By OnlineInterviewQuestions.com

Best Tableau Interview questions and answers

Tableau software is a basic requirement for any business to gain insight into the development of the company. It allows any non-technical user to easily create or develop customized dashboards that facilitate insight to a broad spectrum of information. It is a must-know interactive business intelligence tool in the field of **data visualization**. Therefore, the candidates who seek the scope in data visualization can get themselves acknowledged as **Tableau**, which can help them reach their goals. These questions can help the candidates crack the interview and achieve a job.

Q1. What is Tableau ?

Tableau is a data visualization tool that allows the user to develop an interactive and apt visualization in the form of dashboards, worksheets for the betterment of the business.

Q2. Define different parameters in Tableau and their working?

The Tableau parameters are dynamic variables or dynamic values that replace the constant values in data evaluation and filters.
The user can create an evaluated field value that returns true when the score pars the 80, and otherwise false.

Q3. Distinguish between parameters and filters in Tableau?

The radical difference actually lies in the application.
The parameters allow users to insert the values, which can be integers, float, date, string that can be used in calculations.
The filters only receive values users choose to ‘filter by’ the list, which cannot be used to calculate.
The users can dynamically change the dimensions and measures in parameter but filters do not approve the feature.

Q4. Explain the fact table and the dimension table?

Fact table:
They are the measurable quantities or the numeric metrics of the data which can be analyzed by dimension table.
Facts are stored in the fact table contain foreign keys that uniquely refers to the associated dimension tables.
The fact table is compatible to store the data at the atomic level and thus, it allows a large number of records to be inserted at once.
For instance, a sales category fact table can have a product key, customer key, promotion key referring to a specific event.
Dimension table:
They are the descriptive attribute values for various dimensions of each attribute which define multiple characteristics.

A dimension table referring a product key from the fact table can consist of a product name, product type, color, size, and description.

Q5. What are the limitations of parameters of Tableau ?

The parameters of Tableau can be represented only in four ways on a dashboard. The parameters do not allow any further multiple selections in a filter.

Q6. Explain the aggregation and disaggregation of data in Tableau ?

Aggregation and disaggregation of data in **Tableau** are the ways to develop a scatterplot to measure and compare the data values.

Aggregation:

It is calculated the form of a set of values that return a single numeric value. A default aggregation can be set for any measure which is not user-defined.

Disaggregation:

The disaggregation of data refers to view each data source row during analyzing of data both dependently and independently.

Q7. What are context filters and state the limitations of context filter?

Context filter:

Tableau helps in making the filtering process straightforward and easy.
It does so by creating a hierarchy of filtering, where all the other remaining filters that are present refer to the context filter for all their subsequent operations.
Thus, the remaining filters will now process the data, that is already passed through the context filter.
Development of one or more context filters helps in improving the performance, as the users do not have to create extra filters on the large data source, which actually reduces the query-execution time.

Limitations of context filter:

Generally, Tableau takes a little time for placing a filter in context.
In case the filter is set as a context one then the software develops a temporary table for that specific context filter.
This table reloads each time and consists of all the variables and values that are not filtered by context or custom SQL filter.

Q8. Mention some file extension in Tableau ?

There are many file types and extensions in Tableau.
Some of the file extensions in Tableau are:

- 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)

Q9. What are the extracts and schedules in Tableau server?

First copies or subdivisions of the actual data from the original data source are called data extract.
The workbooks which use the data extracts instead of using live DB connections are faster and the extracted data is imported into Tableau engine.
Later after the extraction of data the users can publish the workbooks which publish the extracts in Tableau server.
And, the scheduled refreshers are the scheduling tasks which are already set for data extract refresh so that they get refreshed automatically while a workbook is published with data extraction.

Q10. Mention and explain some components on the dashboard?

Some of the dashboard components are:

- **Horizontal component**: In the dashboard the horizontal component's containers allow the designer to combine the worksheets and dashboards components from left to right across the user's page and the height of the elements are edited at once.
- **Vertical component**: In the dashboard Vertical component's containers allows the user to combine the worksheets and dashboard components from left to right across the user's page and the width of the elements are edited at once.
- **Text**: It is an alphabetical order.
- **Image Extract**: A **Tableau** is in XML format. In case of extracting images, the Tableau applies the codes to extract an image can be stored in XML.
- **Web [URL ACTION]**: A Web URL action is a certain type of hyperlink that directs to a web page always or to any other web-based resource that is residing outside of Tableau. The user can hence use the URL actions for linking up of more information about the user's data, which might be hosted outside of the user's data source. In order make the link relevant to the user data, the user can substitute field values of a selection into the URL as parameters.

Q11. How would you define a dashboard?

A dashboard is an information management device that visually tracks, analyzes and shows key performance indicators (KPI), measurements and main points which focus on the screen to monitor the health of a business, division or particular process. They are adaptable to meet the particular needs of a department and company. A dashboard is the most proficient approach to track numerous data sources since it gives a central area to organizations to screen and examine performance.

Q12. What is a Column Chart in Tableau?

A Column chart is a realistic graphical representation of data. Column charts show vertical bars going over the chart on a horizontal plane, axis having values are displayed on the left-hand side of the graph. Column charts and a various number of different sorts of graphs are often created in spreadsheet programs, such as Microsoft Excel or Open Office Calc. Column charts can be utilized to show an extensive range of information, for example, sales patterns, stock value changes, and precipitation amounts by year.

Q13. What is Page Shelf?

Tableau gives an unmistakable and powerful tool to control down the output display, which is known as Page shelf. As the name recommends, the page shelf parts the view into a series of pages, displaying an alternate view on each page, making it easier to understand and minimizing scrolling to analyze and see information and data.

Q14. What is a bin?

Bin is a user-defined gathering of measures in the information source. It is conceivable to make bins concerning measurement, or numeric bins. You could consider the State field as various sets of bins each profit value is arranged into a bin comparing to the state from which the value was recorded. But then also, if you want to look out values for Profit assigned to bins without reference to measurement, you can make a numeric bin, with every individual bin relating to the scope of values.

Q15. Difference between Tiled and Floating in Tableau Dashboards

Tiled items are organized in a single layer grid that modifies in a measure, which is based on the total dashboard size and the objects around it. Floating items could be layered on top of other objects and can have a permanent size and position.

Floating Layout While most questions are tiled on this dashboard, the map view and its related color legend are floating. They are layered on top of the bar graph, which utilizes a tiled layout.

Q16. What are the Filter Actions in Tableau?

Filler activities send data in-between worksheets. Normally, filler actions transmit data from a selected mark to another sheet indicating related data. In the background, filler activities send information values from the pertinent source fields as filters to the target sheet.

Q17. What are the Aggregation and Disaggregation?

Aggregation and Disaggregation in Tableau are the approaches to build up a scatter plot to look at and measure data values.

Aggregation Data

When you put a measure on a shelf, Tableau consequently totals the information, generally by summing it. You can easily decide the collection applied to a field because the capacity dependably appears before the field's name when it is put on a shelf.

Disaggregating Data

Disaggregating your information enables you to see each line of the information source, which can be helpful when you are breaking down measures that you might need to utilize both freely and conditionally in the view.

Q18. What is Assume referential integrity?

In Database terms, each row in the certainty table will contain a combination roe in measurement table. Utilizing this strategy, we manufacture Primary and Foreign Keys for joining two tables. By choosing Assume Referential Integrity, you reveal to Tableau that the joined tables have referential integrity. In another word, you are confirming that the fact table will dependably have a coordinating row in the Dimension table.

Q19. Where can you use global filters?

Global filters can be utilized as a part of sheets, dashboards and in stories.

Q20. What is the Context Filter?

Context filter is an extremely productive filter from all of the filters in Tableau. It enhances the performance in Tableau by making a Sub-Set of information for the filter selection.

Context Filters serve two principal purposes.

- **Improves execution:** If you set a lot of filters or have an expansive information source, the inquiries can be slow. You can set at least one context filters to enhance the execution.
- **Develops top N filter** you could set a context filter to incorporate just the data of interest, and after that set a numerical or a best N filter.

Q21. What are the Limitations of context filters?

Here are some of the limitations of context filters:

- The client doesn't regularly change the context filter – if the filter is changed the database must re-process and rewrite the transitory table, slowing performance.
- When you set measurement to context, Tableau makes a transitory table that will require a reload each time the view is started.

Q22. What is data visualization?

Data visualization is a demonstration if the information in a pictorial or graphical form. It empowers decision makers to have look analytics presented visually, so they can get a handle on challenging ideas or create new patterns. With intelligent visualization, you can make the idea a stride further by utilizing technology to draw them into diagrams and charts for more detail.

Q23. Why did you choose data visualization?

Data visualization is a fast, simple to pass on ideas universally and you can explore different scenarios by making slight alterations. As a human being processes data by utilizing graphs or charts to have a look of complex information is quit easier rather than looking out them on spreadsheets or reports.

Q24. Explain about Actions in Tableau ?

Tableau enables you to add context and intuitiveness to your information utilizing actions. There are three types of actions in Tableau: Filter, Highlight, and URL activities

- Filter actions enable you to utilize the information in one view to filter data in another as you make guided systematic stories.
- Highlight actions enable you to point out external resources.
- URL actions enable you to point to external resources, for example, a site page, document, or another Tableau worksheet.

Q25. Describe the Tableau Architecture?

Tableau has exceptionally adaptable, and it has an n-level customer server-based design that serves the mobile customers, web customers, and desktop installed software. Tableau desktop is approving, and publishing tools used to make an offer the views on tableau server.

Q26. What is Authentication on Server?

An authentication server is an application that encourages authentication of an element that endeavors to get to a network. Such an entity might be a human client or another server. An authentication server can dwell in a dedicated PC, an Ethernet switch, an access point or a system which is accessed by the server.

Q27. Why do you publish a data source and workbooks?

Data sources and workbooks are published when you need to enlarge the audience for your data analysis inside your association. By publishing you can start to do the following:

- Collaborate and offer with others
- Centralize information and database driver administration
- Support portability

Q28. What makes up a published data source?

The data connection information that depicts what information you need to acquire to Tableau for analysis. When you associate with the data in Tableau Desktop, you can make joins, including joins between tables from various data types. You can rename fields on the Data Source page to be more expressive for the people who work with your distributed data source.

Q29. What is Hyper?

Hyper is an extremely high-performance in-memory information engine innovation that enables clients to analyze large or complex informational sets speedier, by proficiently assessing analytically questions specifically in the value-based database. A core Tableau stage innovation, Hyper utilizes restrictive unique code generation and cutting edge parallelism procedures to accomplish quick execution for the separate creation and question execution.

Q30. What is VizQL?

- VizQL is a visual inquiry language that interprets simplified activities into data questions and after that communicates that information visually.
- VizQL conveys dramatic gains in individuals' capacity to see and understand information by abstracting the hidden complexities of question and analysis.
- The result is an instinctive user encounter that gives people to answer questions as quickly as they can consider them.

Q31. What is a LOD expression?

LOD Expressions give way to effectively compute aggregations that are not at the level of detail of the visualization. You would then be able to coordinate those values inside visualization in arbitrary ways.

Q32. What is a Gantt chart?

A Gantt chart is a valuable graphical device, which demonstrates tasks or activities performed against time. It is also called the visual presentation of a task where the activities are separated and shown on a chart, which makes it is straightforward and interpret.

Q33. What is a Histogram chart?

A histogram is a plot that gives you a chance to find, and show, the basic frequency (shape) of an arrangement of continuous information. This allows the examination of the information for its hidden distribution, anomalies, sleekness, and so on.

Q34. What are the sets?

Sets are custom fields that characterize a subset of information based on few conditions. A set can be founded on a processed condition, for instance, a set may contain clients with sales over a specific edge. Computed sets update as your information changes. Then again, a set can be founded on particular information point in your view.

Q35. What are groups?

A group is a blend of measurement members that make higher amount categories. For instance, if you are working with a view that shows normal test scores by major, you might need to group certain majors to make real categories.

Q36. When do we use Join vs. blend?

If information locates in a single source, it is constantly desirable to utilize Joins. At the point when your information isn’t in one place blending is the most feasible way to make a left join like the association between your primary and auxiliary data sources.

Q37. What is a Stacked Bar chart?

A stacked bar chart is a chart that utilizes bars to indicate correlations between categories of information, however with the capacity to break down and look at parts of an entirety. Each bar in the chart speaks to an entire, and fragments in the bar speak to various parts or classes of that whole.

Q38. What is a Scatter Plot?

The scatter plot diagrams are sets of numerical information, with one variable on every axis, to search for a relationship between them. If the factors correspond, the points will fall along a line or bend. The better the connection, the more tightly the points will attach to the line.

Q39. What is a Waterfall chart?

An average waterfall chart is utilized to indicate how an initial value is expanded and diminished by a series of intermediate values, prompting a final value. A waterfall chart is a type of information perception that helps in understanding the total impact of consecutively presented positive or negative values. These values can either be time-dependent or category based. The waterfall chart is known by another name, which is called a flying bricks graph or Mario outline because of the obvious suspension of sections (bricks) in mid-air.

Q40. What is a TreeMap?

A treemap is a visual technique for showing various leveled information that utilizations settled rectangles to speak to the branches of a tree chart. Every rectangle has a territory corresponding to the amount of information it speaks. A treemap is made from a tiling calculation intended to give every rectangle an aspect ratio of one and make a feeling of order in the display of the input data.

Q41. What are interactive dashboards?

Dashboards which empower us to connect with different components like channels, parameters, activities and cut up the information to show signs of improvement experiences or answer complex questions.

Q42. What are different site roles we can assign to a client in Tableau?

Site roles are approval sets that are assigned to a client, for example, System Administrator, Publisher, or Viewer. The site roles characterize accumulations of capacities that can be conceded to clients or groups on Tableau Server.General site roles, which we can assign to a client are as follows-:

- **Server Administrator:** This role has full access to all servers and functionality of the website, all content on the server, and all clients.

- **Site Administrator:** By assigning this role one can manage groups, activities, projects, workbooks and information sources for the site.
- **Publisher:** Publishers can sign in, communicate with published views and publish dashboards to Tableau server from the desktop.

Q43. What are Table Calculations?

It is a change you apply to the values of a single measure in your view, based on measurements in the level of detail.

Q44. What is a Published data source?

Published data sources are not all that simple to utilize. Various item defects or design oversights could have frustrated the appropriation of server-based data sources.

Publishing data sources to the server enable us to

- Centralize information sources
- Share them with all the validated clients
- Increase workbook uploading/publishing speed
- Schedule information update with described frequency

Q45. What is a Hierarchy in Tableau?

Hierarchy in Tableau gives drill down activity to the Tableau report. With the assistance of tiny + and – symbols, we can explore from a larger level to a settled level or lower level. When you interface with an information source, Tableau consequently separates date fields into hierarchies so you can without much of a stretch separate the viz. You can also make your particular hierarchies.

Q46. What is a mark card in Tableau?

The **Marks card** is a key component for visual examination in Tableau. As you drag fields to different properties in the Marks card, you add setting and detail to the marks in the view. You utilize the Marks card to set the mark write and to encode your information with size, color, text, shape, and detail.

Q47. What is a Tableau data sheet ?

After you interface with your information and set up the information source with Tableau, the data source associations and fields show up on the left half of the workbook in the Datasheet.

Q48. What is a Bullet graph?

A bullet graph is a variety of a bar graph created by Stephen Few. Propelled by the traditional thermometer diagrams and advance bars found in numerous dashboards, the bullet graph fills in as a substitution for dashboard gauges and meters. Bullet graph was produced to overcome the principal issues of gauges and meters they normally show too little data, require excessive space, and are jumbled with useless and distracting decoration.

Q49. What is a Choropleth Map?

Choropleth Maps show isolated geographical regions or areas, which are colored, shaded or designed in connection with information variable. This gives an approach to visualize values over a geographical region, which can indicate variety or patterns over the displayed area.

Q50. How would you improve dashboard execution?

Here are some of the ways to improve dashboard execution:

Utilize an extract Extracts are an easy way and fastest approach to make most workbooks run quicker.

Reduce the scope whether you're making a view, dashboard, or story, it's enticing to pack a considerable measure of data into your visualization since it's so natural to add more fields and calculations to the view and more sheets to the workbook. So, therefore, the result can be that the visualization turns out to be slower and slower to render.

Utilize Context filter making at least one context filters enhances execution as clients don't need to make additional channels on an extensive data source, reducing the question execution time.

Q51. How many maximum tables can you join in tableau ?

We can join a maximum of **32 tables** in Tableau. Table size should also be restricted to 255 columns.

Q52. What are live connections in tableau ?

Tableau information connectors use your current information foundation by sending dynamic SQL or MDX

statements straightforwardly to the source database rather than importing all of the information. This implies if you've put resources into a quick, analytics optimized database like Vertica, you can pick up the advantages of that venture by associating live with your data.

Q53. What is a Heat Map?

Heat maps are graphical visualizations where marks on a chart are displayed as colors. As the marks "heat up" due their higher qualities or density of records, more dark color is shown.

Q54. What is Show Me feature in Tableau ?

As a propelled information visualization instrument, Tableau makes the information analysis simple by giving numerous analysis systems without composing any custom code. One of such features is Show Me. It is utilized to apply an expected view to the current information in the worksheet. Those perspectives can be a pie chart, a scramble plot, or a line chart.

Q55. What are Incremental Extract Updates?

When you import all or a portion of your information into Tableau's information engine, you make an information extract. After you make the initial extract, you can set up an incremental update with the goal that bringing in new information doesn't expect you to remake the whole extract. Incremental updates can be characterized by the values in a specified segment.

Q56. What is Application Server?

Application Server forms handle content perusing, server organization and permissions for the Tableau Server web and mobile interfaces.

Q57. What is the Gateway/Load Balancer?

The Gateway routes demand from the different parts. Requests that roll in from the customer first hit an outer load balancer if one is designed, or the portal and are routed to the proper procedure. Without an outside load balancer, if various procedures are arranged for any part, the Gateway will go about as a load balancer and disperse the requests to the procedures.

Q58. What is Backgrounder?

The backgrounder invigorates planned extracts, conveys notifications and manages other background

assignments. The backgrounder is intended to expend as much as CPU is accessible to complete the background action as fast as could be possible.

Q59. What is a Line Chart?

Line charts interface singular information points in a view. They give a basic method to imagine an arrangement of qualities and are helpful when you need to see trends after some time, or to figure future qualities. A Line Chart is the quite popular kind of the data visualization. Generally speaking, it is utilized to emphasize trends in information over equivalent time interims, for example, quarters, months, financial years, and much more.

Q60. What is Tableau waterfall chart ?

Waterfall chart viably shows the combined impact of consecutive positive and negative values. It demonstrates where a value begins, closures and how it arrives incrementally. Along these lines, we can see both the size of changes and the difference in values between consecutive data points.

Q61. What is tableau reader?

Tableau Reader is a desktop app that was developed to be used for opening and interacting with data visualizations. Tableau reader was created when Tableau was still starting up and it is a free product. It helps an organization in governing how analytic content is to be shared and distributed. Content creators and analyst makes use of this free application to distribute the contents they developed in Tableau desktop. Tableau reader was once the only option for sharing and distributing interactive content with others that need it within a group. This was possible even without having access to Tableau Desktop.

Q62. What is data blending in tableau?

Data blending in Tableau is used when there is associated data in multiple data sources, which you want to analyze together in a single window. To exemplify, consider the Sales data in a relational database and Sales Target data in a spreadsheet, to compare, you can blend the data based on shared dimensions to get access to the Sales Target measure. The two sources involved in data blending are mentioned as primary and secondary data sources. A left join is formed between the primary data source and the secondary data source with all the data rows from primary and agreeing data rows from a secondary data source.