

Tableau Interview Questions

1. Difference between tableau extensions .twb and .twbx.

Twbx:

1. .twbx file is a Tableau Packaged Workbook, meaning it is the original .twb file grouped together with the data source(s) in one package.
2. .twbx files can be considered analogous to specialized zip files, in which these “zip” files contain all the information necessary to work in Tableau.
3. The primary advantage to using .twbx files is that analysis can be performed without network/internet connections to your data because your data is already present on your computer in this packaged file.

Twb:

1. The .twb file alone is not enough to perform any analysis because it only contains Tableau’s instructions for interacting with a data source.
2. In actuality, .twb files are XML files specially tailored to interact with data sources.
3. They are custom built to make the awesome visualizations that Tableau generates. Here you can see a picture of a .twb file opened in Notepad++.

2. What is the Dimensions and Measures?

Dimension: A dimension is a field that can be considered an independent variable. Dimensions typically produce headers when added to the rows or columns shelves in the view. By default, Tableau treats any field containing qualitative, categorical information as a dimension. This includes, for instance, any field with text or dates values. This means that a measure can be aggregated for each value of the dimension. For instance, you might calculate the Sum of “Sales” for every “State”. In this case the State field is acting as a dimension because you want to aggregate sales for each state.

The values of Sales are dependent on the State, so State is an independent field and Sales is a dependent field

Measure: A measure is a field that is a dependent variable; that is, its value is a function of one or more dimensions.

Measures typically produce axes when added to the rows or columns shelves. By default, Tableau treats any field containing numeric (quantitative) information as a measure.

This means that a measure is a function of other dimensions placed on the worksheet. For instance, you might calculate the Sum of “Sales” for every “State”. In this case, the Sales field is acting as a measure because you want to aggregate the field for each state. But measures could also result in a non-numeric result. For instance, you might create a calculated measure called “Sales Rating” that results in the word “Good” if sales are good and “Bad” otherwise. In this case the “Sales Rating” field acts as a measure even though it produces a non-numeric result. It is considered a measure because it is a function of the dimensions in the view.

3. What is KPI in Tableau.?

We can easily create a view that shows Key Progress Indicators (KPIs). To do this, you complete the following tasks:

- Create the base view with the fields you want to measure.
- Build a calculated field that establishes the figure from which you measure progress for the data you’re measuring.
- Use shapes that Tableau provides that are designed specifically for KPIs.

This example shows how to build a KPI view that shows a green check mark for any sales figure over \$125,000, and

a red X for any sales figure under \$125,000.

4.Preparing data for Tableau.

1. Cleanup dimensions and measure names.
2. Set attribute aliases.
3. Set default colors
4. Set default measure aggregations.
5. Create calculated fields.

5.Is Parameter have it's dropdown list..?

Yes, But it will be called as Compact list.

6.What is the criteria to blend the data from multiple data sources.?

There should be a common dimension to blend the data source into single worksheet. For example, when blending Actual and Target sales data, the two data sources may have a Date field in common. The Date field must be used on the sheet. Then when you switch to the secondary data source in the Data window, Tableau automatically links fields that have the same name. If they don't have the same name, you can define a custom relationship that creates the correct mapping between fields.

7.Can we use Groups and Sets in calculation field.?

- Groups: No, we can not use Groups in calculation fields.
- Sets: Yes, we can use Sets in calculation fields.

8.Difference between Grouping and Sets.?

- Groups – Combine dimension members into higher level categories.
- Sets – Create a custom field based on existing dimensions that can be used to encode the view with multiple dimension members across varying dimension levels.

9.What is context filter in Tableau 7.0?

If you are applying filters to a large data source, you can improve performance by setting up context filters. A context filter is applied to the data source first, and then the other filters are applied only to the resulting records. This sequence avoids applying each filter to each record in the data source.

You may create a context filter to:

- Improve performance – If you set a lot of filters or have a large data source, the queries can be slow. You can set one or more context filters to improve performance.
- Create a dependent numerical or top N filter – You can set a context filter to include only the data of interest, and then set a numerical or a top N filter.

10.What is Dual Axis.?

You can compare multiple measures using dual axes, which are two independent axes that are layered on top of each other. Dual axes are useful when you have two measures that have different scales.

For example, the view below shows Dow Jones and NASDAQ close values over time.

To add the measure as dual axis drag the field to the right side of the view and drop it when you see a black dashed line. You can also select Dual Axis on the field menu for the measure.

11.Can we use Parameter in Filter.?

Yes, We can use.

12.What is page self..?

The Pages shelf is a powerful part of Tableau that you can use to control the display of output as well as the printed result of that output.

13.How to Improve Performance in Tableau.?

1. Use an extract.

There is nothing else that comes close to the efficiency gained using an extract. If you don't absolutely need live data, extracting is the best bet.

2. Limit your dashboard to fully answering only one scenario.

At it's simplest, a dashboard should be able to fully explore a single scenario. If your dashboard has six sheets, five actions, and 3 quick filters, you might not be looking at only one scenario.

Remember, no matter how elegant and comprehensive your solution is, if it doesn't run as quickly as the user would like it to, he or she will not use it. I would not recommend butchering your dashboard so heavily that it cannot fully handle a scenario. If the user has to go somewhere else to find the answer, why did they use your dashboard at all?

3. Limit the data being introduced to each worksheet.

If you are not planning on using a set of rows, you should filter them out of the data set as early as possible. If your table contains all sales, and you only want to look at US sales, create a Custom SQL query that filters it out. If the filter is worksheet dependent, try using a Context Filter. For more information on filtering, check out my other post Types of Filters in Tableau. You can also click the Down Arrow beside the word "Dimension" and Select "Hide All Unused Fields" to hide any fields you are not using in any of your worksheets. I'm not sure if this improves efficiency; but I'd have to imagine that it does, less data should always improve performance.

4. Remove components that add no value.

While aesthetics are very important to building a usable dashboard, unimportant objects aren't worth losing efficiency over. In fact, you would be better off adding more functionality than you would by adding a purely aesthetic object.

5. Eliminate any non-essential components from the visualization.

This refers to values that would appear on the Pages, Filters, and Level of Detail Shelves. If they are purely there for the user to see if they scroll over a point, then they aren't adding any value to the initial glance. However, I leave this as the last step because it should be a last resort.

In most cases, a little forethought can save you a lot of heartache when you are creating dashboards. Decide exactly what story you want to tell, and tell only that. It is much easier to add functionality to a small dashboard, than to butcher a large one. Thanks for reading.

14.How many types of filters are there in Tableau.?

In Tableau, there are three types of filters. More explicitly, there are three different ways to limit the data that is displayed by your graph. Each of these has its own strengths and weaknesses, and we will look at them one at a time.

These types are

1. Custom SQL "Filters"

2. Context Filters

3. Traditional Filters.

Custom SQL Filters:

Custom SQL "Filter" is a WHERE clause that is placed in the SQL that queries the data to be used in the workbook. "Filter" is a Tableau term that technically applies only to Context and Traditional Filters; however, the Custom SQL "Filter" emulates the behavior of a global Context Filter, so we will refer to it as such. By construction, Custom SQL "Filters" are always global.

The most common reason for using a Custom SQL "Filter" is to limit the size of a data extract.

The smaller your data extract, the more quickly your charts will load. In other words, you can

make more complex charts without sacrificing efficiency.

One of the ways to create a Custom SQL “Filter” is during the Server Connection process.

Context Filters:

a Context Filter is a filter in Tableau that affects the data that is transferred to each individual worksheet. Context Filters are great when you want to limit the data seen by the worksheet.

When a worksheet queries the data source, it creates a temporary, flat table that is used to compute the chart. This temporary table includes all values that are not filtered out by either the Custom SQL or the Context Filter. Just like with Custom SQL “Filters”, your goal is to make this temporary table as small as possible.

Context Filters have a few advantages over Traditional Filters. First, they execute more quickly than Traditional Filters. They are also executed before Traditional Filters and can be executed all at once, which further improves efficiency. However, they do have one drawback. It takes time for the filter to be placed into context. A rule of thumb, from Tableau’s KnowledgeBase, is to only place a filter into context if it reduces the data by at least 10%.

A Context Filter is created by dragging a field onto the “Filters” Shelf and editing the filter. Then, you can Right-Click the field on the shelf and select “Add to Context.” If you have multiple context filters, you can CTRL-Select them all and add them to context in a batch. This will improve the efficiency of your filter.

Traditional Filters:

Traditional Filter is exactly what most people think of when they think of filters. When Tableau is creating the visualization, it will check to see if a value is filtered out by a Traditional Filter.

Since this is not performed at the table level, it is the slowest of all filter types. However, it does have the advantage of being performed after the Context Filters. This is a necessity if you are dealing with complex “Top N” filters. A Traditional Filter can be created by simply dragging a field onto the “Filters” Shelf.

15. Is there any new features implemented in tableau 8.0 regarding the tableau server performance improvement?

1. Use an extract:
2. Limit your dashboard to fully answering only one scenario:
3. Limit the data being introduced to each worksheet:
4. Remove components that add no value:
5. Eliminate any non-essential components from the visualization

16. What are the other settings I need to reconfigure to get better performance as I am using 7.0 tableau server and planning to upgrade to latest versions? Suggest best configurations based on the provided server details?

Tableau 8,8.1 and 8.2 also supported for 4GB ram and core processors.

17. How many viz SQL process should I run?

Depending on Data Capacity

18. How many extracts (extract type) can be used on a single server (without effecting server performance like memory) ?

Better 10

19. What are the possible reasons for slow performance in Tableau?

More Extracts, filters and depends on data sources

20. How to check the performance step by step manner (DB, Report side, Network) in tableau report ?

Go to help menu and select performance tuning option.

21.How to improve the tableau report performance?

If you are not planning on using a set of rows, you should filter them out of the data set as early as possible. If your table contains all sales, and you only want to look at US sales, create a Custom SQL query that filters it out. If the filter is worksheet dependent, try using a Context Filter. For more information on filtering, check out my other post Types of Filters in Tableau. You can also click the Down Arrow beside the word “Dimension” and Select “Hide All Unused Fields” to hide any fields you are not using in any of your worksheets. I’m not sure if this improves efficiency; but I’d have to imagine that it does, less data should always improve performance.

22.How we can find the tableau Report Rendering Time.?

Report rendering time=Network time(request from URL to Report server) +Query execution time + Network time(response from SQL Server)+calculations(table column)+time taken to display the report in desired format(html/ pdf/ excel)

23.What kind of technology is a Tableau Viz?

It is a thin AJAX based JavaScript application

24.Is there a limit on storage space for the data?

Yes, there is a 1 gigabyte limit on storage space for data. For the vast majority of users, we expect that 1 GB will be more space than needed.

25.How do you create dashboard.? Can you explain the life cycle.?

Once we have proper requirement we will create the worksheet in Developer environment and create the dashboard with all th

e worksheets and then do the unit testing and if everything looks good then we will publish the same in to the dev server with valid permission and the migration will be taken care by our tableau administrator.

26.Can you explain about table calculations?

These are inbuilt calculations in tableau which we normally use to calculate Percentage from or for YTD and other calculations like the measure across table, below table and etc..

27.I have one scenario like Year in integer and week in String and wanted to calculate the YTD.. how to do this.?

In Tableau, the relative date filter enables flexible analysis of time periods. Sometimes, however, you might want to

see both year-to-date (YTD) and month-to-date (MTD) values for a particular measure on the same view. To accomplish this task, you can create date calculations.

Create a calculated column which replaces week from string to integer and make use this in another calculation for YTD.

28.What kind of join do you see in data blending?

There won't be any joins as such but we will just give the column references like primary and foreign key relation.

29.What is data blending..? When do you use this.?

Data blending is when you blend data from multiple data sources on a single worksheet.

The data is joined on common dimensions. Data Blending does not create row level joins and is not a way to add new dimensions or rows to your data.

We use this when we want to fetch data from different sources and make use in single worksheet.

30. When do you use horizontal and vertical components?

We can use these when we want to have all sheets or filter to move in single shot..however we can still create the dashboard without this also.. this allows us to make our work simple

31. Name the components of dashboard?

- Horizontal
- Vertical
- Text
- Images etc

32. Can we have multiple value selection in parameter?

No

33. What are parameters and when do you use it?

Parameters are dynamic values that can replace constant values in calculations. or Parameters are used when you want to change the static values.

34. What is the difference between tableau 7.0 and 8.0 versions.

- New visualizations are introduced like treemap, bubble chart and box and whisker plot
- We can copy worksheet directly from one workbook to another workbook
- Introduced R script

35. How Does Tableau Work?

While Tableau lets you analyze databases and spreadsheets like never before, you don't need to know anything about databases to use Tableau. In fact, Tableau is designed to allow business people with no technical training to analyze their data efficiently.

Tableau is based on three simple concepts:

1. Connect – Connect Tableau to any database that you want to analyze. Note that Tableau does not import the data. Instead it queries to the database directly.
2. Analyze – Analyzing data means viewing it, filtering it, sorting it, performing calculations on it, reorganizing it, summarizing it, and so on.

Using Tableau you can do all of these things by simply arranging fields of your data source on a Tableau worksheet. When you drop a field on a worksheet, Tableau queries the data using standard drivers and query languages (like SQL and MDX) and presents a visual analysis of the data.

3. Share – You can share results with others either by sharing workbooks with other Tableau users, by pasting results into applications such as Microsoft Office, printing to PDF or by using Tableau Server to publish or embed your views across your organization.

36. What is Tableau Reader?

Tableau Reader is a free viewing application that lets anyone read and interact with packaged workbooks created by Tableau Desktop.

37. What is Tableau Server?

Tableau Server is a business intelligence solution that provides browser-based visual analytics anyone can use at just a fraction of the cost of typical BI software. With just a few clicks, you can publish or embed live, interactive graphs, dashboards and reports with current data automatically customized to the needs of everyone across your organization. It deploys in minutes and users can produce thousands of reports without the need of IT services — all within your IT infrastructure.

38.What is Tableau Desktop?

Tableau Desktop is a data visualization application that lets you analyze virtually any type of structured data and produce highly interactive, beautiful graphs, dashboards, and reports in just minutes. After a quick installation, you can connect to virtually any data source from spreadsheets to data warehouses and display information in multiple graphic perspectives. Designed to be easy to use, you'll be working faster than ever before.

39.What is the difference between Quick Filter and Normal filter.?

Normal Filter:- This is used to restrict the data from database based on selected dimension or measure. If you drag a dimension into filter shelf you can filter the data by selecting list of values. when dragging by measure you can select a range of values.

Quick Filters:- what ever you have applied filter, if you want give a chance to user for dynamically changing data members at run time this is useful. In this you are able to see only non restricted data members only.

OR

The quick filter is a representation of filter to play around and normal filter will not be shown in the workbook to play around.

40.What is the Difference between connect live and import all data and Import some data.?

- Connect live – Creates a direct connect to your data. The speed of your data source will determine performance.
- Import all data – Imports the entire data source into Tableau's fast data engine as an extract. The extract is saved with the workbook.
- Import some data – Imports a subset of your data into Tableau's fast data engine as an extract. This option requires you to specify what data you want to extract using filters.

41.How is Tableau so fast when working with databases?

Tableau compiles the elements of your visual canvas into a SQL or MDX query for the remote database to process. Since a database typically runs on more powerful hardware than the laptops / workstations used by analysts, you should generally expect the database to handle queries much faster than most in memory BI applications limited by end-user hardware. Tableau's ability to push computation (queries) close to the data is increasingly important for large data sets, which may reside on a fast cluster and may be too large to bring in-memory.

Another factor in performance relates to data transfer, or in Tableau's case resultset transfer. Since Tableau visualizations are designed for human consumption, they are tailored to the capabilities and limits of the human perception system. This generally means that the amount of data in a query result set is small relative to the size of the underlying data, and visualizations focus on aggregation and filtering to identify trends and outliers. The small result sets require little network bandwidth, so Tableau is able to fetch and render the resultset very quickly. And, as Ross mentioned, Tableau will cache query results for fast reuse.

The last factor as mentioned by Eriglen involves Tableau's ability to use in-memory acceleration as needed (for example, when working with very slow databases, text files, etc.). Tableau's Data Engine uses memory-mapped I/O, so while it takes advantage of in-memory acceleration it can easily work with large data sets which cannot fit in memory. The Data Engine will work only with the subsets of data on

disk which are needed for a given query, and the data subsets are mapped into memory as needed.

OR

Tableau does do some amount of in-memory storage to increase speed (when extracted), but a great portion of its speed actually comes from not having to store data in memory.

This is because Tableau only stores the data relevant to your queries in-memory, whereas other solutions will store the entire set in memory, which can take more time to load.

OR

Tableau main feature “data engine” is really a cool feature. If you work with a large amount of data it takes some time to import, create indexes and sort data but after that every thing speedup. Tableau data engine is not really in-memory technology. The data is stored in disk after imported and then RAM is hardly utilized. This conception brings the desired performance.

42.How to create Donut chart in Tableau.?

Here’s how I would create a Donut chart in Tableau using a single worksheet. The final product looks like this:

Step 1: Create a two-slice pie chart. This example uses actual sales and sales left to hit the goal.

Step 2: Drag the Number of Records measure to the Rows shelf and change the aggregation to an average. Repeat this a second time and then right-click on the second pill and choose “Dual Axis”.

Finally, remember to synchronize the axes.

Step 3: Double click on the left axis to bring up the Edit Axis window. Uncheck Include Zero.

Step 4: Do a bit of formatting: (1) Remove Zero line, (2) Remove Row & Column dividers, (3) Hide the headers

Step 5: On the secondary axis, remove Measure Names from color and Measure Values from Angle. Click the Color shelf and choose white. Adjust the size of the pie down slightly to reveal the donut.

Step 6: Add Region to the Columns shelf and then hide the headers.

Step 7: On the first pie chart on the Marks card, add Region to the Label shelf, set the alignment to the top and make the font bigger.

Step 8: On the second pie chart on the Marks card, add a % to goal measure to the Label shelf and customize the font.

Step 9: Sort Region by the % to goal metric in descending order.

43.What is Tableau Desktop?

Tableau Desktop is a data analysis visualization tool, 10-100 times faster than other analytic tools. Built on groundbreaking technology, Tableau desktop converts imaged data into optimized data queries and users can create interactive dashboards.

44.Explain the importance of Tableau

With instantaneous and powerful data visualization techniques, Tableau Software easily connects to any data source (Corporate Data Warehouse, Microsoft Excel or other). It supports quicker drop-and-down interface processes for creating visual reports of massive amounts of data. The best part is that all data in Tableau from various sources is created equally irrespective of the data type.

45.What is Data Visualization?

A much advanced, direct, precise and ordered way of viewing large volumes of data is called data visualization. It is the visual representation of data in the form of graphs and charts, especially when you can’t define it textually. You can show trends, patters and correlations through various data visualization software and tools; Tableau is one such data visualization software used by businesses and corporates.

46.List differences between Tableau desktop and Tableau Server.

While Tableau desktop performs data visualization and workbook creation, Tableau server is used to distribute these interactive workbooks and/or reports to the right audience. Users can edit and update the workbooks and dashboards online or Server but cannot create new ones. However, there are limited editing options when compared to desktop.

Tableau Public is again a free tool consisting of Desktop and Server components accessible to anyone.

47. Define Data Modeling.

Data Modeling in Tableau allows rapid analysis of operational data that produce visual prints of data to help users identify consumer trends, sales targets and operational improvement. Data modeling processes minimize the use of manual changes in the data structure but promote automatic adaption to the changing environment. It also allows real-time modeling by letting users share their analysis in the collaborative working environment.

48. Define parameters in Tableau and their working.

Tableau parameters are dynamic variables/values that replace the constant values in data calculations and filters. For instance, you can create a calculated field value returning true when the score is greater than 80, and otherwise false. Using parameters, one can replace the constant value of 80 and control it dynamically in the formula.

49. List the difference between parameters and filters in Tableau.

The difference actually lies in the application. Parameters allow users to insert their values, which can be integers, float, date, string that can be used in calculations. However, filters receive only values users choose to 'filter by' the list, which cannot be used to perform calculations.

Users can dynamically change measures and dimensions in parameter but filters do not approve of this feature.

50. Define fact table and Dimension table in Tableau.

Facts are the numeric metrics or measurable quantities of the data, which can be analyzed by dimension table. Facts are stores in Fact table that contain foreign keys referring uniquely to the associated dimension tables. The fact table supports data storage at atomic level and thus, allows more number of records to be inserted at one time. For instance, a Sales Fact table can have product key, customer key, promotion key, items sold, referring to a specific event.

Dimensions are the descriptive attribute values for multiple dimensions of each attribute, defining multiple characteristics. A dimension table ,having reference of a product key form the fact table, can consist of product name, product type, size, color, description, etc.

51. What are Quick Filters in Tableau?

Global quick filters are a way to filter each worksheet on a dashboard until each of them contains a dimension. They are very useful for worksheets using the same data source, which sometimes proves to a disadvantage and generate slow results. Thus, parameters are more useful.

52. State limitations of parameters in Tableau.

Parameters facilitate only four ways to represent data on a dashboard (which are seven in quick filters). Further, parameters do not allow multiple selections in a filter.

53. Define aggregation and disaggregation of data in Tableau.

Aggregation and disaggregation in Tableau are the ways to develop a scatterplot to compare and measure data values. As the name suggests, aggregation is the calculated form of a set of values that return a single numeric value. For instance, a measure with values 1,3,5,7 returns 1. You can also set a default aggregation for any measure, which is not user-defined. Tableau supports various default aggregations for a measure like Sum, average, Median, Count and others.

Disaggregating data refers to viewing each data source row, while analyzing data both independently and dependently.

56.What are the limitations of context filters?

Tableau takes time to place a filter in context. When a filter is set as context one, the software creates a temporary table for that particular context filter. This table will reload each time and consists of all values that are not filtered by either Context or Custom SQL filter.

57.Name the file extensions in Tableau.

There are a number of file types and extensions in Tableau:

- Tableau Workbook (.twb)
- Tableau Packaged Workbook (.twbx)
- Tableau Datasource (.tds)
- Tableau Packaged Datasource (.tdsx)
- Tableau Data extract (.tde)
- Tableau Bookmark (.tdm)
- Tableau Map Source (.tms)
- Tableau Preferences (.tps)

58.Explain the difference between .twb and .twbx

.twb is the most common file extension used in Tableau, which presents an XML format file and comprises all the information present in each dashboard and sheet like what fields are used in the views, styles and formatting applied to a sheet and dashboard.

But this workbook does not contain any data. The Packaged workbook merges the information in a Tableau workbook with the local data available (which is not on server). .twbx serves as a zip file, which will include custom images if any. Packaged Workbook allows users to share their workbook information with other Tableau Desktop users and let them open it in Tableau Reader.

59.What are Extracts and Schedules in Tableau server

Data extracts are the first copies or subdivisions of the actual data from original data sources. The workbooks using data extracts instead of those using live DB connections are faster since the extracted data is imported in Tableau Engine.

After this extraction of data, users can publish the workbook, which also publishes the extracts in Tableau Server. However, the workbook and extracts won't refresh unless users apply a scheduled refresh on the extract. Scheduled Refreshes are the scheduling tasks set for data extract refresh so that they get refreshed automatically while publishing a workbook with data extract. This also removes the burden of republishing the workbook every time the concerned data gets updated.

60.Name the components of a Dashboard.

- Horizontal
- Vertical
- Text
- Image Extract
- Blank page
- Web [URL ACTION]

61.How to view underlying SQL Queries in Tableau?

Viewing underlying SQL Queries in Tableau provides two options:

- Create a Performance Recording to record performance information about the main events you interact with workbook. Users can view the performance metrics in a workbook created by Tableau.

Help> Settings and Performance> Start Performance Recording

Help> Setting and Performance > Stop Performance Recording• Reviewing the Tableau Desktop Logs located

at C:\Users\\My Documents\My Tableau Repository. For live connection to data source, you can check log.txt and tabprotosrv.txt files. For an extract, check tdeserver.txt file.

62. Define Page shelf

Tableau provides a distinct and powerful tool to control the output display known as Page shelf. As the name suggests, the page shelf fragments the view into a series of pages, presenting a different view on each page, making it more user-friendly and minimizing scrolling to analyze and view data and information. You can flip through the pages using the specified controls and compare them at a common axle.

63. How to Perform Testing in Tableau?

Performance testing is again an important part of implementing Tableau. This can be done by loading Testing Tableau Server with TabJolt, which is a “Point and Run” load generator created to perform QA. While TabJolt is not supported by Tableau directly, it has to be installed using other open source products.

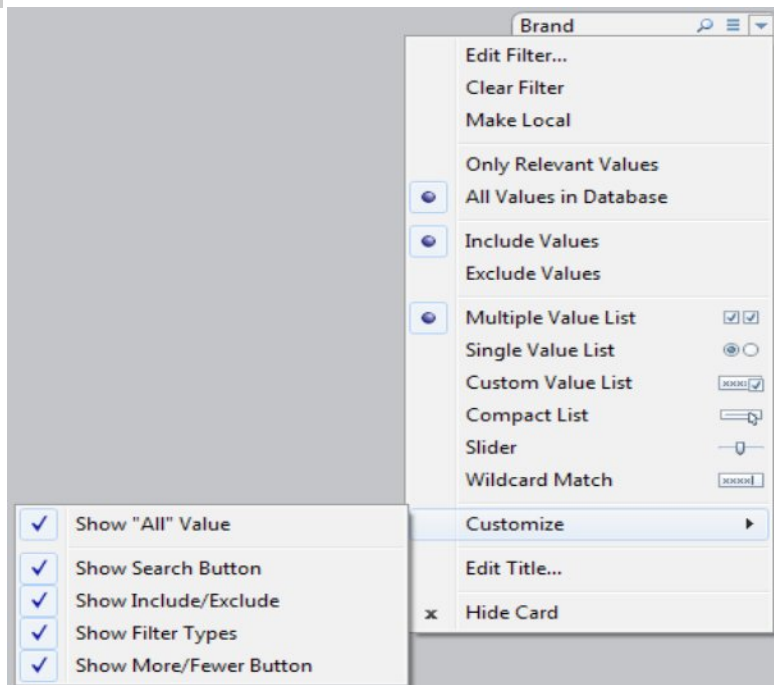
64. Explain the concept of Dual Axis?

Dual Axis is an excellent phenomenon supported by Tableau that helps users view two scales of two measures in the same graph. Many websites like Indeed.com and other make use of dual axis to show the comparison between two measures and their growth rate in a septet set of years. Dual axes let you compare multiple measures at once, having two independent axes layered on top of one another.

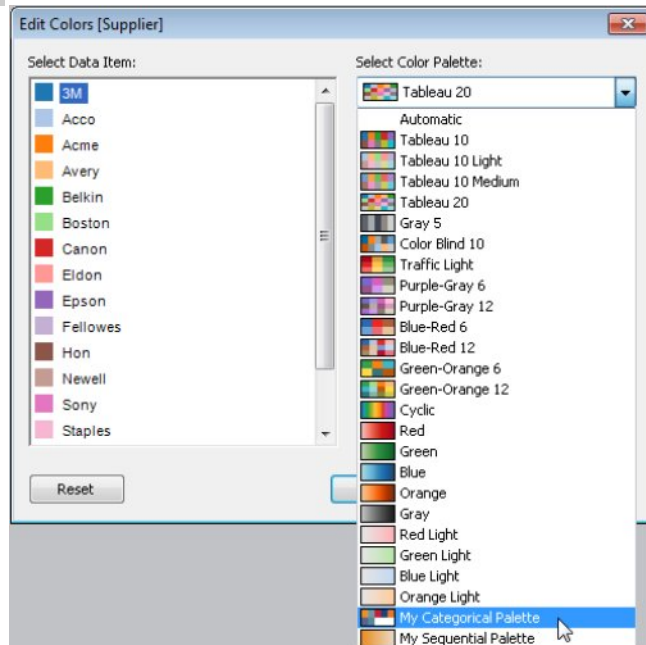
65. How many maximum tables you can join in Tableau?

The maximum number of 32 tables can be joined in Tableau. A table size must also be limited to 255 columns (fields).

66. How to remove ‘All’ options from a Tableau auto-filter?



67.How to add Custom Color to Tableau?



68.What different products Tableau provide?

- Tableau Server :on-premise or cloud-hosted software to access the workbooks built
- Tableau desktop: desktop environment to create and publish standard and packaged workbooks.
- Tableau Public: workbooks available publicly online for users to download and access the included data.
- Tableau Reader: get a local access to open Tableau Packaged workbook

69.How can you display top five and last five sales in same view?

Create two sets, one for top 5 another for bottom 5 and the join these two sets displaying a unique set of total 10 rows.

70.What is TDE file?

TDE is a Tableau desktop file that contains with a .tde extension referring to the file containing data extracted from external sources like MS Excel, MS Access or CSV file.

71.How to use group in calculated field?

By adding the same calculation to 'Group By' clause in SQL query or creating a Calculated Field in the Data Window and using that field whenever you want to group the fields.

72.Can parameters have dropdown list?

Yes, parameters do have their independent dropdown lists enabling users to view the data entries available in the parameter during its creation.
