EXAMPLE - Flatten and Valuestocols Transforms

This example shows how you can cross-reference columns of data using the following transforms:

- `flatten` - Flatten values in an array into separate rows in the dataset. See *Flatten Transform*.
- `valuestocols` - Extract unique instances of values into separate columns, with an indicator added to each row where the unique value is found. See *Valuestocols Transform*.

Source:

The following data covers magazine subscriptions for individual customers. Their subscriptions are stored in an array of values. You are interested in who is subscribing to each magazine.

CustId	Subscriptions
Anne Aimes	["Little House and Garden","Sporty Pants","Life on the Range"]
Barry Barnes	["Sporty Pants","Investing Smart"]
Cindy Compton	["Cakes n Pies","Powerlifting Plus","Running Days"]
Darryl Diaz	["Investing Smart","Cakes n Pies"]

Transformation:

When this data is loaded into the Transformer, you might need to apply a `header` to it. If it is in CSV format, you might need to apply some `replace` transformations to clean up the `Subscriptions` column so it looks like the above.

When the `Subscriptions` column contains cleanly formatted arrays, the column is re-typed as Array type. You can then apply the following transformation:

Transformation Name	Expand Array into rows
Parameter: Column	Subscriptions

Each `CustId`/`Subscription` combination is now written to a separate row. You can use this new data structure to break out instances of magazine subscriptions. Using the following transformation, you can add the corresponding `CustId` value to the column:

Transformation Name	Convert values to columns
Parameter: Column	Subscriptions
Parameter: Fill when present	CustId

Delete the two source columns:

Transformation Name	Delete columns
Parameter: Columns	CustId,Subscriptions
Parameter: Action	Delete selected columns

Results:

Little_House_and_Garden	Sporty_Pants	Life_on_the_Range	Investing_Smart	Cakes_n_Pies	Powerlifting_Plus	R

Anne Aimes						
	Anne Aimes					
		Anne Aimes				
	Barry Barnes					
			Barry Barnes			
				Cindy Compton		
					Cindy Compton	
						Cir
			Darryl Diaz			
				Darry Diaz		