

# Filter

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## Overview

The filter step is used to filter out your data within a transformation flow. Certain input steps (such as, single table and third-party connectors) also allow for filtering when being configured, but with the help of this step, it is possible to filter data any time in the flow.

This is done by using the Filter step in the Data Transformation module. **Note:** This is a built-in step, and therefore will be available in the Transformations List by default.

## Understanding the Filter Screen

When configuring this step, you will see a Filter popup that allows you to create a filter. Following is an understanding of this popup .

Filters

1

And

2

3

4

5

6

7

CAMPAIGNID

MEDIANAME

Between

Does not start...

[See Range Below]

A

-- Select Filter Field --

Add Filter

Filter Logic

CAMPAIGNID Between 1,000.00 And 5,000.00  
AND MEDIANAME Does not start with A

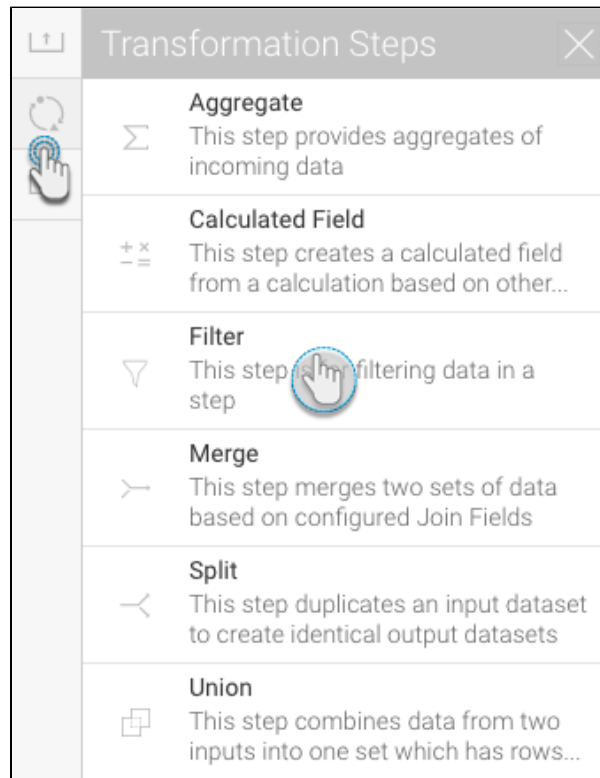
Submit

No.	Filter Setting	Description
1	AND/OR Logic	Define the logic used between each filter condition.
2	Bracket Arrows	The addition of brackets around sets of filters allows for more complex logic, used in conjunction with AND/OR logic settings.
3	Filter Fields	The fields added to the Filters list in order to restrict the report results.
4	Operator Selection	Select the operator to be used in the filter, specifying how values will need to match, or differ from the condition defined.
5	Value Selection	Define a value for the filter condition.
6	Add Filters	Allows the user to add more fields to the filters list without closing the configuration panel.
7	Filter Logic	Displays a summary of the filters.

## Step Configuration

Follow the instructions below to configure a filter step:

1. Ensure that you have at least one input step containing the data that you want to transform. Once you are ready to include the Filter step in your flow, follow the below instructions:
2. Expand the Transformation Steps button on the left side of the Transformation Flow builder, to view a list of transformation steps.
3. Drag the Filter step from this list onto the canvas.



4. Connect this step to the previous step in the flow.
5. Next configure the step to apply filtering to the data through the configure panel.

Filter

Configure

Fields

Errors

Details

Apply Filters to Extract Data

Add Filters

- Click on the Add Filters option.
- Use the new popup to add filters.

Filters

Add Filter

-- Select Filter Field --

Submit

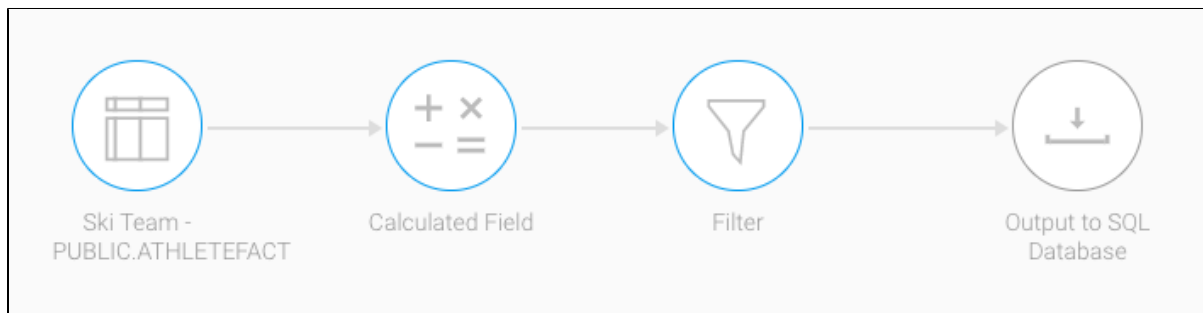
- Select a field.
- Then choose a filtering operator.
- Click Define Value to set a manually define a value to filter the field data by.
- You can perform these steps again to add more filters.
- Use the And/Or field to define logic between each filter condition.
- Click on Submit. The transformation flow's data will become filtered.

	CAMPID NUMERIC	ATHLETEID NUMERIC	BONEGRO.. TEXT
1	12242	9154	Scapula
2	12583	9487	Scapula
3	12583	9643	Scapula
4	12338	9940	Scapula

- You can also remove all the filters using the Clear option or edit them by clicking on the Edit Filters option.

## Complete Example

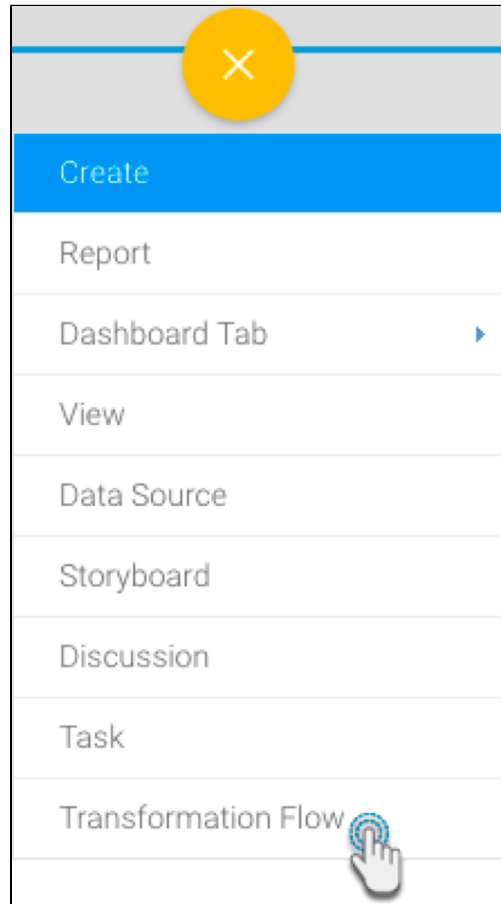
The following example shows a full transformation flow that involves a filter step. This transformation will involve setting up an input step, creating a custom calculated field, filtering the data, and then storing it into a database. You could always include more steps to your transformation flow.



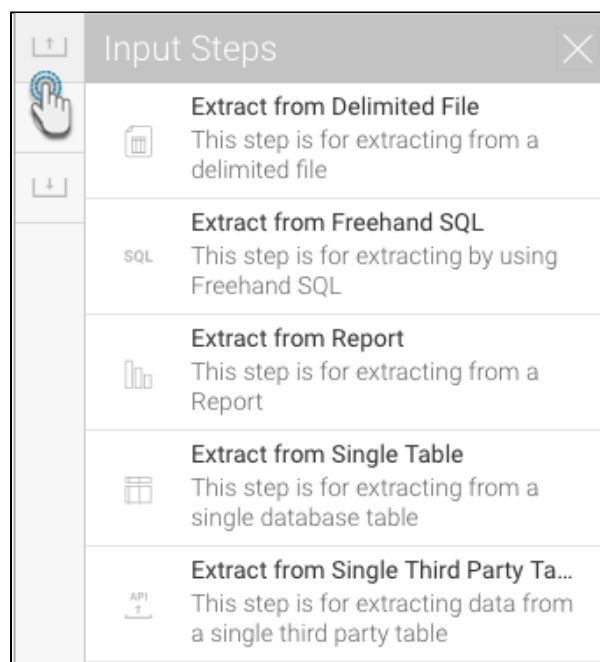
- Click on the Create button in the top-right corner.
- Then select Transformation Flow.



If you do not see this option, you may not have security access to transformation flows. Learn how to get access [here](#).

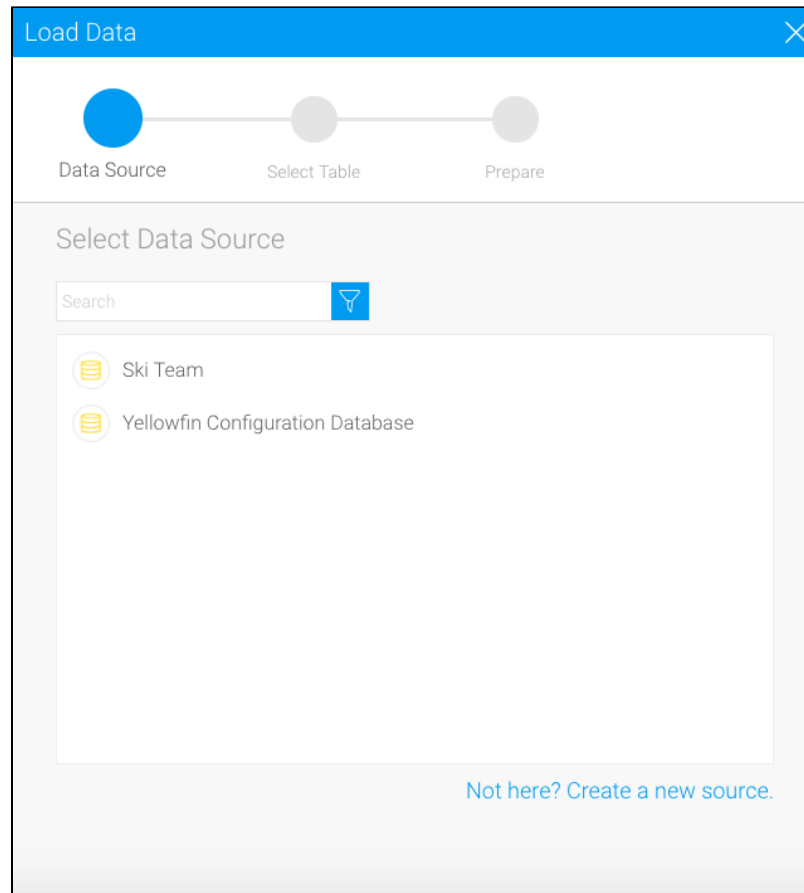


3. You will be taken to the transformation flow builder.
4. Hover your cursor over the input steps button on the left side. A panel with a list of all data extraction steps will appear.



5. Drag one of these steps onto the canvas. For this procedure, we will use the single table step as an example. (Click [here](#) to learn about all the different input steps.)


6. On doing so, a popup will appear to load data from a data source.





7. Click on the data source that you require.

8. Then choose the database table, and click on Submit.

Load Data

Ski Team

Select Table

Prepare

Select Table:  
Choose the table you want to analyze from  
your selected data source

Search

ADDRESS  
ATHLETEFACT  
BONEBREAKS  
CAMP  
CAMPAIGN  
COUNTYGEOMETRY  
DATELOOKUP

Submit

9. The selected table's fields will appear in the transformation flow panel to be configured.

10. Select only the fields that you want data to be extracted from.

Ski Team - PUBLIC.ATHLETEFACT

ConfigureErrorsDetails

Select Fields to be extracted

Select AllDeselect All

☒

 PERSONID

☒

 CAMPID

☒

 INVOICEDAMOUNT

☒

 INVOICEDDATE

☒

 CAMPRATING

☒

 CAMPAIGNID

☐

 BOOKINGSTEP

☐

 BOOKINGMETHOD

☒

 STATUS

☒

 STARTDATE

☒

 ENDDATE

☒

 COST

☒

 DEMOGRAPHIC

☒

 AGENCYID

Apply

11. You can make further changes, such as renaming the step, including a description, etc.
12. Once you're done with the input step configuration, click on the Apply button.
13. On doing so, the data preview panel will display the data extracted from the configured database table.

FlowPubsub

Ski Team - PUBLIC.ATHLETEFACT

ConfigureFieldsErrorsDetails

Select Fields to be extracted

Select AllDeselect All

☒

 PERSONID

☒

 CAMPID

☒

 INVOICEDAMOUNT

☒

 INVOICEDDATE

☒

 CAMPRATING

☒

 CAMPAIGNID

☐

 BOOKINGSTEP

☐

 BOOKINGMETHOD

☒

 STATUS

☒

 STARTDATE

☒

 ENDDATE

☒

 COST

☒

 DEMOGRAPHIC

☒

 AGENCYID

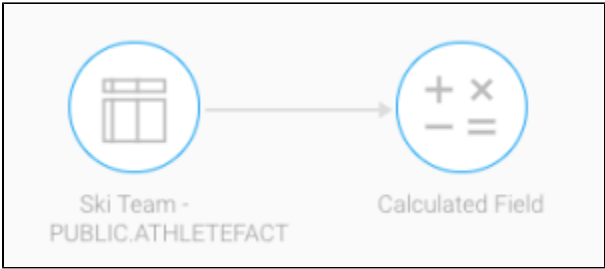
Apply

	PERSONID NUMERIC	CAMPID NUMERIC	INVOICED... NUMERIC	INVOICED... DATE	CAMPID... NUMERIC	CAMPID... NUMERIC	STATUS TEXT	STARTDATE DATE	ENDDATE DATE
1	9739	12327	4027.96	2015-02-01		4.00	51837 Active	2015-02-17	2015-03-16
2	9419	12499	37182.34	2016-11-05		0.00	51849 Cancelled	2017-01-08	2017-01-15
3	9059	12449	8161.89	2012-10-29		0.00	51880 Cancelled	2012-11-13	2012-11-30
4	11653	12460	24967.60	2010-07-04		0.00	51827 Cancelled	2011-03-10	2011-04-03

14. In our example, we will now create a calculated field based on our data.



15. Drag the calculated field step and create a connection with the input step.



16. Then click on the calculated field step icon to configure it. The transformation flow panel will be updated.  
17. Click on Add Item.

Calculated Field

Configure Fields Errors Details

+

Add Item

18. A popup window will appear to create a new calculated field.

Calculated Field - Calculated Field Name

Calculated Field Name  
Define a name for the calculation to be displayed in the report field list.

Calculated Field Name

-- Select Field --

+ Add

+ - \* / ( )

Undo Clear

Validate Save Cancel

19. Update the name of the calculated field.

20. Define your calculation using the buttons at the bottom of the window, for example:

- Search for the *Invoiced Amount* field in the -- Select Field -- drop down list and click on it to add it to the formula box.
- Press the divide (/) button.
- Search for the *Cost* field and add it to the formula.
- You will now have Invoiced Amount / Cost.
- Test your calculation by using the Validate button. (An error will appear if it is invalid.)

21. If the calculation is valid, click Save.

Calculated Field - Calculated Field Name

Calculated Field Name  
Define a name for the calculation to be displayed in the report field list.

Calculated Field Name

INVOICEDAMOUNT / COST

-- Select Field --

+ Add

+ - \* / ( )

Undo Clear

✓ Calculation Valid

Validate Save Cancel

22. The data preview panel will display a new column field for this formula's result.

AGENCYID NUMERIC	AGEATCA... TEXT	AGEGROU... TEXT	CAMPLEN... NUMERIC	CANCELLA... NUMERIC	BOOKINGC... TEXT	INVOICEES... NUMERIC	Calculated ... NUMERIC
4	22	20 - 24	28	0.00	EUR	6726.72	0.974330443532...
9	25	25 - 29	7	0.00	CAD	42252.66	1.1338574...
7	34	30 - 34	17	0.00	EUR	12859.44	1.075510782266...
22	18	15 - 19	24	0.00	CAD	27030.00	1.077685807150...

23. Now include the filter step in your flow by following the steps below.  
24. Expand the transformation steps panel by hovering on its icon in the step builder, and then drag the Filter step onto the canvas.

Transformation Steps

Aggregate

$\Sigma$

This step provides aggregates of incoming data

Calculated Field

$\div \times$   
 $- =$

This step creates a calculated field from a calculation based on other...

Filter

$\nabla$

This step filters data in a step

Merge

$\rightharpoonup$

This step merges two sets of data based on configured Join Fields

Split

$\swarrow \searrow$

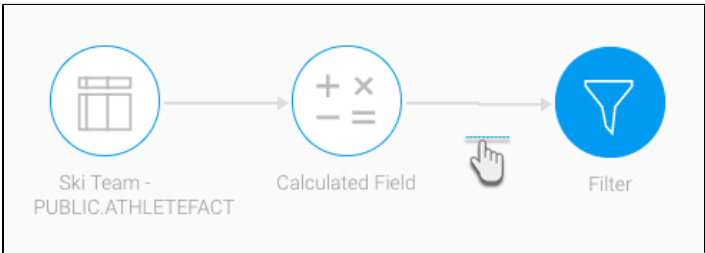
This step duplicates an input dataset to create identical output datasets

Union

$\square \square$

This step combines data from two inputs into one set which has rows...

25. Connect this step to the previous step in the flow.



26. Next configure the step to apply filtering to the data through the configure panel.  
27. Click on the Add Filters option.

28. Add filters using the settings on the new popup.

Filters

Add Filter

-- Select Filter Field --

Submit

Filters

1 And 2

3

4

5

6

7

Submit

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7	Filter Logic	Displays a summary of the filters.

- Select a field.
- Then choose a filtering operator.
- Click Define Value to manually set a value to filter the field data by.
- You can perform these steps again to add more filters.
- Use the And/Or field to define logic between each filter condition.

29. For our example, we will filter the data to display only values of the previous calculated field step, that are greater than 2.

Filters

Calculated Field Name

Greater than

2.00

Add Filter

-- Select Filter Field --

Filter Logic

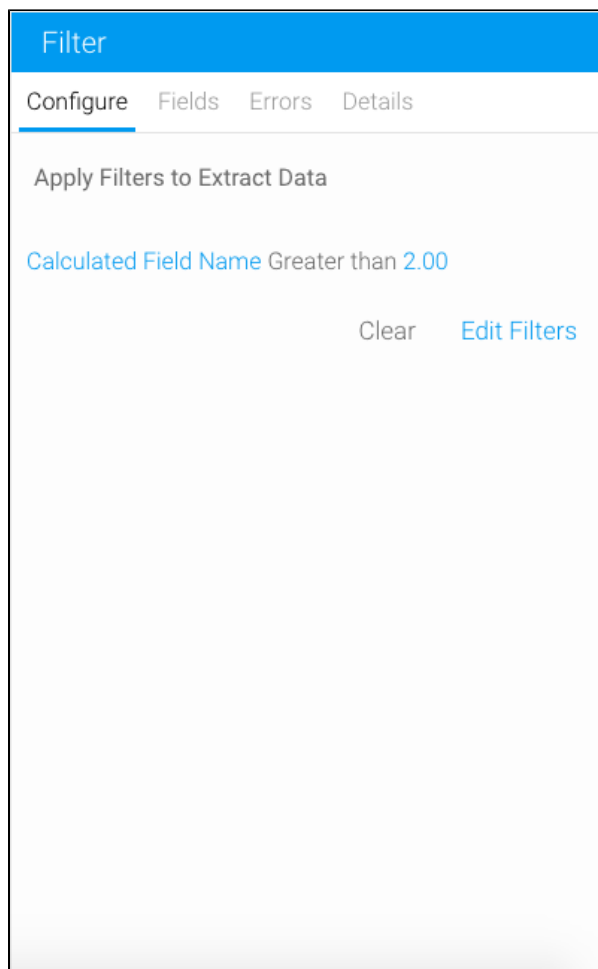
Calculated Field Name Greater than 2.00

Submit

30. Click Submit. The transformation flow's data will become filtered, as seen in the data preview panel.

AGENCYID NUMERIC	AGEATCA... TEXT	AGEGROU... TEXT	CAMPLEN... NUMERIC	CANCELLA... NUMERIC	BOOKINGC... TEXT	INVOICEES... NUMERIC	Calculated ... NUMERIC
13	42	40 - 44	19	0.00	AUD	17641.50	2.317073170731...
13	27	25 - 29	28	0.00	AUD	14747.04	2.011764705882...
20	18	15 - 19	14	0.00	JPY	10919.63	179.1266249796...
20	22	20 - 24	19	0.00	JPY	17517.53	167.4030170648...

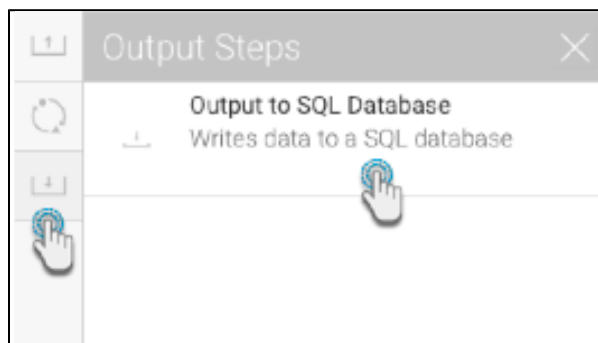
31. The configure panel on the right will also display the filter that was created.



32. You can remove a filter using the Clear option, or edit it by clicking on the Edit Filters option.

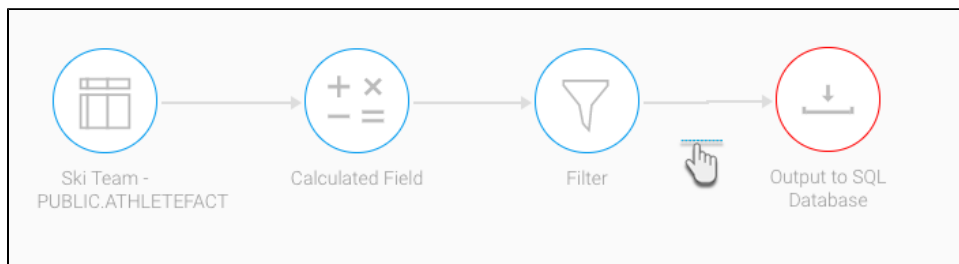
33. Once you are ready to save your data into a writeable database, follow the steps below.

34. Extend the output steps panel by hovering on its icon, and drag the SQL database output step onto the canvas.



35. Connect the filter step (or the previous step in your flow) to the output step by creating a connection.

**Note:** By default, the output step will be highlighted as red to signify that it contains errors. This is because it has not been configured yet.



36. And then configure the output step through the panel on the right-side. Click [here](#) to learn more about configuring this step.

37. You can now execute the draft flow by clicking on the run button in the top header menu. (This does a quick execution of the data rows in the data preview panel.)



38. Or save the flow for a full execution. To do that, click on the Publish button.



39. Then provide details in the popup that appears, such as providing a proper name, and selecting rights to access the flow.

Save Transformation Flow

Details

Filtered Data

Give this Transformation Flow a description.

Audit Reports

Admin Reports

Transformation Access

All users with Folder access will be able to view this Transformation Flow.

Public

Private

Save

40. Finally, click on the Save button.