**Q: Who are the founders of Tableau?**

The company was founded in Mountain View, California in January, 2003 by Chris Stolte, Christian Chabot and Pat Hanrahan.

**Q: What is Tableau Software?**

[Tableau](https://tekslate.com/tutorials/tableau/) is business intelligence software that allows anyone to easily connect to data, then visualize and create interactive, shareable dashboards. It’s easy enough that any Excel user can learn it, but powerful enough to satisfy even the most complex analytical problems. Securely sharing your findings with others only takes seconds.

**Q: What are the five main product offered by Tableau company?**

Tableau offers five main products: Tableau Desktop, [Tableau Server](https://tekslate.com/tableau-server-components/), Tableau Online, Tableau reader and Tableau Public.

**Q: What is the current latest version of Tableau Desktop(as of Feb.2015)?**

Current versions: Tableau Desktop version 9

**Q: What is data visualization?**

Data visualization refers to the techniques used to communicate data or information by encoding it as visual objects (e.g. points, lines or bars) contained in graphics.

**Q: What is Tableau Desktop?**

Tableau Desktop is based on breakthrough technology from Stanford University that lets you drag & drop to analyze data. It is great data visualization tool, you can connect to data in a few clicks, then visualize and crate interactive dashboards with a few more.

**Q: What is Tableau Server?**

[Tableau Server](https://tekslate.com/tableau-server-training) is browser- and mobile-based insight anyone can use. Publish dashboards with Tableau Desktop and share them throughout your organization. It’s easy to set up and even easier to run.

**Q: What is Tableau Public?**

Tableau Public is a free service that lets anyone publish interactive data to the web. Once on the web, anyone can interact with the data, download it, or create their own visualizations of it. No programming skills are required. Be sure to look at the gallery to see some of the things people have been doing with it.

**Q: Why Tableau?**

Whether your data is in an on-premise database, a database, a data warehouse, a cloud application or an Excel file, you can analyze it with Tableau. You can create [views](https://tekslate.com/how-to-build-views-in-tableau/) of your data and share it with colleagues, customers, and partners. You can use Tableau to blend it with other data. And you can keep your data up to date automatically.

**Q: How does Tableau perform with huge datasets?**

Tableau Performance is based on Data source performance. If data source takes more time to execute a query then Tableau must wait up to that time.

**Q: What are the differences between Tableau Software Good-data and Traditional BI (Business Objects, etc.)?**

At high level there are four major differences.

**Q: What are Dimensions and Facts?**

[Dimensions](https://tekslate.com/dimension-vs-measure-in-tableau/) is nothing but the descriptive text columns and facts are nothing but measures (numerical values) dimension ex: Product Name, City.  Facts:Sales, profit

**Q: 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.

* Using groups in a calculation. You cannot reference ad-hoc groups in a calculation.
* Blend data using groups created in the secondary data source: Only calculated groups can be used in data blending if the group was created in the secondary data source.
* Use a group in another workbook. You can easily replicate a group in another workbook by copy and pasting a calculation.

**Q: What is the difference between heat map and tree map?**

A heat map is a great way to compare categories using color and size. In this, you can compare two different measures. Tree map is a very powerful visualization, particularly for illustrating hierarchical (tree – structured) data and part – to – whole relationships.

**Q: How to view sql which is generated by Tableau Desktop?**

The Tableau Desktop Log files are located in C:\Users\\My Documents\My Tableau Repository. If you have a live connection to the data source, check the log.txt and tabprotosrv.txt files. If you are using an extract, check the tdeserver.txt file. The tabprotosrv.txt file often shows detailed information about queries.

**Q: How will you publish and schedule workbook in tableau server?**

First create a schedule for particular time and then create extract for the data source and publish the workbook for the server. Before you publish, there is a option called Scheduling and Authentication, click on that and select the schedule from the drop down which is created and publish. Also publish data source and assign the schedule. This schedule will automatically run for the assigned time and the workbook is refreshed.

**Q: 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](https://tekslate.com/tutorials/msbi-tutorials/) Office, printing to PDF or by using Tableau Server to publish or embed your views across your organization.

**Q: Compare QlikView and Tableau?**

|  |  |  |
| --- | --- | --- |
| **Criteria** | **Tableau** | **QlikView** |
| Data integration | Exceptional | Good |
| Working with multidimensional data | Very Good | Good |
| Support for PowerPoint | Available | Not available |
| Visual Drilldown | Good | Very Good |
| Scalability | Good | Limited by RAM |

**Q: What are 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.](https://tekslate.com/how-to-create-workbooks-and-sheets-in-tableau/)Introduced R script

**Q: What are the features of Tableau 8.3?**

With Kerboros support, Tableau 8.3 advances enterprise-grade data analysis with these enhancements:

* Provides seamless, single sign-on experience from Tableau client to back-end data sources.
* Protects sensitive data with delegated access and viewer credential management.
* Connects to live data sources through stable, automated back-end authentication.
* Leverages existing IT investments in enterprise-grade authentication and data security.
* Supports smart card authentication.

**Interview Questions On Tableau**

**Q: Explain the relationship difference between Tableau Workbook, Story, Dashboard, Worksheets.?**

**Workbooks and sheets:**Tableau uses a WORKBOOK and SHEET file structure, much like Microsoft Excel. A WORKBOOK contains SHEETS, which can be a WORKSHEET , a DASHBOARD , or a STORY .

* A WORKSHEET contains a single view along with shelves, legends, and the Data pane.
* A DASHBOARD is a collection of views from multiple worksheets.
* A STORY contains a sequence of worksheets or dashboards that work together to convey information.

**Q: 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.

**Speed**

How fast can you get up and running with the system, answer questions, design and share dashboards and then change them? This is Where systems like Tableau and [GoodData](http://www.gooddata.com/) are far better than old – school business intelligence like Business Objects or Cognos. Traditional systems took months or years to intelligence like Business Objects or Cognos. Traditional systems took months or years to implement, with costs running to millions. Tableau has a free trail that installs in minutes and GoodData is cloud – based, so they are faster to implement by orders of magnitude. They are also faster to results: traditional BI requires IT and developers to make any changes to reports, so business users are struck in a queue waiting to get anything done. Tableau and GoodData provide more of a self – service experience.

**Analysis layer**

This is where Tableau excels. It has a powerful and flexible drag & drop visualization engine based on some technology from Stanford. Traditional BI typically provide some canned reports but changing them requires significant time and money.

**Data layer**

**This is where the three options are most different:** GoodData requires you to move your data to its cloud. Traditional BI typically requires you to move your data to its data warehouse system. Tableau connects to a variety of existing data source and also provides a fast in – memory data engine, essentially a local database. Since most enterprises have their data stored all over the place, this provides the most choice and lets companies use the investment  they’ve already made.

**Enterprise readiness.**

Traditional BI and Tableau do well here, with enterprise – level security and high scalability.

**Q: What is a parameter in Tableau ? And how it works.?**

[Parameters](https://tekslate.com/creating-parameters-in-tableau/) are dynamic values that can replace constant values in calculations and can serve as filters

**Q: What are Filters? How many types of filters are there in Tableau?**

Filter is nothing but it is restricted to unnecessary, it is showing exact data. Basically filters are 3 types.

1. Quick filter
2. Context filt
3. Data source filter

**Q: What is the difference between context filter to other filters?**

Whenever we crate context filter >> Tableau will create a temporary table for this particular filter set and other filters will be apply on context filter data like cascade parameters… suppose we have crated context filter on countries >> we have chosen country as USA and India >> Tableau will create a temporary table for this two countries data and if you have any other filers >>other will be apply on this two countries data if we don’t have any context filter >> each and individual record will check for all filters

**Q: What is disadvantage of context filters?**

The context filter is not frequently changed by the user – if the filter is changed the database must recomputed and rewrite the temporary table, slowing performance.

When you set a dimension to context, Tableau crates a temporary table that will require a reload each time the view is initiated. For Excel, Access and text data sources, the temporary table created is in an Access table format. For SQL Server, My SQL and Oracle data sources, you must have permission to create a temporary table on your server. For [multidimensional](https://tekslate.com/dates-and-times-in-relational-and-multidimensional-datasources-in-tableau/) data source, or cubes, temporary tables are not crated, and context filters only defined which filters are independent and dependent.

**Q: What is the Difference between quick filter and Normal filter in tableau?**

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

**Q: What is benefit of Tableau extract file over the live connection?**

Extract can be used anywhere without any connection and you can build your own visualizations without connecting to Database.

**Q: How to combine two excel files with same fields but different data (different years)?**

I have 5 different excel files (2007.xls, 2008.xls..2011.xls) with same fields (film name, genre, budge, rating, profitability) but with data from different year (2007 to 2011). Can someone tell me how can I combine the film name, genre and profitability so that I can see the visualization of 2007 to 2011 in a single chart?

**Q: What is the Max no of tables we can join in Tableau?**

We can join max 32 table, it’s not possible to combine more than 32 tables.

**Q: How does the integration of Tableau with R works?**

R is a popular open-source environment for statistical analysis. Tableau Desktop can now connect to R through calculated fields and take advantage of R functions, libraries, and packages and even saved models. These calculations dynamically invoke the R engine and pass values to R via the Rserve package, and are returned back to Tableau.

Tableau Server can also be configured to connect to an instance of Rserve through the tabadmin utility, allowing anyone to view a dashboard containing R functionality.

Combining R with Tableau gives you the ability to bring deep statistical analysis into a drag-and-drop visual analytics environment.

**Q: What is Page shelf?**

Page shelf is power full part of tableau That you can use to control the display of output as well as printed results of output.

**Q: Differentiate between parameters and filters in Tableau.**

The difference 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. Most in-depth, industry-led curriculum in Tableau.

**Q: How can we combine database and flat file data in tableau desktop?**

Connect data two times, one for database tables and one for flat file. The Data->Edit Relationships. Give a join condition on common column from db tables to flat file

**Q: What is Content Filter?**

The concept of context filter in Tableau makes the process of filtering smooth and straightforward. It establishes a filtering hierarchy where all other filters present refer to the context filter for their subsequent operations. The other filters now process data that has been passed through the context filter.  
Creating one or more context filters improves performance as users do not have to create extra filters on large data source, reducing the query-execution time.  
You can create by dragging a filed into ‘Filters’ tab and then, Right-Click that field and select ‘’Add to Context”

**Q: How to add custom Color to Tableau?**

Create Custom Color code in “Preferences.tps”

**Navigation:::** Documents » My Table Repository »Preferences.tps

Add custom color code Note: In tableau 9.0 version we have color picker option.

**Q: What is TDE file?**

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

There are two aspects of TDE design that make them ideal for supporting analytics and data discovery.

* Firstly, TDE is a columnar store
* The second is how they are structured which impacts how they are loaded into memory and used by Tableau. This is an important aspect of how TDEs are “architecture aware”. Architecture-awareness means that TDEs use all parts of your computer memory, from RAM to hard disk, and put each part to work what best fits its characteristics.

**Q: How to design a view to show region wise profit and sales.I did not want line and bar chat should be used for profit and sales?**

Generate the Map using cities –>then Drag the Profit and sales to the Details–>Add the state as Quick filter

**Q: How to create cascading filters without context filter ?**

I have filterl and filter2..Based on filterl I need to filter2 data

**Ex:** Filterl as Country and Filter 2: States

I have chosen country as USA and filter2 should display only USA states

**Choose options of Filter2 states :**

select option of “Only relevant values “

**Q: What is dual axis?**

To display two measure in one graph

**Q: What is blended axis?**

Multiple Measures are shown in single axis and also all the marks shown in single pane

* Drag a dimension in a column
* Drag the first measure in column
* Drag 2nd measure in existing axis

[**Click Here…**](http://Http:/onlinehelp.tableau.com/current/pro/online/mac/en-Us/multiplemeasures_blendedaxes.html)

**Q: What is Data Blending?**

Unlike Data Joining, Data Blending in tableau allows combining of data from different sources and platforms. For instance, you can blend data present in an Excel file with that of an Oracle DB to create a new dataset

**Q: What is disaggregation and aggregation of data?**

Suppose I have data like:

|  |  |  |  |
| --- | --- | --- | --- |
| **EID** | **ENAME** | **SALARY** | **DEPT** |
| 1 | SAM | 1000 | SALES |
| 2 | JOHN | 1500 | FINANCE |
| 3 | LISA | 3000 | ACCOUNTING |
| 4 | RAY | 2000 | OPERATIONS |
| 5 | SMITH | 6000 | MANUFACTURING |
| 6 | ASHLEY | 25000 | HR |
| 7 | KIM | 2000 | ACCOUNTING |

**Aggregation:** to display aggregate data–>Sum/avg salary by each individual employee–>Drag “ename” on column and salary on rows we will get sum (salary) of each and individual employee–>now change measure type as Avg–>Choose salary option – choose measure types as “Avg”–>Disaggregation: To display each and every transaction.

When you look at the aggregated data in the views above, each bar represents all transactions for a specific employee summed up or averaged into a single value. Now say that you want to see the individual salary transactions for each employee. You can create a view like that by selecting Analysis>Aggregate Measures.

**Q: 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 |

**Q.1 What are the variations between Live and Extract Connections?**

Live affiliation Vs Extract affiliation

* **LIVE affiliation**

It has an online property

* **Extract Connection**

It offers both online and Offline Connectivity

* **LIVE affiliation**

It is addicted to the information Source

* **Extract Connection**

Independent of the information supply

* **LIVE affiliation**

It is freelance of .TDE file

* **Extract Connection**

Dependent on the.TDE file

* **LIVE affiliation**

We have to be compelled to refresh the connection

* **Extract Connection**

We want to refresh the Extract file

* **LIVE affiliation**

Refreshing Type: Incremental

* **Extract Connection**

Full refresh (Incremental additionally possible)

**Q.2 What’s Tableau knowledge Engine?**

Tableau knowledge engine is that the high-performance analytical knowledge base on our machine. It makes use of the memory on-fly.

After finishing the work, TDE can unleash its memory.

TDE gets mechanically put in at the side of the desktop installation.

**Q.3 What’s Tableau Repository?**

Tableau repository is that the centralized part of the Tableau Desktop. It’s the situation wherever the entire info of the desktop are keeping the sort of multiple folders.

**Q.4 What are the categories of Dimension?**

The Dimensions are divided into nine different kinds

1. Slowly ever-changing Dimension
2. Chop-chop ever-changing Dimension
3. Unchanged Dimension
4. Shrunken Dimension
5. Junk Dimension
6. Conformed Dimension
7. Degenerated Dimension
8. Role enjoying Dimension
9. Inferred Dimension

**i. Slowly ever-changing Dimension:**

If the information within the dimension is ever-changing over an amount of your time then such reasonable dimension is thought as “Slowly ever-changing Dimension”

**Example:** Student of the worker

**ii. Chop-chop ever-changing Dimension:**

If the information within the dimension is ever-changing chop-chop (or) ofttimes there such a sort of dimension is thought of as “Rapidly ever-changing Dimension”

**Example:** Age (Age can modification every and each second, minute and hour)

**iii. Unchanged Dimension:**

If the information within the dimension is unchanged or the values within the Unchanged Dimension ar constant. So, it’s referred to as “Static Dimension”

**Example:** Traffic Signals, knowledge Growth

**iv. Shrunken Dimension:**

The set of 1 dimension is thought as Shrunken Dimension.

**Example:** Quarter is that the Shrunken Dimension of the year.

A month is that the Shrunken Dimension of the Quarter.

A week is that the Shrunken Dimension of the Month.

**v. Junk Dimension:**

Junk suggests that unwanted (or) Unrelated. If the dimension containing the unrelated info, then it’s referred to as “Junk Dimension”.

**vi. Conformed Dimension:**

If one dimension is usually shared by the multiple business areas then such a reasonably dimension is thought as Conformed Dimension.

**Example:** faculty –> Hospital –> Company

9:00 Am – 7:00 PM (Time)

**vii. Degenerated Dimension:**

The dimension that contains solely primary keys with none matter info is thought as Degenerated Dimension.

It is the sole dimension table that isn’t having.

**viii. Role enjoying Dimension:**

If one dimension is enjoying multiple roles within the truth table or if one dimension secret is hooked up to multiple foreign keys within the truth then such a sort of dimension is thought as “Role enjoying Dimension”.

**Example:** Flipkart  
Date of order  
Date of service  
A Date of delivery  
“DATE” is enjoying multiple roles.

**ix. Inferred Dimension:**

The empty dimension is called “Inferred Dimension”. It’s usually employed in ETL.  
As the Inferred Dimension doesn’t contain its own primary keys, we are going to produce the synthetic primary keys called “Surrogate Keys

**Q.5 That Schema is Best in Performance?**

Star Schema because it contains less variety of tables. Invariably begin|the beginning} schema is sweet in performance as a result of start schema contains a lesser variety of tables that the knowledge choice are quicker.

**Q.6 Is it attainable to convert snowflake to star schema or not?**

Yes, it’s attainable to convert snowflake to star schema by grouping all the size into one logical.

Logical dimension, however, that approach isn’t suggested because it degrades the performance.

**Q.7 That Schema you have got enforced in your Recent Project?**

Always the snowflake attributable to the complexness of any client’s info (or) Business we tend to designed snowflake

**Q.8 That Dimension isn’t Having its own Dimension Table?**

Degenerated Dimension

**Q.9 What’s VIZQL in Tableau?**

Tableau is that the Business Intelligence application that permits the users to form interactive, dynamic visualizations, with the assistance of “VIZQL”

VIZQL: VIZQL could be an image search language

Note: VIZQL=SQL+DL

VIZQL could be a combination of structured search language (SQL) that employ to speak with {the knowledge|the info|the information} and descriptive language (DL) that employ to convert the matter data into the image.

Note: VIZQL is dynamic in nature

VIZQL is that the patent search language by the tableau corporation.

**Tableau Interview Questions and Answers for Freshers. Q- 1,2,7,9,**

**Tableau Interview Questions and Answers for Experience. Q- 3,4,5,6,8,**

**Q.10 What is the sort Of Measures?**

1. Additive live
2. Semi-Additive live
3. Non-Additive live

**Additive Measure:**

If the live is supporting the aggregate with all the size then such reasonably live is thought as “Additive Measure”.

**Semi-Additive Measure:**

If the live is supporting the aggregations solely on few of dimensions however not all of them such reasonably live is thought as semi-Additive live.

**Non-Additive Measure:**

If the live isn’t giving the United States any pregnant Outputs when applying the aggregations with the list of all dimensions then it’s called “Non-Additive Measure”

**Q.11 What’s truth Table?**

Collection of facts is thought as truth Table. Supported in the categories of facts, truth tables are divided into three sorts

1. Accumulative truth Table
2. Photograph truth Table
3. Truthless Fact Table

**Cumulative truth Table:**

If {the truth|the very fact|the actual fact} table is containing solely the additive facts these such a sort of fact table is thought as “Cumulative truth Table”  
It contains the periodic info like year wise total sales, state wise average revenues, etc.

**Snapshot truth Table:**

If {the truth|the very fact|the actual fact} table containing solely semi-additive & non-additive facts then such a sort of fact table is thought of as “Snapshot truth Table”  
It contains instant info like day wise discounts, week wise margins etc.

**Factless truth Table:**

If {the truth|the very fact|the actual fact} table is containing solely the keys with none facts such a sort of fact tables are thought as truthless Fact Table.

**Q.12 What’s WorkBook?**

In Tableau, book files are abundant similar to MS-Excel workbooks.

The book is that the instrumentation for all add the Tableau

To create a replacement book click on file new (or) use cntl+n

The book contains:

1. Data section
2. Tableau space

[**Read More About Tableau Workbook in detail**](https://data-flair.training/blogs/tableau-paged-workbook/)

**Q.13 What are the Default Geographic Roles?**

1. Code (U.S)
2. CBSA/MSA (U.S)
3. general assembly Districts (U.S)
4. Cities
5. Country/Region
6. County
7. States/Provinces
8. nada Codes/ communicating Codes

**Q.14 What are The MAP Types?**

In Tableau, we tend to ar having 2 sorts of maps

1. Image Maps
2. Crammed Maps

**Symbol Maps:** If we tend to indicate every and each geographic location with a logo like a circle or sq. on the map then it’s called “Symbol Maps

**Filled Maps:** If we tend to indicate every and each geographic location with a crammed portion then it’s called “Filled Map”.

[**Let’s Create Heat Map in Tableau**](https://data-flair.training/blogs/tableau-heat-map/)

**Q.15 What’s The Behaviour of Dimension?**

Dimension invariably contains distinct values.

Discrete prices suggest that every and each value are freelance of the remaining values.

**Q.16 What’s Nested twin Axis?**

If we tend to place one twin axis within the opposite is it called “ Nested twin Axis”.  
In maps, it’s attainable to produce the nested twin axis.

**Q.17 What are The Background Maps in Tableau?**

In Tableau, we tend to ar having 3 sorts of background maps

1. Offline
2. Online
3. WMS Server

**i. Offline:** In offline tableau gets the backgrounds maps from the native machine. It doesn’t need any net property.

Offline maps are set within the following location.

**ii. Online:** In on-line Tableau gets the backgrounds map from the remote tableau servers. It needs net property

From tableau eight.2 in online mode, we tend to ar hacking into servers

1. TABLEAU
2. TABLEAU Classic

From Tableau nine.0 they need integrated all the options of tableau & tableau classics into one server tableau. So, from tableau nine.0 solely tableau on-line choice is obtainable.

**iii. WMS Server:** WMS Stands for “Web Map Service Server” victimization this selection we are able to connect with third-party servers.

Note:: to vary the background map choice click on “map” choose background map and check either “Offline” or “Online” or”NEO WMS” (Nasa Earth Observation – NEO).

**Q.18 What are the Filtering Levels in Tableau?**

In Tableau, filtering is performing at 2 levels

1. Worksheet Level
2. Knowledge supply Level (New Feature from eight.0)

**Worksheet Level:**

If we tend to perform filtering at the worksheet level tableau can add a filter to solely that worksheet by default.

**Data Source:**

If we tend to perform filtering at knowledge supply level tableau can apply that filter to all or any the sheets uses that data source.

[**Read about Tableau Filter Operations in detail**](https://data-flair.training/blogs/tableau-filter-operations/)

**Q.19 What are totally different filtering ways in which at the worksheet levels?**

1. Header
2. Marks Card
3. Dataview
4. Victimization Filter Shelf
5. Fast Filter
6. Context Filter
7. Cascading Filter
8. Parameter Filter

**Tableau Interview Questions and Answers for Freshers. Q- 11,15,17,19**

**Tableau Interview Questions and Answers for Experience. Q- 12,13,14,16,18,20**

**Q.20 What are the Parameters in Tableau?**

Parameters permit the users to pass their own values dynamically.

In Tableau, we are {able to} able to produce the various sorts of parameters like

1. Integer
2. Float
3. String
4. Boolean
5. Data Type
6. Date+Time

Depending on the information sort & parameters we are able to pass the values in 3 ways

1. All
2. List
3. Range

[**Let’s Study Tableau Parameters in Detail**](https://data-flair.training/blogs/tableau-parameter-tutorial/)

**Q.21 Filtering Across Multiple knowledge Sources?**

In Tableau by default, we are able to share filter with just one knowledge supply. If we would like to share the filter across multiple knowledge sources then we’ve to use

1. Parameters
2. Filter Actions

Note: Parameters are freelance of the information supply

Note: If we tend to use same parameters across multiple worksheets. If we tend to choose price in one worksheet it’ll mechanically get applied within the remaining worksheets.

**Q.22 What are the Alerts & Subscriptions?**

With the alerts & subscriptions, it’s attainable to grasp the standing of the tableau server mechanically.

To set up this we want an SMTP (Simple Mail Transfer Protocol).

Subscriptions can send the desired content to the subscribes to the mechanically.

**Q.23 What’s The Secure Socket Layer?**

SSL (Secure Socket Layer) secures the data whereas remodeling over the network, by changing it into the encrypted format when reaching the target it’ll mechanically decipher.

To set up SSL, we want SSl certification file wherever we’ve to get this certification from the third party hosting firms like nortne.etc.

**Q.24 What’s Security Assertion Markup Language?**

SAML employes to set up the one sign-on.

In the single sign-on, it’s attainable to access multiple servers.

**Q.25 What is the Kerberos?**

Kerberos is a new feature from tableau eight.3, with Kerberos additionally it’s attainable to set up single-sign-on.

**Q.26 What is The Tableau Servers?**

Depending on the licensing value tableau serve area divided into a pair of sorts

1. User primarily based Tableau Server
2. Core primarily based Tableau Server

**User primarily based Server:**

It provides restricted user access looking on the no.of users & Licences.

Note:: If we tend to take License for ten users at a time, we are able to add website roles to solely this ten users. If we tend to assign any website role to the eleventh user. Tableau assigns mechanically website role as unauthorized.

**Core primarily based Server:**

It provides unlimited user access at a time we are able to assign website roles to ‘n’ no.of users.

The Licensing value is terribly high for the core bareheaded server.

**Note:** Core primarily based server contains another “site role” within the name of “eruest”

User primarily based server beginning licensing value is ten,000$ per ten users per one year.

**Q.27 Revision History**

From Tableau Server nine.3 it’s attainable to perform version dominant in a tableau with the assistance of revision history choice at the time of web site creation.  
Version dominant suggests that maintaining multiple older copies of the identical book if you publish the book with an identical name. It terribly advantages to Rolbasis the initial image when modifying them.

**Q.28 What’s Scheduling?**

Automation of the manual tasks achieves with the assistance of programming.  
Scheduling perform for two sorts of tasks.

**Extract Refreshers:** Which is able to perform refreshing of the extract files mechanically.

**Subscription:** Which is able to send the desired image to subscribers mechanically victimization SMTP.

**Q.29 Tableau Server Setup**

1. Installation
2. Configuration

**PRE-REQUISITES:**

Deployment\_type           No.of Users        RAM-Size            No of Cores  
Testing (or) Proof of construct (or) Evaluation    1 (or) 2  4 GB for thirty-two bit    2  
Small                      < 25                     8 GB            four  
Medium                  < 100                    32 GB          eight  
Enterprise               >=100                  >=32 GB       one

**Q1) What is Tableau?**

Tableau is easily deployable, highly scalable, and efficient performing framework. It is a data analytics tool which develops interactive and efficient visualizations of data in forms of dashboards. It has an attractive and user-friendly interface.

**Q2) Please name out the products offered by Tableau and give a small brief for each of them**

Tableau has 4 main products.

* **Tableau Prep** : Tableau Prep is responsible for preparing data for analysis. This tool provides 3 coordinated views which provide us with a complete picture of data.
* **Tableau Desktop**: Tableau Desktop is the place where the analysis happens. It has powerful drag and drop analytics which is very easy to use. Through desktop, you get your data insights quickly.
* **Tableau Online**: Tableau Online is a secure and scalable self-service analytics cloud tool. You can use it anywhere, anytime. It has removed the requirement for IT infrastructure and support.
* **Tableau Server**: From small to large enterprises, Tableau server is used for fulfilling their BI requirements. This is an on-premise solution. This tool can take data from anywhere and share across organization through desktop or mobile browsers. There are also android and iPhone apps available to do so.

**Q3) Give a brief about tableau dashboard**

Tableau dashboard is a group of various views which allows you to compare different types of data simultaneously. Data sheets and dashboards are connected and any modification in data directly reflects on dashboards. It is the most efficient approach to visualize the data and analyze it.

Learn how to use Tableau, from beginner basics to advanced techniques, with online video tutorials taught by industry experts. Enroll for Free [Tableau Training](https://mindmajix.com/tableau-training) Demo!

**Q4) State available data types in Tableau**

Tableau supports below data types.

|  |  |  |
| --- | --- | --- |
| **Data Type** | **Meaning** | **Examples** |
| String | Character Sequence. Enclosed in ''. | Tableau', 'World' |
| Number (Whole) | Integers | 9 |
| Number (decimal) | Floating values. | 123.45 |
| Boolean | They are logical values. | TRUE, FALSE |
| Date | Date | "02/01/2015" |
| Date & Time | Date and Time | 01 January 2019 05:55:00 PM |
| Geographic Values | Geographical Values | India, Italy, Canada |

**Q5) Differentiate parameters and filters in Tableau**

Filters are the simpler and straightforward feature of Tableau. It applies on dimension or measure directly. For example, to only show Gujarat or Karnataka in a State dimension, we can apply filter on that. In Tableau, there are multiple UI options available for filters like radio buttons, drop down lists, check boxes, sliders and more. Filters on sheets are also available in Tableau.

Parameters are like variables. They are complex and more powerful. Like variable, parameter can be used in calculations. So, that means, it only allows single value. Parameters have same UI options except check boxes because check boxes don’t have single value. For example, we can create parameter for interest rate and period, and then we can use these parameters to calculate interest and principal payments.

**Q6) How many types of filters are available in Tableau? Explain**

Filters are used to provide the correct information to viewers after removing unnecessary data. There are various types of filters available in Tableau.

* **Extract Filters** – Extract filters are used to apply filter on extracted data from data source. For this filter, data is extracted from data source and placed into Tableau data repository.
* **Datasource Filters** – Datasource filters are same as extract filters. They also work on extracted dataset. But, the only difference is it works with both live and extract connection.
* **Context Filters** – Context Filters are applied on the data rows before any other filters. They are limited to views, but they can be applied on selected sheets. They define Aggregation and Disaggregation of data in Tableau
* **Dimension Filters** – Dimension filters are used to apply filters on dimensions in worksheets. Dimension filters are applied through the top or bottom conditions, formula and wildcard match.
* **Measure Filters** – Measure filters are applied on the values present in the measures.

**Q7)** **Explain Tableau File Extensions**

The below ones are few extensions in Tableau:

* Tableau Workbook (.twb)
* Tableau Data extract (.tde)
* Tableau Datasource (.tds)
* Tableau Packaged Datasource (.tdsx)
* Tableau Bookmark (.tdm)
* Tableau Map Source (.tms)
* Tableau Packaged Workbook (.twbx) – zip file containing .twb and external files
* Tableau Preferences (.tps)

[Checkout Tableau Tutorials](https://mindmajix.com/tableau)

**Q8) Are there any limitations of parameters in Tableau? If yes, give details**

[Tableau dashboard](https://mindmajix.com/tableau/how-to-build-your-first-advanced-dashboard-in-tableau) allows representation of parameters in four ways only. They don’t allow any multiple values like a filter can do. They only allow a single value.

**Q9) Define Page Shelf in Tableau?**

Page shelf breaks the views into series of pages. It displays alternate view on each page. Due to this feature, you can analyze the effect of each field into rest of the data in view.

**Q10) Differentiate between Tiled and Floating in dashboards?**

In tiled layout, items don’t overlap. Layout will be adjusted according to dashboard size. In Floating layout, items can be placed on some other layers. Floating items can have fixed position and size.

**[Related Article:**[**The right way to build a dashboard**](https://mindmajix.com/tableau/what-is-the-right-way-to-build-a-dashboard-in-tableau)**]**

**Q11) Define story in Tableau?**

Story can be defined as a sheet which is a collection of series of worksheets and dashboards conveying information. Story can be used to show the connection between facts and outcomes’ relations to decisions. Story can be published to web or can be presented to audience.

**Q12) Give an overview for fact and dimension table?**

Facts are numeric measures of data. They are stored in fact tables. Fact tables store that type of data which will be analyzed by dimension tables. Fact tables have foreign keys associating with dimension tables.

Dimensions are descriptive attributes of data. Those will be stored in dimensions table. For example, customer’s information like name, number, email will be stored in dimension table.

**Q13) State some reasons for low performance of Tableau**

* **Filters** - filters need to create an extra query and if it used in large numbers and inefficiently then they can reduce the performance. So, it is advised to use filters whenever it is mandatory
* **Live connection** - Tableau extract works much better in comparison with live connection.
* **Data sources** - a wrong query to a wrong data source can reduce performance. Also data source’s performance can also affect Tableau’s performance.

[**Related Article**: [**Aggregating disparate data sources at a large university in tableau**](https://mindmajix.com/tableau/aggregating-disparate-data-sources-at-a-large-university-in-tableau)]

**Q14) State some ways to improve performance of Tableau**

* Use an Extract to make workbooks run faster
* Reduce the scope of data to decrease the volume of data
* Reduce number of marks on the view to avoid information overload
* Try to use integers or Booleans in calculations as they are much faster than strings
* Hide unused fields
* Use Context filters
* Reduce filter usage and use some alternative way to achieve same result
* Use indexing in tables and use same fields for filtering
* Remove unnecessary calculations and sheets

**Q15) Explain different connection types in Tableau.**

There are 2 connection types available in Tableau.

**Extract**: Extract is a snapshot of data which will be extracted from data source and put into Tableau repository. This snapshot can be refreshed periodically fully or incrementally. This can be scheduled in [Tableau Server](https://mindmajix.com/tableau-server).

**Live**: It creates a direct connection to data source and data will be fetched directly from tables. So, data will be up to date and consistent. But, this also affects access speed.

**Q16) Categorize dimensions in Tableau**

Dimensions are divided into 9 various categories

**Slowly ever-changing Dimension**: Value of the dimension changes over an amount of time for slowly ever-changing dimensions.  
Example – student of worker

**Chop-chop ever-changing Dimension**: Value in the dimension is rapidly changing for chop-chop ever-changing dimensions.  
Example – Age (It changes every second)

**Unchanged Dimension**: Values are constant for unchanged dimension.  
Example – Traffic Signals

**Shrunken Dimension**: Set of 1 dimension is termed as Shrunken Dimension.  
Example – A week is Shrunken dimension for the month

**Junk Dimension**: Junk values or unrelated dimensions are termed as Junk Dimension.

**Conformed Dimension**: If any dimension is provided by various business areas, then such a dimension is termed as Conformed Dimension.  
Example – Time (9-5) for any company or hospital or college

**Degenerated Dimension**: Degenerated dimensions have primary keys only without any matter info.

**Role enjoying Dimension**: If one dimension is employed in multiple roles, then they are termed as Role enjoying Dimensions.   
Example – Date for e-commerce site order (Date of Order, Date of Shipment, Date of delivery)

**Inferred Dimension**: Empty dimensions are called inferred dimensions. They are usually used in ETL.  
Example – Customer email which he may not enter while submitting any form will be filled as null

**Q17) What is VIZQL in Tableau**

VIZQL is Visual Inquiry Language. It is a combination of VIZ and SQL. It is like SQL language. But instead of SQL commands, VIZQL language converts data queries into visual images.

**Q18) Tell me possible joins in Tableau**

Tableau works same as SQL. So, it supports all joins possible in SQL

* Left Outer Join
* Right Outer Join
* Full Outer Join
* Inner Join

**Q19) How many table joins are possible in Tableau?**

32

**Q20) Tell me different ways to use parameters in Tableau**

* Filters
* calculated fields
* actions
* measure-swaps
* changing views
* auto updates

**Q21) State limitation of context filters in Tableau**

Whenever we set a context filter, Tableau generates a temp table which needs refresh each and every time the view is triggered. So, if context filter will be changed, database needs to recompute and rewrite temp table, which in turn slows down the performance.

**Q22) What is mark card in Tableau?**

There is a card to the left of the view where we can drag fields and control mark properties like color, size, type, shape, detail, label, and tooltip.

**Q23) Define published data source**

Published data source has connection information in it. It is independent of any workbook and can be accessed by multiple workbooks.

**Q24) Explain disaggregation and aggregation of data in Tableau?**

**Aggregation** → The process of summarizing the data and viewing a single numeric value is called aggregation. Example – sum/avg of salary for each employee

**Disaggregation** →The process of viewing each transaction for analyzing all the measures both dependently and independently. Example – individual salary transactions for each employee.

**Q25) Can we see sql generated by Tableau Desktop?**

Tableau Desktop log files are places in C:UsersMy DocumentsMy Tableau Repository. In case of live connection to any data source, check the log file “log.txt” and “tabprotosrv.txt” files. In case of extract connection to any data source, check the “tdeserver.txt” file which has detailed information about queries.

**Q25) If owner of the published workbooks license expires, then can other users see those workbooks?**

If owner of published workbooks license expires then his/her role will change to “Unlicensed”. He/She cannot access those workbooks, but others can. Only site admin can change the ownership of those workbooks.

**Q26) Define Heat Map?**

Heat map is a graphical representation of data which uses color-coding technique to represent different values of data. As the marks heat up due to its higher value, dark color will be shown on map.

**Q26) Define Tree Map**

A tree map is a visualization which organizes data hierarchically and shows them as a set of nested rectangles. Size and colors of rectangles are respective to the values of the data points they project. Parent rectangles will be tiled with their child elements.

**Q27) Define dual axis**

Dual axis is used to show 2 measures in single graph. It allows you to compare 2 measures at once.

**Q28) Define blended axis**

Multiple measures can share single axis so that all the marks will be shown in a single pane. We can blend measures by dragging the 1st measure on one axis and 2nd on existing axis.

**Q29) Can we remove “All” option from auto-filter in Tableau?**

Yes, we can. Navigate to filter→ Right click on it→ select customize→ uncheck the option “Show All”

**Q30)** **Which one is better? Extract or Live connection?**

Extract connection is better than live connection because extract connection can be used from anywhere, anytime without [connecting to database](https://mindmajix.com/connect-data-generated-values-tableau). We can construct our own visualizations on it irrespective of database connection.

**Q31) Tell me something about workbook version controlled in Tableau.**

Versioning of workbooks can be done in 2 ways in Tableau.

* At desktop level, you keep copies of your changes and files, or using 3rd party system like Microsoft TFS.
* At server level, where you publish the data source and version will be saved in revision history on Tableau Server or Online. Reverting to a previous version is also possible here.

**Q32)** **Where can we apply global filters?**

Global filters can be applied to sheets, stories, and dashboards.

**Q33)** **Define LOD Expression**

LOD Expression stands for Level of Detail Expression. They provide an effective way to compute aggregation at that level of detail which cannot be achieved through visualization.

**Q34)** **Define shelves and sets**

Shelves are defined as named areas places to top and left of the view. Fields will be placed onto shelves to construct a view.

Sets are a compute condition on which dataset will be prepared. Data will be grouped together based on a condition. Fields which is responsible for grouping are known as sets. For example – students having grades more than 70%

**Q35) State the components of the dashboard**

Dashboard consists of 5 components.

* **Web** : it consists of a web page embedded in the dashboard.
* **Horizontal component**: it is a horizontal layout container in which we can add objects.
* **Vertical component** : it is a vertical layout container in which we can add objects.
* **Image Extract** : it allows you to upload an image to dashboard from computer.
* **Text**: it is a small wordpad where we can format and edit the text.

**Q36) How to add custom color to Tableau?**

To add custom color in Tableau, we need to follow below 3 steps

* Generate custom color code and create it in “Preferences.tps”
* Navigate to Documents→ My Table Repository→ Preferences.tps
* Add note for custom color code

**Q37) Can we create cascading filters without using context filters?**

Cascading filters means filter2 values are dependent on filter1 value. For Example, filter1 is country and if we select “India” for filter1, filter2 values should show all Indian states. This feature we can achieved by using option “**Only Relevant Values**”.

**Q38) How can we display top and bottom 5 of records in a single Tableau view?**

To achieve this, we need to create 2 views

* View1 which contains top 5 records
* View2 which contains bottom 5 records
* View3 which is a join of View1 and View2

**Q39) Define Bullet graph**

Bullet graph is a variant of Bar graph. It is responsible for comparing performance of one measure with other measures.

**Q40) Define Gantt chart**

Gantt Chart displays the progress of a value over the period. It consists of bars along with time axis. It is a project management tool. Here, each bar is measure of a task in the project framework.

**Q41) Define Histogram chart**

A histogram chart shows the distribution of continuous information over a certain period of time. This chart helps us to find extreme points, gaps, unusual values, and more concentrated values.

**Q41) State few charts which we should not use with valid reasons**

Below here are few charts which we should avoid.

* **3D Charts:** Visual representation of numbers in 3D charts will be skewed and it makes difficult to compare and analyze.
* **Pie Charts:** Pie charts are not that much accurate as bar charts. In Pie charts, we have areas and angles to compare instead of length in a bar chart. Areas and angles cannot be analyzed with ease.
* **Donut Charts:** This is same as Pie chart, but here, we have a hole in the middle to make it look like donut. Due to that hole, we need to compare arc length with other arcs to analyze the values. Comparing arcs length is also a difficult task for our eyes.

**[Related Article:**[**Create Pie charts, Scatter Plot, Area Fill charts & Circular View in Tableau**](https://mindmajix.com/tableau/pie-and-area-fill-charts-scatter-plot-and-circular-view-in-tableau)**]**

**Q42) Do we have any way to handle null values in Tableau?**

Tableau cannot plot null values on axis. So, it will display an indicator at lower right corner of view. Once you click on that indicator, you have options to handle null values. Below are the options available to handle null values.

* **Filter Data** – If you choose this option, null values will be filtered out from the view.
* **Show Data at Default Position** – It replaces the null value with default value and shows the data at default position on axis. These default values depend on the data type of field. Below here are the defaults of specific data type.
* Numbers →0
* Dates → 12-31-1899
* Geographic Location → (0,0)
* Negative Values → 1

**Q43) What is Tableau Public?**

Tableau Public is an open source and free service which allows anyone to publish the data source and visualizations to web. These visualizations can then be embedded into blogs or web pages. They can also be distributed through email or social media. Moreover, they can be made downloadable by other end users. For Tableau Public, no programming skills are needed. It can be accessed by anyone free of cost.

**Q44) Do we have any data limitation in Tableau Public?**

Yes, Tableau Public can only allow 10 million rows to users for [data visualization](http://mindmajix.com/data-science/data-visualization).

**Q45) Differentiate discrete and continuous data roles in Tableau**

Discrete data roles consist of values which are separate and distinct. Discrete data roles can take individual values within a range. For Example – cancer patients in hospital, no. of threads in a sheet, state. Discrete values are displayed as blue icons in data window and blue pills on shelves. Discrete fields can be sorted.

Continuous data roles consist of any value within finite or infinite interval. For Example – age, unit price, order quantity. Continuous values displayed as green icons in data window and green pills on shelves. Continuous fields cannot be sorted.

**Q46)** **Can we download views or workbooks from server? If yes, in which data formats?**

We can download views or workbooks from server. But, data formats available to us depend on the permissions granted by site administrators or content owners.

* Image: .png format
* Data: .csv file.

We can also download selected sheets into PDF format, but while generating PDF, web page objects won’t be included.

**Q47)** **Define performance testing in terms of Tableau**

We can check performance of Tableau by the following 2 ways.

* We can create performance recording to keep track of performance details of main events while interacting with workbooks. Then, these performance metrics can be viewed by user and analyzed. Navigation to start/stop performance recording is Help→Settings and Performance>→ Start Performance Recording Help→ Setting and Performance → Stop Performance Recording
* Review the logs created by [Tableau Desktop](https://mindmajix.com/tableau-desktop). Location for log files is C:UsersMy DocumentsMy Tableau Repository.
* For live connection, check the log files log.txt and tabprotosrv.txt.
* For Extract connection, check the log file tdeserver.txt