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Using Alteryx to Join Data Streams

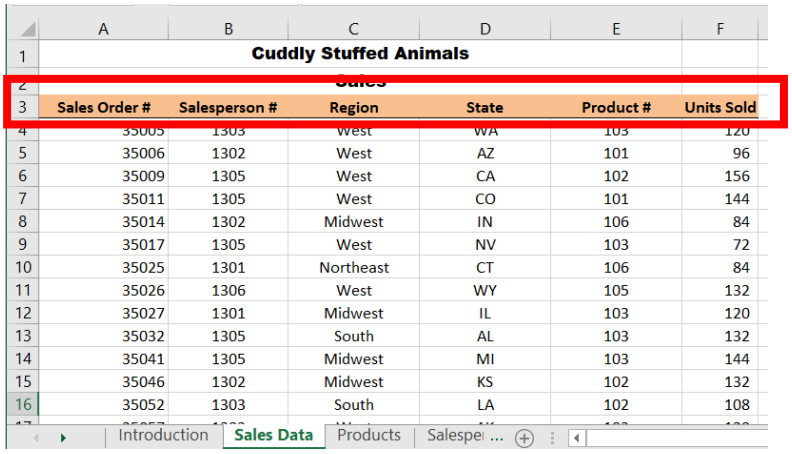
Alteryx is used to automate the ETL process. In this exercise, you will:

Extract data files from Excel.

Transform the data into a flat data set in which all the data for a specific sales order is on one row. Aggregate the Number of units sold, sales and shipping cost by salesperson and shipping costs by product and region.

Load the transformed data into Excel.

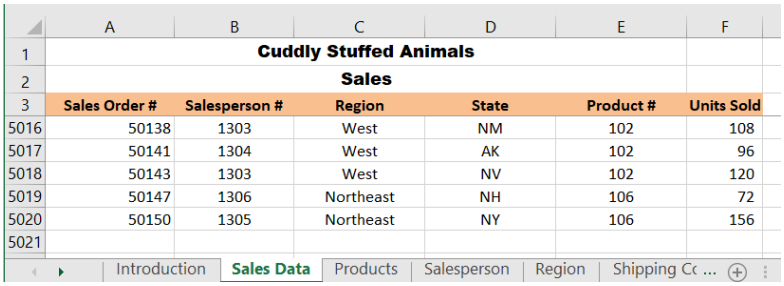
There are five streams of data in the Excel file, *Stuffed Animal.Join.Demo.xlsx.* The first stream is stored in a sheet titled "**Sales Data**". Notice that the column headings are in row three.



	A	B	C	D	E	F
1	Cuddly Stuffed Animals					
2						
3	Sales Order #	Salesperson #	Region	State	Product #	Units Sold
5	35006	1302	West	AZ	101	96
6	35009	1305	West	CA	102	156
7	35011	1305	West	CO	101	144
8	35014	1302	Midwest	IN	106	84
9	35017	1305	West	NV	103	72
10	35025	1301	Northeast	CT	106	84
11	35026	1306	West	WY	105	132
12	35027	1301	Midwest	IL	103	120
13	35032	1305	South	AL	103	132
14	35041	1305	Midwest	MI	103	144
15	35046	1302	Midwest	KS	102	132
16	35052	1303	South	LA	102	108

Introduction | Sales Data | Products | Salespe ...

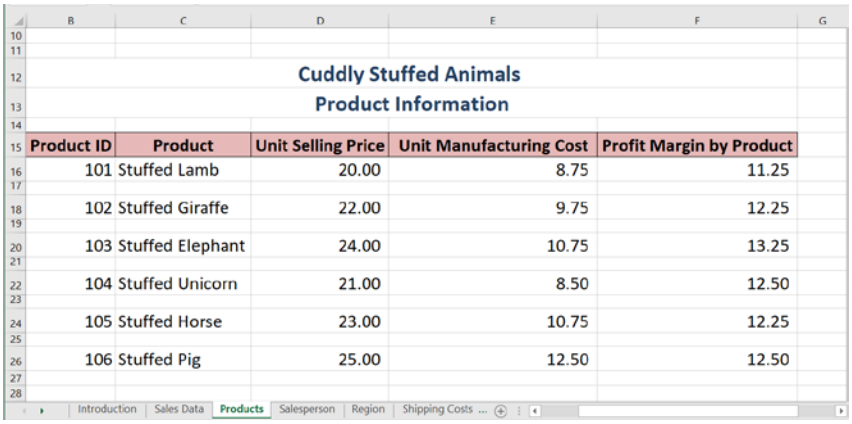
Notice that the last "Sales Order #" is 50150, and there are 5,017 rows of data (row 5020 – row 3 = 5017 rows).



	A	B	C	D	E	F
1	Cuddly Stuffed Animals					
2	Sales					
3	Sales Order #	Salesperson #	Region	State	Product #	Units Sold
5016	50138	1303	West	NM	102	108
5017	50141	1304	West	AK	102	96
5018	50143	1303	West	NV	102	120
5019	50147	1306	Northeast	NH	106	72
5020	50150	1305	Northeast	NY	106	156
5021						

Introduction | Sales Data | Products | Salesperson | Region | Shipping Cc ...

The second stream is stored in a sheet titled "**Products"**. Notice that the column headings are in row fifteen.



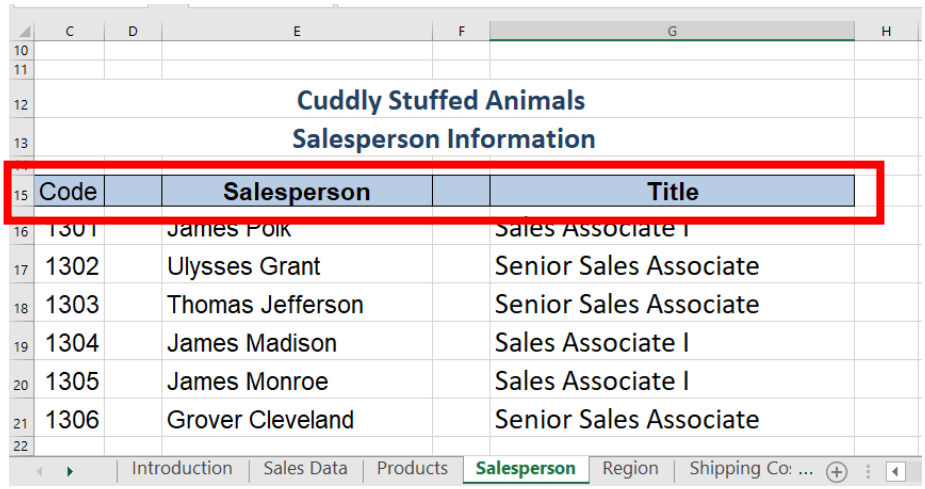
Cuddly Stuffed Animals
Product Information

Product ID	Product	Unit Selling Price	Unit Manufacturing Cost	Profit Margin by Product
101	Stuffed Lamb	20.00	8.75	11.25
102	Stuffed Giraffe	22.00	9.75	12.25
103	Stuffed Elephant	24.00	10.75	13.25
104	Stuffed Unicorn	21.00	8.50	12.50
105	Stuffed Horse	23.00	10.75	12.25
106	Stuffed Pig	25.00	12.50	12.50

Introduction | Sales Data | Products | Salesperson | Region | Shipping Costs ...

The last "Product ID" is 106, and there are 6 rows of data.

The third stream is stored in a sheet titled "**Salesperson"**. Notice that the column headings are in row fifteen.



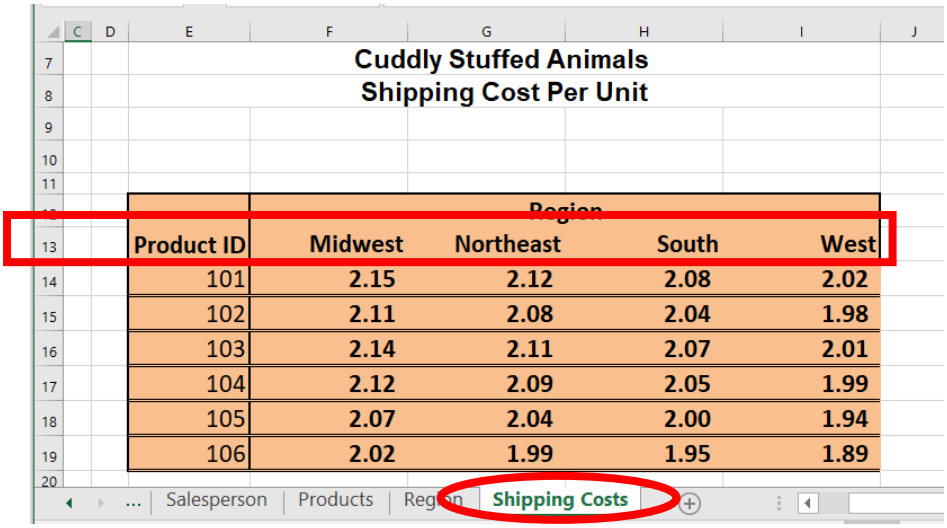
Cuddly Stuffed Animals
Salesperson Information

Code	Salesperson	Title
1301	James Polk	Sales Associate I
1302	Ulysses Grant	Senior Sales Associate
1303	Thomas Jefferson	Senior Sales Associate
1304	James Madison	Sales Associate I
1305	James Monroe	Sales Associate I
1306	Grover Cleveland	Senior Sales Associate

Introduction | Sales Data | Products | Salesperson | Region | Shipping Co: ...

The last "Code" is 1306, and there are 6 rows of data.

The fourth stream contains the shipping cost per unit by the product and region in which the sales were made is stored in a sheet titled "**Shipping Costs**". Notice that the column headings are in row thirteen.

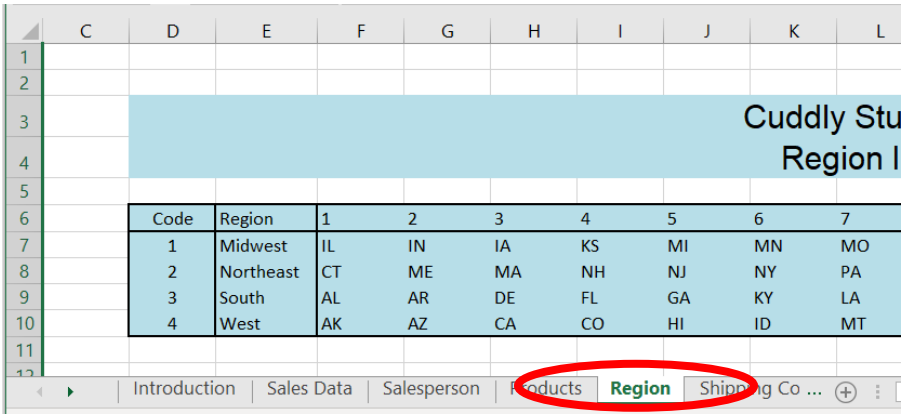


Cuddly Stuffed Animals
Shipping Cost Per Unit

	Region			
Product ID	Midwest	Northeast	South	West
101	2.15	2.12	2.08	2.02
102	2.11	2.08	2.04	1.98
103	2.14	2.11	2.07	2.01
104	2.12	2.09	2.05	1.99
105	2.07	2.04	2.00	1.94
106	2.02	1.99	1.95	1.89

The last "Product ID" is 106, and there are 6 rows of data.

The fifth stream contains data regarding the Regions and states in each region sold are stored in a sheet titled "**Region**".



Cuddly Stu
Region I

Code	Region	1	2	3	4	5	6	7
1	Midwest	IL	IN	IA	KS	MI	MN	MO
2	Northeast	CT	ME	MA	NH	NJ	NY	PA
3	South	AL	AR	DE	FL	GA	KY	LA
4	West	AK	AZ	CA	CO	HI	ID	MT

The deliverable consists of two reports exported to the original Excel file. The first report is a report by salesperson that shows the number of units sold, sales in dollars and shipping costs. The second report is a shipping cost report by product and region loaded back into Excel.

By Salesperson

Salesperson	# of units	Sales	Shipping Costs
Ulysses Grant	36,636	$818,052.00	$77,266.44
George Washington	58,284	$1,299,192.00	$123,242.28
James Monroe	97,152	$2,162,436.00	$205,622.64
John Tyler	78,924	$1,751,352.00	$166,596.00
James Madison	38,388	$854,412.00	$81,105.24
James Polk	77,484	$1,723,956.00	$163,717.08
Total	386,868	$8,609,400.00	$817,549.68

Automate the process so that the reports can be completed at the end of every month. The unit selling price and costs do not change during the year.

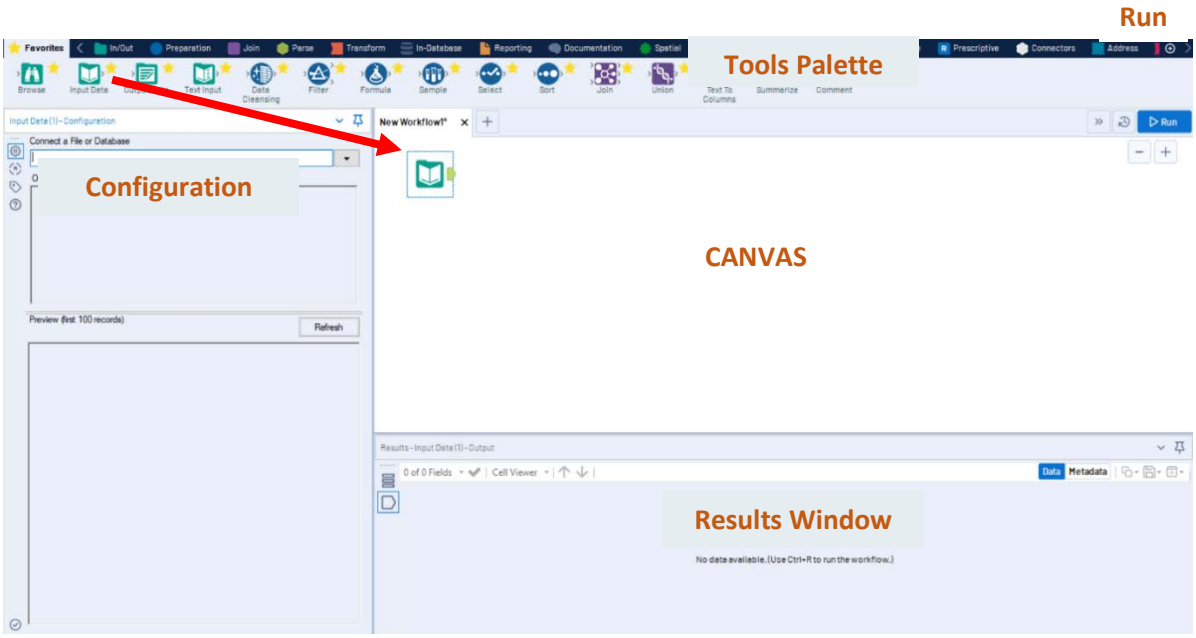
Shipping Costs by Product and Region

	Midwest	Northeast	South	West	Grand Total
Stuffed Bear	$ 26,904.00	$ 43,048.44	$ 22,066.20	$ 41,647.80	$ 133,666.44
Stuffed Elephant	$ 54,810.00	$ 72,060.84	$ 48,486.60	$ 86,971.80	$ 262,329.24
Stuffed Frog	$ 36,405.60	$ 52,861.20	$ 30,753.60	$ 54,081.00	$ 174,101.40
Stuffed Koala	$ 14,094.00	$ 20,699.28	$ 14,572.80	$ 25,364.40	$ 74,730.48
Stuffed Panda	$ 16,875.60	$ 26,664.00	$ 15,720.00	$ 23,108.40	$ 82,368.00
Stuffed Unicorn	$ 13,648.20	$ 30,604.32	$ 18,144.00	$ 27,957.60	$ 90,354.12
Grand Total	$ 162,737.40	$ 245,938.08	$ 149,743.20	$ 259,131.00	$ 817,549.68

Start Alteryx

Note: You cannot extract data from an open Excel file, so make sure that the Excel file is closed before starting to input the data.

There are four major parts of the Alteryx window. The first is the Canvas, and that's where the workflow will be created. Second, the Tools Palette is where all the tools are stored. Third, the Configuration area is where the tool settings are modified. Lastly, the Results window shows the outcome after "Run" is selected to apply the changes.

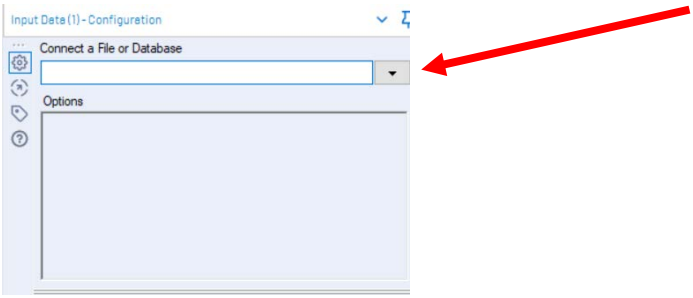


Requirement 1: Extract the data from the "Sales Data" sheet. Compare the values in the "Region" field to the values on the "Region" sheet and make any required changes.

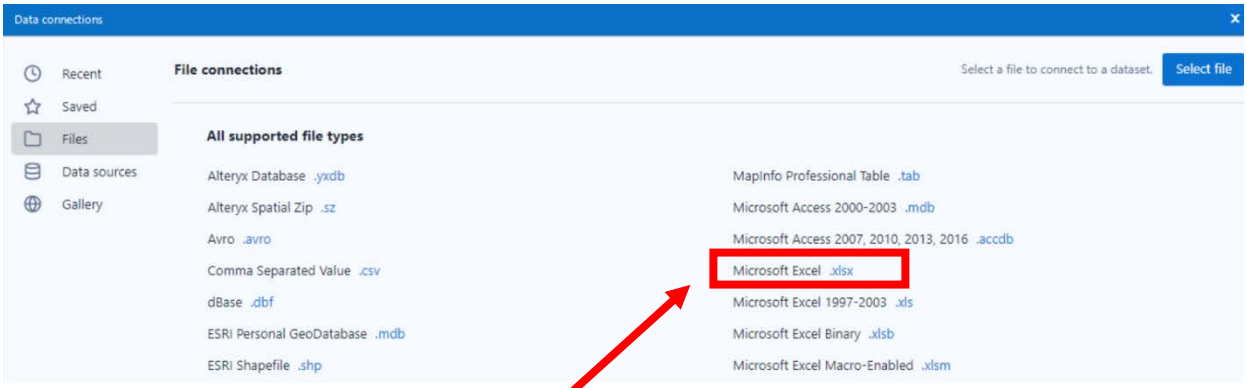
Tool 1: Input Data Tool – Input Excel file

Drag the "Input Data Tool"  from the Tools Palette to the Canvas.

In the Configuration area, select the "Connect a File or Database" drop-down arrow.



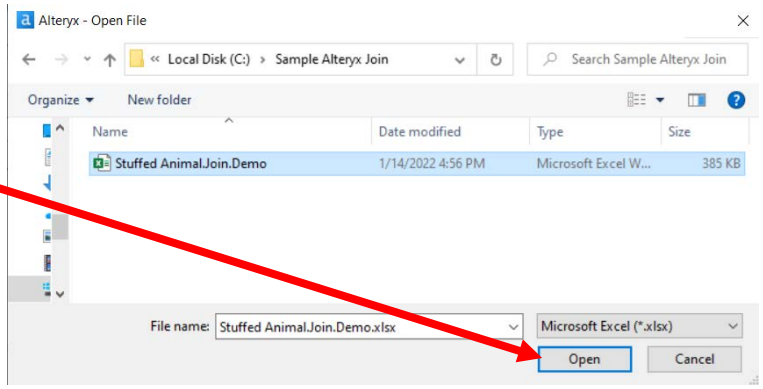
Select "File".



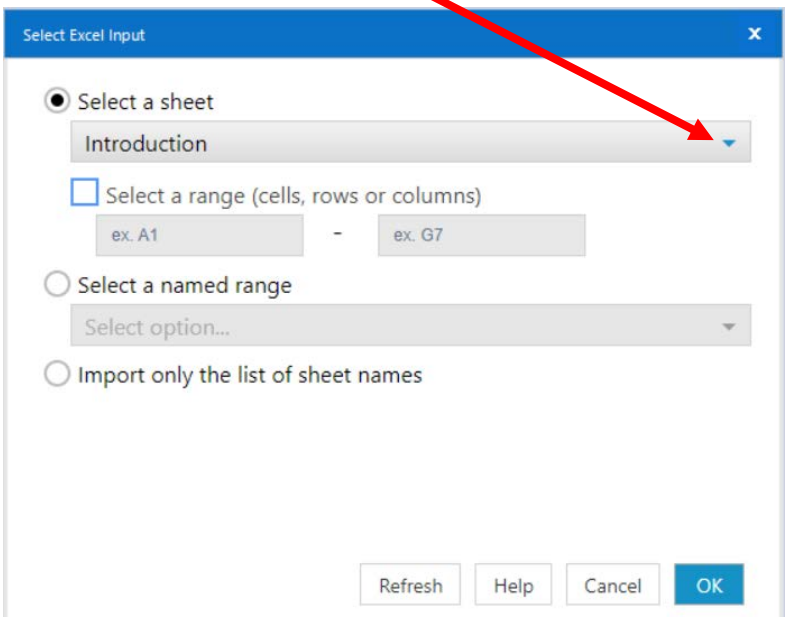
Select "Microsoft Excel .xlsx".

Browse for the desired file and select the version with the .xlsx file extension.

Select “Open”.

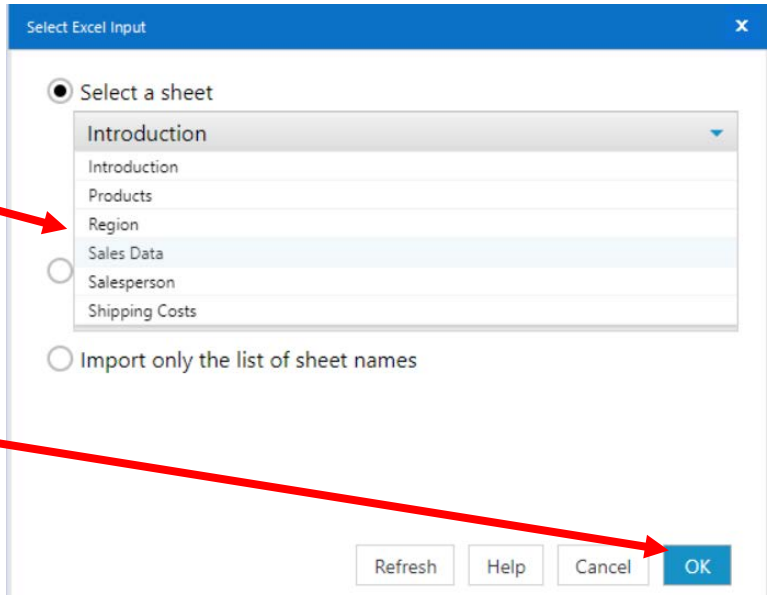


Select the drop-down arrow to the right of “Introduction”.

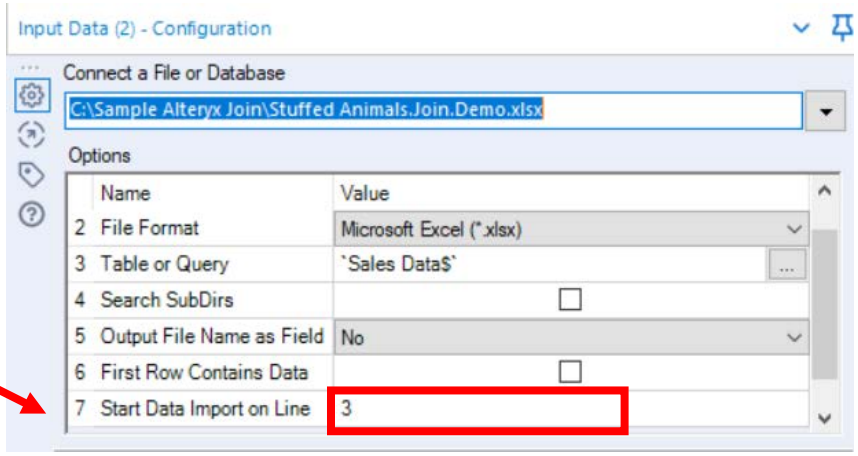


Select “Sales Data”.

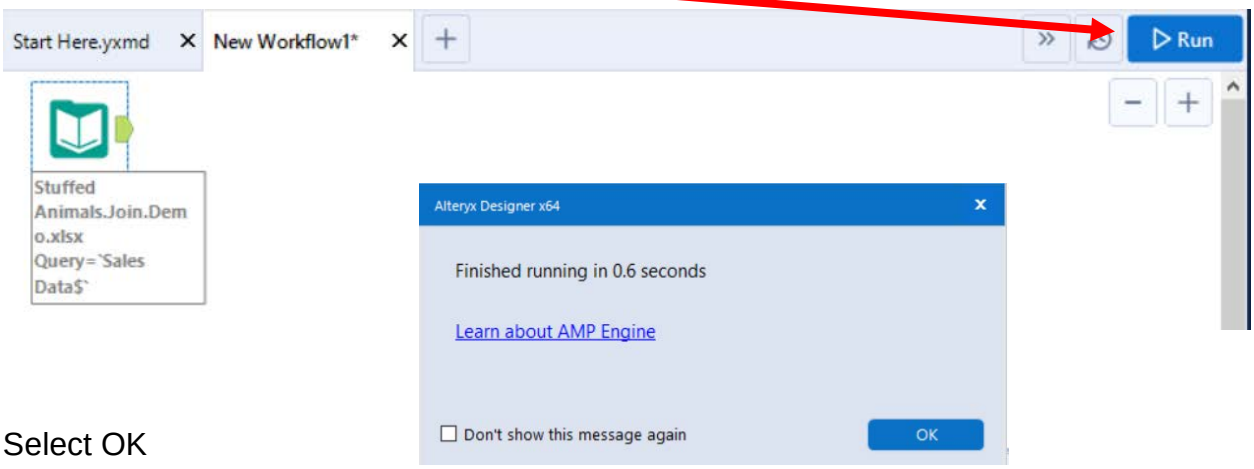
Select “OK”.



Remember that the field names are in the third row.
In the Configuration area, change the number in "7 Start Data Import on Line" to "3".



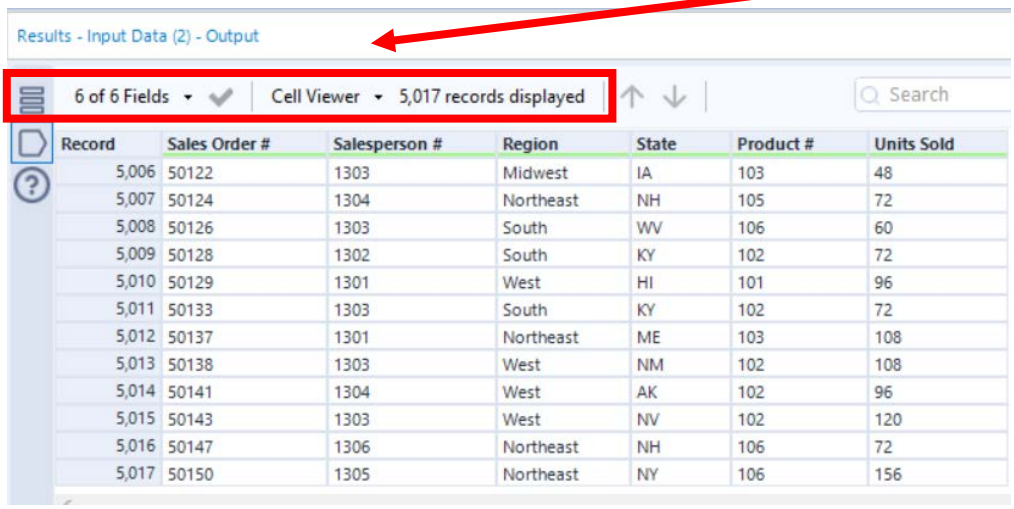
Select "Run".



Select OK

The Results window will display the field headings and the data.

Notice that six fields were extracted



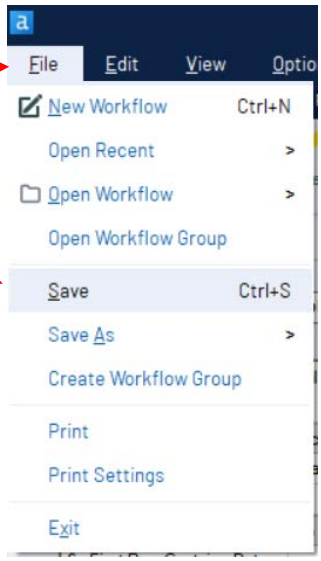
Record	Sales Order #	Salesperson #	Region	State	Product #	Units Sold
5,006	50122	1303	Midwest	IA	103	48
5,007	50124	1304	Northeast	NH	105	72
5,008	50126	1303	South	WV	106	60
5,009	50128	1302	South	KY	102	72
5,010	50129	1301	West	HI	101	96
5,011	50133	1303	South	KY	102	72
5,012	50137	1301	Northeast	ME	103	108
5,013	50138	1303	West	NM	102	108
5,014	50141	1304	West	AK	102	96
5,015	50143	1303	West	NV	102	120
5,016	50147	1306	Northeast	NH	106	72
5,017	50150	1305	Northeast	NY	106	156

There are 5,017 rows of data and the last one is "Sales Order #" 50150.

The workflow must be saved.

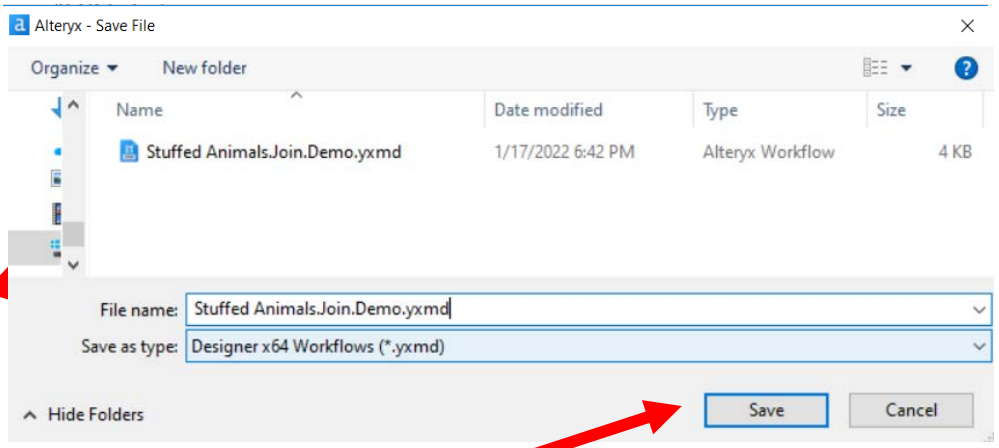
Select “File”.

Select “Save”.



Browse to the required directory.

Type in the name of the file that will be uploaded.

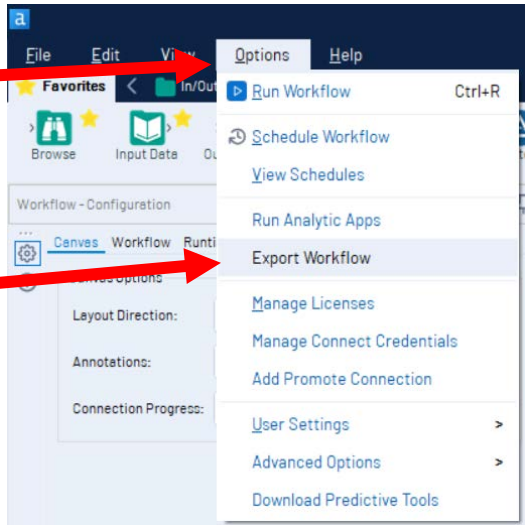


Select “Save”.

Export the workflow and the related input files so that the project can be completed on another computer or uploaded to the web.

Select “Options”.

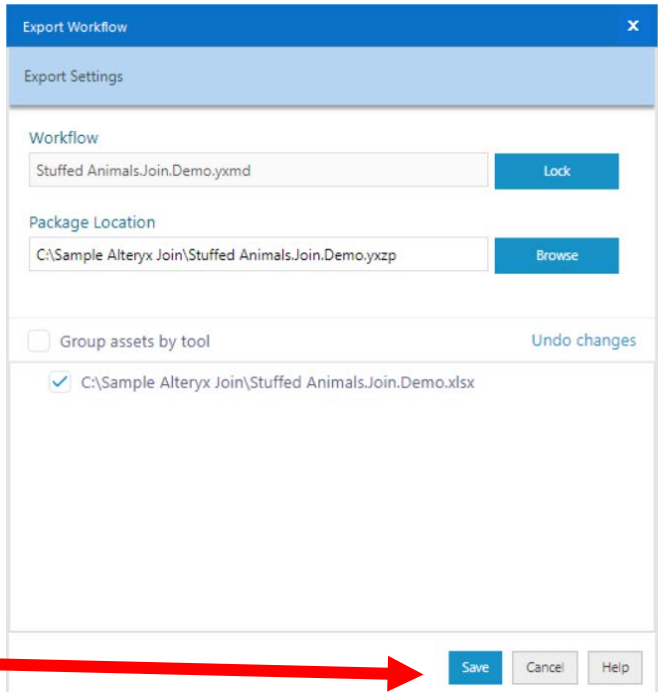
Select “Export Workflow”.



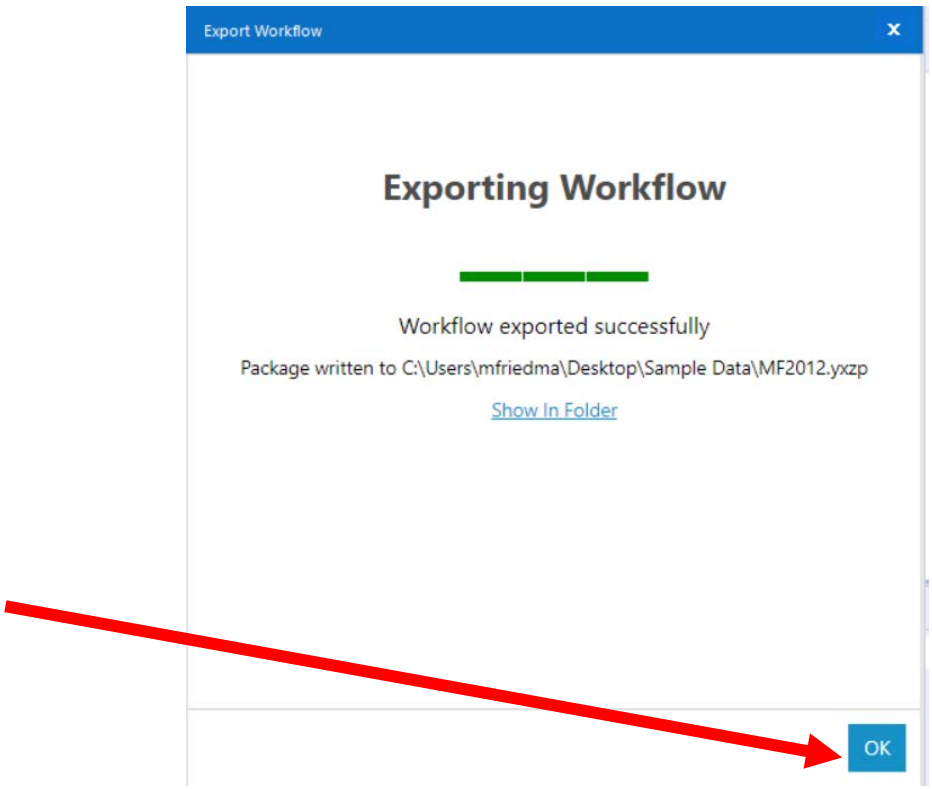
Verify the “Workflow”.

Verify the “Package Location”.

Select “Save”.



Select “OK”


Export Workflow
Exporting Workflow
Workflow exported successfully
Package written to C:\Users\mfriedma\Desktop\Sample Data\MF2012.yxzp
Show In Folder
OK

Temporary Tool 2: Browse Tool – The Data in the Fields Must Conform to Predefined Rules.

In the original Excel file, The Cuddly Stuffed Animals company provided a table with the only acceptable values for "Region". Sometime data is entered incorrectly.

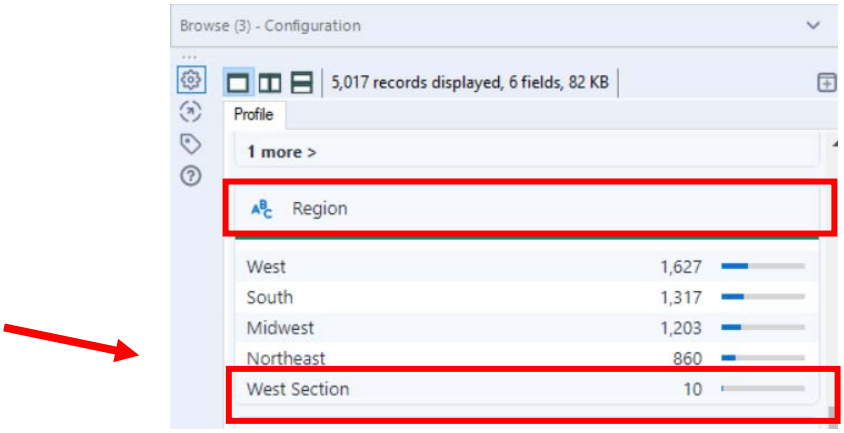
The "Region" field can only contain one of the four regions. Browse the data in the "Region" field to verify that all the data is correct. Make any changes that are required.

Code	Region
1	Midwest
2	Northeast
3	South
4	West

Drag the "**Browse Tool**"  from the Tools Palette to the output of the "**Input Data Tool**" on the Canvas. The two will be connected automatically.

Select Run.

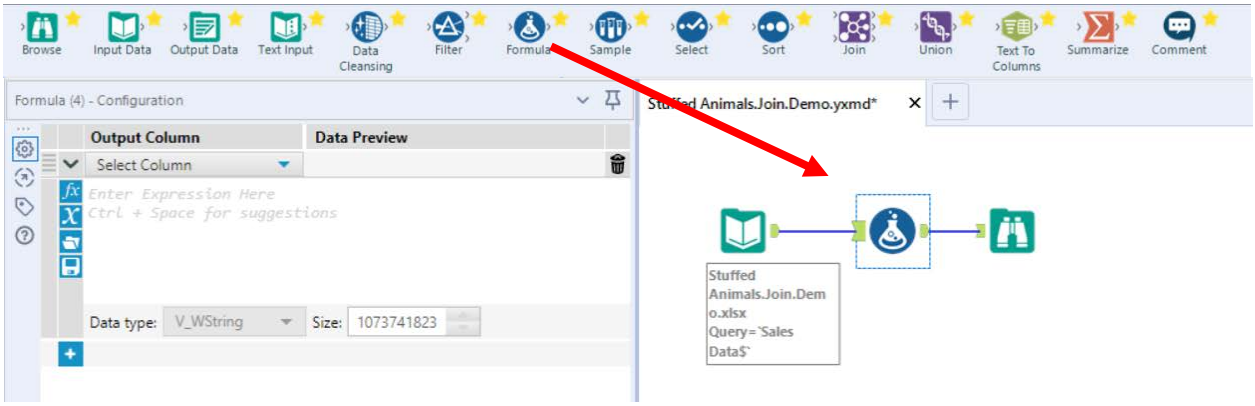
In the Configuration section scroll down to “Region”.



“West Section” must be replaced with “West” for a total of 1,637 distinct values.

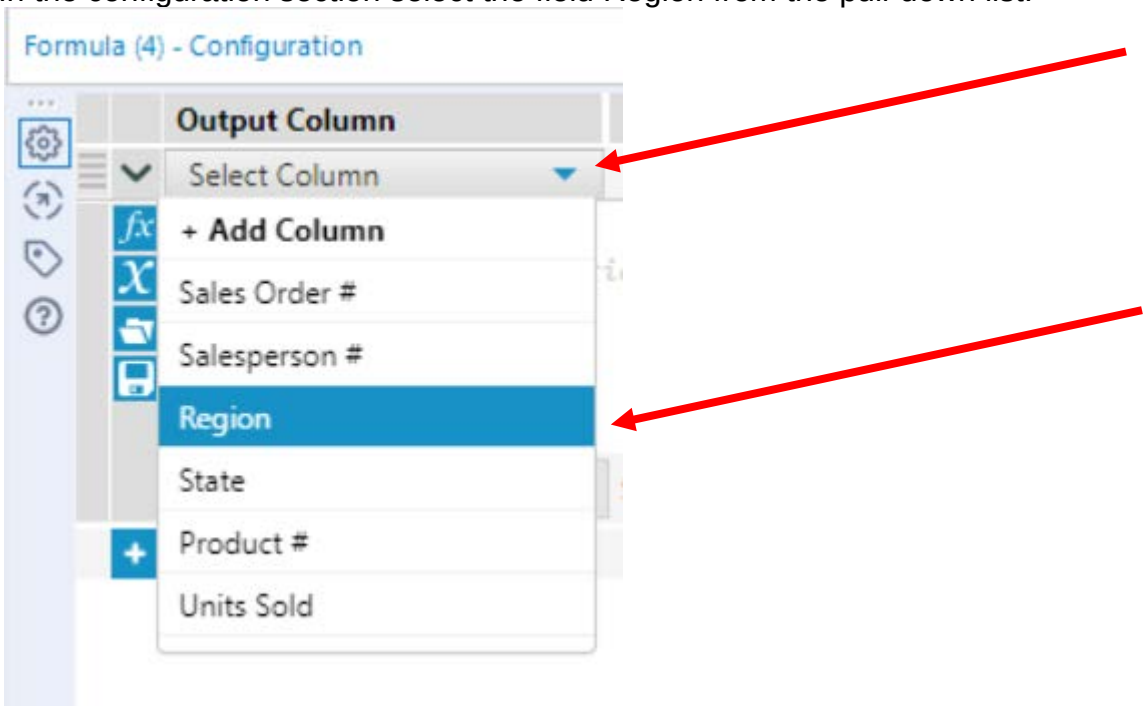
Tool 2: Formula Tool – The Data in the Fields Must Conform to Predefined Rules.

Drag the "**Formula Tool**"  from the Tools Palette between the output of the "**Input Data Tool**" and the "Browse Tool" on the Canvas. The three will be connected automatically.

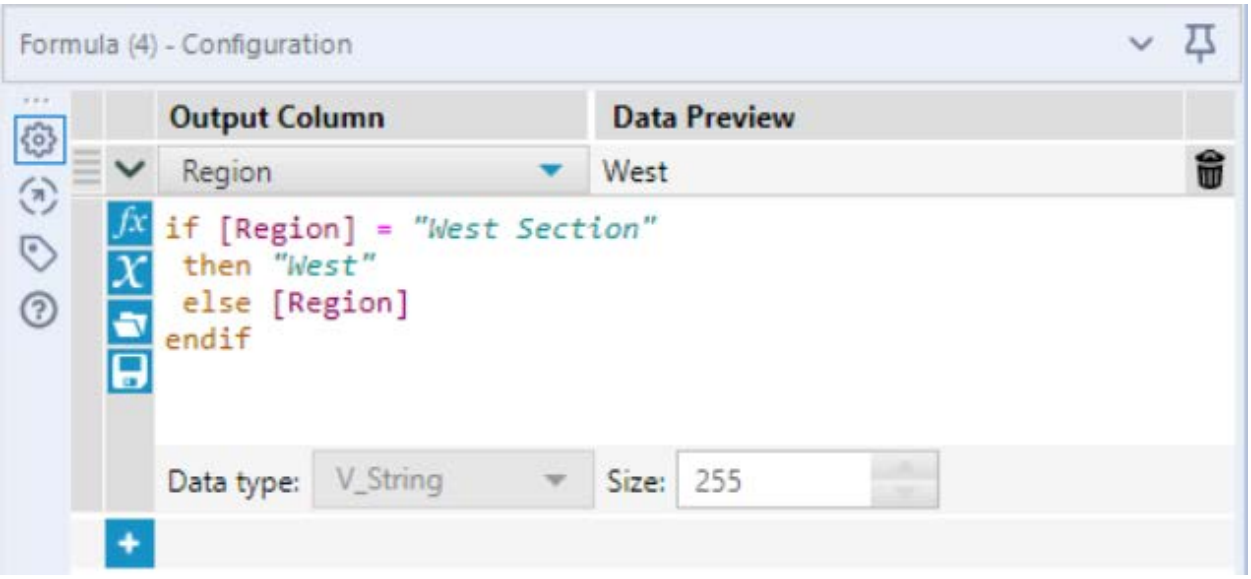


If the value in the field "Region" is "West Section" replace it with "West" otherwise leave the existing name in the field. Do not create a new field, put the output back into the "Region" field.

In the configuration section select the field Region from the pull-down list.



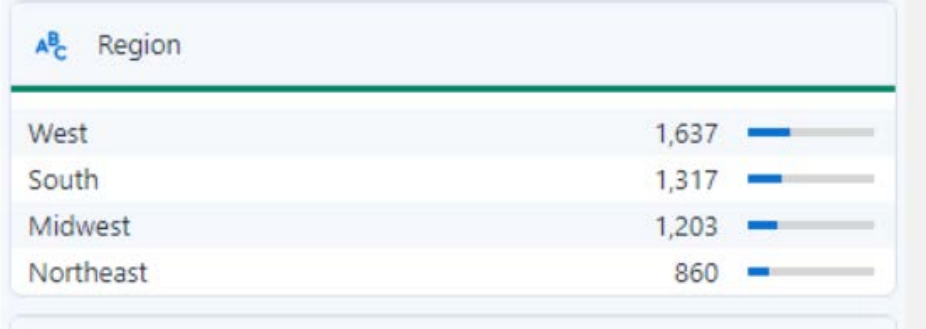
Type in the formula.



Select the Browse step.

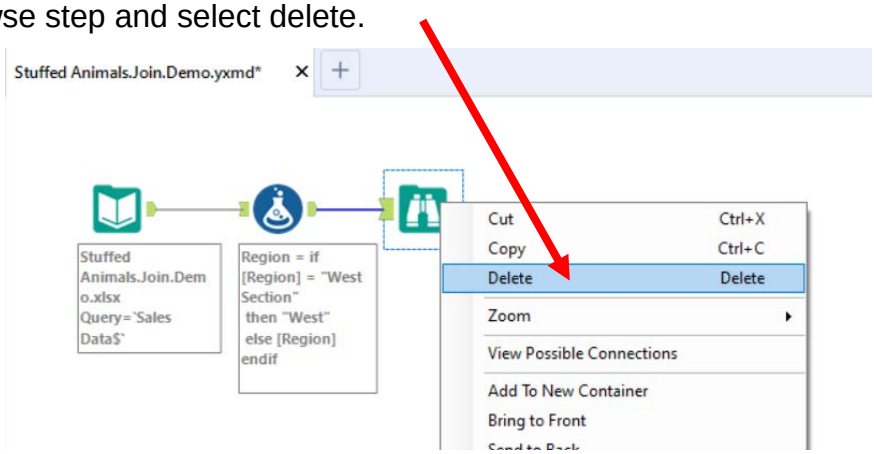
Select Run.

In the Configuration section scroll down to “Region”. There are only four regions and West has 1,637 distinct values.



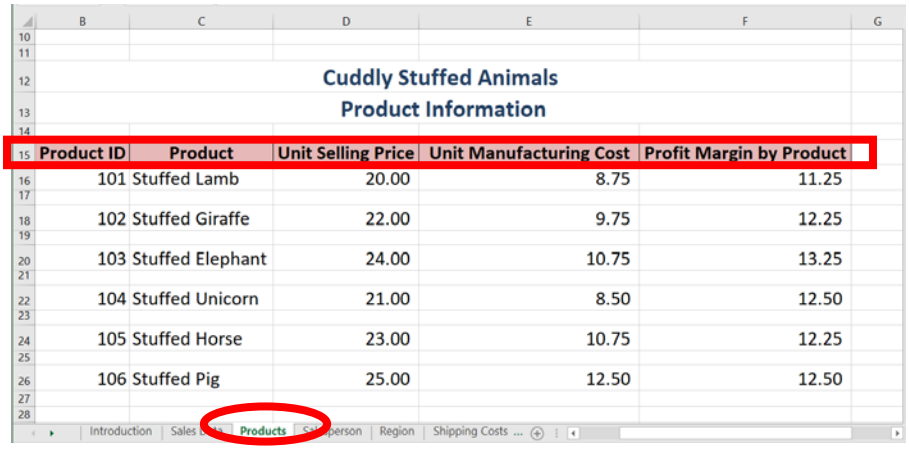
.

Right click on the Browse step and select delete.



Requirement 2: Extract the data from the "Products" sheet. Review the data, join to Stream 1 and verify the number of rows.

Data regarding the Product's ID, name selling price, manufacturing cost and profit margin are stored in an Excel sheet titled "Products". Notice that the column headings are in the fifteen row.

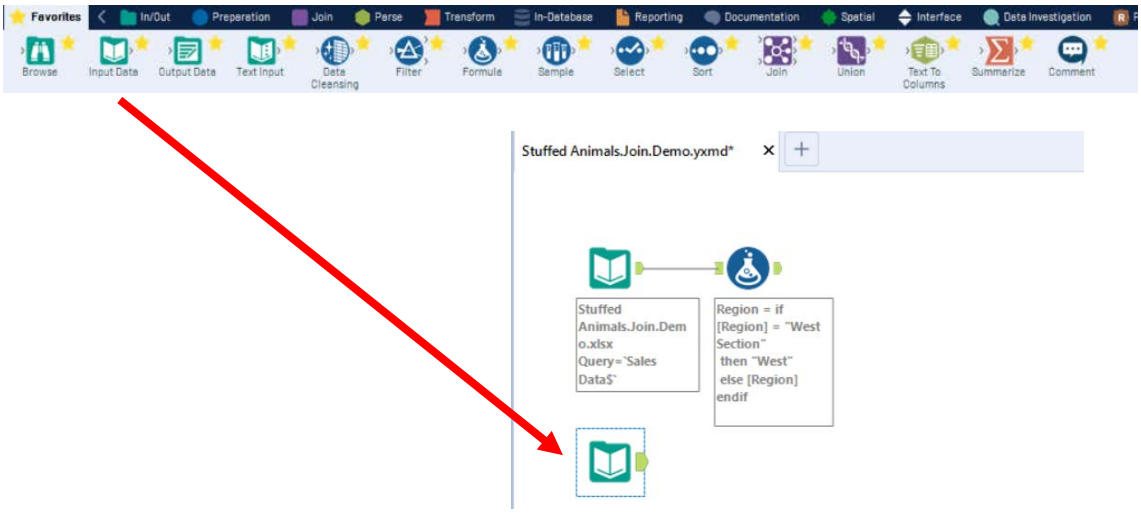


Cuddly Stuffed Animals
Product Information

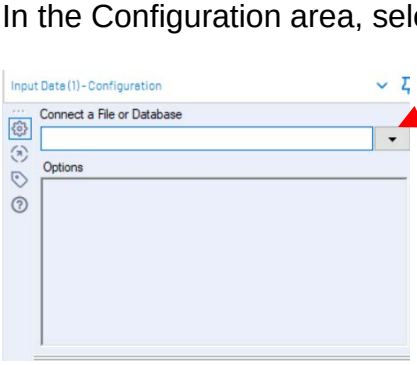
Product ID	Product	Unit Selling Price	Unit Manufacturing Cost	Profit Margin by Product
101	Stuffed Lamb	20.00	8.75	11.25
102	Stuffed Giraffe	22.00	9.75	12.25
103	Stuffed Elephant	24.00	10.75	13.25
104	Stuffed Unicorn	21.00	8.50	12.50
105	Stuffed Horse	23.00	10.75	12.25
106	Stuffed Pig	25.00	12.50	12.50

Tool 3: Input Data Tool – Input Excel file

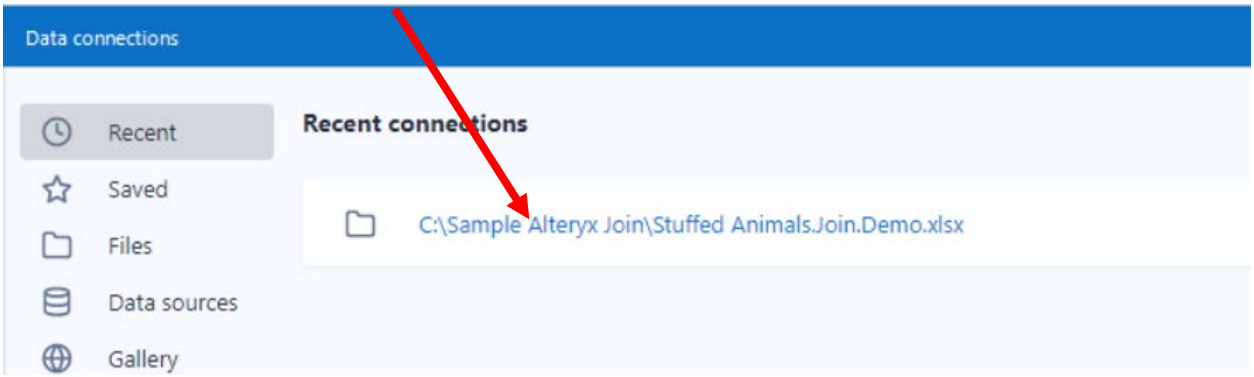
Drag the "Input Data Tool"  from the Tools Palette to the Canvas.



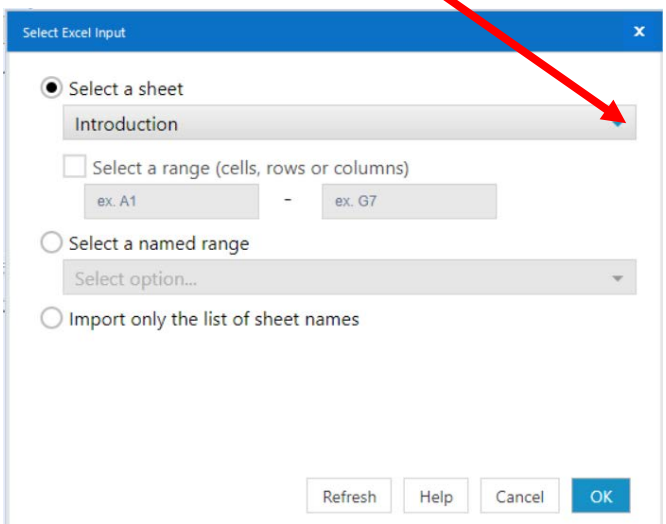
In the Configuration area, select the “Connect a File or Database” drop-down arrow.



Select the recent connection

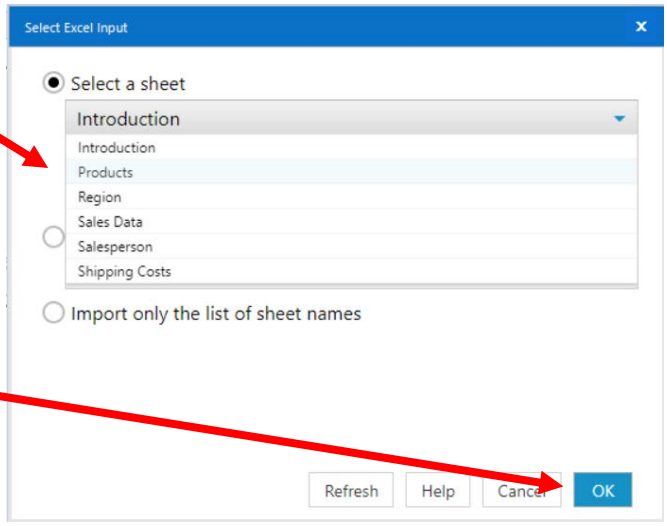


Select the drop-down arrow to the right of “Introduction”.



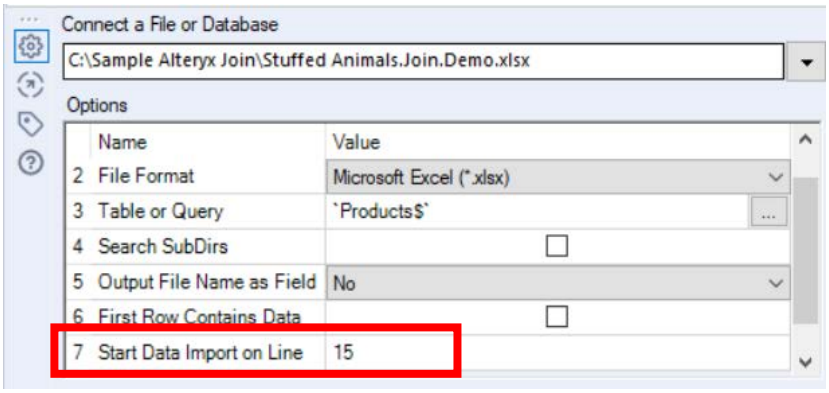
Select “Products”.

Select “OK”.

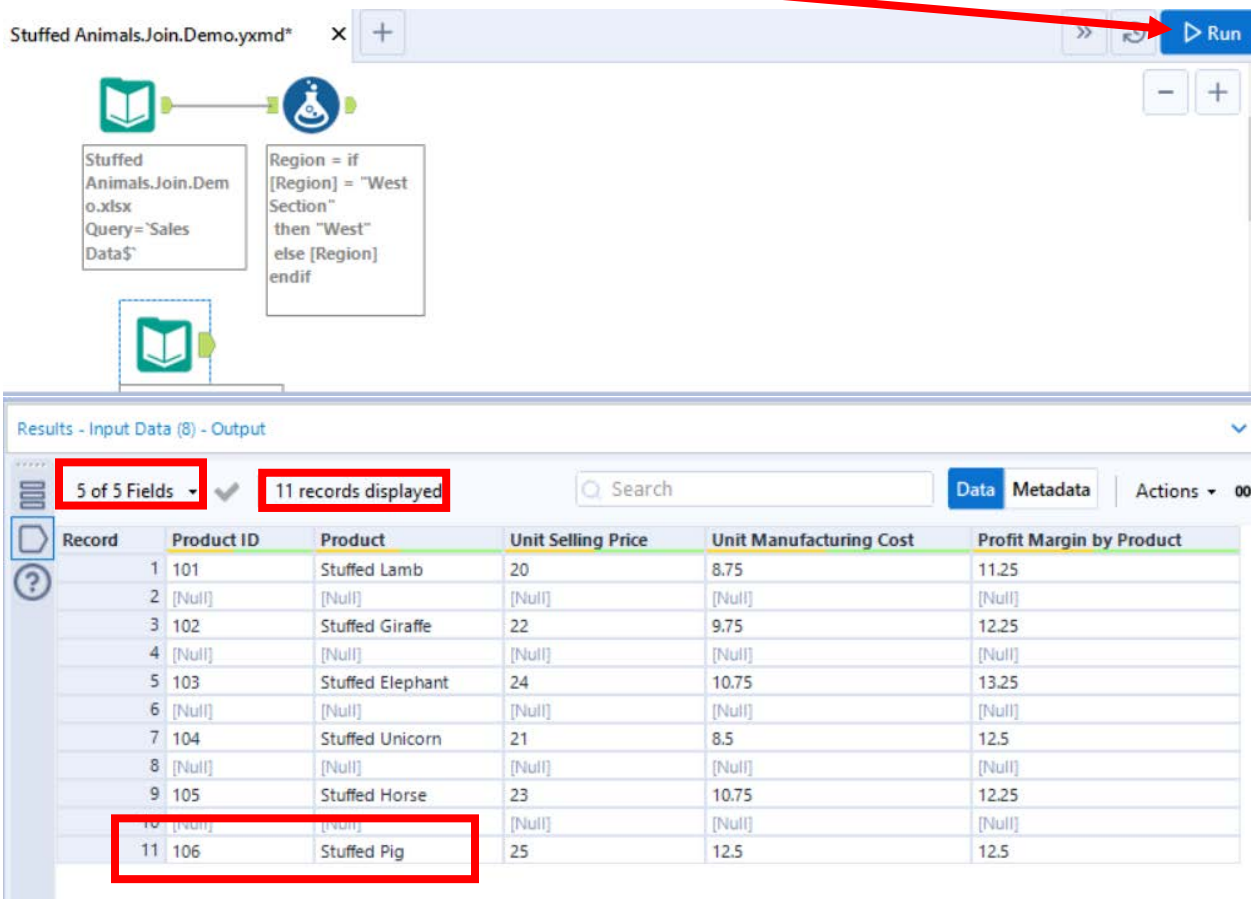


Remember that the field names are in the fifteenth row.

In the Configuration area, change the number in “7 Start Data Import on Line” to “15”.



Select “Run”.

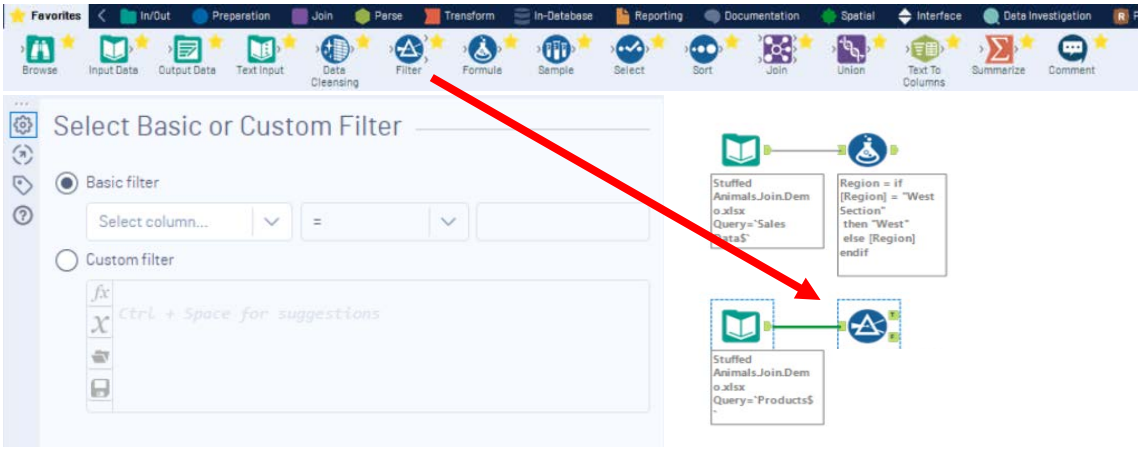


Record	Product ID	Product	Unit Selling Price	Unit Manufacturing Cost	Profit Margin by Product
1	101	Stuffed Lamb	20	8.75	11.25
2	[Null]	[Null]	[Null]	[Null]	[Null]
3	102	Stuffed Giraffe	22	9.75	12.25
4	[Null]	[Null]	[Null]	[Null]	[Null]
5	103	Stuffed Elephant	24	10.75	13.25
6	[Null]	[Null]	[Null]	[Null]	[Null]
7	104	Stuffed Unicorn	21	8.5	12.5
8	[Null]	[Null]	[Null]	[Null]	[Null]
9	105	Stuffed Horse	23	10.75	12.25
10	[Null]	[Null]	[Null]	[Null]	[Null]
11	106	Stuffed Pig	25	12.5	12.5

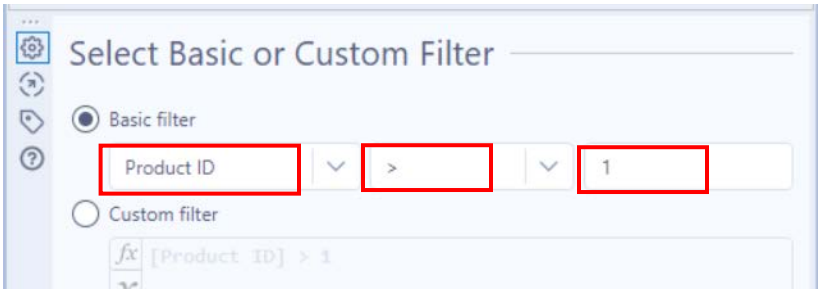
The Results window will display the field headings and the data. Notice that five fields were extracted and that there are eleven records. The extra rows that contain [Null] must be removed. The last product’s ID” is 106.

Tool 4: Filter Tool – Exclude all rows that do not contain data

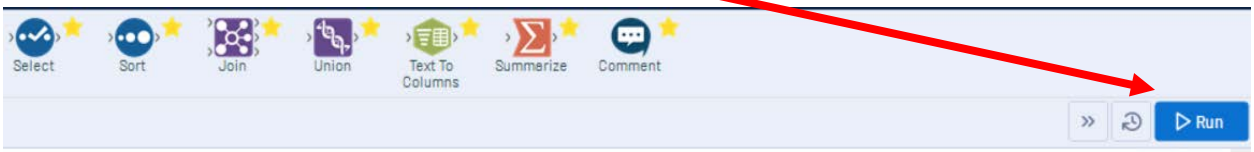
Drag the "**Filter Tool**"  from the Tools Palette to the right of the "Input Data Tool" on the Canvas. The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.



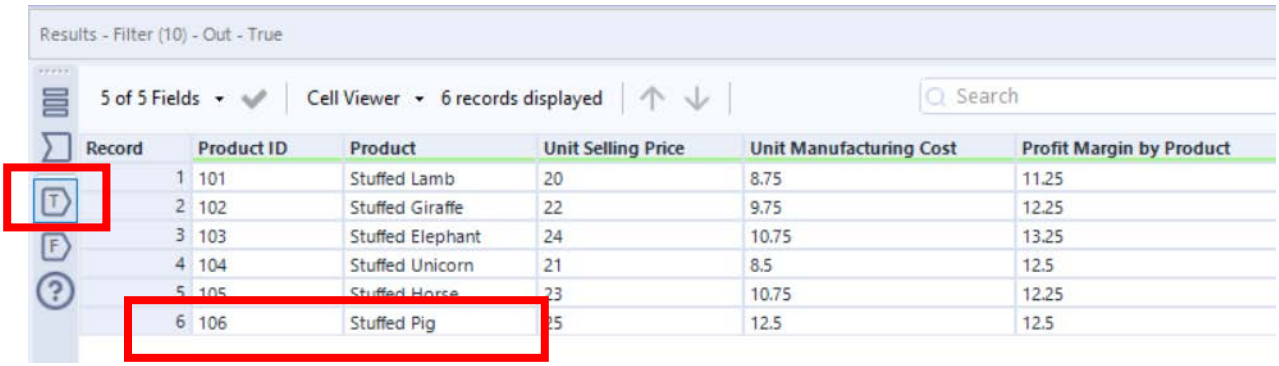
With the "**Filter Tool**" selected, the "Basic" filter in the Configuration area can be modified to filter the field "Product ID" for those accounts greater than, ">" "1'.



To apply the latest change, select "Run".

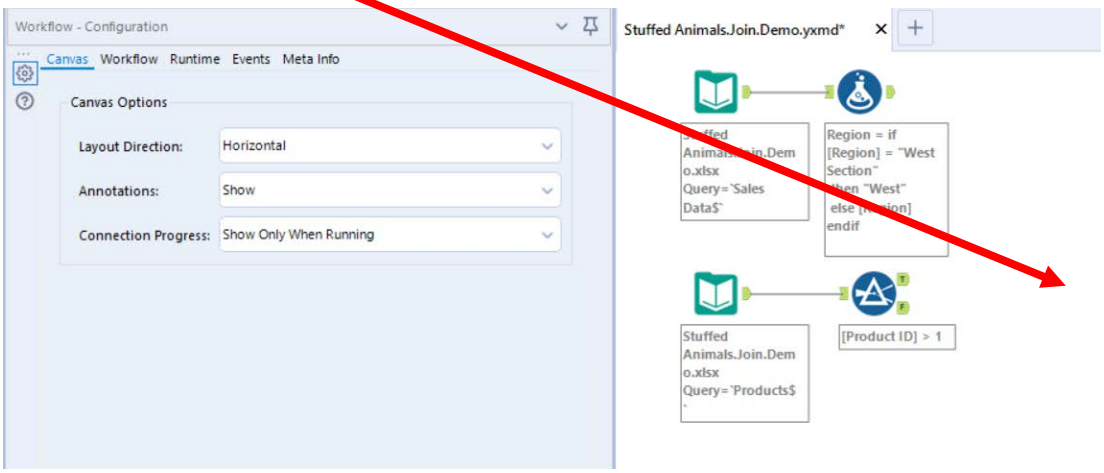


The records that meet the filtered conditions, "Product ID > 1", are displayed as T (True). There are six records displayed and the last one is "Product ID" 106.

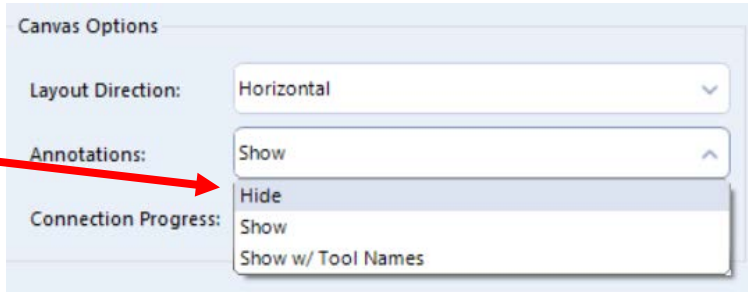


Record	Product ID	Product	Unit Selling Price	Unit Manufacturing Cost	Profit Margin by Product
1	101	Stuffed Lamb	20	8.75	11.25
2	102	Stuffed Giraffe	22	9.75	12.25
3	103	Stuffed Elephant	24	10.75	13.25
4	104	Stuffed Unicorn	21	8.5	12.5
5	105	Stuffed Horse	23	10.75	12.25
6	106	Stuffed Pig	25	12.5	12.5

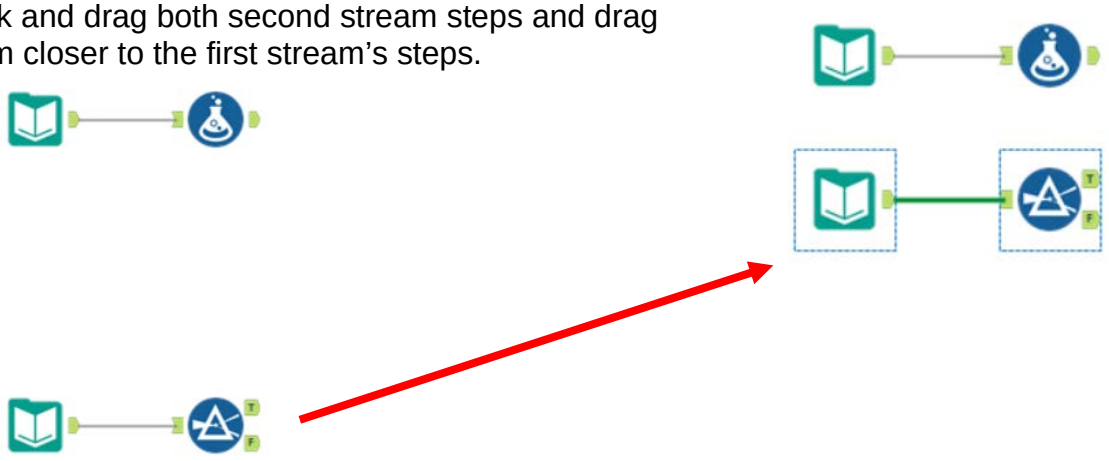
The Canvas is hard to follow because of the descriptions under the steps. Click on any blank space on the Canvas.



In the Configuration area select the down arrow for “Annotations:” and select hide.

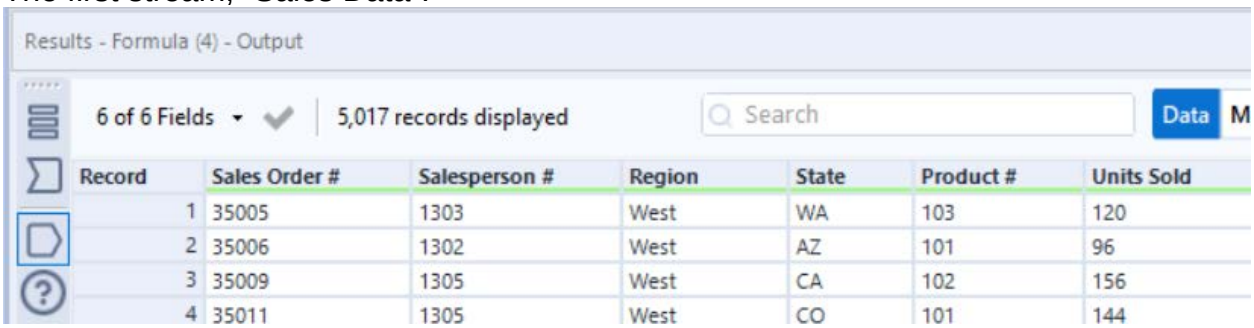


Click and drag both second stream steps and drag them closer to the first stream’s steps.



Tool 5: Join Tool – Combine Data From Two Streams On A Common Field

The first stream, “Sales Data”.



Results - Formula (4) - Output

6 of 6 Fields | 5,017 records displayed | Search | Data

Record	Sales Order #	Salesperson #	Region	State	Product #	Units Sold
1	35005	1303	West	WA	103	120
2	35006	1302	West	AZ	101	96
3	35009	1305	West	CA	102	156
4	35011	1305	West	CO	101	144

The second stream, “Products”.

Results - Filter (10) - Out - True

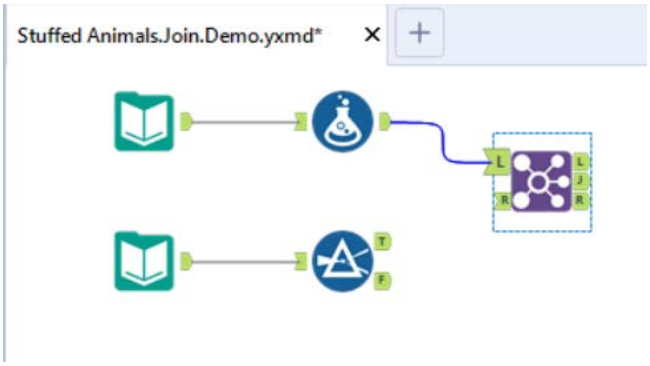
5 of 5 Fields | Cell Viewer | 6 records displayed | Search

Record	Product ID	Product	Unit Selling Price	Unit Manufacturing Cost	Profit Margin by Product
1	101	Stuffed Lamb	20	8.75	11.25
2	102	Stuffed Giraffe	22	9.75	12.25
3	103	Stuffed Elephant	24	10.75	13.25
4	104	Stuffed Unicorn	21	8.5	12.5
5	105	Stuffed Horse	23	10.75	12.25
6	106	Stuffed Pig	25	12.5	12.5

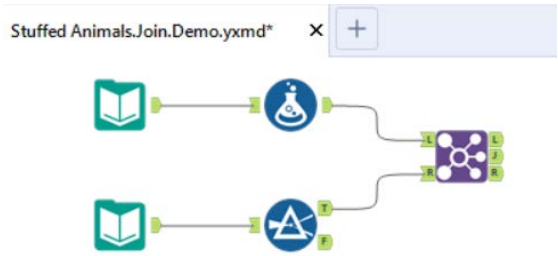
The field “Product #” in the “Sales Data” stream can be joined, linked, to the “Product ID” field in the “Products” stream.

Drag the “**Join** 

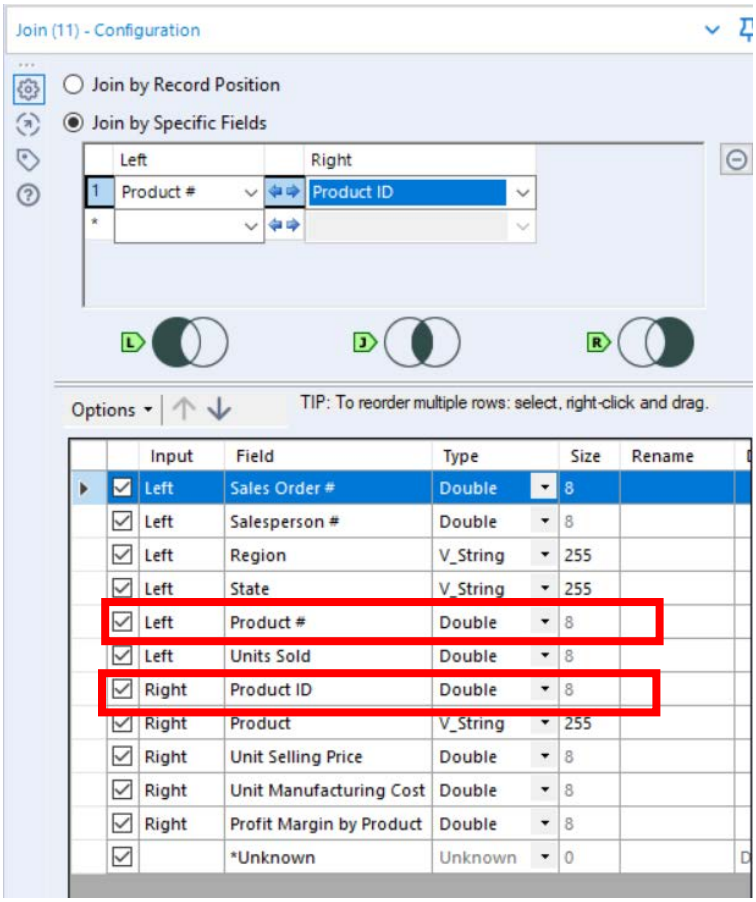
Tool” from the Tools Palette to the right of the “Formula Tool” from the first data stream connecting to the L,(Left) inflow of the “Join Tool”. The outflow from the tool on the left is the inflow to the one on the right.



Connect the TRUE output of the "Filter Tool" from the second data stream to the R,(Right) inflow of the "Join Tool".

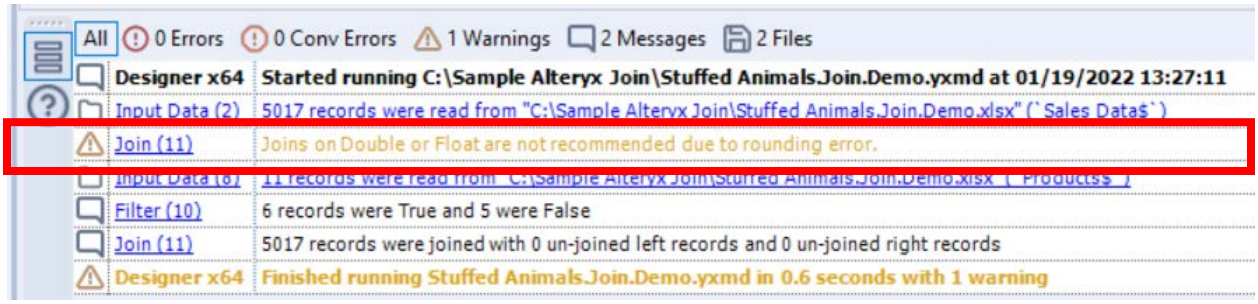


With the "**Join Tool**" selected, in the Configuration area select "Product #" on the left and "Product ID" on the right.



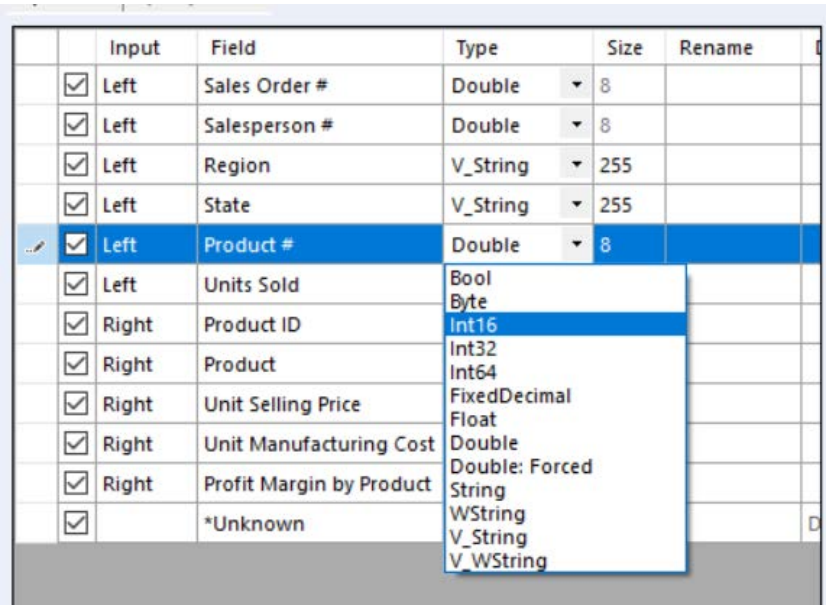
The two fields must be the same type; in this case "Double", and the same size, in this case 8.

To apply the latest change, select "Run".



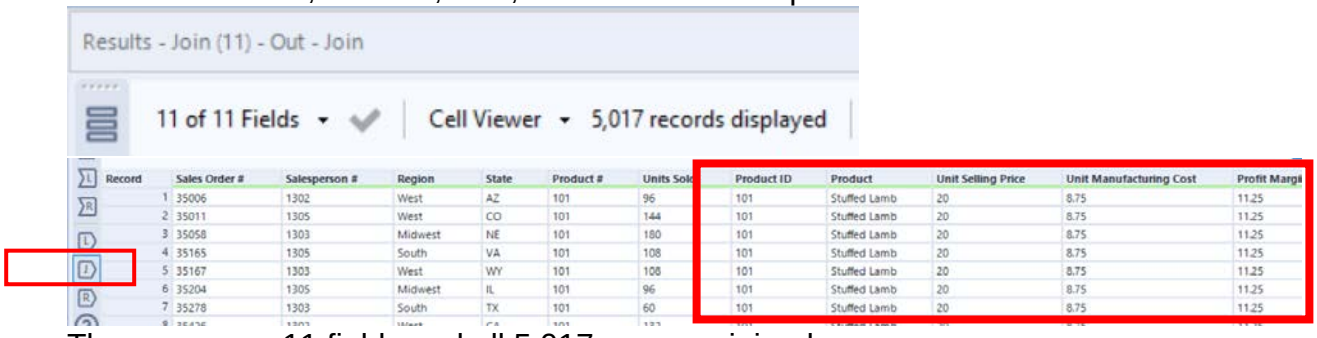
There is a possible error Join should not use fields defined as "Double" or "Float".

Highlight the Join Tool and change the field type of the “Product ID #” and “Product ID” from Double to Integer to Int 16.



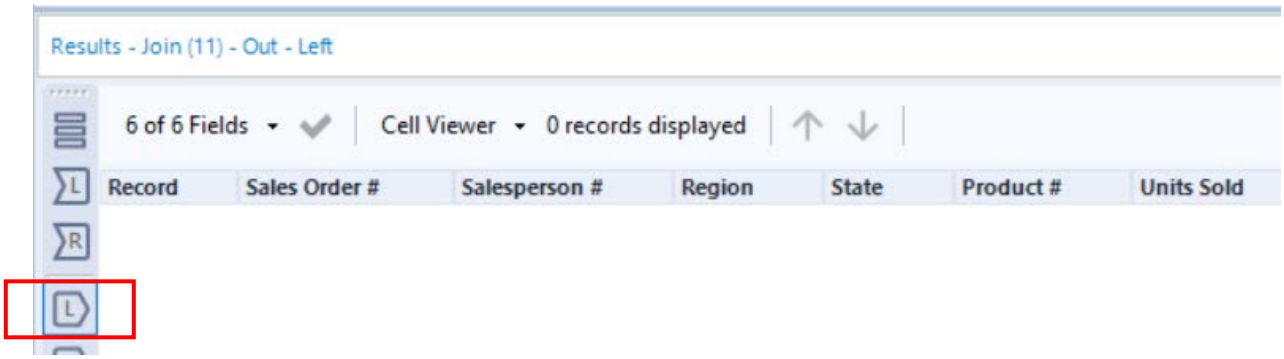
Select Run to apply.

In the result area, select J, Join, and review the output.

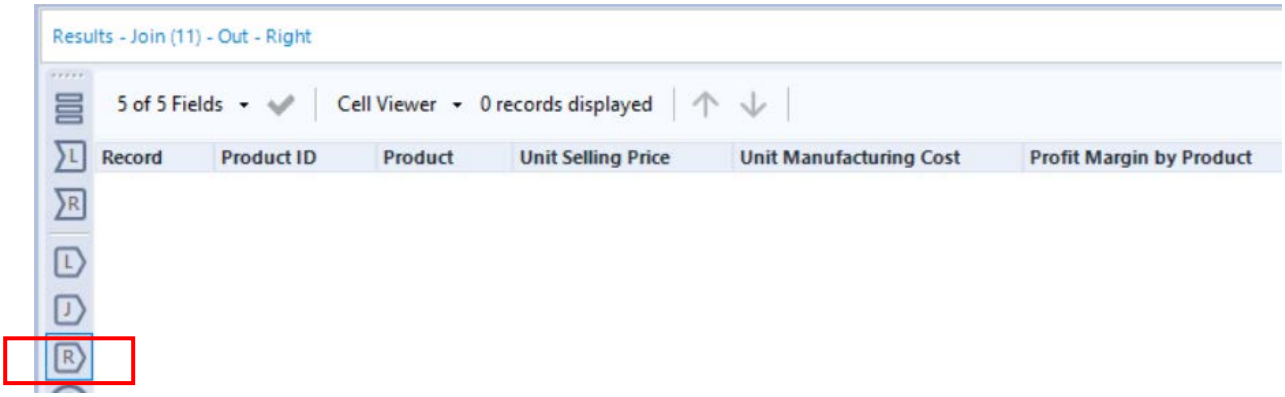


There are now 11 fields and all 5,017 rows we joined.

Verify that nothing was unmatched from L, Left data set. Sales with an invalid “Product #” number would be unmatched.

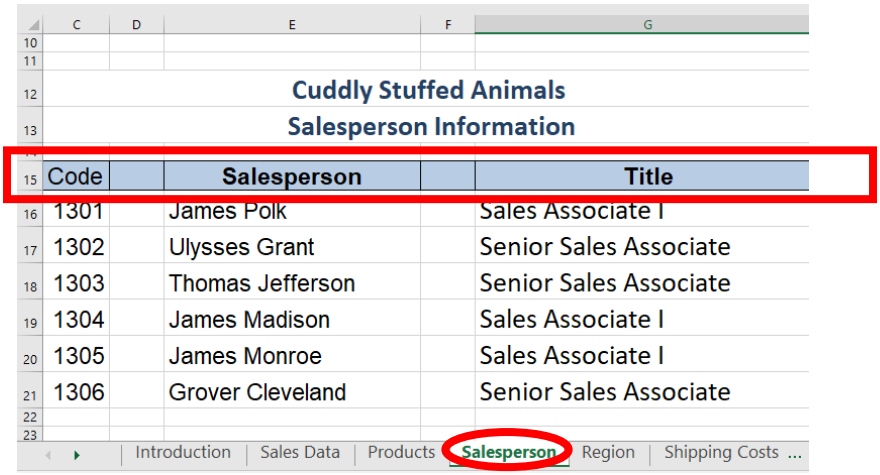


Look at R, Right data set. If anything is not matched, there would be “Product ID” that was not sold in any of the recorded sales.



Requirement 3: Extract the data from the "Salesperson" sheet. Review the data, join to combined Stream 1 and Stream 2 and verify the number of rows.

Data regarding the Salesperson's Code, name and Title are stored in an Excel sheet titled "Salesperson". Notice that the column headings are in the fifteenth row.



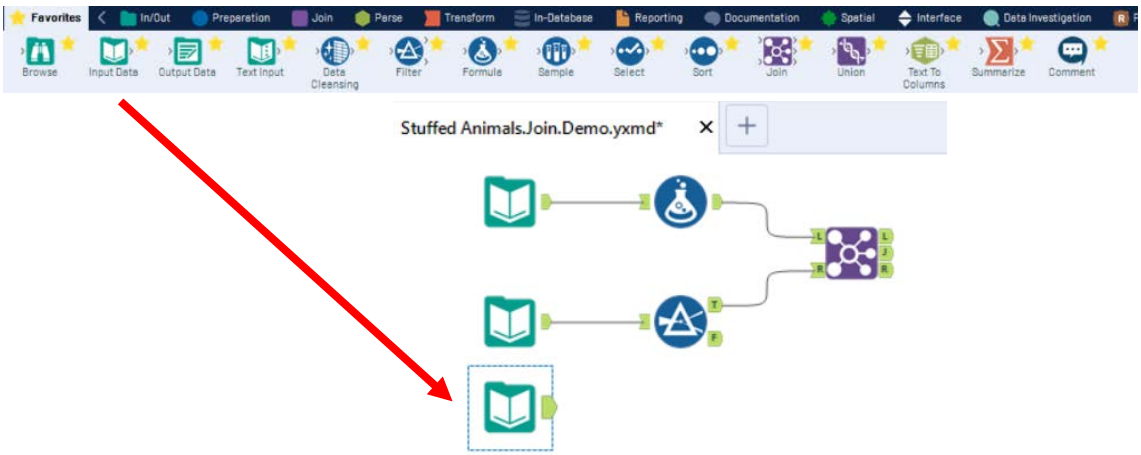
Code	Salesperson	Title
1301	James Polk	Sales Associate I
1302	Ulysses Grant	Senior Sales Associate
1303	Thomas Jefferson	Senior Sales Associate
1304	James Madison	Sales Associate I
1305	James Monroe	Sales Associate I
1306	Grover Cleveland	Senior Sales Associate

Cuddly Stuffed Animals
Salesperson Information

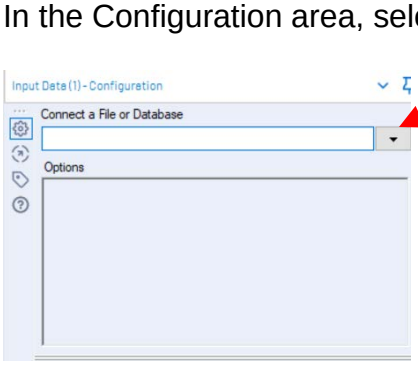
Introduction | Sales Data | Products | Salesperson | Region | Shipping Costs ...

Tool 6: Input Data Tool – Input Excel file

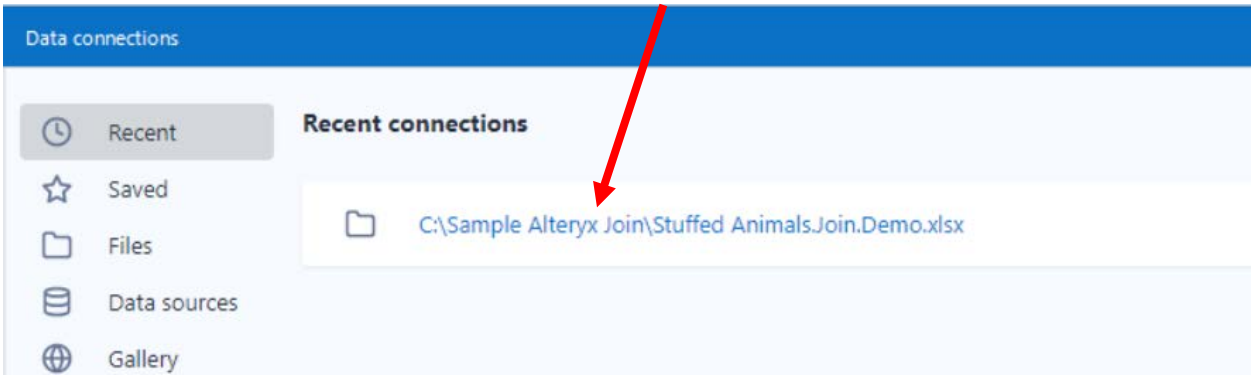
Drag the "Input Data Tool"  from the Tools Palette to the Canvas.



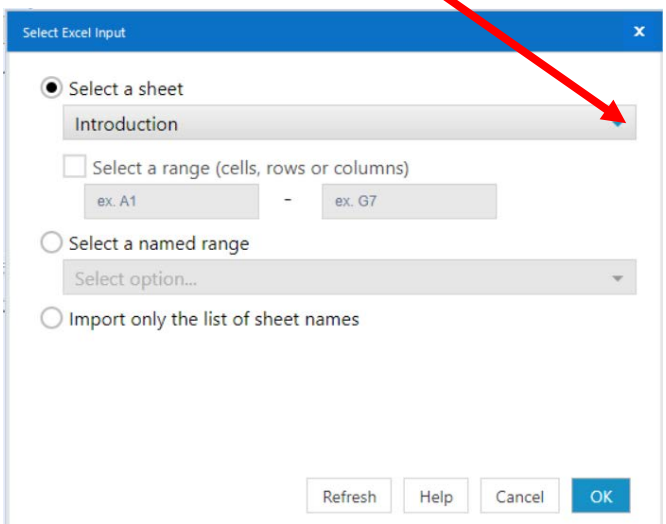
In the Configuration area, select the “Connect a File or Database” drop-down arrow.



Select the recent connection

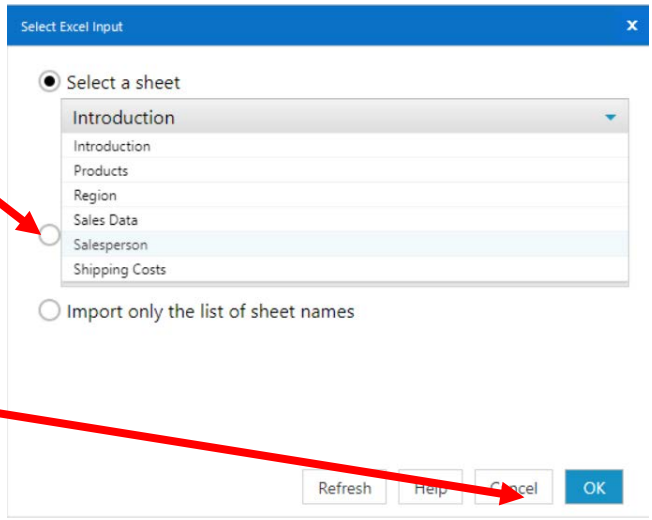


Select the drop-down arrow to the right of “Introduction”.



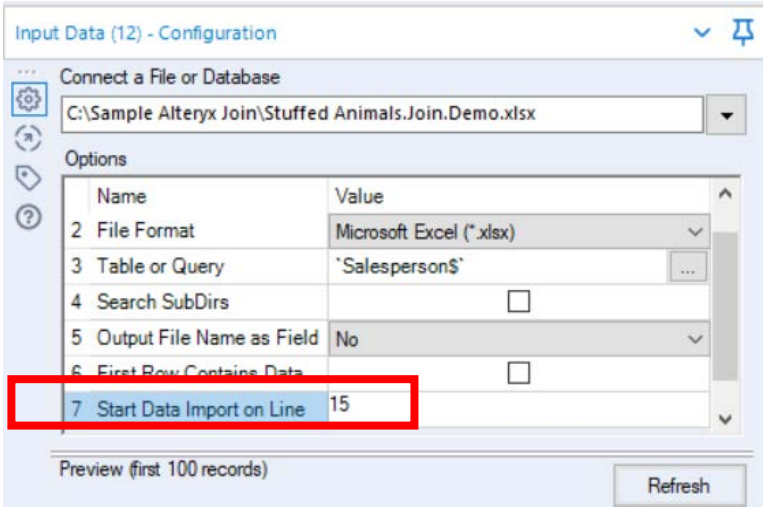
Select “Salesperson”.

Select “OK”.

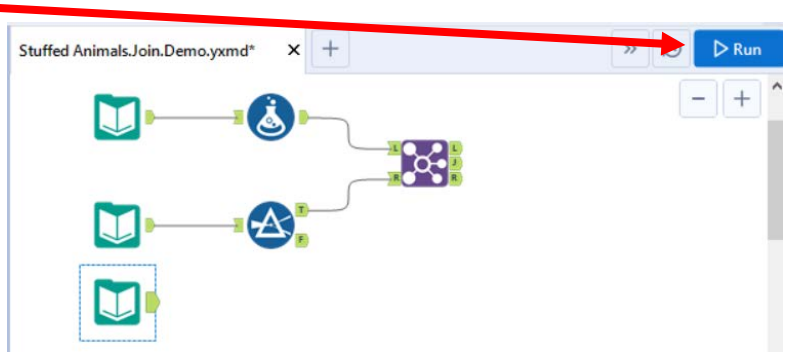


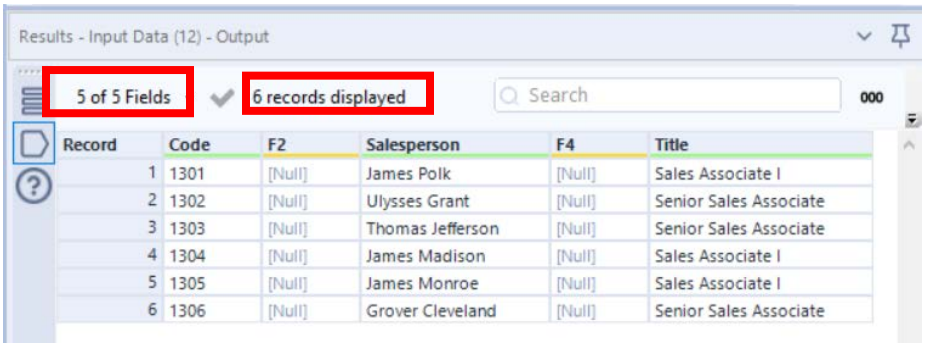
Remember that the field names are in the fifteenth row.

In the Configuration area, change the number in “7 Start Data Import on Line” to “15”.



Select “Run”.

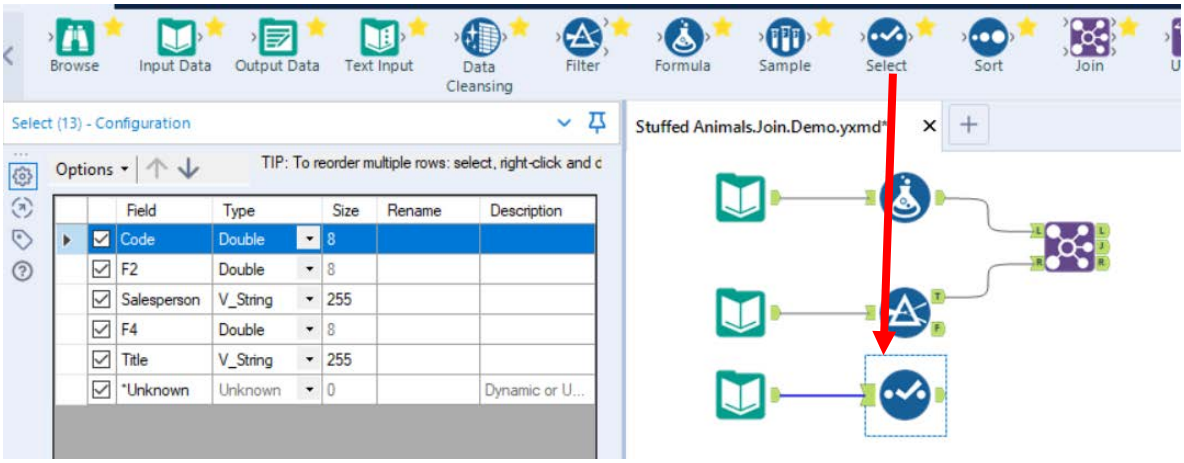


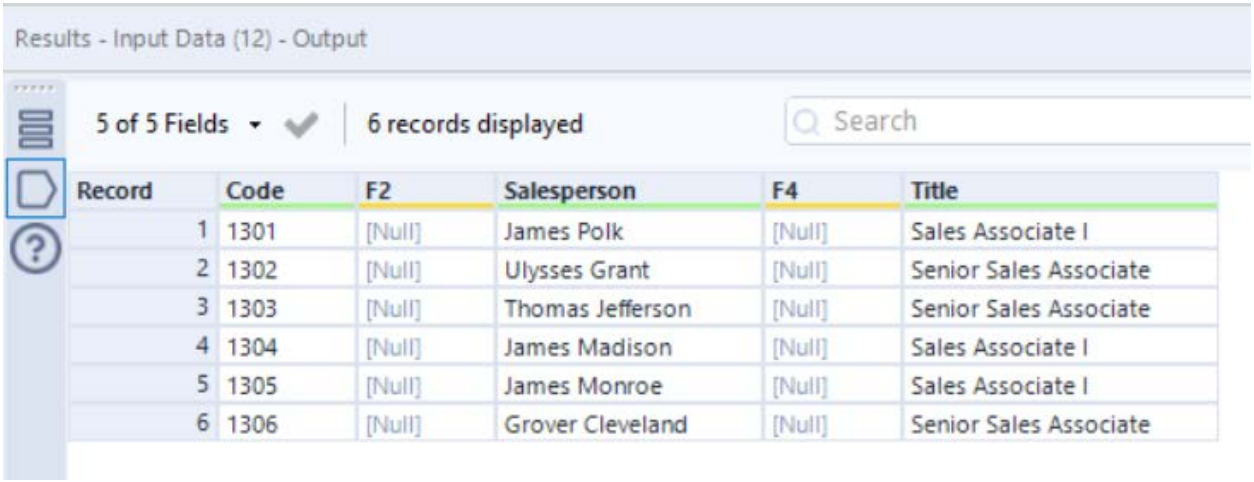


The Results window will display the field headings and the data. Notice that five fields were extracted and that there are six records. The extra columns that contain [Null] must be removed. The last salesperson’s “Code” is 1306.

Tool 7: Select Tool – Remove fields that contain no data, F5 and Unknown

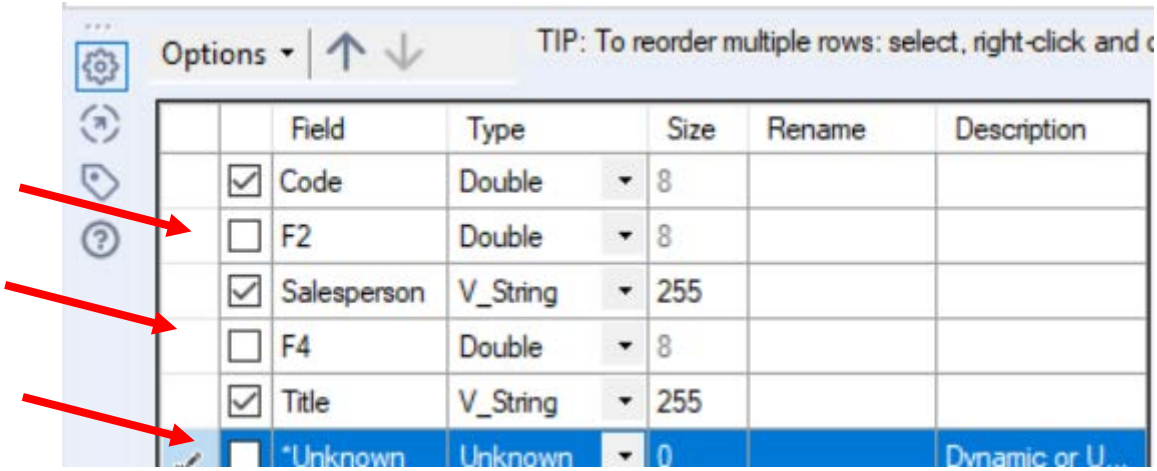
Drag the “**Select Tool**”  from the Tools Palette to the output of the third “**Input Data Tool**” on the Canvas. The two will be connected automatically.



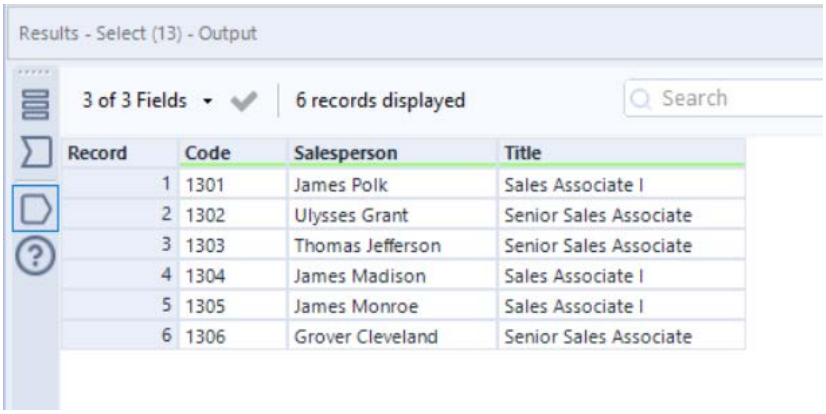


Record	Code	F2	Salesperson	F4	Title
1	1301	[Null]	James Polk	[Null]	Sales Associate I
2	1302	[Null]	Ulysses Grant	[Null]	Senior Sales Associate
3	1303	[Null]	Thomas Jefferson	[Null]	Senior Sales Associate
4	1304	[Null]	James Madison	[Null]	Sales Associate I
5	1305	[Null]	James Monroe	[Null]	Sales Associate I
6	1306	[Null]	Grover Cleveland	[Null]	Senior Sales Associate

Remove the extra fields, F2, F4 and Unknown, by unchecking them in the Configuration area.



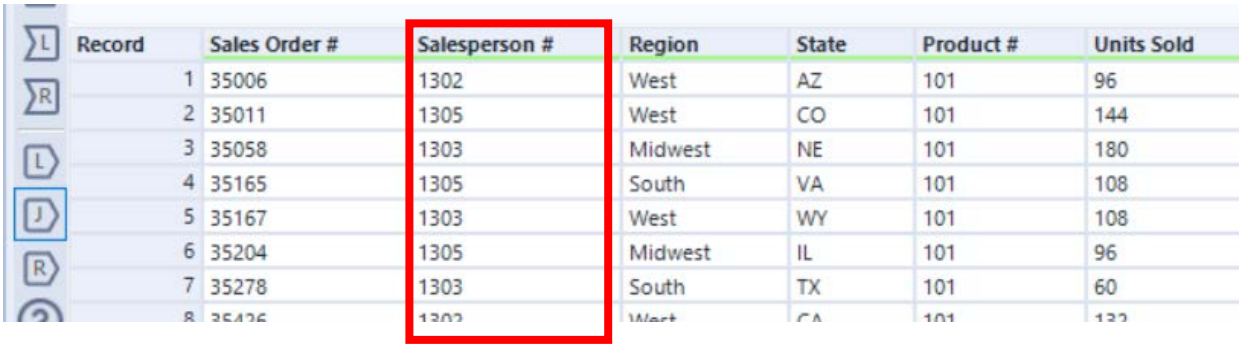
Select “Run”.



Record	Code	Salesperson	Title
1	1301	James Polk	Sales Associate I
2	1302	Ulysses Grant	Senior Sales Associate
3	1303	Thomas Jefferson	Senior Sales Associate
4	1304	James Madison	Sales Associate I
5	1305	James Monroe	Sales Associate I
6	1306	Grover Cleveland	Senior Sales Associate

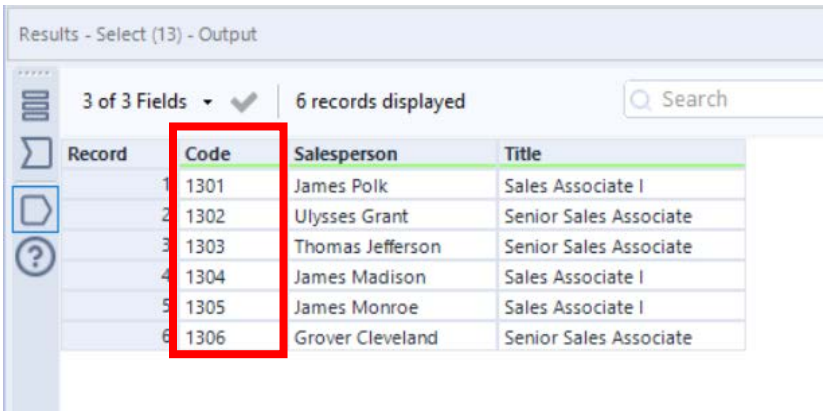
Tool 8: Join Tool – Combine Data From Two Streams On A Common Field

The first stream and second stream, “Sales Data” + “Products”.



Record	Sales Order #	Salesperson #	Region	State	Product #	Units Sold
1	35006	1302	West	AZ	101	96
2	35011	1305	West	CO	101	144
3	35058	1303	Midwest	NE	101	180
4	35165	1305	South	VA	101	108
5	35167	1303	West	WY	101	108
6	35204	1305	Midwest	IL	101	96
7	35278	1303	South	TX	101	60

The Third stream, “Salesperson”.

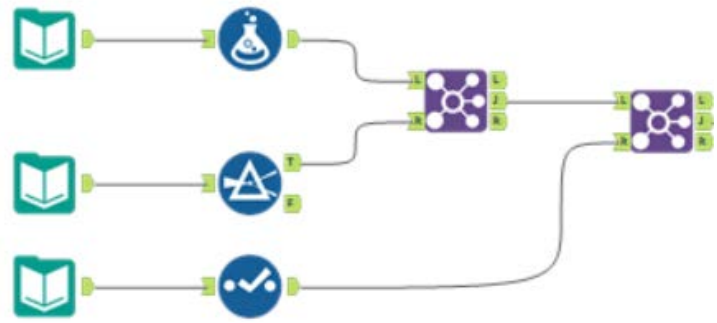


Record	Code	Salesperson	Title
1	1301	James Polk	Sales Associate I
2	1302	Ulysses Grant	Senior Sales Associate
3	1303	Thomas Jefferson	Senior Sales Associate
4	1304	James Madison	Sales Associate I
5	1305	James Monroe	Sales Associate I
6	1306	Grover Cleveland	Senior Sales Associate

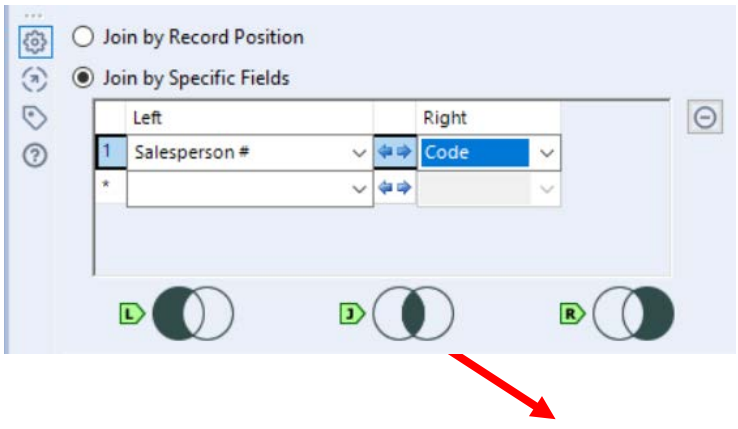
The field “Salesperson #” in the joined first and second stream can be joined, linked, to the “Code” field in the “Salesperson” stream.

Drag the "**Join Tool**"  from the Tools Palette to the right of the first "Join Tool" associated with the first and second data streams. The two will be connected automatically to the L,(Left),inflow of the Join Tool. The outflow from the tool on the left is the inflow to the one on the right.

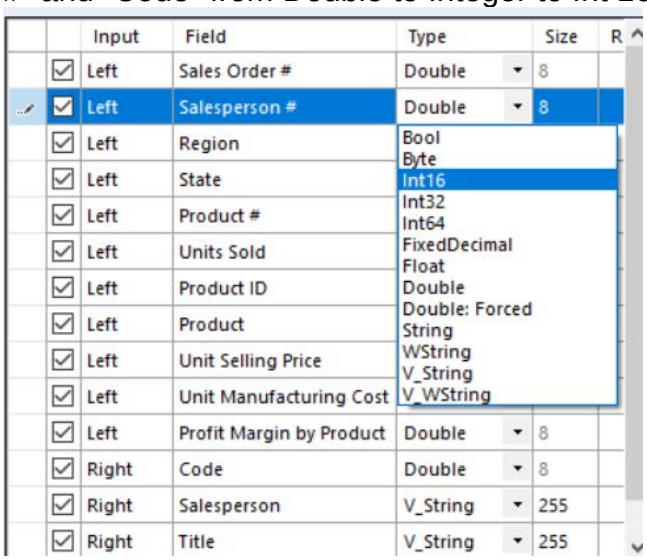
Connect the output of the "Select Tool" from the third data stream to the R,(Right) inflow of the "Join Tool".



With the "**Join Tool**" selected, in the Configuration area select "Salesperson #" on the left and "Code" on the right.



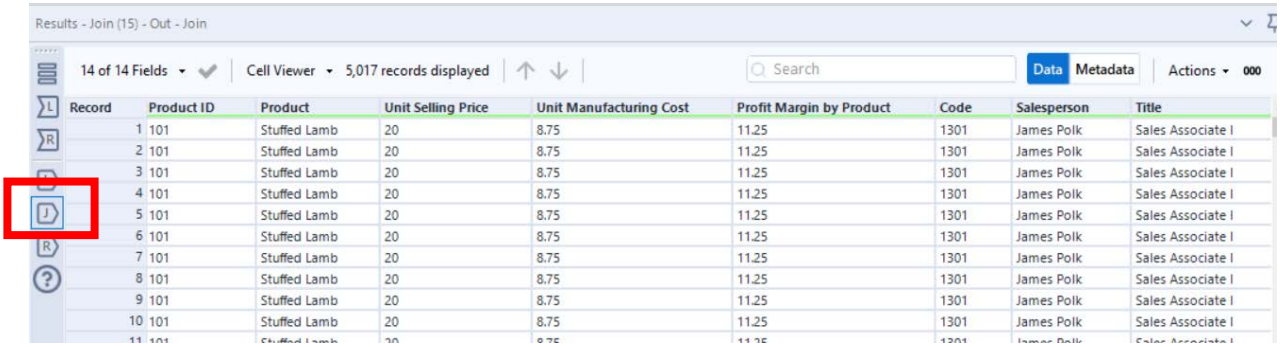
The two fields must be the same type and the same size. Remebber that Join should not use fields defined as “Double” or “Float”. Change the field type of the “Salesperson #” and “Code” from Double to Integer to Int 16.



Select Run to apply.

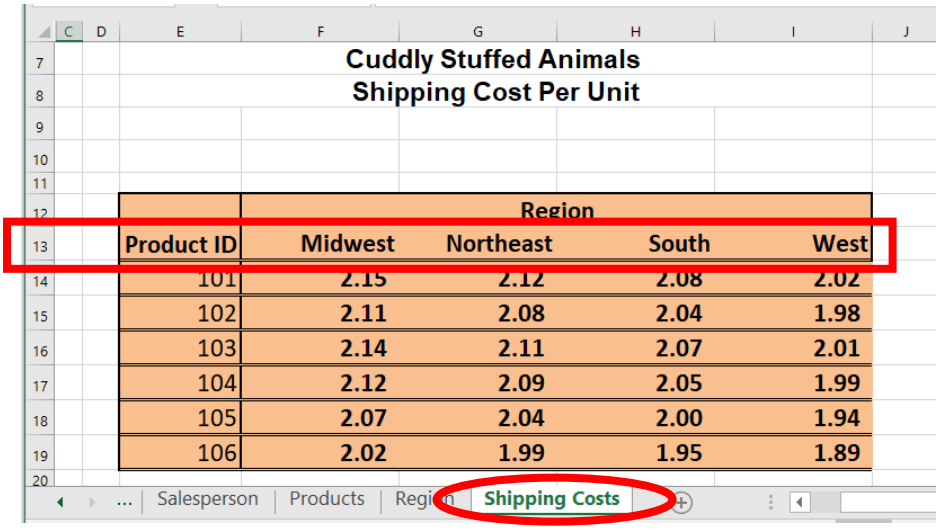
In the result area, select J, Join, and review the output.

There are now 14 fields and all 5,017 rows we joined.



Record	Product ID	Product	Unit Selling Price	Unit Manufacturing Cost	Profit Margin by Product	Code	Salesperson	Title
1	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I
2	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I
3	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I
4	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I
5	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I
6	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I
7	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I
8	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I
9	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I
10	101	Stuffed Lamb	20	8.75	11.25	1301	James Polk	Sales Associate I

Requirement 4: Extract the data from the "Shipping Costs" sheet. Review the data, create required fields and join to the previously combined streams. Verify that the number of rows has not changed.



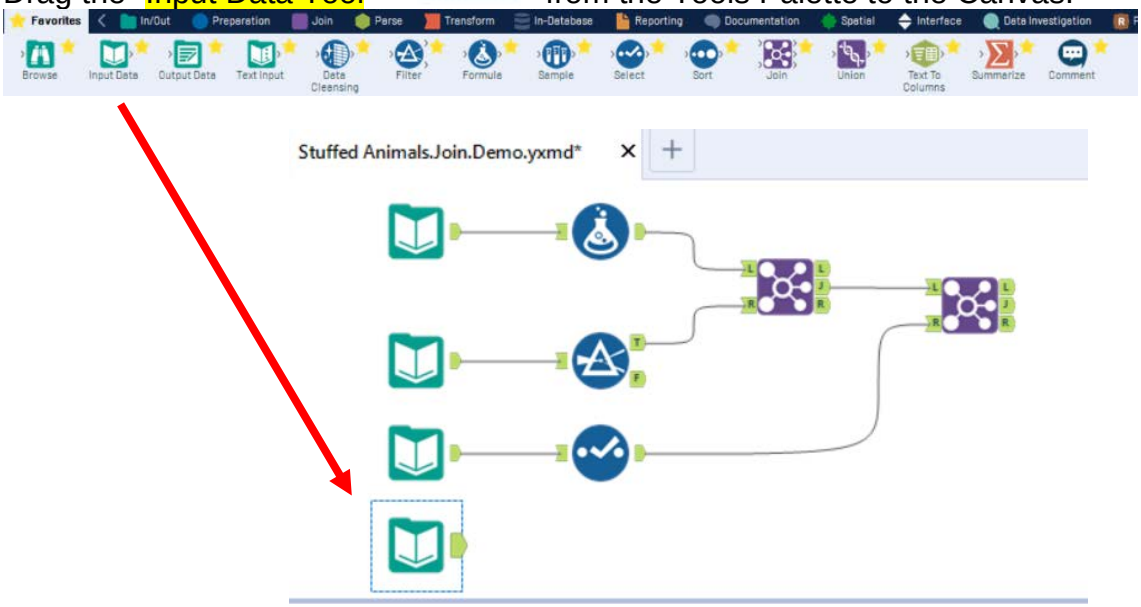
Cuddly Stuffed Animals
Shipping Cost Per Unit

	Region			
Product ID	Midwest	Northeast	South	West
101	2.15	2.12	2.08	2.02
102	2.11	2.08	2.04	1.98
103	2.14	2.11	2.07	2.01
104	2.12	2.09	2.05	1.99
105	2.07	2.04	2.00	1.94
106	2.02	1.99	1.95	1.89

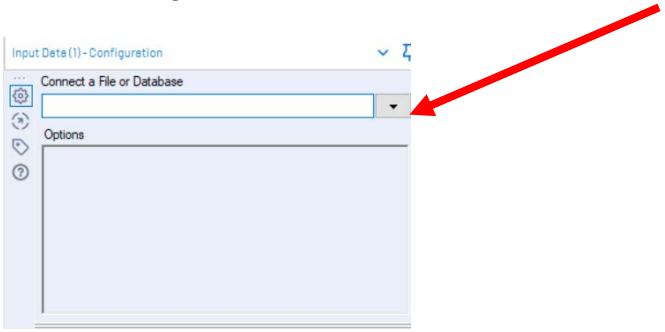
The shipping cost per unit is a function of the region in which the sales was made and the product that was shipped. This information is stored in an Excel sheet titled “Shipping Costs”. Notice that the column headings are in the thirteenth row.

Tool 9: Input Data Tool – Input Excel File

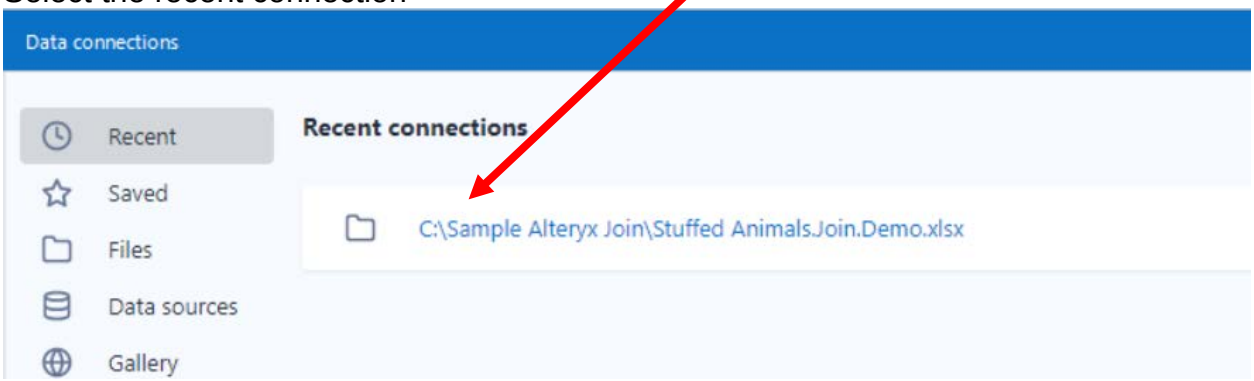
Drag the "Input Data Tool"  from the Tools Palette to the Canvas.



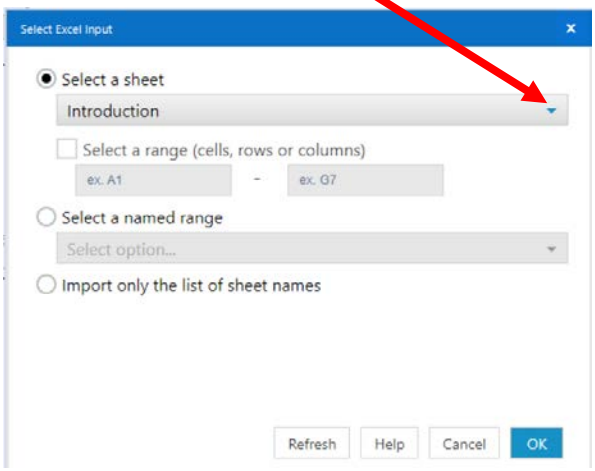
In the Configuration area, select the "Connect a File or Database" drop-down arrow.



Select the recent connection

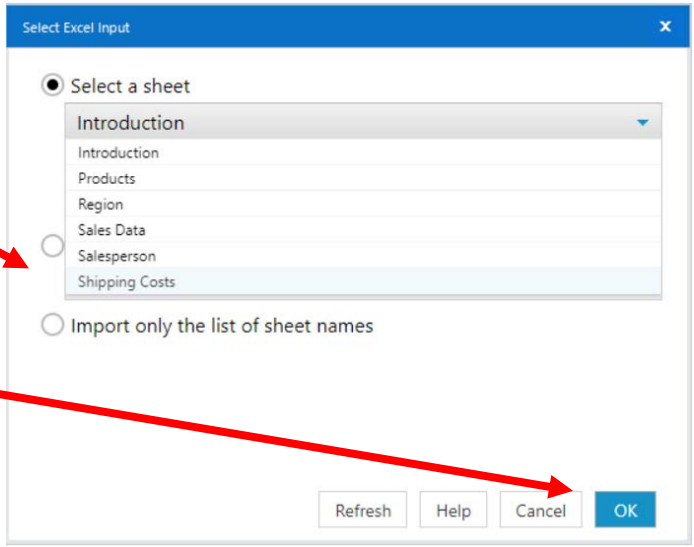


Select the drop-down arrow to the right of “Introduction”.



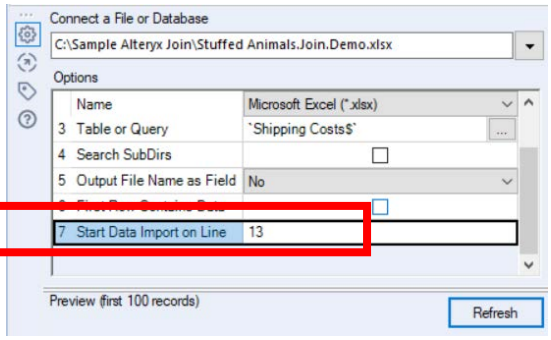
Select “Shipping Costs”.

Select “OK”.

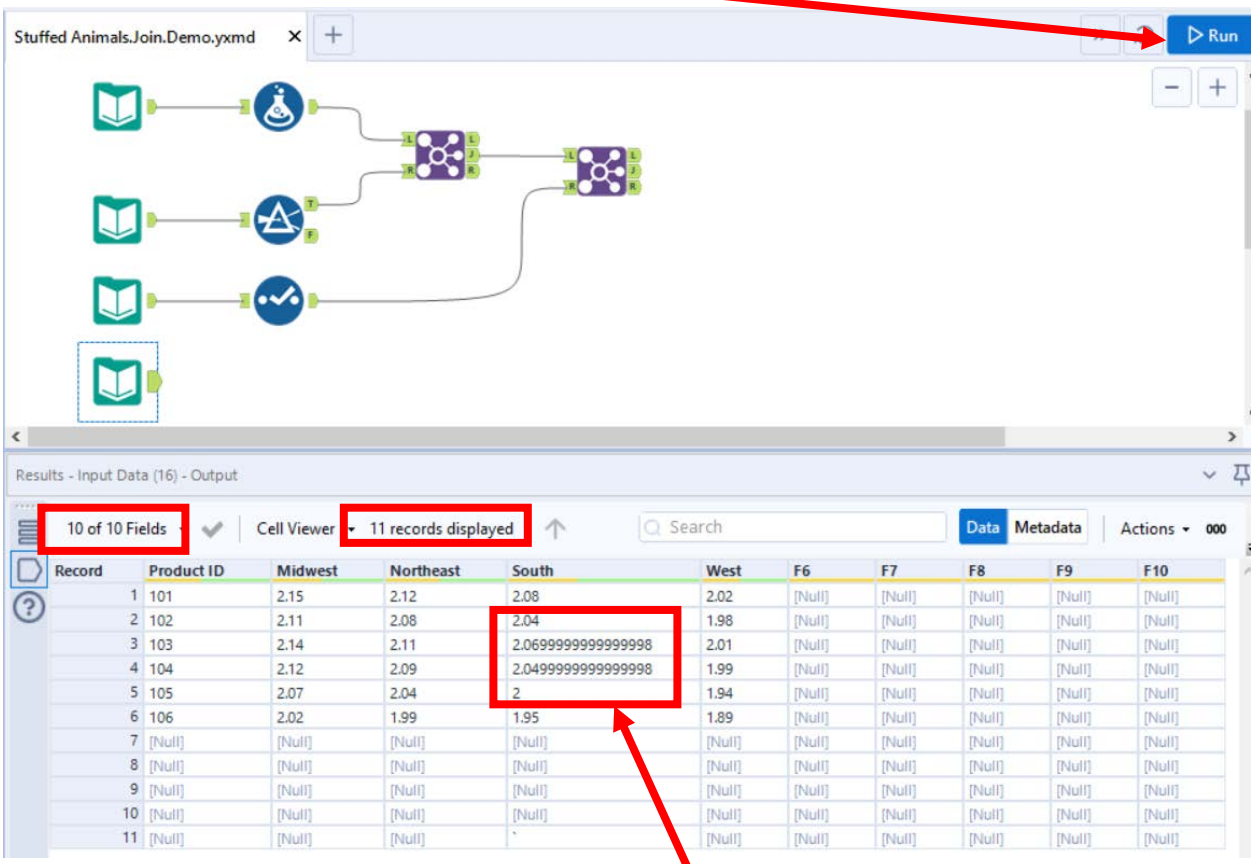


Remember that the field names are in the thirteenth row.

In the Configuration area, change the number in “7 Start Data Import on Line” to “13”.



Select “Run”.



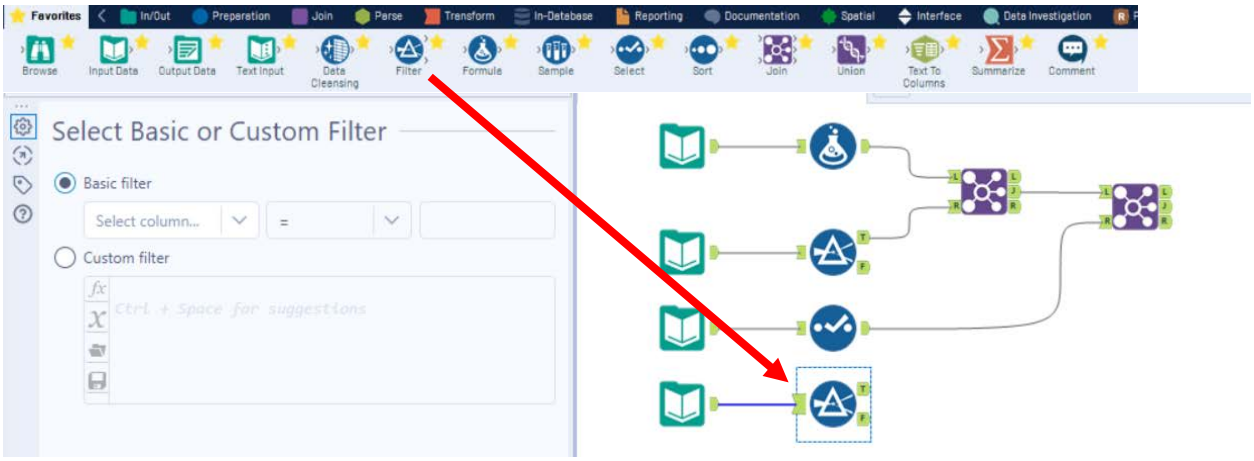
Record	Product ID	Midwest	Northeast	South	West	F6	F7	F8	F9	F10
1	101	2.15	2.12	2.08	2.02	[Null]	[Null]	[Null]	[Null]	[Null]
2	102	2.11	2.08	2.04	1.98	[Null]	[Null]	[Null]	[Null]	[Null]
3	103	2.14	2.11	2.0699999999999998	2.01	[Null]	[Null]	[Null]	[Null]	[Null]
4	104	2.12	2.09	2.0499999999999998	1.99	[Null]	[Null]	[Null]	[Null]	[Null]
5	105	2.07	2.04	2	1.94	[Null]	[Null]	[Null]	[Null]	[Null]
6	106	2.02	1.99	1.95	1.89	[Null]	[Null]	[Null]	[Null]	[Null]
7	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]
8	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]
9	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]
10	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]
11	[Null]	[Null]	[Null]	`	[Null]	[Null]	[Null]	[Null]	[Null]	[Null]

The Results window will display the field headings and the data. Notice that ten fields were extracted and that there are eleven records. The extra rows and columns that contain [Null] must be removed. The last “Product ID” 106.

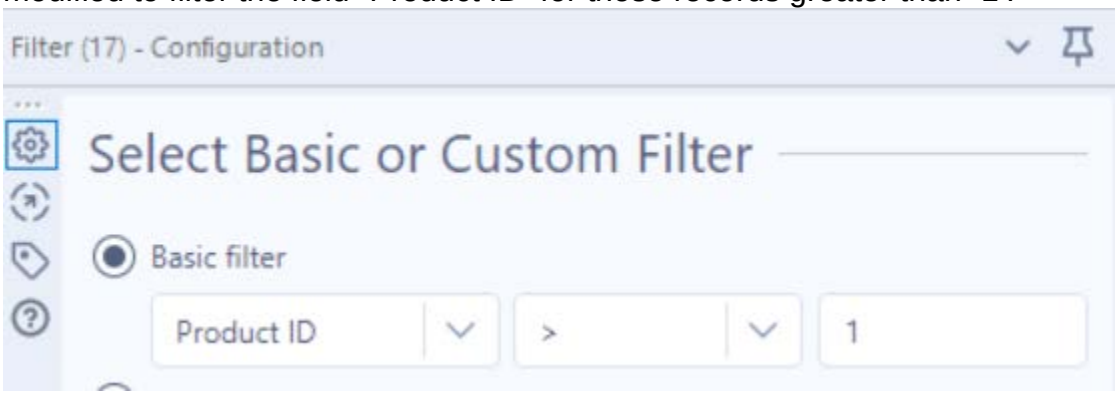
There is something strange about some of the numbers. Numbers that are to be used in arithmetic formulas must be stored as fixed decimals.

Tool 10: Filter Tool – Exclude All Rows That Do Not Contain Data

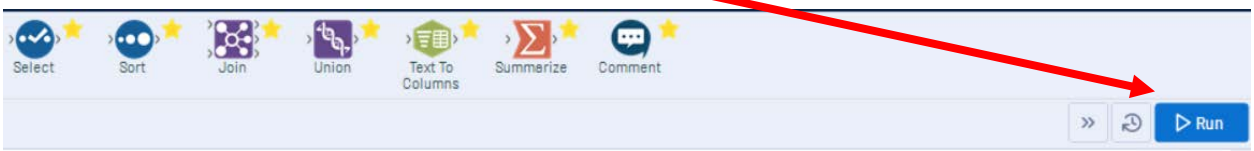
Drag the "**Filter Tool**"  from the Tools Palette to the right of the "Input Data Tool" on the Canvas. The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.

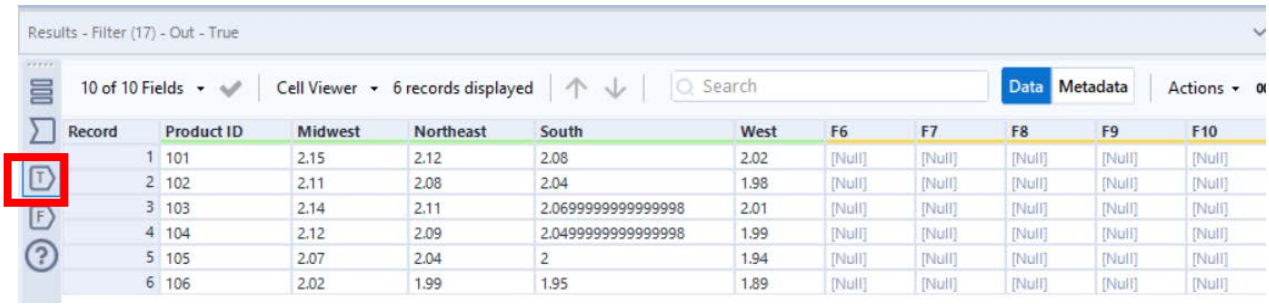


With the "**Filter Tool**" selected, the "Basic" filter in the Configuration area can be modified to filter the field "Product ID" for those records greater than "1'.



To apply the latest change, select "Run".



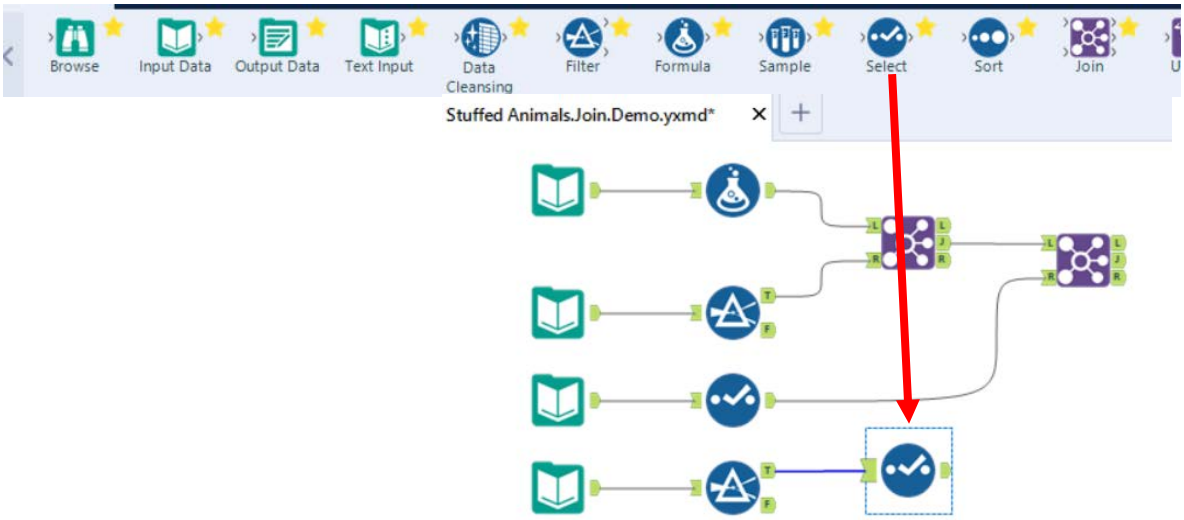


Record	Product ID	Midwest	Northeast	South	West	F6	F7	F8	F9	F10
1	101	2.15	2.12	2.08	2.02	[Null]	[Null]	[Null]	[Null]	[Null]
2	102	2.11	2.08	2.04	1.98	[Null]	[Null]	[Null]	[Null]	[Null]
3	103	2.14	2.11	2.0699999999999998	2.01	[Null]	[Null]	[Null]	[Null]	[Null]
4	104	2.12	2.09	2.0499999999999998	1.99	[Null]	[Null]	[Null]	[Null]	[Null]
5	105	2.07	2.04	2	1.94	[Null]	[Null]	[Null]	[Null]	[Null]
6	106	2.02	1.99	1.95	1.89	[Null]	[Null]	[Null]	[Null]	[Null]

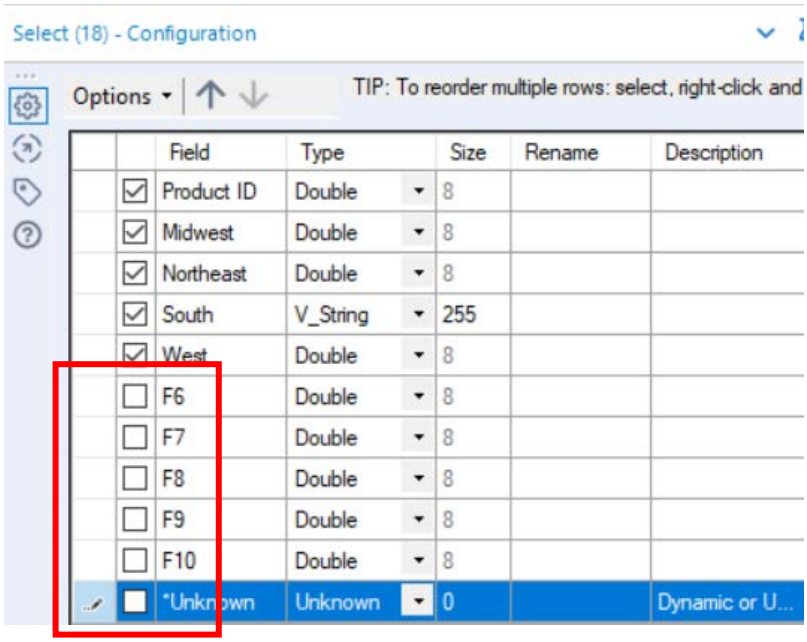
The records that meet the filtered conditions, “Product ID> 1”, are displayed as T (True). There are six records displayed and the last one is 106 for “Product ID”.

Tool 11: Select Tool – Remove fields that contain no data, and change field types

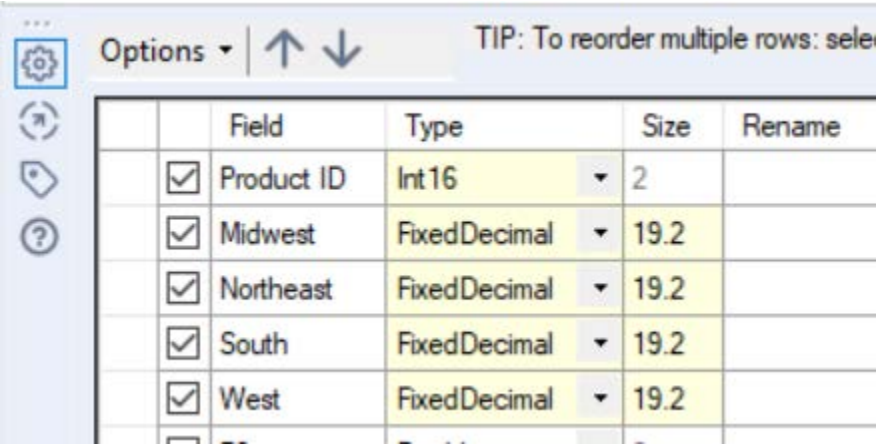
Drag the "**Select Tool**"  from the Tools Palette to the True output of the "**Filter Tool**" on the Canvas. The two will be connected automatically.



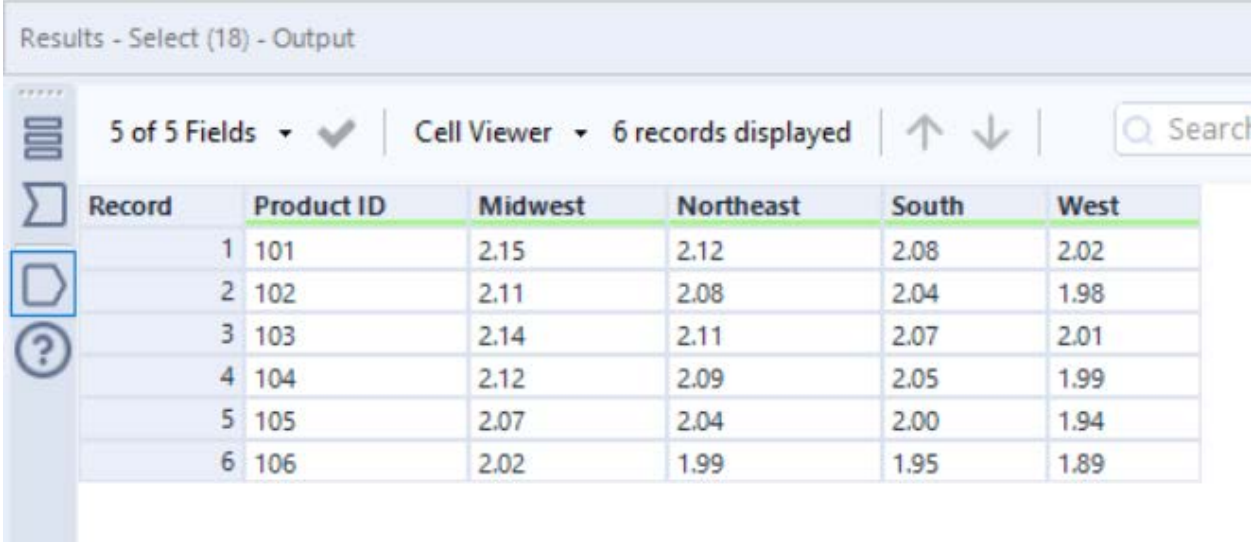
Remove the extra fields, F6:F10 F4 and Unknown, by unchecking them in the Configuration area.



Change “Product ID” to the Type Int16.
Change all the regions to FixedDecimal, 19.2.



Select Run.

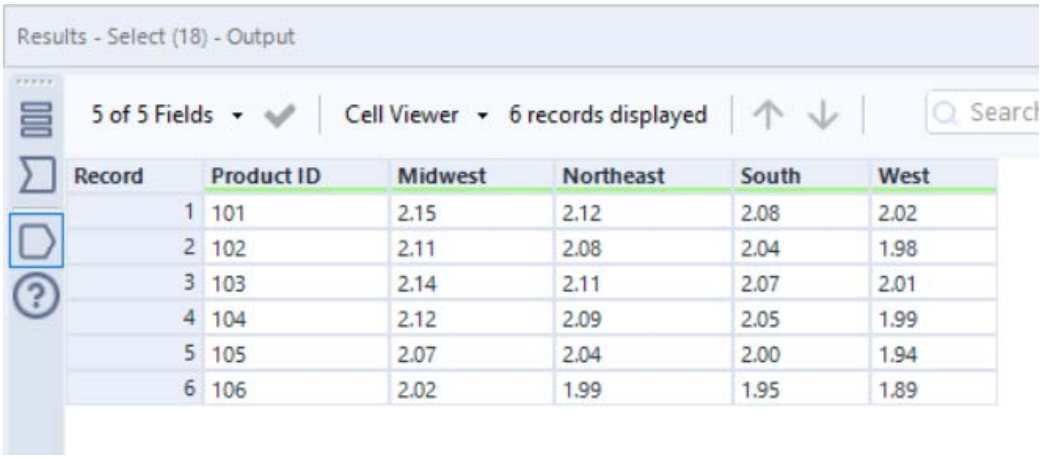


Record	Product ID	Midwest	Northeast	South	West
1	101	2.15	2.12	2.08	2.02
2	102	2.11	2.08	2.04	1.98
3	103	2.14	2.11	2.07	2.01
4	104	2.12	2.09	2.05	1.99
5	105	2.07	2.04	2.00	1.94
6	106	2.02	1.99	1.95	1.89

The “Shipping Costs”, stream must be transformed before combining it with the already combined streams of data. The “Shipping Costs” stream of data must be arranged into a data set with each shipping cost on a separate row.

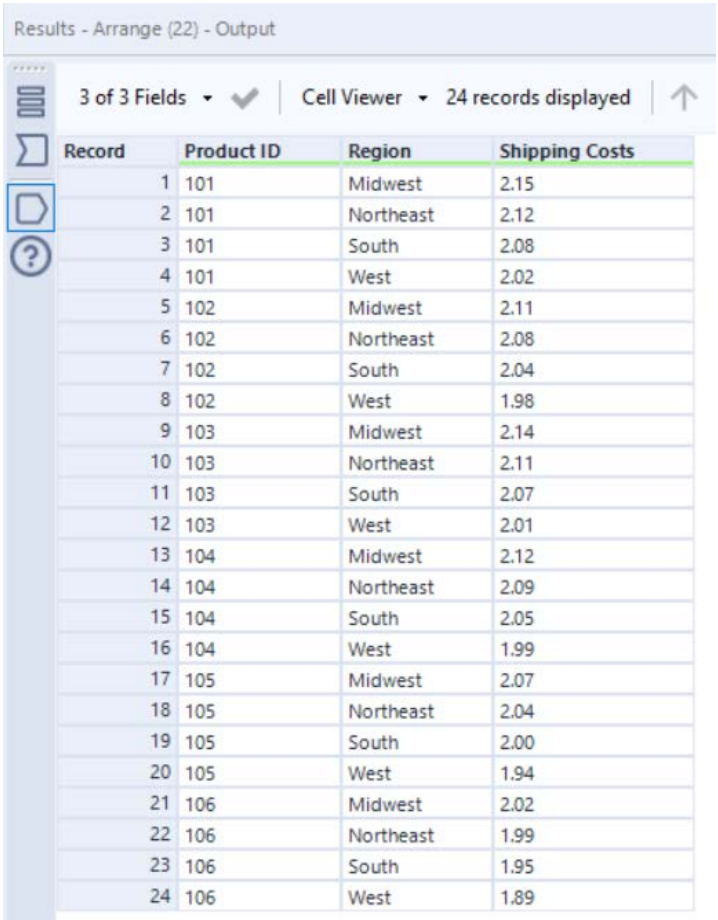
.

The fourth stream before transformation:



Record	Product ID	Midwest	Northeast	South	West
1	101	2.15	2.12	2.08	2.02
2	102	2.11	2.08	2.04	1.98
3	103	2.14	2.11	2.07	2.01
4	104	2.12	2.09	2.05	1.99
5	105	2.07	2.04	2.00	1.94
6	106	2.02	1.99	1.95	1.89

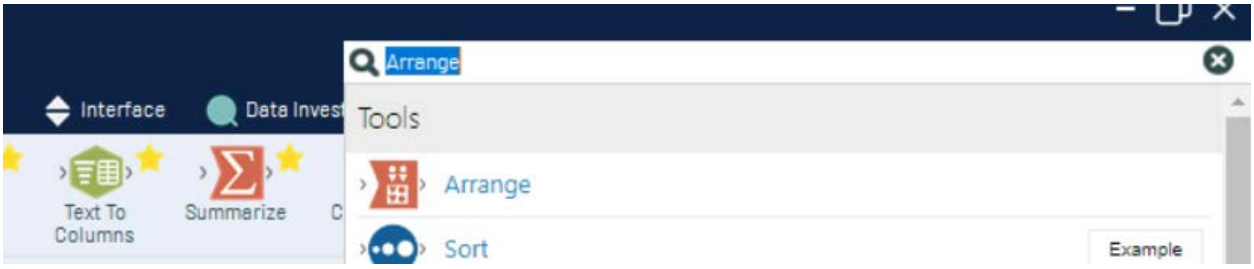
The fourth stream after transformation into a data set with each shipping cost on a separate row:



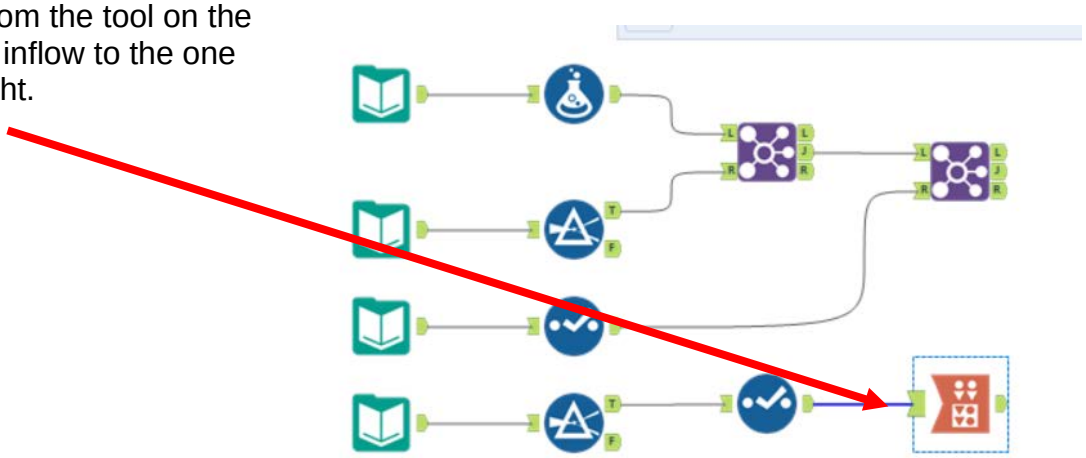
Record	Product ID	Region	Shipping Costs
1	101	Midwest	2.15
2	101	Northeast	2.12
3	101	South	2.08
4	101	West	2.02
5	102	Midwest	2.11
6	102	Northeast	2.08
7	102	South	2.04
8	102	West	1.98
9	103	Midwest	2.14
10	103	Northeast	2.11
11	103	South	2.07
12	103	West	2.01
13	104	Midwest	2.12
14	104	Northeast	2.09
15	104	South	2.05
16	104	West	1.99
17	105	Midwest	2.07
18	105	Northeast	2.04
19	105	South	2.00
20	105	West	1.94
21	106	Midwest	2.02
22	106	Northeast	1.99
23	106	South	1.95
24	106	West	1.89

Tool 12: Arrange Tool – Each Record Is Turned Into Multiple Records

In the "Search for Tools Box" type "Arrange".



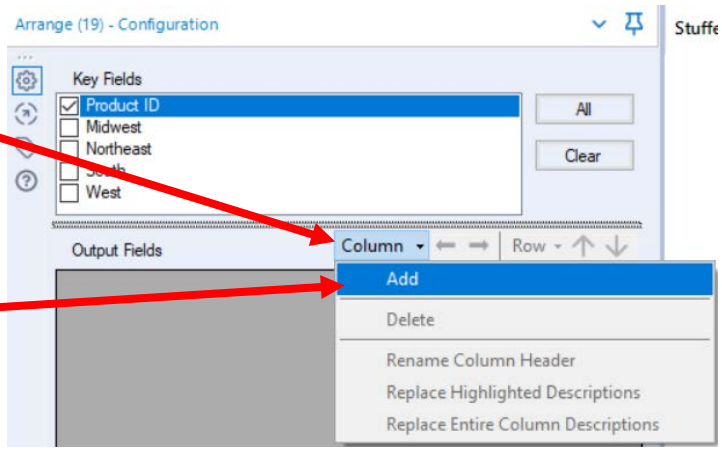
Drag the "**Arrange Tool**" from the Tools Palette to the right of the "Select Tool" from the fourth data streams, on the Canvas. The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.



With the "**Arrange Tool**" selected, in the Configuration Area, under "Key Fields", check Product ID.

Select column.

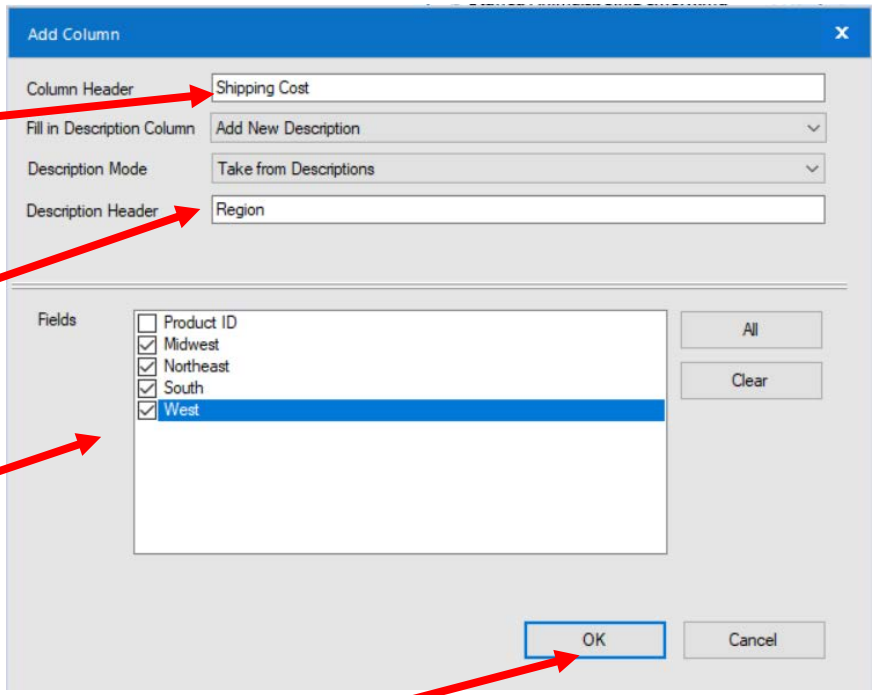
Select Add.



In the "Column Header" type: Shipping Cost

In the "Description Header" type: Region.

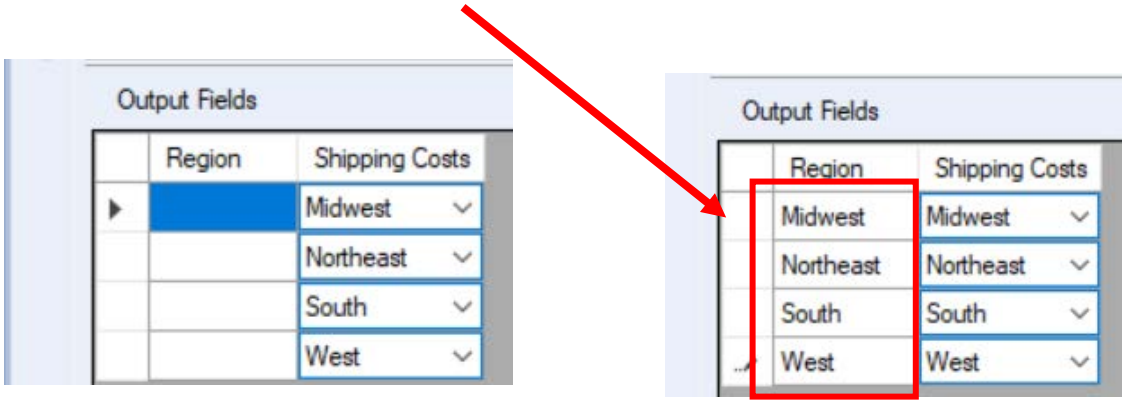
In the "Fields" check: Midwest, Northeast, South and West.



Select "OK".

Select Run to apply.

In the “Output Fields Description” type, Midwest, Northeast, South and West.



Select Run to apply.

Results - Arrange (22) - Output

3 of 3 Fields | Cell Viewer | 24 records displayed

Record	Product ID	Region	Shipping Costs
1	101	Midwest	2.15
2	101	Northeast	2.12
3	101	South	2.08
4	101	West	2.02
5	102	Midwest	2.11
6	102	Northeast	2.08
7	102	South	2.04
8	102	West	1.98
9	103	Midwest	2.14
10	103	Northeast	2.11
11	103	South	2.07
12	103	West	2.01
13	104	Midwest	2.12
14	104	Northeast	2.09
15	104	South	2.05
16	104	West	1.99
17	105	Midwest	2.07
18	105	Northeast	2.04
19	105	South	2.00
20	105	West	1.94
21	106	Midwest	2.02
22	106	Northeast	1.99
23	106	South	1.95
24	106	West	1.89

Compare to original data.

Results - Select (18) - Output

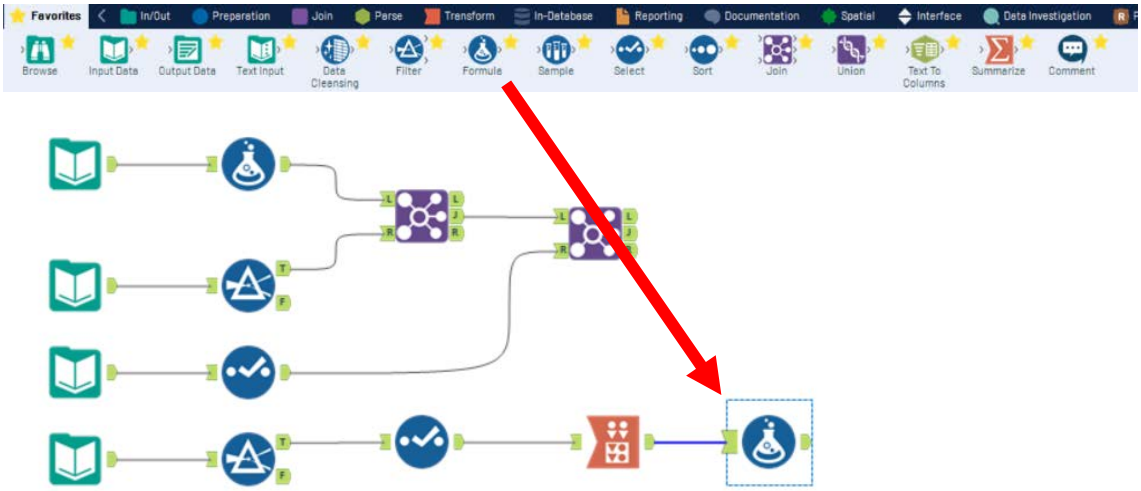
5 of 5 Fields | Cell Viewer | 6 records displayed

Record	Product ID	Midwest	Northeast	South	West
1	101	2.15	2.12	2.08	2.02
2	102	2.11	2.08	2.04	1.98
3	103	2.14	2.11	2.07	2.01
4	104	2.12	2.09	2.05	1.99
5	105	2.07	2.04	2.00	1.94
6	106	2.02	1.99	1.95	1.89

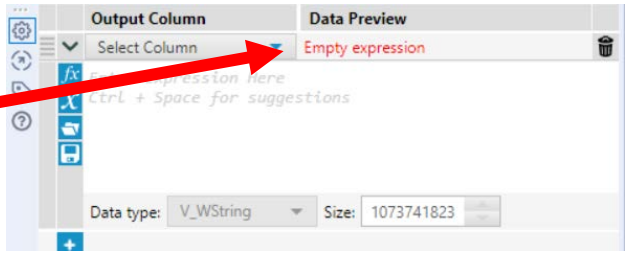
To combine two streams in a one-to-many relationship there must be one field that is unique for each row of the data. That unique field is referred to as the primary key. The primary field will be created by combining the "Product ID" field with a "." and the "Region" field. The primary key for the first record will be "1301.East".

Tool 13: Formula Tool - Create A Primary Key Field

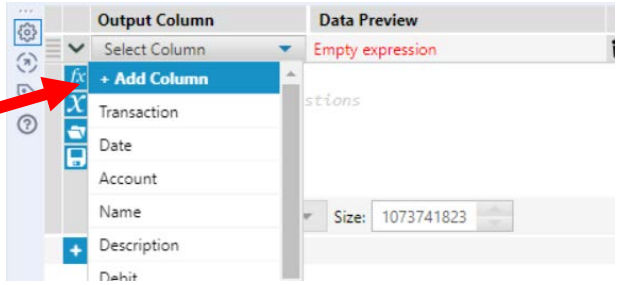
Drag a "**Formula Tool**"  from the Tools Palette to the output of the "**Arrange Tool**" on the fourth stream. The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.



In the output Configuration area, click on the drop-down arrow of "Select Column".

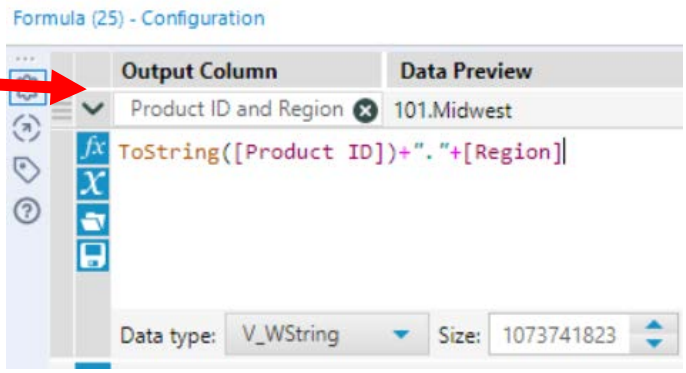


Select "Add Column".



Type “Product ID and Region”.

Type the following formula
ToString([Product ID])+"."+[Region]



Select “Run”.

Results - Formula (25) - Output

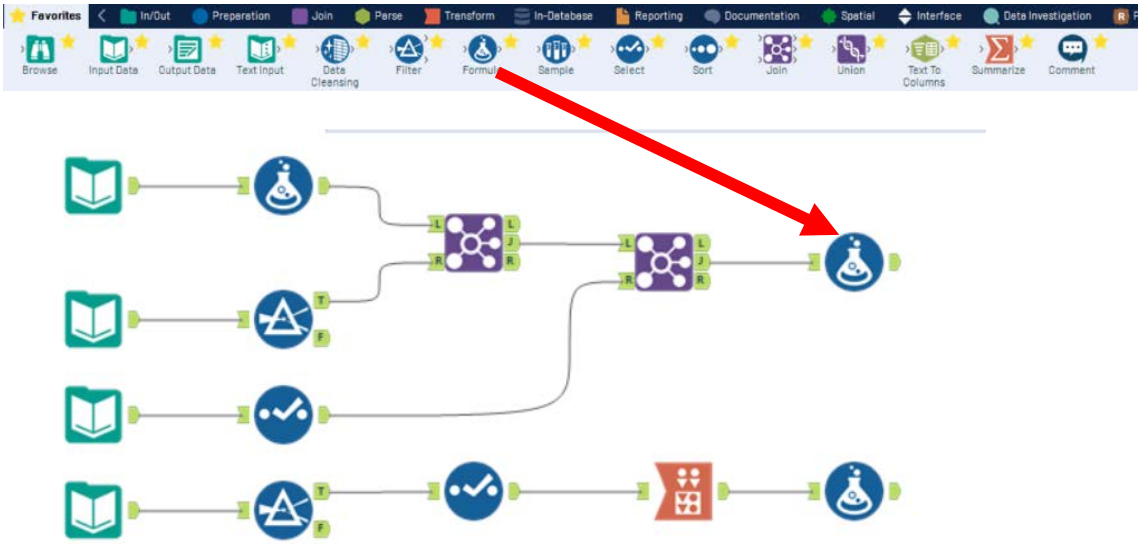
4 of 4 Fields | Cell Viewer | 24 records displayed

Record	Product ID	Region	Shipping Costs	Product ID and Region
1	101	Midwest	2.15	101.Midwest
2	101	Northeast	2.12	101.Northeast
3	101	South	2.08	101.South
4	101	West	2.02	101.West
5	102	Midwest	2.11	102.Midwest
6	102	Northeast	2.08	102.Northeast
7	102	South	2.04	102.South
8	102	West	1.98	102.West
9	103	Midwest	2.14	103.Midwest
10	103	Northeast	2.11	103.Northeast
11	103	South	2.07	103.South
12	103	West	2.01	103.West
13	104	Midwest	2.12	104.Midwest
14	104	Northeast	2.09	104.Northeast
15	104	South	2.05	104.South
16	104	West	1.99	104.West
17	105	Midwest	2.07	105.Midwest
18	105	Northeast	2.04	105.Northeast
19	105	South	2.00	105.South
20	105	West	1.94	105.West
21	106	Midwest	2.02	106.Midwest
22	106	Northeast	1.99	106.Northeast
23	106	South	1.95	106.South
24	106	West	1.89	106.West

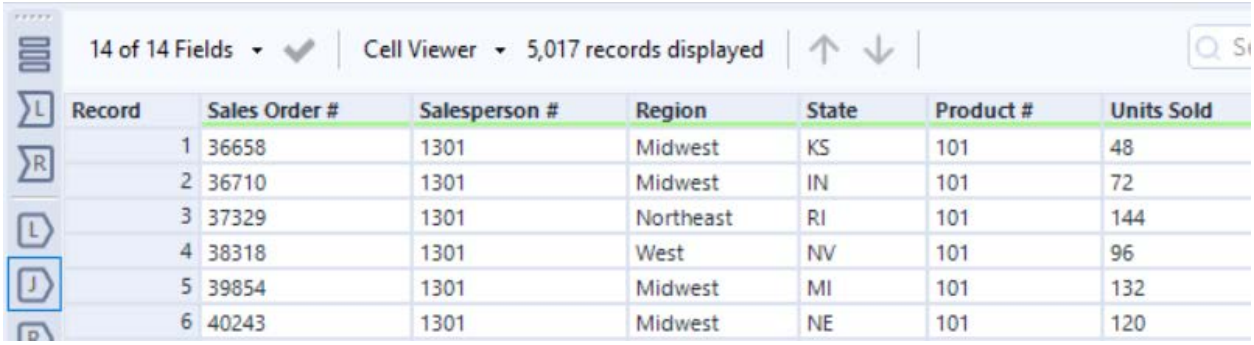
Now add the "SPID and Region" field to the combined first, second and third stream of data. The field is referred to as a foreign key. It will permit us to link to the data in the third stream.

Tool 14: Formula Tool - Create A Foreign Key Field

Drag a "**Formula Tool**"  from the Tools Palette to the J, Join, output of the second "**Join Tool**". The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.



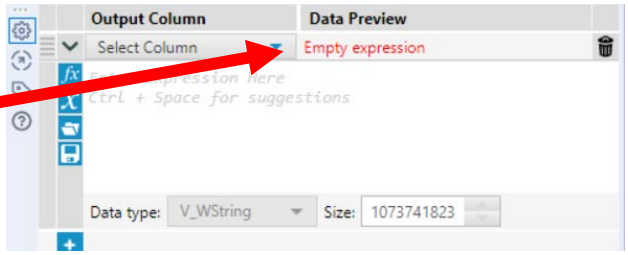
This is the layout of the combined stream 1, stream 2 and stream 3.



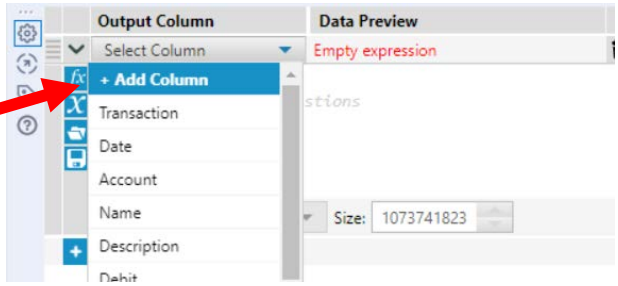
14 of 14 Fields | Cell Viewer | 5,017 records displayed

Record	Sales Order #	Salesperson #	Region	State	Product #	Units Sold
1	36658	1301	Midwest	KS	101	48
2	36710	1301	Midwest	IN	101	72
3	37329	1301	Northeast	RI	101	144
4	38318	1301	West	NV	101	96
5	39854	1301	Midwest	MI	101	132
6	40243	1301	Midwest	NE	101	120

In the output Configuration area, click on the drop-down arrow of “Select Column”.

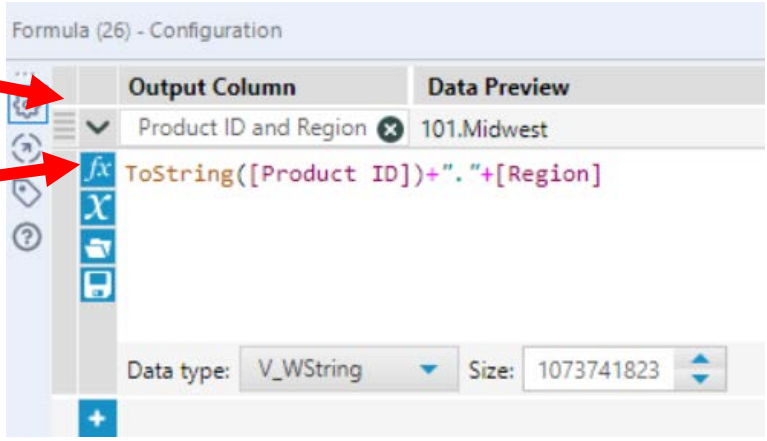


Select “Add Column”.

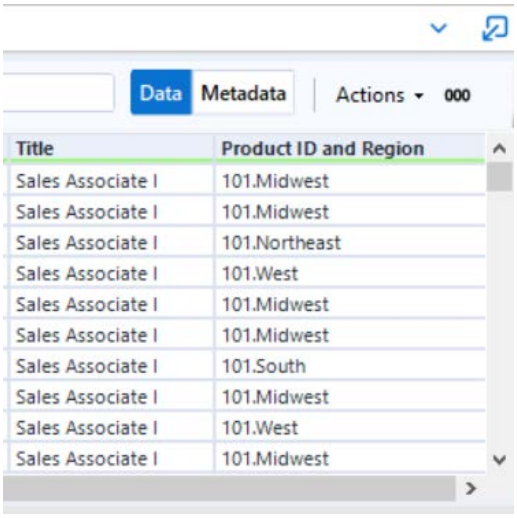


Type “Product ID and Region”.

Type the following formula
ToString([Product ID])+"."+[Region]

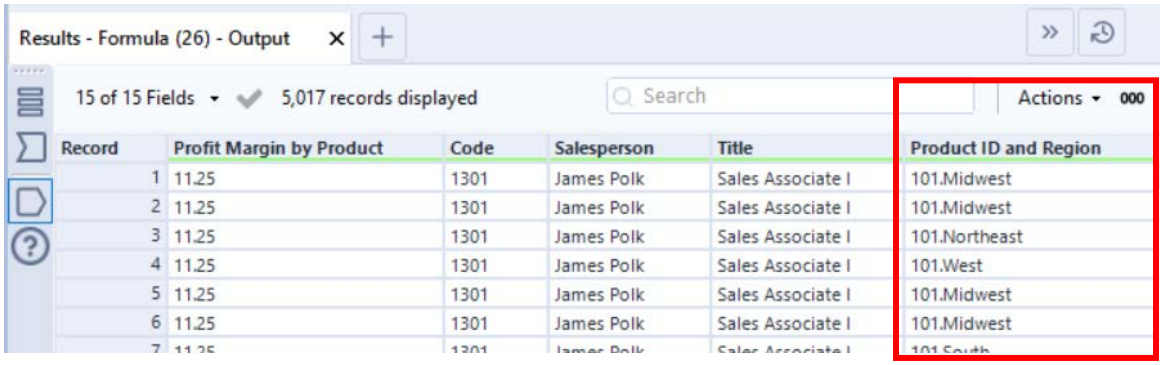


Select “Run” to apply.



Tool 15: Join Tool - Combine First, Second and Third Stream Of Data To The Fourth Stream Of Data

The combined first, second and third stream of data:



Record	Profit Margin by Product	Code	Salesperson	Title	Product ID and Region
1	11.25	1301	James Polk	Sales Associate I	101.Midwest
2	11.25	1301	James Polk	Sales Associate I	101.Midwest
3	11.25	1301	James Polk	Sales Associate I	101.Northeast
4	11.25	1301	James Polk	Sales Associate I	101.West
5	11.25	1301	James Polk	Sales Associate I	101.Midwest
6	11.25	1301	James Polk	Sales Associate I	101.Midwest

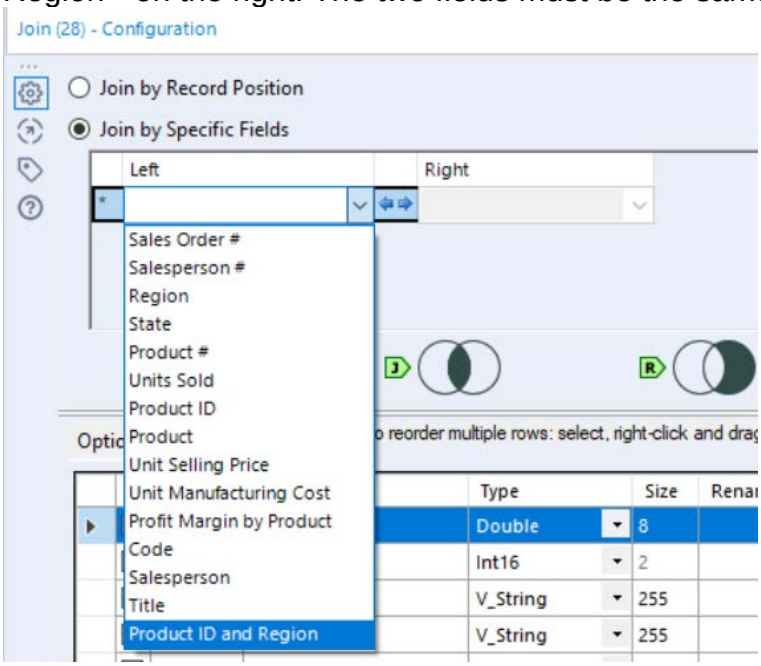
The fourth stream of data:

Record	Product ID	Region	Shipping Costs	Product ID and Region
1	101	Midwest	2.15	101.Midwest
2	101	Northeast	2.12	101.Northeast
3	101	South	2.08	101.South
4	101	West	2.02	101.West
5	102	Midwest	2.11	102.Midwest
6	102	Northeast	2.08	102.Northeast

Drag from the right of the "Formula Tool" in the first three data streams to the L (Left) inflow of the "**Join Tool**".

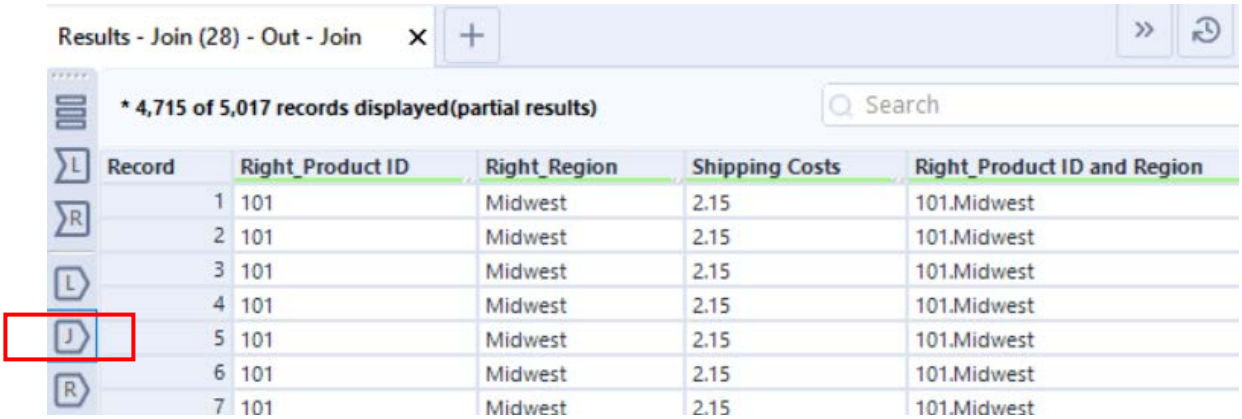
Drag from the output of the "Formula Tool" in the fourth data stream to the R (Right) inflow of the "Join Tool".

With the "**Join Tool**" selected, in the Configuration area, from the drop-down choose "Product ID and Region" on the left. and if it does not self-populate, "Product ID and Region"" on the right. The two fields must be the same type.

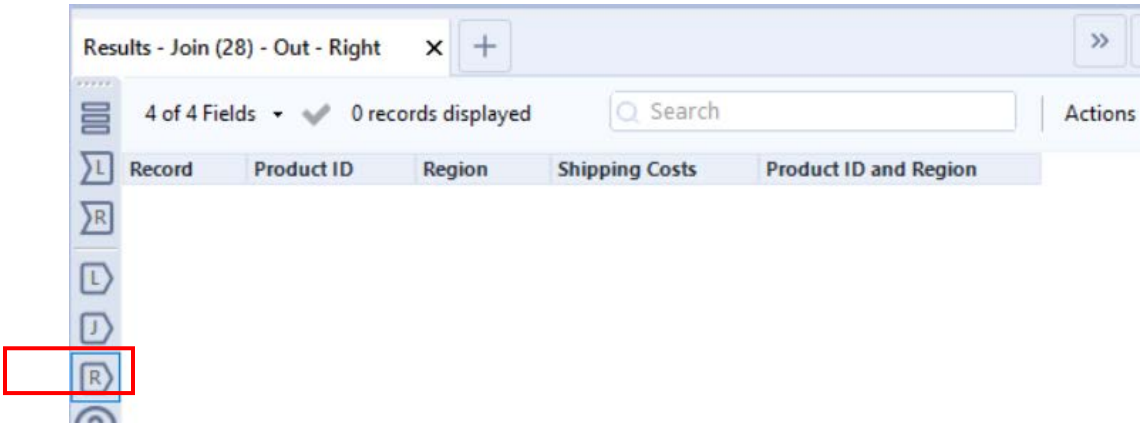


Select Run to apply. If necessary, select the J of the Join output and select Run.

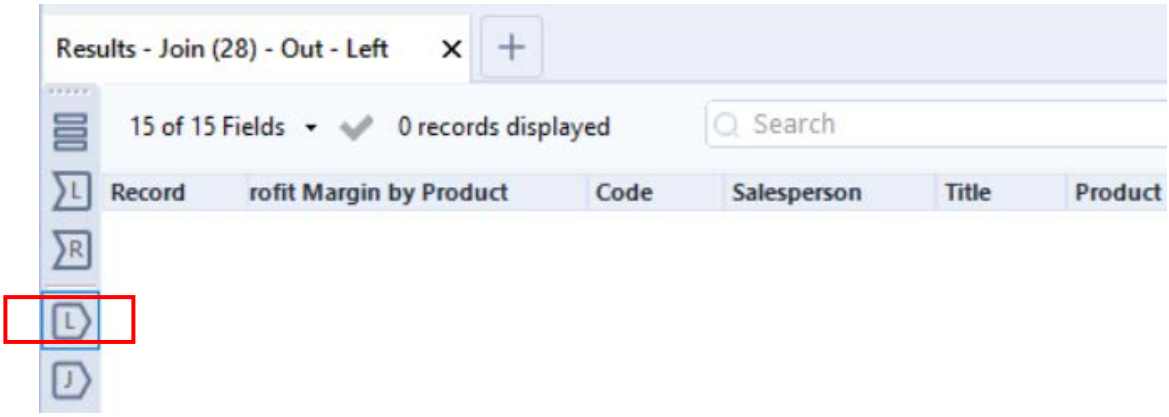
In the result area select J, Join, and review the output.

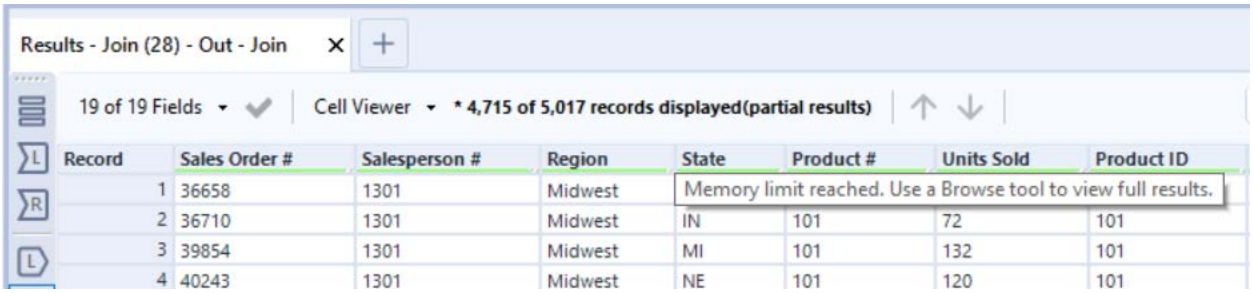


In the result area select R, Right, stream and verify that there are no shipping costs that were not used in any sales invoice.



In the result area select L, Left, stream and verify that there are no sales invoices without a shipping cost. If the region was spelled incorrectly it would not have been joined and would appear as a Left stream error.





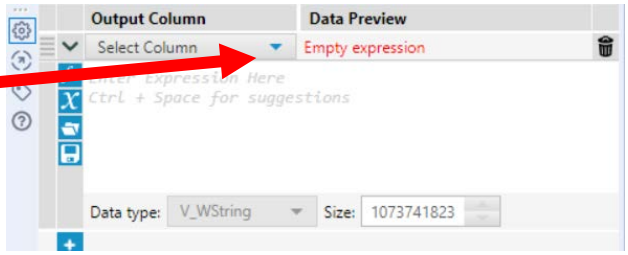
The 5,017 records have been joined but not displayed because of a memory limit.

Requirement 5: Create fields to calculate sales in dollars and the shipping cost for each invoice.

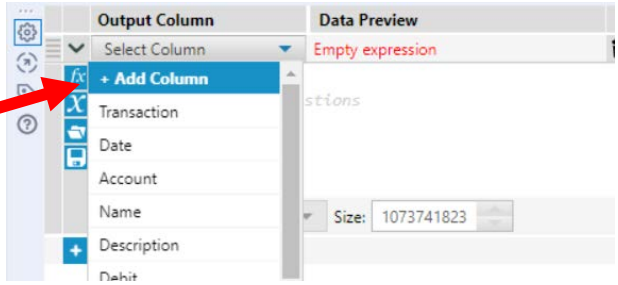
Tool 16: Formula Tool: Calculate The Sales in Dollars for Every Sales Order

Drag a "**Formula Tool**" from the Tools Palette to the output of the Join output of the last "**Join Tool**". The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.

In the output Configuration area, click on the drop-down arrow of "Select Column".



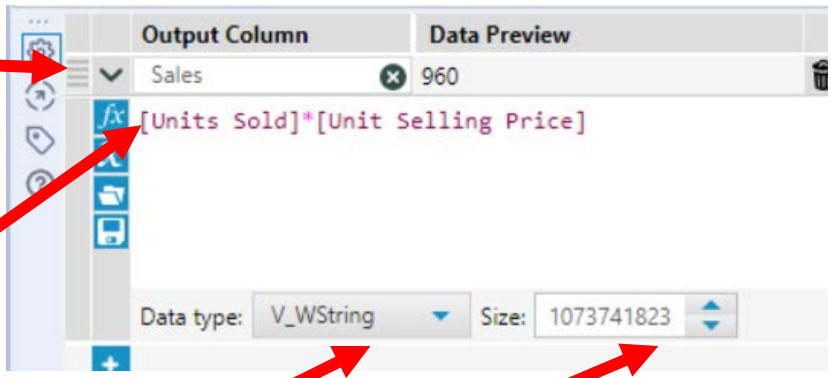
Select "Add Column".



Type “Sales”

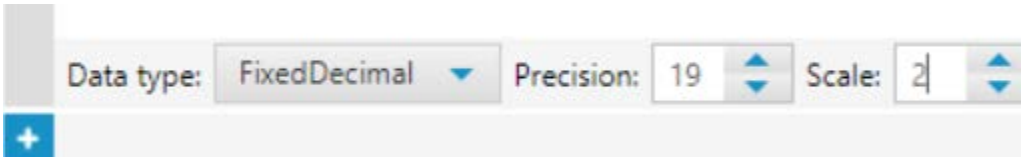
Type the following formula:

[Sales]*[Unit Selling Price]



Change the “Data type:” to FixedDecimal.

Change the Scale (number of decimal places) to two.



Select “Run” to apply.
Check the math:
Record 1: 48 x 20 = 960.00
Record 2: 72 x 20 = 1,440.00

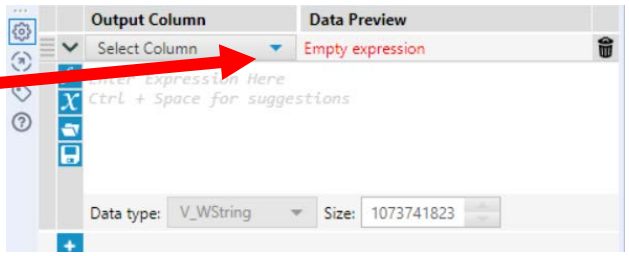
Record	Units Sold	Product ID	Product	Unit Selling Price
1	48	101	Stuffed Lamb	20
2	72	101	Stuffed Lamb	20

Record	and Region	Sales
1		960.00
2		1440.00

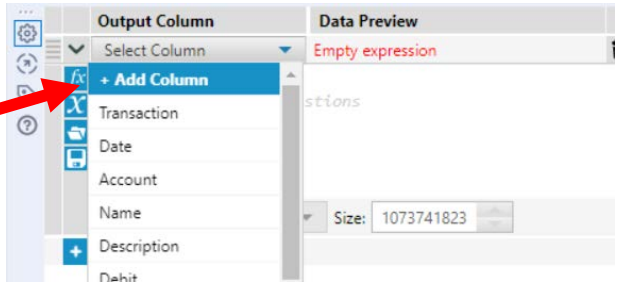
Tool 17: Formula Tool: Calculate The Shipping Cost in Dollars for Every Sales Order

Drag a "**Formula Tool**" from the Tools Palette to the output of the "**Formula Tool**" that was previously created. The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.

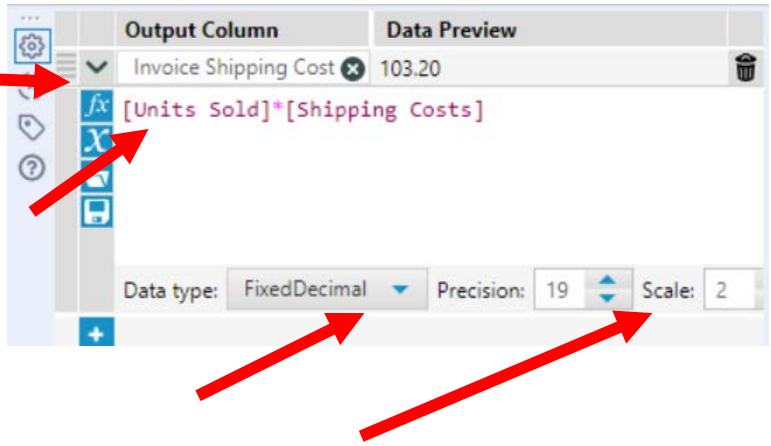
In the output Configuration area, click on the drop-down arrow of "Select Column".



Select "Add Column".



Type “Invoice Shipping Cost”

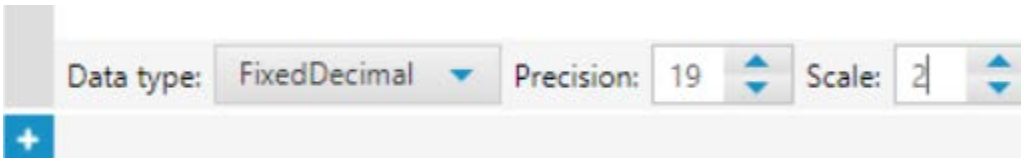


Type the following formula:

[Units Sold]*[Shipping Cost]

Change the “Data type:” to FixedDecimal.

Change the Scale (number of decimal places) to two.



Select “Run” to apply.
Check the math:
Record 1: 48 x 2.15 = 103.20
Record 2: 72 x 2.15 = 154.80

Record	Units Sold
1	48
2	72

	Shipping Costs
1	2.15
2	2.15

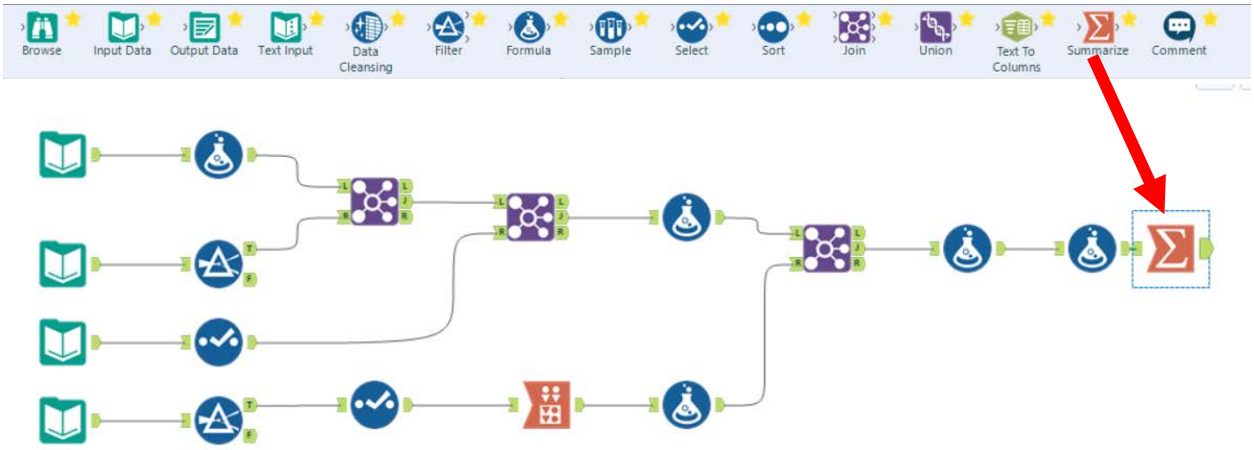
Record	Invoice Shipping Cost
1	103.20
2	154.80

Requirement 6: Create a report that show the number of units sold and sales by product.

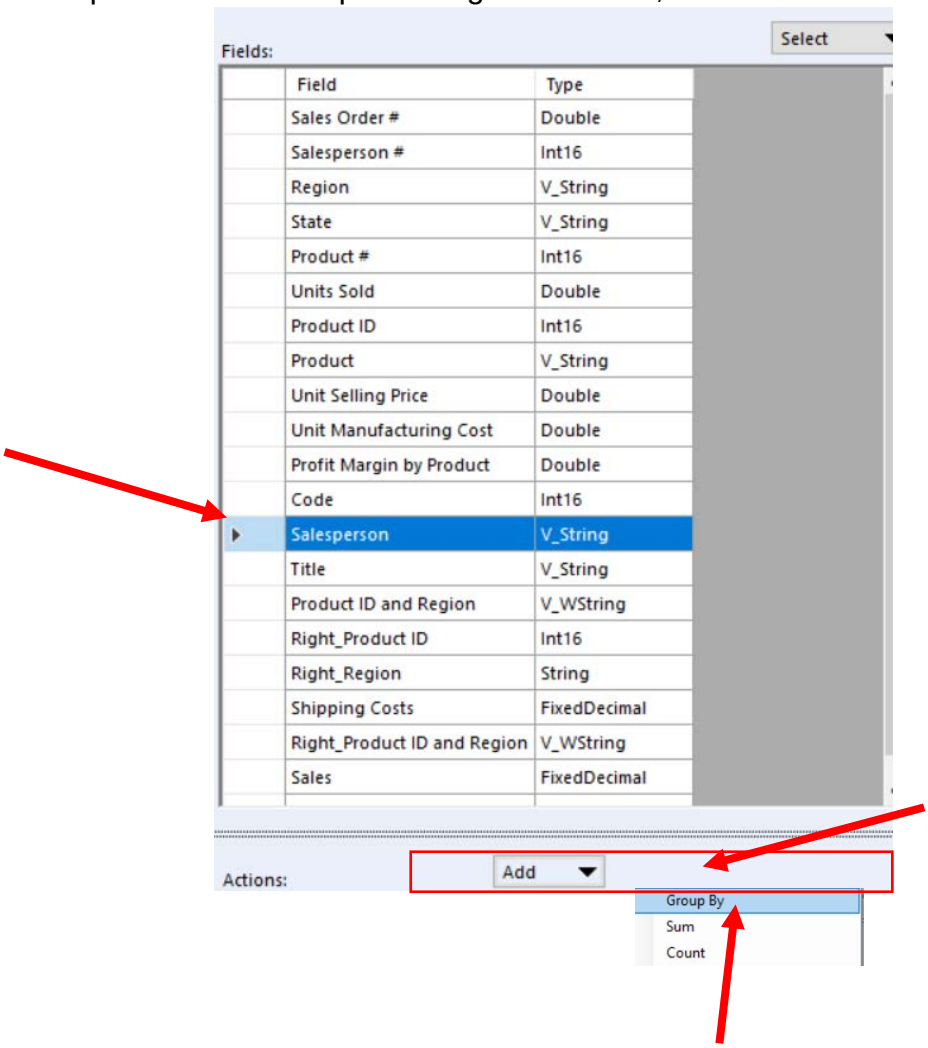
Tool 18: Select Tool Summary: We now want to create a report by salesperson.

By Salesperson			
Salesperson	# of units	Sales	Shipping Costs
Ulysses Grant	36,636	$818,052.00	$77,266.44
George Washington	58,284	$1,299,192.00	$123,242.28
James Monroe	97,152	$2,162,436.00	$205,622.64
John Tyler	78,924	$1,751,352.00	$166,596.00
James Madison	38,388	$854,412.00	$81,105.24
James Polk	77,484	$1,723,956.00	$163,717.08
Total	386,868	$8,609,400.00	$817,549.68

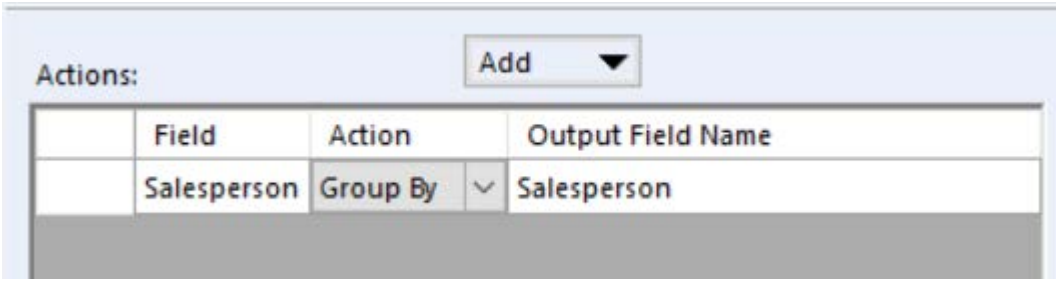
Drag a "**Summary Tool**" to the right of the "**Formula tool**" on the Canvas. The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.



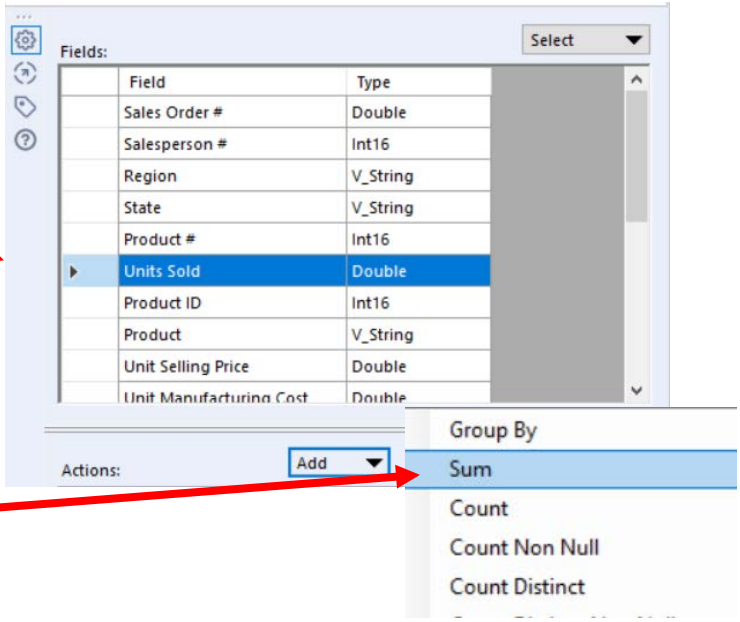
The first column will be Salesperson. In the output Configuration area, select "Salesperson".



Click on the drop-down arrow on "Add" in "Actions" and select "Group By".

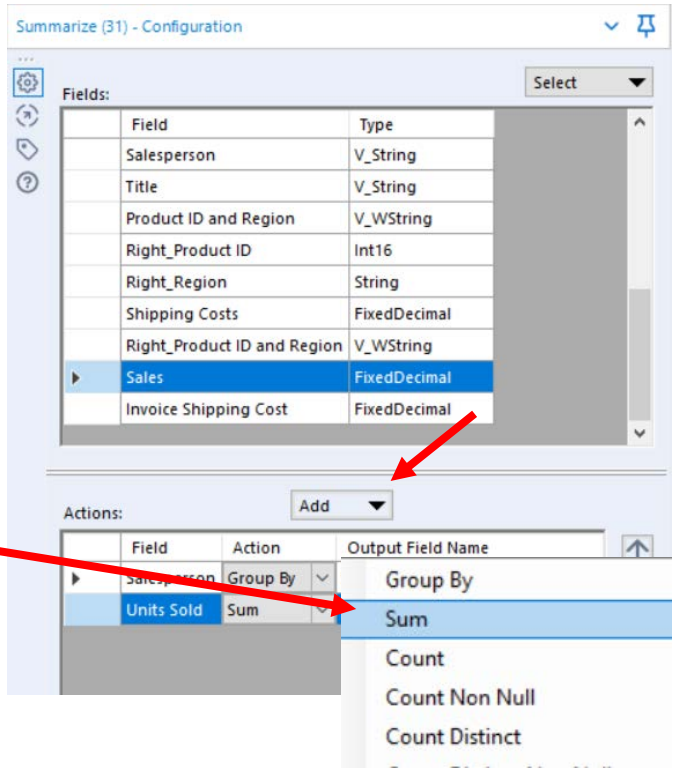


The second column will be “Units Sold”.



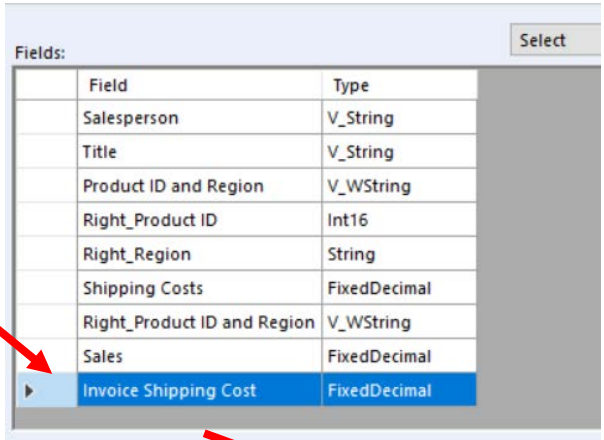
Click on the drop-down arrow on ”Add” in the “Actions” and select “Sum”.

The third column will be “Sales”.

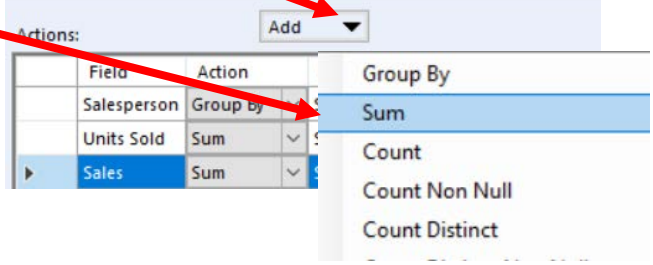


Click on the drop-down arrow on ”Add” in the “Actions” and select “Sum”.

The fourth column will be “Invoice Shipping Cost”.

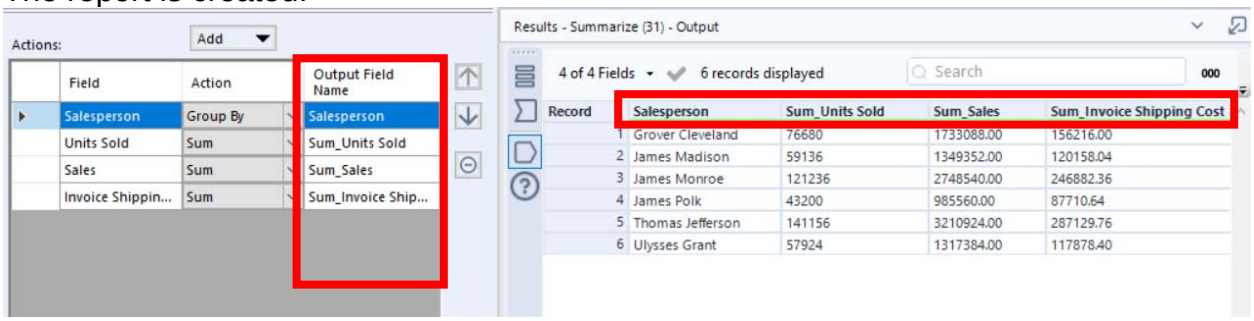


Click on the drop-down arrow on ”Add” in the “Actions” and select “Sum”.

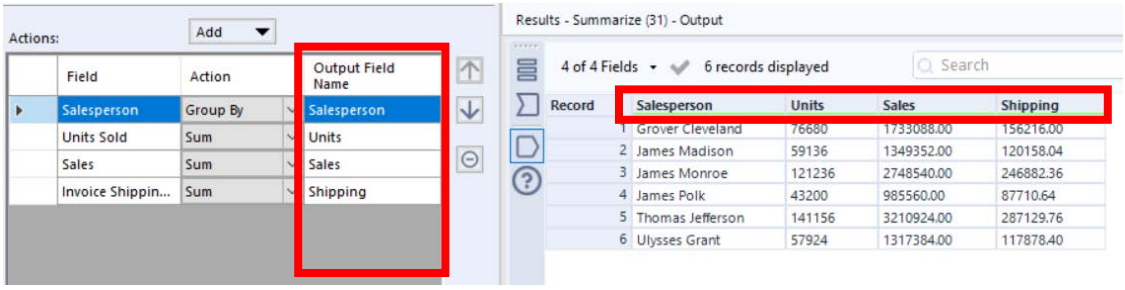


Select “Run”.

The report is created.



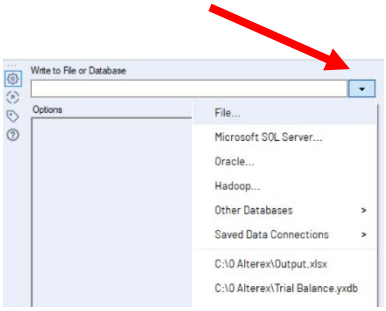
Change the “Output Field Names” and select “Run”



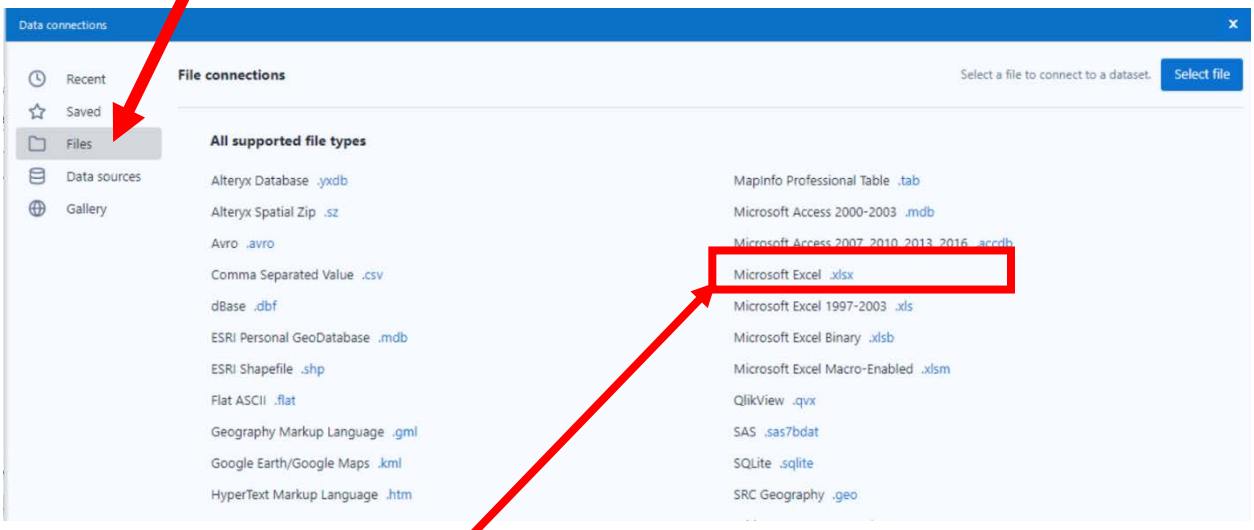
Tool 19: Select Tool Output Data Tool: We now want to export the cleaned and assembled Salesperson Report to Excel.

Drag an "**Output Data Tool**" to the right of the "**Summary Tool**" on the Canvas. The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.

In the output Configuration area, select the drop-down arrow.



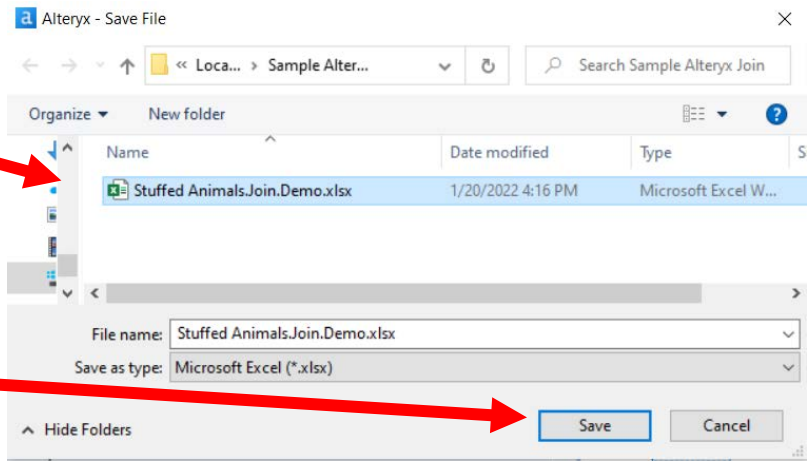
Select "File".



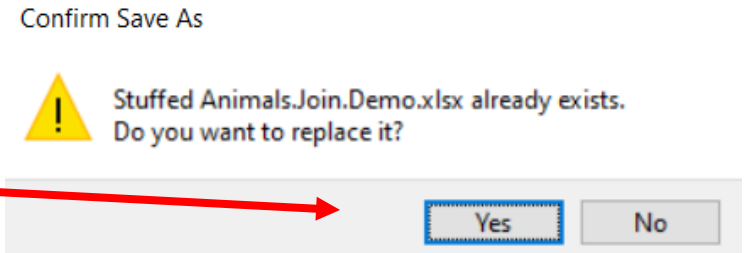
Select "Microsoft Excel .xlsx"

Select the required file name.

Select “Save”.

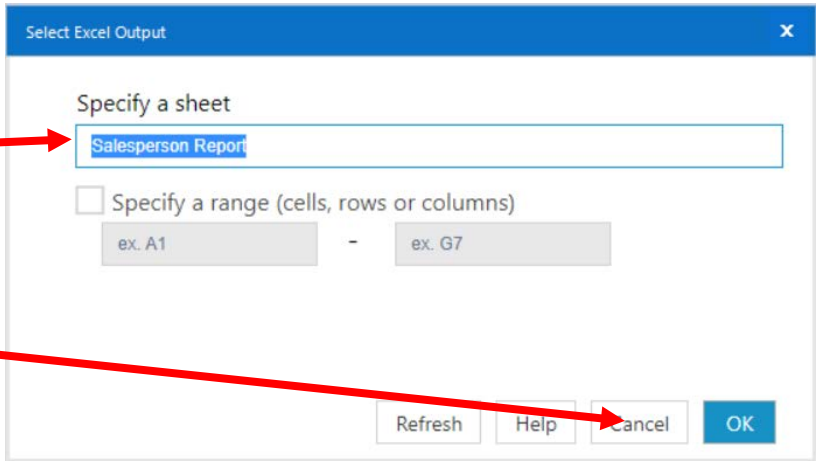


Click on “Yes” to confirm “Save”.



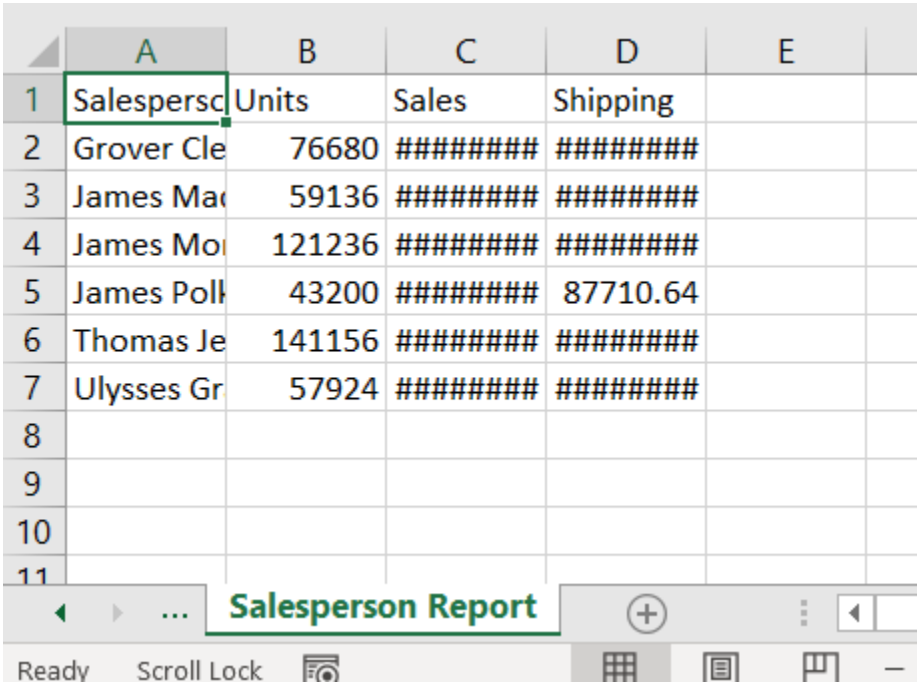
Enter the sheet name, “Salesperson Report”.

Select “OK”.



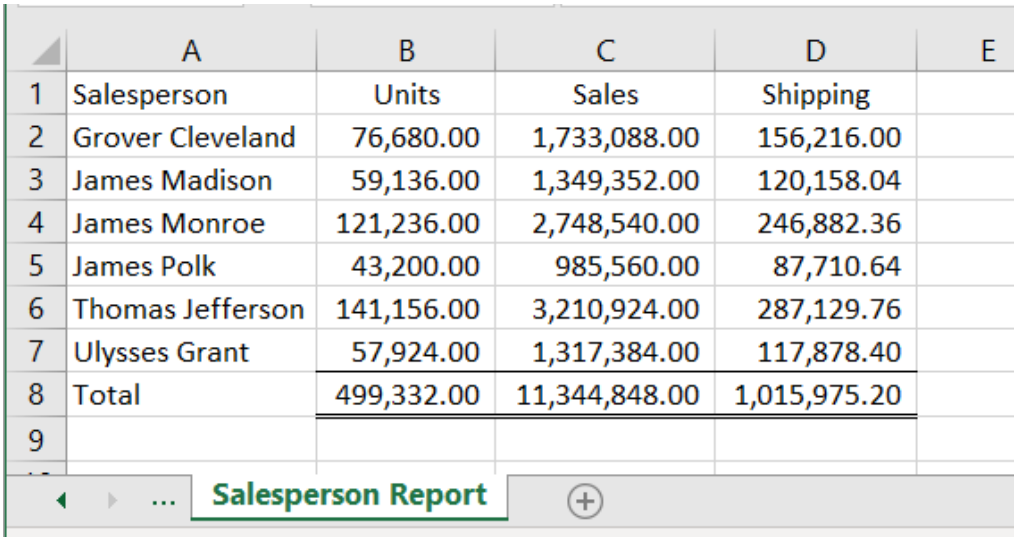
Select “Run”.

Open the file in Excel.



	A	B	C	D	E
1	Salespersc	Units	Sales	Shipping	
2	Grover Cle	76680	########	########	
3	James Mac	59136	########	########	
4	James Mor	121236	########	########	
5	James Polk	43200	########	87710.64	
6	Thomas Je	141156	########	########	
7	Ulysses Gr	57924	########	########	
8					
9					
10					
11					

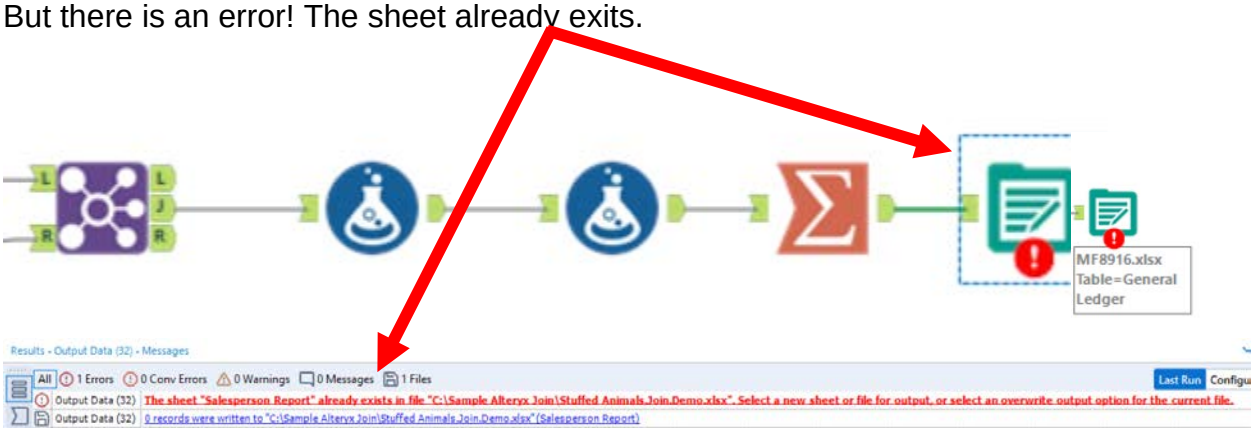
Change the columns' widths and formats.



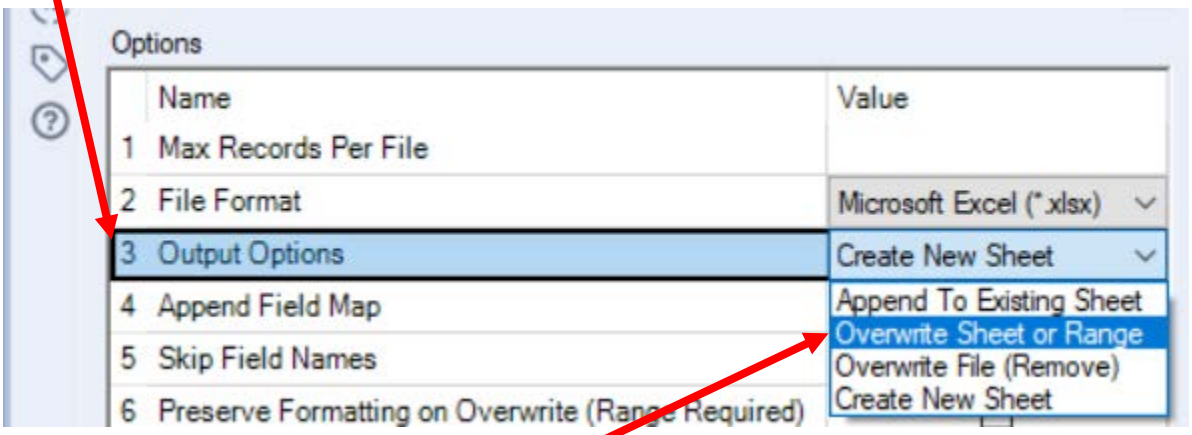
	A	B	C	D	E
1	Salesperson	Units	Sales	Shipping	
2	Grover Cleveland	76,680.00	1,733,088.00	156,216.00	
3	James Madison	59,136.00	1,349,352.00	120,158.04	
4	James Monroe	121,236.00	2,748,540.00	246,882.36	
5	James Polk	43,200.00	985,560.00	87,710.64	
6	Thomas Jefferson	141,156.00	3,210,924.00	287,129.76	
7	Ulysses Grant	57,924.00	1,317,384.00	117,878.40	
8	Total	499,332.00	11,344,848.00	1,015,975.20	
9					

"Save" and "Close" the Excel file.
Return to Alteryx and select "Run" for the second time.

But there is an error! The sheet already exits.



In the output Configuration area, select “Output Options” number 3.

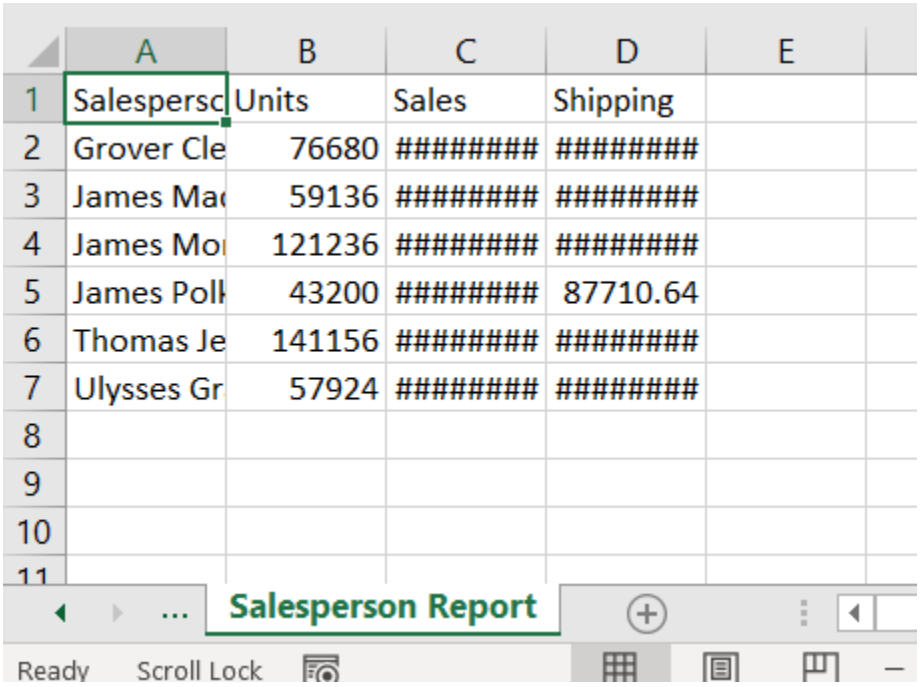


Select “Overwrite Sheet or Range”.

Select “Run”.

Open the Excel file.

Open the file in Excel.



	A	B	C	D	E
1	Salespersc	Units	Sales	Shipping	
2	Grover Cle	76680	########	########	
3	James Mac	59136	########	########	
4	James Mor	121236	########	########	
5	James Polk	43200	########	87710.64	
6	Thomas Je	141156	########	########	
7	Ulysses Gr	57924	########	########	
8					
9					
10					
11					

Salesperson Report

Ready Scroll Lock

Reformat the Excel sheet and rename the formatted sheet “Formatted Salesman Report”. When the Alteryx flow runs it will create a new unformatted sheet “Salesperson Report”.

	A	B	C	D	E
1	Salesperson	Units	Sales	Shipping	
2	Grover Cleveland	76,680.00	1,733,088.00	156,216.00	
3	James Madison	59,136.00	1,349,352.00	120,158.04	
4	James Monroe	121,236.00	2,748,540.00	246,882.36	
5	James Polk	43,200.00	985,560.00	87,710.64	
6	Thomas Jefferson	141,156.00	3,210,924.00	287,129.76	
7	Ulysses Grant	57,924.00	1,317,384.00	117,878.40	
8	Total	499,332.00	11,344,848.00	1,015,975.20	
9					
10					
11					

Formatted Salesperson Report

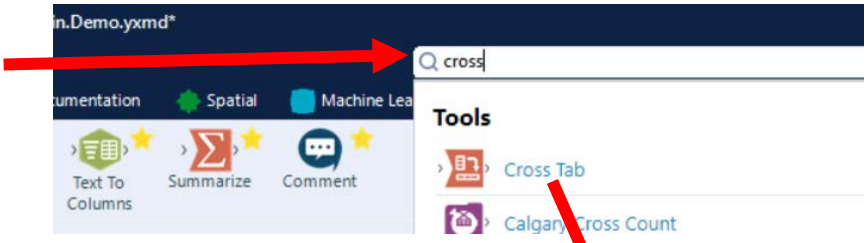
We now want to create a crosstab shipping cost report by product and region

Shipping Costs by Product and Region

	Midwest	Northeast	South	West	Grand Total
Stuffed Bear	$ 26,904.00	$ 43,048.44	$ 22,066.20	$ 41,647.80	$ 133,666.44
Stuffed Elephant	$ 54,810.00	$ 72,060.84	$ 48,486.60	$ 86,971.80	$ 262,329.24
Stuffed Frog	$ 36,405.60	$ 52,861.20	$ 30,753.60	$ 54,081.00	$ 174,101.40
Stuffed Koala	$ 14,094.00	$ 20,699.28	$ 14,572.80	$ 25,364.40	$ 74,730.48
Stuffed Panda	$ 16,875.60	$ 26,664.00	$ 15,720.00	$ 23,108.40	$ 82,368.00
Stuffed Unicorn	$ 13,648.20	$ 30,604.32	$ 18,144.00	$ 27,957.60	$ 90,354.12
Grand Total	$ 162,737.40	$ 245,938.08	$ 149,743.20	$ 259,131.00	$ 817,549.68

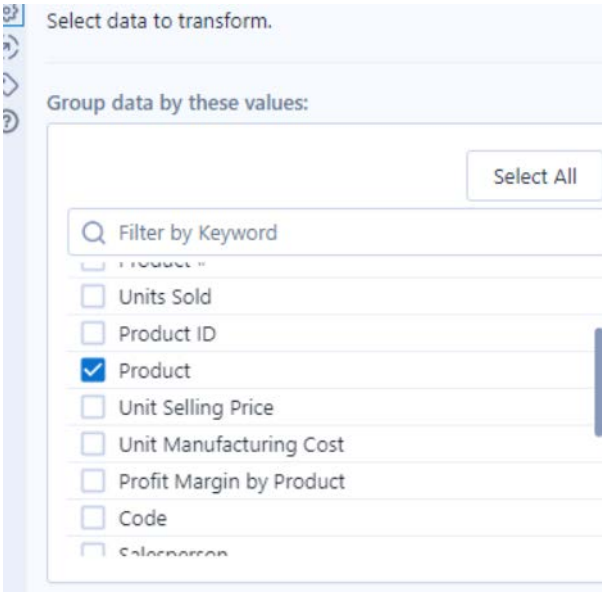
Tool 20: Cross Tab Tool: Change Vertical Data to Multiple Horizontal Columns

In the “Search for Tools” box type, “Cross Tab”.

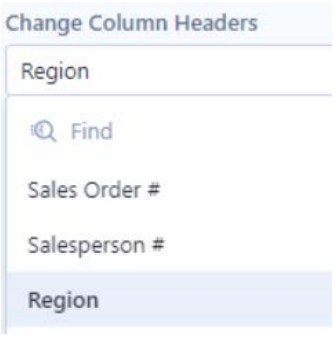


Drag the “**Cross Tab Tool**” from the Tools Palette to the right of the “Formula Tool” and below the **“Summarize Tool”** on the Canvas. The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.

The leftmost column of the cross tab will be the “Product”. In the output Configuration area, “Group Data by these Values”, select “Product”.

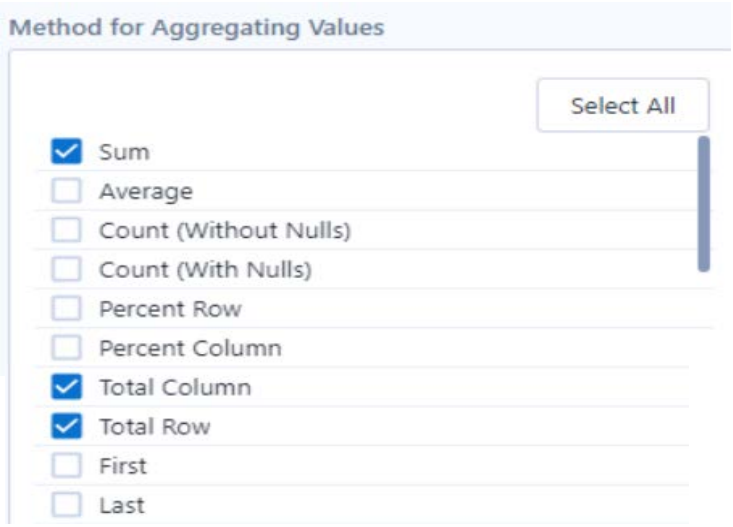


The column headings of the cross tab will be the "Region". In the output Configuration area, "Change Column Headers" select "Region".

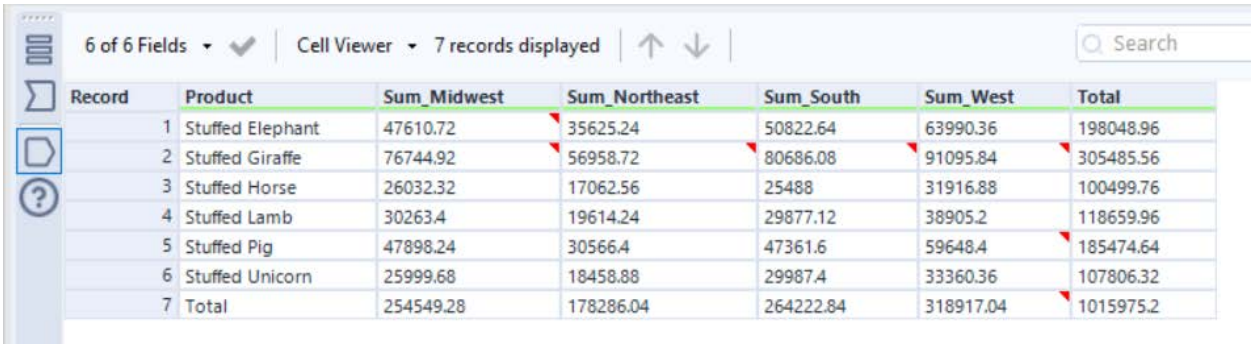


In the output Configuration area, "Values for New Column" select "Invoice Shipping Cost.

In the output Configuration area, "Method for Aggregating Values" select: "Sum", "Total Column" and "Total Row".



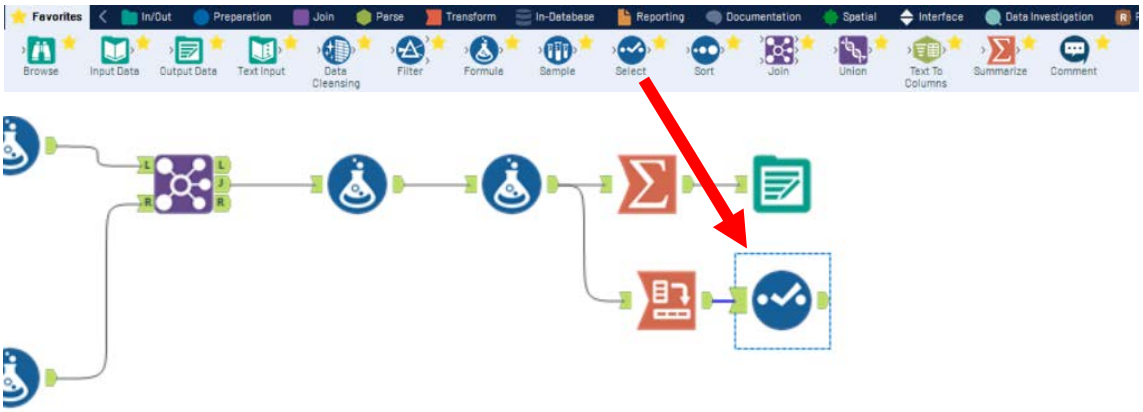
Select "Run" to apply.



Record	Product	Sum_Midwest	Sum_Northeast	Sum_South	Sum_West	Total
1	Stuffed Elephant	47610.72	35625.24	50822.64	63990.36	198048.96
2	Stuffed Giraffe	76744.92	56958.72	80686.08	91095.84	305485.56
3	Stuffed Horse	26032.32	17062.56	25488	31916.88	100499.76
4	Stuffed Lamb	30263.4	19614.24	29877.12	38905.2	118659.96
5	Stuffed Pig	47898.24	30566.4	47361.6	59648.4	185474.64
6	Stuffed Unicorn	25999.68	18458.88	29987.4	33360.36	107806.32
7	Total	254549.28	178286.04	264222.84	318917.04	1015975.2

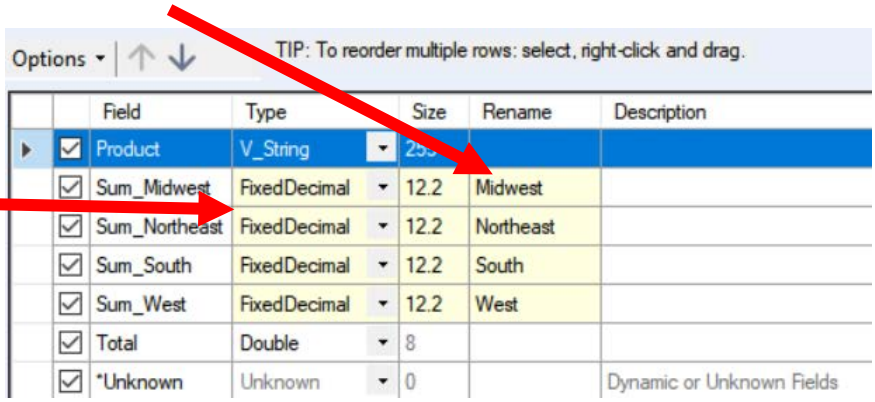
Tool 21: Select Tool – Rename Fields

Drag the "**Select Tool**" from the Tools Palette to the output of the "**Cross Tab Tool**" on the Canvas. The two will be connected automatically.

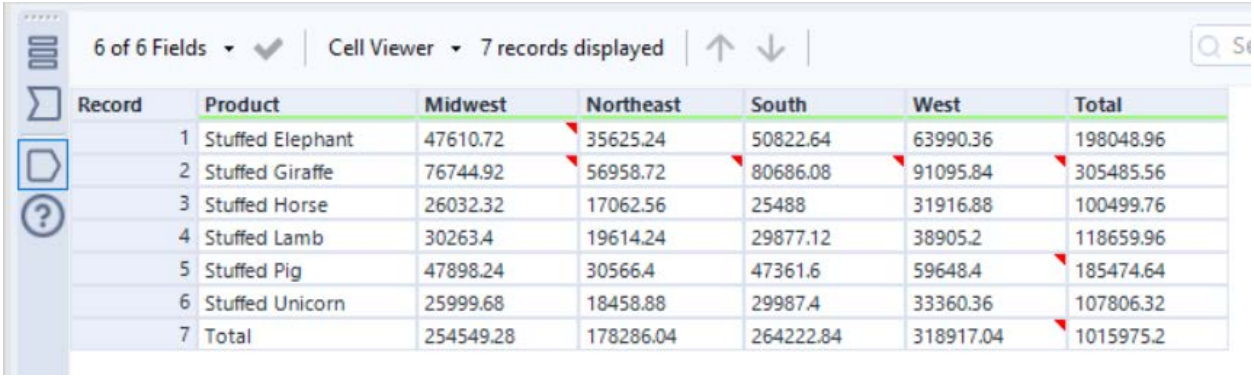


Rename the column headers.

Change the type.



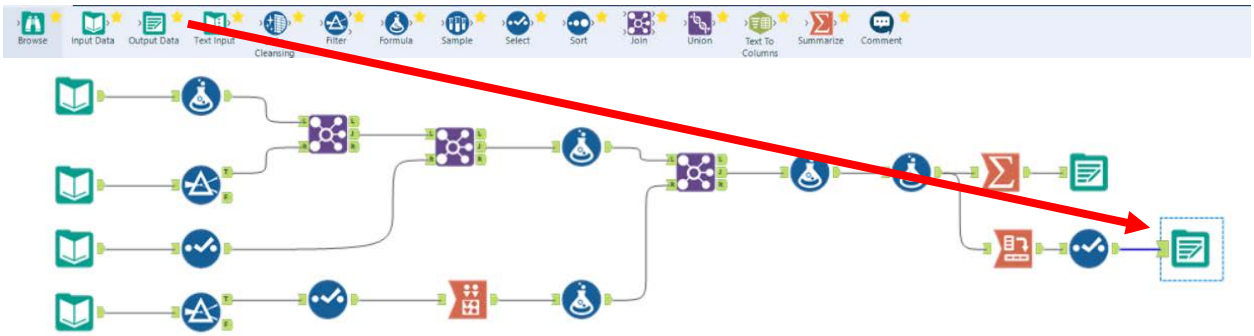
Select "Run" to apply.



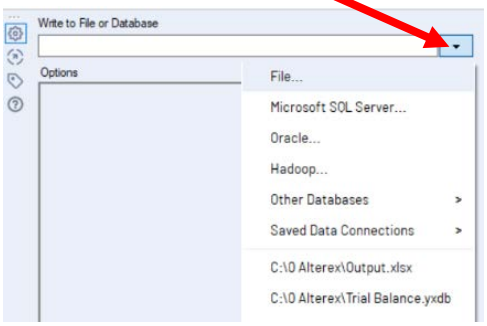
Record	Product	Midwest	Northeast	South	West	Total
1	Stuffed Elephant	47610.72	35625.24	50822.64	63990.36	198048.96
2	Stuffed Giraffe	76744.92	56958.72	80686.08	91095.84	305485.56
3	Stuffed Horse	26032.32	17062.56	25488	31916.88	100499.76
4	Stuffed Lamb	30263.4	19614.24	29877.12	38905.2	118659.96
5	Stuffed Pig	47898.24	30566.4	47361.6	59648.4	185474.64
6	Stuffed Unicorn	25999.68	18458.88	29987.4	33360.36	107806.32
7	Total	254549.28	178286.04	264222.84	318917.04	1015975.2

Tool 22: Select Tool Output Data Tool: We now want to export the cleaned and assembled Salesperson Report to Excel.

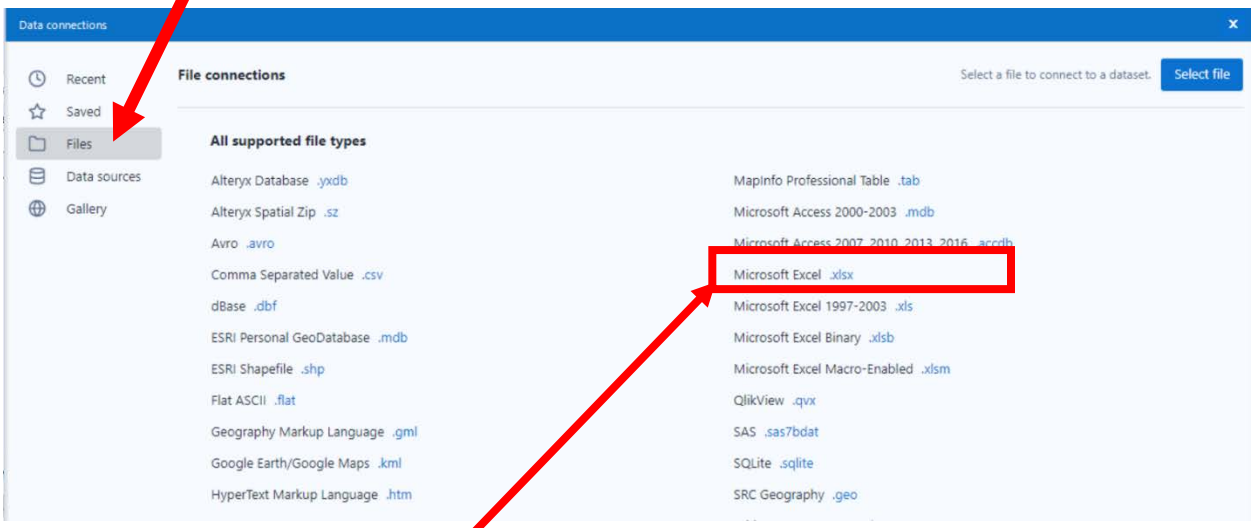
Drag an "**Output Data Tool**" to the right of the "**Select Tool**" on the Canvas. The two will be connected automatically. The outflow from the tool on the left is the inflow to the one on the right.



In the output Configuration area, select the drop-down arrow.



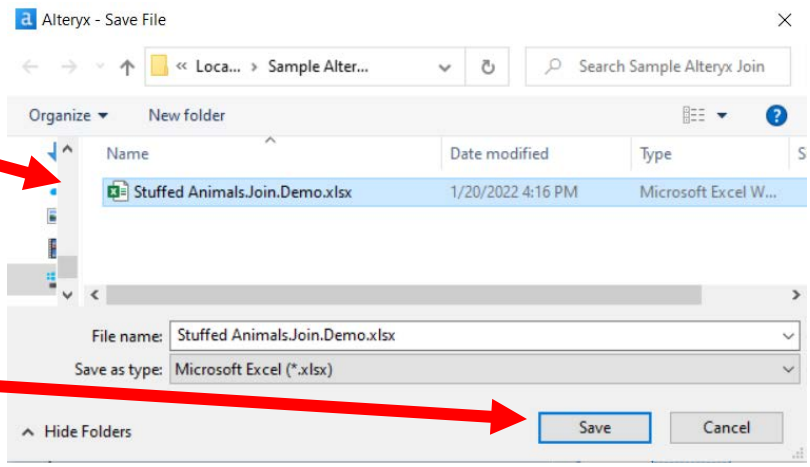
Select "File".



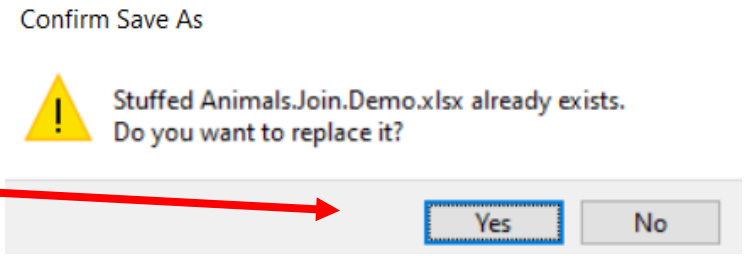
Select “Microsoft Excel .xlsx”

Select the required file name.

Select “Save”.

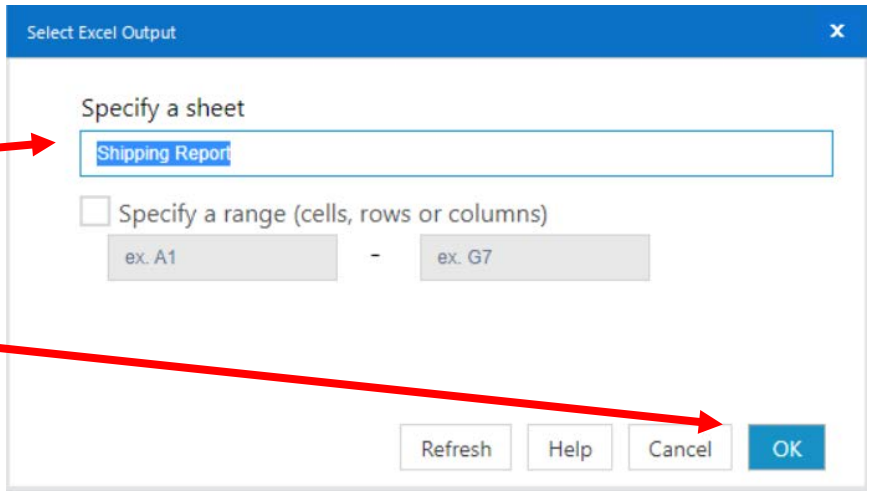


Click on “Yes” to confirm “Save”.



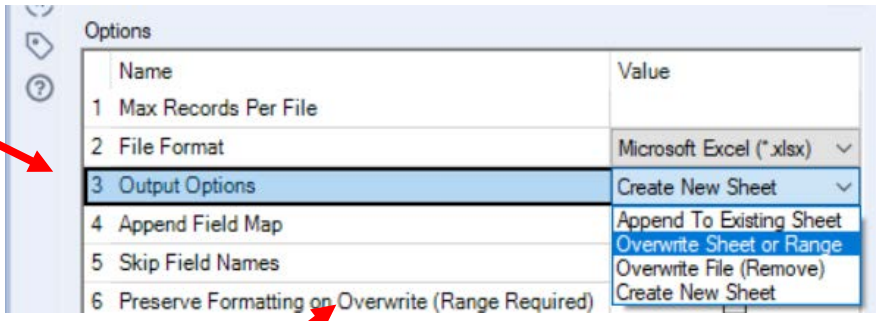
Enter the sheet name, “Shipping Report”.

Select “OK”.



In the output Configuration area, select “Output Options” number 3.

Select “Overwrite Sheet or Range”.



Select “Run”.

Open the file in Excel.

	A	B	C	D	E	F	G	H
1	Product	Midwest	Northeast	South	West	Total		
2	Stuffed Ele	47610.72	35625.24	50822.64	63990.36	198049		
3	Stuffed Gir	76744.92	56958.72	80686.08	91095.84	305485.6		
4	Stuffed Ho	26032.32	17062.56	25488	31916.88	100499.8		
5	Stuffed La	30263.4	19614.24	29877.12	38905.2	118660		
6	Stuffed Pig	47898.24	30566.4	47361.6	59648.4	185474.6		
7	Stuffed Un	25999.68	18458.88	29987.4	33360.36	107806.3		
8	Total	254549.3	178286	264222.8	318917	1015975		
9								
10								
11								

... | Salesperson Report | Formatted Salesperson Report | **Shipping Report**

Reformat the Excel sheet and rename the formatted sheet “Formatted Shipping Report”.
When the Alteryx flow runs it will create a new unformatted sheet “Shipping Report”.

	A	B	C	D	E	F
1	Product	Midwest	Northeast	South	West	Total
2	Stuffed Elephant	47,610.72	35,625.24	50,822.64	63,990.36	198,048.96
3	Stuffed Giraffe	76,744.92	56,958.72	80,686.08	91,095.84	305,485.56
4	Stuffed Horse	26,032.32	17,062.56	25,488.00	31,916.88	100,499.76
5	Stuffed Lamb	30,263.40	19,614.24	29,877.12	38,905.20	118,659.96
6	Stuffed Pig	47,898.24	30,566.40	47,361.60	59,648.40	185,474.64
7	Stuffed Unicorn	25,999.68	18,458.88	29,987.40	33,360.36	107,806.32
8	Total	254,549.28	178,286.04	264,222.84	318,917.04	1,015,975.20
9						
10						
11						

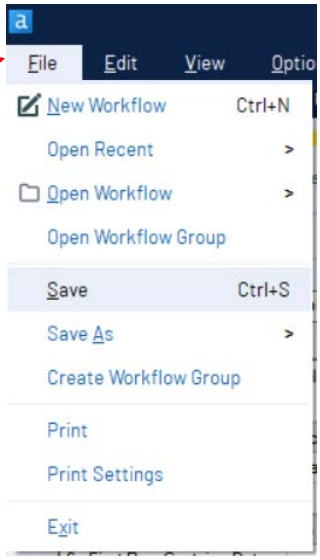
... | Formatted Salesperson Report | **Formatted Shipping Report**

“Save” and “Close” the Excel file.
Return to Alteryx and select “Run” for the second time.

The workflow must be saved.

Select “File”.

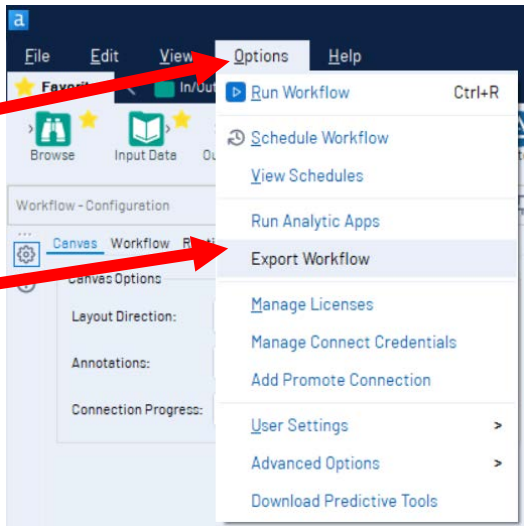
Select “Save”.



Export the workflow and the related input files so that the project can be completed on another computer or uploaded to the web.

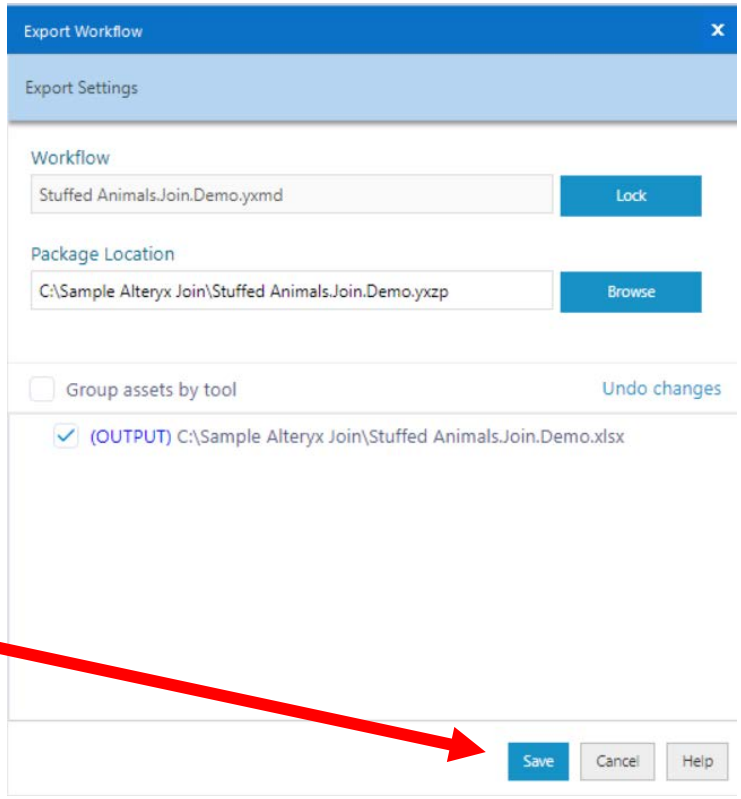
Select “Options”.

Select “Export Workflow”.

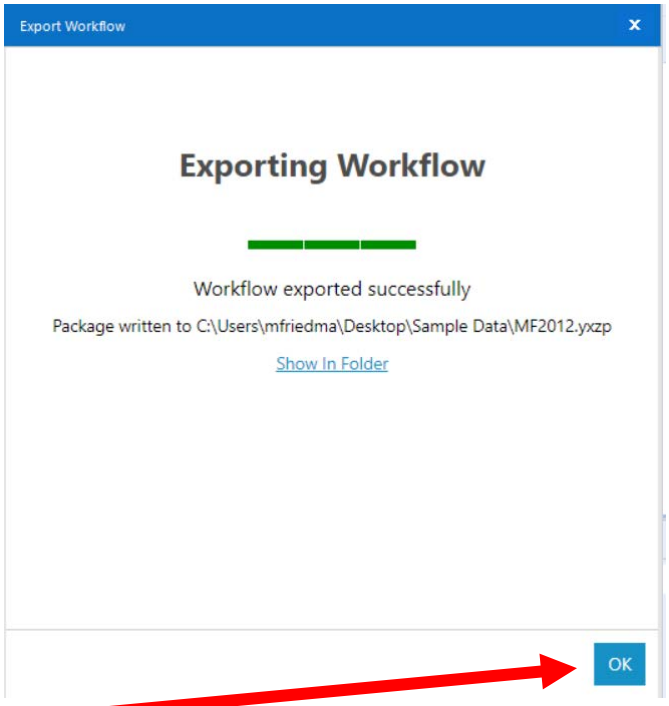


Verify the name of the “Workflow”.

Verify the “Package Location”.



Select “Save”.



Select “OK”.

Exit Alteryx.