outsystems

DEVELOPING OUTSYSTEMS MOBILE APPS

Master Detail

Introduction

Over the course of this set of exercise labs, you will create a web application. The application will focus on creating and managing To Dos. The To Dos will be persisted in a database so they can be accessed from and shared across multiple devices. To Dos will have attributes such as category, priority (low, medium or high), due date and they can be marked as important (starred) by the user.

Users of the To Do application will be able to access all of this information. This back-office application will allow administrators to manage all existing To Dos.

You constantly will be expanding your application, publishing it to the server and testing your application to the server while learning and applying new OutSystems concepts.

At the end of this set of exercise labs, you will have a small, but well-formed web application, spanning multiple screens and concepts that you can easily access from your browser.

In this specific exercise lab, you will:

- Scaffold a Master Detail list

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Part 1: Master Detail by Scaffolding

In this part of the exercise, you will extend the **CategoryDetail** Screen. In this Screen, you will add a **Table Records** to display all To Dos of the current category being edited.

1. Scaffold a Master Detail pattern of the **ToDo** Entity in the **CategoryDetail** Screen.

    a) From the Interface tab, open the **CategoryDetail** Screen.

    b) Switch to the **Data** tab and locate the **ToDo** Entity.

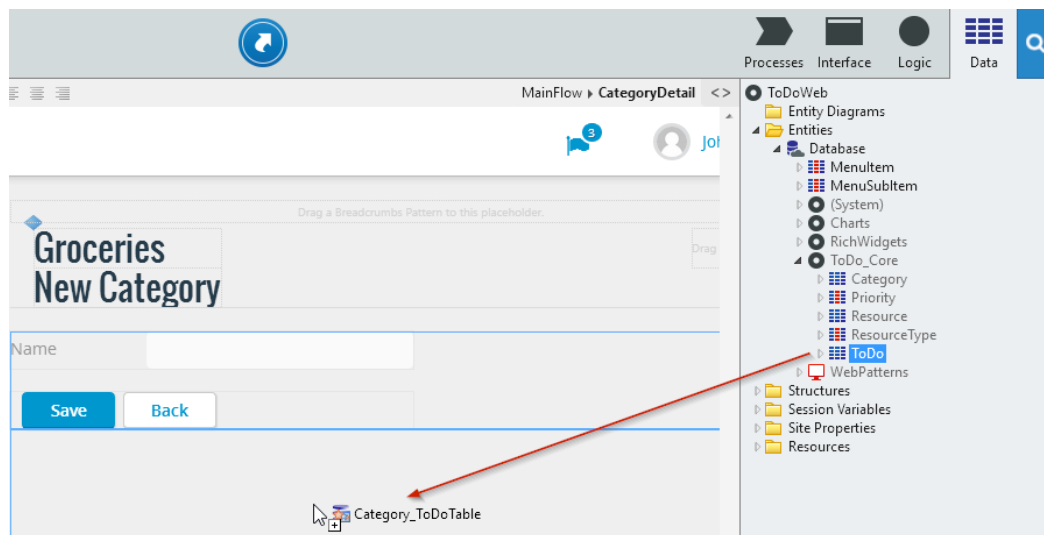   **c)** Drag the **ToDo** Entity and drop it below the 'Category Form'.

Figure 1. Drag the ToDo Entity

NOTE: Notice that the icon has the stars in it, indicating that a Scaffold pattern will be executed. In this case, the pattern is called **Master-Detail** and the idea is that in a detail Screen like **CategoryDetail**, you will show a table containing all records of another related Entity (**ToDo**).

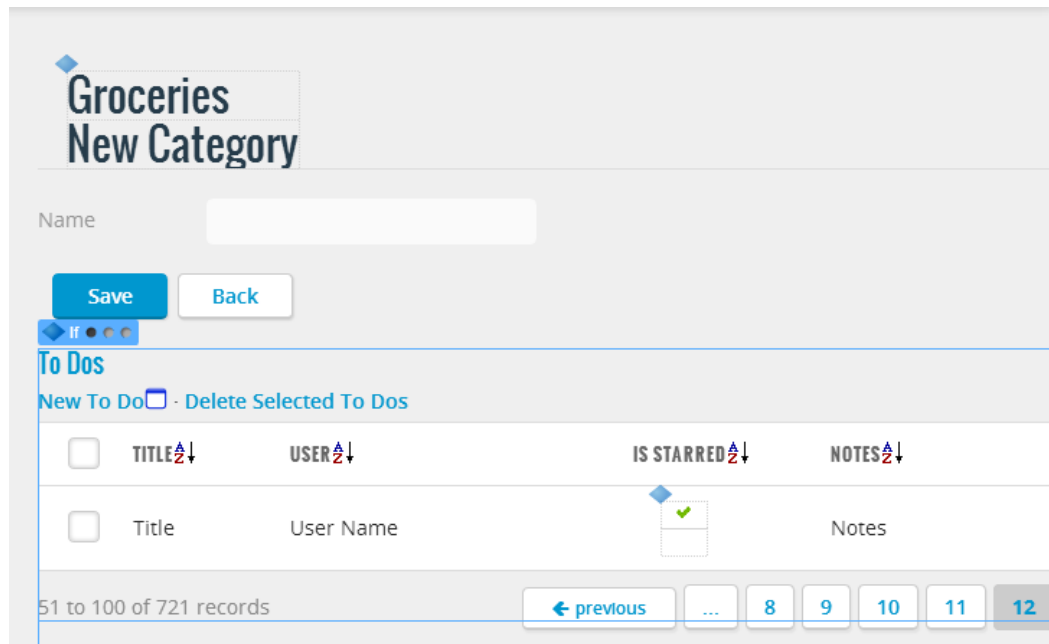   **d)** Your Screen should look like this

Do not duplicate

Figure 2. CategoryDetail Screen with a Master-Detail pattern for To Dos

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NOTE: Notice that several features are added with this scaffolding pattern. Besides page navigation and sorting by column, it is also possible to add new To Dos using a Pop Up, and delete existing To Dos using the checkboxes on the first column. Scaffolding patterns are accelerators to create, in this case, user interface elements and you can always modify the generated elements to better fit your own requirements.

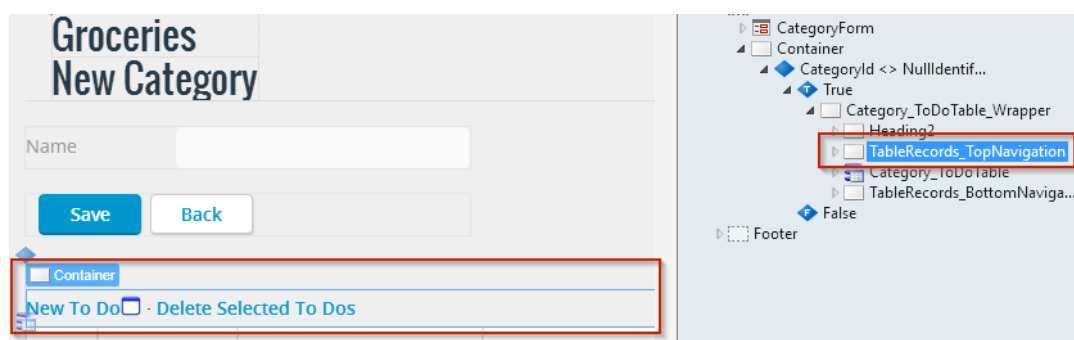**e)** Select the Container that surrounds the 'New To Do' and 'Delete Selected To Dos' links, then delete it.

Figure 3. Delete navigation Container

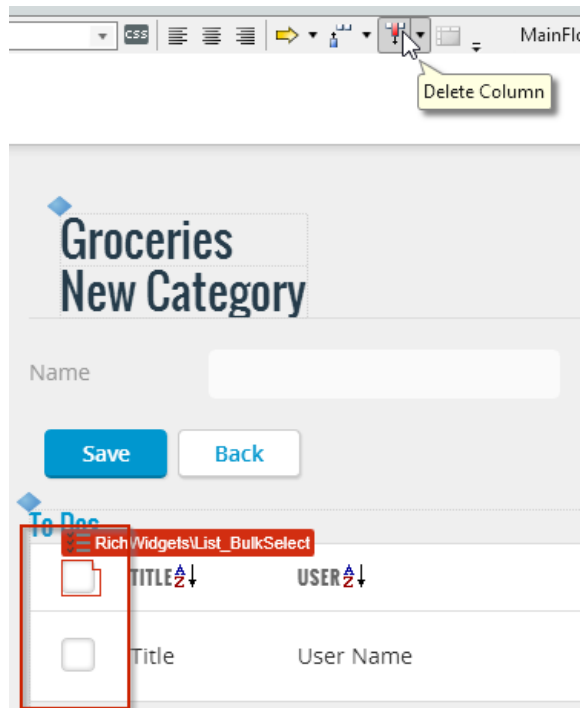**f)** Place the focus on the first column then, using the toolbar, delete the column.

Figure 4. Delete column

g) Repeat the previous step for the 'Is Starred' and 'Notes' columns.

h) From the **Data** tab, locate the **PriorityId** attribute from the **ToDo** Entity, drag it and drop it into the **Table Records** to create the 'Priority' column.
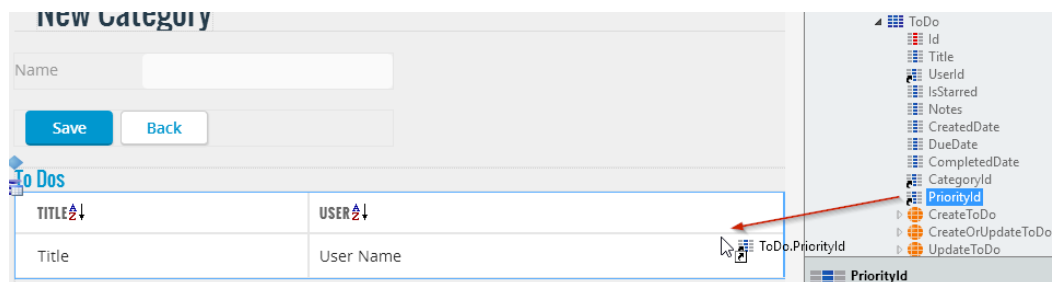

Figure 5. Add 'Priority' column

i) Locate the **DeleteToDos** Screen Action from the **CategoryDetail** Screen, in the elements area of the **Interface** tab, and delete it.

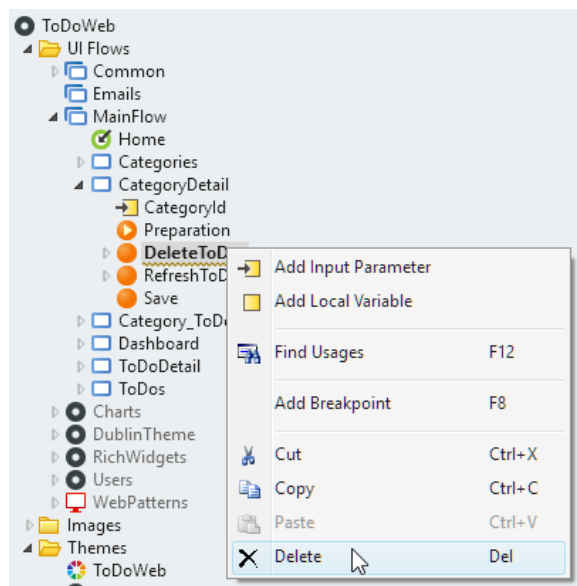**Figure 6. Delete Screen Action**

NOTE: This Screen Action was automatically created with the scaffold pattern, and was used to delete existing To Dos, using the checkboxes on the first column.

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j) Delete the **Category_ToDo_PopupEditor** pop up Screen.

NOTE: Scaffold provides a quick and easy mechanism to create and generate common features. Nevertheless, since it is an automated process, and depending on your application needs some of the features might not appropriate.

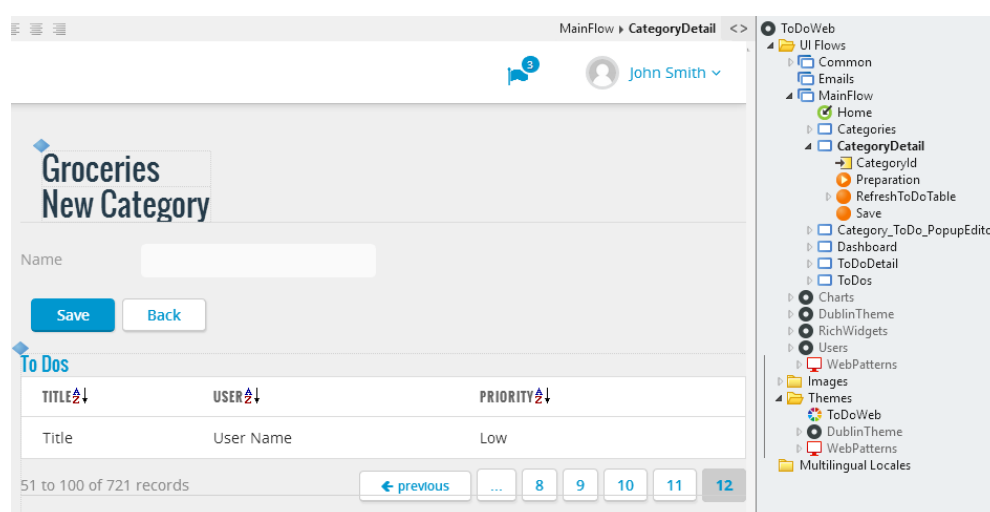**k)** Your **CategoryDetail** Screen should look like this

Figure 7. CategoryDetail Screen with Master-Detail

Do not duplicate

l) Right click the 'Title' **Expression** and select 'Link to MainFlow\ToDoDetail Web Screen'.
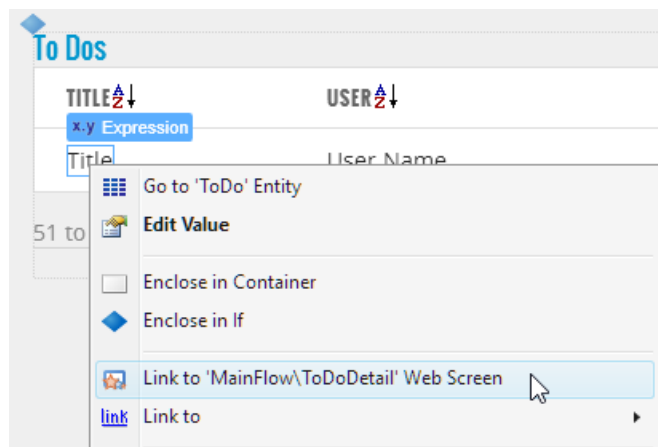
Figure 8. Create link from Master-Detail to ToDoDetail Screen

2. Publish and test your application.

a) Click the **1-Click Publish** button to publish the module.

b) Click the **Open in Browser** button to open the application.

c) Navigate to the **Categories** Screen, and open the 'ToDo Back Office App' category.

d) Below the edit Form for the category, you should see the list of To Dos of that category.
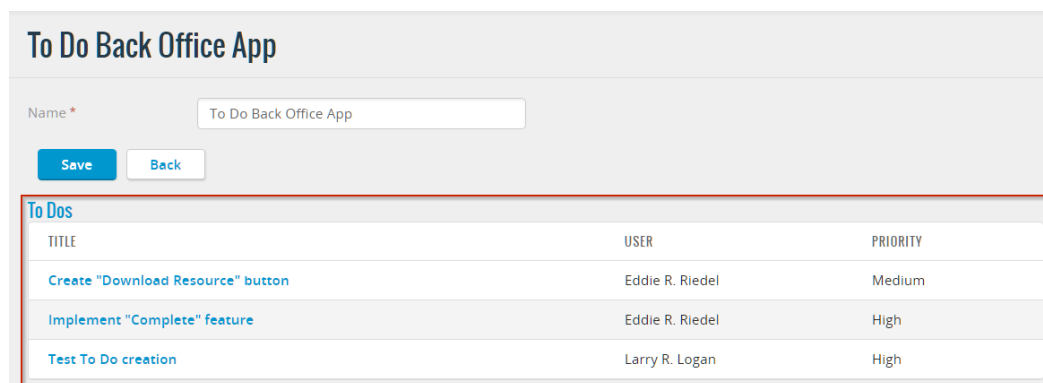

Figure 9. To Dos Master-Detail in CategoryDetail Screen

e) Verify that by clicking on any 'To Do Title' link you navigate to the **ToDoDetail** Screen.

End of Lab

In this exercise, you have extended the user interface. Namely, the detail Screen for Categories was modified to display the To Dos that are associated to that specific Category.

The new user interface elements were created using another scaffolding pattern, thus speeding up the development.

The application module was published to the server, and the new modifications to the detail Screen of Categories were tested.

List of Figures

Here is the list of screenshots and pictures used in this exercise.