

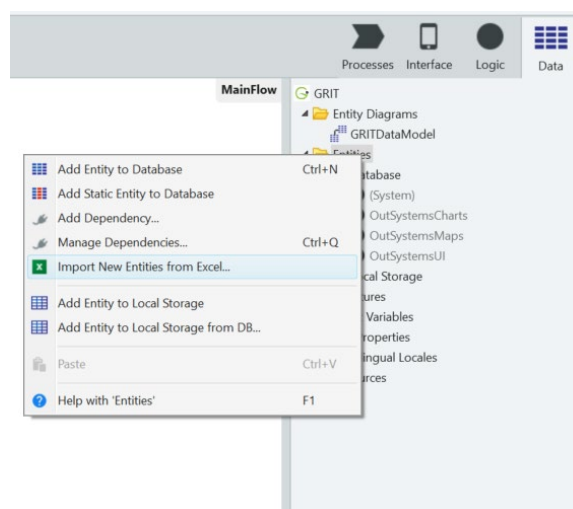
## GRIT Mobile Application Lab Guide

### Exercise 1: Import Data and Create Default Screens

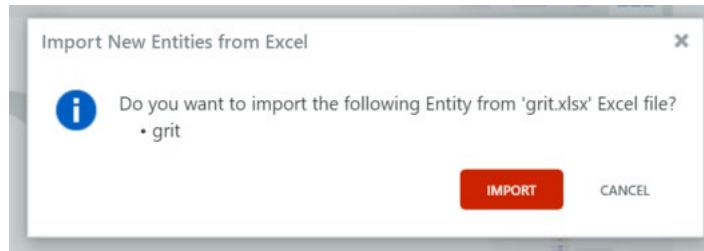
1. Create a new mobile application named **GRIT**, with a **Phone App** Module
  - a. In the 'Applications in Development' area, click **New Application**.
  - b. In the **New Application** dialog, select **Start from scratch**, and then click **Next**.
  - c. Select the **Phone App** template, and then click Next. The templates provide a starting point for the application, containing the layout structure for the mobile app.
  - d. Set the Application Name to **GRIT**.
  - e. Type in a simple description for the application.
  - f. Select **Create App**.
  - g. In the **Modules** area, the list of modules of the application can be found. Specify the **Module Name** as **GRIT** and select the **Phone App** module type. Click **CreateModule** to create the module.
2. Open the **grit.xlsx** file given to you to look at the content of the file. We are going to import the data in the Excel file into the app later.

	A	B	C	D	E	F	G	H	I	J
1	Gender	School	GPA	B1	B2	B3	C1	C2	C3	C4
2	Female	SHL	3.3	5	5	5	5	5	5	5
3	Female	SHL	4	2	3	2	4	4	4	4

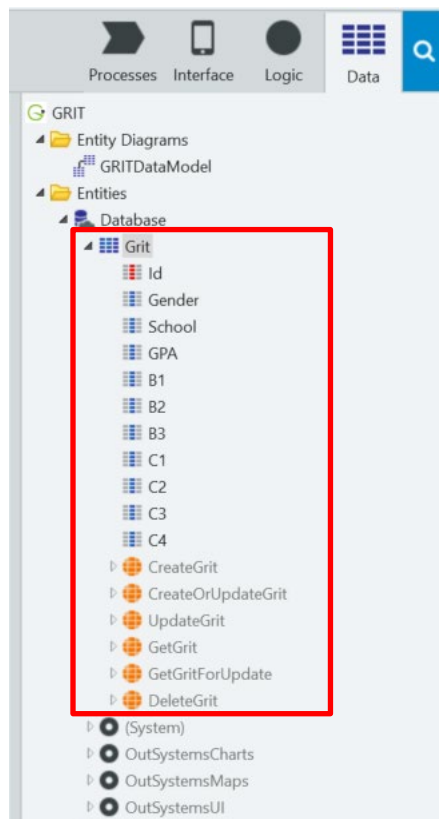
3. In the **Data** Tab, right-click on entities, and select **Import New Entities from Excel...**



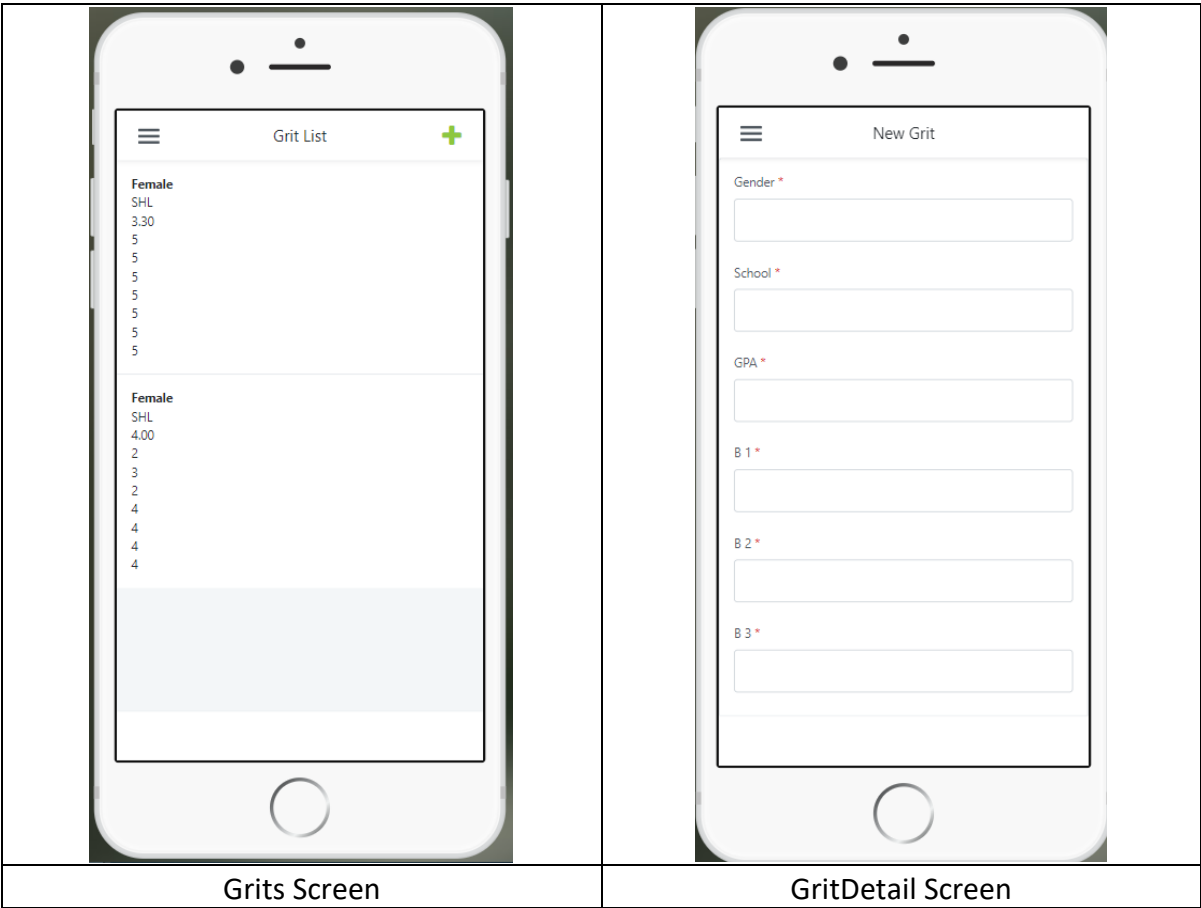
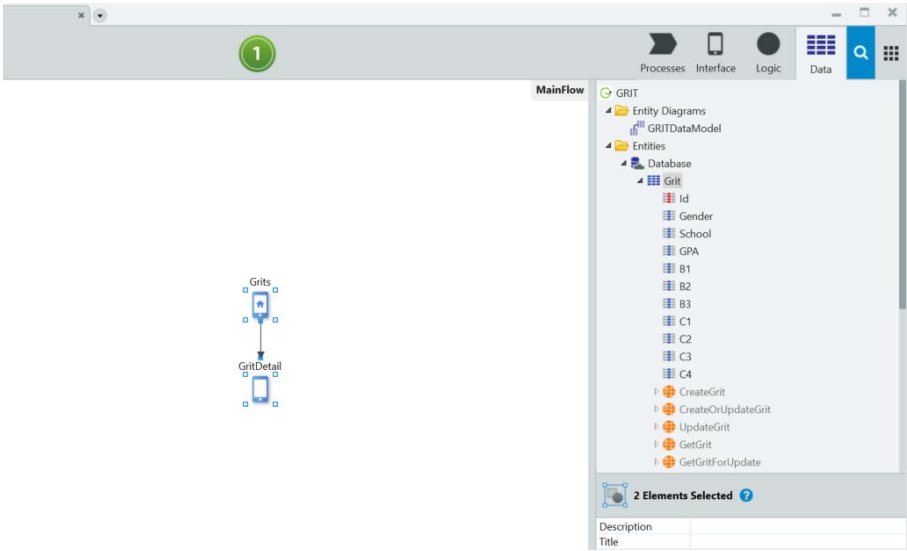
4. Select **grit.xlsx** file given to you, and click on the **Open** button. Click on the **IMPORT** button to import the Excel file into the project.



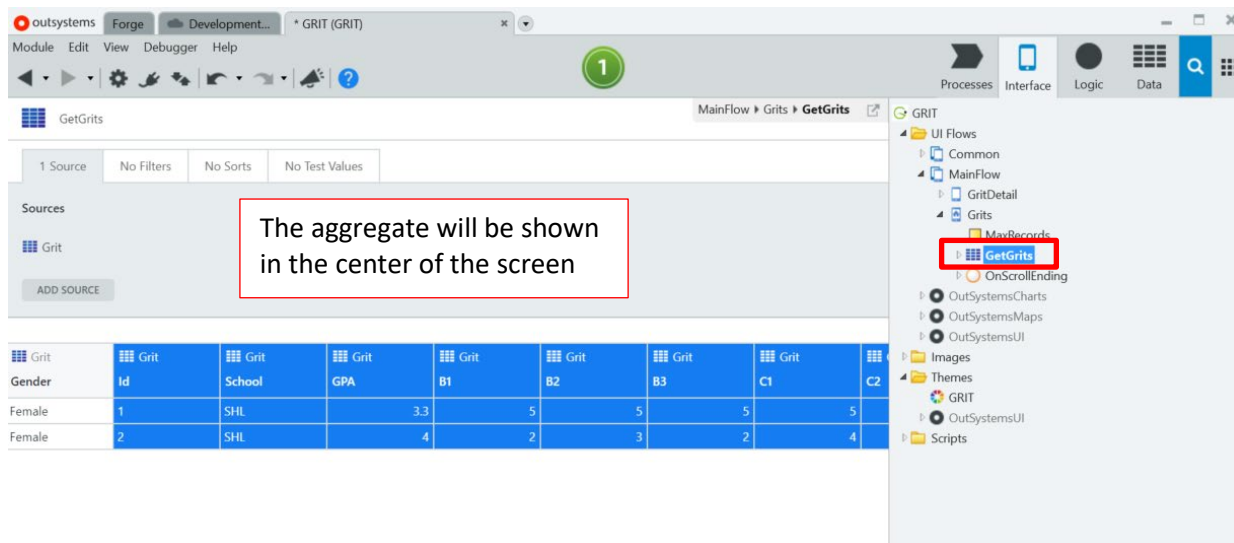
5. Under the Database, you will see a **Grit** entity with its attributes and some helper database methods.



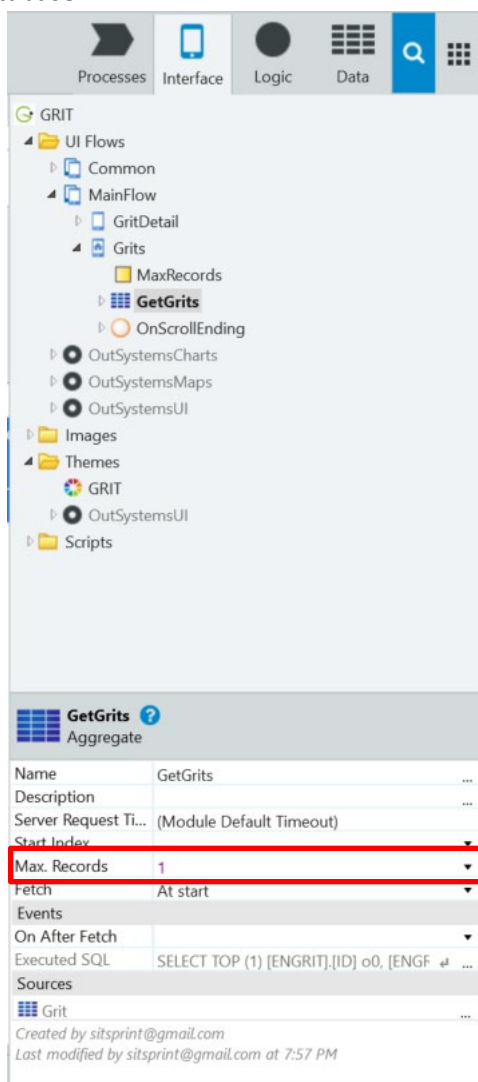
6. Drag the **Grit** entity into the centre region of the workspace. Two screens will be created using the data in the **Grit** entity.
  - a. Grits
  - b. GritDetails



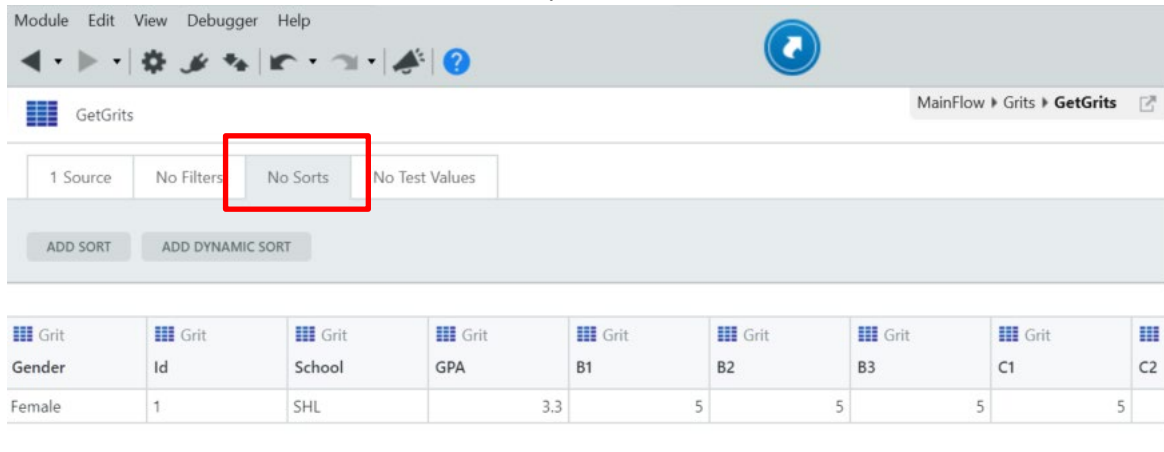
8. Go to the **Interface** tab, double click on **GetGrits** Aggregate under the Grits screen.



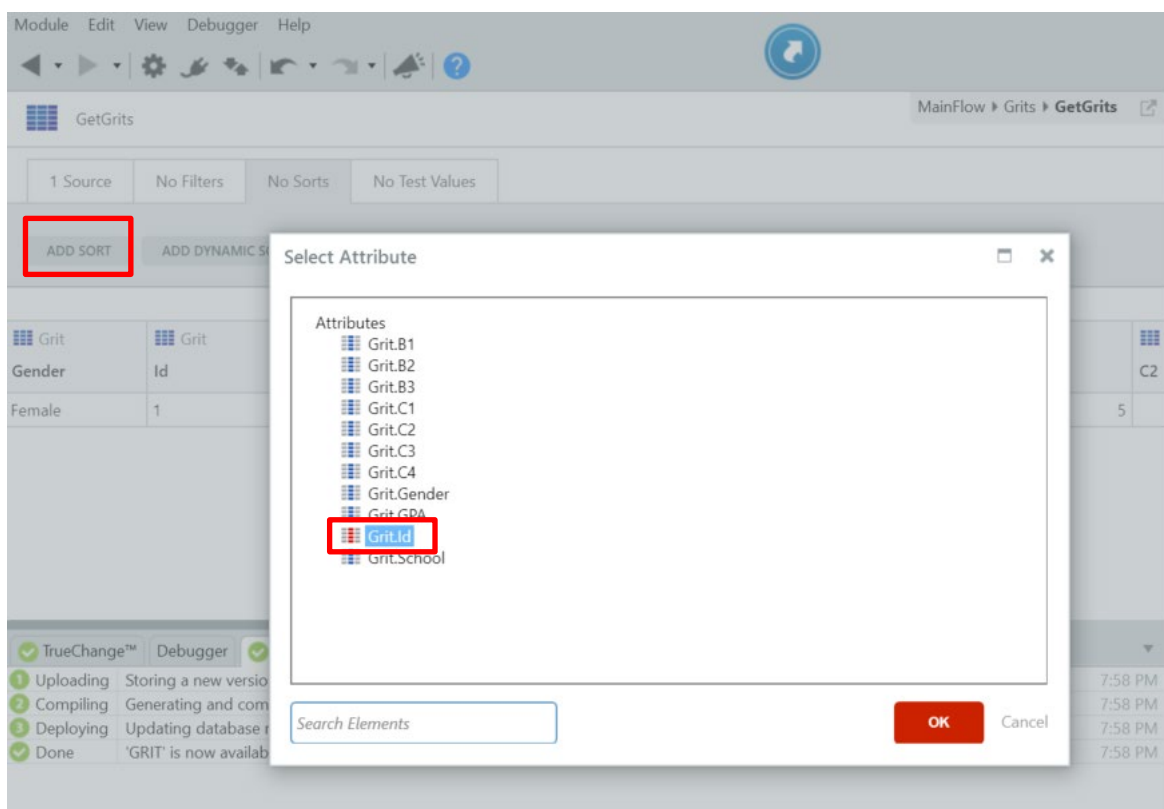
9. Select GetGrits Aggregate, and change the **MaxRecords** to one. The purpose of doing so is to get only one record from the database.



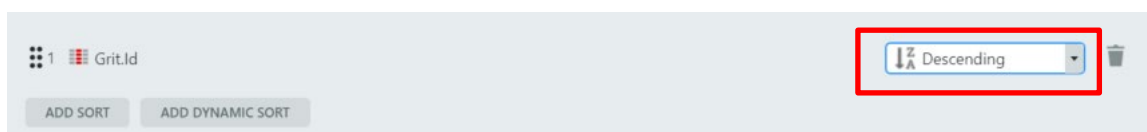
10. Click on the No Sorts tab, we will add a sort by id, so that the latest record will be shown.

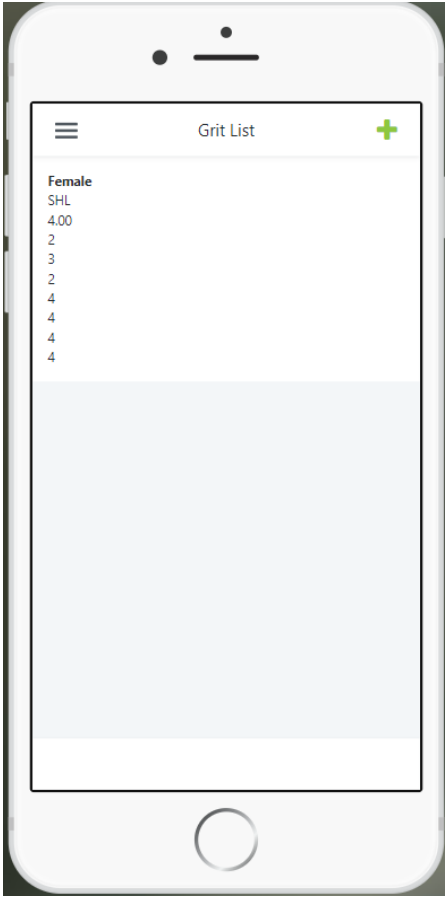


11. Click on ADD SORT button, and select Grit.Id in the Select Attribute popup dialog.



12. Change the Sorting for Grit.id to **Descending**. This is to make sure that the most recent record will be retrieved from the database.



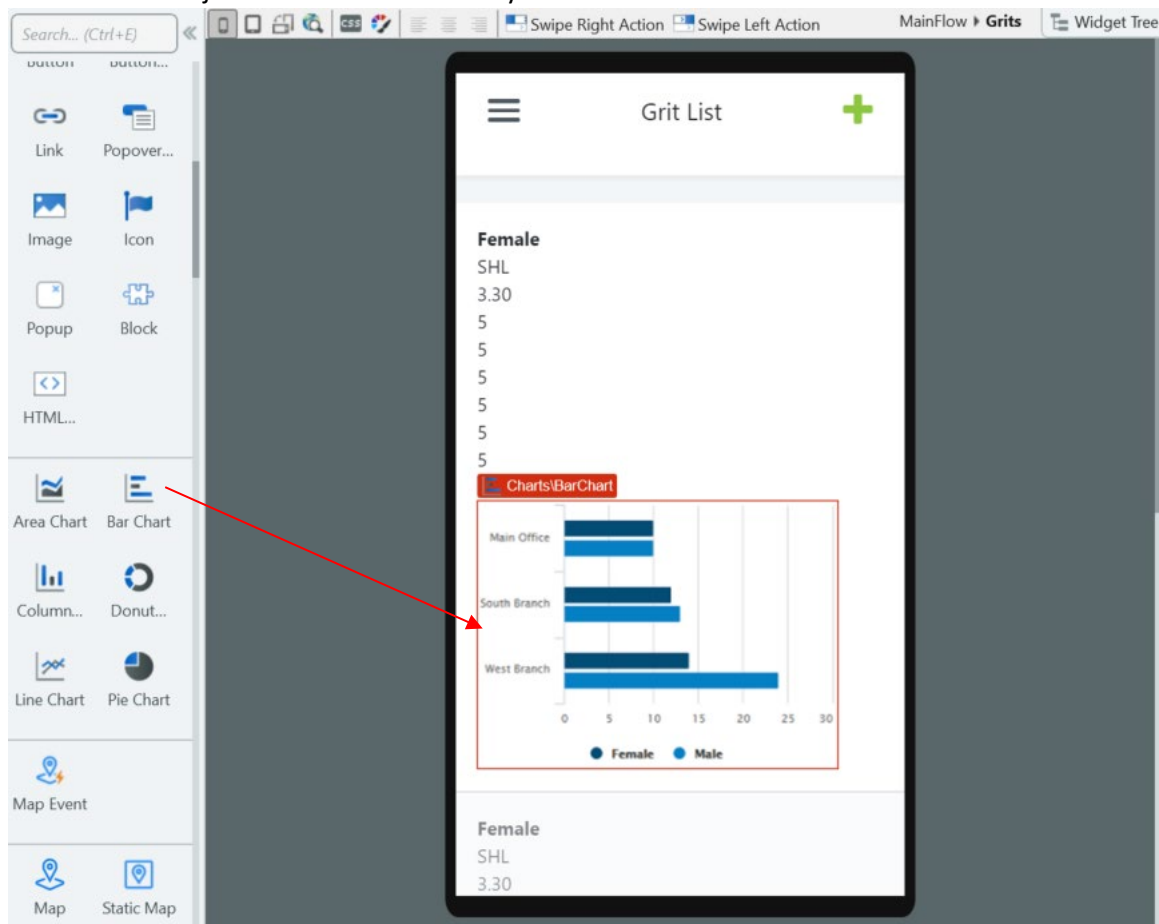


## Exercise 2: Adding the Bar Chart

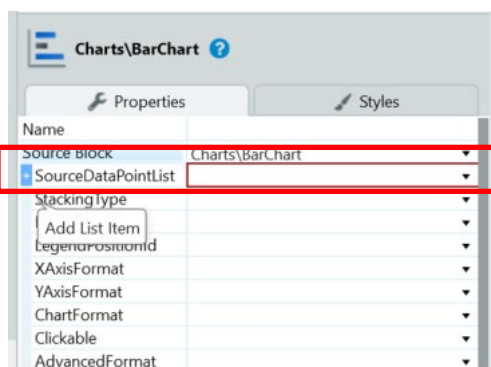
1. Add 2 Local Variables to the Grits screen. Name the 2 variables as **BScore** and **CScore** with the Data Type and Default Value as shown.

Local Variable	Data Type	Default Value
BScore	Decimal	3
CScore	Decimal	4

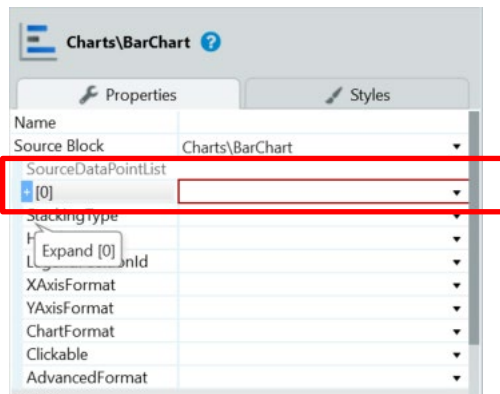
2. Add a Bar Chart just below the last 5 that you see on the Grits Screen.



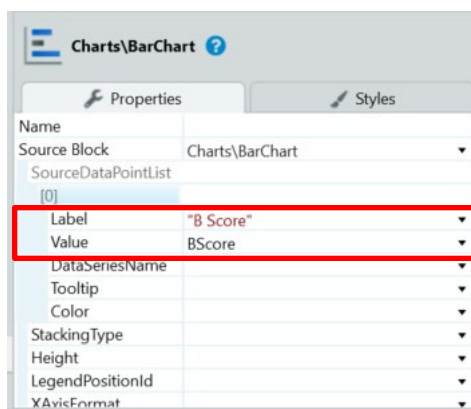
3. Make sure the Bar Chart is selected, click on the small + icon next to the **SourceDataPointList** property.



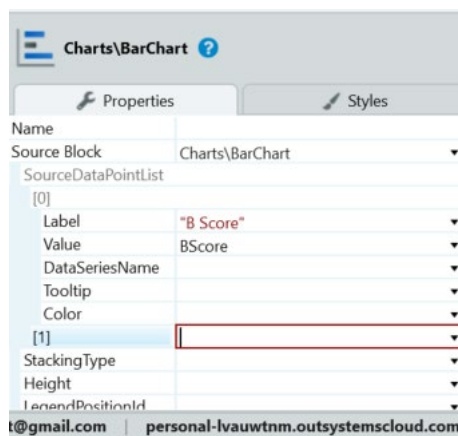
4. Next, click on the small + icon next to **[0]** index under **SourceDataPointList**.



5. Add the following values to the Label and Value properties. Take note that **BScore** is the Local Variable that you have created in step 14.

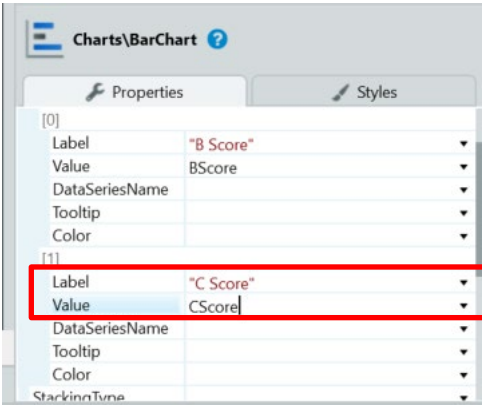


6. click on the small + icon next to the **SourceDataPointList** property again. You will notice that another item [1] is created just below item [0].

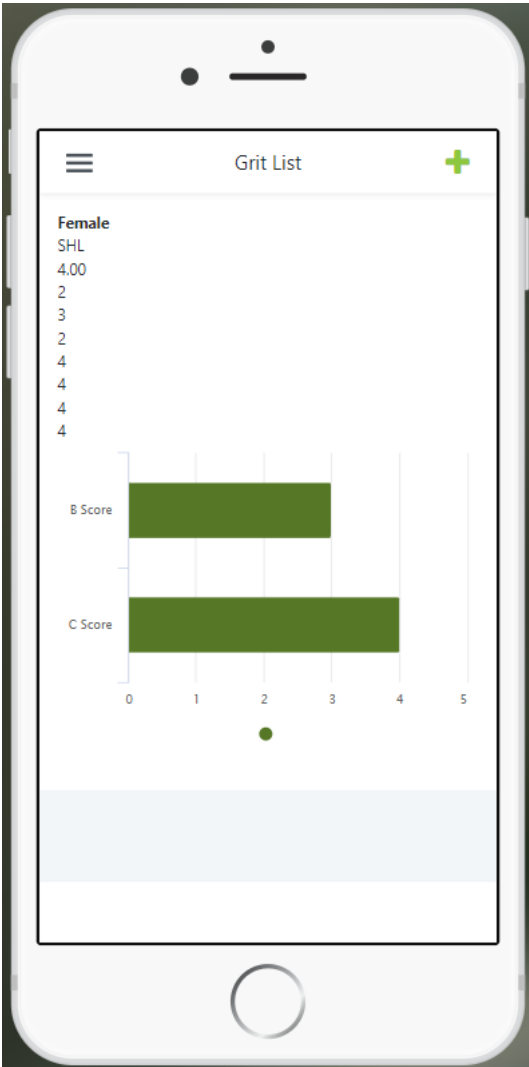


7. Next, click on the small + icon next to **[1]** index under **SourceDataPointList**. Add the following values to the Label and Value properties. Take note that **CScore** is the Local Variable that you have created in step 14.





1

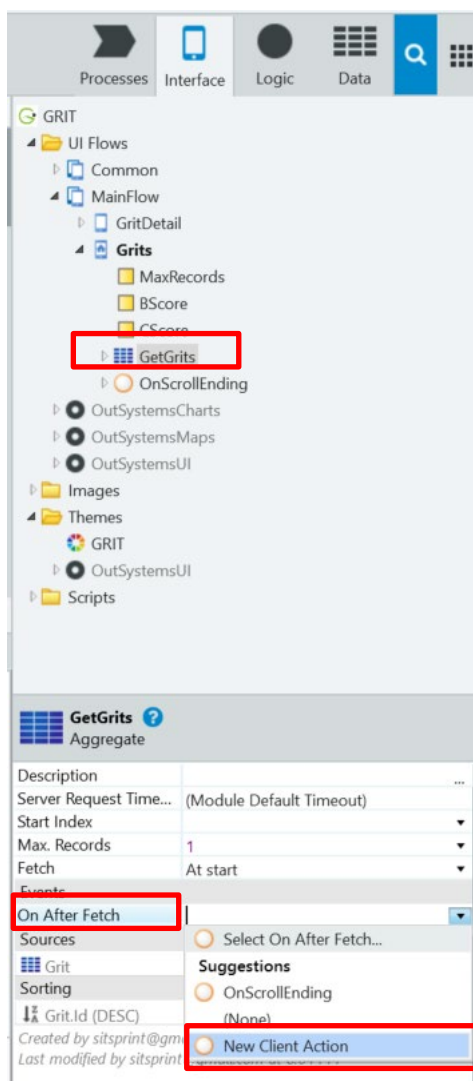


### Exercise 3: Updating the BScore and CScore value

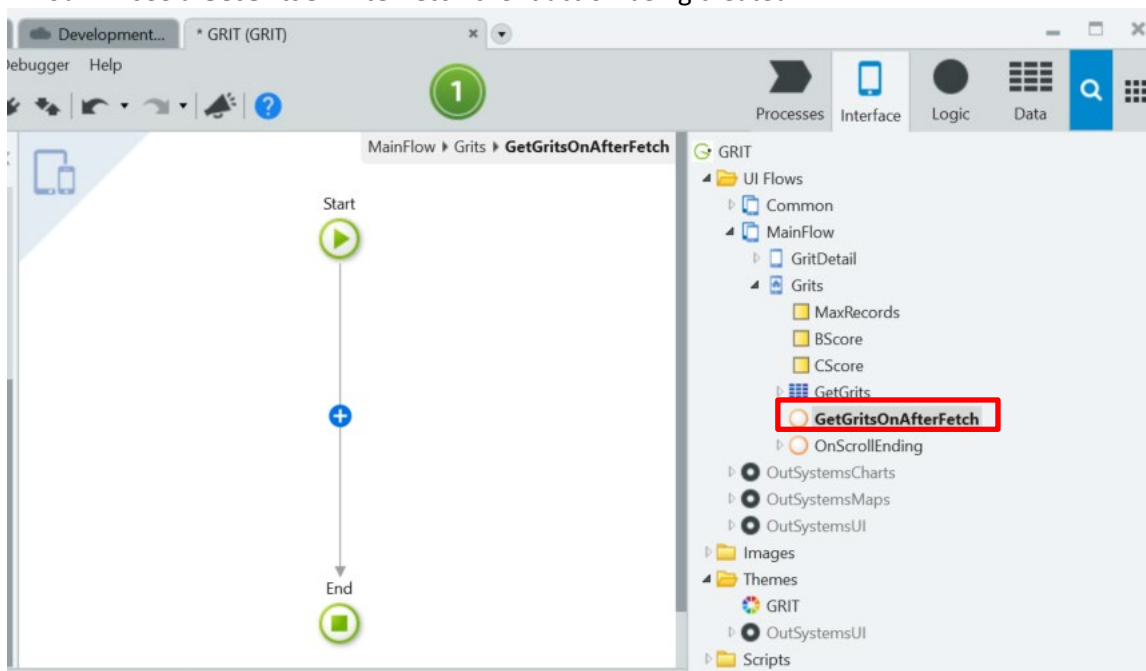
The value for BScore and CScore is set to the default value of 3 and 4 respectively. In this exercise, we will calculate BScore and CScore based on the following formula.

	Formula
BScore	$(B1 + B2 + B3)/3$
CScore	$(C1 + C2 + C3 + C4)/4$

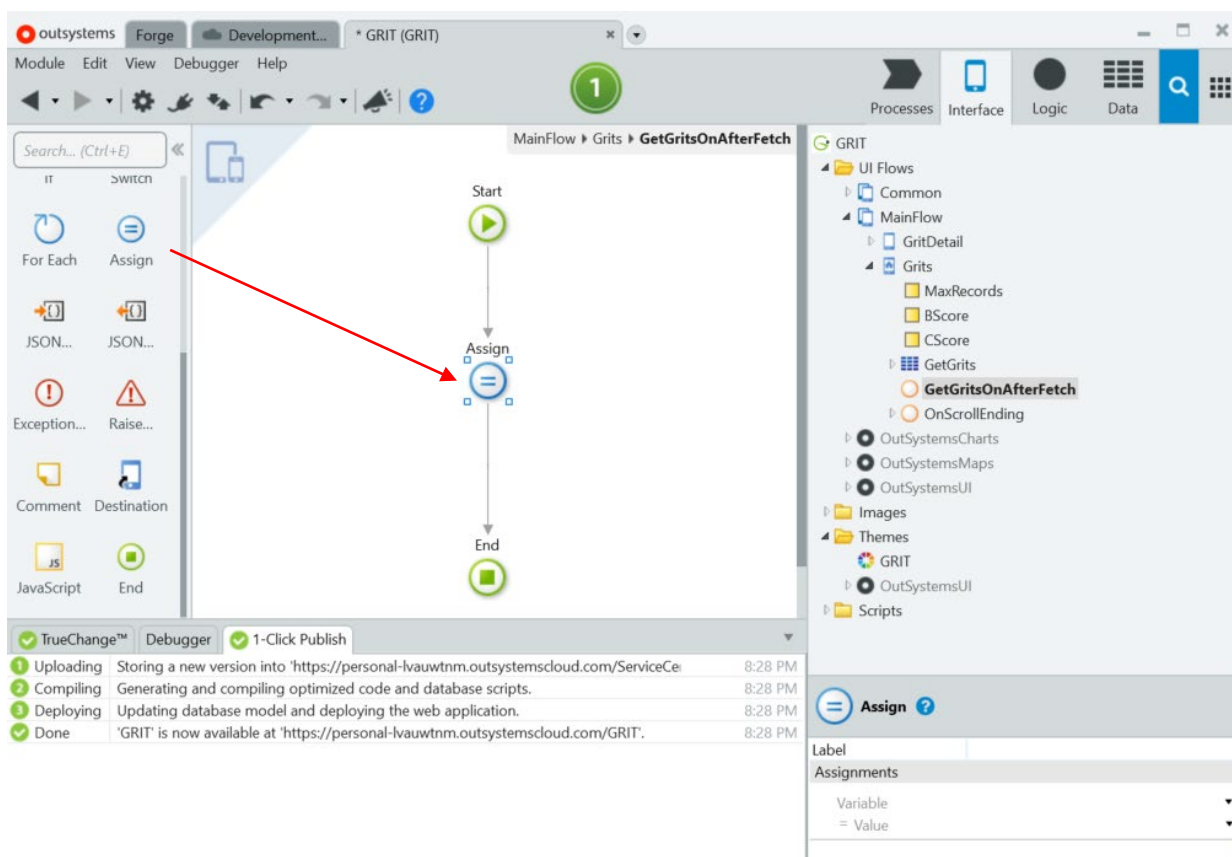
1. Select GetGrits under Grits screen. Select **New Client Action** under **On After Fetch**.



2. You will see a **GetGritsOnAfterFetch** client action being created.



3. Add an Assign widget to the workflow.



4. Assign BScore and CScore with the value as shown below:

Variable	Value
BScore	Round((GetGrits.List.Current.Grit.B1 + GetGrits.List.Current.Grit.B2 + GetGrits.List.Current.Grit.B3)/3, 2)
CScore	Round((GetGrits.List.Current.Grit.C1 + GetGrits.List.Current.Grit.C2 + GetGrits.List.Current.Grit.C3 + GetGrits.List.Current.Grit.C4)/4, 2)

1

Start

Assign

End

GRIT

UI Flows

Common

MainFlow

GritDetail

Grits

MaxRecords

BScore

CScore

GetGrits

GetGritsOnAfterFetch

OnScrollEnding

OutSystemsCharts

OutSystemsMaps

OutSystemsUI

Images

Themes

GRIT

OutSystemsUI

Scripts

ger

1-Click Publish

ew version into 'https://personal-lvauwtm.outsystemscloud.com/ServiceCenter'.

and compiling optimized code and database scripts.

atabase model and deploying the web application.

w available at 'https://personal-lvauwtm.outsystemscloud.com/GRIT'.

8:28 PM

8:28 PM

8:28 PM

8:28 PM

Assign

Label

Assignments

BScore

= Round((GetGrits.List.Current.Grit.B1 + GetGrits.List.Current.Grit.B2 + GetGrits.List.Curre

CScore

= Round((GetGrits.List.Current.Grit.C1 + GetGrits.List.Current.Grit.C2 + GetGrits.List.Curre

Variable

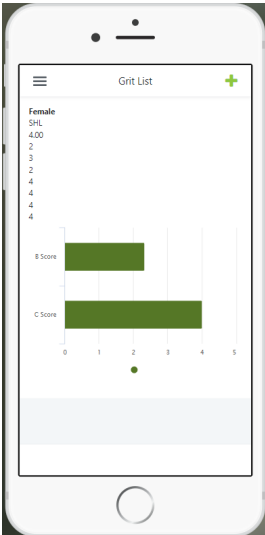
= Value

Entry

Grits

OPEN IN BROWSER

Close

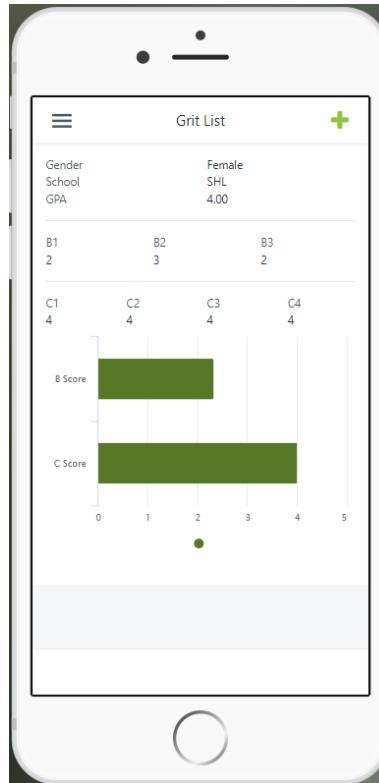


**Exercise 4: Additional Challenge**

---

The following tasks will be left as an exercise for you.

1. Label the values and re-arrange the information in the grits screen. The screenshot below shows you one example of how you may want to layout the information.



2. Currently, there is no login feature added to the app. The app will always show the latest submission of any user. Add a UserId attribute to the Grit Database. In this way, the user will always see the latest record that he/she has submitted.

**End of Lab 8**