Map My Relationships

innovative logic

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User Manual

Content

Introduction

Map My Relationships is a productivity app that enables Dynamics 365 CRM users to visualize relationships between Entities or related records in a single view. It also allows users to easily navigate to related records and perform various activities like create Email, Phone Call or Appointment. Users can thus, get information at a glance leading to swift action and timely completion of various tasks.

Salient Features:

- 360 degrees view of all important data of the record in a single view
- Support both OOB and custom entities
- Support for 1:N, N:1 as well as N:N information
- Begin with a quick summary with the ability to drill down to the details
- Navigate easily and quickly to any of the records in the relationship
- Ability to quickly record any activity like phone call or appointment for the related records
- Support for viewing aggregate values without the need for creating rollup fields
- Control can be configured for Unified, Mobile and Tablet experience

Available for: Microsoft Dynamics 365 CRM 9.1 onwards, Power Apps & CDS.

Deployment: Online

Security Roles

Two security roles, particularly for **Map My Relationships**, come along with the solution.

1. **Map My Relationships Administrator** – The Administrator has given the privilege for License Registration and has organization-level access of all entities of Map My Relationships i.e. Entity Configuration and Entity Relationships. The user with having this role would be able to set up the Map My Relationships view using advanced configuration i.e. would be able to define settings in Entity Configuration and Entity Relationships records.

2. **Map My Relationships User** – The users with having this role would be able to see the Map My Relationships view in Dynamics 365 forms.

Note: *System Administrator has all the rights that Map My Relationships administrator has.*

Map My Relationships Configuration

Map My Relationships has been built using the PowerApps Control framework. The Administrator of the system has to add the Map My Relationships control on the entity forms. To configure the view the administrator has two options i.e. basic configuration and advanced configuration. The below table highlights the difference between basic configuration and advanced configuration.

Particulars	Basic Configuration	Advanced Configuration
Define all types of relationships	Yes	Yes
Perform deafault actions (Create email, Phone Call and Task)	Yes	Yes
Configure tooltips to see more information of related records	No	Yes
Configure which actions to allow for related records	No	Yes
Configure which images to display to identify related records	No	Yes
Configure grouping and aggregation for related records	No	Yes

Map My Relationships with Basic Configuration

Prerequisites: The user should have the System Administrator or System Customizer role.

Add Map My Relationships view on the form: Decide the entity on which the users would be able to see the related records of that entity. The entity may be a common use entity.

Note: The Administrator can configure the Map My Relationships control for any number of entities in the system.
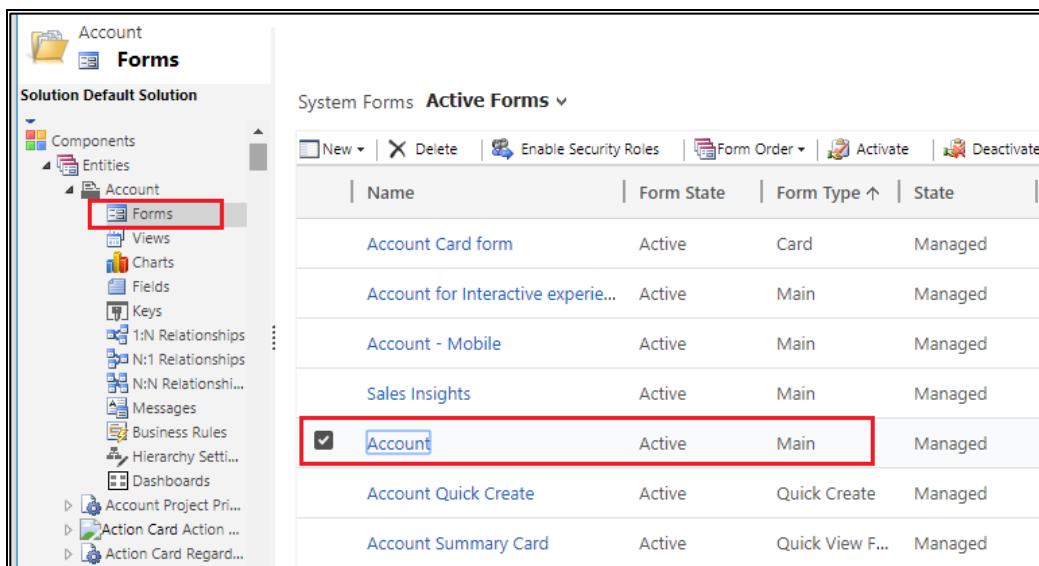
In this document, we will configure the Map My Relationships for the Account entity.

1. Navigate to **Default Solution** Settings → **Customizations** → **Customize the System** → Expand Entities and select the entity.
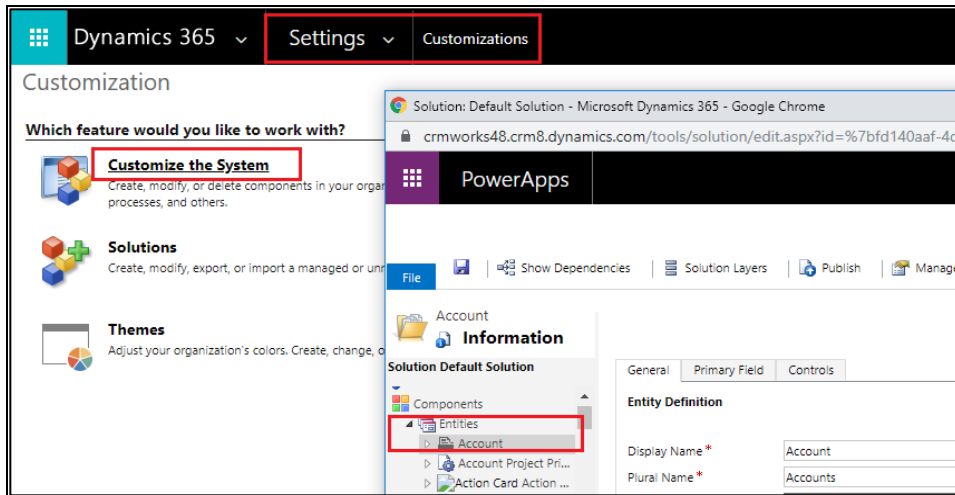
2. Expand the selected entity and open the form on which the Map My Relationships view needs to be added**.**


3. The next step is to bind a Map My Relationships control to any text field. The Best approach is to create a new text type of custom field. Add a custom text field on the form wherever the users/administrator likes to see it. There is no limitation on where to add the Map My Relationships view on the form.
Go to existing tab or a new tab on the form and add newly created custom field in the section.
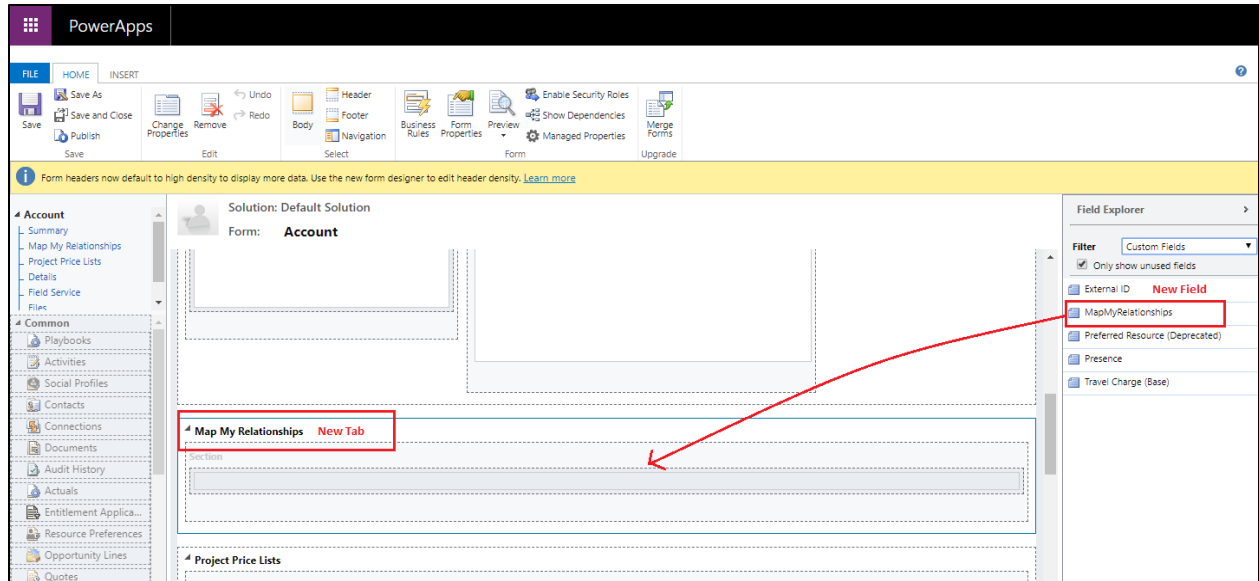
Note: New field of type text is required to bind Map My Relationships control. The field does not hold any data.

4. Edit the properties of the field and bind control. In field properties, go to Controls and then click on Add Controls button.
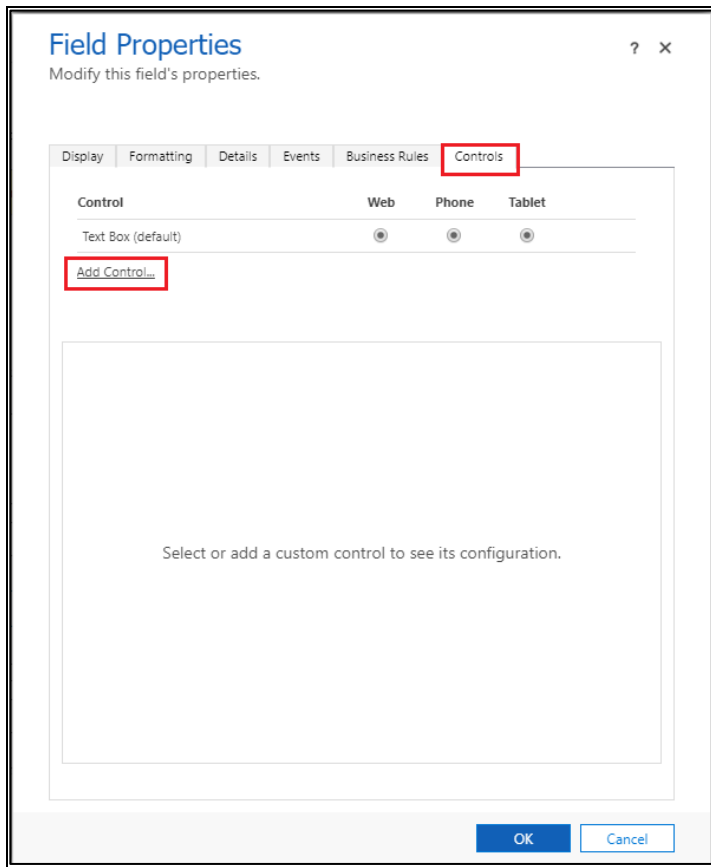
Scroll down from the list of control and select the Map My Relationships control and click on 'Add' button.
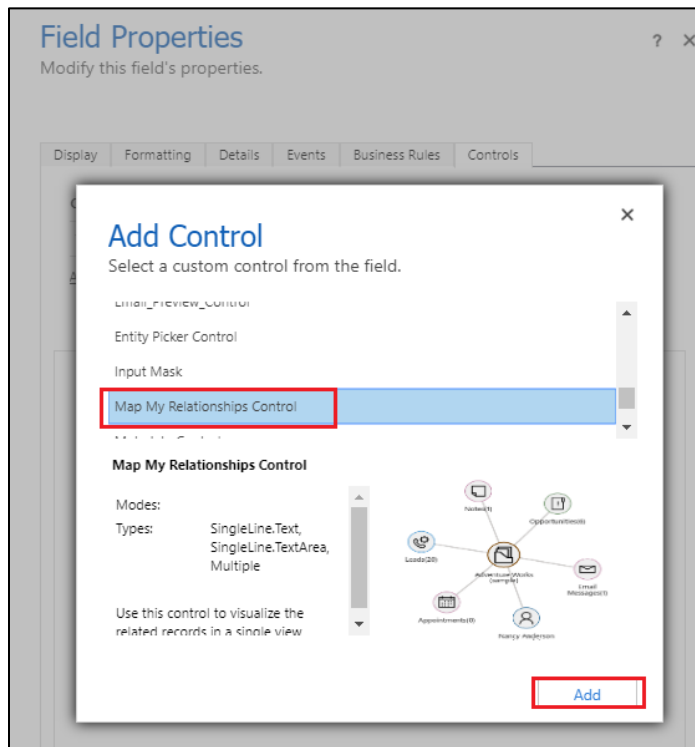
5. Fill in the values for following properties, **'One to Many Relationships'**, **'Many to One Relationships'**, **'Many to Many Relationships'** and **'Allow Actions?'**
The first property **'Map My Relationships Control Configuration'** is for advanced configurtion. (see section)

One to Many Relationships: Enter the comma separated one to many relationship schema names.
Ex: Account_Emails, Account_PhoneCalls
Here Account is the primary entity where control is being added and Email and Phone calls are related to account as 1:N relationship. This will show emails and phone call of the account record.
Follow 'How to get relationships schema name?' section to know how to find relationships schema name.

Many to One Relationships: Enter the comma separated many to one relationship schema names.
Ex: account_primary_contact, account_originating_lead
Here Account is the primary entity and contact (Primary Contact) and lead(Originating Lead) are the related entity with N:1 relationship.
Follow 'How to get relationships schema name?' section to know how to find relationships schema name.
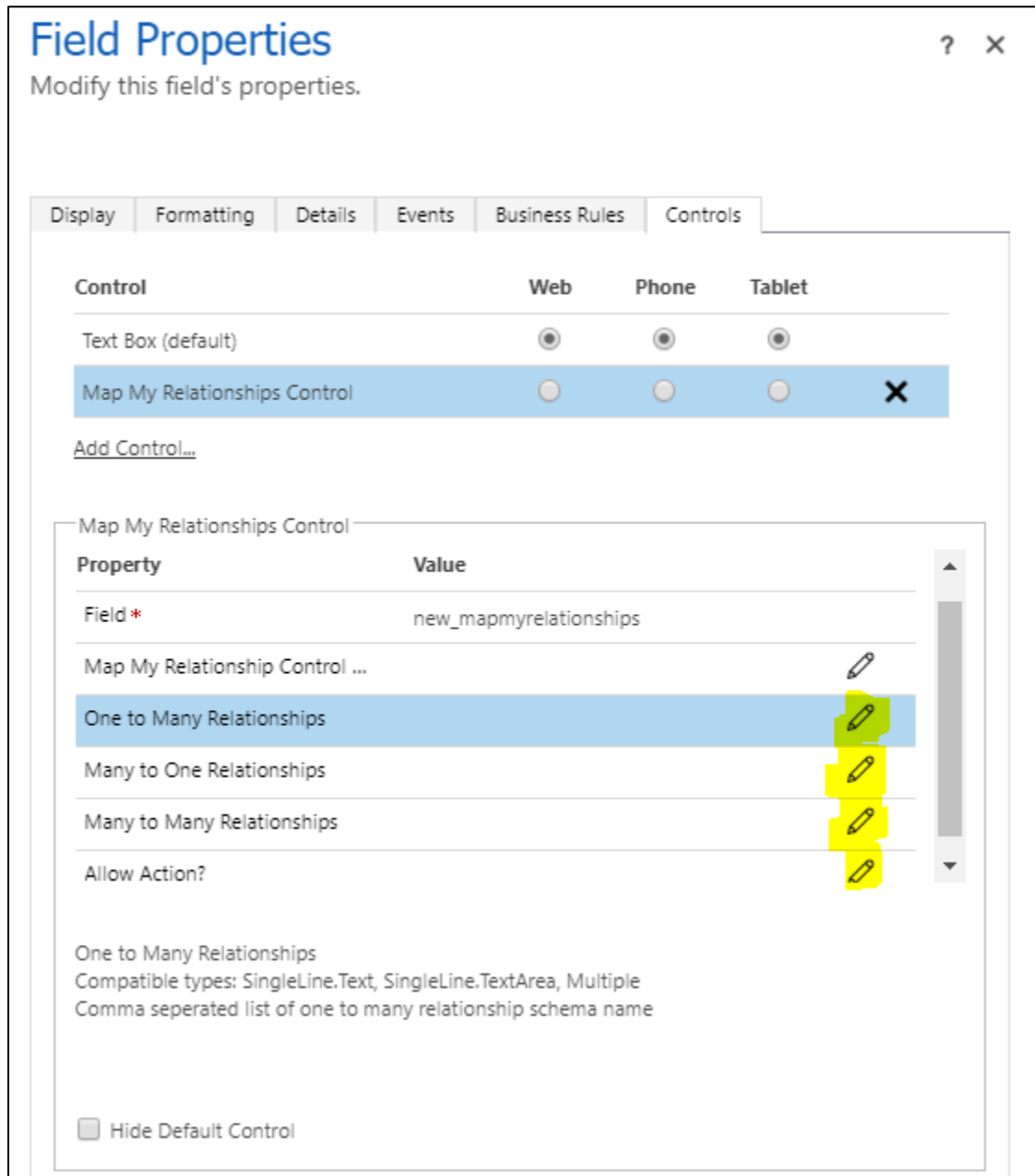
Many to Many Relationships: Enter the comma separated many to many relationship schema name.

Allow Actions?: Specify whether the user should be able to perform actions such as Create Email, Create Phone Call or Create Task. Enter 0 for Yes and 1 for No. Default is Yes i.e. 0.

6. Click the edit button which is present against the property. This will open a 'Configure Property...' window.

7. Select **'Bind to a static value'** and enter the comma separated relationship schema name.

Configure Property "One to Many ...

(×)

◉ **Bind to a static value**

| SingleLine.Text ▼ | Account_Emails, Account_PhoneCalls |

◯ **Bind to a value on a field**

| ▼ |

Comma seperated list of one to many relationship schema name

| OK | | Reset |

8. Repeate the above step for the other properties and fill the details.

Field Properties
Modify this field's properties.

? ✕

| Display | Formatting | Details | Events | Business Rules | Controls |

Control	Web	Phone	Tablet
Text Box (default)	●	●	●
Map My Relationships Control	○	○	○	✕

Add Control...

Map My Relationships Control

Field *	new_mapmyrelationships	
Map My Relationship Control ...		✎
One to Many Relationships	Account_Emails, Account_PhoneCalls (Si...	✎
Many to One Relationships	account_originating_lead, account_prim...	✎
Many to Many Relationships		✎
Allow Action?		✎

Many to Many Relationships
Compatible types: SingleLine.Text, SingleLine.TextArea, Multiple
Comma seperated list of many to many relationship schema name

☐ Hide Default Control

OK   Cancel

9. Select the device where the control should be displayed. Click 'OK' to save changes.

Field Properties

Modify this field's properties.

? ✕

| Display | Formatting | Details | Events | Business Rules | Controls |

Control	Web	Phone	Tablet
Text Box (default)	◯	◯	◯
Map My Relationships Control	◉	◉	◉	✕

Add Control...

Map My Relationships Control

Field *	new_mapmyrelationships	
Map My Relationship Control ...		✎
One to Many Relationships	Account_Emails, Account_PhoneCalls (Si...	✎
Many to One Relationships	account_originating_lead, account_prim...	✎
Many to Many Relationships		✎
Allow Action?		✎

Many to Many Relationships
Compatible types: SingleLine.Text, SingleLine.TextArea, Multiple
Comma seperated list of many to many relationship schema name

☐ Hide Default Control

OK   Cancel

10. Go to 'Display' field properties and uncheck 'Display label on the form'.

Field Properties

? ✕

Modify this field's properties.

Display	Formatting	Details	Events	Business Rules	Controls

Label

Specify the label for this field in forms.

Label * MapMyRelationships

☐ Display label on the form

Field Behavior

Specify field-level behavior

☐ Field is read-only

Locking

Specify whether to lock this field on the form.

☐ Lock the field on the form

Visibility

Specify the default visibility of this control.

☑ Visible by default

Availability

Specify the default availability of this field on phone.

☑ Available on phone

OK   Cancel

11. Save form and publish customizations.
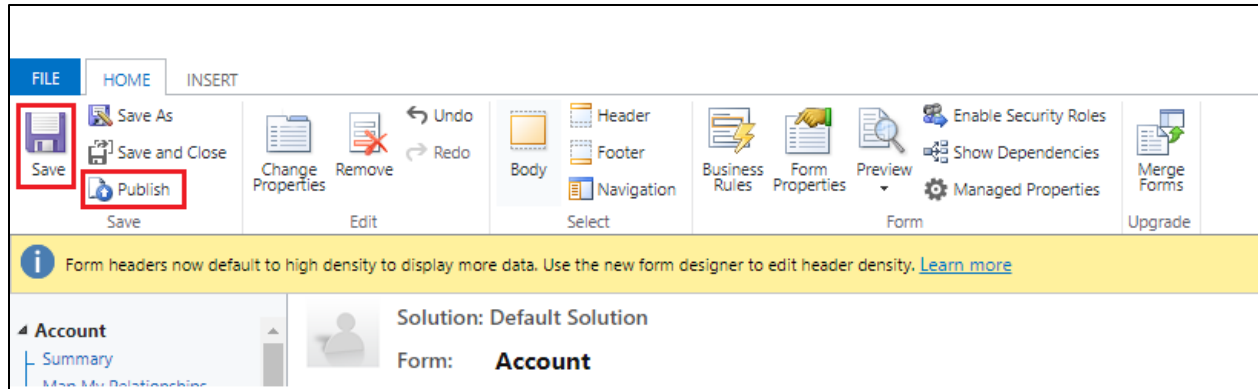
12. After publishing successfully navigate to the record and check if the Map My Relationship control is working or not.
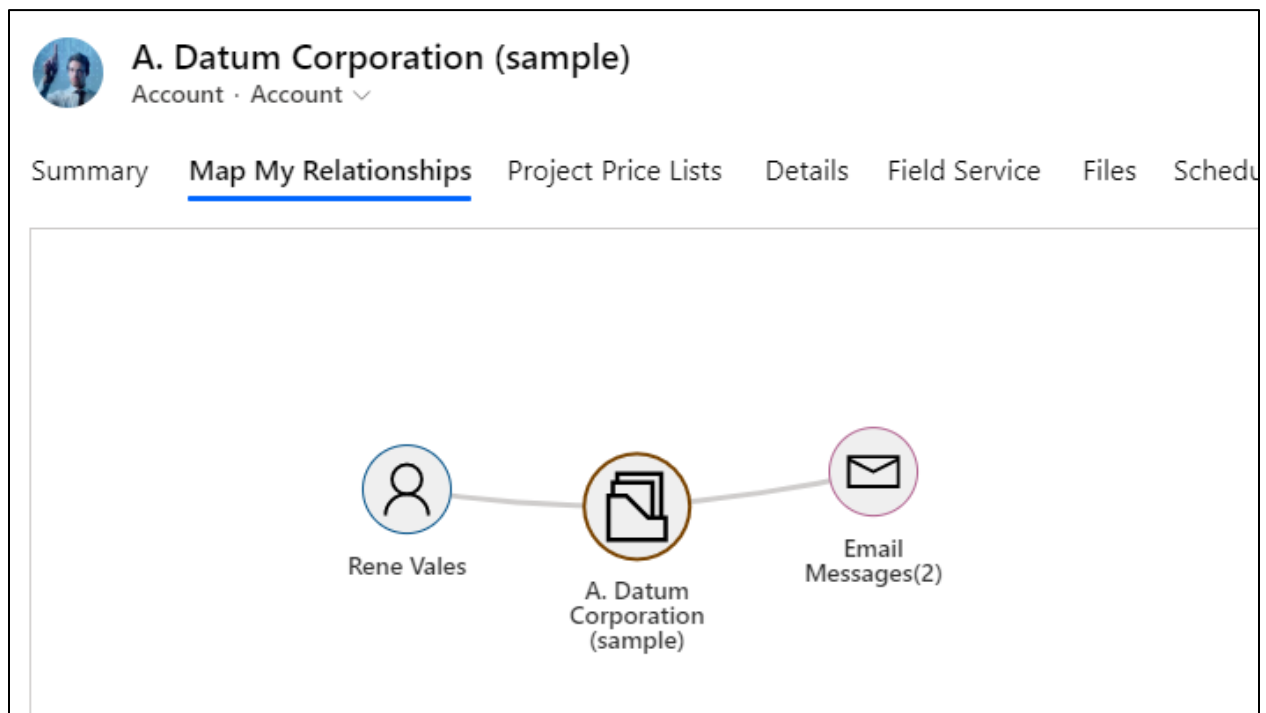
13. If the control shows following message, **'*Something went wrong. Please check the configuration*'** then check if the invalid relationships has been added in the properties or not. We can only add those relationship records which are available to read.

Map My Relationships Advanced Configuration

Prerequisites: The user should have System Administrator or System customizer role. To create configuration records the 'Map My Relationship Administrator' role can be assigned to the user.

1. **Entity Configuration:** This entity enables the system administrator to define for which entity the Map My Relationships view should be displayed.

   Go to 'Map My Relationships' app and create 'Entity Configuration' entity record.
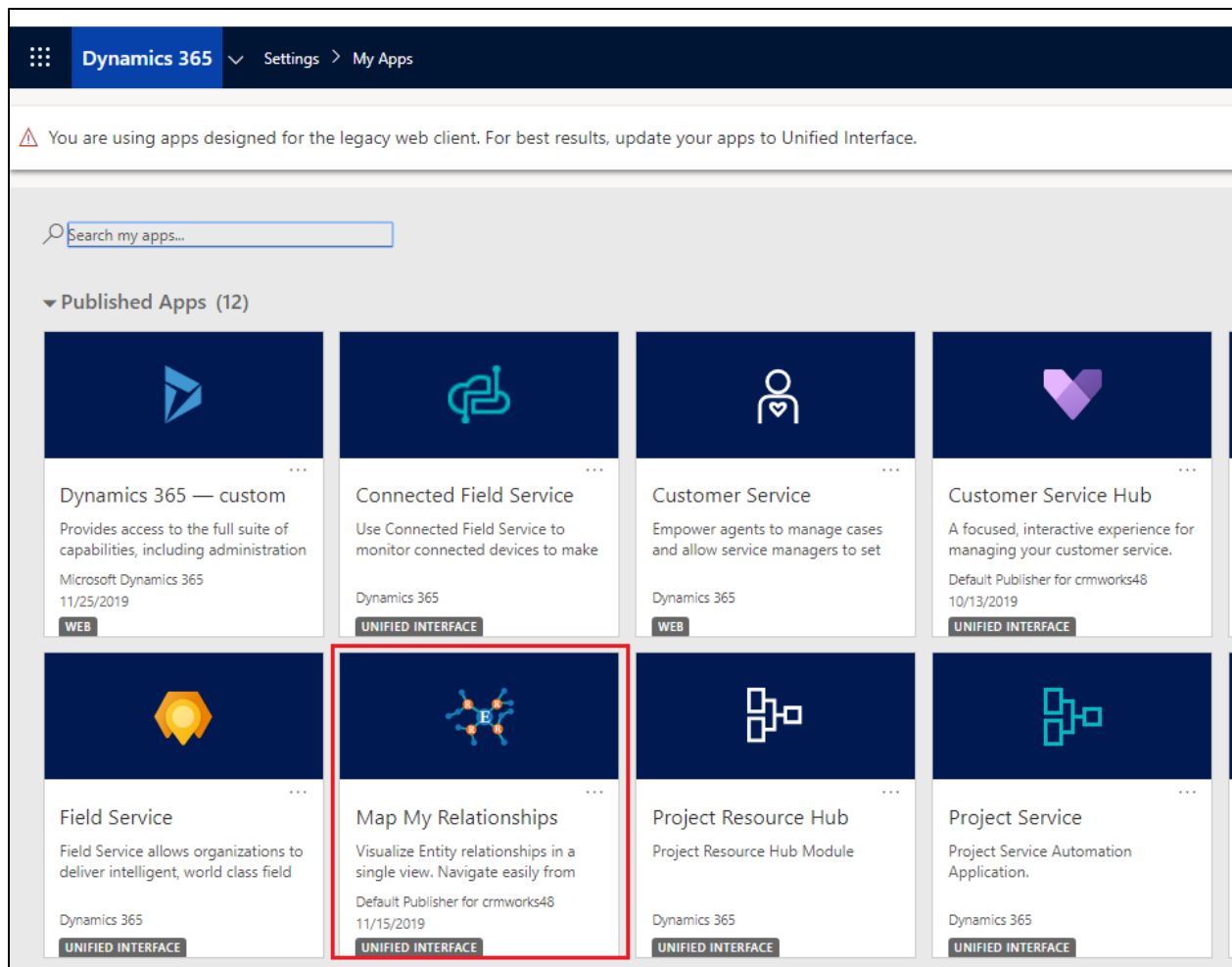
- **Name**: Enter user friendly name for the record. This name will be used in the value for 'Map My Relationships Control Configuration' field property.
- **Entity**: Select the entity from the list of entity. This tells the control that the configuration is for the selected entity.
- **Entity Node Image**: Choose which image needs to displayed on the node of the primary entity record. Available options are, Entity Image, Record Image and Image URL.
  - ➔ Entity Image: The image of the entity that we see for the entity in the sitemap.
  - ➔ Record Image: The image of the record that we see on the record. If image is not present for record then Entity image will be displayed.
  - ➔ Image URL: A field will be visible upon selection of this option. Enter the external or internal image URL.
- **Entity Relationships**: The subgrid of 'Entity Relationships'.

2. **Entity Relationships:** This allows the administrator to define which related records needs to be displayed on the Map My Relationships control/View. Create and Add Entity Relationships records from the subgrid of Entity Configuration record.

- **Relationship Type**: Choose which type of relationship you want to add. Options are 'One-to-Many', 'Many-to-One' and 'Many-to-Many'.
- **Relationship**: Select the relationship from the list of relationship. This get filtered based on the option selected in the 'Relationship Type' field.
- **Relationship Node Image**: Choose image needs to displayed on the node of the primary entity record. Available options are, Entity Image, Record Image and Image URL.
  - ➔ Entity Image: The image of the entity that we see for the entity in the sitemap.
  - ➔ Record Image: The image of the record that we see on the record. If image is not present for record the Entity image will be displayed.
  - ➔ Image URL: A field will be visible upon selection of this option. Enter the external or internal image URL.
- **Allowed Actions**: A list of activities present in the system. Select multiple activities from the list. The selected activities will be available for the user to create activities against the related record.
- **Fields to show on tooltip**: A list of fields of the related entity selected as a Relationship. Select multiple fields. The selected fields will be displayed as a tooltip on the nodes of the related records.
- **Group By**: A list of optionset type of fields of the related entity selected as a relationship. Select single field. The Map My Relationships view will group the records based on the selected field.
- **Measure**: A list of fields of the related entity. Select a field, the selected field will displayed as a tooltip of the grouped node with aggregation.
- **Aggregate Type**: Aggregation option. Options are COUNT, MAX, MIN, SUM and AVG. The Measure field will be aggregated based on the Aggregate Type option.

3. **Use advanced configuration:** Once the Entity Configuration and Entity Relationship entity records has been created, perform the steps to add Map My Relationships control on the form. **Steps from 'Map My Relationships Basic Configuration' section.**

    We can use either basic configuration or advanced configuration. If you want to use advanced configuration then enter the name of the Entity Configuration record name in the 'Map My Relationships Control Configuration' property. Save and publish the customization.
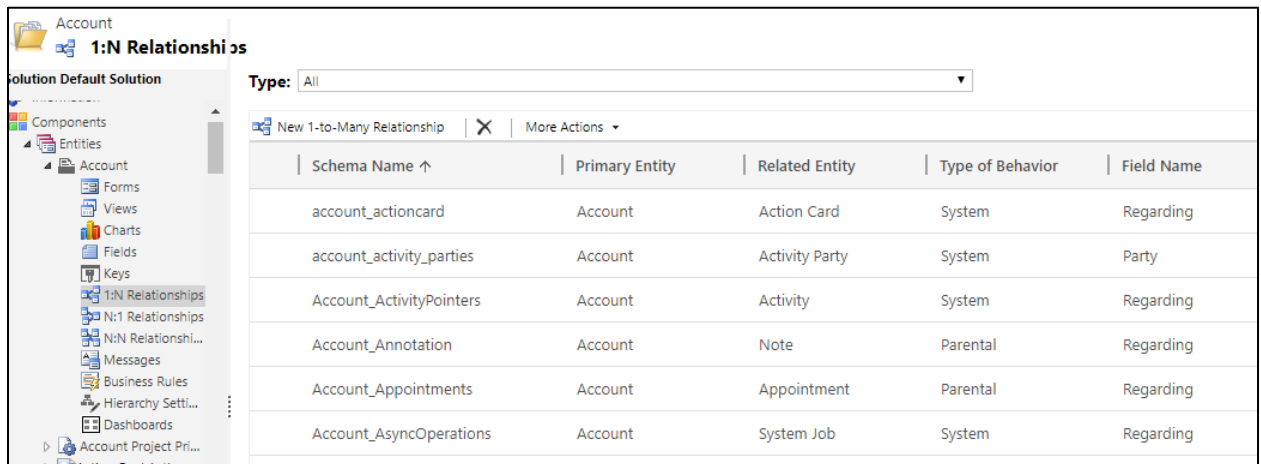
How to get relationship schema name?

Prerequisites: The user should have System Administrator or System customizer role.

1. Go to Settings → Customizations → Customize the Entity
2. Select the entity from Entities component.
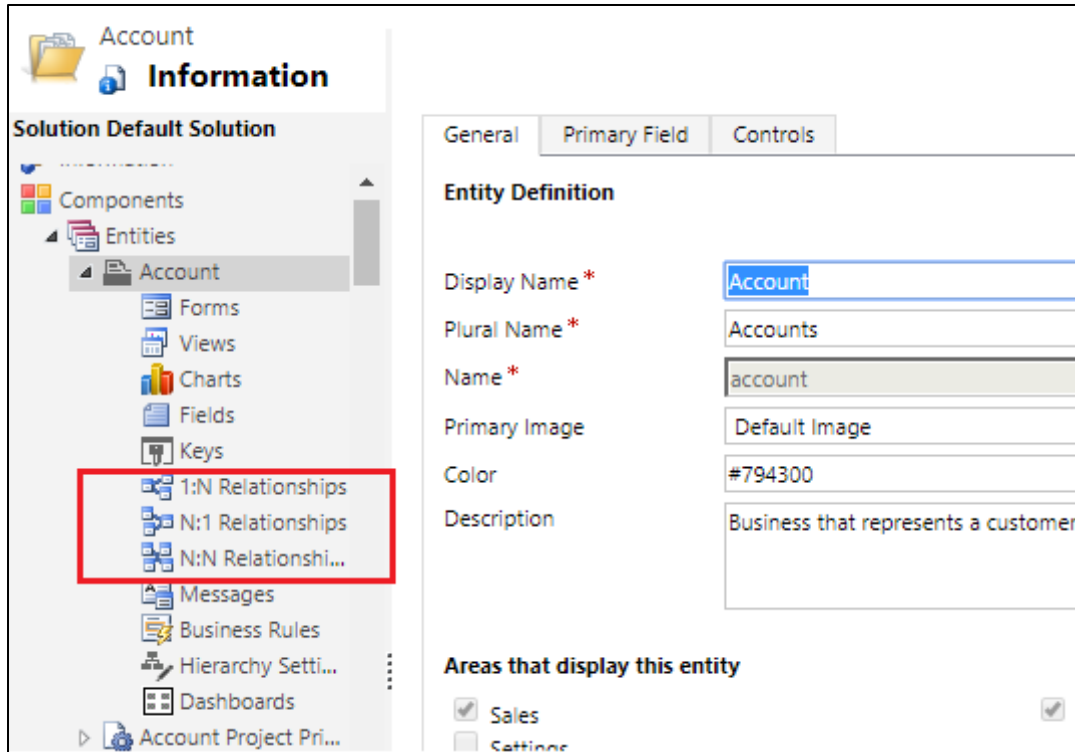
3. Click on 1:N Relationships, N:1 Relationships and N:N Relationships to get the list of relationships available in the system.

4. Open the relationship from the list and copy the Schema name.

One-to-Many & Many-to-One:

Many-to-Many:

5. Copy this name in comma separated format in properties of the Map My Relationships control.

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