Creating Server Action Exercise

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Outline

In this exercise, our primary objective is to continue to develop logical flows through the implementation of client and server actions. These actions are built to input or update employee details and/or project specifics within the database. This functionality is triggered by clicking the 'Save' button on both the Employee Details and Project Details screens.

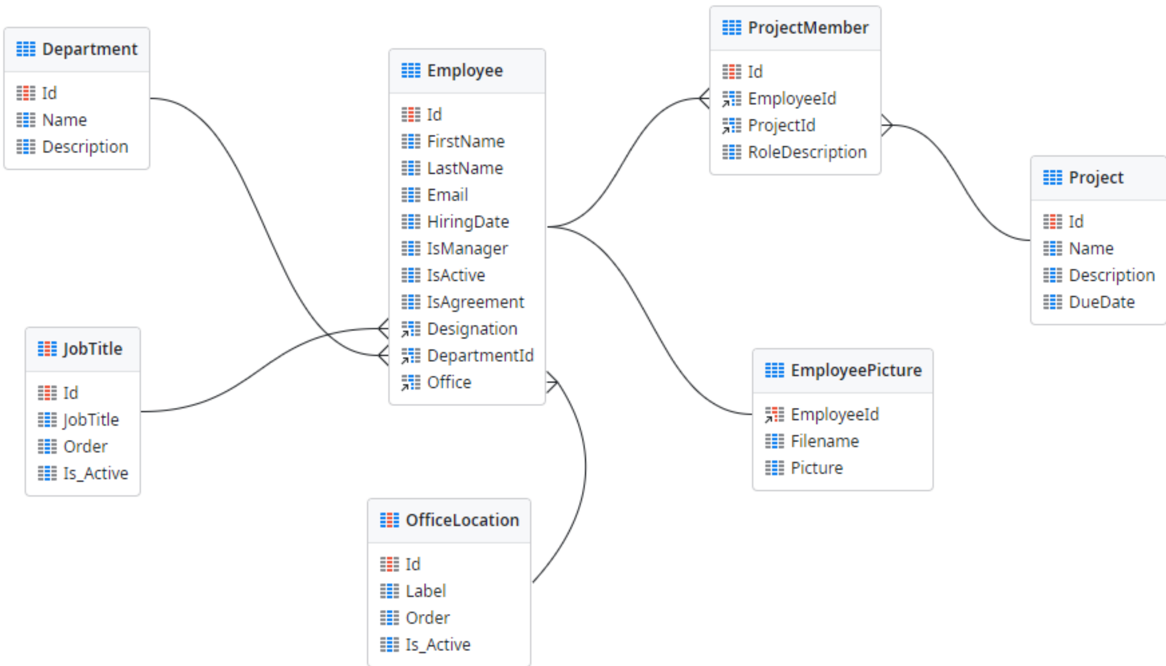
Upon completing this exercise, the application will have two actions supporting the above-outlined scenarios.

Scenario

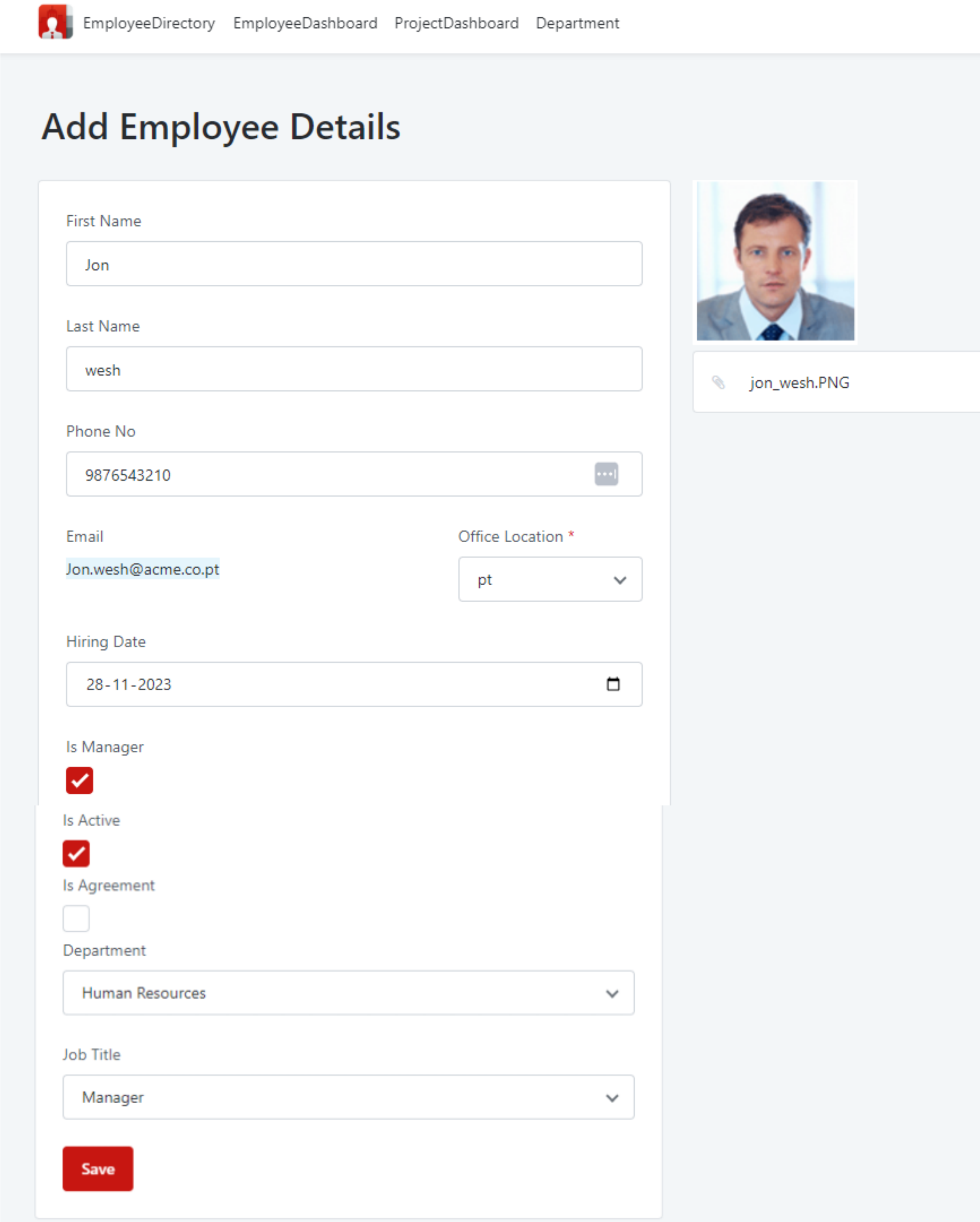
In this exercise, you will enhance the existing **Employee Directory** app, which consists of a single module containing essential entities, screens, and aggregates established in previous activities.

The module comprises five distinct screens, which have some Aggregates and widgets created, providing a functional user interface.

The EmployeeDetail and ProjectDetail screens, built using Forms and various input widgets, integrate specialized Aggregates. Specifically, the EmployeeDetail screen has the **GetEmployee** Aggregate, facilitating both inserting and retrieving employee details matching the corresponding Id from the database. Similarly, the ProjectDetail screen mirrors this scenario by utilizing the **GetProject** Aggregate for project-related operations.



Starting from this application, in this exercise, we want to implement server actions in the EmployeeDetail and ProjectDetail screens to create or update employee and project records, respectively, in the database.



How-To

In this section, we will show you how to do this exercise, with a thorough step-by-step description. **If you already finished the exercise on your own, great! You don't need to go through it again**. If you didn't finish the exercise, that's fine! We're here to help you out.

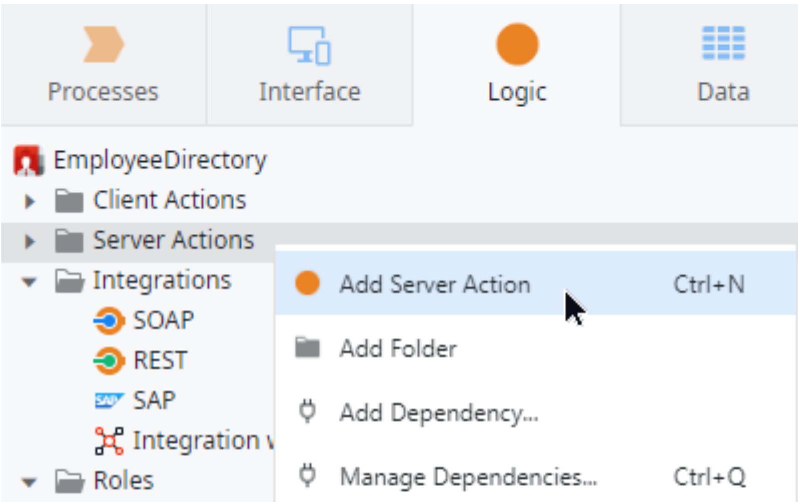
Create Server Actions

In this segment, we will create two server actions for the creation and updating of employee and project data within the database. Subsequently, these actions will be incorporated into the logic flow of the Save button, ensuring that upon completing the Employee or Project form, clicking the Save button triggers the creation or update of the entered details in the database.

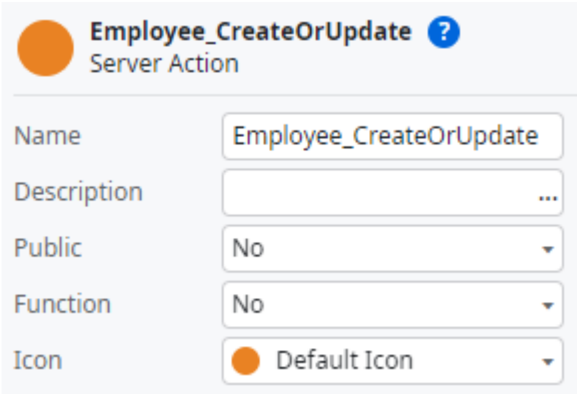
Create a Server Action for EmployeeDetails Screen

1) Begin by navigating to the **Logic** tab.

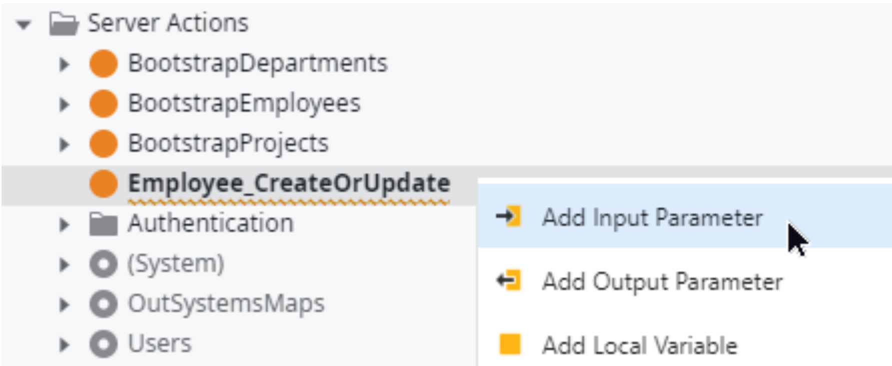
2) Right-click on **Server Actions** and choose **Add Server Action**.



3) Name the action *Employee_CreateOrUpdate*. Note that the Server Action logic flow is now open.

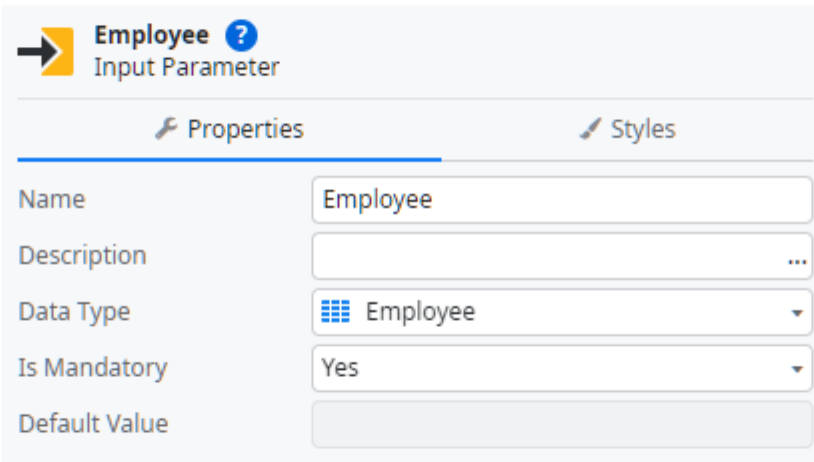


4) Right-click on the server action, select **Add Input Parameter**.

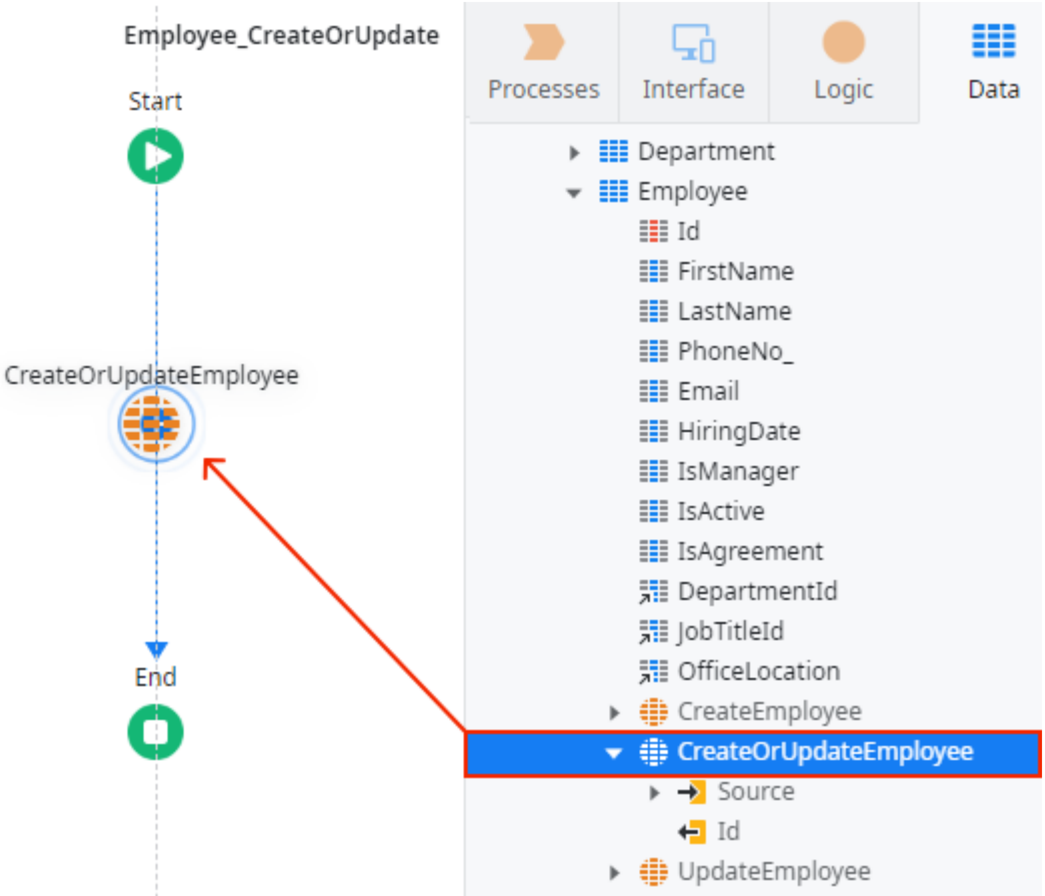


5) Set the name of the Input Parameter to *Employee*, and set the Data type to *Employee*.

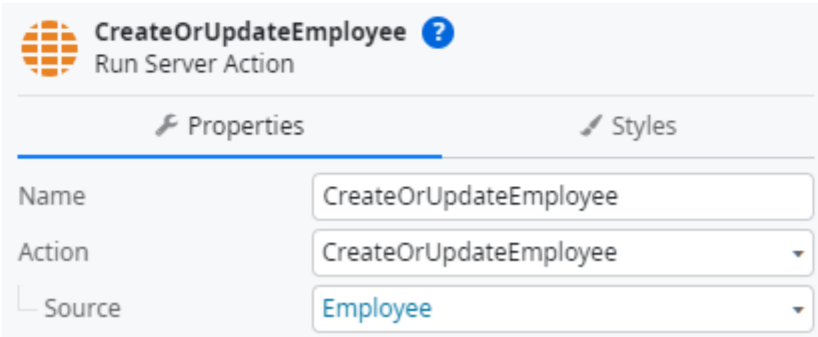
This parameter will capture the data entered in the Employee form, eventually, inserting it into the Employee Entity in the database upon triggering the Save button.



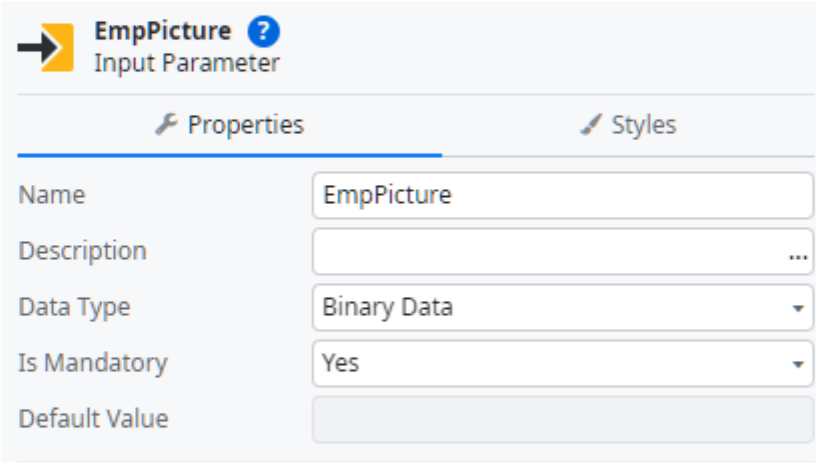
6) Move to the **Data** tab, expand the Employee Entity, and drag the **CreateOrUpdateEmployee** entity action into the logic flow.



7) Set the **Source** property of the Entity action to the input parameter, **Employee**.

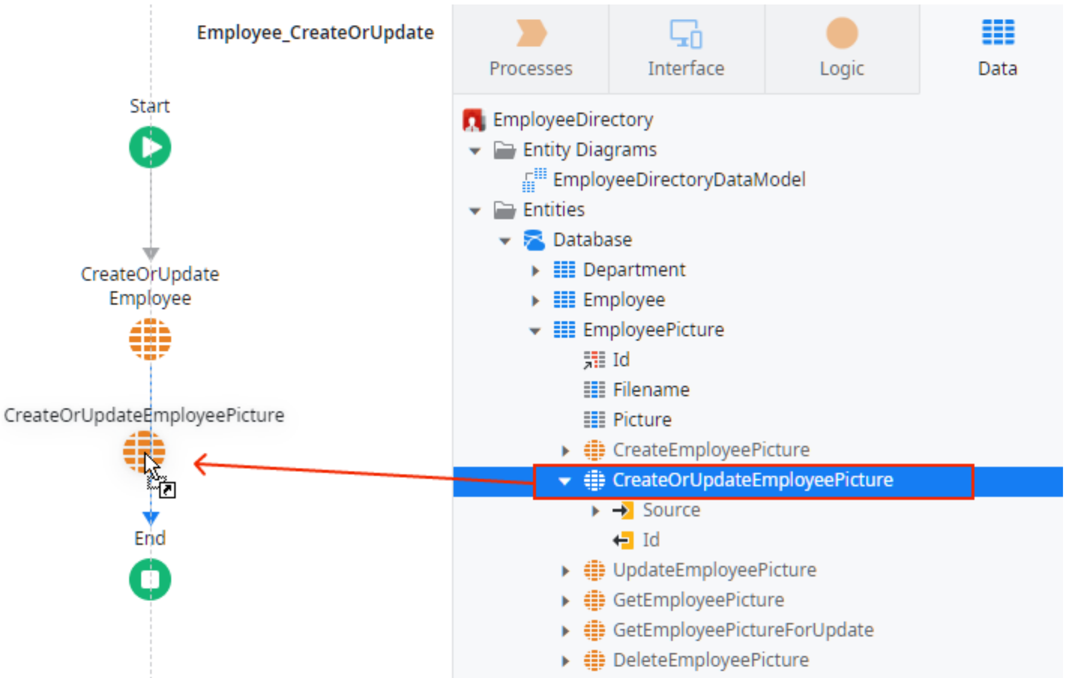


8) Create another Input Parameter *EmpPicture*, and set its data type to **Binary**.

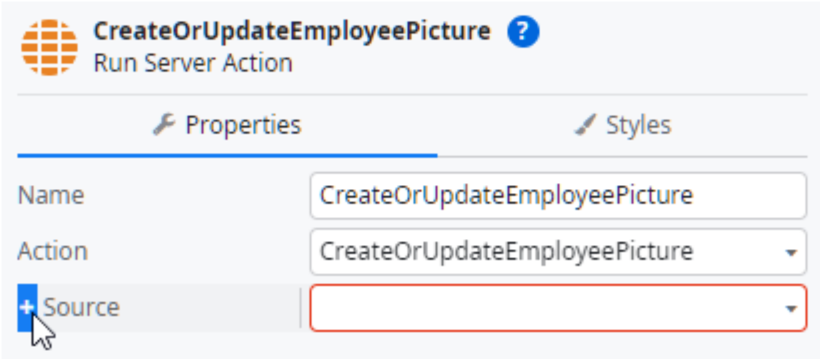


9) Create another Input Parameter *EmpPictureFilename*, and set its data type to **Text**.

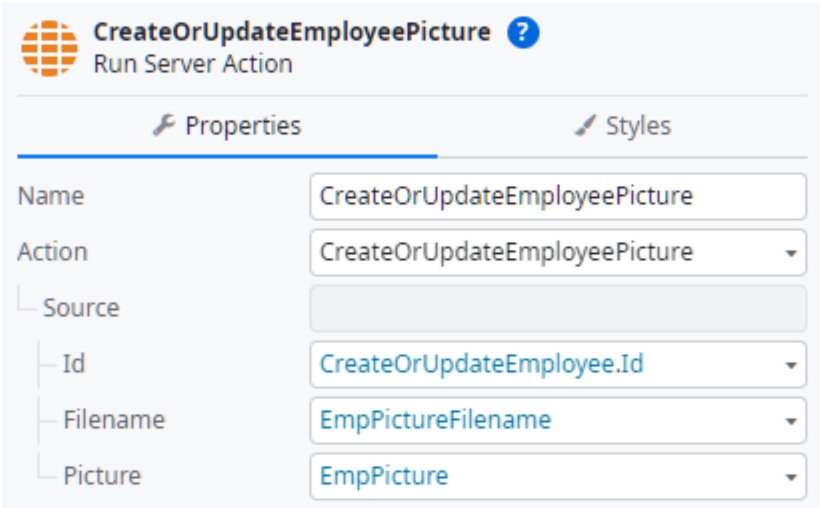
10) Expand the EmployeePicture Entity in the Data tab, and drag the **CreateOrUpdateEmployeePicture** Entity Action onto the Server Action logic flow.



11) Click the **+** to Expand the **Source** property.



12) Set each of the attributes as follows:

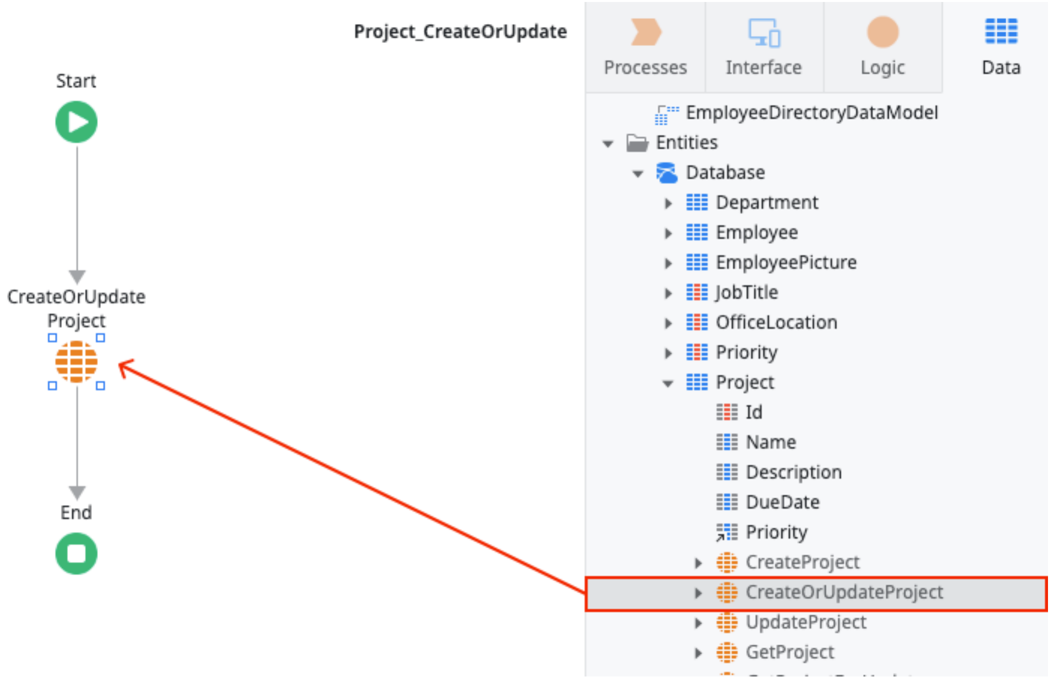


13) Publish the module to save the latest changes.

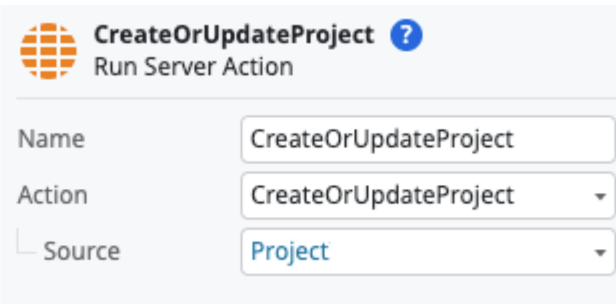
Create a Server Action for ProjectDetails Screen

1) In the Logic tab, create a *Project_CreateOrUpdate* server action, having an input parameter *Project* with Data Type set to *Project*.

2) Drag the **CreateOrUpdateProject** Entity Action from the **Project** entity in the Data tab onto the logic flow.



3) Set the **Source** property of the Entity Action to *ProjectId*.

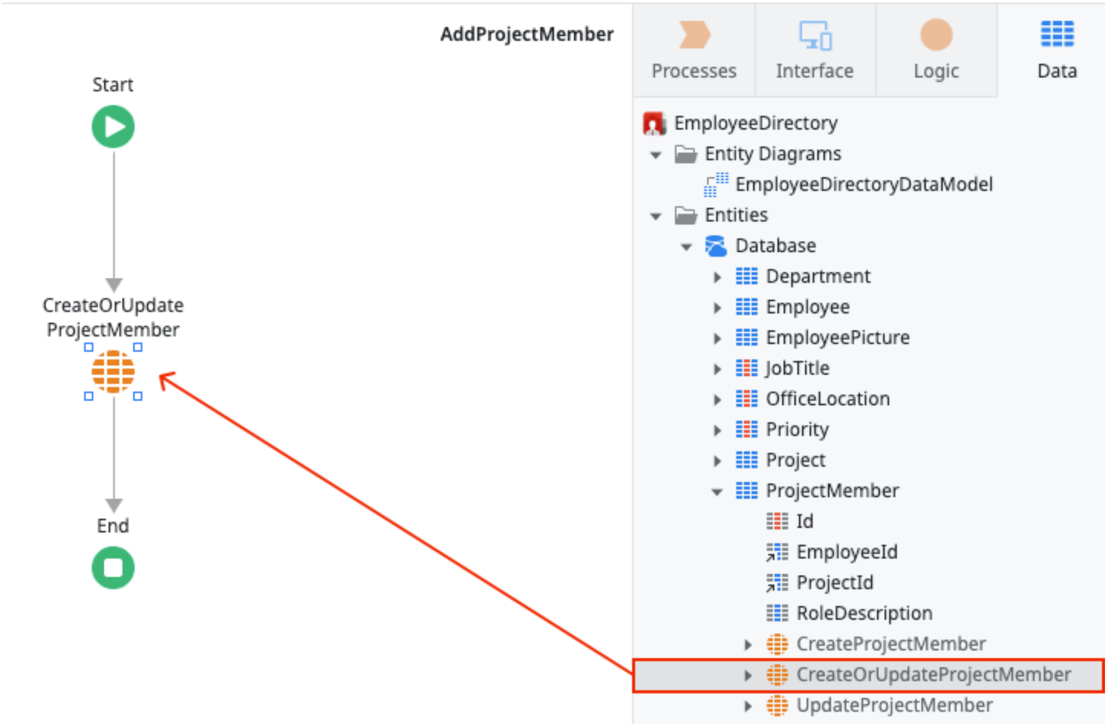


4) Publish the module to save the latest changes.

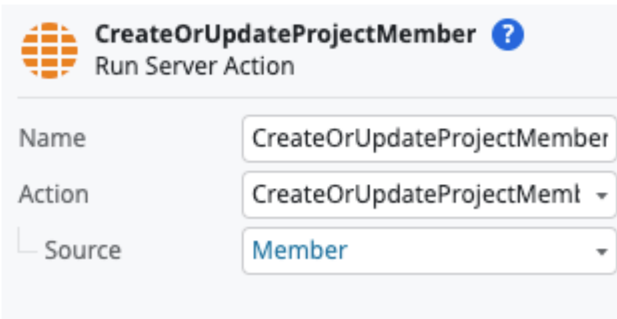
Create a Server Action for ProjectMember Screen

1) In the Logic tab, create a *AddProjectMember* server action with a input parameter *Member*, having the Data Type set to *ProjectMember*.

2) Add the **CreateOrUpdateProjectMember** Entity Action onto the logic flow.



3) Set the **Source** property of the Entity Action to *MemberId*.



4) Publish the module to save the latest changes.

Congratulations! You've effectively created server actions and integrated in the screen logic to insert or update input data to the database.