Practical Exercise - Walkthrough

Part A:

Practically all of the activities to be done should be contained inside an Excel Application Scope. The first step after creating one of those is to read the Excel file.

- Find and add an **Excel Application Scope** to the main area

o Type in the full workbook path to **Sample Columns.xlsx** into the Workbook Path parameter

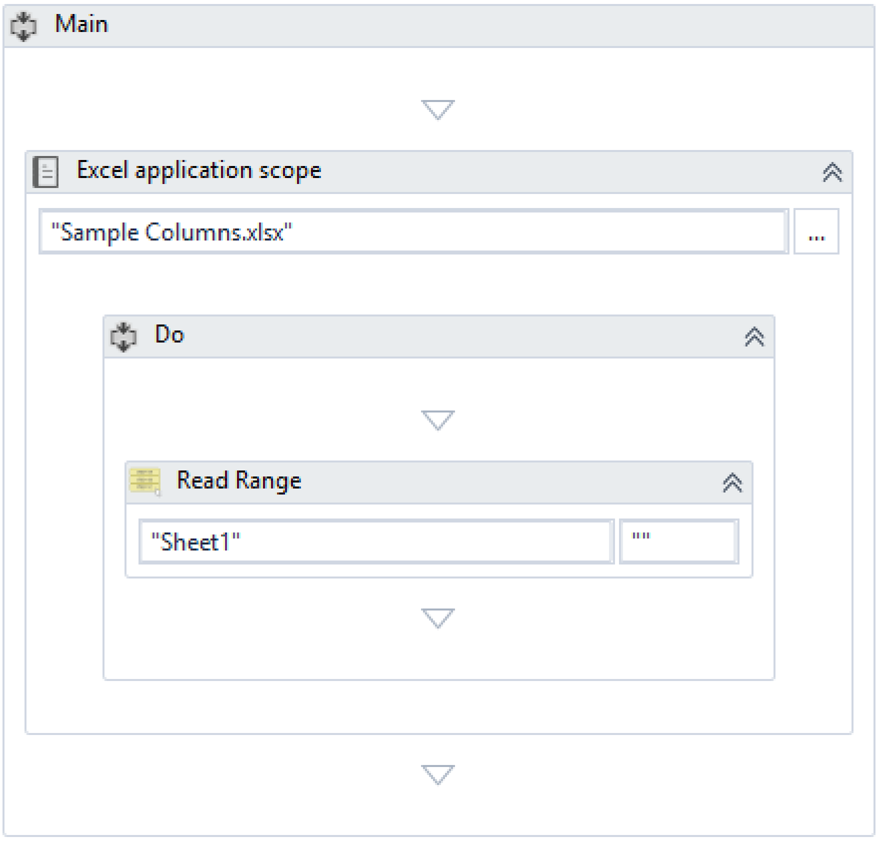
o Make sure the 'Visible' option is checked, so the activities will be performed just like a human

- Find and add a **Read Range** activity into the **Do** container of the **Excel Application Scope**.

o Set the Range to "" so the entire sheet is read

o In the output parameter, use the shortcut Ctrl+K to create a DataTable called **inputsTable**

- This is what the workflow should look like so far:



Next, use a **For Each Row** activity and sum the first two columns.

- Find an add a **For Each Row** activity and add it below the **Read Range** activity

o Set it to loop through the DataTable created earlier, **inputsTable**

- Create an Int32 variable called **rowIndex** - this will keep track of what row to write on later
- Find and add an **Assign** activity inside the body of the **For Each Row** activity

o Assign **inputsTable.Rows.IndexOf(row) +1** to **rowIndex**

▪ This sets the value of rowIndex to the match the current row in the loop

▪ The + 1 is because Excel Rows start counting at 1, whereas DataTables start at an index of 0 - this difference needs to be compensated for

- Below that activity, find and add two **Get Row Item** activities

o For the first one, set the column index to 0 and the row to **row** (the temporary loop variable)

o In the output parameter, use the Ctrl+K shortcut to create a variable called **valueA**

o For the second one, set the column index to 1 and the row to **row**

o In the output parameter, use the Ctrl+K shortcut to create a variable called **valueB**

- Find and add an **Assign** activity below

o Assign **valueA + valueB** to **valueC** (Use the variable creation shortcut here as well)

- Find and add a **Write Value** activity next

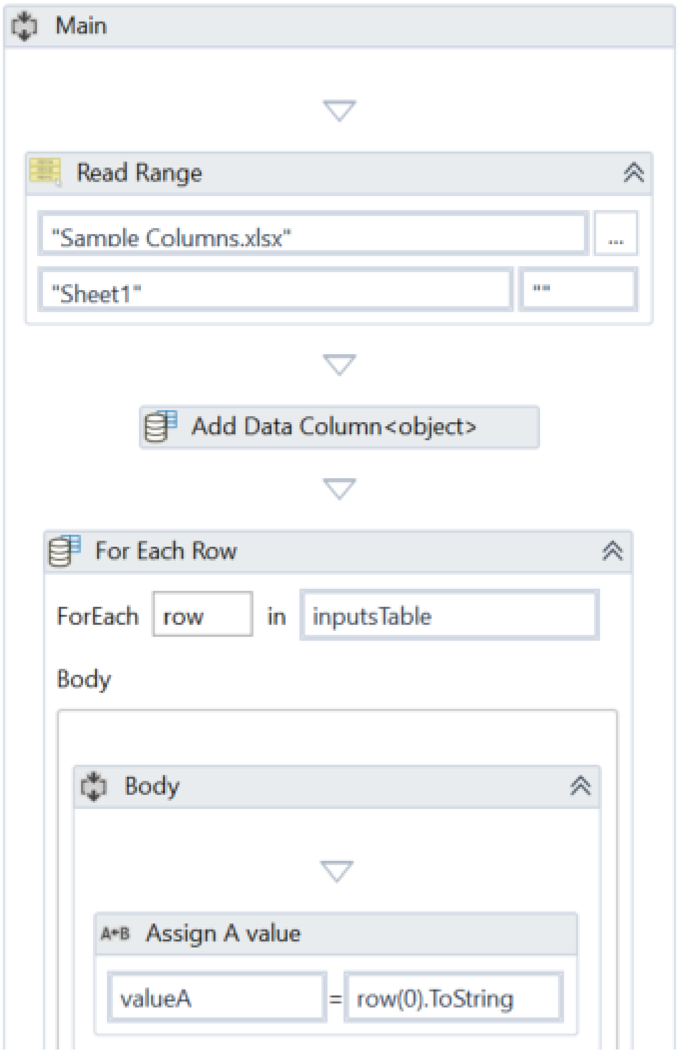
o Keep the sheet as Sheet1

o Set the range (the location in the sheet to write to) to **“C” + rowIndex**.**ToString**

▪ Throughout the loop, this will evaluate to “C1” then “C2,” and so on down the third column

o Set the value to **valueC**

- This is what the final workflow should look like:


Main

Read Range

"Sample Columns.xlsx"

"Sheet1"

""

Add Data Column<object>

For Each Row

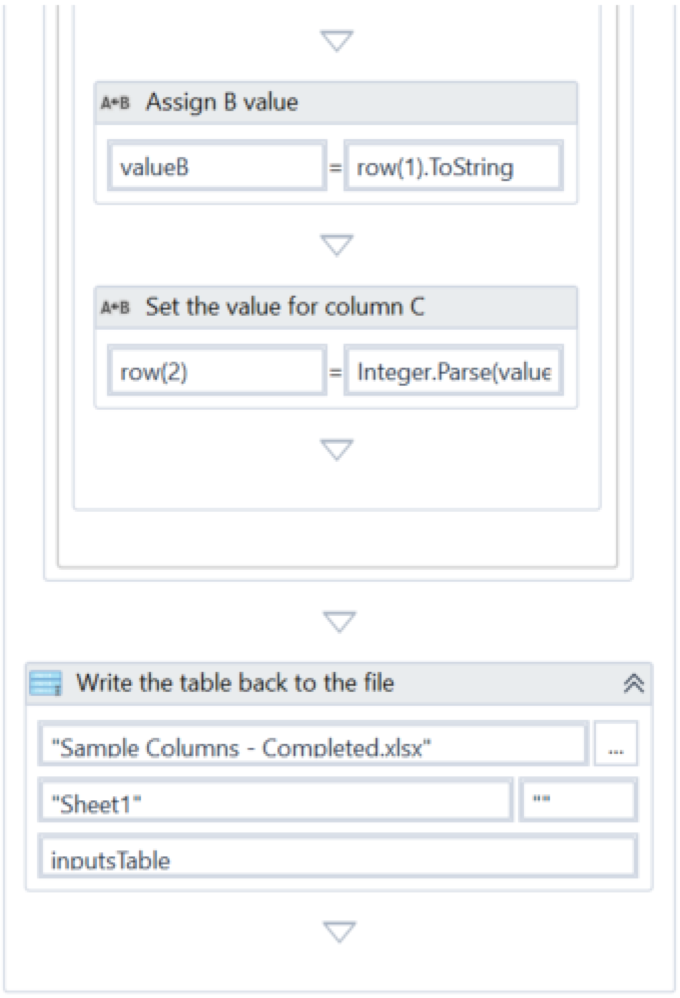
ForEach row in inputsTable

Body

Body

Assign A value

valueA = row(0).ToString



Assign B value

valueB = row(1).ToString

Set the value for column C

row(2) = Integer.Parse(value

Write the table back to the file

"Sample Columns - Completed.xlsx"

"Sheet1" ""

inputsTable

Part B:

In this part, the file will be read without an **Excel Application Scope** because the automation will be done internally.

- Find and add a **Read Range** activity into the main sequence.

o Set the WorkBook path to the full path of the **Sample Columns.xlsx** workbook

o Set the Range to “” so the entire sheet is read

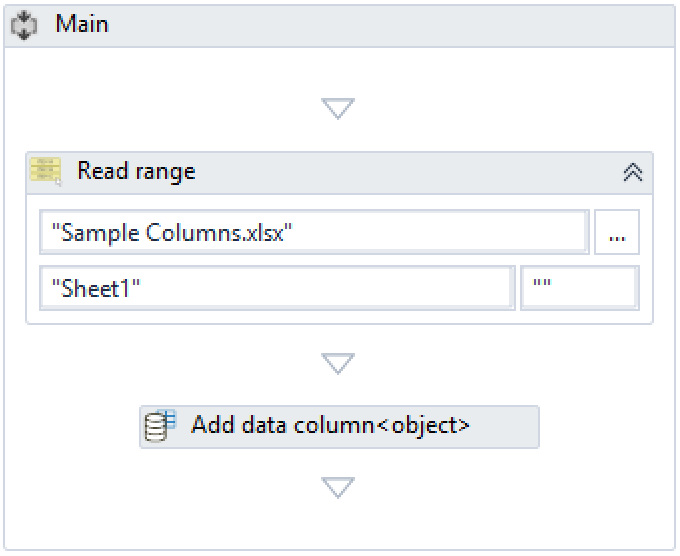
o In the output parameter, use the shortcut Ctrl+K to create a DataTable called **inputsTable**

- Find and add an **Add Data Column** activity below

o Set the ColumnName to “C”

o Set the DataTable parameter to **inputsTable**

o Set the argument type to object



- Find and add a **For Each Row** activity below that

o Set the activity to loop through **inputsTable**

- Find and add two **Assign** activities (necessary variables should be created with the shortcut):

o The first one assigns **row(0).ToString** to **valueA**

o The second one assigns **row(1).ToString** to **valueB**

▪ These convert the row object values to more usable string values

- Find and add another **Assign** activity that assigns to **row(2)** this value:

o **Integer.Parse(valueA) + Integer.Parse(valueB)**

o This statement converts the string values to integer values using a Visual Basic method and then adds them together

- Lastly, find and add a **Write Range** activity below and outside the **For Each** activity - this will be writing the manipulated DataTable to a new sheet.

o Set the DataTable to **inputsTable**

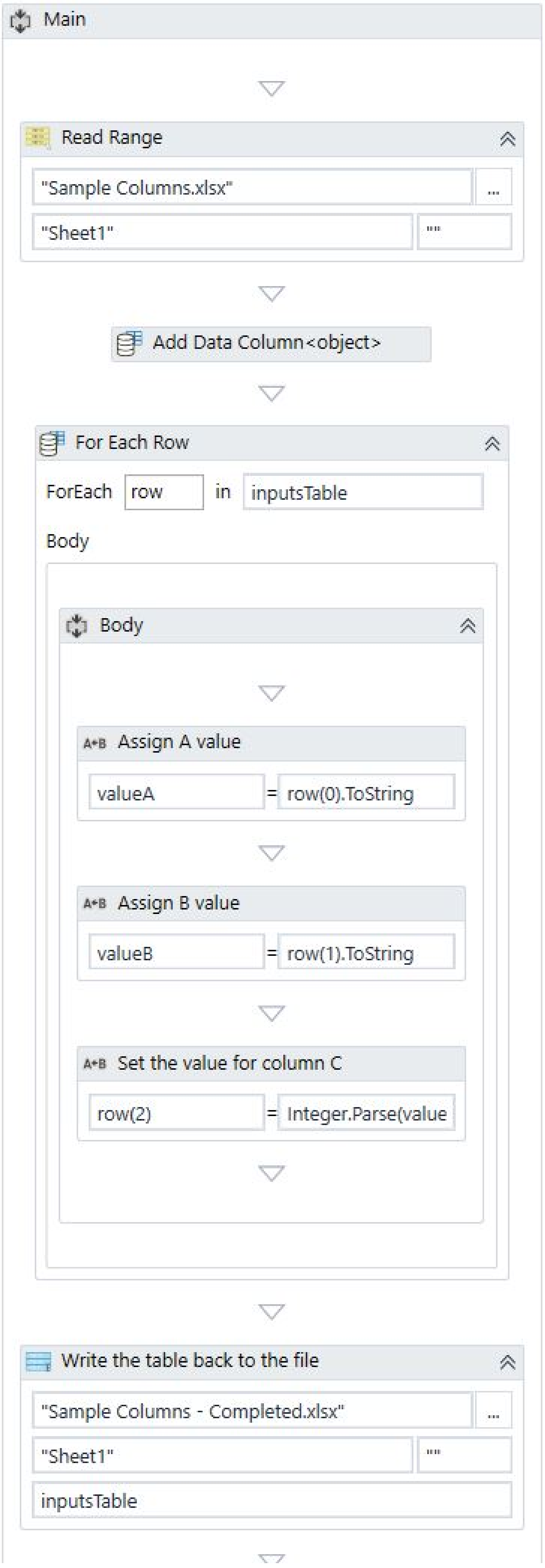
o The sheet name should remain as Sheet1

o The starting cell should be left blank, as “”

o Set the workbook path to a desired path that ends with the file name **Sample Columns - Completed.xlsx**

▪ UiPath will create a new file if this one doesn’t already exist

- This is what the rest of the completed workflow should look like:



Main

Read Range

"Sample Columns.xlsx" ...

"Sheet1" ""

Add Data Column<object>

For Each Row

ForEach row in inputsTable

Body

Body

Assign A value

valueA = row(0).ToString

Assign B value

valueB = row(1).ToString

Set the value for column C

row(2) = Integer.Parse(value

Write the table back to the file

"Sample Columns - Completed.xlsx" ...

"Sheet1" ""

inputsTable

Part C:

This part is mostly a matter of using an Excel command for the rows that need adding. It should be completely contained in an Excel Application Scope.

- Find and add an **Excel Application Scope** activity and add it to the main sequence

o As usual, set the path of **Sample Columns.xlsx**

o Set the visibility option on by checking the box

- Find and add a **Read Range** activity

o The sheet should remain as Sheet1

o Set the output to a newly created DataTable called **inputsTable**

Count how many rows there are so the formulas can be applied to the proper section of the sheet.

- Find and add an **Assign** activity below the **Read Range** activity

o Assign **inputsTable.Rows.Count** to a newly created generic variable called **rowsCount**

- Find and add a **Write Value** activity, it should be set to:

o Write on Sheet1

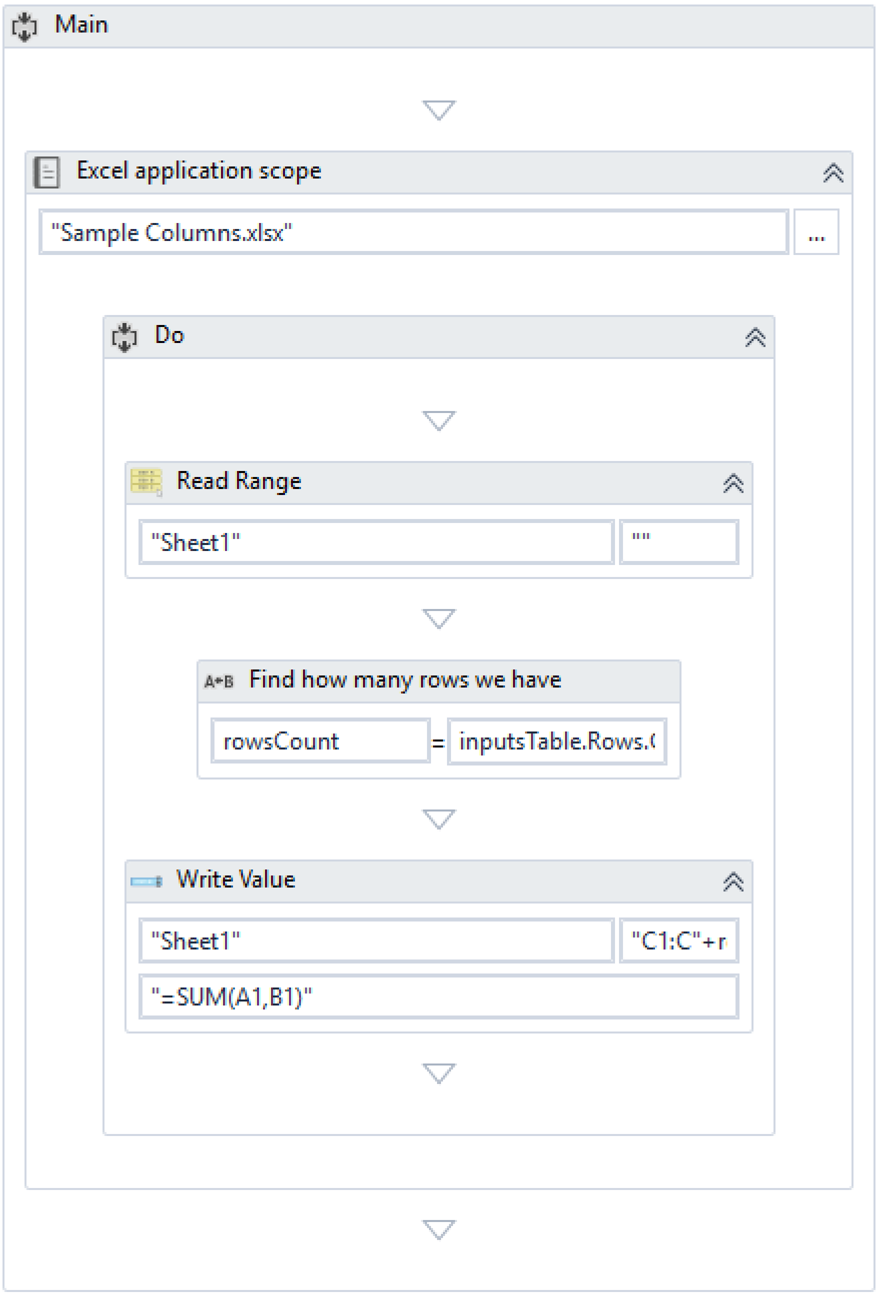
o Write in the range from “C1:C” + rowsCount

▪ This sets the range of rows in Column C to write the formula in

o Write the value “=SUM(A1,B1)”

▪ In Excel, this value will automatically iterate through the descending rows

- This is what the final workflow should look like:



Main

Excel application scope

"Sample Columns.xlsx"

Do

Read Range

"Sheet1" ""

Find how many rows we have

rowsCount = inputsTable.Rows.(

Write Value

"Sheet1" "C1:C"+r

"=SUM(A1,B1)"