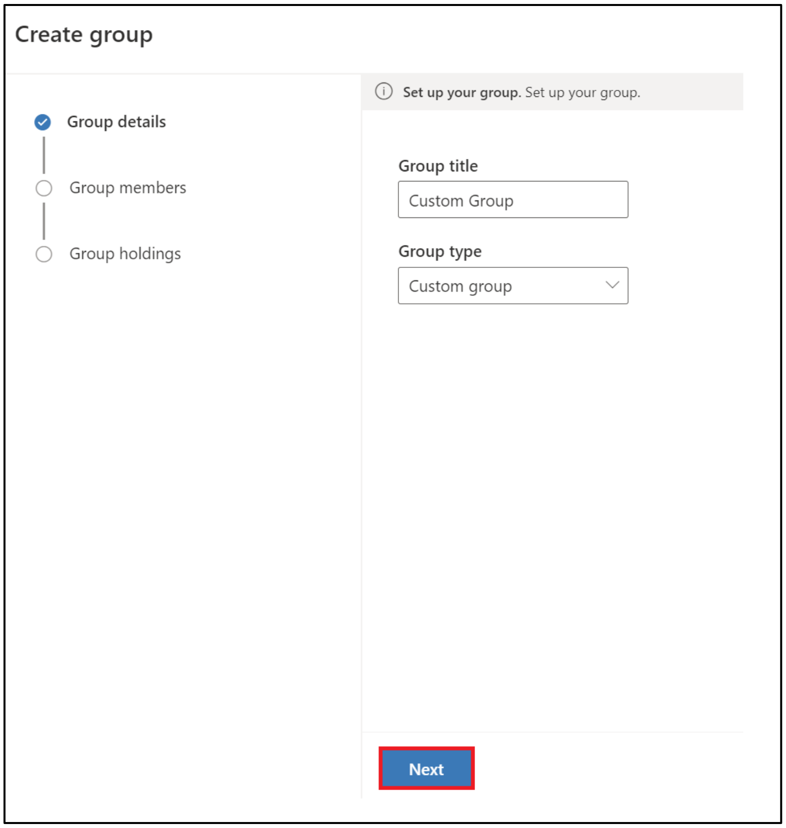
1. In the UCP view we have been working with, click on **Connections** tab.



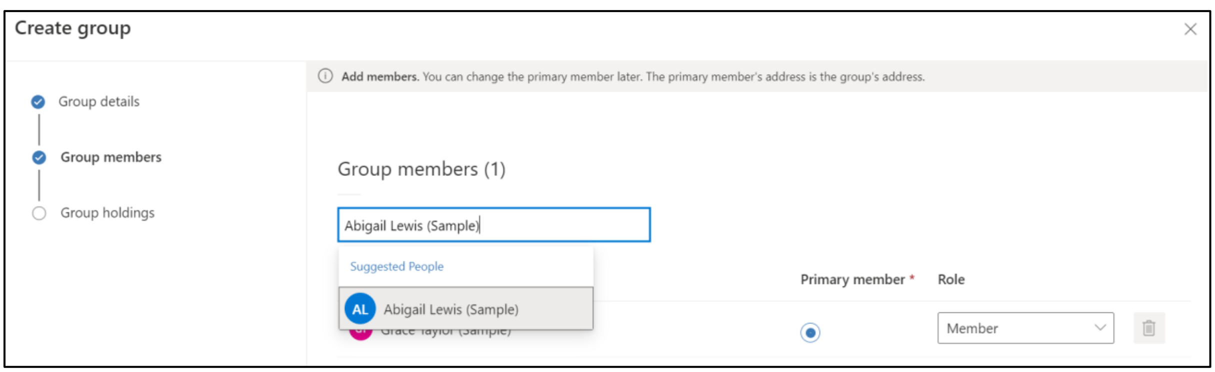
2. Click on **+ Create Group**



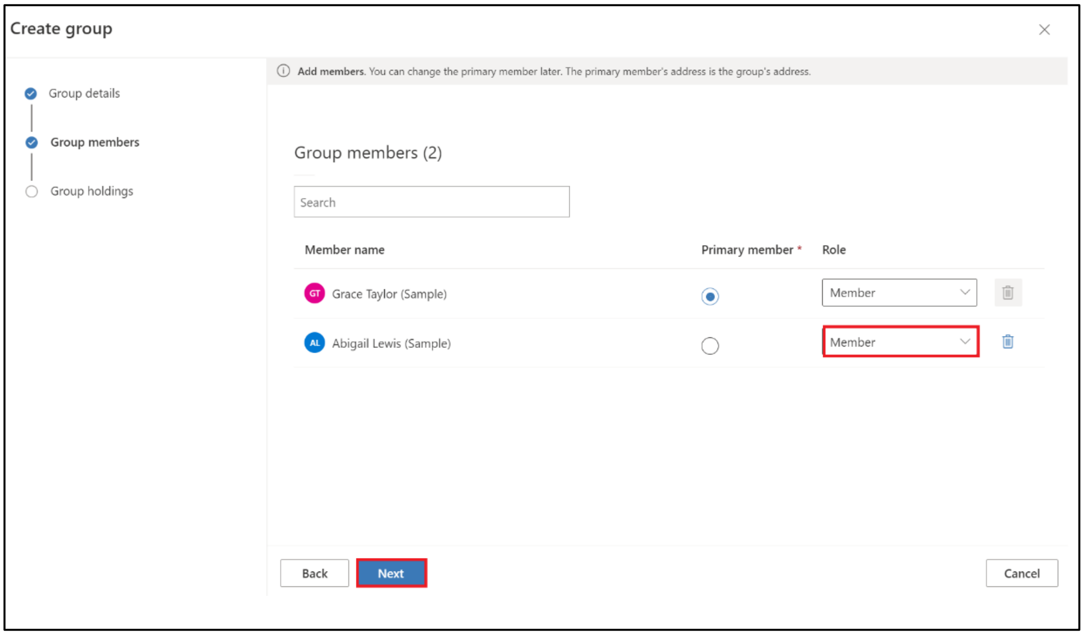
3. In the window that opens, set the following values and click on **Next**
   a. **Group title –** Custom Group
   b. **Group type –** Custom group



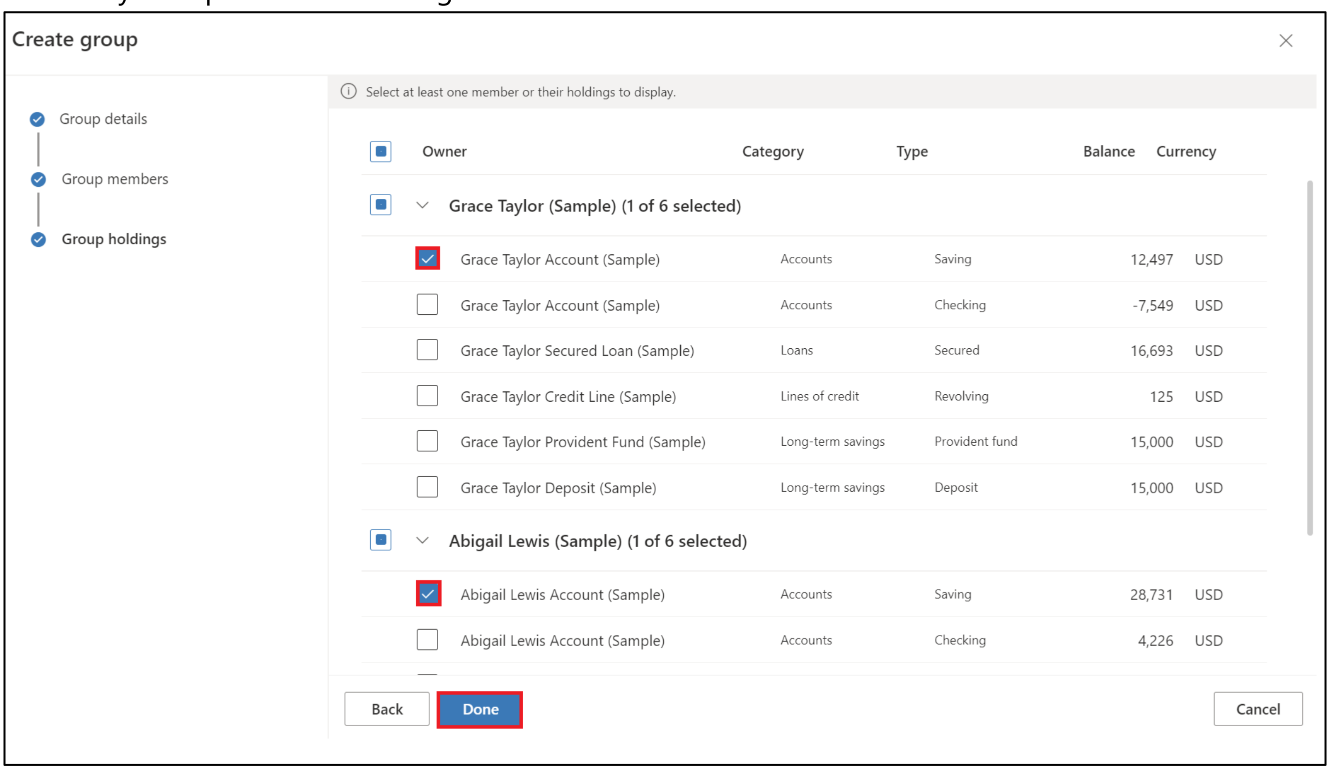
4. In the group member search, type in **Abigail Lewis (Sample)** and select the record that appears in the search results.



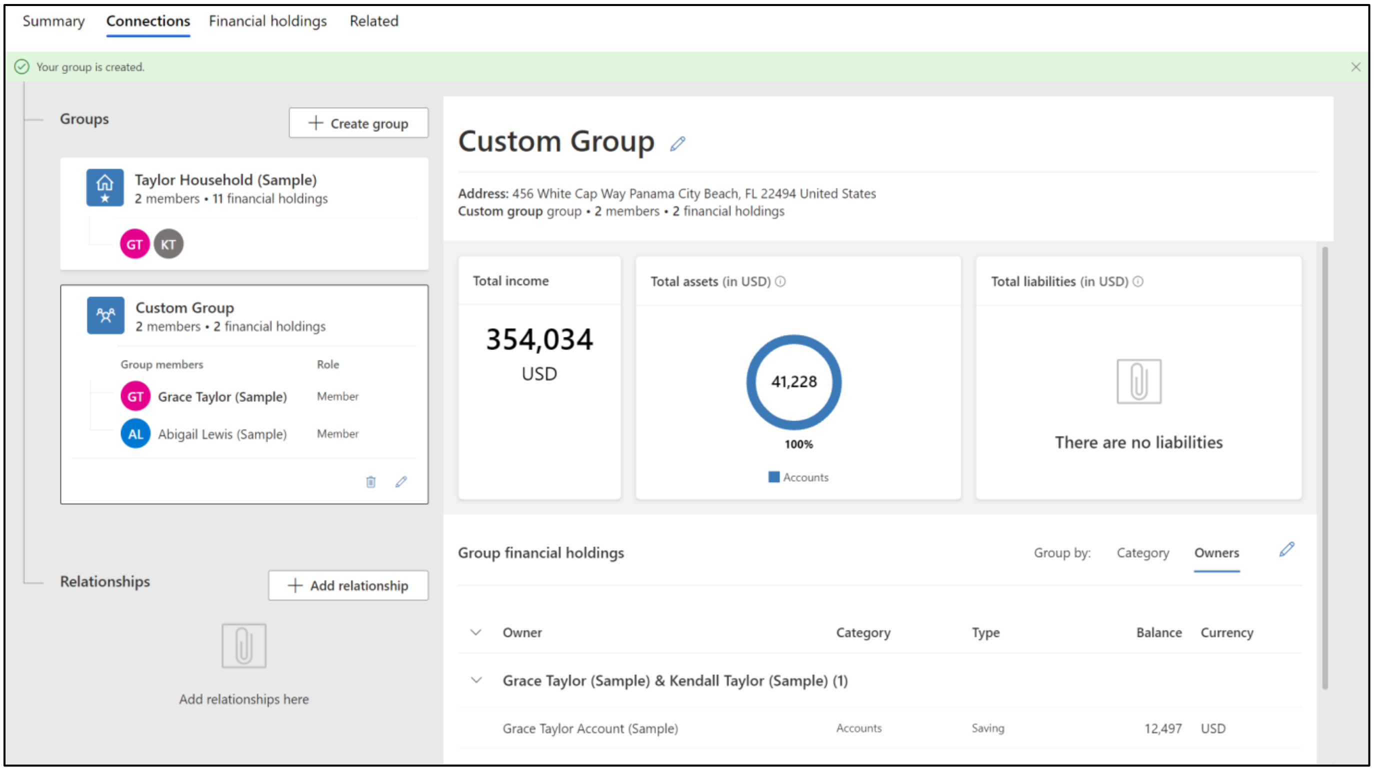
5. Set the **Role** of Abigail Lewis as **Member** and click on **Next**.



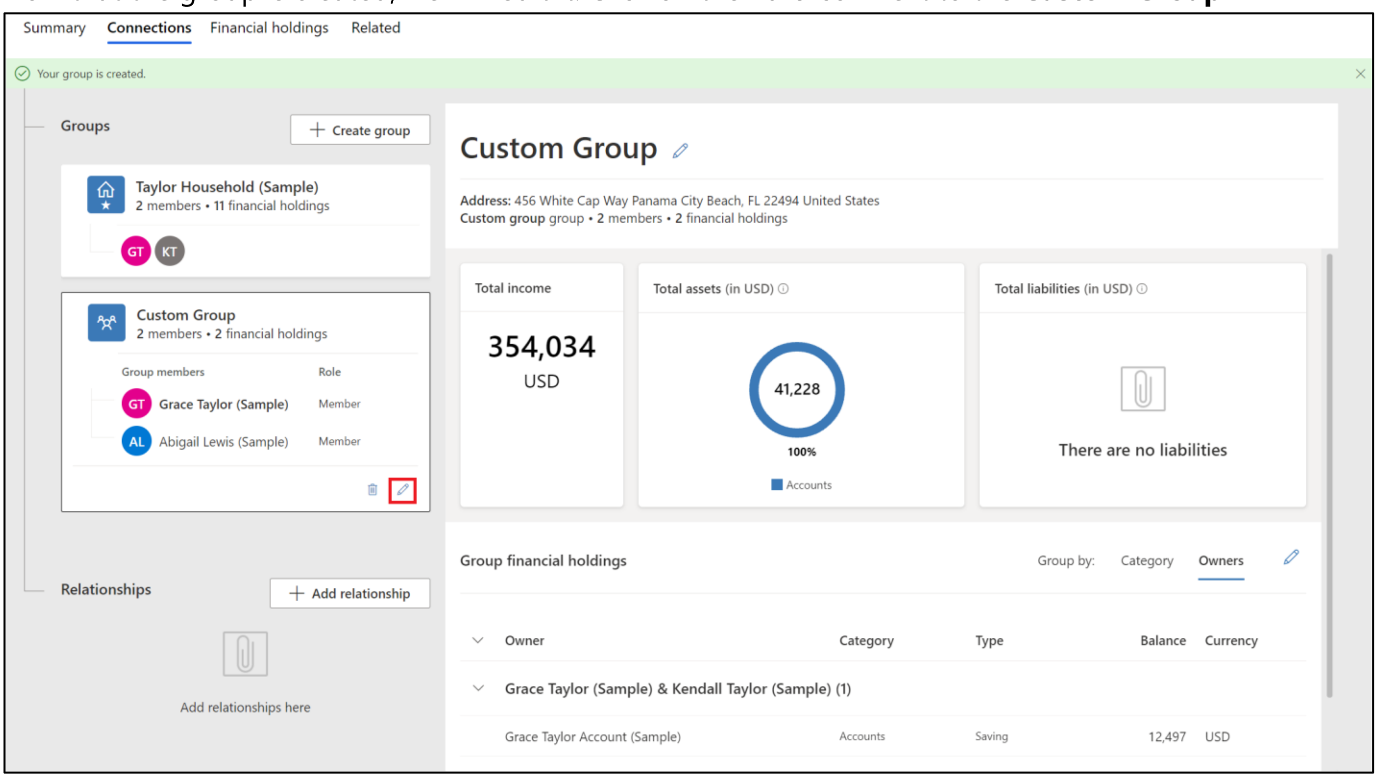
6. Select any Group Financial Holdings records and click on **Done**



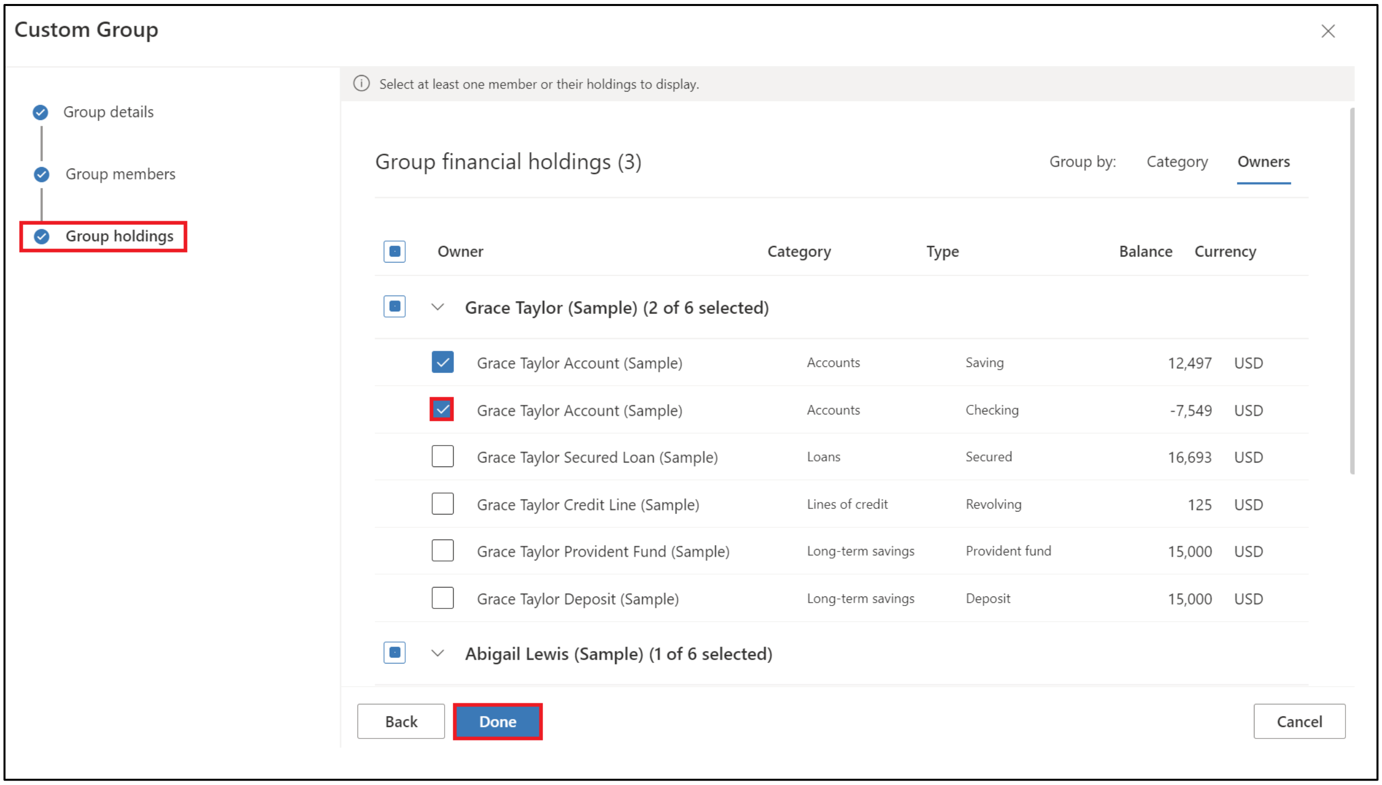
7. Note the changes reflect on the **Connections** tab. The newly created group **Custom Group** shows up on the Groups section as well as on the summarized Financial Strength controls



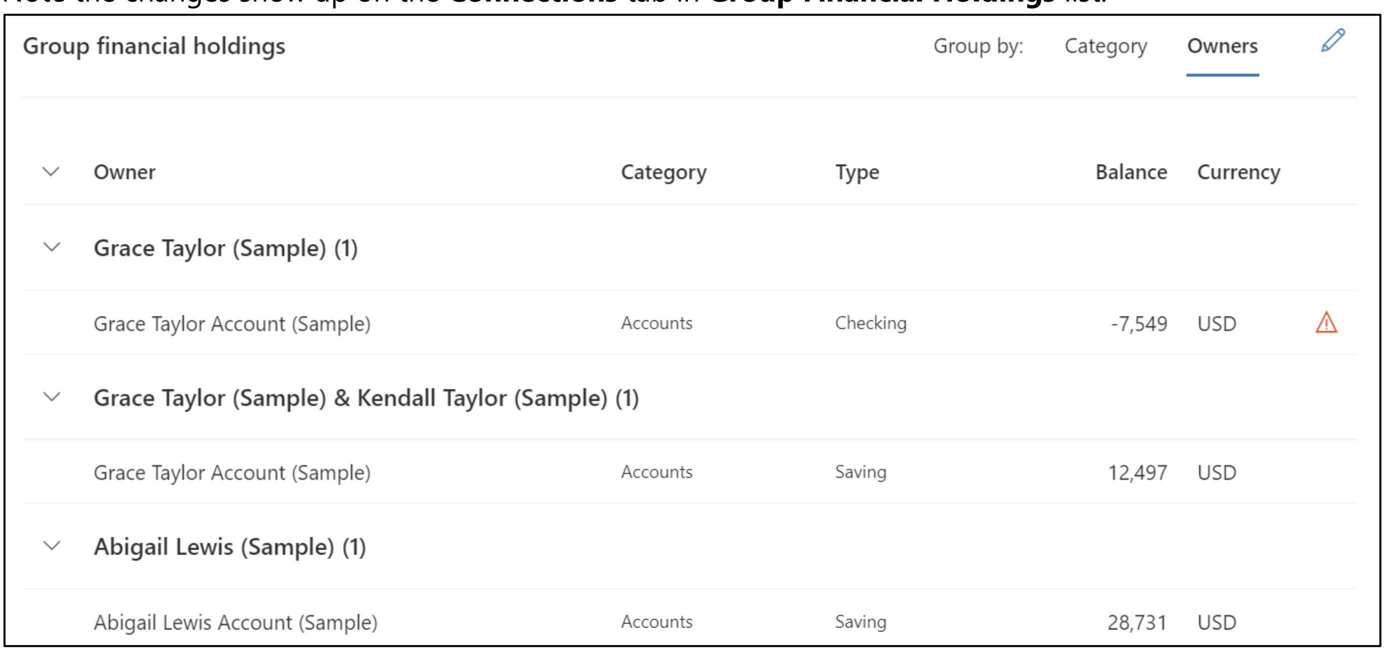
8. Now that the group is created, we will edit it. Click on the **Edit** icon next to the **Custom Group**



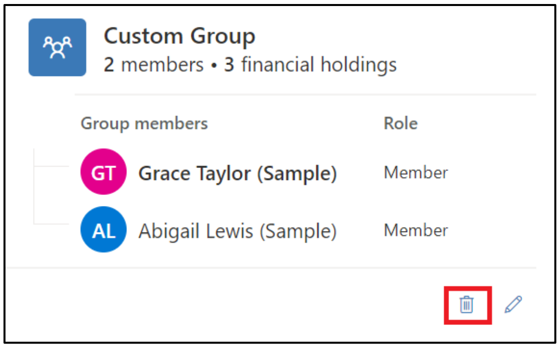
9. When the Group edit dialog opens up, click on **Group Holdings** and add any Group Financial Holdings record on the grid. Once done, click **Done**.



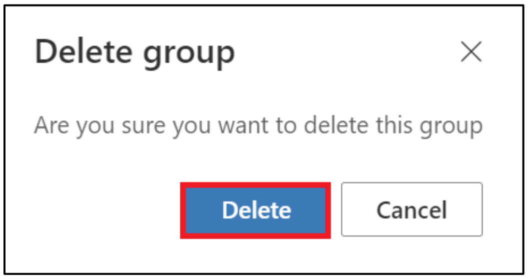
10. Note the changes show up on the **Connections** tab in **Group Financial Holdings** list.



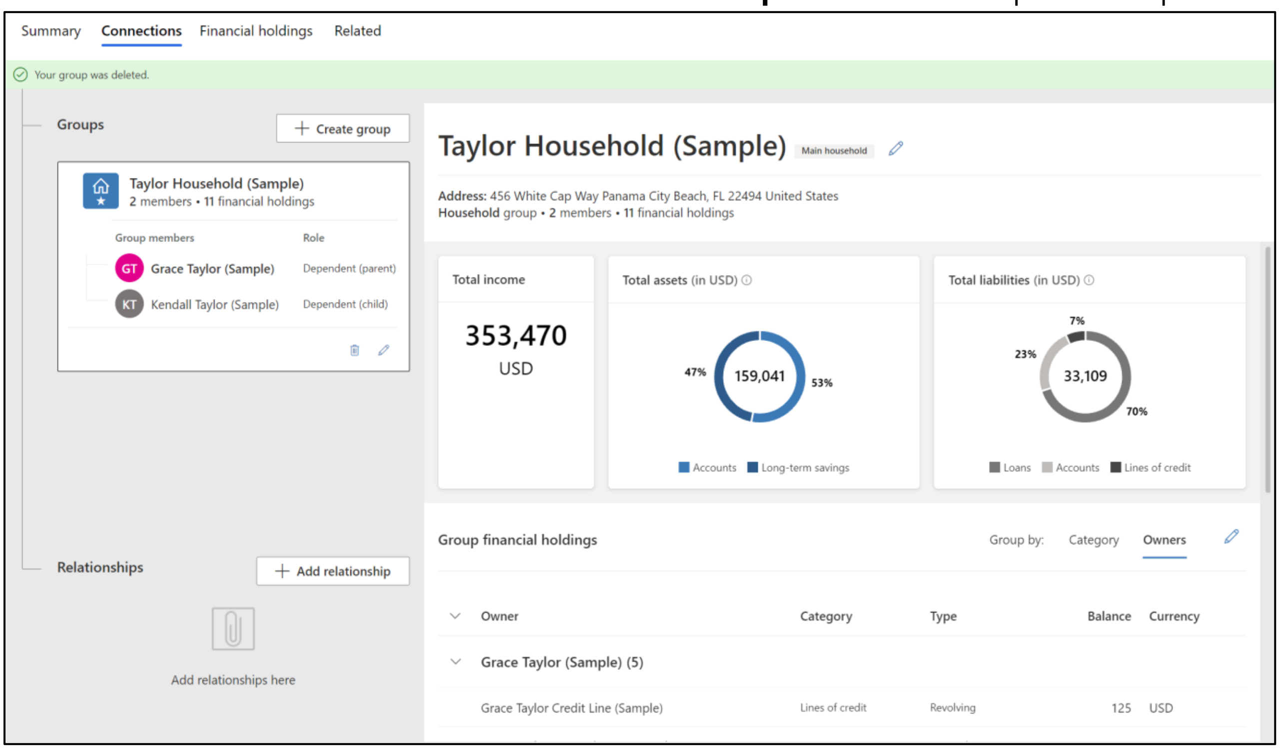
11. Now that we added and edited a new Group, we will delete it. Click on the **Delete** icon next to the **Custom Group**.



12. In the dialog box that opens, click on **Delete**.



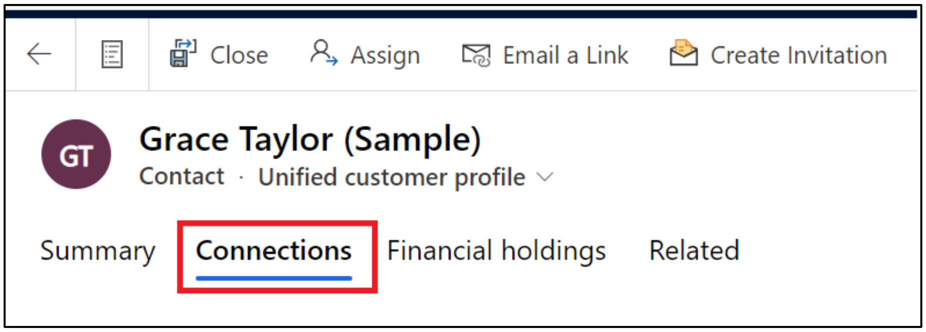
13. Note that the **Connections** tab removes the **Custom Group** and resets to the previous experience.



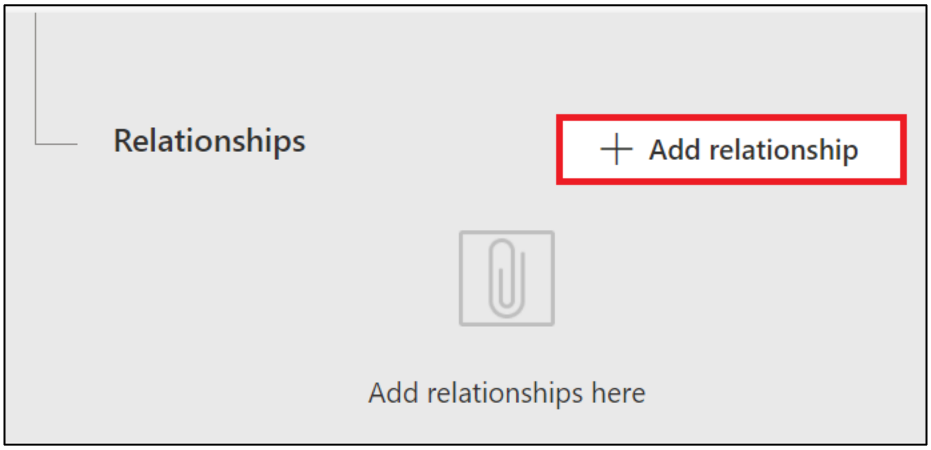
Task 3: Add, edit, delete a Relationship

In this task, we will create a new relationship, edit its relationship type, and then delete it.

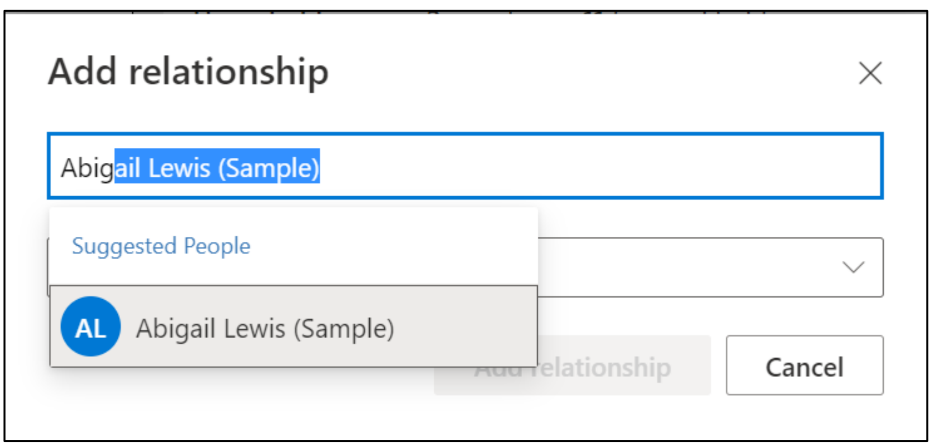
1. In the UCP view we have been working with, click on **Connections** tab.



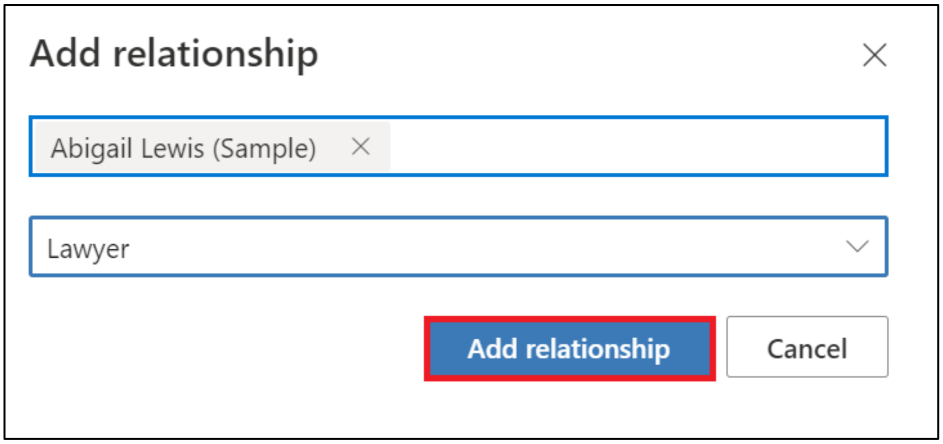
2. Click on **+ Add Relationship**



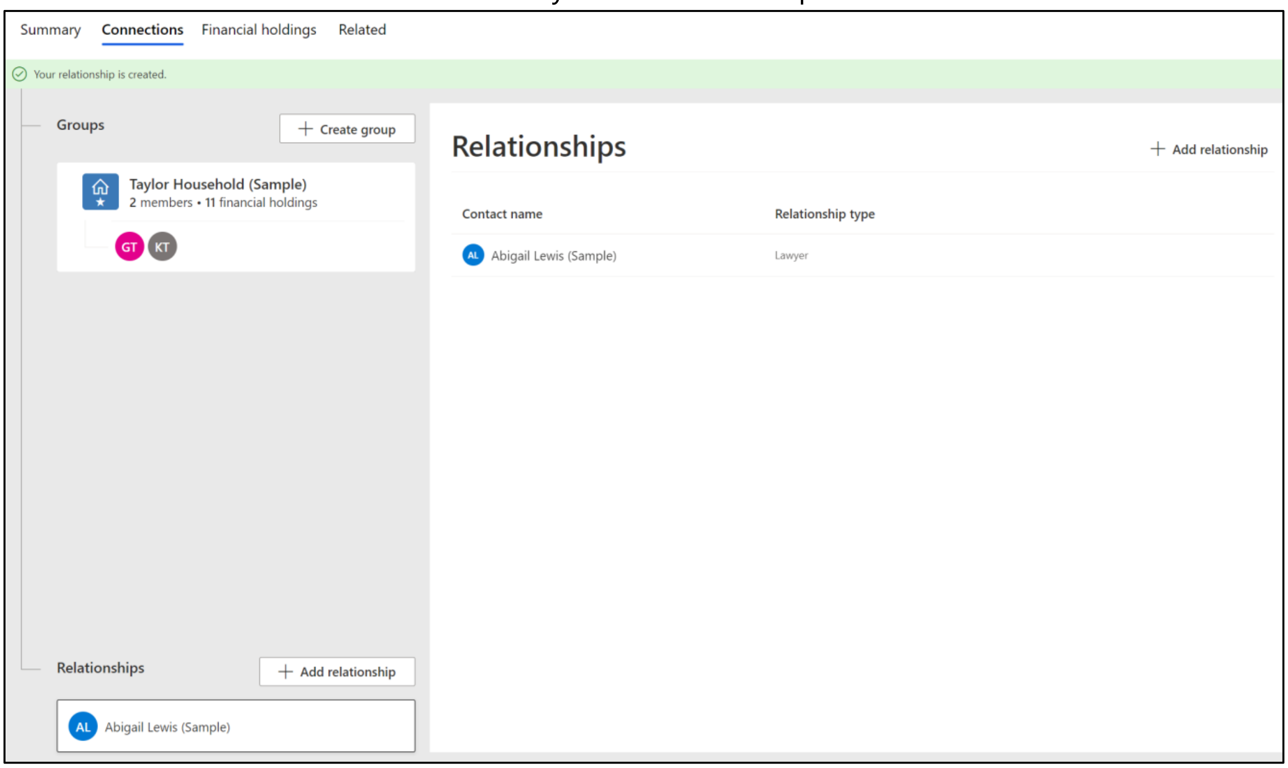
14. In the search box, type in **Abigail Lewis (Sample)** and select the record that appears in the search results.



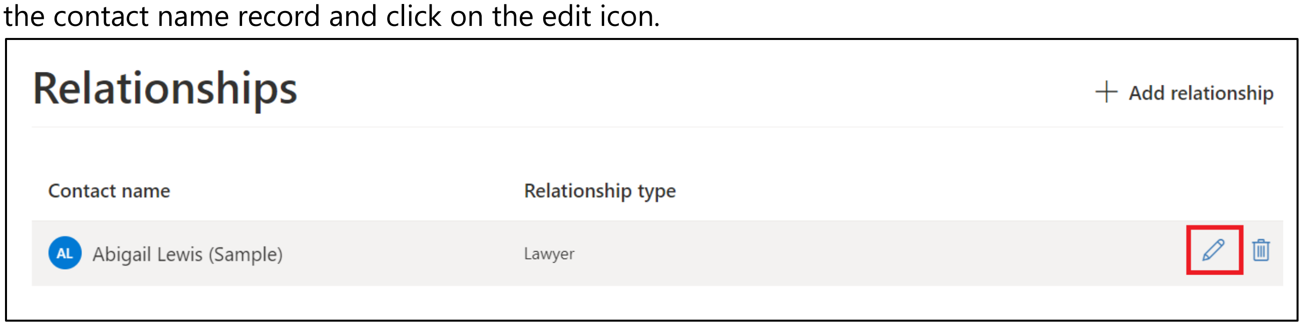
15. Set Relationship type value and click on **Add relationship**
    a. **Relationship type** = Lawyer



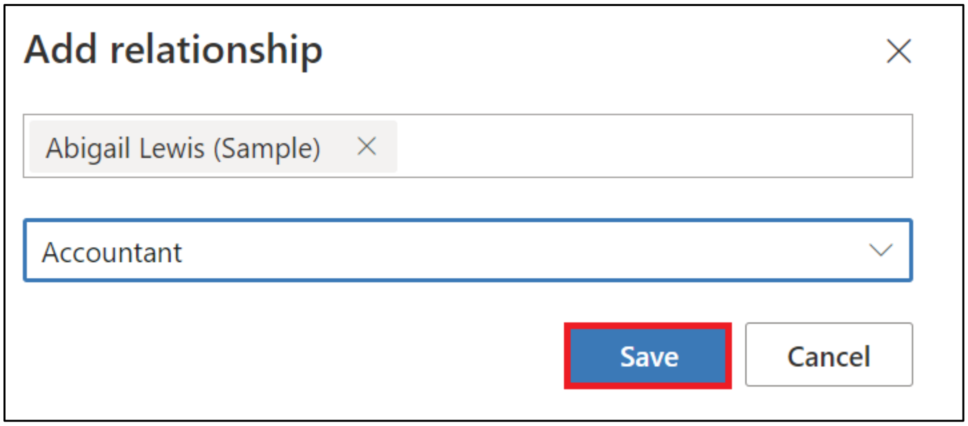
16. Note the **Connections** tab reflect the newly added relationship**.**



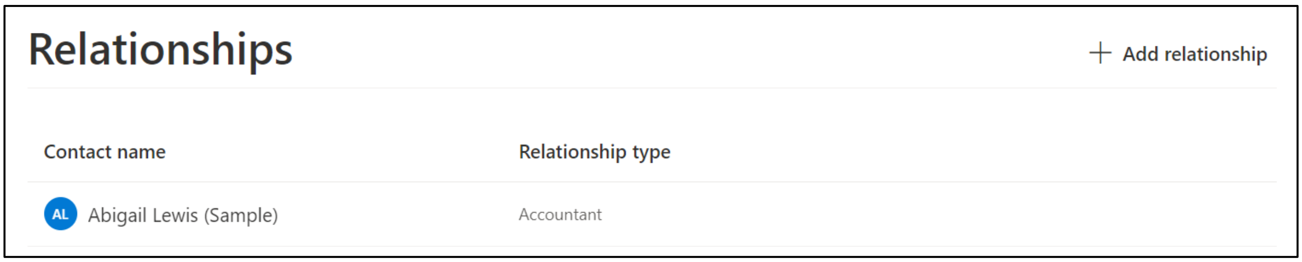
17. Now that we added the relationship, we will edit it. On the **Relationships** grid on the right, hover over the contact name record and click on the edit icon.



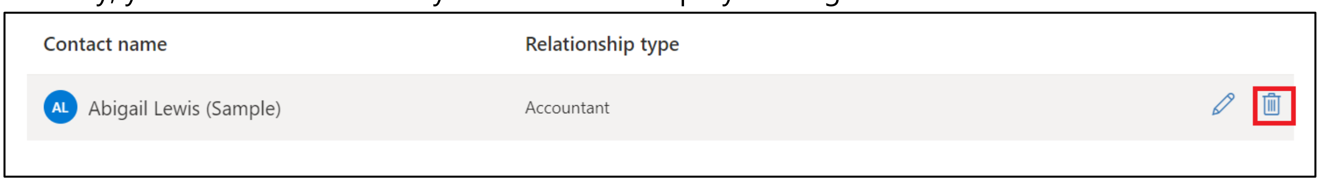
18. Set the relationship type to *Accountant* and click on **Save**.



19. Note the change reflect on the **Relationship** grid.



20. Similarly, you can delete the newly added relationship by clicking on the delete icon.



Congratulations! You have now added, edited, and deleted life moments, groups, group financial holdings and relationships in the UCP application.

Exercise 4: Extend Unified customer profile application

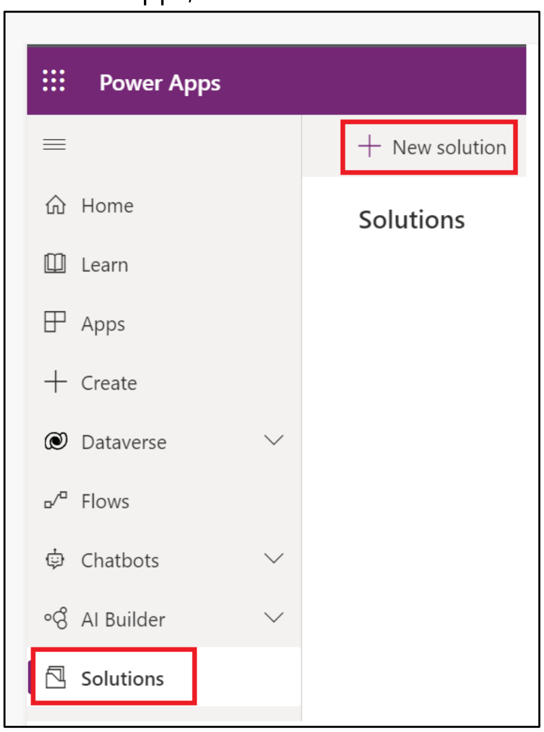
In this exercise, you will be customizing UCP application in the following ways – 1) Take UCP application as base and edit it to add a new control to it 2) Edit UCP controls such as Life Event Type to add a new Life Event Type.

Task 1: Add new controls to UCP

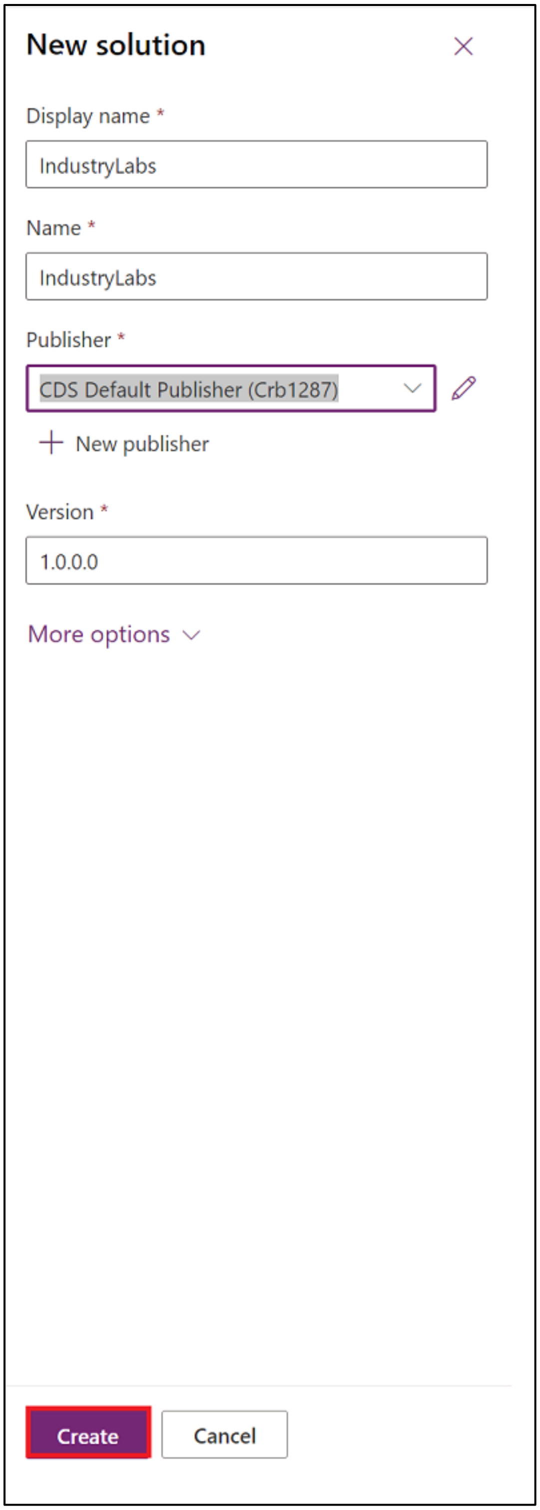
In this task, we will first create a new solution and then customize UCP to add new controls.

1. Navigate to [Power Apps]() in an In-Private or Incognito window.
2. Select the proper **Environment** in the upper right. (Your assigned number)

3. In Power Apps, select **Solutions** in the left sitemap. Click on **+New Solutions** and set following values



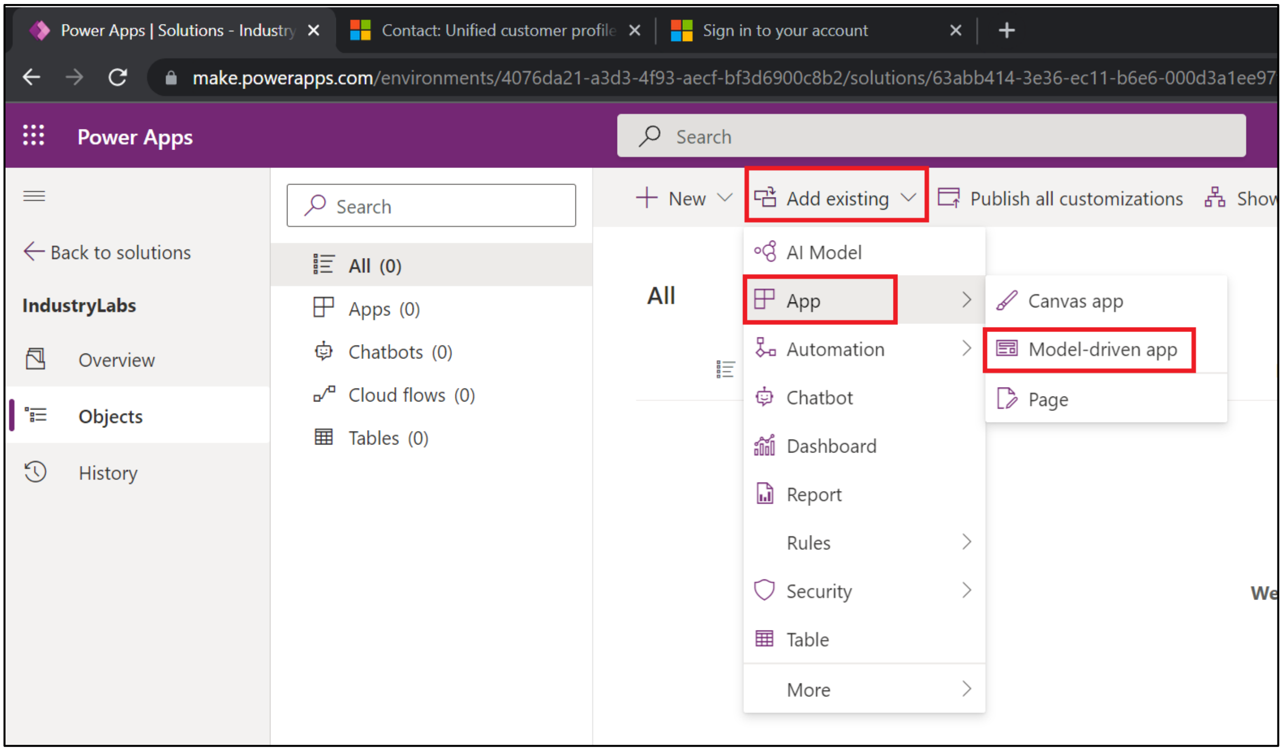
4. Create a new solution with the following properties and click on **Create**
   Note: Best practice would be to create/use a custom publisher. For simplicity in the lab work select the default.



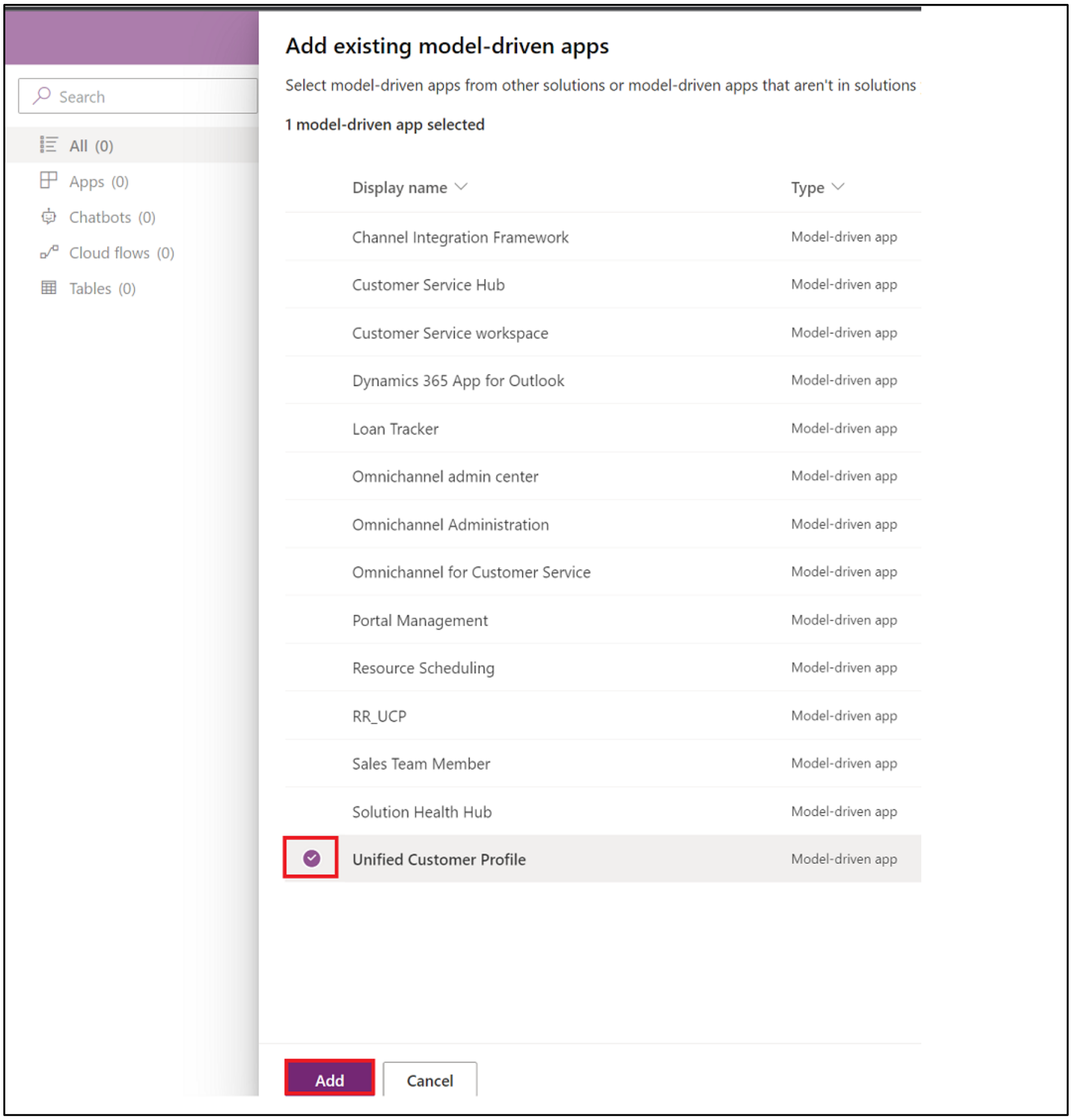
5. Once the solution is created, click on the solution name to begin adding components.

Display name		Name	Created ↓	Version	Managed externally?	Solution check
IndustryLabs	⋯	IndustryLabs	10/26/2021	1.0.0.0		Hasn't been run

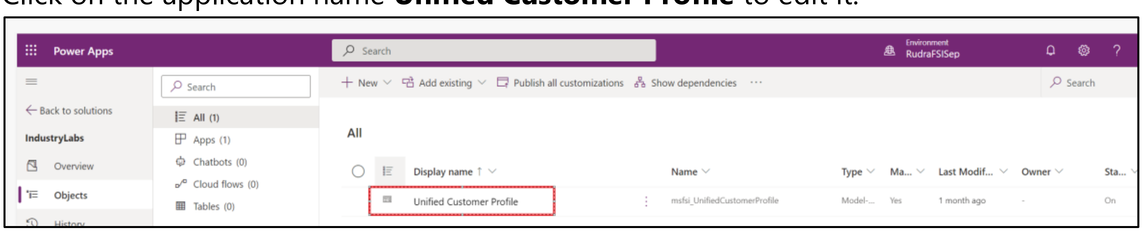
6. In the solution explorer, click on **Add existing** -> **App** -> **Model-driven app**.


Power Apps | Solutions - Industry
Contact: Unified customer profile
Sign in to your account
make.powerapps.com/environments/4076da21-a3d3-4f93-aecf-bf3d6900c8b2/solutions/63abb414-3e36-ec11-b6e6-000d3a1ee97
Power Apps
Search
Back to solutions
IndustryLabs
Overview
Objects
History
Search
All (0)
Apps (0)
Chatbots (0)
Cloud flows (0)
Tables (0)
New
Add existing
Publish all customizations
All
AI Model
App
Automation
Chatbot
Dashboard
Report
Rules
Security
Table
More
Canvas app
Model-driven app
Page

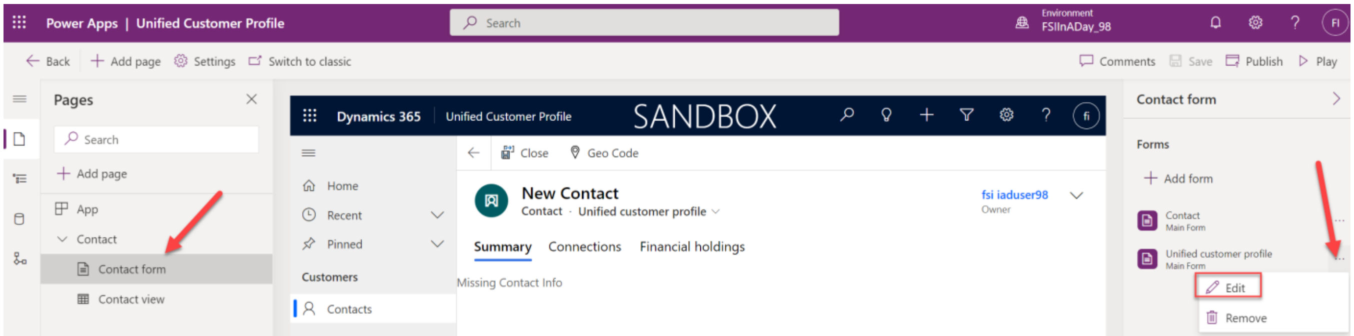
7. Select the **Unified customer profile** application from the list and click **Add**.



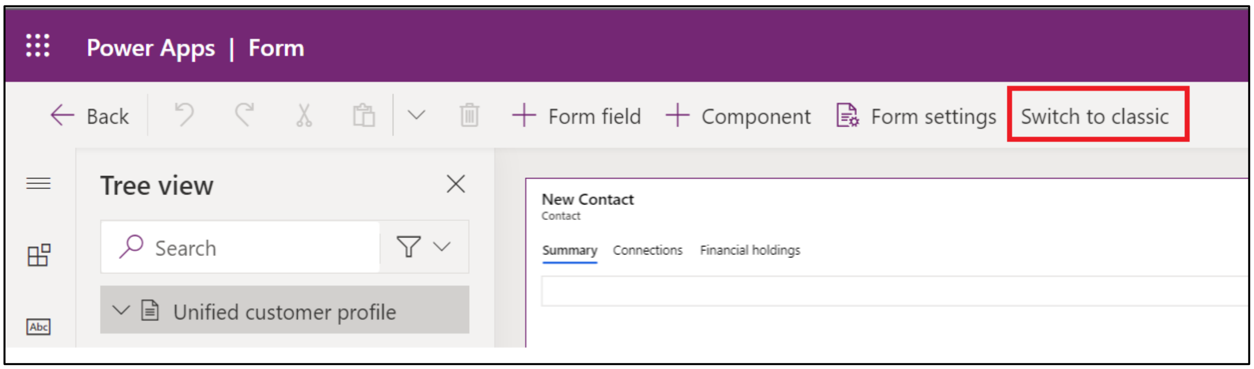
8. Click on the application name **Unified Customer Profile** to edit it.



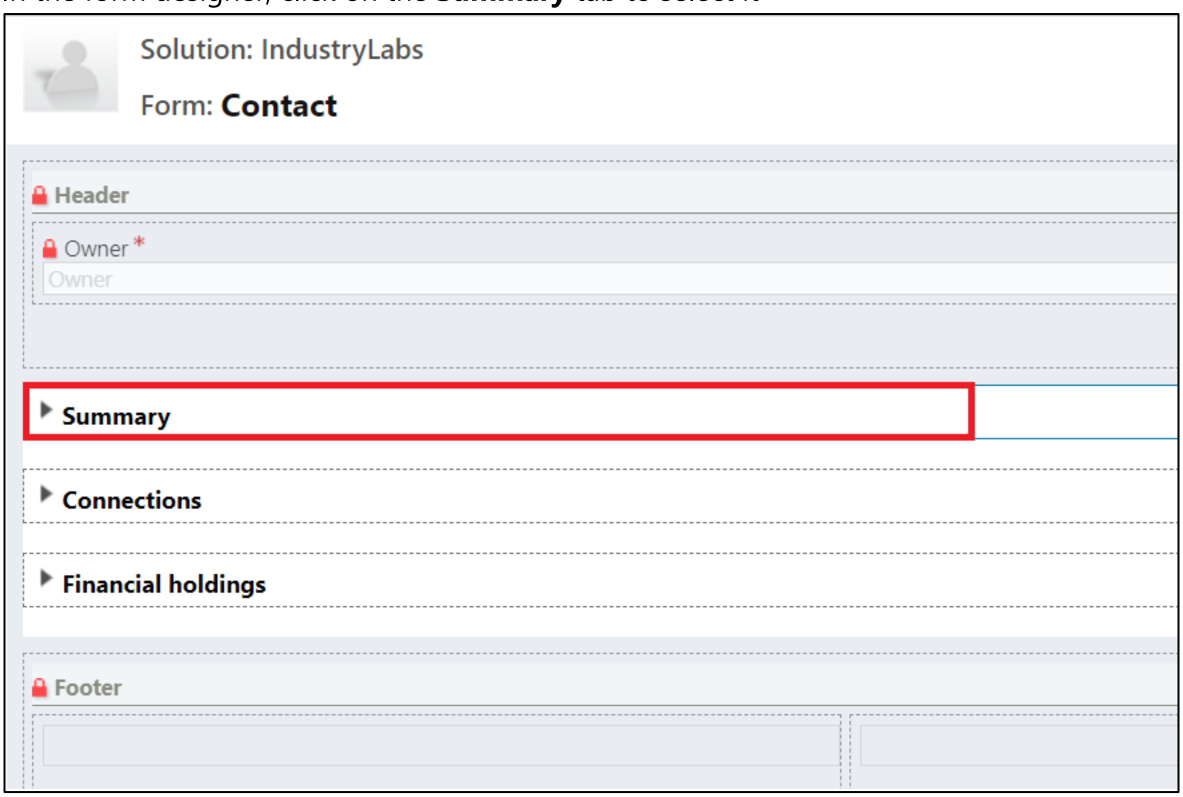
9. This will open the application editor
10. Click on the Forms dropdown and then on the edit icon for **Unified customer profile**.



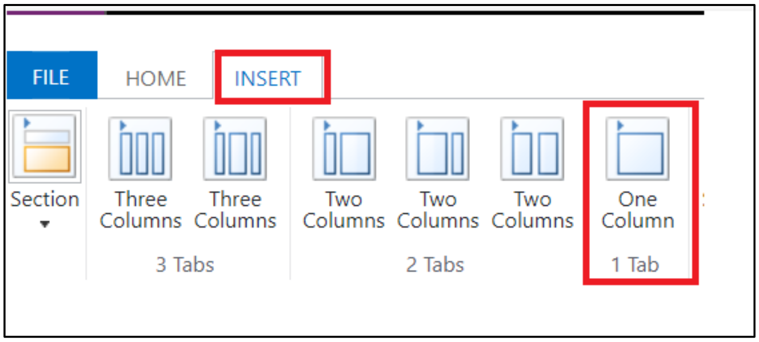
11. This will open the form designer for Unified customer profile. Click on the **Switch to Classic** menu item to launch the classic form designer.



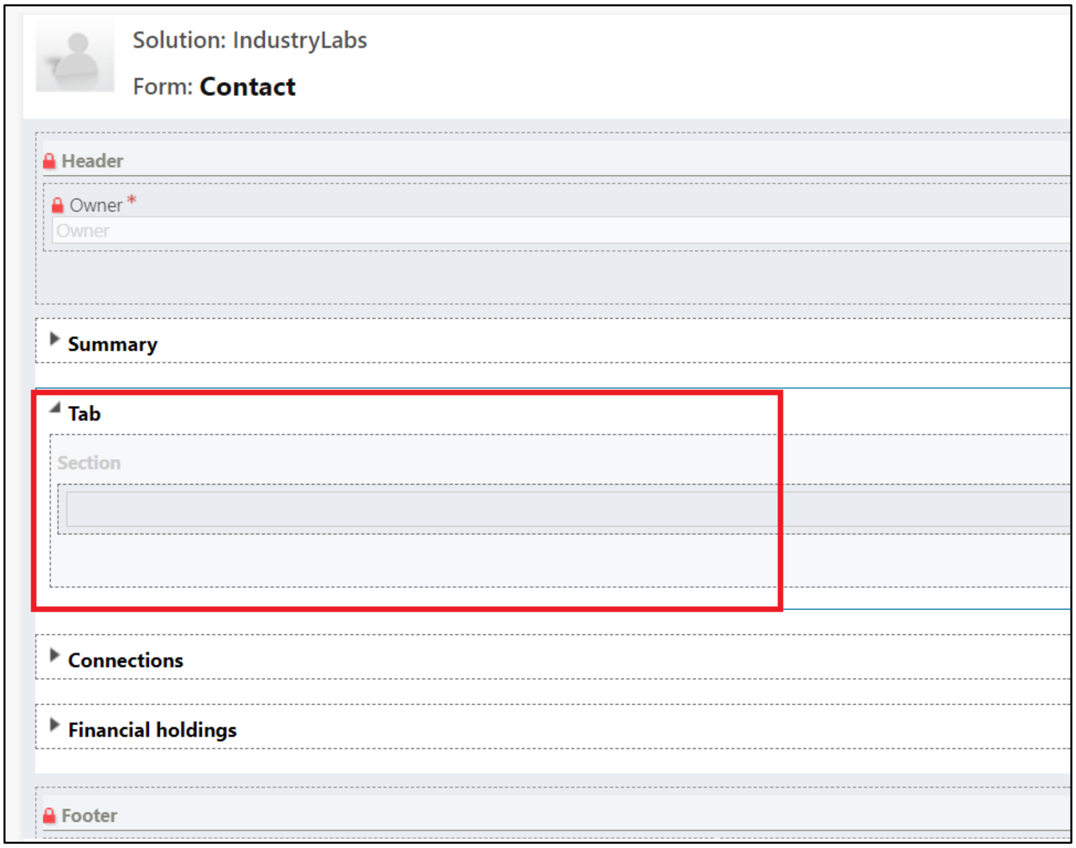
12. In the form designer, click on the **Summary** tab to select it



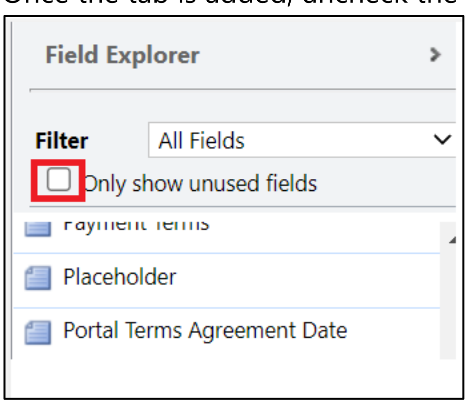
13. Click on **Insert** and then **One Column** tab



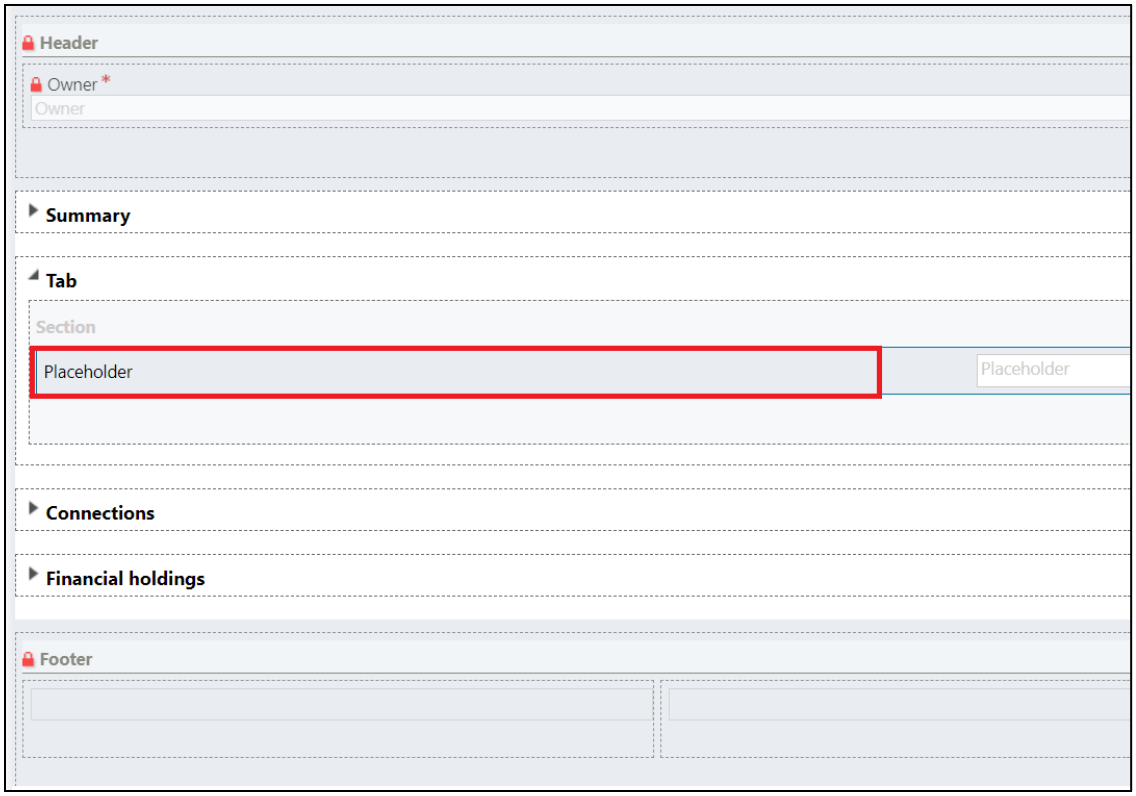
14. This will add a new tab to the form under **Summary**



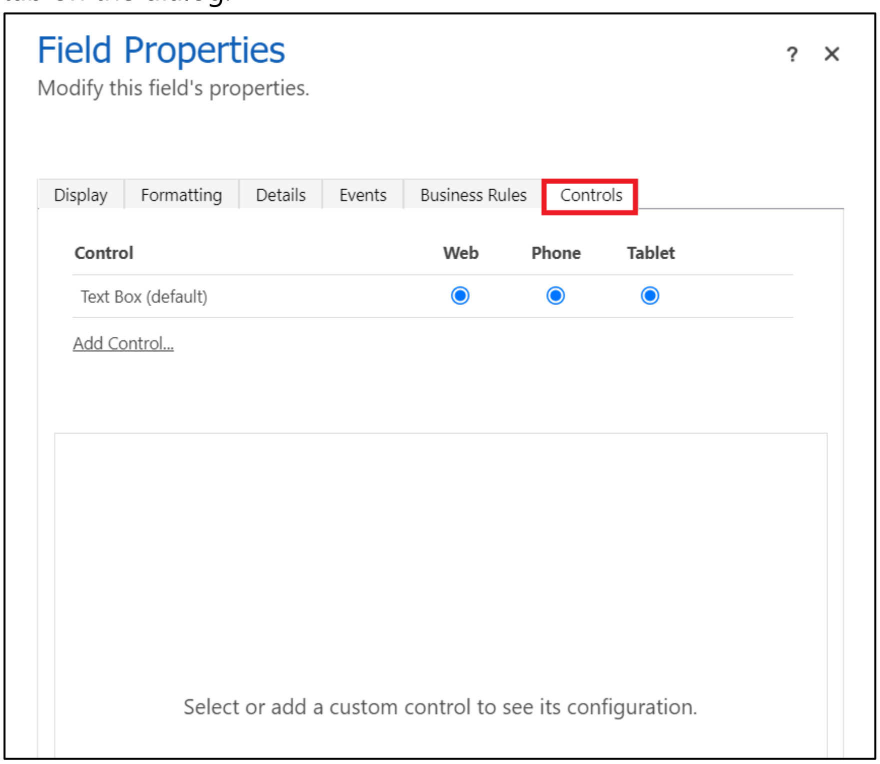
15. Once the tab is added, uncheck the **Only show unused fields** checkbox



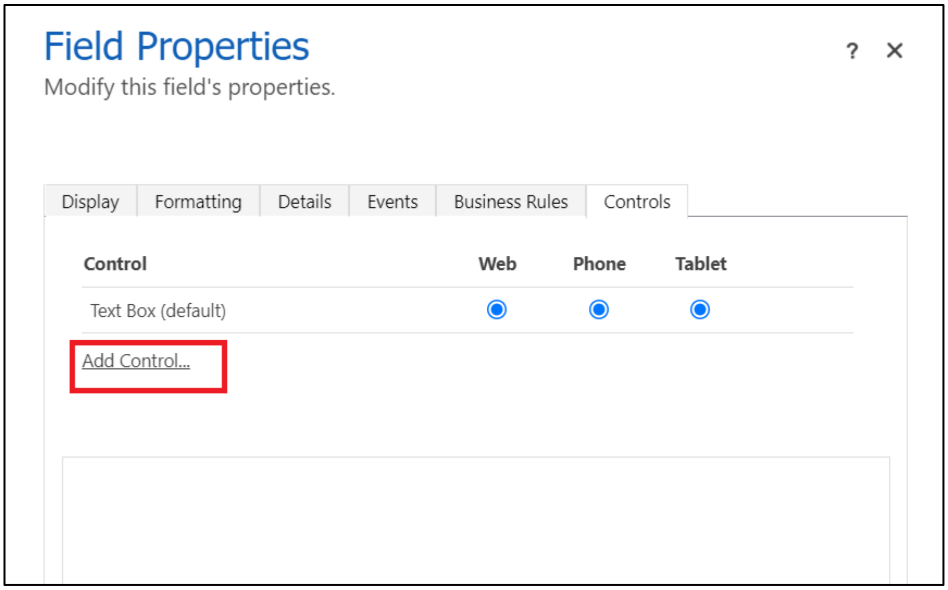
16. In the fields list, look for **Placeholder** field. Drag and drop it to the newly added tab.



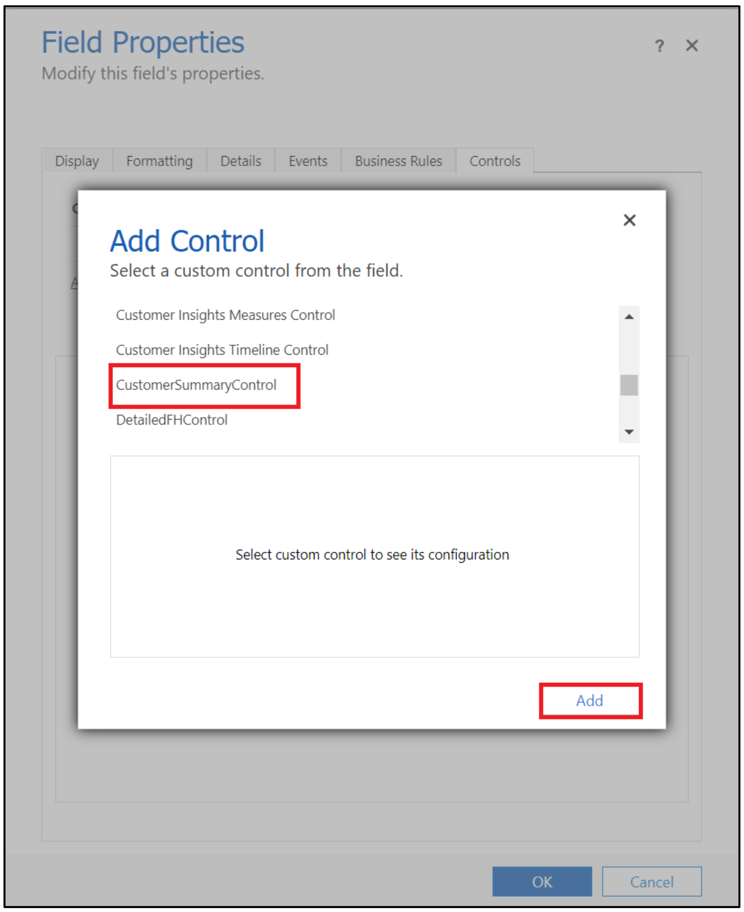
17. Now double click the **Placeholder** field on the form to open the field properties. Select the **Controls** tab on the dialog.



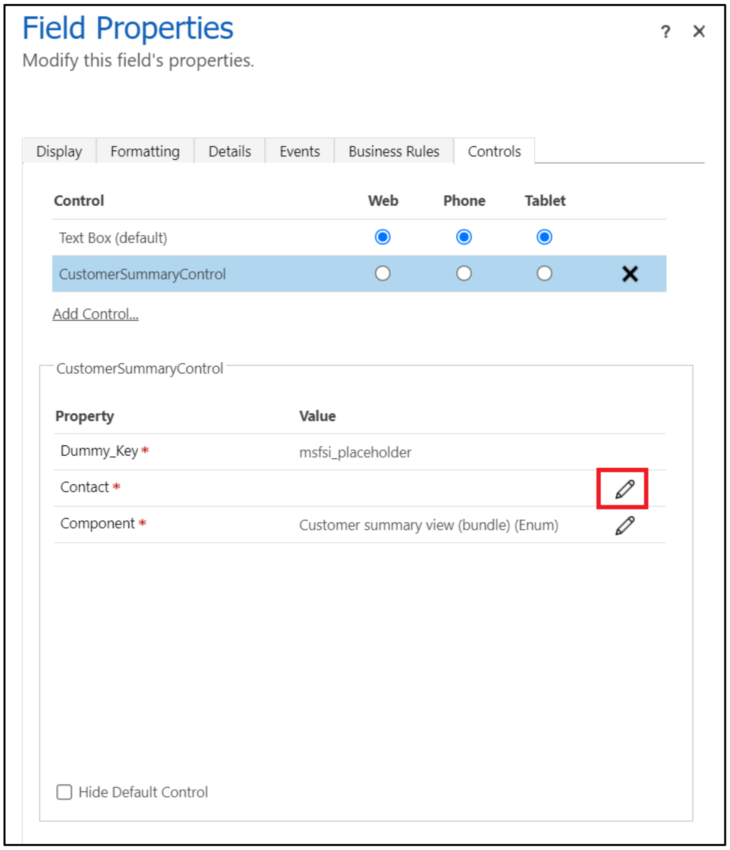
18. Now click on **Add Control** and look for **Customer Summary** control in the list



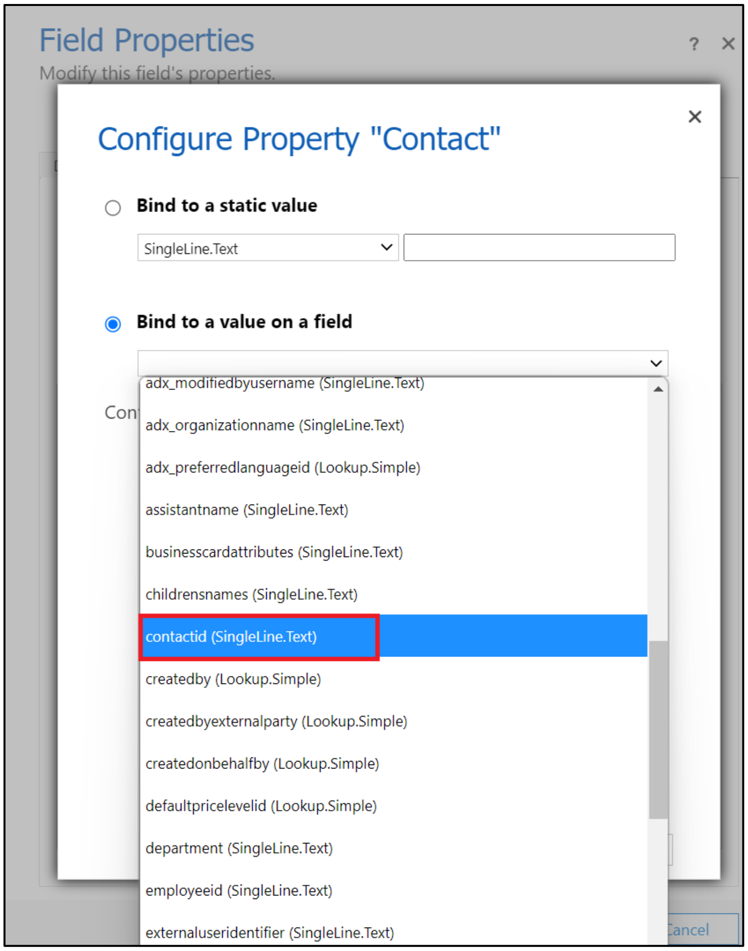
19. Select the **Customer Summary** control and click on **Add**.



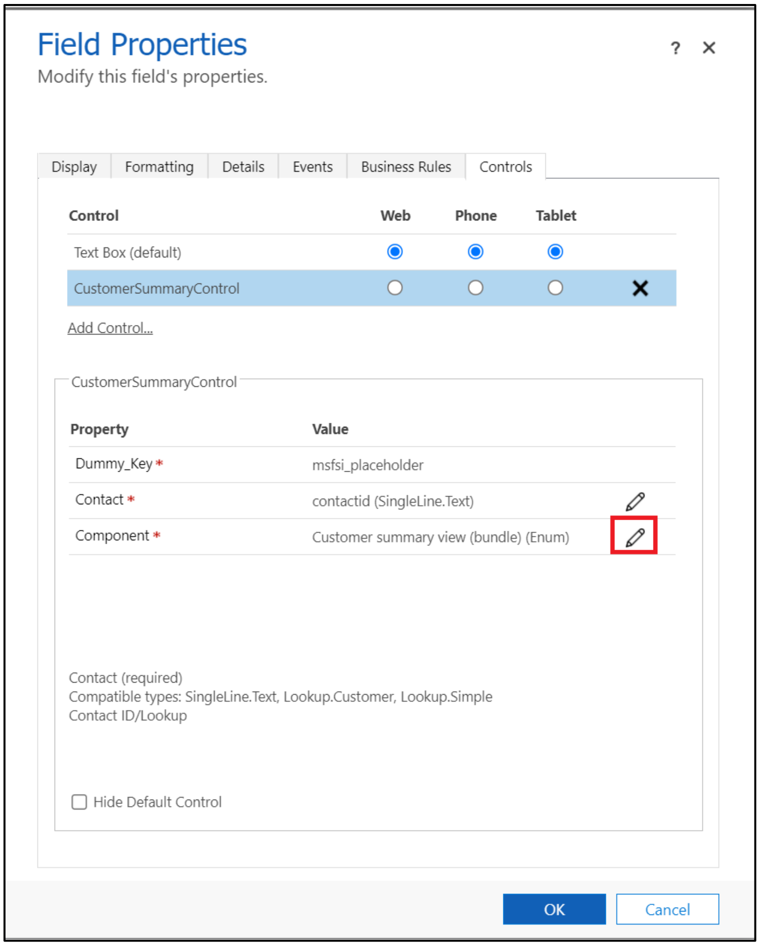
20. Once the control is added, edit properties one by one. First, click on edit icon for **Contact** property



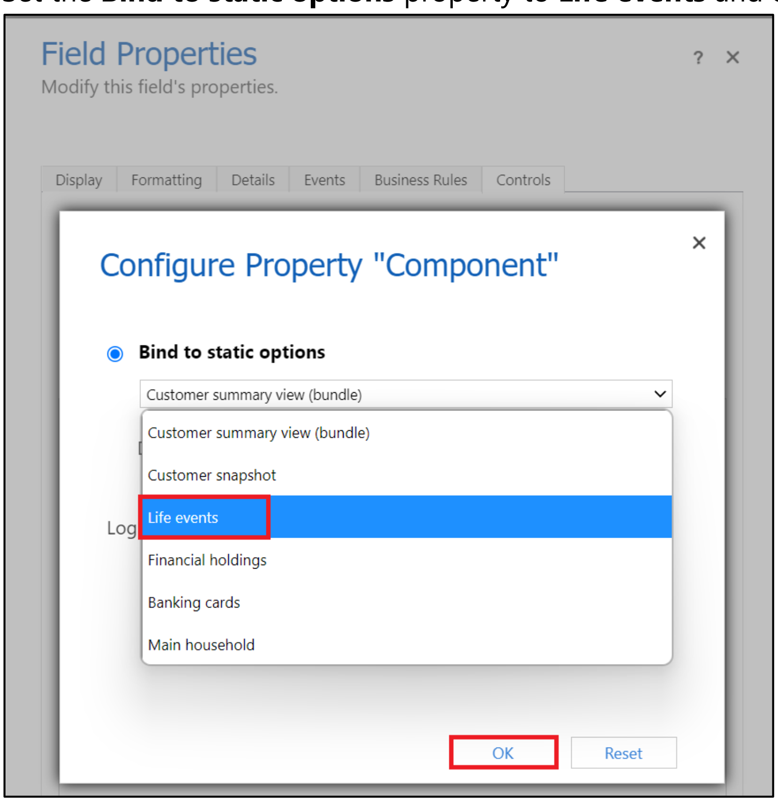
21. In the dialog box that opens, set the **Bind to a value on a field** value to **contactid(SingleLine.Text)** and click **OK**.



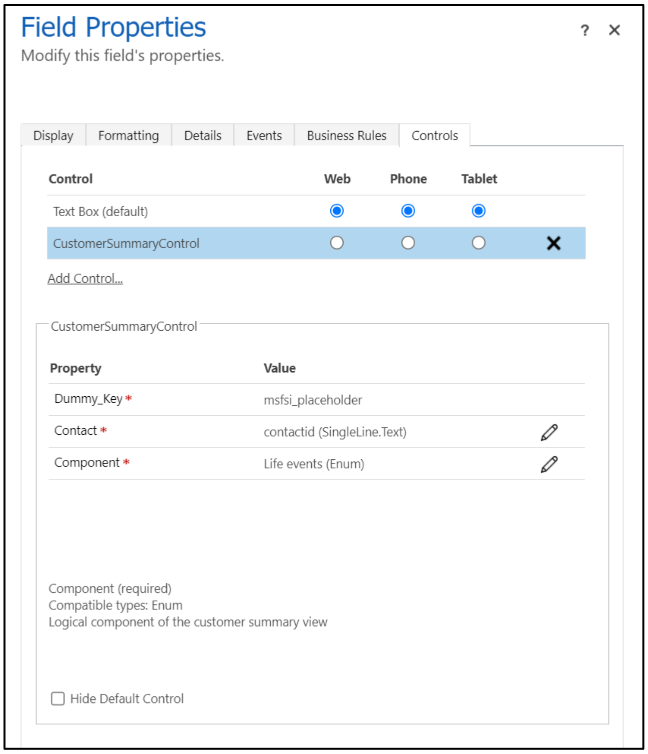
22. Now click the edit icon next to **Component** property.



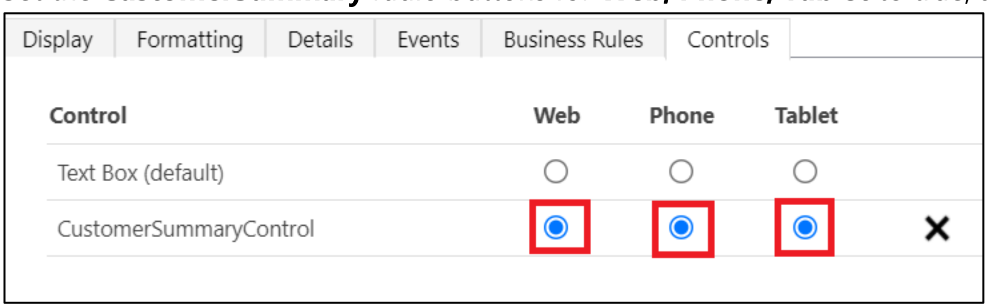
23. Set the **Bind to static options** property to **Life events** and click on **OK**.



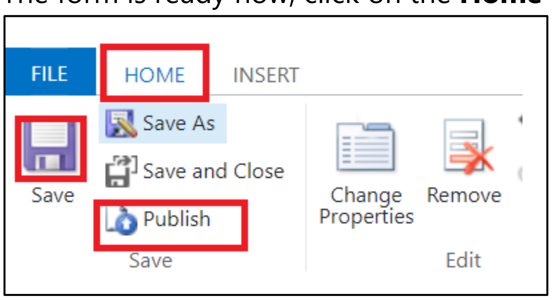
24. The Field Properties dialog should now look like below. Click **OK**



25. Set the **CustomerSummary** radio buttons for **Web, Phone, Tablet** to true, and then click on **OK**.

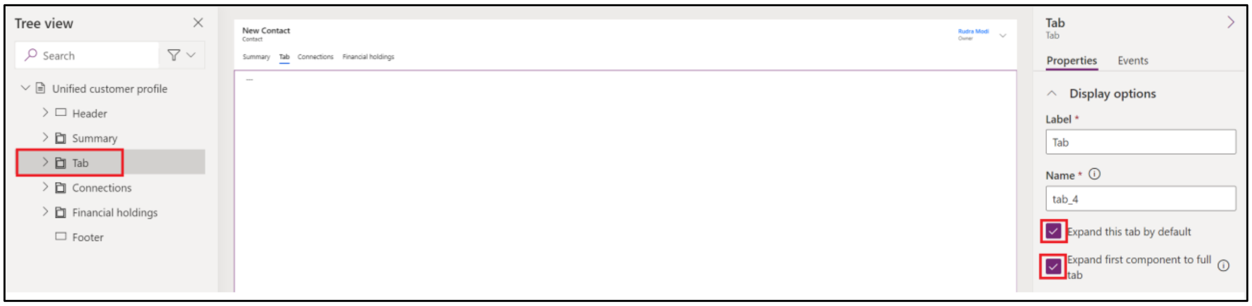


26. The form is ready now, click on the **Home** menu on the ribbon and then click **Save** and **Publish**



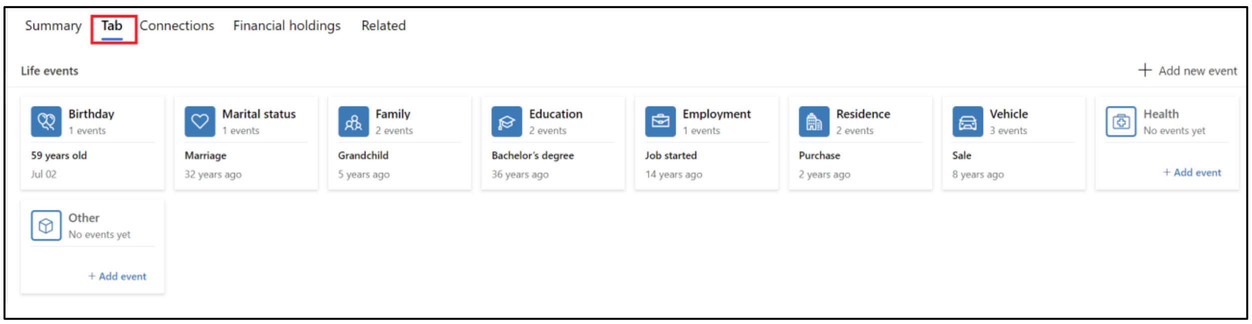
27. Close the tab– this will close the classic editor.

28. Go back to the modern editor and select the newly created tab in the tree view. Ensure the properties are set as below (you may have to refresh the page)



29. **Save** and **Publish** the changes.

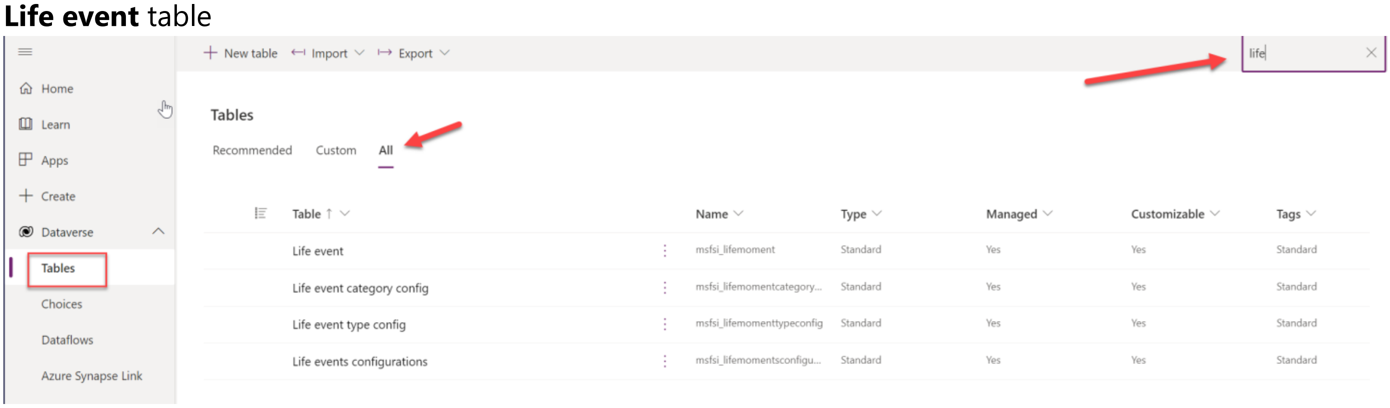
30. Launch **Unified customer profile** again from any contact record. Note the new tab reflect along with the **Life Event** control.



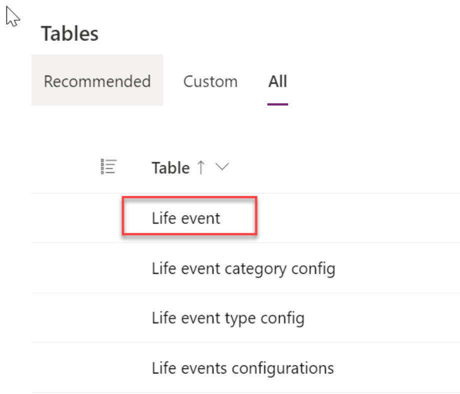
Task 2: Add a new Life Event Type

In this task, we will extend the data model to add a new Life Event Type to the Life Event table, and note that it reflects in the **Unified customer profile**.

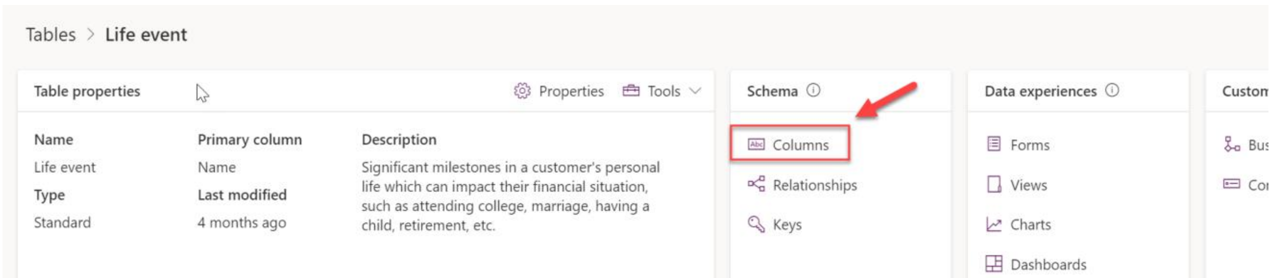
1. In Power Apps, select **Dataverse** -> **Tables** in the left sitemap. Click the tab: All, then set the search for **Life event** table



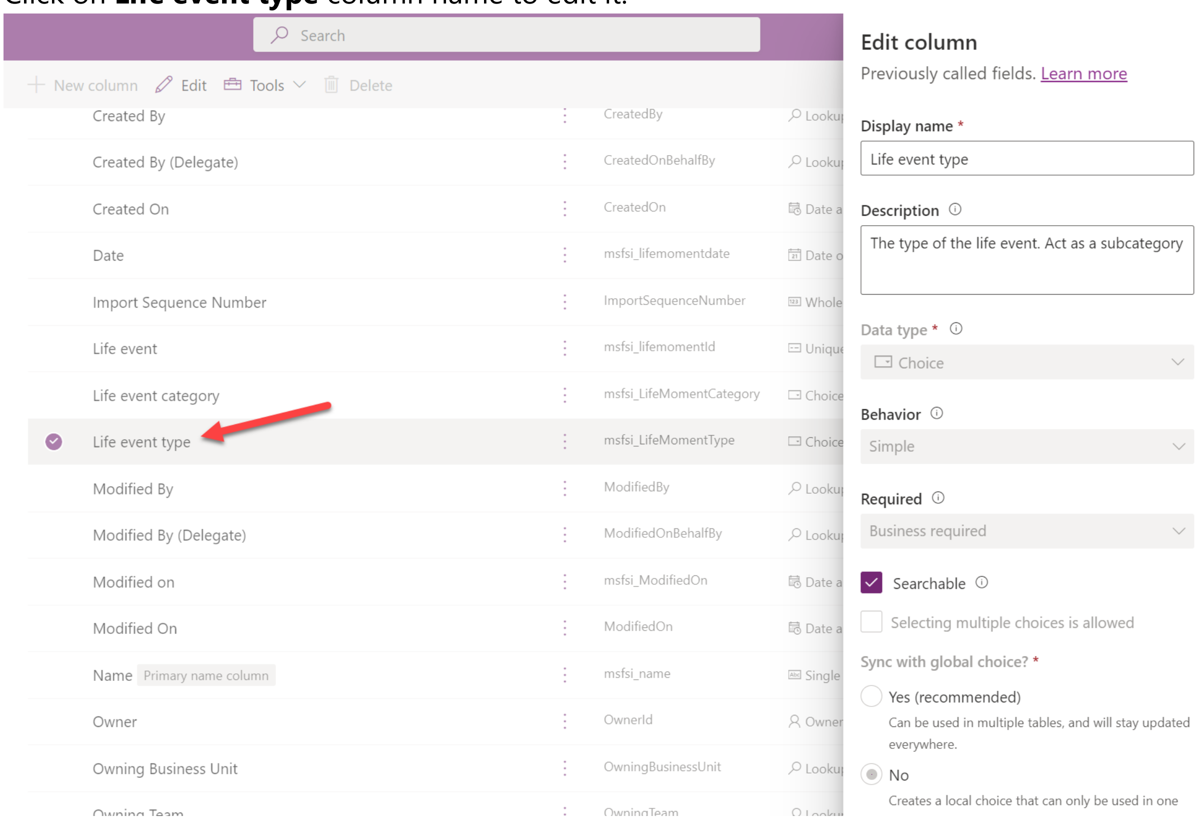
2. In the search results, select **Life event** table



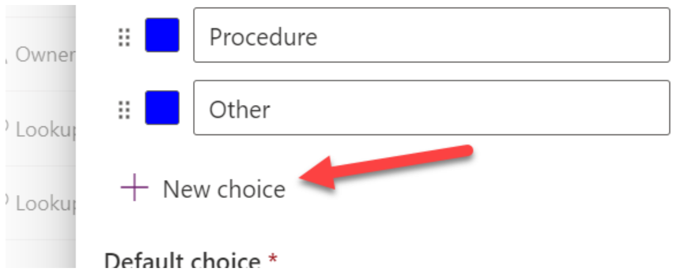
3. Click on Columns under schema



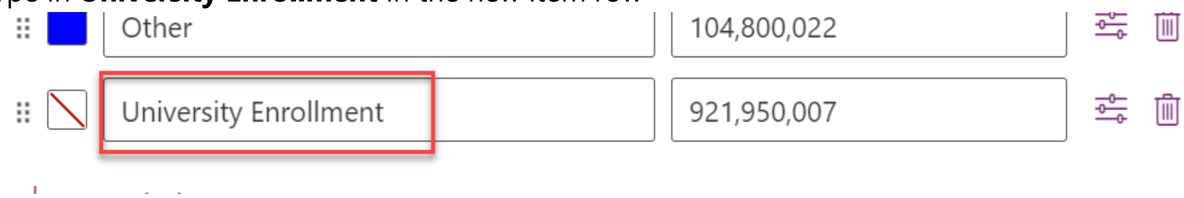
4. Click on **Life event type** column name to edit it.



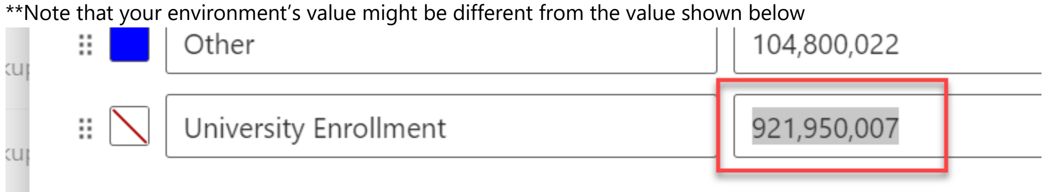
5. In the choice edit dialog, scroll down to select **+ New choice**



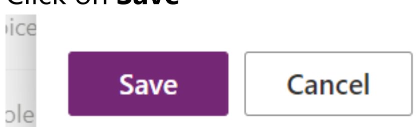
6. Type in **University Enrollment** in the new item row



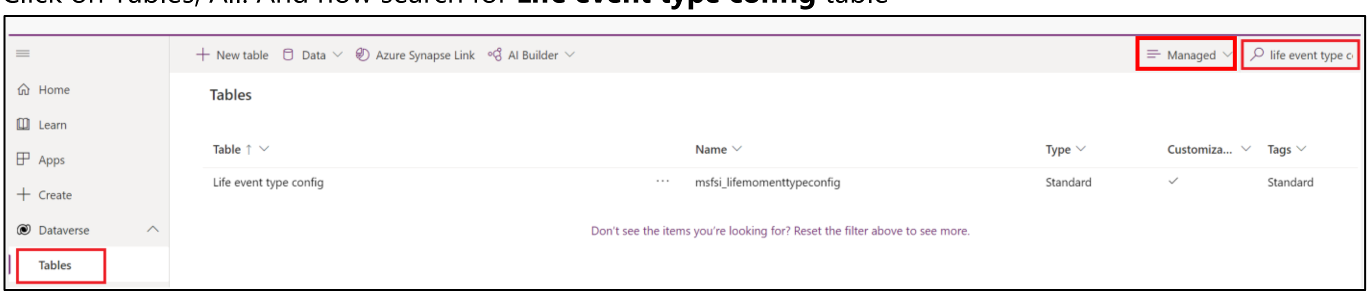
7. In the column to the right, select and copy the **Value** field and save it for the next steps.
   **Note that your environment's value might be different from the value shown below



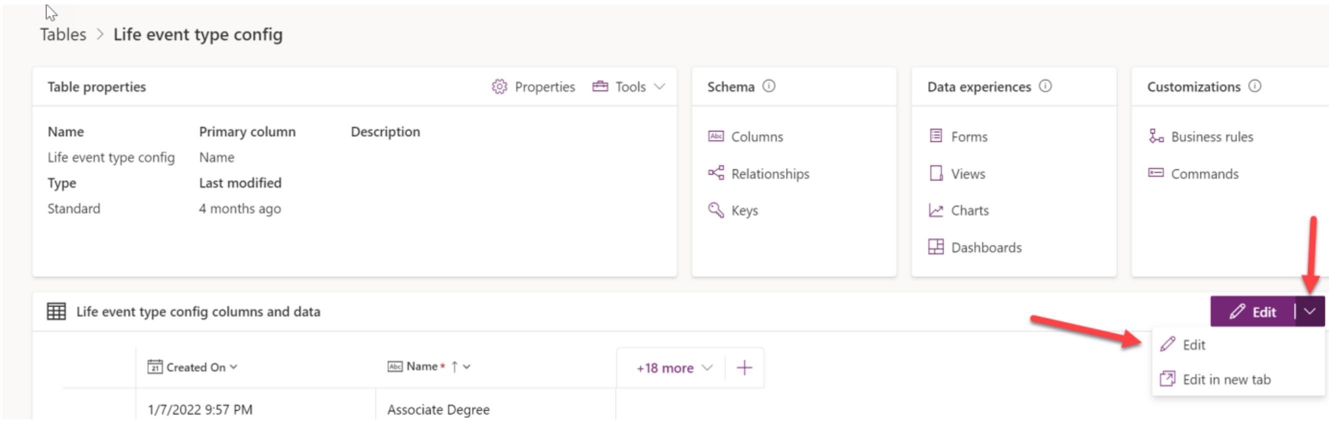
8. Click on **Save**



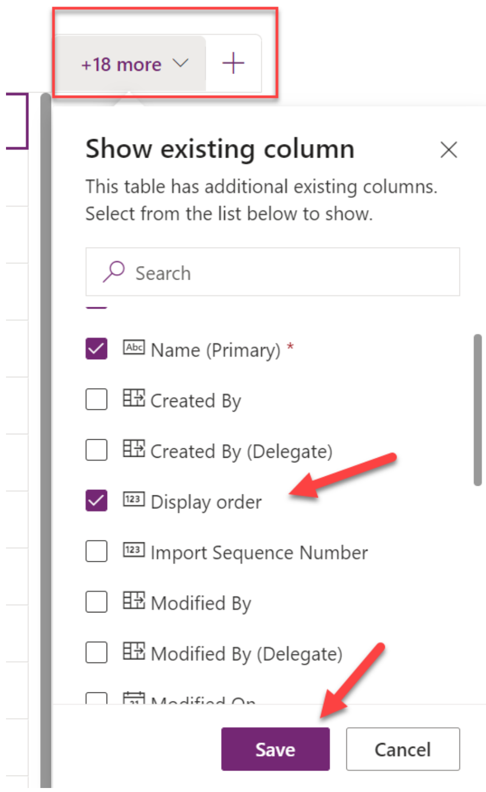
9. Click on Tables, All. And now search for **Life event type config** table



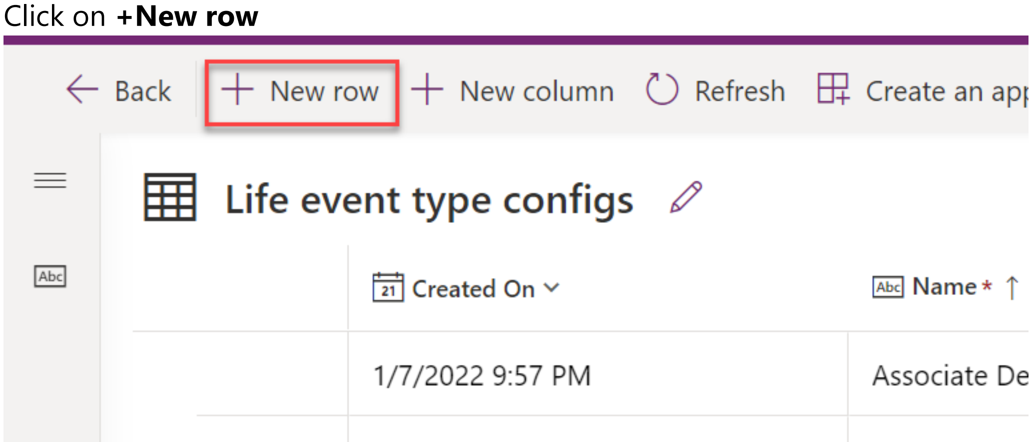
10. Click on the **Life event type config** table from search results. It will show the details of the table. Note the **Data** to load the data for the table.
    Click on **Edit** to expand the table



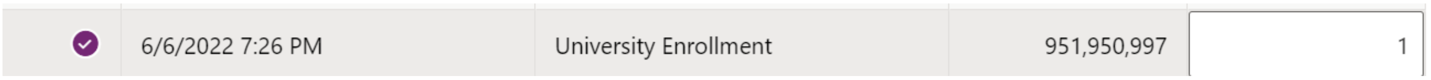
11. Click to add new columns to the view: **Display order** and **Type Code** (scroll to locate and check) and click **Save**



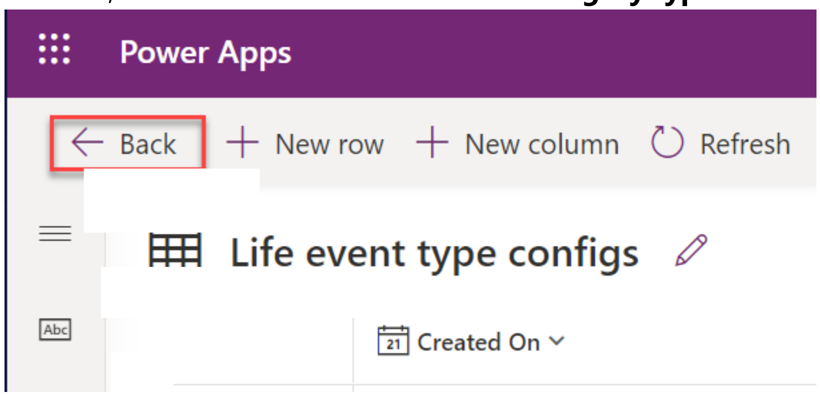
12. Click on **+New row**



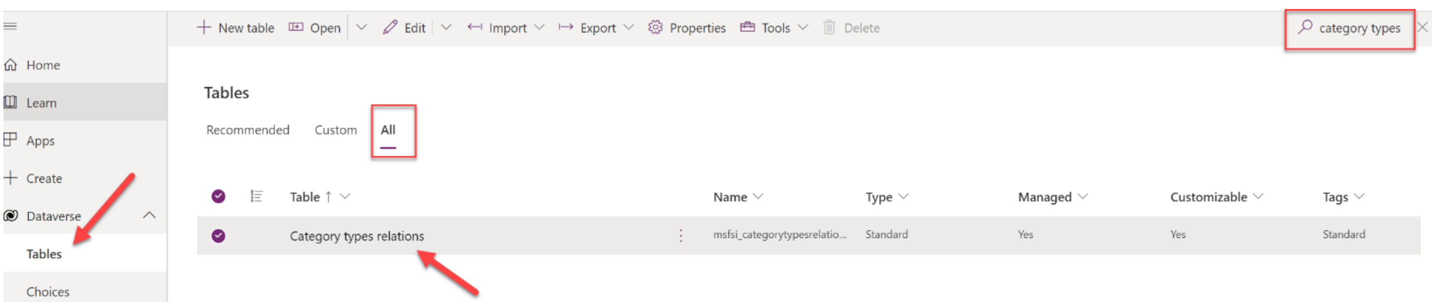
13. A new row will open up. Set the following values to create a new Life event type config.
    a. **Name** = University Enrollment
    b. **Type code** = <enter the value you copied in step 7 above>
    c. **Display order** = 1



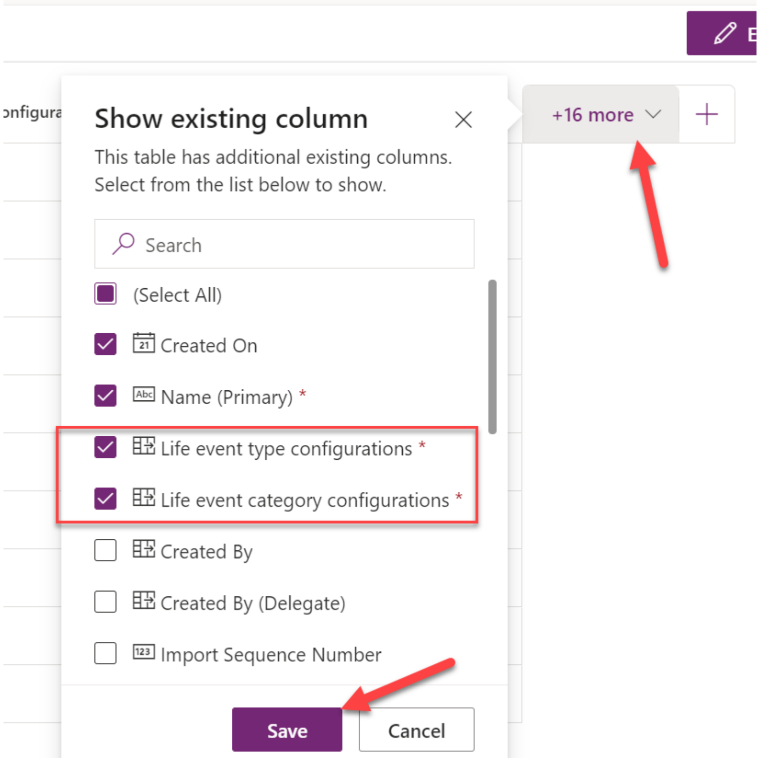
14. The record should auto-save, click on **Back** button and then **Category types relations**.



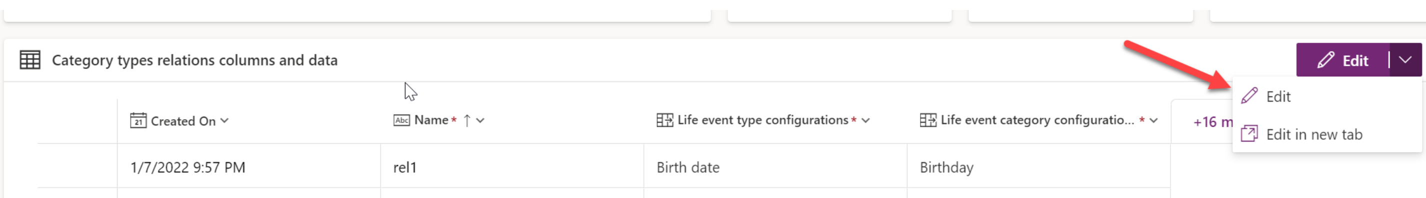
15. Click on **Tables** and search for the **Category types relations** table



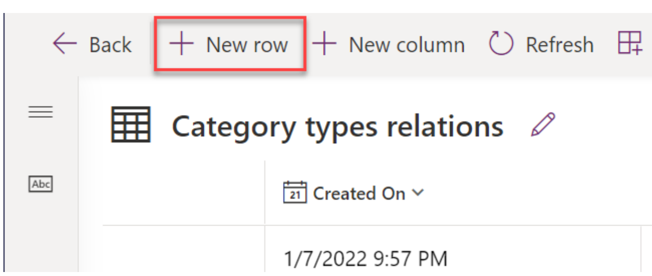
16. Click to **Add Columns**, include:
    a. Life event type configurations
    b. Life event category configurations
17. Click **Save**



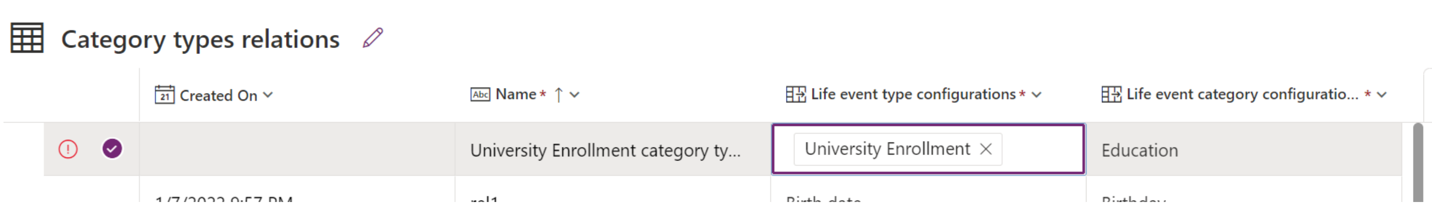
18. Click to **Edit**



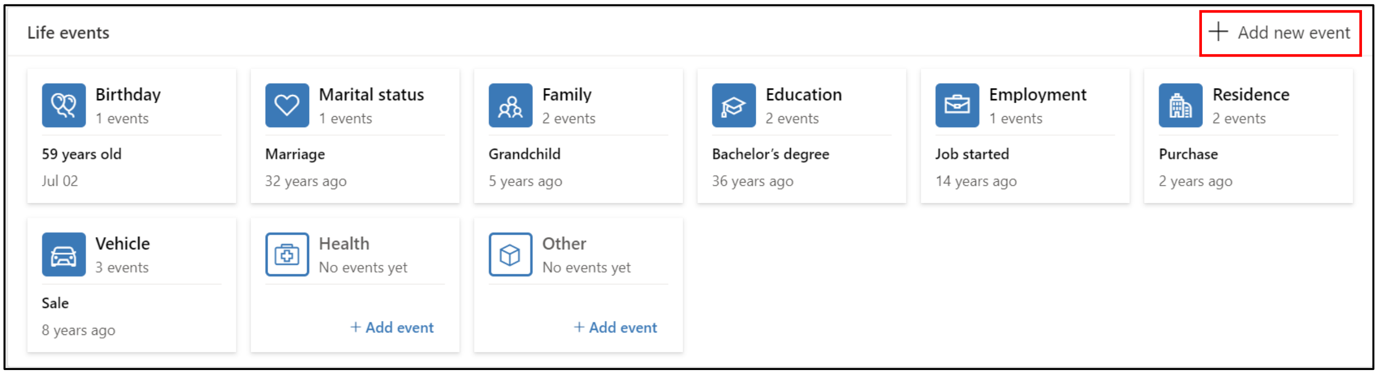
19. Click on **+New row** to create a new record.



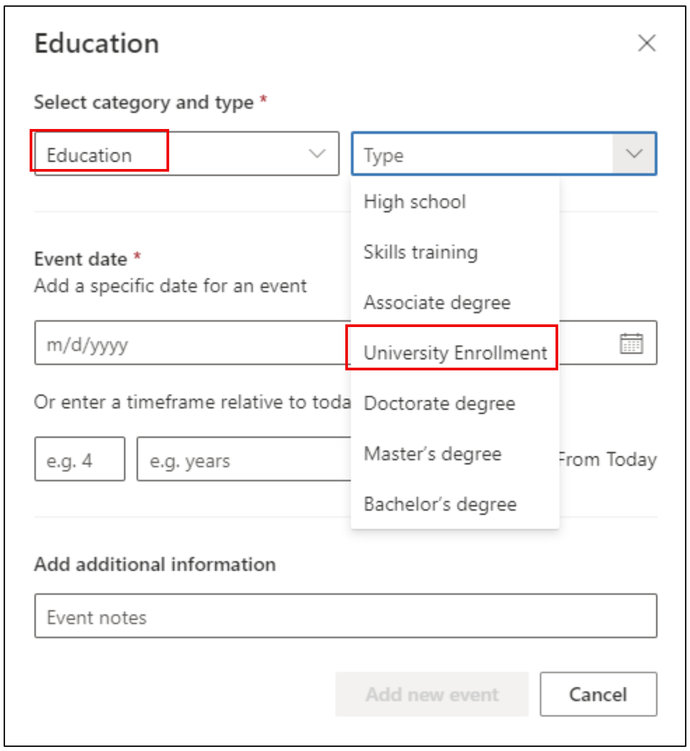
20. Set the following values to create a new **Category types relations** record and click on **Save**
    a. **Name** = University Enrollment category types relations
    b. **Life event type configurations** = <Select **University Enrolment** lookup record>
    c. **Life event category configurations** = <Select **Education** lookup record>



21. The Life event configurations are now complete.
22. Launch the **Unified customer profile** application, and click on **Add new event**



23. Note the new Life event type reflect in the **Education** category



Congratulations! You have extended the Unified customer profile application to edit controls on the view and add new life event configurations.

Summary

Nice work! You have completed the **Unified customer profile** lab.

In this lab, you learned how to do the following:

1. Explore the Retail Banking Data Model
2. Navigate Unified customer profile application and controls
3. Create new records within Unified customer profile
4. Create a new Life event type and show on the application