#mappingdataflows

Azure Data Factory – Mapping Data Flows' Components

Activity	Description	SSIS equivalent	SQL Server equivalent
New branch	Create a new flow branch with the same data	Multicast (+icon)	`SELECT INTO` `SELECT OUTPUT`
Join	Join data from two streams based on a condition	Merge join	`INNER | LEFT | RIGHT JOIN,` `CROSS | FULL OUTER JOIN`
Conditional Split	Route data into different streams based on conditions	Conditional Split	`SELECT INTO WHERE condition1` `SELECT INTO WHERE condition2` `CASE ... WHEN`
Exists	Check the existence of data in another stream	Lookup / Merge Join	`SELECT * FROM Table` `WHERE EXISTS(SELECT ... ) | JOIN` `| NOT EXISTS`
Union	Collect data from multiple streams	Union All	`SELECT col1a UNION (ALL)` `SELECT col1b`
Lookup	Lookup additional data from another stream	Lookup	`LEFT | RIGHT JOIN`
Derived Column	Compute new columns based on the existing once	Derived Column	`SELECT Column1 * 1.09 as NewColumn`
Select	Choose columns to flow to the next stream	OUTPUT in components, mapping columns	`SELECT Column1, Column4` `FROM Table`
Aggregate	Calculate aggregation on the stream	Aggregate	`SELECT Year(DateOfBirth) as Year,` `MIN(), MAX(), AVG()` `GROUP BY Year(DateOfBirth)`
Surrogate Key	Add a surrogate key column to output stream from a specific value	Script Component	`SELECT ROW_NUMBER()` `OVER(ORDER BY n ASC) AS R#, n` `FROM sys.databases` *+ Incremental Primary Key (with limited capabilities)*
Pivot	Pivots row values into columns, groups columns and aggregates data	Pivot	`SELECT rowCol, c1, c2 FROM` `( SELECT sourceCols FROM Table)` `PIVOT` `( SUM(sumCol) FOR col IN (...) )`
Unpivot	Unpivots columns into row values and ungroups columns	Unpivot	`SELECT rowCol, col, X FROM (` `SELECT rowCol, c1, c2 FROM pvt)` `UNPIVOT` `(X FOR col FROM (c1, c2)) AS unpvt`
Window	Aggregates data based on a window and joins with original data	[Sort] + Custom Script	`SELECT fun() OVER(` `PARTITION BY pc ORDER BY oc) newc,` `pc, oc, otherCols FROM Table`
Filter	Filter rows in the stream based on a condition	Conditional Split	`SELECT * FROM Table` `WHERE [Column] LIKE '%pattern%'`
Sort	Order data in the stream based on column(s)	Sort	`SELECT * FROM Table` `ORDER BY [Column] ASC`
Alter Row	Set action policy on rows when database is sink	Conditional Split + *n* Destinations	`MERGE |` `INSERT, UPDATE, DELETE` `IF | WHERE`
Source	Source for your data flow. Obligatory first element of every Data Flow in ADF	OLE DB Source and more …	`SELECT * FROM SourceTable`
Sink	Destination for your data flow	OLE DB Destination and more…	`INSERT INTO TargetTable`

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