

# Awesome DT



**AQL**

Perform Series of Operations on One Go

Create Consolidated Data Tables merging a list of multiple data tables where we can also

- Dynamically Create new columns on the fly
- Apply filter based on some conditions
- Sort the data table by desc, asc
- Top N Rows
- Apply Excel formula on the fly
- Remove duplicates

## Input Parameters:

1. InputDTList : (List<DataTables>)
2. AQLString (String)

## Output Parameters:

1. ResultDT (DataTable)
2. ResultCSV(String)

## Awesome Query Language (AQL)

Name	Syntax	Example	Description
Merge	DT1+DT2+DT3+DT4	1+2+3+4	Using Mathematical Operators Like (+) Plus Easily Do Merge
Remove Duplicate Rows	Remove-Duplicates	Remove-Duplicates	It will remove all duplicate rows from the input data table
Select Specific Columns	Select [Column List]	Select Employee, Salary, Department	Select only specific columns from the data table
On the Fly Columns	Select [new Column Name] = [Formula]	Select Price, Qty, <b>Total=Price*Qty</b>	Can apply any formula or expression using header names

Filter	Where [Column Name] (Operator) [Value/Expression]	Where Salary >50000	By using <i>where</i> keyword can use all kind of filter conditions like <, >, >=, <=, StartsWith, EndsWith, IsEmpty, Contains, Not Contains
Top N	Top N	Top 10	It will show top 10 rows from the Data Table
Auto Increment (Row Num)	[Column Name] =Row ([Column Name])	Select SNo=Row(SNo)	On the fly Row Number will generate with auto increment by 1
Excel Formulas	Select [New Column Name] =[Excel Formula]	Select EmployeeLength=Len(Employee)	Apply any excel formula with column headers
Order By	Order By [Column Name] [OrderType]	Order By Employee Desc	Arrange data table using column any order type (Descending / Ascending) By Default its Ascending Order)

## AQLString:

Lets say there are 4 different datatables with same schema then we can apply a series of operations as mentioned below using this custom activity

1+2+3+4 | Remove-Duplicates | where Salary > 40000 | Order By Salary Desc | Select SNo=Row(SNo), FirstName, LastName, EmployeeName=FirstName&LastName, Salary, EmployeeType , YearlySalary =Salary\*12 | Top 5

Note: the above usecase is just an example to show that we can create any such series of operations on the fly with this custom activity

In general, the same series of operation will take around 14 hours if performed manually. With this custom activity it will take just take few seconds to form this query using AQL.