

# EXAMPLE - Filtering Strings into Objects

You can create nested objects by filtering strings. In this example, column headers and column values are nested into a single entity in a new column of Object data type.

## Functions:

Item	Description
FILTEROBJECT Function	Filters the keys and values from an Object data type column based on a specified key value.
PARSEOBJECT Function	Evaluates a String input against the Object datatype. If the input matches, the function outputs an Object value. Input can be a literal, a column of values, or a function returning String values.

## Source:

The following table shows a series of requests for inventory on three separate products. These are rolling requests, so inventory levels in the subsequent request are decreased based on the previous request.

date	reqProdId	reqValue	prodA	prodB	prodC
5/10/21	prodA	10	90	100	100
5/10/21	prodC	20	90	100	80
5/10/21	prodA	15	75	100	80
5/11/21	prodB	25	75	75	80
5/11/21	prodA	5	70	75	80
5/11/21	prodC	30	70	75	50
5/12/21	prodB	10	70	65	50

You must create a column containing the request information and the inventory level information for the requested product after the request has been fulfilled.

## Transformation:

The five data columns must be nested into an Object. The generated column is called `inventoryLevels`.

<b>Transformation Name</b>	Nest columns into Objects
<b>Parameter: Columns</b>	<code>reqProdId, reqValue, prodA, prodB, prodC</code>
<b>Parameter: Nest columns to</b>	Object
<b>Parameter: New column name</b>	<code>inventoryLevels</code>

You can then build the inventory response column (`inventoryResponse`) using the `FILTEROBJECT` function:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	<code>filterobject(parseobject(inventoryRequest), ['reqProdId', 'reqValue', reqProdId])</code>

Parameter: New column name	inventoryResponse
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**Results:**

The `inventoryResponse` column contains the request information and the response information after the request has been fulfilled.

date	reqProdId	reqValue	prodA	prodB	prodC	inventoryLevels	inventoryResponse
5/10/21	prodA	10	90	100	100	{"reqProdId":"prodA","reqValue":"10","prodA":"90","prodB":"100","prodC":"100"}	{"reqProdId":"prodA","reqValue":"10","prodA":"90"}
5/10/21	prodC	20	90	100	80	{"reqProdId":"prodC","reqValue":"20","prodA":"90","prodB":"100","prodC":"80"}	{"reqProdId":"prodC","reqValue":"20","prodC":"80"}
5/10/21	prodA	15	75	100	80	{"reqProdId":"prodA","reqValue":"15","prodA":"75","prodB":"100","prodC":"80"}	{"reqProdId":"prodA","reqValue":"15","prodA":"75"}
5/11/21	prodB	25	75	75	80	{"reqProdId":"prodB","reqValue":"25","prodA":"75","prodB":"75","prodC":"80"}	{"reqProdId":"prodB","reqValue":"25","prodB":"75"}
5/11/21	prodA	5	70	75	80	{"reqProdId":"prodA","reqValue":"5","prodA":"70","prodB":"75","prodC":"80"}	{"reqProdId":"prodA","reqValue":"5","prodA":"70"}
5/11/21	prodC	30	70	75	50	{"reqProdId":"prodC","reqValue":"30","prodA":"70","prodB":"75","prodC":"50"}	{"reqProdId":"prodC","reqValue":"30","prodC":"50"}
5/12/21	prodB	10	70	65	50	{"reqProdId":"prodB","reqValue":"10","prodA":"70","prodB":"65","prodC":"50"}	{"reqProdId":"prodB","reqValue":"10","prodB":"65"}