

Filters in Power BI

Version 1.0

Author-Shivani Kaushal

Date: 14 May 2018

Purpose

This document covers the concept of “Filters” in Power BI. This is high level document created by assuming that resource has basic knowledge of Power BI Concepts.

What are Filters?

Filters are the kind of “restrictions” or “conditions” applied on the data of the report to restrict unwanted data and show only the data which is desirable.

What is the role of Filters?

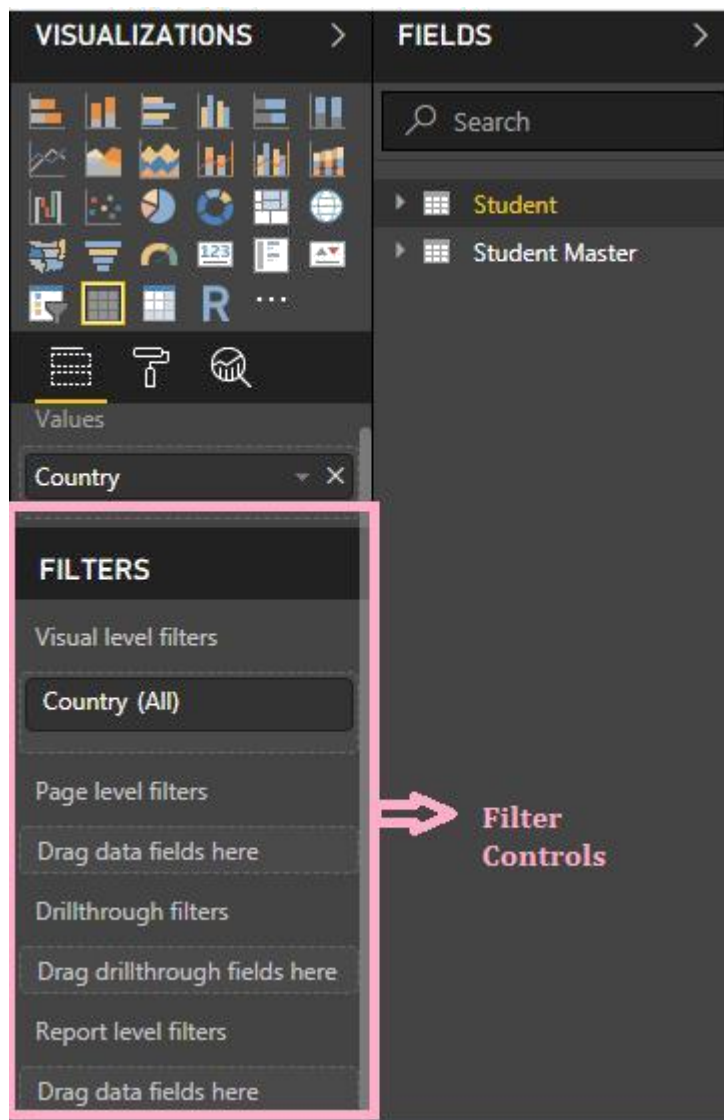
Filters help us to pare down the report until it only shows the data that we want to show in that report. They are quite helpful in clarifying large quantities of data and only shows the limited quantity of data which is required by the viewer.

Types of Filters

Power BI offers us different types of filters as listed below, to filter the data and they can be applied to different layers.

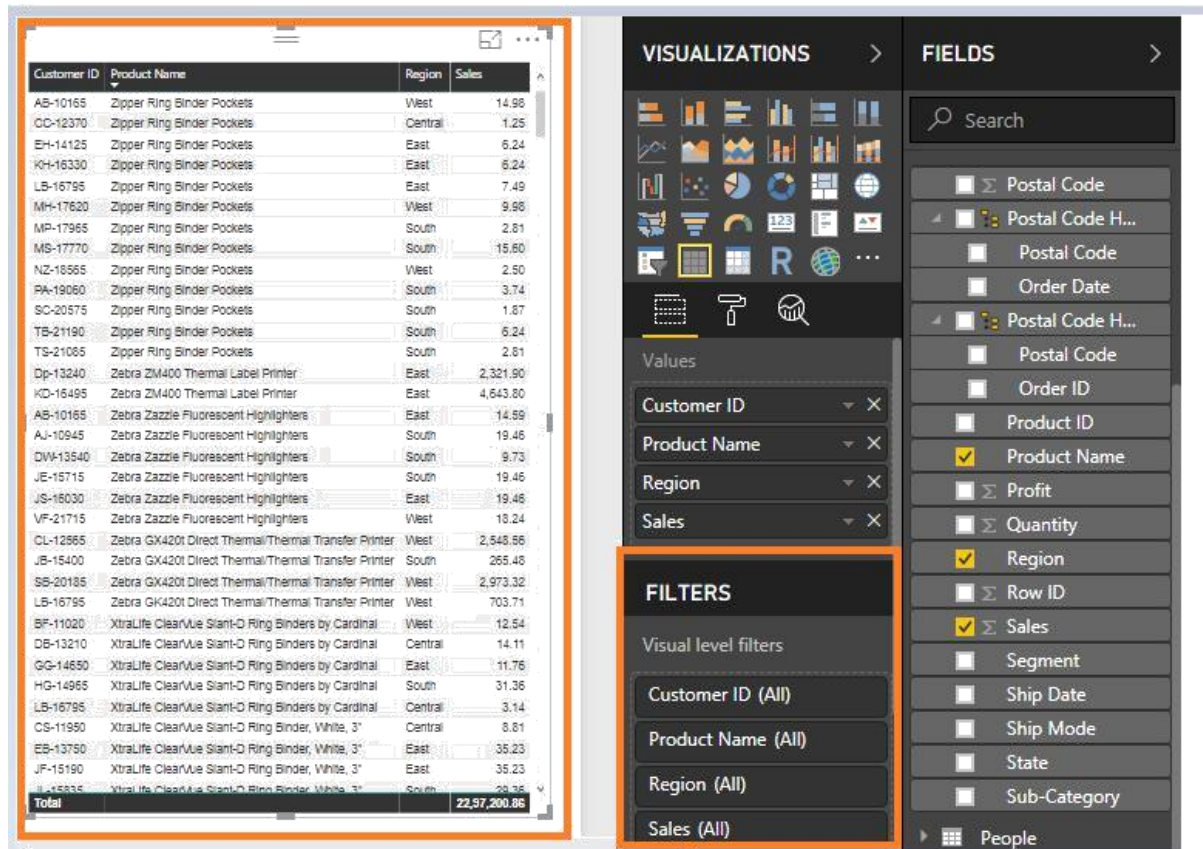
- **Visual-level filters**
- **Page-level filters**
- **Report-level filters**
- **Drillthrough filters**

We can set all these filters in the Filter section of the Visualizations pane as seen in below figure.



We can configure different filters in the above highlighted place.

Visual-level filters :- These filters work only on single visualization on a report page. They reduce the amount of data that the visual can see. These filters can filter both data and calculations.



When we drag data fields from the tables in the “Values”, then Visual level filters will be enabled and data is displayed as seen in above figure. We can click on these data fields to apply a filter, by simply selecting some values from list.

For example,

- Click on data field “Region” and we can see that below list of regions will be displayed. By default the “Filter Type” is “Basic filtering” and data is coming for all the regions in a table.

Customer ID	Product Name	Region	Sales
AS-10165	Zipper Ring Binder Pockets	West	14.98
CC-12370	Zipper Ring Binder Pockets	Central	1.25
EH-14125	Zipper Ring Binder Pockets	East	6.24
KH-16330	Zipper Ring Binder Pockets	East	6.24
LB-16795	Zipper Ring Binder Pockets	East	7.49
MH-17620	Zipper Ring Binder Pockets	West	9.98
MP-17965	Zipper Ring Binder Pockets	South	2.81
MS-17770	Zipper Ring Binder Pockets	South	15.60
NZ-18565	Zipper Ring Binder Pockets	West	2.50
PA-19060	Zipper Ring Binder Pockets	South	3.74
SC-20575	Zipper Ring Binder Pockets	South	1.87
TB-21190	Zipper Ring Binder Pockets	South	6.24
TS-21085	Zipper Ring Binder Pockets	South	2.81
Dp-13240	Zebra ZM400 Thermal Label Printer	East	2,321.90
KD-16495	Zebra ZM400 Thermal Label Printer	East	4,643.80
AS-10165	Zebra Zazzle Fluorescent Highlighters	East	14.59
AJ-10945	Zebra Zazzle Fluorescent Highlighters	South	19.46
DWA-13540	Zebra Zazzle Fluorescent Highlighters	South	9.73
JE-15715	Zebra Zazzle Fluorescent Highlighters	South	19.46
JS-18030	Zebra Zazzle Fluorescent Highlighters	East	19.46
VF-21715	Zebra Zazzle Fluorescent Highlighters	West	18.24
CL-12565	Zebra GX420t Direct Thermal/Thermal Transfer Printer	West	2,548.56
JB-15400	Zebra GX420t Direct Thermal/Thermal Transfer Printer	South	265.48
SB-20185	Zebra GX420t Direct Thermal/Thermal Transfer Printer	West	2,973.32
LB-16795	Zebra GX420t Direct Thermal/Thermal Transfer Printer	West	703.71
BF-11020	XtraLife ClearVue Slant-O Ring Binders by Cardinal	West	12.54
DB-13210	XtraLife ClearVue Slant-O Ring Binders by Cardinal	Central	14.11
GG-14650	XtraLife ClearVue Slant-O Ring Binders by Cardinal	East	11.76
HG-14965	XtraLife ClearVue Slant-O Ring Binders by Cardinal	South	31.36
LB-16795	XtraLife ClearVue Slant-O Ring Binders by Cardinal	Central	3.14
CS-11950	XtraLife ClearVue Slant-O Ring Binder, White, 3"	Central	8.81
ES-13750	XtraLife ClearVue Slant-O Ring Binder, White, 3"	East	35.23
JF-15190	XtraLife ClearVue Slant-O Ring Binder, White, 3"	East	35.23
JP-15535	XtraLife ClearVue Slant-O Ring Binder, White, 3"	South	22.78
Total			22,97,200.86

- If we select region “South” from the list, then data will be displayed for only “South” region as seen below:

Customer ID	Product Name	Region	Sales
JE-15610	Seth Thomas 6 1/2" Cubicle Clock	South	48.67
KH-16510	Seth Thomas 6 1/2" Cubicle Clock	South	60.84
JG-15115	Seth Thomas 16" Steel Case Clock	South	77.95
AP-10720	Seth Thomas 14" Day/Date Wall Clock	South	45.57
JC-15775	Seth Thomas 14" Day/Date Wall Clock	South	142.40
CL-12555	Sensible Storage WireTech Storage Systems	South	354.90
CP-12340	Sensible Storage WireTech Storage Systems	South	113.57
KF-16285	Self-Adhesive Removable Labels	South	15.75
BF-10975	Self-Adhesive Address Labels for Typewriters by Universal	South	17.54
DB-13555	Self-Adhesive Address Labels for Typewriters by Universal	South	7.31
BF-11170	Security-Tint Envelopes	South	12.22
CS-12355	Security-Tint Envelopes	South	15.28
CM-11935	Sauder Forest Hills Library, Woodland Oak Finish	South	451.14
DW-13555	Sauder Cornerstone Collection Library	South	198.27
TC-21535	Sauder Cornerstone Collection Library	South	61.95
BD-11725	Sauder Camden County Barnister Bookcase, Planked Cherry Finish	South	241.95
DR-12940	Satellite Sectional Post Binders	South	477.51
LB-16795	Sanyo 2.5 Cubic Foot Mid-Size Office Refrigerators	South	671.54
RB-19570	Sannylis Cute Owl Design Soft Skin Case Cover for Samsung Galaxy S4	South	7.92
CA-12775	Sanitaire Vibra Groomer IIR Commercial Upright Vacuum, Replacement Belts	South	13.00
JP-16135	SANFORD Major Accent Highlighters	South	35.40
FH-14275	SANFORD Liquid Accent Tank-Style Highlighters	South	2.84
RA-19285	Sanford Liquid Accent Highlighters	South	10.69
SV-20785	Sanford Colorific Scented Colored Pencils, 12/Pack	South	8.55
JK-15730	Sanford Colorific Colored Pencils, 12/Box	South	25.92
BG-11035	Sanford 52201 APSOO Electric Pencil Sharpener	South	32.78
SC-20800	SanDisk Ultra 32 GB MicroSDHC Class 10 Memory Card	South	66.30
EB-13750	SanDisk Ultra 16 GB MicroSDHC Class 10 Memory Card	South	25.98
SP-20860	SanDisk Ultra 16 GB MicroSDHC Class 10 Memory Card	South	72.74
DB-13405	SanDisk Cruzer 64 GB USB Flash Drive	South	87.17
BN-11470	SanDisk Cruzer 32 GB USB Flash Drive	South	15.22
MA-17995	SanDisk Cruzer 16 GB USB Flash Drive	South	22.95
CC-10145	SanDisk Cruzer 8 GB USB Flash Drive	South	11.97
Total			3,91,721.91

Customer ID (All)

Product Name (All)

Region

is South

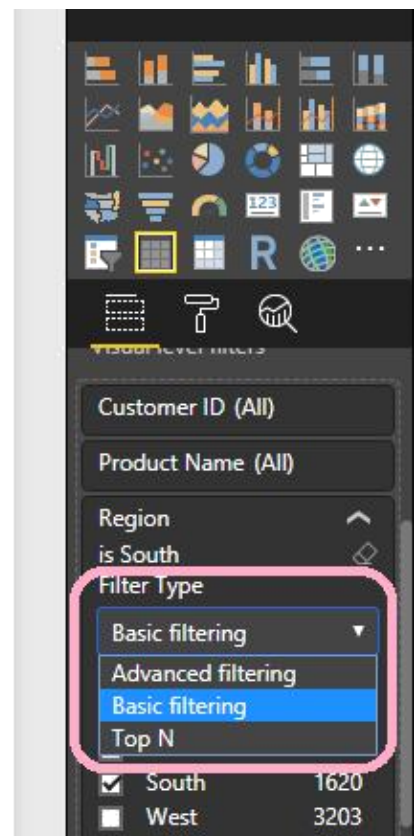
Filter Type

Basic filtering

☐ Select All
 ☐ Central 2323
 ☐ East 2848
 ☒ South 1620
 ☐ West 3203

- We can also choose the “Filter Type” as “Advance filtering” or “Top N”, if we want to apply any condition or want to display top number of rows respectively.

Customer ID	Product Name	Region	Sales
MP-17965	Zipper Ring Binder Pockets	South	2.81
MS-17770	Zipper Ring Binder Pockets	South	15.60
PA-19060	Zipper Ring Binder Pockets	South	3.74
SC-20575	Zipper Ring Binder Pockets	South	1.87
TB-21190	Zipper Ring Binder Pockets	South	6.24
TS-21065	Zipper Ring Binder Pockets	South	2.81
AJ-10945	Zebra Zazzle Fluorescent Highlighters	South	19.46
DW-13540	Zebra Zazzle Fluorescent Highlighters	South	9.73
JE-15715	Zebra Zazzle Fluorescent Highlighters	South	19.46
JB-15400	Zebra GX420t Direct Thermal/Thermal Transfer Printer	South	265.48
HG-14965	XtraLife ClearVue Slant-O Ring Binders by Cardinal	South	31.36
JL-15835	XtraLife ClearVue Slant-O Ring Binder, White, 3"	South	29.36
SM-20950	XtraLife ClearVue Slant-O Ring Binder, White, 3"	South	17.62
ST-20530	XtraLife ClearVue Slant-O Ring Binder, White, 3"	South	58.72
VS-21820	XtraLife ClearVue Slant-O Ring Binder, White, 3"	South	30.83
CK-12760	X-Rack File for Hanging Folders	South	56.45
SB-20290	X-Rack File for Hanging Folders	South	56.45
AA-10375	Xerox 4200 Series Multi-Use Premium Copy Paper (20Lb. and 84 Bright)	South	5.28
AG-10390	Xerox 232	South	71.28
MH-18025	Xerox 231	South	25.92
CK-12595	Xerox 230	South	12.96
PG-18895	Xerox 230	South	32.40
MK-17905	Xerox 23	South	31.10
MK-18160	Xerox 23	South	32.40
DH-13675	Xerox 229	South	31.10
MB-17305	Xerox 227	South	10.37
NS-18640	Xerox 227	South	20.74
VM-21685	Xerox 226	South	58.32
DO-13645	Xerox 225	South	12.96
JK-15370	Xerox 224	South	10.37

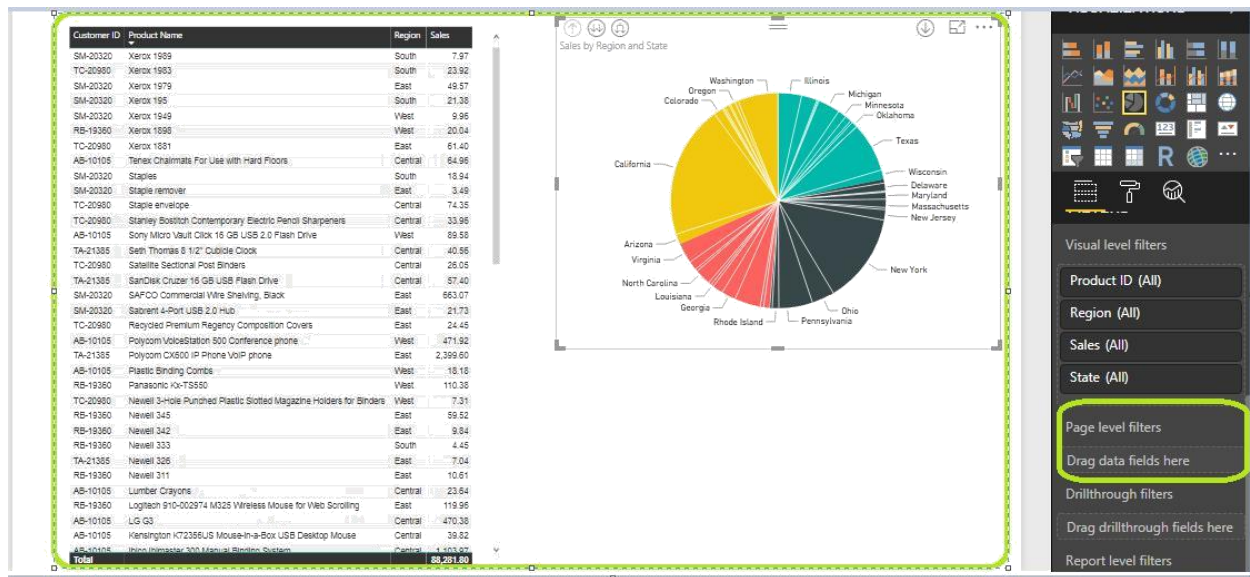


Page-level filters :- These filters work at the page level of the report and can apply to all the visuals present on the page. We can use different filters in different pages of the same report.

For instance, if we apply “Page-level filter” on “State” field, then view of page before and after applying filter is as follows:

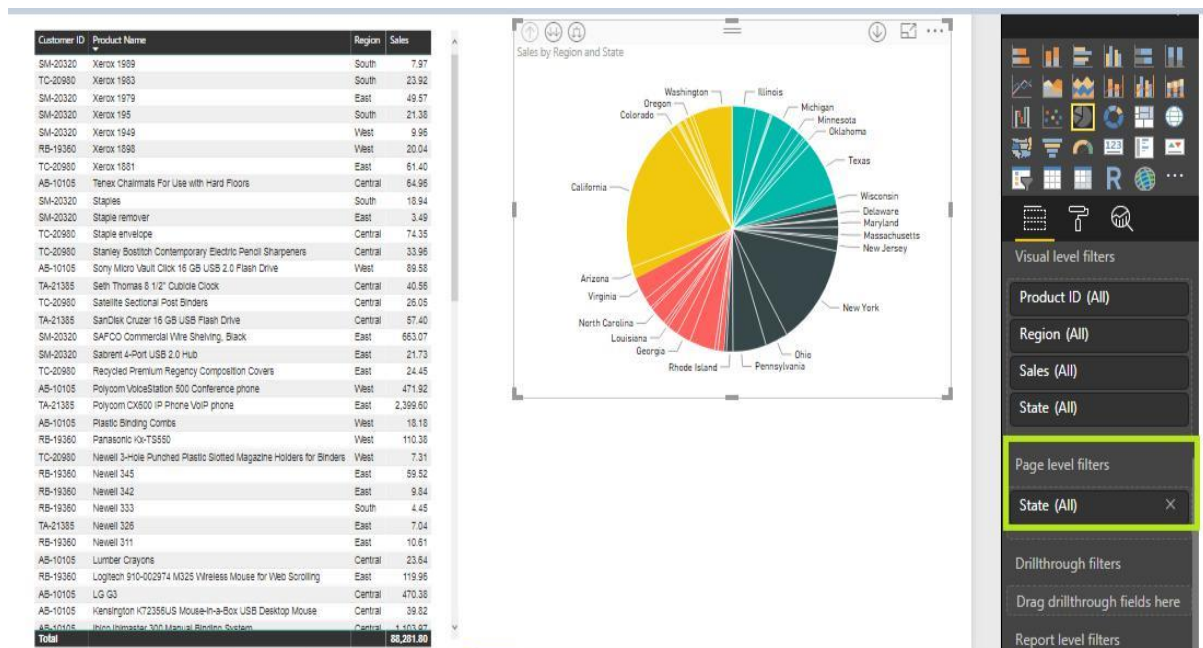
Before applying filter

- Data is displaying for all the states in both the visuals “Table” and “Graph” present on the page.



After applying filter

- Initially, when we drag "State" field to the "Page-level filter" area it shows data same as above (before applying filter) because by default, all values are populated for "State".

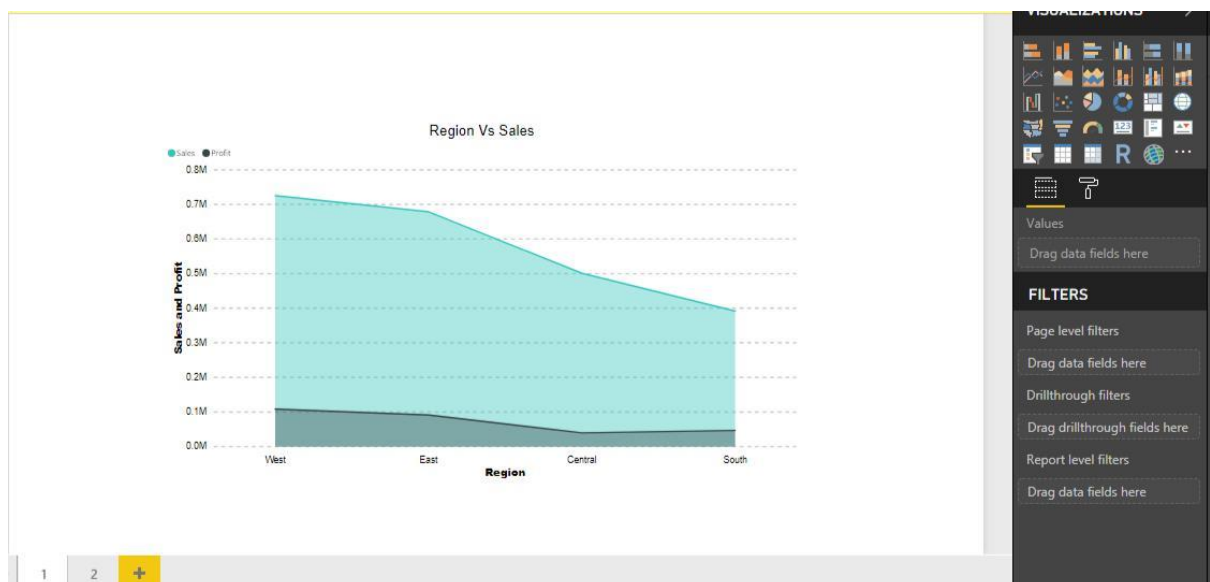


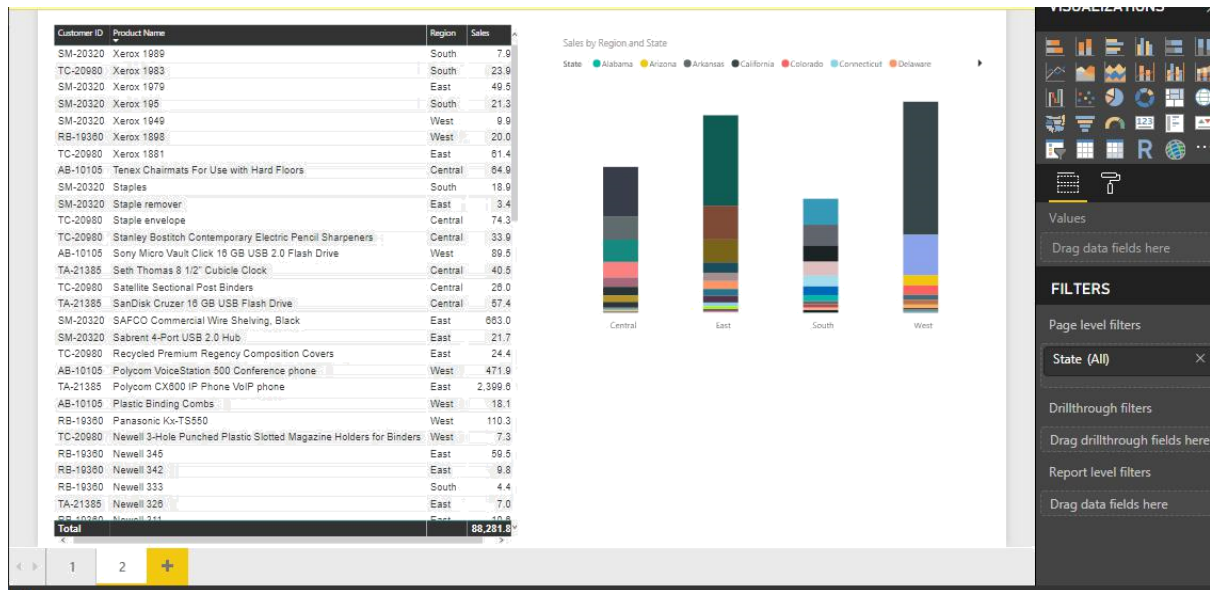
- When we pick two random values from "State", the data will be shown corresponding to that values only in both visuals present on the page.



Report-level filters :-These filters work on the whole report and apply to all pages in the report. They filters all the pages and visuals present in the report. The behavior of these filters is same as “Page-level filters”.

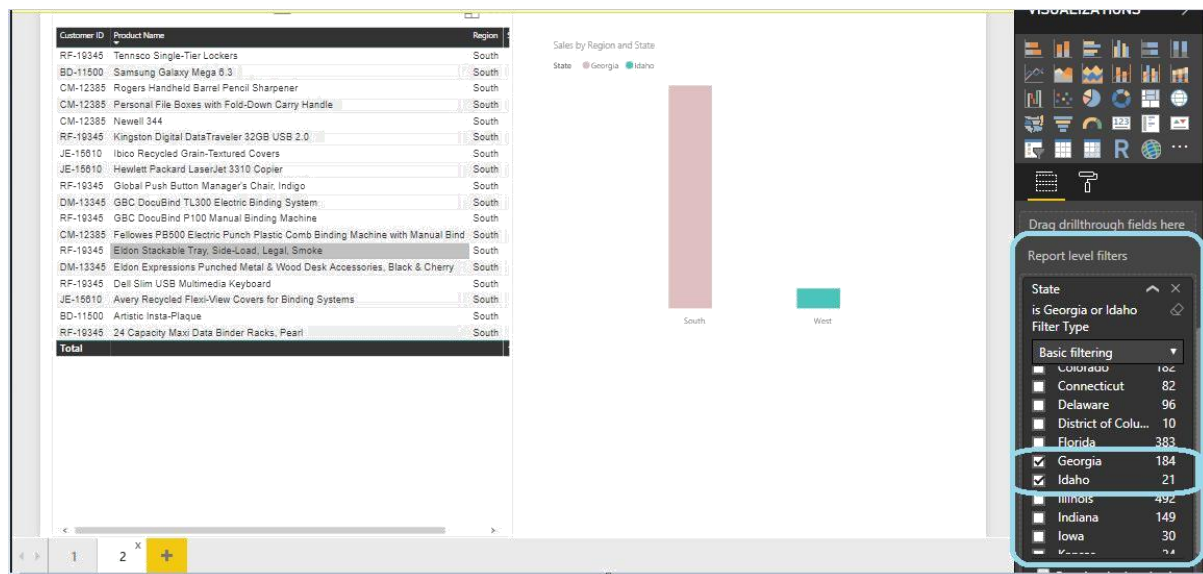
- For example, Take a sample report having 2 pages as shown below:





- When we apply “Report-level filter” on “State” field, then it will affect both the pages as seen in below images.



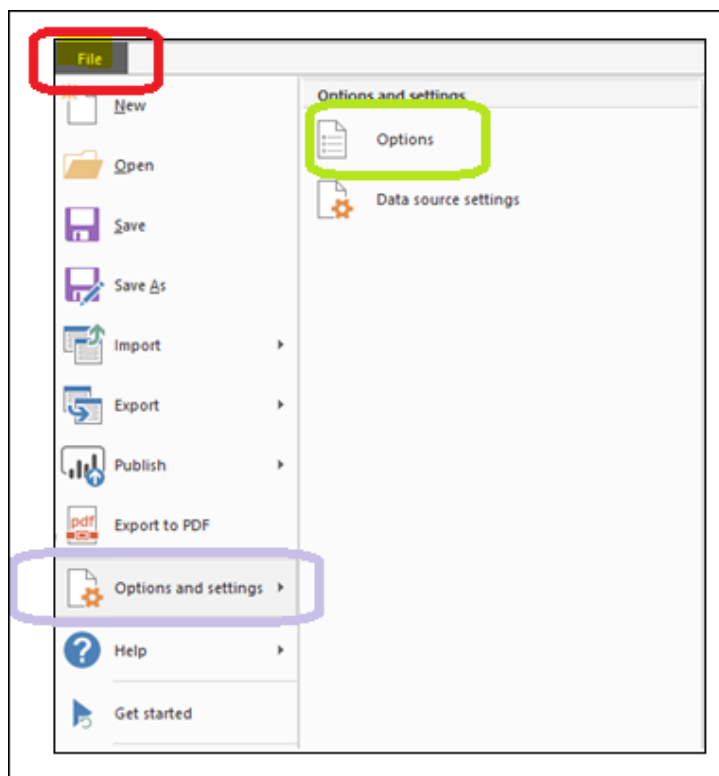


- **Drillthrough filters:-** These filters can be applied to a single entity in a report. We will cover detail for this filter in next blog.

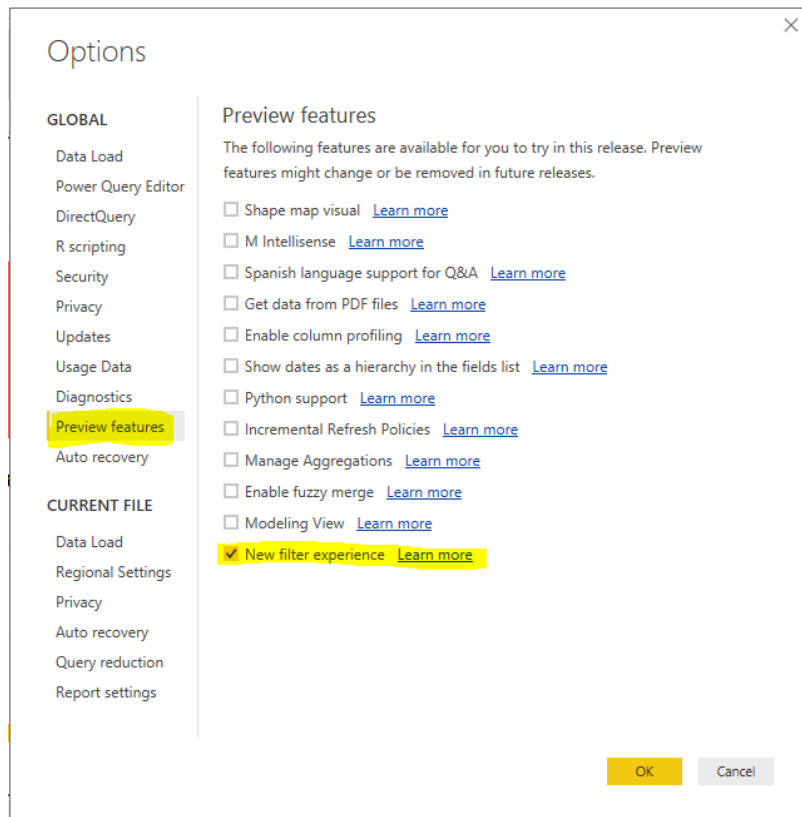
Filter Panel

In Power BI, new preview feature is released which is called Filter Panel. To enable this, we need to follow below steps.

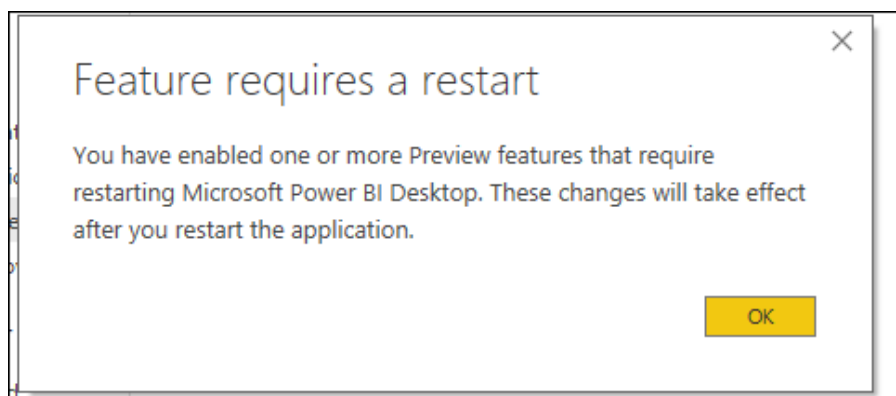
Step 1: Go to “File” menu and click on “Options and Settings” and select “Options” as shown below:



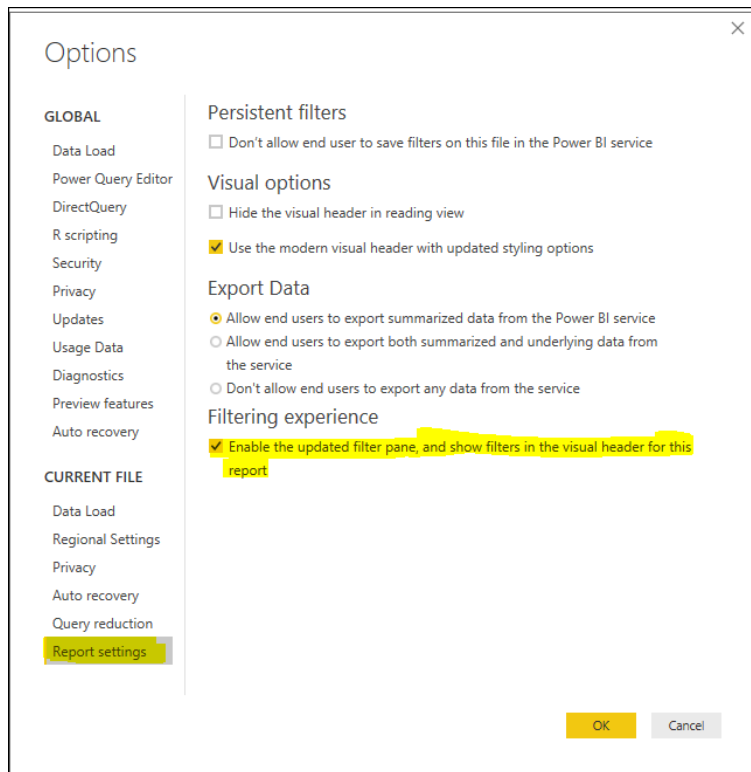
Step 2: In “Options” section, select **Preview features** from the available list and tick the checkbox besides the “**New Filter experience**” feature.



Step 3: After selecting this feature, we will get one pop-up message which says that we need to restart our Power BI application.



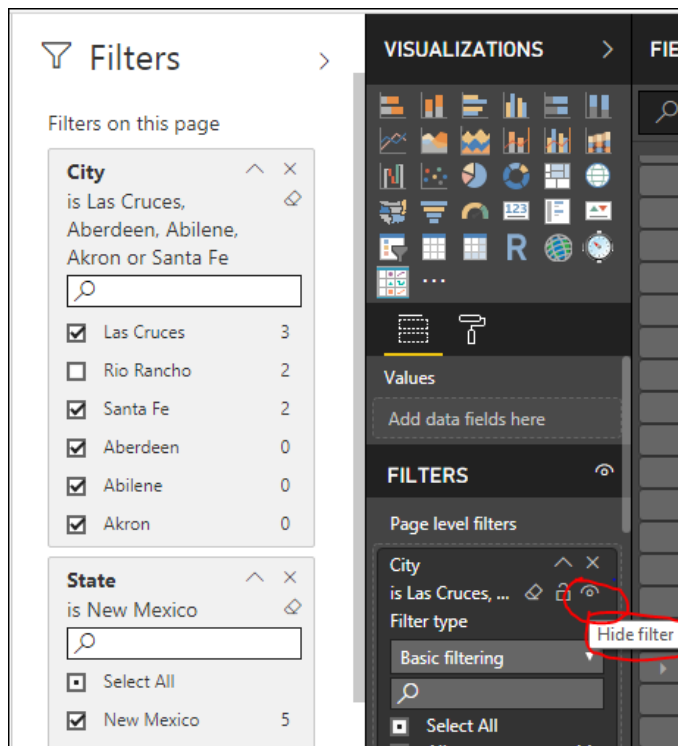
Step 4: Restart Power BI, go to “Report settings” option and click on the feature as highlighted in below screenshot. Once this option is enabled, It will be available for all new future reports.



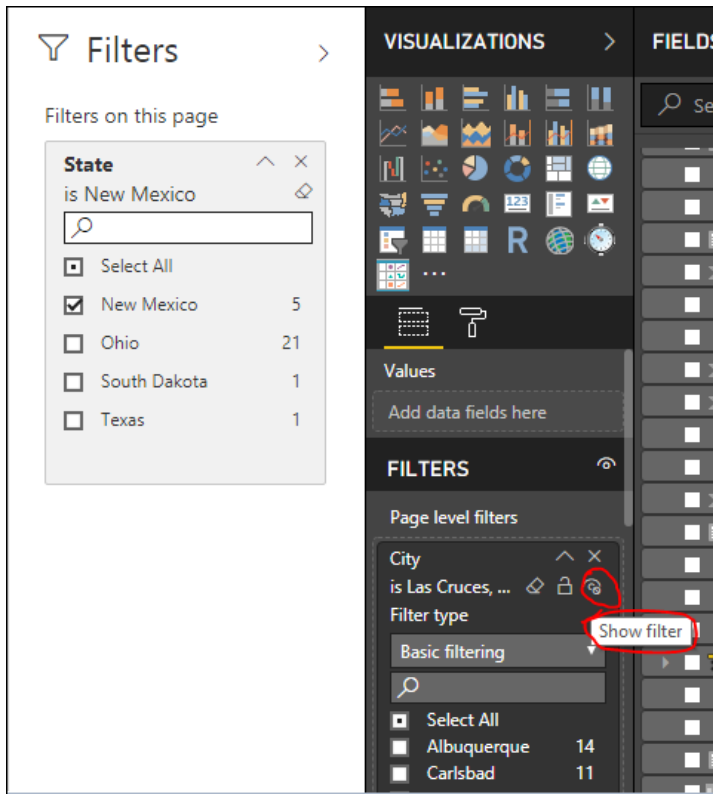
This filter panel has many new functionalities as discussed below:

1. Hide individual filters or the entire filter panel from user.

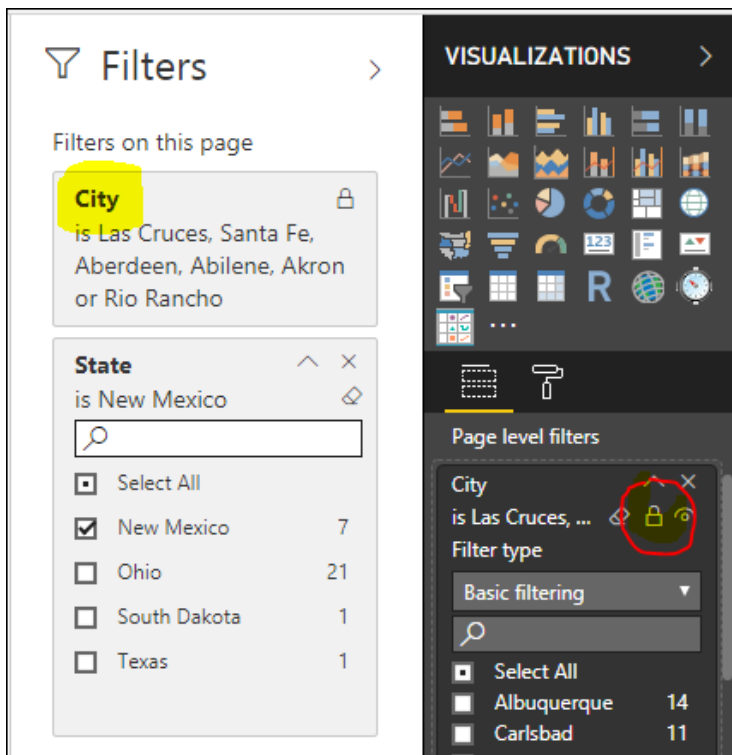
Ex – Here, I am hiding “City” filter from filter panel by clicking on “Hide filter “option.



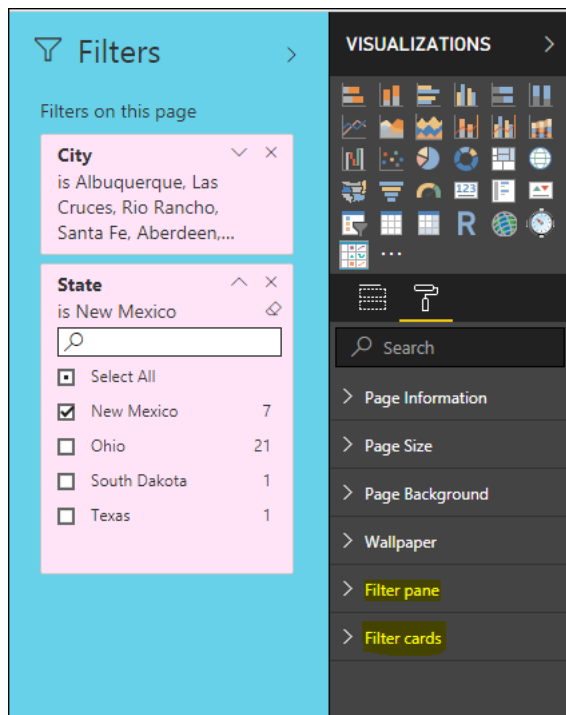
In below screenshot, we can see that **City** has been hidden.



2. Lock filters as **Read Only** for user. As a consequence, the end user will not be able to change filter value.



3. We can also format filter panel by using **Formatting** options to make filter view better.



End users can also “expand / collapsed” filter panel according to their flexibility.