Displaying & selecting multiple records

Pattern #3

When you wish to display multiple records to a user in OutSystems you can use either the Table or the List widgets. When you want to allow the user to input data you will use Inputs, Checkboxes, Dropdowns and other input widgets, typically in a Form. But sometimes you need to allow a user to select one or more records of a list or table.

The first part of this exercise modifies a listing page so the user can select multiple records and perform operations on all of them at once. In the second part, you will store the user selection as a relationship. Finally, in the third part you will need to enhance another listings page by displaying a secondary list in one of the columns of the original listing.

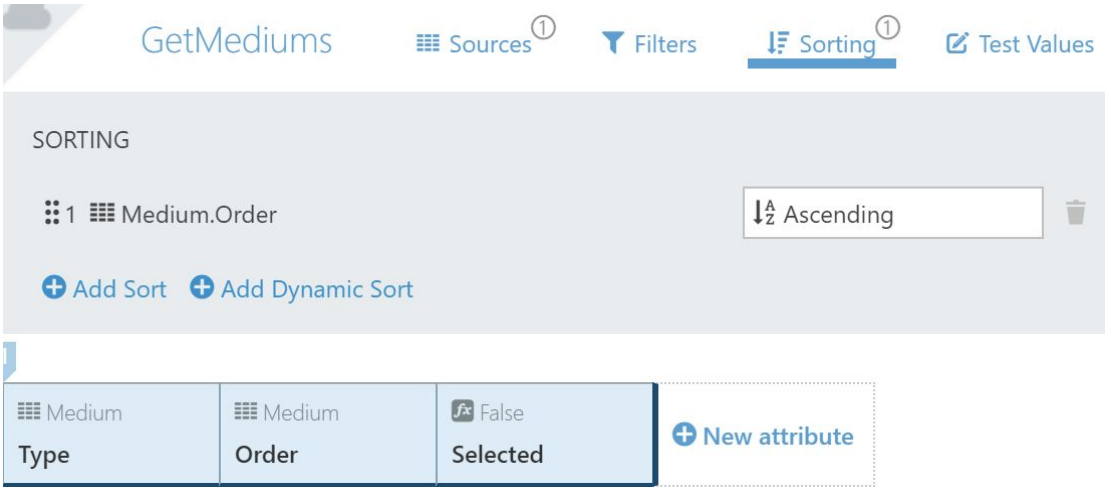
This exercise is based on an existing application that catalogues audio content. You can add new content and choose what is its type. You will extend it with the ability to choose which of the possible distribution types each content it is available on.

Extend the Audio Content Manager application

The Audio Content Manager application is used to catalogue audio content. The user can add new content and choose what is its type. You will improve the management of distribution types and extend it with the ability to choose which of the possible distribution types each content is available on.

Part I - Selecting multiple records in a table

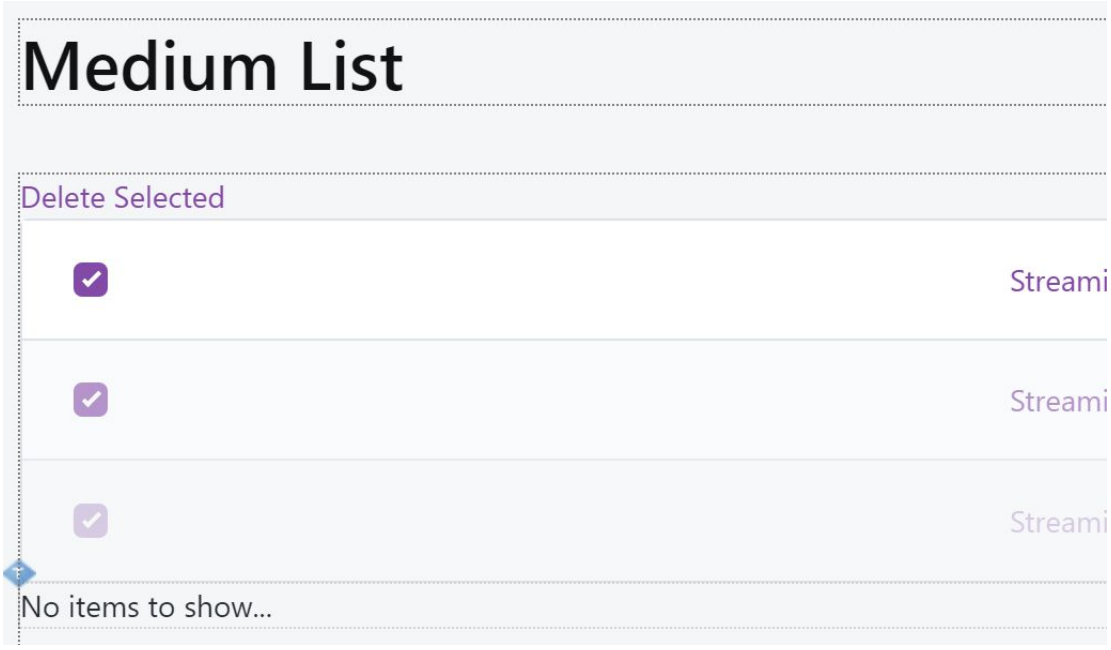
1. Clone the **AudioContentManager** module, rename the clone to **AudioContentManager_<*your initials*>** and publish it
2. Allow the user to select multiple distribution medium types on the **MediumList** screen and delete them.
    a. Modify the **GetMediums** Screen Aggregate that is the source of the *Table* being displayed, by adding a new boolean calculated attribute named **Selected**



NOTE: This attribute will be used to indicate if a record was selected or not by the user. That information is only used for interaction on the screen, so the calculated attribute's *Value* doesn't need to rely on any other attribute from the **Medium** entity and can simply be set to **False**.

b. Add an extra column to the left of the *Table* and place a *Checkbox* on it. The *Checkbox's Variable* should be set to the calculated attribute previously added

c. Add a link before the *Table* that deletes all the records from the Table that are selected



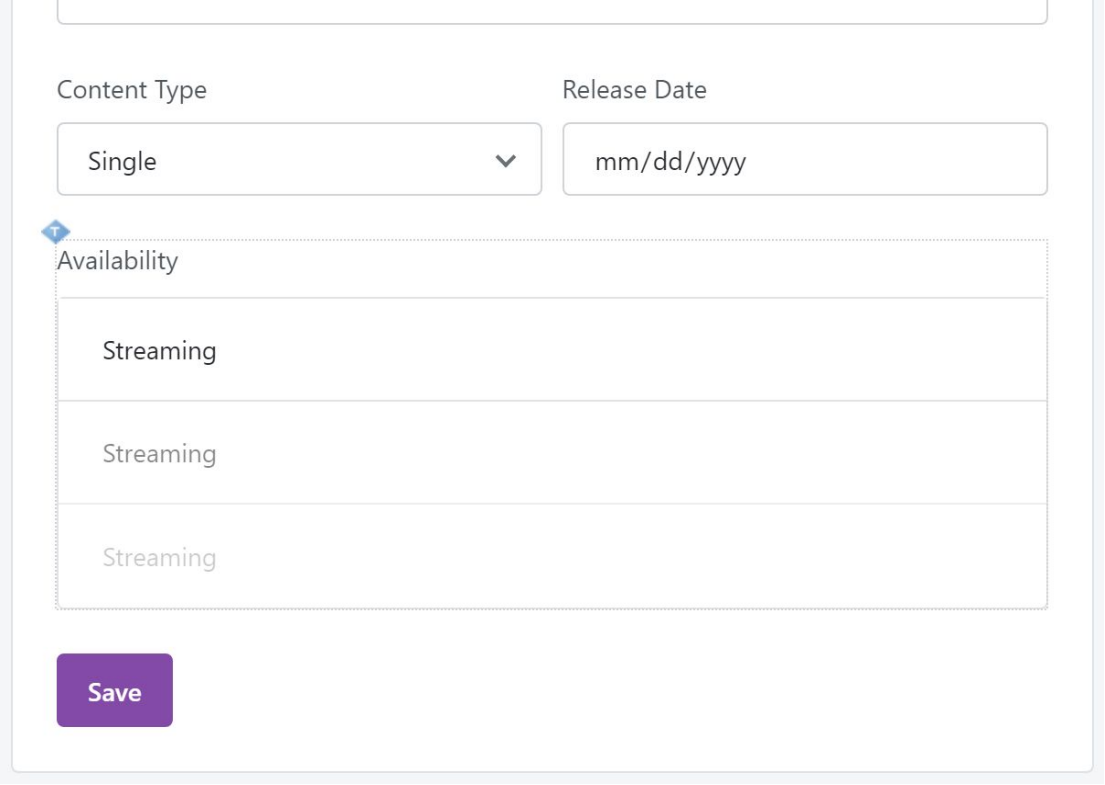
SUGGESTION: You can cycle through the aggregate's List and delete only the records that have been **Selected**

END OF PART I

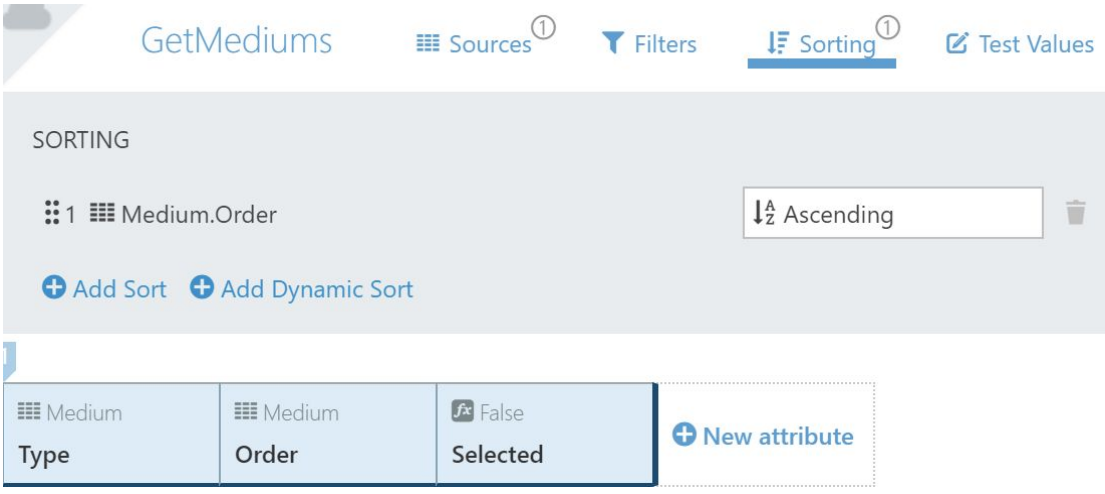
Part II - Use Checkboxes to establish relationships

The second part of this exercise we will allow the user to choose which distribution mediums each content is available on. To that extent we will update the content details to show the list of all available mediums and which ones are currently selected for the particular record.

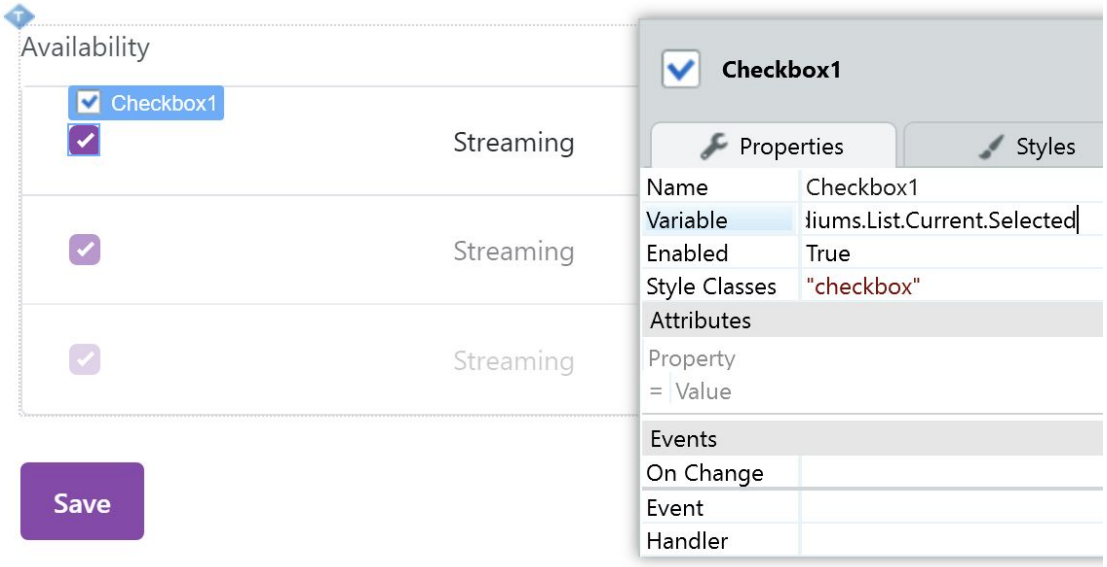
1. Show the list of available mediums on the content details and allow the user to Select them
    a. On the **ContentDetail** screen, display a table with all the Mediums available, sorted by their Order attribute



    b. Add an extra boolean calculated attribute to the source *Aggregate* of the available mediums, named **Selected** and with a *Value* of **False**



c. Add an extra column to the left of the *Table*, and place a *Checkbox* bound to the calculated attribute



2. Change the **SaveOnClick** screen action to update the selection

   a. For each Medium selected, create a new **ContentMedium** record with the corresponding content and medium details

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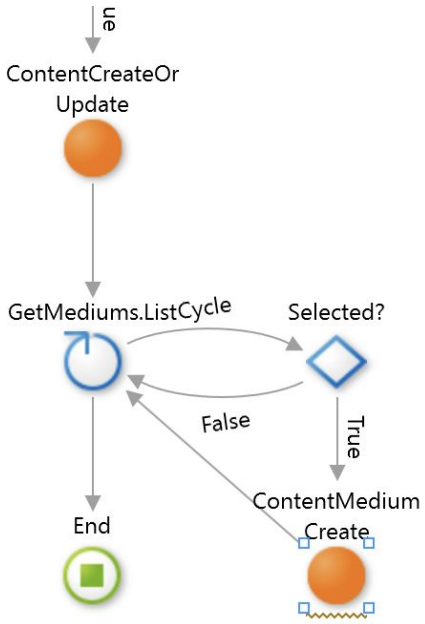
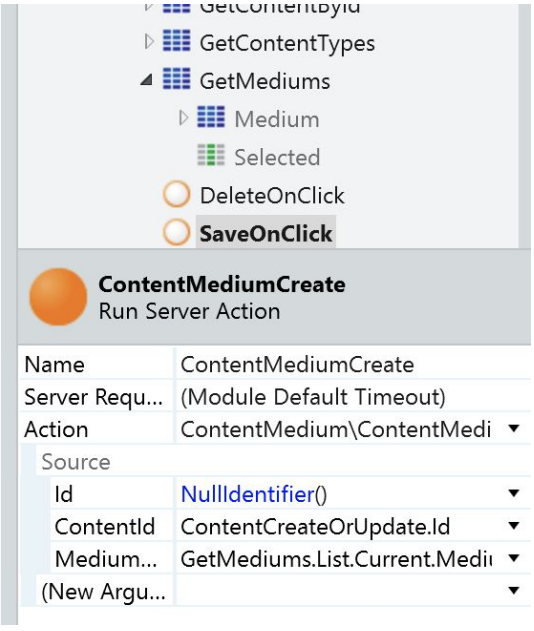
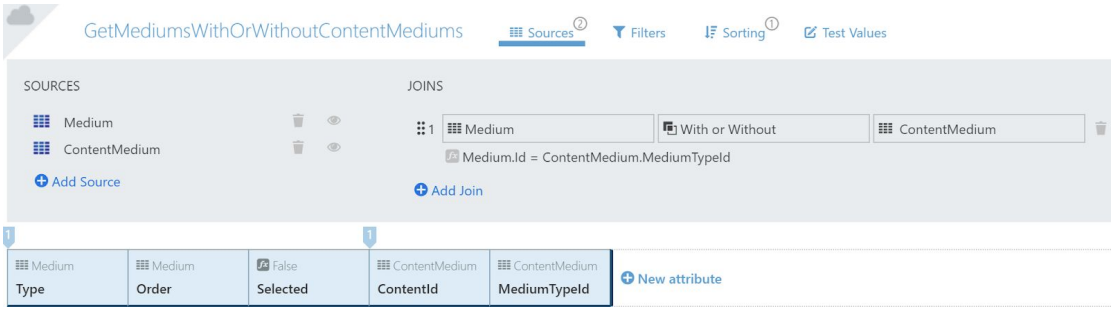
SUGGESTION: You can cycle through the **GetMediums** aggregate's List and only establish the relationship for the records have been **Selected**



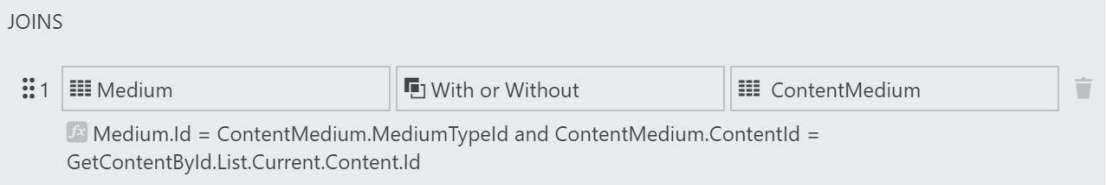


3. Display existing Medium selection when showing the details of a Content and update the SaveOnClick to correctly handle pre-existing selections

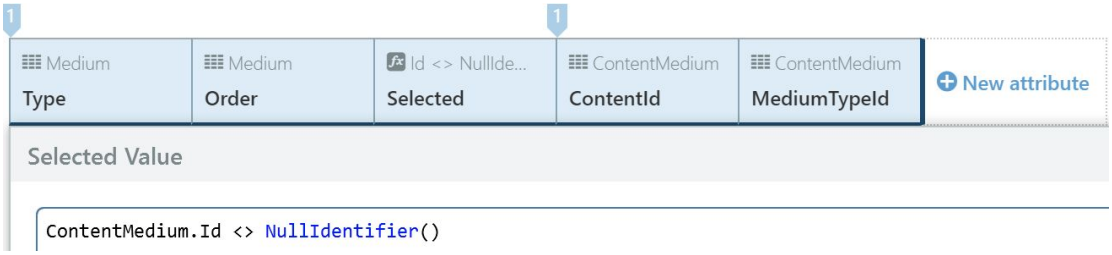
   a. Add the **ContentMedium** entity to the **GetMediums** aggregate



   b. Change the *Join* condition to restrict the join to records relative to the Content record being displayed



   c. Change the Selected expression to reflect the pre-existing relationship



   d. Update the **SaveOnClick** screen action to only create records for newly selected distribution mediums, and to delete records for previously selected distribution mediums that have been deselected

END OF PART II

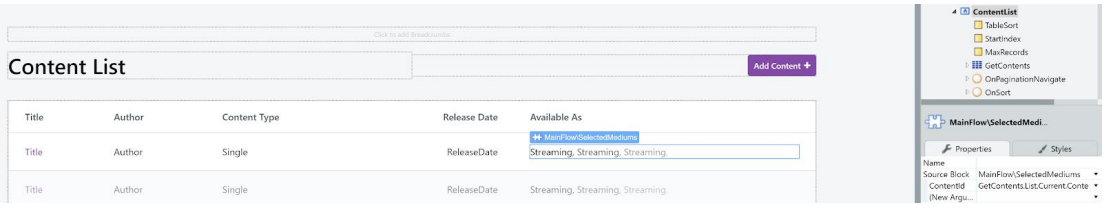
Part III - Displaying multiple records per Table row

In this third, and final, part of the exercise we will change the Content listing page to show which distribution mediums each record is available on. In order to do this, for each content record displayed, we will need to obtain the list of mediums that have been configured for it. This list is different for each record, and in order to implement this solution we will need to use a Block to obtain the medium list and display it, based on the specific content record we pass as input.

1. Create a new *block* that receives a *Content Identifier* and displays the distribution mediums currently assigned to that content
    a. In the **MainFlow** *UI Flow* create the **SelectedMediums** *block*, add an input parameter of type *Content Identifier*
    b. Add an *Aggregate* to the *block* to obtain all **ContentMedium** (and associated Medium) records for the specific content
    c. Add a *List* to the block, bound to the *Aggregate*'s output
    d. Add a container inside the List, and an Expression inside the container, to display the Medium name for that record

    SUGGESTION: Place an *If* next to the *Expression* to add a coma and a space next to the medium name if there will be more elements displayed after

2. Add the distribution medium list to the Content listing screen
    a. On the **ContentList** screen, add a column to the right of the *Table* with a meaningful header
    b. Drag an instance of the **SelectedMediums** *block* to the the newly created column, and configure it to use the Content Id of the current record being displayed
    c.



END OF PART III