

Excel DAX - Ranking and Comparing Values

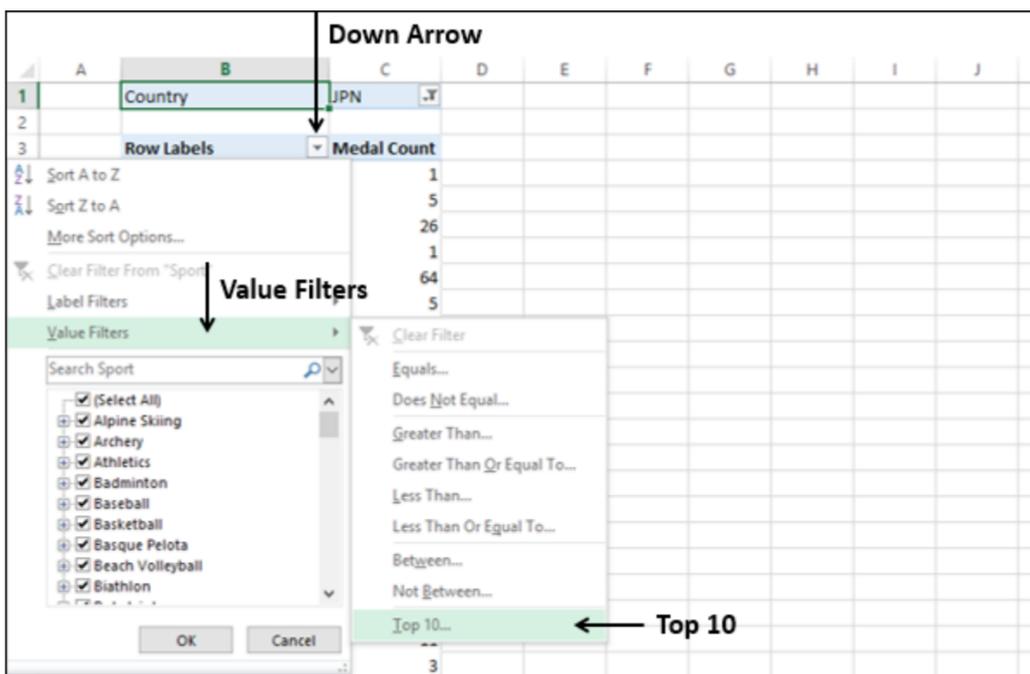
If you want to show only the top **n** number of items in a column or PivotTable, you have the following two options –

- You can select **n** number of top values in the PivotTable.
- You can create a DAX formula that dynamically ranks values and then uses the ranking values in a Slicer.

Applying a Filter to Show only the Top Few Items

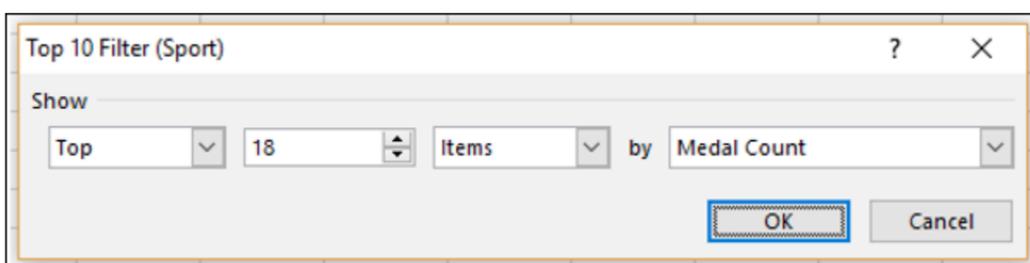
To select **n** number of top values for display in the PivotTable, do the following –

- Click the down arrow in the row labels heading in the PivotTable.
- Click the Value Filters in the dropdown list and then click Top 10.



Top 10 Filter (<column name>) dialog box appears.

- Under Show, select the following in the boxes from left to right:
 - Top
 - 18 (The number of top values that you want to display. The default is 10.)
 - Items.
 - In the by box, select Medal Count.



- Click OK. The top 18 values will be displayed in the PivotTable.

Advantages and Disadvantages of Applying Filter

Advantages

- It is simple and easy to use.
- Suitable for tables with large number of rows.

Disadvantages

- The filter is solely for display purposes.
- If the data underlying the PivotTable changes, you must manually refresh the PivotTable to see the changes.

Creating a DAX Formula That Dynamically Ranks Values

You can create a calculated column using a DAX formula that contains the ranked values. You can then use a slicer on the resulting calculated column to select the values to be displayed.

You can obtain a rank value for a given value in a row by counting the number of rows in the same table having a value larger than the one that is being compared. This method returns the following –

- A zero value for the highest value in the table.
- Equal values will have the same rank value. If **n** number of values are equal, the next value after the equal values will have a nonconsecutive rank value adding up the number **n**.

For example, if you have a table 'Sales' with sales data, you can create a calculated column with the ranks of the Sales Amount values as follows –

```
= COUNTROWS ( FILTER ( Sales,
    EARLIER ( Sales [Sales Amount] ) < Sales [Sales Amount] )
) + 1
```

Next, you can insert a Slicer on the new calculated column and selectively display the values by ranks.

Advantages and Disadvantages of Dynamic Ranks

Advantages

- The ranking is done in the table and not on a PivotTable. Hence, can be used in any number of PivotTables.
- DAX formulas are calculated dynamically. Hence, you can always be sure that the ranking is correct even if the underlying data has changed.
- Since the DAX formula is used in a calculated column, you can use the ranking in a Slicer.
- Suitable for tables with large number of rows.

Disadvantages

Since the DAX calculations are computationally expensive, this method might not be suitable for tables with large number of rows.