1. **What are the different types of filters and give their working order?**

* **Extract Filter.**
* **Data Source Filter.**
* **Context Filter.**
* **Dimension Filter.**
* **Measure Filter.**
* **Table Calculation Filter**
* **Extract Filter -** When you’re loading in your data you can choose to extract it, saving a snapshot of how it looks in your workbook and ultimately reducing the number of times Tableau queries the data source. To further reduce the size of the data going into Tableau, you can apply filters to the extract, which can be either by a certain dimension or measurement.
* A tip you can use to enhance your performance is that when you have finished with your Dashboard(s), Extract and **Hide All Unused Fields**, which filters out all columns not used in the workbook.
* **Data Source Filter** - Data Source Filters reduce the amount of data being fed into Tableau and restrict what data the viewer sees. With certain access rights, the viewer can view all the underlying data, so if not done in the data source, Data Source Filters can be used to control sensitive data. One thing that is important to note is that Extract and Data Source Filters are not linked. So, if you change back to a live connection your Data Source Filters will still be intact.
* **Context Filter** -All filters in Tableau are applied to all rows of your data without regards to other filters.

If for example, you need one filter to be applied before other filters, either for performance reasons (filter out a certain category to show Top X) or if you have a **FIXED** function in your view that needs to be filtered, making this a Context filter will make sure it is processed first. Context Filters are limited to the view but can be applied to Selected Sheets, All Using Same Data Source or All Using Related Data Source. While Context filters can improve performance, if they do not reduce the data enough (the rule is by 1/10 or more), the cost of computing them is too high to be beneficial.

* **Dimension Filter** - Another name for non-aggregated filters (blue pills), such as Dimensions, Groups, Bins, Sets, etc. These are applied by both dragging them on the Filters pane or right-clicking on the specific dimension and selecting **Show Filter.**

You can choose to either only show the things highlighted or by ticking **Exclude** it will instead filter out the Dimensions selected. This will be shown by a strikethrough. If you have many dimensions you can search for it, but make sure to click **All**or**None** to select/deselect all depending on what you want to do.

In the filter dialog that pops up, there are three tabs for **Wildcard, Condition**, and **Top.** Here you can choose if you want to show the Top 10 (or by Parameter) by certain measurement or by a certain condition. The filters can be edited at any time by right-clicking on the pill and **Edit Filter.**

* **Measure Filter** - Aggregated filters are applied after non-Aggregated filters, no matter what order they are shown on the Filters pane. When dragging it on, Tableau will ask you how you want to filter – in other words, what aggregation to use (**Sum, Avg, Median, Standard Deviation**, etc.) The second step will give you four options**: Range of values, At least, At most** and **Special.** You can choose to drag or type in the number you want to filter on**. Special** is if you want to include **Null** values or not.
* **Table Calculation Filters-** A Table Calculation is the last filter applied and it applies the filters after the view has been produced. So if you want to filter the view without filtering the underlying data, Table Calculations Filters are the way to go. For example, if you are showing a reference line and don’t want this to change when using a quick filter.