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

   A dashboard is a collection of several worksheets and supporting information shown in a single place so you can compare and monitor a variety of data simultaneously. For example, you may have a set of views that you review every day. Rather than flipping through each worksheet, you can create a dashboard that displays all the views at once. You can create a dashboard in much the same way you create a new worksheet.

   Select Dashboard > New Dashboard.

   Alternatively, click the New Dashboard tab along the bottom of the workbook. A new tab for the dashboard is added along the bottom of the workbook. Switch to the new dashboard to add views and objects.

   When you open a dashboard the Dashboard window replaces the Data window on the left side of the workbook. The Dashboard window lists the worksheets that are currently in the workbook. As you create new worksheets, the Dashboard window updates so you always have all worksheets available when adding to a dashboard.

   After a view is added to the dashboard, the worksheet is marked with a check mark in the Dashboard window. Also, any legends or quick filters that are turned on for the sheet are automatically added to the dashboard. By default, dashboards use a Tiled layout, which means that each view and object is arranged into a single layered grid. You can change the layout to Floating to allow views and objects to overlap. See Organizing Dashboards to learn more about these layouts.

2. How can you schedule the Reports in tableau? Explain briefly?

   **Schedules**

   When you publish workbooks that connect to extracts you can schedule the extracts to be refreshed automatically. That way you don't have to republish the workbook every time the underlying data has updated and you can still get the performance of a data extract. For example, let's say you have a workbook that connects to a large data warehouse that is updated weekly. Instead of publishing a workbook that queries the live data, you can create an extract including just the data necessary. This increases performance and avoids queries to the live database. Then you can add that workbook to a schedule so that the extract is refreshed at regular intervals with updated data from the data warehouse. Schedules are created and managed on the server by an administrator. However, an administrator can allow you to add a workbook to a schedule when you are publishing from Tableau Desktop.

   1. As you are publishing a workbook, in the Publish Workbook to Tableau Server dialog box, click Scheduling & Authentication.
2. In the Scheduling & Authentication dialog box, select a schedule for the workbook:

All data sources that require authentication must have an embedded password so that the extract can be refreshed. This includes data sources that are not extracts.

![Scheduling & Authentication dialog box](image1)

3. When exporting a worksheet into Tableau Server, how do you give a connection to the database to run that report in server?

When you publish workbooks that connect to extracts you can schedule the extracts to be refreshed automatically. That way you don't have to republish the workbook every time the underlying data has updated and you can still get the performance of a data extract. For example, let's say you have a workbook that connects to a large data warehouse that is updated weekly. Instead of publishing a workbook that queries the live data, you can create an extract including just the data necessary. This increases performance and avoids queries to the live database. Then you can add that workbook to a

![Scheduling & Authentication dialog box](image2)
schedule so that the extract is refreshed at regular intervals with updated data from the data warehouse. Schedules are created and managed on the server by an administrator. However, an administrator can allow you to add a workbook to a schedule when you are publishing from Tableau Desktop.

1. As you are publishing a workbook, in the Publish Workbook to Tableau Server dialog box, click Scheduling & Authentication.

2. In the Scheduling & Authentication dialog box, select a schedule for the workbook.

Publishing Data Sources In addition to publishing workbooks, you can also publish data sources to Tableau Server. A data source is a reusable connection to data. Publishing data sources allows you to centrally manage and store data sources. The published data can be located in Tableau’s data engine (extracts) or in a live, relational database. The published data source also contains field level customization such as calculations, groups, sets and default properties. This topic describes how to publish a data source to Tableau Server. To publish a data source to Tableau Server:

1. Select the data source on the Data menu and then select Publish to Server:

2. If you are not already signed in to Tableau Server, you see the Tableau Server Sign In dialog box. Type the server name or URL (for example, sales_server, or https://sales_server) and click Connect.

3. Next, type your user name and password and click Sign In. If Tableau Server is configured to use Active Directory, type your Windows user name (the domain is not required—except in multi-domain environments where the user is not in the default domain); otherwise, type your Tableau Server user name. If Tableau Server is configured to use SAML for user authentication, you won’t see the above dialog box. Instead, you’ll see a sign in prompt from an external identity provider.

4. You now see the Publish Data Source to Tableau Server dialog box. Specify the following:

- Project: A project is like a folder that can contain workbooks and data sources. Tableau Server comes with one project called Default. All workbooks must be published into a project.
I Name: Provide a name for the workbook in the Name text box. Use the drop-down list to select an existing workbook on the server. When you publish using an existing workbook name, the workbook on the server is overwritten with your workbook. You must be allowed the Write/Web Save As permission to overwrite workbooks on the server.

I Authentication: If your data source requires a user name and password, you can specify how authentication should be handled when it is published to the server. The options available depend on the type of data source you are publishing.

I Add Tags: You can type one or more keywords that describe the workbook into the Tags text box. Tags help you and others find related workbooks when browsing the server. Each tag should be separated by either a comma or a space. If the tag contains a space, type the tag surrounded by quote marks (e.g., “Sales Quotes”).

5. You can specify permissions to allow or deny access to the workbook on the server. By default all users can interact with the workbook and you, as the publisher, are allowed all capabilities. See Setting Permissions for details, and see Permissions for information on the capabilities you can assign to users and groups.

6. If you are publishing an external file data source or a data source that is on a mapped drive select Include External Files. When you include external files, a copy of the data source is published. External file data sources include Excel, Access, Text, Data Extract, and image files. If you don’t include these files, others may not be able to see the worksheets online. If you do not want to publish the external files to the server, change the connection information so that the workbook references a full UNC path. For example rather than connecting to D:\datasource.xls, you would connect to \filesrv\datasource.xls.

7. Click Publish.

4. What is the major difference between 7.0 and 8.0 in tableau? And latest?

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

5. 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.

We can create parameters in 3 ways:

1) Filters
2) Reference lines
3) Calculate Field

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

One of the reasons is that filters may not be defined appropriately at report level due to which the entire data set is pulled from the query (which may not be necessary).

There are some of the reasons:

1) Creating a query that returns a large number of records from the underlying table(s), when a smaller number of aggregated records would suffice. You can check this by looking in the lower-left corner of the Tableau Desktop workspace and looking at the number of marks. If this number is very large, you are potentially pulling a large amount of data from the database

2) **Use native drivers:** Tableau will recommend or require you to create a data extract to continue working with a particular driver. Usage of native driver instead ODBC connections as it will generally provide better performance.

3) **Test with another tool:** A good way to determine if a slow workbook is being caused by a slow query is to test the same query in another tool, such as Microsoft Access or Microsoft Excel.
   To find the query being run, look in Aditya kommu\My Tableau Repository\Logs and find a file titled log.txt. Open this file and scroll up from the bottom until you find a section like the following:
   The section between the begin and end query tags is the query that was passed to the database. You can copy this text and then use it from a tool like Access or Excel. If it takes a similar time to return as in Tableau, then it's likely the problem is with the query, not the tools.

4) **Use extracts:** Create a tableau extract if you having performance issues. These extract files can include performance-oriented features such as pre-aggregated data for hierarchies and pre-calculated calculated fields (reducing the amount of work required to render and display the visualization).
FOR DBA point:
1) Tune your indexes: Make certain you have indexes on all columns that are part of table joins
   - Make certain you have indexes on any column used in a filter
   - Explicitly define primary keys
   - Explicitly define foreign key relationships
   - For large data sets, use table partitioning
   - Define columns as NOT NULL where possible

2) Use statistics Databases engines collect statistical information about indexes and column data stored in the database. These statistics are used by the query optimizer to choose the most efficient plan for retrieving or updating data.

3) Optimize the data mode: beneficial to create summary tables if most of your queries only need aggregated data - not base level details records.

7. Can anyone explain about architecture of Tableau?
   
   https://www.youtube.com/watch?feature=player_embedded&v=AyzIchw2Llk

8. What the Difference is 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.
     
     (Or)

   - **Connect Live** - By using this feature you can directly connect to live database. When you select this feature the performance will be reduced.
   
   - **Import all data** - By using this feature you can import all data into your local machine. This will be called an EXTRACT, file saved with the Extension of .tde (tableau Data extract).
   
   - **Import some data** - it is also like extract data but you can apply filters while importing data into your local system.
9. What is Ad-hoc Reports in tableau? Explain?

Actually Ad-hoc reports means on the spot based on the client requirement by connecting to live environment we can create reports these reports are called Ad-hoc reports.

10. What is the Difference between quick filter and Normal filter in tableau?

Quick filter is used to view the filtering options and can be used to select the option. Normal filter is something you can limit the options from the list or use some conditions to limit the data by filed or value.

(Or)

Quick Filter always appears right side of your window and it showing what elements that you select. Normal filter always hide mode. But both work same...

(Or)

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: - whatever 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...

11. Does Tableau Public work on a Mac?

Macintosh users can view Tableau Public content in their browser. Tableau Desktop Public Edition used for authoring content is a Windows application only. If you are using a Macintosh computer that has an Intel processor, you can use virtualization software such as VMware Fusion or Parallels Desktop to install Windows and run Tableau Desktop Public Edition. Alternatively, you can use a built-in utility called Boot Camp to install Windows and run the Tableau software.

(Or)

Yes, the latest Version 8.2 of Tableau Desktop can be installed on Mac as well.

12. How do I automate reports using Tableau software?
You need to publish report to tableau server, while publishing you will find one option to schedule reports. You just need to select the time when you want to refresh data.

13. How does Tableau perform with huge data sets?

Due to VizSQL

14. Name the components of dashboard?

- Horizontal
- Vertical
- Text
- Images etc

(Or)

1. Horizontal
2. Vertical
3. Text
4. Image Extract
5. Blank Page
6. Web [ URL ACTION ]

15. 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 result set 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 result set 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.

16. 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.
17. What is Tableau Reader?

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

18. 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:

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.

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.

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.

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

- New visualizations are introduced like tree map, bubble chart and box and whisker plot
- We can copy worksheet directly from one workbook to another workbook
- Introduced R script
20. 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.

21. 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.

22. 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..

23. 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)

24. VizQL is a visual query language?

VizQL is a visual query language that translates drag-and-drop actions into data queries and then expresses that data visually. VizQL delivers dramatic gains in people's ability to see and understand data by abstracting the underlying complexities of query and analysis. The result is
an intuitive user experience that lets people answer questions as fast as they can think of them.

We believe that VizQL represents a foundational advancement in the area of data analysis and visualization.

25. Why should you use Tableau?

There are many reasons why one should use Tableau, they are:

It is very easy to use:

You don’t need to know programming of any sort, all you need is some data and Tableau to create reports that are visually enchanting and which tells a story which you need to tell your managers or impress your professor in class.

With its revolutionary drag and drop feature, you can easily create stories or reports using just your mouse and a little imagination. All this is possible due to the revolutionary VizQL, a visual query language.

26. 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:

- Custom SQL "Filters"
- Context Filters
- 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.
27. 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.

28. What is Tableau Public?

The free version of Tableau Public is for people. This includes writers, bloggers, students, professors, hobbyists, journeymen, critics, citizens and more. It’s also meant for organizations, but only as an introductory service. If your organization wants to put data online for the public, you are welcome to use this as an introductory service. If you like what you see, contact us at info-public@tableausoftware.com to discuss a commercial relationship.

29. How does Tableau Public work?

Tableau Public includes a free desktop product that you can download and use to publish interactive data visualizations to the web. The Tableau Public desktop saves work to the Tableau Public web servers — nothing is saved locally on your computer. All data saved to Tableau Public will be accessible by everyone on the internet, so be sure to work only with publically available (and appropriate) data.

30. I have my own blog or website. Can I use Tableau Public to share data there?

Yes. Use Tableau Public to share data and insights with your community. Embed the content in your blog or website, or share it via links on web pages or in emails. Use our website to find out how. Learn more about Sharing Views in the Knowledge Base.

31. 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. Learn more about Data Requirements and Limitations in the Knowledge Base.

32. Do I need to be a programmer to use this?
No programming skills of any kind are required. It is a simple drag and drop process that anyone can easily learn.

33. I work for an organization that has lots of data to share with the public. Can we use Tableau Public?

Yes -- as long as you and everyone at your organization together use less than 50 megabytes of space. Tableau Public gives your organization (e.g., a company, government agency or educational institution) the opportunity to explore its capabilities. If your organization wants to put data online for the public, please contact us at info-public@tableausoftware.com to discuss a commercial relationship.

34. Do I need the free desktop product if I already own a commercial version of Tableau Desktop?

No. Tableau Desktop comes in three editions: Professional Edition ($1,999), Personal Edition ($999) and Public Edition (free). If you already have Professional or Personal Edition, you'll find that your latest upgrade includes the ability to publish to the Tableau Public servers. There is nothing in Public Edition that isn't included in the latest versions of the paid products.

35. What type of data limitations does Tableau Public have?

Tableau Public can connect to Microsoft Excel, Microsoft Access, and multiple text file formats. It has a limit of 1,000,000 rows of data that is allowed in any single file. Learn more about Data Requirements and Limitations in the Knowledge Base.

36. Can I set permissions or protect the data I save to Tableau Public?

All content saved to Tableau Public is accessible to everyone on the internet. As the author, you are the only one who can delete your own content, but anyone on the internet can view it. In addition to viewing it, anyone can download a copy of your workbook (including the underlying data) as well, which will let them work with and build upon your original.
37. If I publish my data on Tableau Public, is my data now public?

Yes, your data on Tableau Public is now accessible on the world-wide web and is downloadable by anyone. We strongly suggest you only publish data you are willing to share with anyone.

38. What online blog services is Tableau Public compatible with?

Embedding Tableau Public content into a blog requires the blog software to support embedded HTML content, including script tags. Some popular blog sites which are compatible with Tableau Public embedded content are: Blogger (by Google) ? www.blogger.com Type pad ? www.typepad.com Edit your posts in HTML mode rather than Rich Text, otherwise the Tableau Public embed codes don?t get preserved. Wordpress - www.wordpress.org. On this site you can download and install a software script called WordPress. To do this you need a web host. WordPress is completely customizable and can be used for almost anything. There is also a service called www.WordPress.com which lets you get started with a new and free WordPress-based blog, but it is less flexible than the WordPress you download and install yourself. Blogs hosted on Wordpress.com do not take advantage of tools like Tableau that use JavaScript.

39. What kind of technology is a Tableau Viz?

It is a thin AJAX based JavaScript application.

40. How do people find the visualizations I save to Tableau Public?

Once you save your work to Tableau Public, it may be shared (by emailing a link or embedding the work in your blog, wiki, or website). If you embed the work onto a web page, anyone who visits the page will see the live interactive view. If you email a link, just clicking the link will open a browser page with the view loaded. Learn more about Sharing Views in the Knowledge Base.

41. "What's the "Download" link on the Viz?"
Any Tableau Public viz can be downloaded by pressing the download link in the lower right corner. It saves to your computer as a TWBX file. Anyone with Tableau Desktop (Professional, Personal or Public Edition) can open the file and review or extend the work that was behind the original posting. Learn more about Downloading Tableau Public Workbooks in the Knowledge Base.

42. Is there a plug-in required to see the Tableau Viz?

No plug-ins are required. You just need a browser with JavaScript enabled.

43. What happens if I delete a workbook from Tableau Public and there are links to it in blogs or other web locations?

Once a workbook or view is deleted from Tableau Public, it cannot be retrieved from Tableau Public by anyone. All links or other references to it that may have been shared will not be able to load the viz and will display an error message on the page.

44. What are the system requirements for the desktop software?

Please refer to the Tableau Public System Requirements page

45. "What do you mean by "Data In. Brilliance Out."?"

This is our vision for Tableau Public. It captures both our twin goals of making Tableau incredibly easy to use and spectacularly powerful.

46. 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.

Preparing data for Tableau.

- Cleanup dimensions and measure names.
- Set attribute aliases.
- Set default colors
- Set default measure aggregations.
- Create calculated fields

Is Parameter have it's dropdown list..?
Yes, But it will be called as Compact list.

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.

Can we use Groups and Sets in calculation field?

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

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.

**What is context filter?**

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.

**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.
The two axes are independent scales but the marks are layered in the same pane.
Can we use Parameter in Filter?

Yes, We can use.
@BNReddy, Email: bnaigreddy100@gmail.com, Mobile Number: 09396725649
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.

47. 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.

48. 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

49. 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.

50. How many viz SQL process should I run?

   Depending on Data Capacity

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

   Better 10

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

   More Extracts, filters and depends on data sources

53. 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

54. 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.
55. How can we 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)

56. What kind of technology is a Tableau Viz?

It is a thin AJAX based JavaScript application

57. 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.

58. 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 the 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.

59. 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..

60. 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.

YTD:
61. 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.

62. 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.

63. 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

64. Name the components of dashboard?

- Horizontal
- Vertical
- Text
- Images etc
65. Can we have multiple value selection in parameter?

No

66. 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.

**How to use parameters -1:**

https://www.youtube.com/watch?feature=player_embedded&v=CFP7t_a6wak

**How to use parameters -2:**

https://www.youtube.com/watch?feature=player_embedded&v=wvF7gAV82_c

67. 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

68. 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:

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.

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.

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.

69. What is Tableau Reader?

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

70. 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.

71. 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.

72. 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.
73. 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 resultset is small relative to the size of the underlying data, and visualizations focus on aggregation and filtering to identify trends and outliers. The small resultsets 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.

74. 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

- Custom SQL "Filters"
- Context Filters
- 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 it uses 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.