

Dynamic Top N in Power BI

Purpose

This document covers how to use TOP N dynamically in Power BI Service. This is high level document and assume resource has basic knowledge of Power BI Concepts.

What is TOP N?

TOP N limits the number of records returned from the data set. This is used for the most recent or the best records of a result set.

How we will use the TOP N in Power BI?

In Power BI there is no functionality to dynamically calculate TOP N. We can create Dynamic TOP N using What If Parameter functionality.

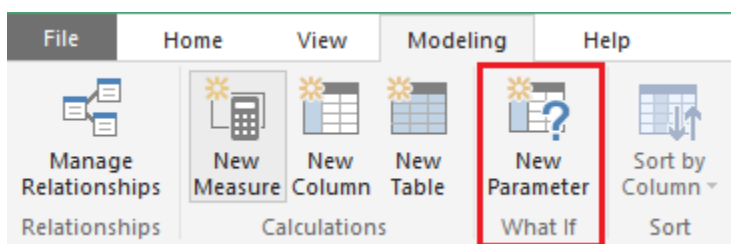
What if Parameter - This will allow to use slicer to view TOP N values dynamically. If the user slides it to zero, it will display all the records.

For Example, I want to show Top 10 City by Total sale. We need to first figure out what we want to show on which basis.

Creating TOP N Slicer using What if Parameter

Below are the steps to create slicer:

1. In Power BI, Go to **Modeling** tab and then clicked on **New Parameter**.



2. When we create Top N What-if parameter, we can change the values according to our requirements. Below is an example of What-if parameter.

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What-if parameter

Name

Data type

Minimum

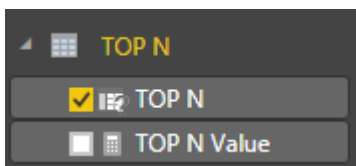
Maximum

Increment

Default

☒ Add slicer to this page

3. User can then see the new table created on the right-hand side under the Field Section as well as the slicer added on the reporting canvas.



Creating TOP N Measure

We have existing table i.e **TOP N Table** having columns City, and Total Sales. Below is the **TopN City** measure. Refer to the comments giving explanation for each line of the formula.

```
TopN City =  
VAR SelectedTop = SELECTEDVALUE('TOP N'[TOP N])  
RETURN  
if (  
    SelectedTop = 0, CALCULATE (SUM ('TOP N Table'[Total Sales])),  
    if(RANKX (  
        ALLSELECTED( 'TOP N Table'[City]),  
        CALCULATE(SUM('TOP N Table'[Total Sales]))  
    )  
    <= SelectedTop, CALCULATE (SUM('TOP N Table'[Total Sales]))  
))
```

Output

1. Table data reflect according to the value selected in the slicer.



City	TopN City
Jaipur	3000000
Agra	1000000
Ludhiana	900000
Chennai	888888
Pune	800000

2. If we change the value in the slicer the same is reflected in table dynamically.



City	TopN City
Jaipur	3000000
Agra	1000000
Ludhiana	900000