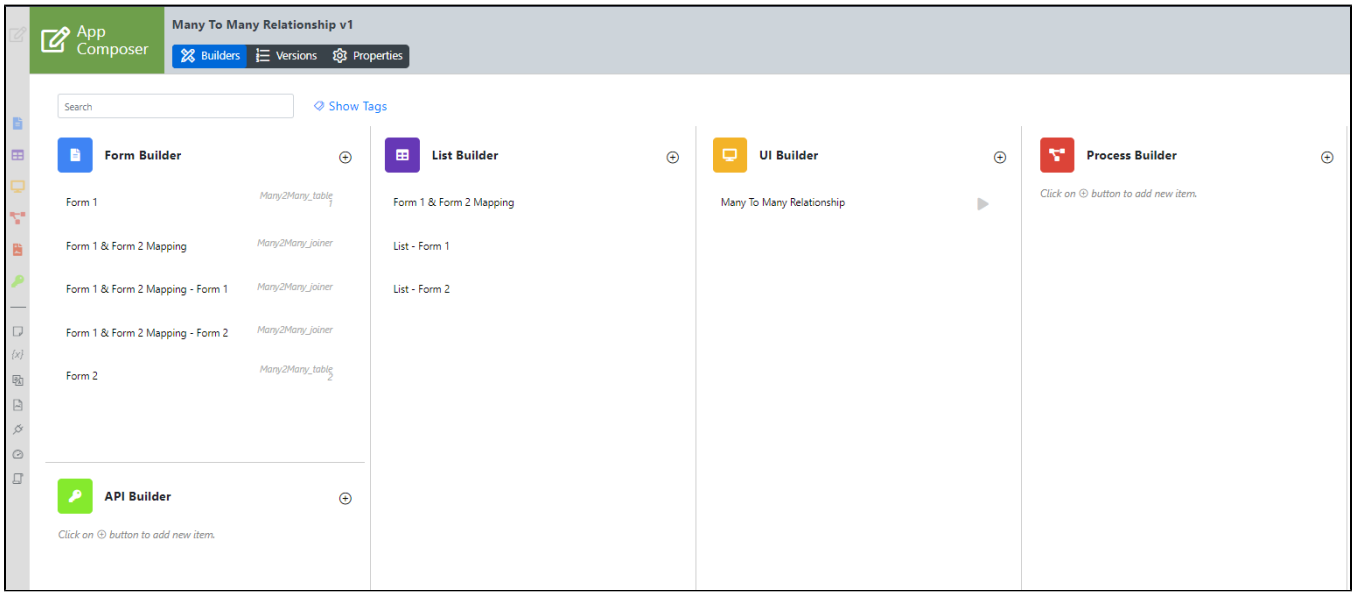
Many-to-Many Relationship Form Design

In this article, we will discuss how to design a many to many form/record relationship based on the sample app.

There are 3 tables needed in total in order to form a many-to-many relationship:-

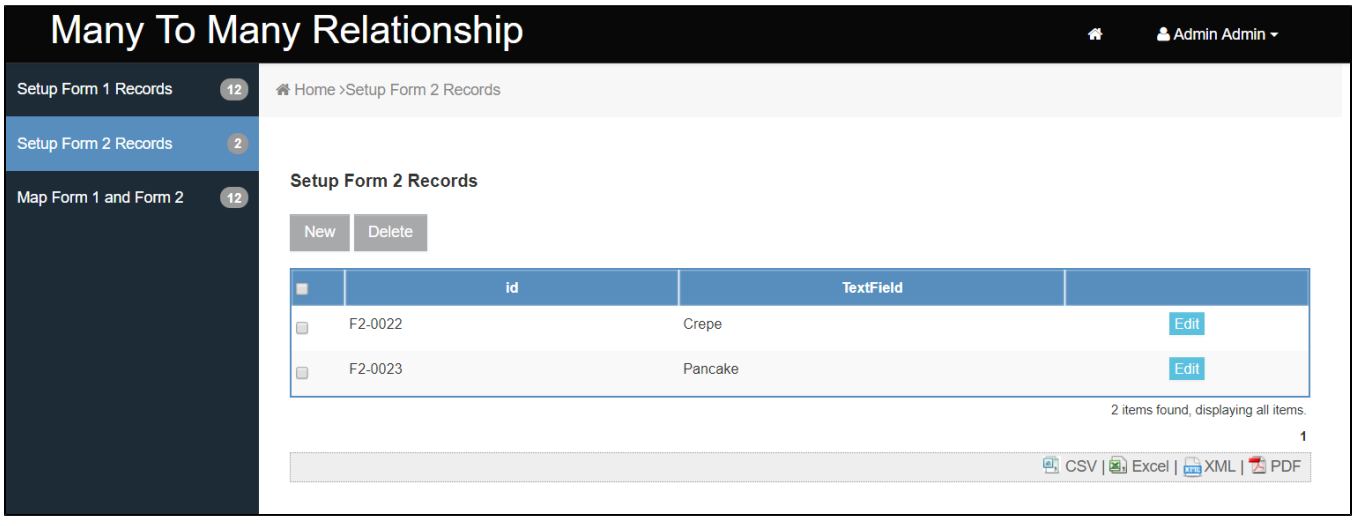
- Many2Many_table1
- Many2Many_table2
- Many2Many_joiner

where the last table mentioned will act as the junction table.

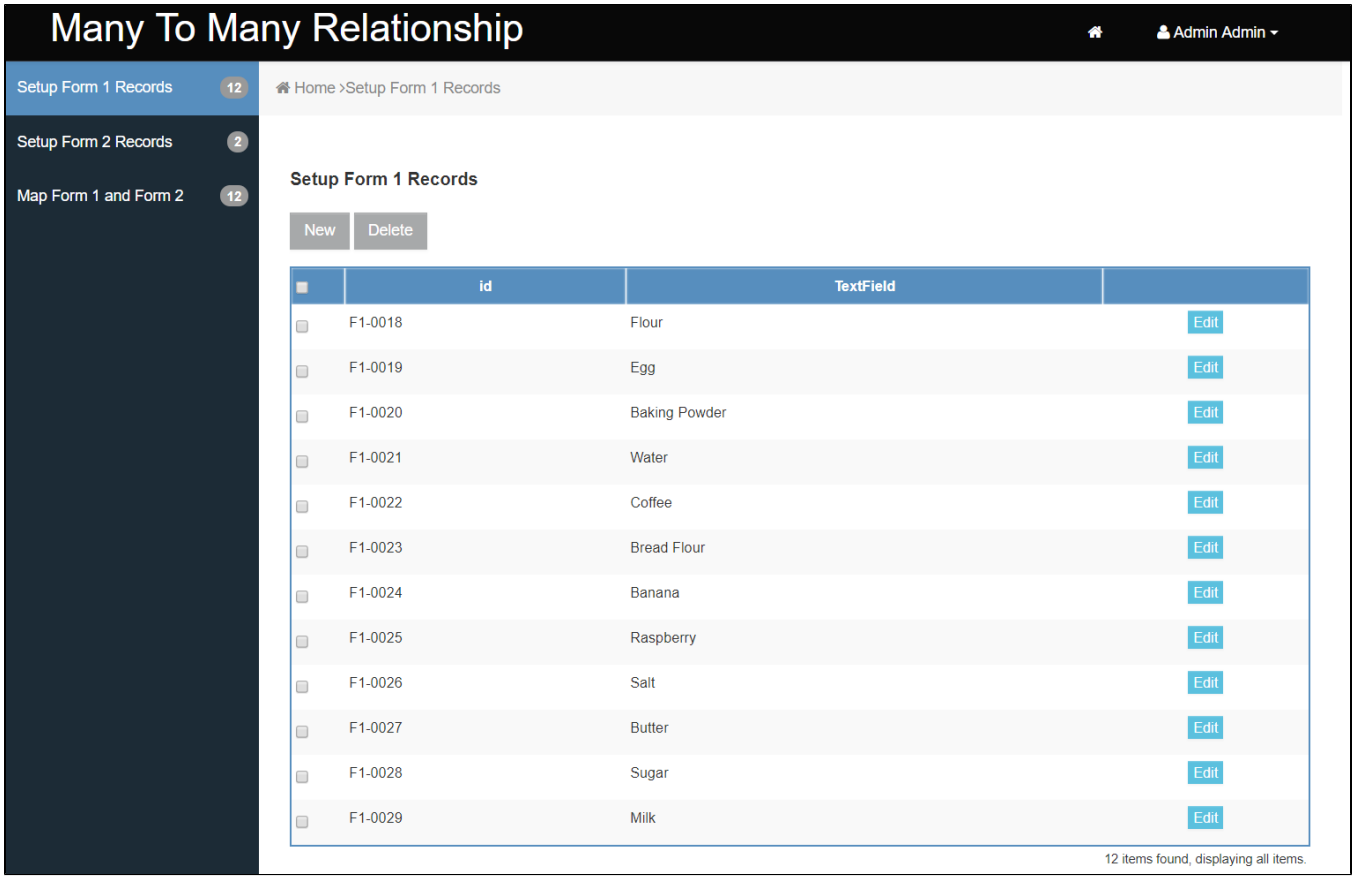


In this generic sample app, we are treating "Form 1" as ingredients and "Form 2" as a recipe.

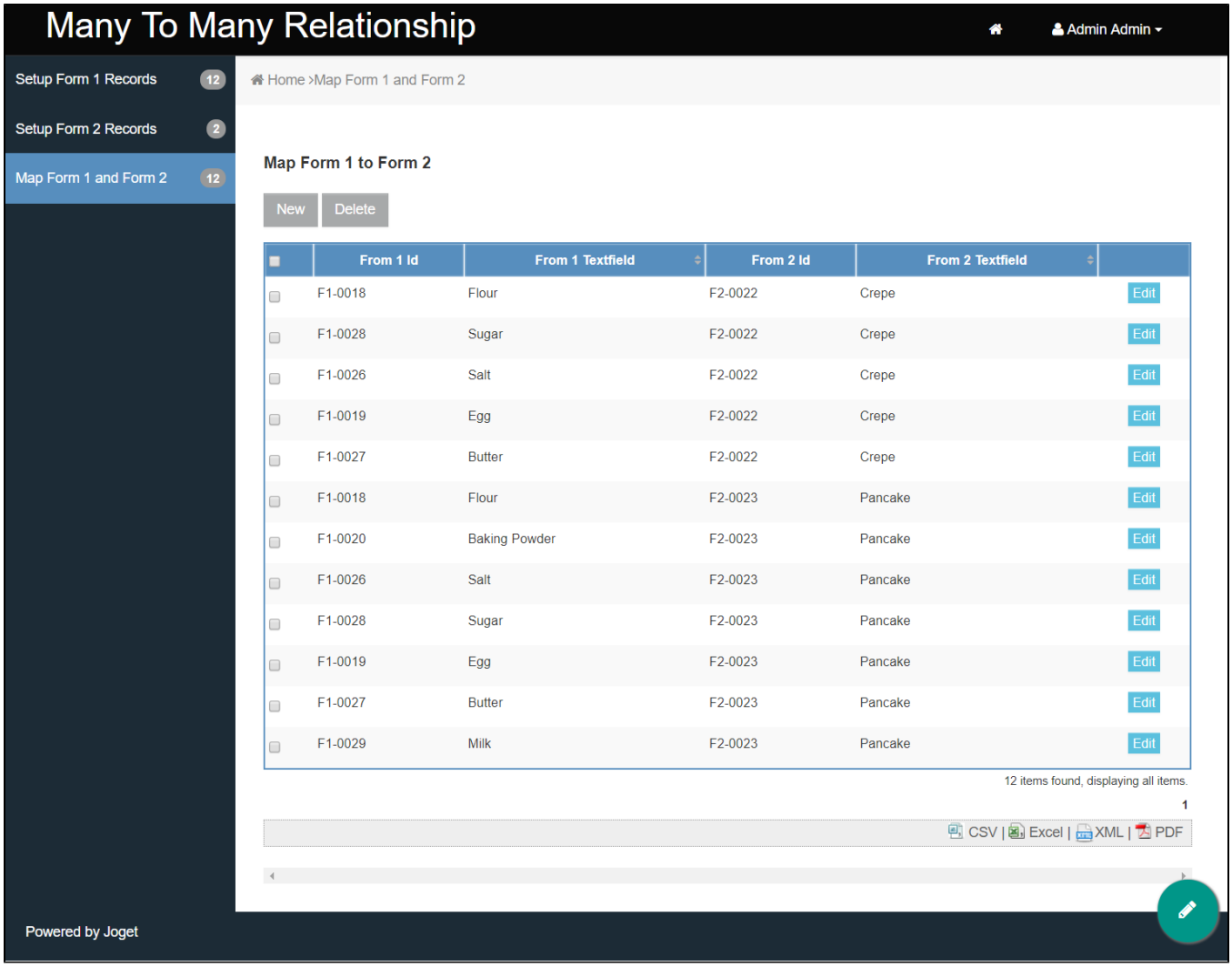
The figure below shows the list of recipes.



The figure below shows the list of ingredients.



A recipe requires multiple ingredients and an ingredient is used by multiple recipes. The following figure depicts the "joiner" records.



And, here's how the joiner table records look like. Observe **c_id_form1** and **c_id_form2**. They are the foreign key to table1 and table2 respectively.

jwdb.app_fd_many2many_joiner: 12 rows total (approximately) Next Show all Sorting Columns

id	dateCreated	dateModified	createdBy	createdByName	modifiedBy	modifiedByName	c_id_form1	c_id_form2
398d431b-c0a86310-5c005e00-ab33f732	2018-05-07 15:42:48	2018-05-07 15:42:48	admin	Admin Admin	admin	Admin Admin	F1-0018	F2-0022
398d57a1-c0a86310-5c005e00-9ba644a5	2018-05-07 15:42:48	2018-05-07 15:42:48	admin	Admin Admin	admin	Admin Admin	F1-0028	F2-0022
398d67f7-c0a86310-5c005e00-a21d90f9	2018-05-07 15:42:48	2018-05-07 15:42:48	admin	Admin Admin	admin	Admin Admin	F1-0026	F2-0022
398d74c6-c0a86310-5c005e00-ae0ab6b0	2018-05-07 15:42:48	2018-05-07 15:42:48	admin	Admin Admin	admin	Admin Admin	F1-0019	F2-0022
398d8791-c0a86310-5c005e00-93d7d218	2018-05-07 15:42:48	2018-05-07 15:42:48	admin	Admin Admin	admin	Admin Admin	F1-0027	F2-0022
398e51fe-c0a86310-5c005e00-5d600e88	2018-05-07 15:44:28	2018-05-07 15:44:44	admin	Admin Admin	admin	Admin Admin	F1-0018	F2-0023
398e5f8a-c0a86310-5c005e00-53cad31e	2018-05-07 15:44:28	2018-05-07 15:44:44	admin	Admin Admin	admin	Admin Admin	F1-0020	F2-0023
398e7bd8-c0a86310-5c005e00-7a67df2a	2018-05-07 15:44:28	2018-05-07 15:44:44	admin	Admin Admin	admin	Admin Admin	F1-0026	F2-0023
398e9d8b-c0a86310-5c005e00-f2881cd0	2018-05-07 15:44:28	2018-05-07 15:44:44	admin	Admin Admin	admin	Admin Admin	F1-0028	F2-0023
398ef4e2-c0a86310-5c005e00-78f41255	2018-05-07 15:44:28	2018-05-07 15:44:44	admin	Admin Admin	admin	Admin Admin	F1-0019	F2-0023
398f0cc4-c0a86310-5c005e00-28e4e933	2018-05-07 15:44:28	2018-05-07 15:44:44	admin	Admin Admin	admin	Admin Admin	F1-0027	F2-0023
398f4e1b-c0a86310-5c005e00-1d19cda0	2018-05-07 15:44:44	2018-05-07 15:44:44	admin	Admin Admin	admin	Admin Admin	F1-0029	F2-0023

This is table1 data.

jwdb.app_fd_many2many_table1: 12 rows total (approximately)

Next

id	dateCreated	dateModified	createdBy	createdByName	modifiedBy	modifiedByName	c_TextField
F1-0018	2018-05-07 15:40:30	2018-05-07 15:40:30	admin	Admin Admin	admin	Admin Admin	Flour
F1-0019	2018-05-07 15:40:34	2018-05-07 15:40:34	admin	Admin Admin	admin	Admin Admin	Egg
F1-0020	2018-05-07 15:40:39	2018-05-07 15:40:39	admin	Admin Admin	admin	Admin Admin	Baking Powder
F1-0021	2018-05-07 15:40:44	2018-05-07 15:40:44	admin	Admin Admin	admin	Admin Admin	Water
F1-0022	2018-05-07 15:40:56	2018-05-07 15:40:56	admin	Admin Admin	admin	Admin Admin	Coffee
F1-0023	2018-05-07 15:41:01	2018-05-07 15:41:01	admin	Admin Admin	admin	Admin Admin	Bread Flour
F1-0024	2018-05-07 15:41:12	2018-05-07 15:41:12	admin	Admin Admin	admin	Admin Admin	Banana
F1-0025	2018-05-07 15:41:16	2018-05-07 15:41:16	admin	Admin Admin	admin	Admin Admin	Raspberry
F1-0026	2018-05-07 15:41:46	2018-05-07 15:41:46	admin	Admin Admin	admin	Admin Admin	Salt
F1-0027	2018-05-07 15:41:49	2018-05-07 15:41:49	admin	Admin Admin	admin	Admin Admin	Butter
F1-0028	2018-05-07 15:42:12	2018-05-07 15:42:12	admin	Admin Admin	admin	Admin Admin	Sugar
F1-0029	2018-05-07 15:44:34	2018-05-07 15:44:34	admin	Admin Admin	admin	Admin Admin	Milk

This is table2 data.

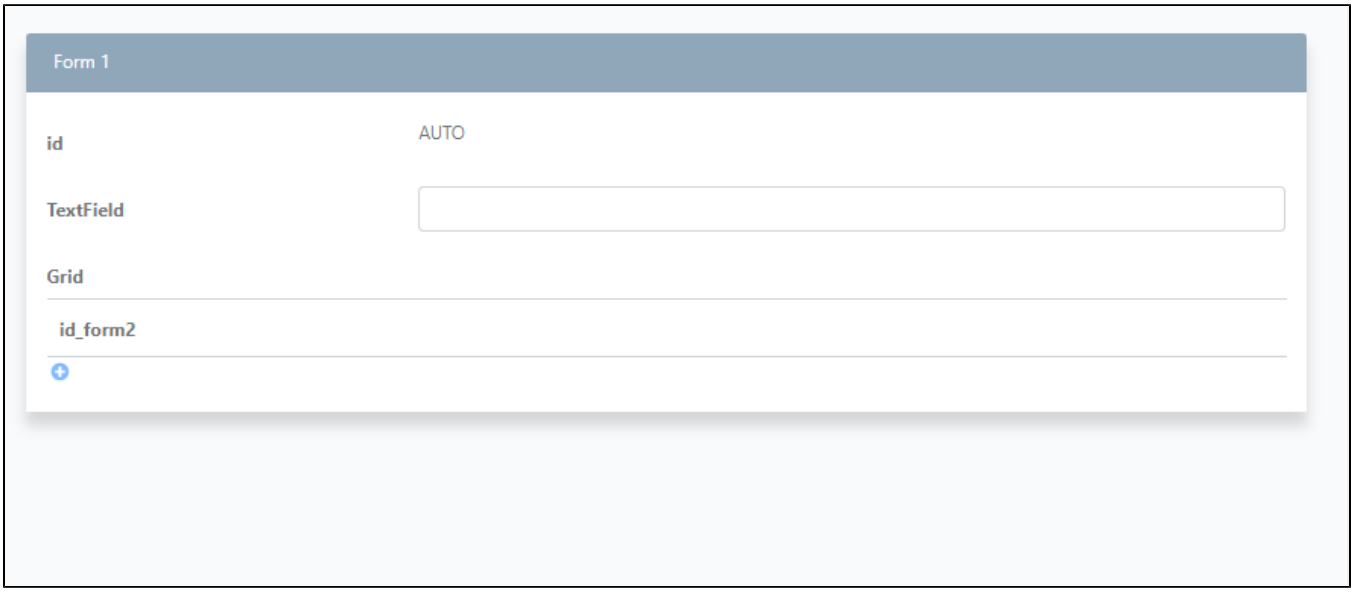
jwdb.app_fd_many2many_table2: 2 rows total (approximately)

Next

id	dateCreated	dateModified	createdBy	createdByName	modifiedBy	modifiedByName	c_TextField
F2-0022	2018-05-07 15:42:48	2018-05-07 15:42:48	admin	Admin Admin	admin	Admin Admin	Crepe
F2-0023	2018-05-07 15:44:28	2018-05-07 15:44:44	admin	Admin Admin	admin	Admin Admin	Pancake

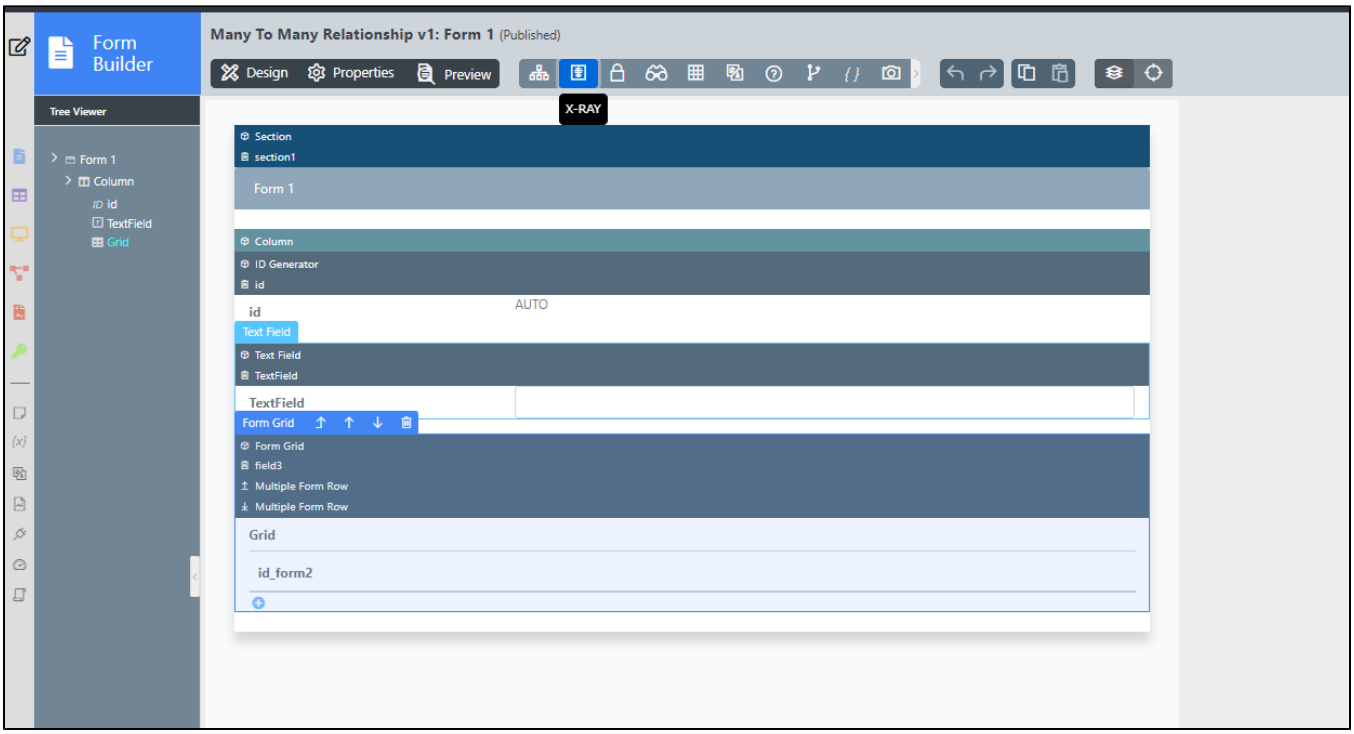
The app is created using simple select box and form grid. You may study its design by downloading the sample app below.

The figure below shows the design of Form1.



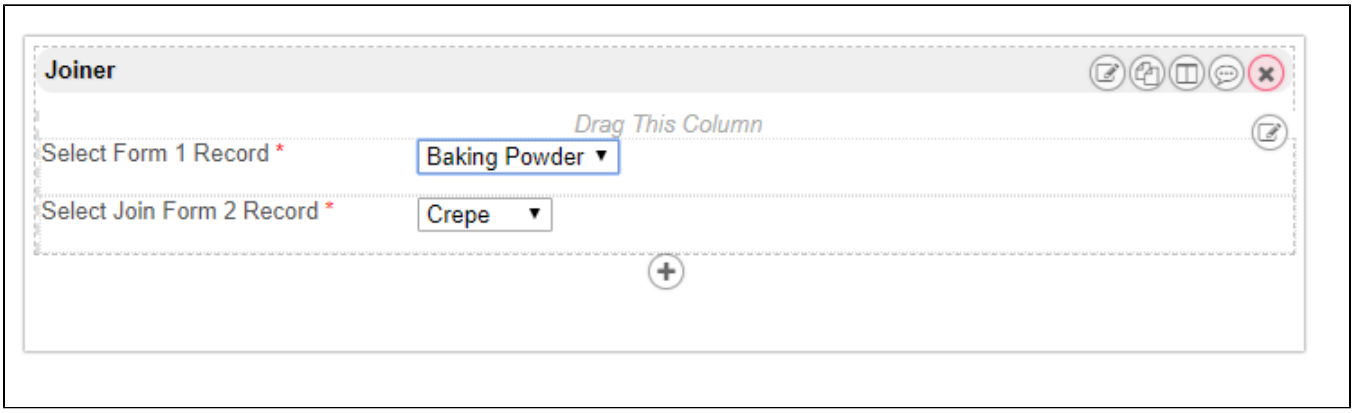
Based on the figure below, we can see that Form 1 has:-

1. An ID Generator Field to create a running number as record ID.
2. Text Field
3. Form Grid to select items from Form 2 to be stored in the joiner table.



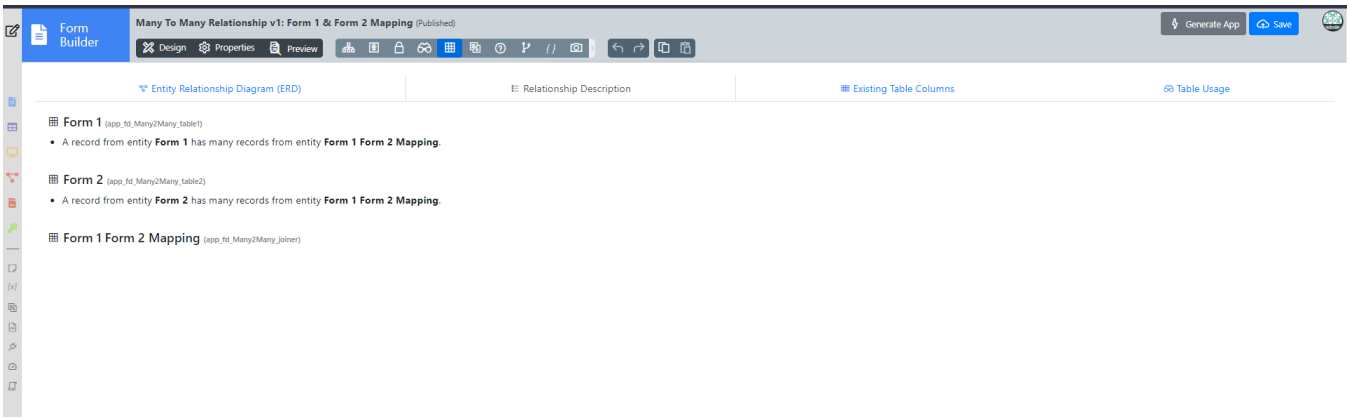
Form 2 has identical form design as per Form 1, as explained below.

In the joiner form, it contains just 2 select boxes.

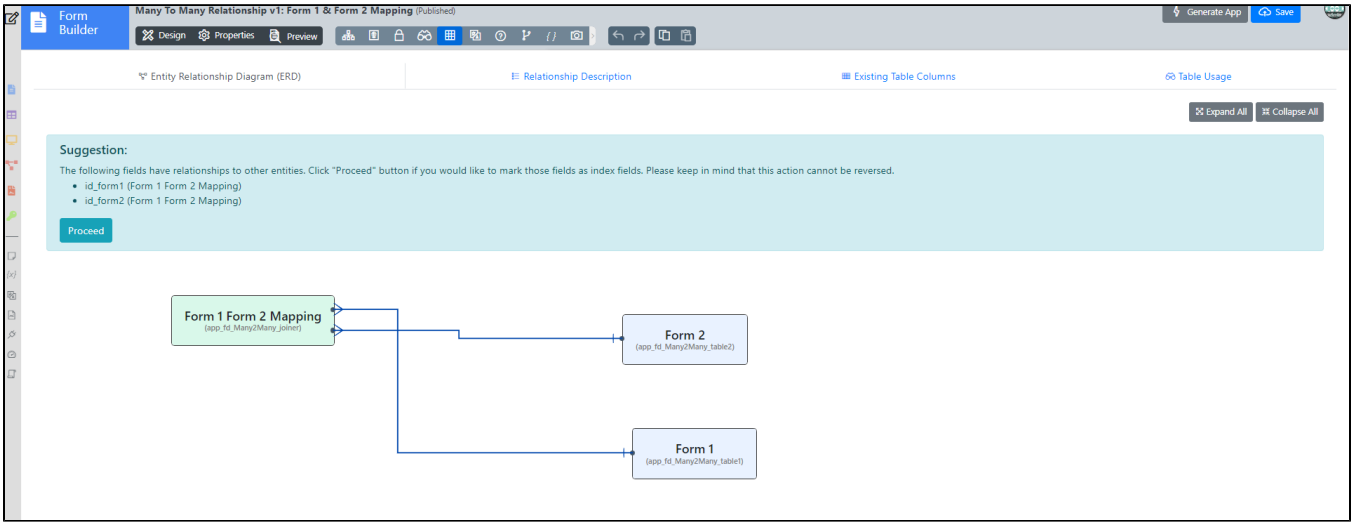


Each of the select boxes would point to Form 1 and Form 2 using Default Form Options binder as shown in the form structure figure below.

Relationship Description



Entity Relationship Diagram (ERD)



You may try it out yourself by downloading the sample app below.

Sample App

Related Documentation

Builder Advanced Tools#ERD