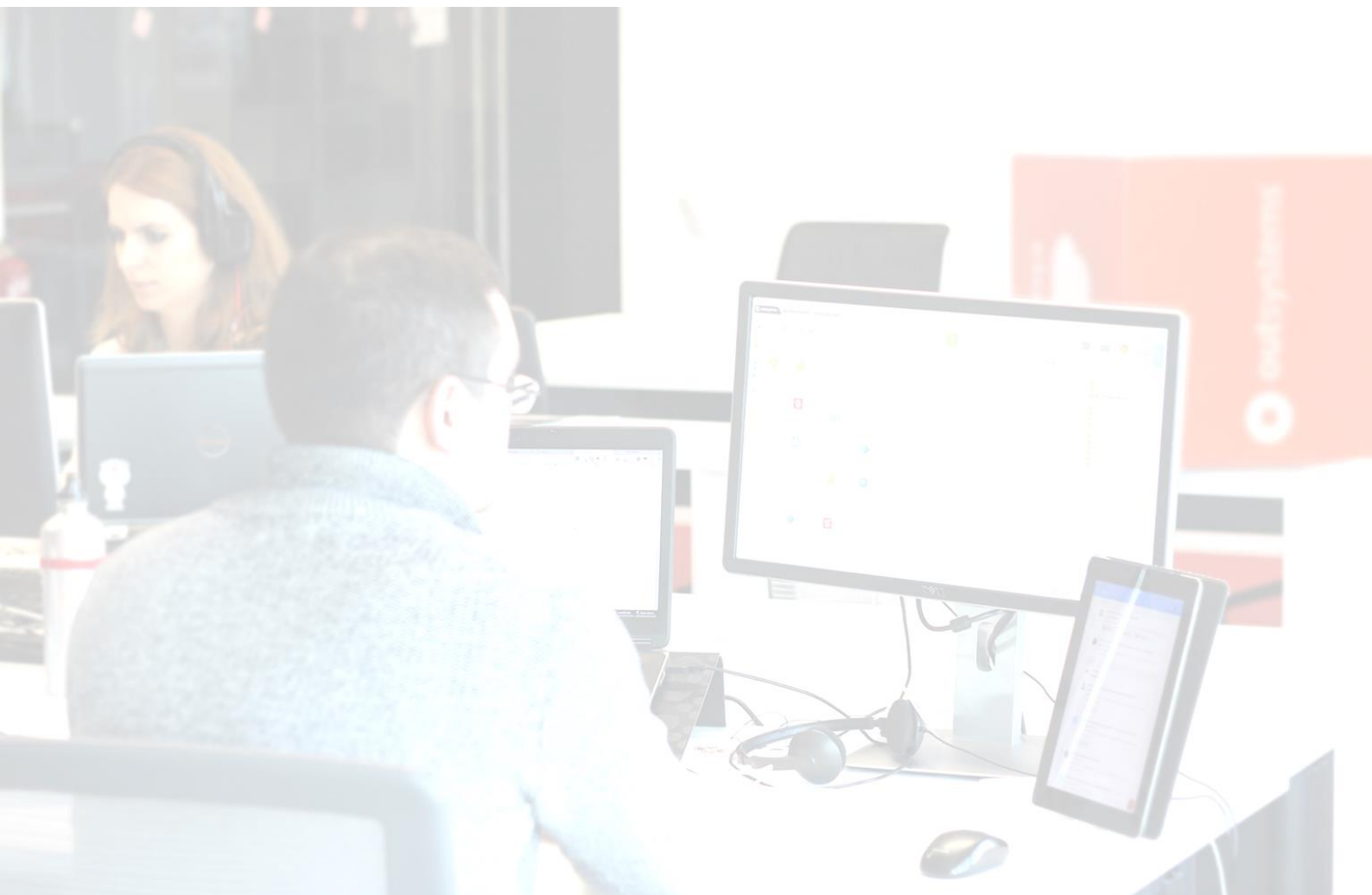




DEVELOPING OUTSYSTEMS MOBILE APPS

Themes & Common UI



Introduction

Over the course of this set of exercise labs, you will create a mobile 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 regardless of whether the device is online or offline. When offline, users will still be able to keep interacting with the application and changes will be saved locally in the device local storage. When the device returns to online mode, changes made while offline will automatically be synced to the server.

You constantly will be expanding your application, publishing it to the server and testing it in your mobile device. Throughout the process you will be learning and applying new OutSystems concepts.

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

In this specific exercise lab, you will:

- Update the application's Splash Screen
- Create the application Screens
- Add links to Screens in the Menu
- Add links to Screens in the Bottom Bar

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Part 1: Update the Splash Screen

In this part of the exercise, you will update the Splash Screen, so that it will display the logo and the name of the application.

1. Replace the application logo.

- a) Open the **ToDo** module.
- b) Switch to the **Interface** tab and double-click on the **Splash** Screen, from the **Common** flow, to open it

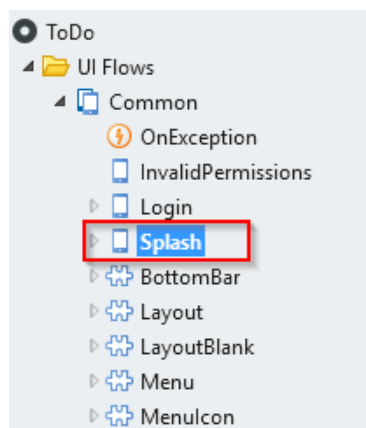


Figure 1. Open the Splash Screen

NOTE: The **Splash** Screen already contains an expression that displays the Application Name, and in this case, it will display 'To Do'.

- c) Select the 'OutSystems Logo' Image in the **Splash** Screen, and in the properties area, open the drop down for the **Image** property and select '(Import Image...)'

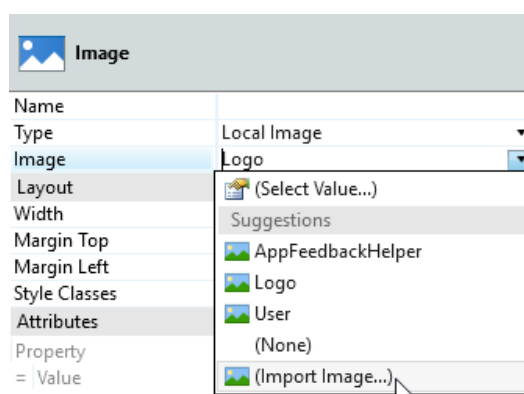


Figure 2. Import Image

- d) From the **Resources** folder, choose the **todo-transparent.png** Image.
2. Publish and see the new **Splash** Screen in action.
- a) Click the **1-Click Publish** button to publish the module to the server.
 - b) Verify in the 1-Click Publish tab that the publishing process was successful.
 - c) Click the **Open in Browser** button to open the application.
 - d) During the loading, you should see the modified **Splash** Screen.

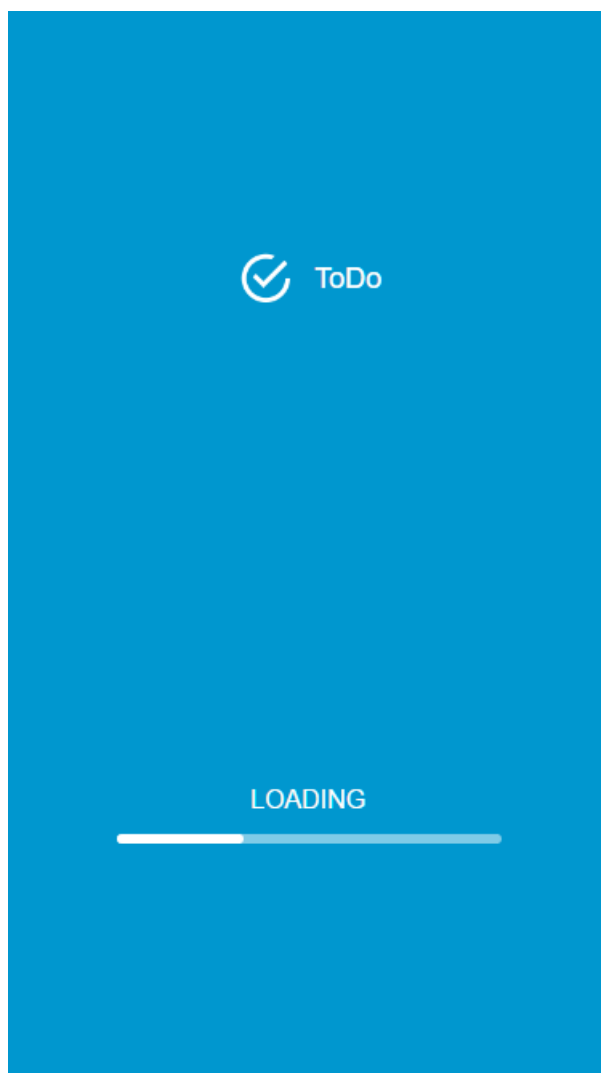


Figure 3. Splash Screen with application logo and title

Part 2: Create the Application Screens

In this part of the exercise, you will create five new Screens: **ToDos**, **ToDoDetail**, **Dashboard**, **Categories** and **DataManagement**. You will also add to each Screen its respective titles.

1. Create the ToDos, ToDoDetail, Dashboard, Categories and DataManagement Screens.

- a) Switch to the **Interface** tab.
- b) In the **MainFlow**, select the **HomeScreen**.
- c) In the properties area, change the Screen **Name** to 'ToDos'.
- d) In the Screen, select the **Title** placeholder and write 'To Dos'.

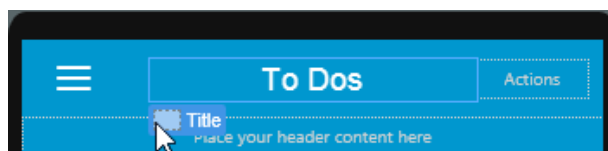


Figure 4. Screen Title

e) Right-click the MainFlow element and choose 'Add Screen'.

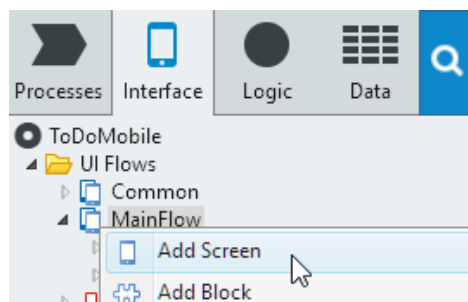


Figure 5. Add Screen

- f) Set the Screen **Name** to 'ToDoDetail'. Type 'To Do Details' in the **Title** Placeholder.
- g) Repeating steps e) and f), create 3 more Screens in the **MainFlow**. Set its **Names** to 'Dashboard', 'Categories', and 'DataManagement'. Type in the respective **Title** Placeholders to 'Dashboard', 'Categories' and 'Data Management'.

Part 3: Add Links to the Menu

In this part of the exercise, you will add to the Menu Links to the Screens you created before. Each of the Links will have an Icon representative of the Screen to where it directs.

1. Add Links to the **Dashboard**, **Categories** and **DataManagement** Screens to the Menu.

a) Open the **Menu** Block located in the **Common** flow in the **Interface** tab.

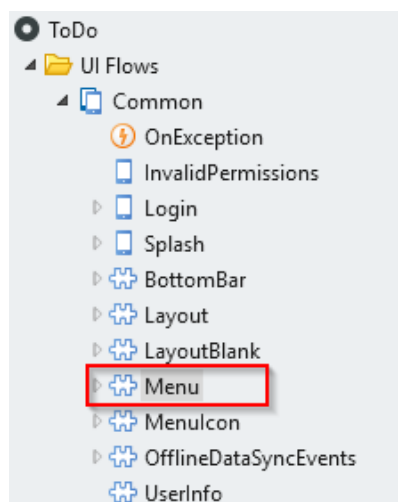


Figure 6. Menu Block

b) Change the **HomeScreen** text to 'To Dos'.

c) Click on the '<>' tab, which is the 'Show Widget Tree' option, to show the Widget Tree on the right-side of Service Studio, for the **Menu** Block.

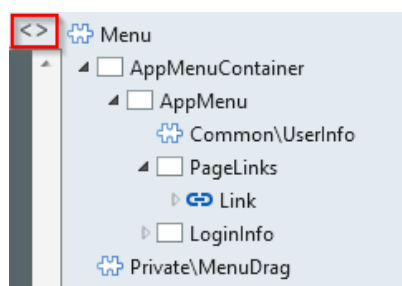


Figure 7. Show Widget Tree for the Menu Block

NOTE: If you cannot see the icon to open the Widget Tree, confirm that the Service Studio window is maximized, or large enough to show it. Sometimes, a window too short may hide some functionalities.

- d) By expanding the **AppMenuContainer** and **AppMenu** Containers, you can see a **PageLinks** Container, with a Link for the **ToDo** Screen. This is the Container where all the **Menu** Links will be placed.
- e) Click again on the '<>' option to hide the Widget Tree and return to the Elements Area.
- f) Drag the **ToDoDetail** Screen into the **PageLinks** Container, below the **To Dos** Link.
- g) Notice that OutSystems automatically create a Link to the **ToDoDetail** Screen, with the **Name** of the Screen. Change the text to 'Create New To Do'.

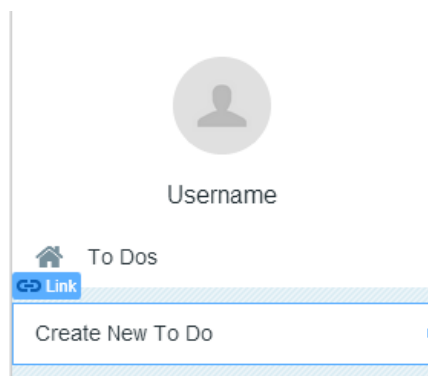


Figure 8. Create New To Do Menu Link

- h) Drag the **Dashboard** Screen into the **PageLinks** Container near the top.

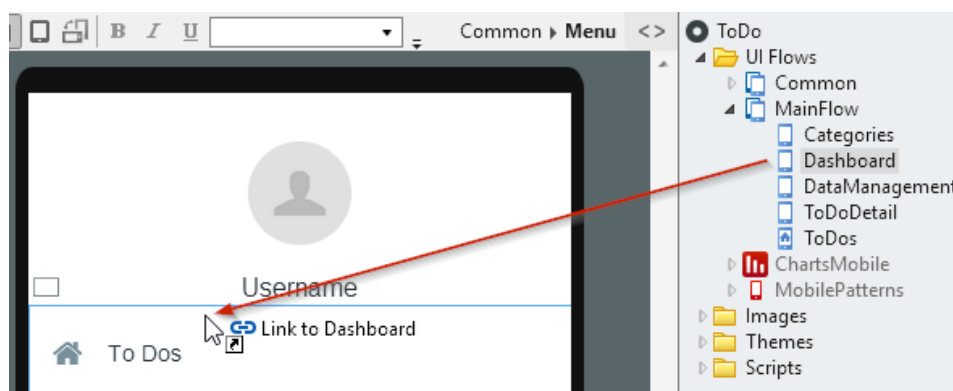


Figure 9. Add Dashboard Link to Menu

- i) Drag the **Categories** Screen and drop it inside the **PageLinks** Container, after the 'Create New To Do' Link.
- j) Drag the **DataManagement** Screen and drop it inside the **PageLinks** Container, after the 'Categories' Link. Change the Link text to 'Data Management'.

k) Your **Menu** Block and respective Widget Tree should look like this

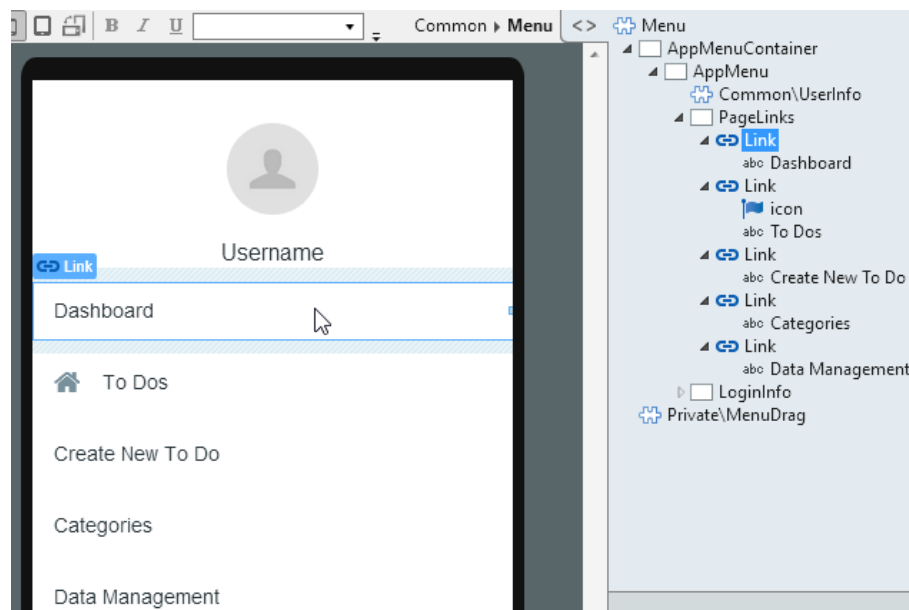


Figure 10. Menu Block and Widget Tree

2. Add icons for each **Menu** item.

a) Drag an **Icon** Widget and drop it just before the 'Dashboard' text.

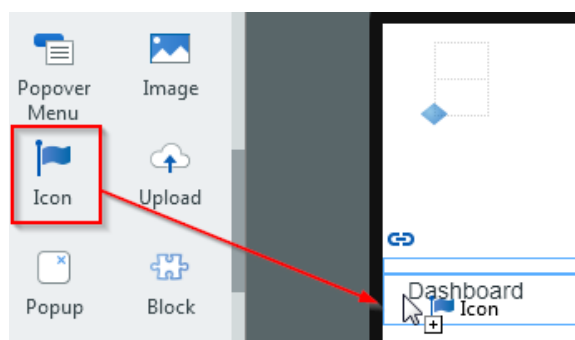


Figure 11. Drag and Drop an Icon

b) In the **Pick an Icon** dialog choose the 'dashboard' icon.

c) Double-click the **Icon** next to the 'To Dos' text, then select the 'tasks' icon and click **Ok**.

d) Add **Icons** to the remaining links. Select 'plus circle' for the **Create New To Do** Link, 'tags' for **Categories** and 'gears' for **Data Management**.

e) The **Menu** should now look like this.

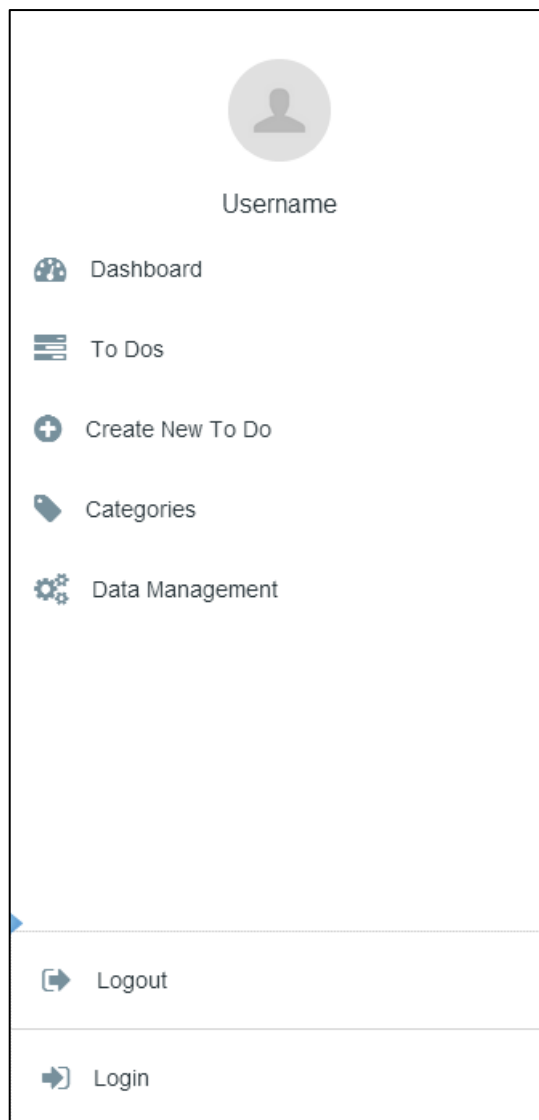


Figure 12. Menu items with Icons

Part 4: Add Screen Links to the Bottom Bar

In this part of the exercise, you will add to the Bottom Bar Links to each of the Screens that you previously created.

1. Add **Bottom Bar Items** for the Dashboard, To Dos, Create New To Do, Categories and Data Management to the **Bottom Bar**.
 - a) Switch to the **Interface** tab and open the **BottomBar** Block located under the **Common UI** Flow.
 - b) Type 'bottom' in the Search filter of the Widget toolbar, then drag a **Bottom Bar Item** and drop it inside the existing Container.

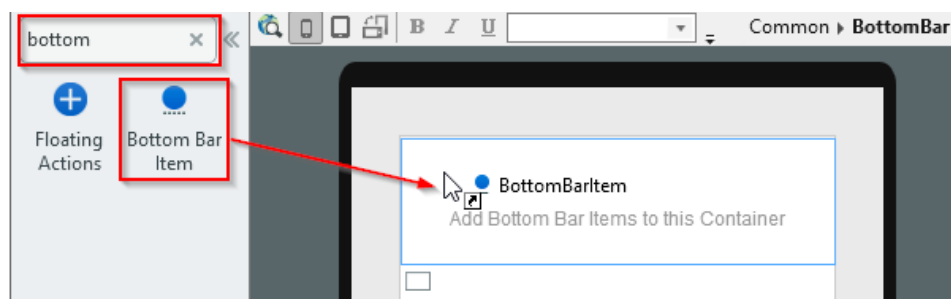


Figure 13. Drag and drop a Bottom Bar Item

NOTE: The **Bottom Bar Item** Widget has two placeholders, one for an **Icon** and another one for a **Text**.

- c) Drag and drop an **Icon** Widget to the **Icon** placeholder of the Bottom Bar Item and choose 'dashboard' in the **Pick an Icon** window.
 - d) In the **Text** placeholder of the Bottom Bar Item, type 'Dashboard'.
 - e) Drag another **Bottom Bar Item** and drop it on the right side of the existing one, but still inside the Container.

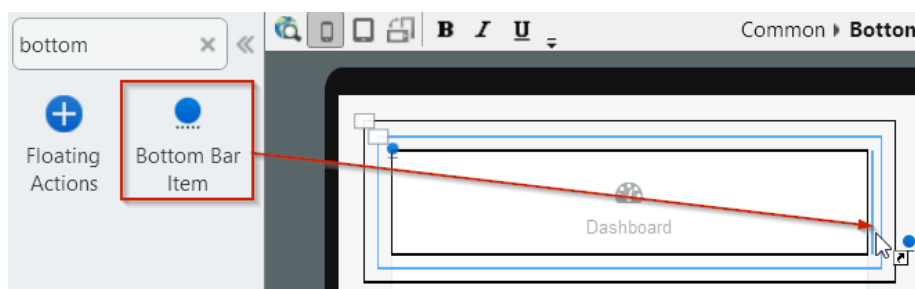


Figure 14. Drag another Bottom Bar Item

- f) Drag and drop an **Icon Widget** to the **Icon** placeholder of the last **Bottom Bar Item** and choose 'tasks' in the **Pick an Icon** window.
- g) In the **Text** placeholder of the last Bottom Bar Item, type 'To Dos'.
- h) Repeat the previous three steps, using the same **Icons** as in the Menu, for the following pages, to achieve the following result

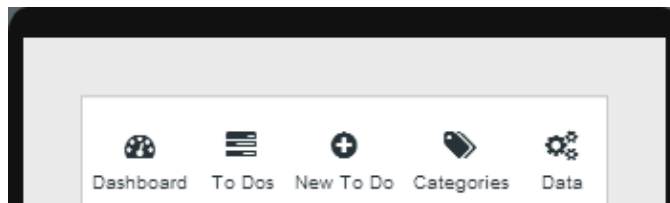


Figure 15. Bottom Bar Items

2. Create Links for each **Bottom Bar Item** to the respective Screen.

- a) Right-click the **Bottom Bar Item** that contains the 'Dashboard' text, then choose 'Link to > MainFlow\Dashboard'.

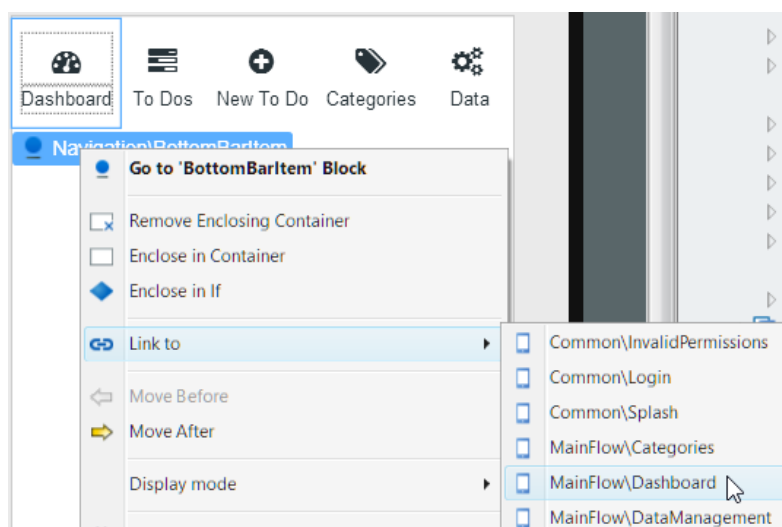


Figure 16. Link Bottom Bar Item to Dashboard Screen

- b) Repeat the previous step for the remaining four Bottom Bar Items, linking each item to the respective Screen.

Part 5: Publish and Test

In this part of the exercise, you will publish your application and then test it.

1. Publish and see the new Menu in action.

- a) Click the **1-Click Publish** button to publish the module to the server.
- b) Verify in the 1-Click Publish tab that the publishing process was successful.
- c) Click the **Open in Browser** button to open the application.
- d) Make sure that the new **Splash** Screen is displayed while loading the application.
- e) Using the **Menu** verify that all Screens are accessible.
- f) Using the **Bottom Bar** verify that all Screens are accessible.
- g) Notice that as you change from one Screen to another the respective **Bottom Bar Item** is highlighted.

End of Lab

In this exercise, you started creating the skeleton of the **ToDo** mobile application by creating the initial Screens, and changing the **Splash** Screen, Menu and Bottom Bar.

You have learned how to create new Screens and how to create Links from the Menu and Bottom Bar to the new five Screens: **ToDo**s, **ToDoDetail**, **Dashboard**, **Categories** and **Data Management**.

Finally, the application module was published to the server and you were able to test the changes you made.

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