# Datawarehouse interview questions and answers

**Define data warehouse?**

**A** : Data warehouse is a subject oriented, integrated, time-variant, and nonvolatile collection of datathat supports management's decision-making process.

**Q: What does subject-oriented data warehouse signify?**

**A** : Subject oriented signifies that the data warehouse stores the information around a particularsubject such as product, customer, sales, etc.

**Q: List any five applications of data warehouse.**

**A** : Some applications include financial services, banking services, customer goods, retail sectors,controlled manufacturing.

**Q: What do OLAP and OLTP stand for?**

**A** : OLAP is an acronym for **Online Analytical Processing** and OLTP is an acronym of OnlineTransactional Processing.

**Q: What is the very basic difference between data warehouse and operational databases?**

**A** : A data warehouse contains historical information that is made available for analysis of the businesswhereas an operational database contains current information that is required to run the business.

**Q: List the Schema that a data warehouse system can implements.**

**A** : A data Warehouse can implement star schema, snowflake schema, and fact constellation schema.

**Q: What is Data Warehousing?**

**A** : Data Warehousing is the process of constructing and using the data warehouse.

**Q: List the process that are involved in Data Warehousing.**

**A** : Data Warehousing involves data cleaning, data integration and data consolidations.

**Q: List the functions of data warehouse tools and utilities.**

**A** : The functions performed by Data warehouse tool and utilities are Data Extraction, Data Cleaning,Data Transformation, Data Loading and Refreshing.

**Q: What do you mean by Data Extraction?**

**A** : Data extraction means gathering data from multiple heterogeneous sources.

**Q: Define metadata?**

**A** : Metadata is simply defined as data about data. In other words, we can say that metadata is thesummarized data that leads us to the detailed data.

**Q: What does Metadata Respiratory contain?**

**A** : Metadata respiratory contains definition of data warehouse, business metadata, operationalmetadata, data for mapping from operational environment to data warehouse, and the algorithms for summarization.

**Q: How does a Data Cube help?**

**A** : Data cube helps us to represent the data in multiple dimensions. The data cube is defined bydimensions and facts.

**Q: Define dimension?**

**A** : The dimensions are the entities with respect to which an enterprise keeps the records.

**Q: Explain data mart.**

**A** : Data mart contains the subset of organization-wide data. This subset of data is valuable to specificgroups of an organization. In other words, we can say that a data mart contains data specific to a particular group.

**Q: What is Virtual Warehouse?**

**A** : The view over an operational data warehouse is known as virtual warehouse.

**Q: List the phases involved in the data warehouse delivery process.**

**A** : The stages are IT strategy, Education, Business Case Analysis, technical Blueprint, Build the version,History Load, Ad hoc query, Requirement Evolution, Automation, and Extending Scope.

**Q: Define load manager.**

**A** : A load manager performs the operations required to extract and load the process. The size andcomplexity of load manager varies between specific solutions from data warehouse to data warehouse.

**Q: Define the functions of a load manager.**

**A** : A load manager extracts data from the source system. Fast load the extracted data into temporarydata store. Perform simple transformations into structure similar to the one in the data warehouse.

**Q: Define a warehouse manager.**

**A** : Warehouse manager is responsible for the warehouse management process. The warehousemanager consist of third party system software, C programs and shell scripts. The size and complexity of warehouse manager varies between specific solutions.

**Q: Define the functions of a warehouse manager.**

**A** : The warehouse manager performs consistency and referential integrity checks, creates the indexes,business views, partition views against the base data, transforms and merge the source data into the temporary store into the published data warehouse, backs up the data in the data warehouse, and archives the data that has reached the end of its captured life.

**Q: What is Summary Information?**

**A** : Summary Information is the area in data warehouse where the predefined aggregations are kept.

**Q: What does the Query Manager responsible for?**

**A** : Query Manager is responsible for directing the queries to the suitable tables.

**Q: List the types of OLAP server**

**A** : There are four types of OLAP servers, namely Relational OLAP, Multidimensional OLAP, HybridOLAP, and Specialized SQL Servers.

**Q: Which one is faster, Multidimensional OLAP or Relational OLAP?**

**A** : Multidimensional OLAP is faster than Relational OLAP.

**Q: List the functions performed by OLAP.**

**A** : OLAP performs functions such as roll-up, drill-down, slice, dice, and pivot.

**How many dimensions are selected in Slice operation? A** : Only one dimension is selected for the slice operation.

**Q: How many dimensions are selected in dice operation?**

**A** : For dice operation two or more dimensions are selected for a given cube.

**Q: How many fact tables are there in a star schema?**

**A** : There is only one fact table in a star Schema.

**Q: What is Normalization?**

**A** : Normalization splits up the data into additional tables.

**Q: Out of star schema and snowflake schema, whose dimension table is normalized?**

**A** : Snowflake schema uses the concept of normalization.

**Q: What is the benefit of normalization?**

**A** : Normalization helps in reducing data redundancy.

**Q: Which language is used for defining Schema Definition?**

**A** : Data Mining Query Language (DMQL) is used for Schema Definition.

**Q: What language is the base of DMQL?**

**A** : DMQL is based on Structured Query Language (SQL).

**Q: What are the reasons for partitioning?**

**A** : Partitioning is done for various reasons such as easy management, to assist backup recovery, toenhance performance.

**Q: What kind of costs are involved in Data Marting?**

**A** : Data Marting involves hardware & software cost, network access cost, and time cost.

# Tableau Interview questions and answers(Model-1)

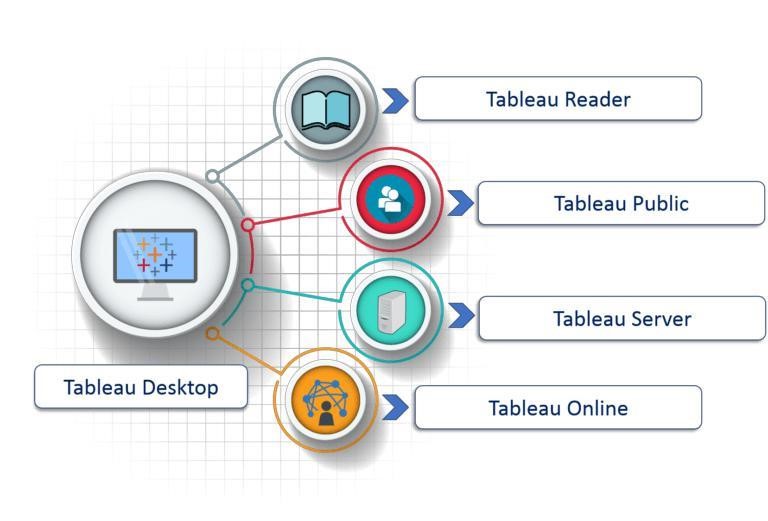
Beginners Level Tableau Interview Questions

1. **What is Tableau?**

Tableau is a business intelligence software that allows anyone to connect to respective data, and then visualize and create interactive, shareable dashboards.

1. **What are the different Tableau Products and what is the latest version of Tableau?**

Here is the Tableau Product family.



**(i)Tableau Desktop:**

It is a self service business analytics and data visualization that anyone can use. It translates pictures of data into optimized queries. With tableau desktop, you can directly connect to data from your data warehouse for live up to date data analysis. You can also perform queries without writing a single line of code. Import all your data into Tableau’s data engine from multiple sources & integrate altogether by combining multiple views in a interactive dashboard.

**(ii)Tableau Server:**

It is more of a enterprise level Tableau software. You can publish dashboards with Tableau Desktop and share them throughout the organization with web-based Tableau server. It leverages fast databases through live connections.

**(iii)Tableau Online:**

This is a hosted version of Tableau server which helps makes business intelligence faster and easier than before. You can publish Tableau dashboards with Tableau Desktop and share them with colleagues.

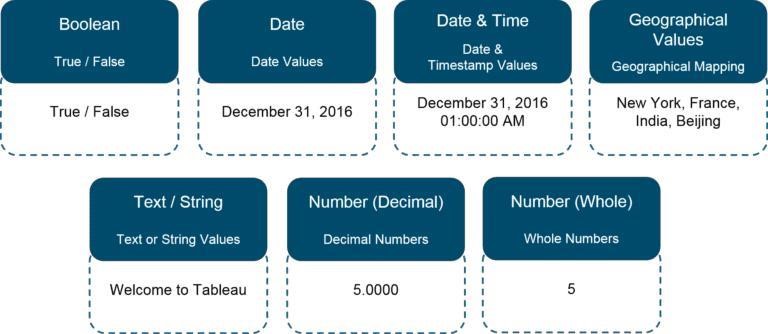
**(iv)Tableau Reader:**

It’s a free desktop application that enables you to open and view visualizations that are built in Tableau Desktop. You can filter, drill down data but you cannot edit or perform any kind of interactions.

**(v)Tableau Public:**

This is a free Tableau software which you can use to make visualizations with but you need to save your workbook or worksheets in the Tableau Server which can be viewed by anyone.

What are the different datatypes in Tableau? Tableau supports the following data-types:



4. What are Measures and Dimensions?

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

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

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What is the difference between .twb and .twbx extension?

A .twb is an xml document which contains all the selections and layout made you have made in your Tableau workbook. It does not contain any data.

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A .twbx is a ‘zipped’ archive containing a .twb and any external files such as extracts and background images.

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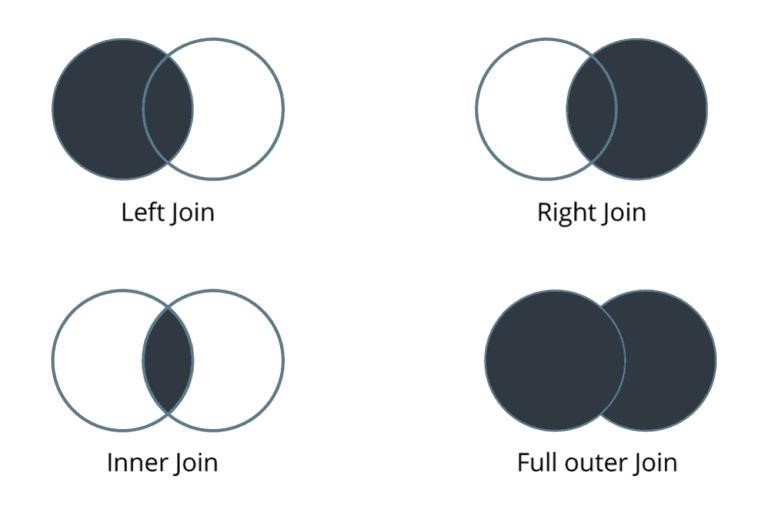
What is the difference between Tableau and Traditional BI Tools?

Tableau provides easy to use, best in class, visual analytic capabilities but has nothing to do with the data foundation or plumbing. But with an integration with a SQL server it can be the complete package.

On the other hand traditional BI tools have the before mentioned capabilities but then you have to deal with significant amount of upfront costs. The cost of consulting, software and hardware is comparatively quite high.

7. What are the different types of joins in Tableau?

The joins in Tableau are same as SQL joins. Take a look at the diagram below to understand it.

 How many maximum tables can you join in Tableau? You can join a maximum of 32 tables in Tableau.

What are the different connections you can make with your dataset? We can either connect live to our data set or extract data onto Tableau.

**Live:** Connecting live to a data set leverages its computational processing and storage. Newqueries will go to the database and will be reflected as new or updated within the data.

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**Extract:** An extract will make a static snapshot of the data to be used by Tableau’s data engine.

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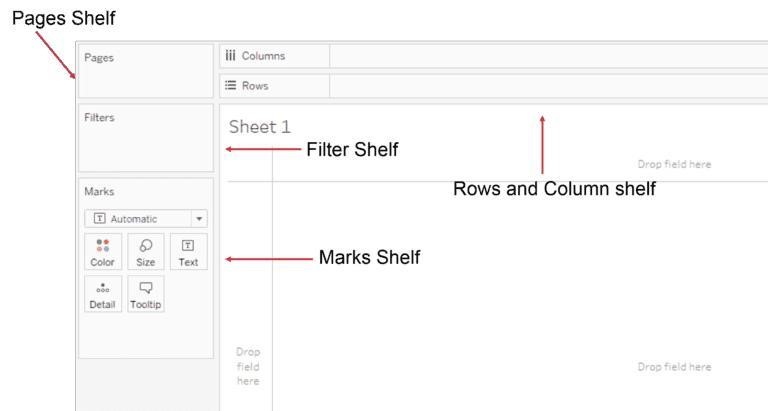
The snapshot of the data can be refreshed on a recurring schedule as a whole or incrementally append data. One way to set up these schedules is via the Tableau server.

The benefit of Tableau extract over live connection is that extract can be used anywhere without any connection and you can build your own visualization without connecting to database.

1. What are shelves?

They are Named areas to the left and top of the view. You build views by placing fields onto the shelves.

Some shelves are available only when you select certain mark types.



1. What are sets?

**Sets** are custom fields that define a subset of data based on some conditions. A **set** can be based on acomputed condition, for example, a **set** may contain customers with sales over a certain threshold. Computed **sets** update as your data changes. Alternatively, a **set** can be based on specific data point in your view.

1. What are groups?

A group is a combination of dimension members that make higher level categories. For example, if you are working with a view that shows average test scores by major, you may want to group certain majors together to create major categories.

13. What is a hierarchical field?

A hierarchical field in tableau is used for drilling down data. It means viewing your data in a more granular level.

1. What is Tableau Data Server?

Tableau server acts a middle man between Tableau users and the data. Tableau Data Server allows you to upload and share data extracts, preserve database connections, as well as reuse calculations and field metadata. This means any changes you make to the data-set, calculated fields, parameters, aliases, or definitions, can be saved and shared with others, allowing for a secure, centrally managed and standardized dataset. Additionally, you can leverage your server’s resources to run queries on extracts without having to first transfer them to your local machine.

Intermediate Level Tableau Interview Questions

1. What is Tableau Data Engine?

Tableau Data Engine is a really cool feature in Tableau. Its an analytical database designed to achieve instant query response, predictive performance, integrate seamlessly into existing data infrastructure and is not limited to load entire data sets into memory.

If you work with a large amount of data, it does takes some time to import, create indexes and sort data but after that everything speeds up. Tableau Data Engine is not really in-memory technology. The data is stored in disk after it is imported and the RAM is hardly utilized.

What are the different filters in Tableau and how are they different from each other? In Tableau, filters are used to restrict the data from database.

The different filters in Tableau are: Quick , Context and Normal/Traditional filter are:

***Normal Filter*** is used to restrict the data from database based on selected dimension or

measure. A Traditional Filter can be created by simply dragging a field onto the ‘Filters’ shelf.

***Quick filter*** is used to view the filtering options and filter each worksheet on a dashboard whilechanging the values dynamically (within the range defined) during the run time.

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***Context Filter*** is used to filter the data that is transferred to each individual worksheet. When aworksheet queries the data source, it creates a temporary, flat table that is 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.

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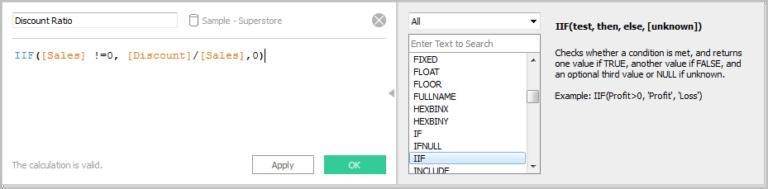
How to create a calculated field in Tableau?

Click the drop down to the right of Dimensions on the Data pane and select “Create > Calculated Field” to open the calculation editor.

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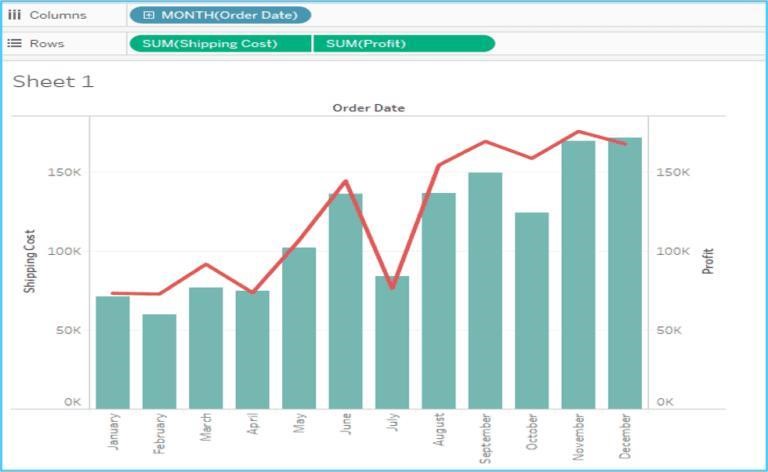
Name the new field and create a formula.

Take a look at the example below:



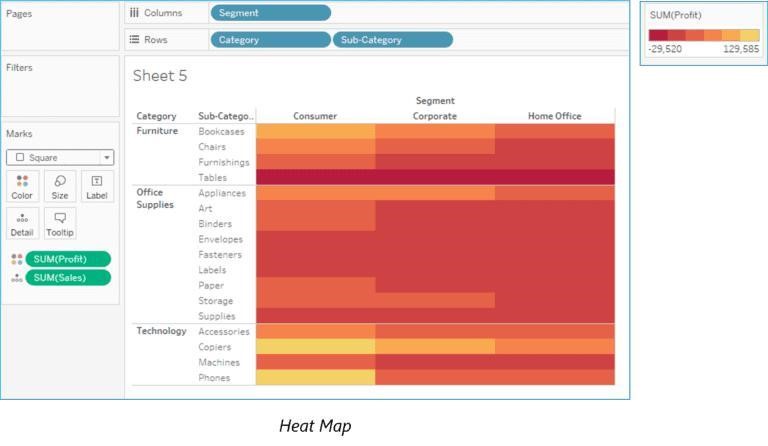
1. What is a dual axis?

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

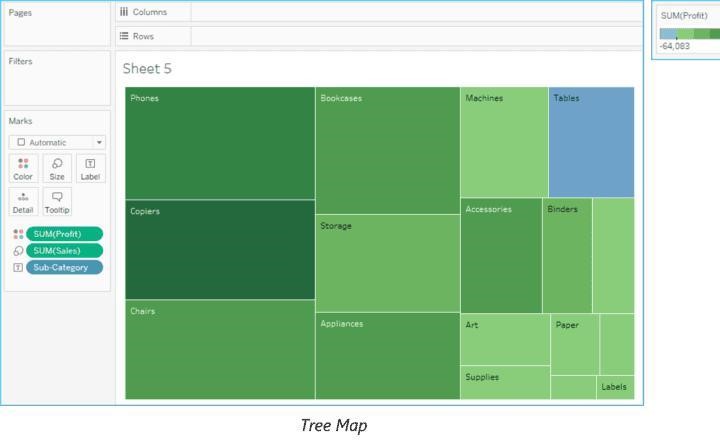


1. What is the difference between a tree map and heat map?

A heat map can be used for comparing categories with color and size. With heat maps, you can compare two different measures together.



A tree map also does the same except it is considered a very powerful visualization as it can be used for illustrating hierarchical data and part-to-whole relationships.



20. What is disaggregation and aggregation of data?

The process of viewing numeric values or measures at higher and more summarized levels of the data is called aggregation. When you place a measure on a shelf, Tableau automatically aggregates the data, usually by summing it. You can easily determine the aggregation applied to a field because the function always appears in front of the field’s name when it is placed on a shelf. For example, Sales becomes SUM(Sales). You can aggregate measures using Tableau only for relational data sources. Multidimensional data sources contain aggregated data only. In Tableau, multidimensional data sources are supported only in Windows.

According to Tableau, Disaggregating your data allows you to view every row of the data source which can be useful when you are analyzing measures that you may want to use both independently and dependently in the view. For example, you may be analyzing the results from a product satisfaction

survey with the Age of participants along one axis. You can aggregate the Age field to determine the average age of participants or disaggregate the data to determine at what age participants were most satisfied with the product.

What is the difference between joining and blending in Tableau?

Joining term is used when you are combining data from the same source, for example, worksheet in an Excel file or tables in Oracle database

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While blending requires two completely defined data sources in your report.

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What are Extracts and Schedules in Tableau server?

Data extracts are the first copies or subdivisions of the actual data from original data sources. The workbooks using data extracts instead of those using live DB connections are faster since the extracted data is imported in Tableau Engine.After this extraction of data, users can publish the workbook, which also publishes the extracts in Tableau Server. However, the workbook and extracts won’t refresh unless users apply a scheduled refresh on the extract. Scheduled Refreshes are the scheduling tasks set for data extract refresh so that they get refreshed automatically while publishing a workbook with data extract. This also removes the burden of republishing the workbook every time the concerned data gets updated.

23. How to view underlying SQL Queries in Tableau?

Viewing underlying SQL Queries in Tableau provides two options:

**Create a Performance Recording** to record performance information about the main events youinteract with workbook. Users can view the performance metrics in a workbook created by Tableau.

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Help -> Settings and Performance -> Start Performance Recording Help -> Setting and Performance -> Stop Performance Recording.

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**Reviewing the Tableau Desktop Logs**located at C:\Users\\My Documents\My TableauRepository. For live connection to data source, you can check log.txt and tabprotosrv.txt files. For an extract, check tdeserver.txt file.

24. How to do Performance Testing in Tableau?

Performance testing is again an important part of implementing tableau. This can be done by loading

Testing Tableau Server with TabJolt, which is a “Point and Run” load generator created to perform QA. While TabJolt is not supported by tableau directly, it has to be installed using other open source products.

Name the components of a Dashboard.

**Horizontal –** Horizontal layout containers allow the designer to group worksheets anddashboard components left to right across your page and edit the height of all elements at once.

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**Vertical –** Vertical containers allow the user to group worksheets and dashboard componentstop to bottom down your page and edit the width of all elements at once.

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**Text –** All textual fields.

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**Image Extract –** A Tableau workbook is in XML format. In order to extracts images, Tableauapplies some codes to extract an image which can be stored in XML.

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**Web [URL ACTION] –** A URL action is a hyperlink that points to a Web page, file, or other webbased resource outside of Tableau. You can use URL actions to link to more information about your data that may be hosted outside of your data source. To make the link relevant to your data, you can substitute field values of a selection into the URL as parameters.

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

The auto-filter provides a feature of removing ‘All’ options by simply clicking the down arrow in the auto-filter heading. You can scroll down to ‘Customize’ in the dropdown and then uncheck the ‘Show

“All” Value’ attribute. It can be activated by checking the field again.

1. **How to add Custom Color to Tableau?**

Adding a Custom Color refers to a power tool in Tableau. Restart you Tableau desktop once you save .tps file. From the Measures pane, drag the one you want to add color to **Color**. From the color legend menu arrow, select **Edit Colors**. When a dialog box opens, select the palette drop-down list and customize as per requirement.

1. **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.

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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.

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Mention whether you can create relational joins in Tableau without creating a new table?

Yes, one can create relational joins in tableau without creating a new table.

1. How to automate reports?

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.

1. What is Assume referential integrity?

In some cases, you can improve query performance by selecting the option to Assume Referential Integrity from the Data menu. When you use this option, Tableau will include the joined table in the query only if it is specifically referenced by fields in the view.

1. Explain when would you use Joins vs. Blending in Tableau?

If data resides in a single source, it is always desirable to use Joins. When your data is not in one place blending is the most viable way to create a left join like the connection between your primary and secondary data sources.

1. What is default Data Blending Join?

Dta blending is the ability to bring data from multiple data sources into one Tableau view, without the need for any special coding. A default blend is equivalent to a left outer join. However, by switching which data source is primary, or by filtering nulls, it is possible to emulate left, right and inner joins.

1. What do you understand by blended axis?

In Tableau, measures can share a single axis so that all the marks are shown in a single pane. Instead of adding rows and columns to the view, when you blend measures there is a single row or column and all of the values for each measure is shown along one continuous axis. We can blend multiple measures by simply dragging one measure or axis and dropping it onto an existing axis.

1. What is story in Tableau?

A story is a sheet that contains a sequence of worksheets or dashboards that work together to convey information. You can create stories to show how facts are connected, provide context, demonstrate how decisions relate to outcomes, or simply make a compelling case. Each individual sheet in a story is called a story point.

36. What is the difference between discrete and continuous in Tableau?

There are two types of data roles in Tableau – discrete and continuous dimension.

Discrete data roles are values that are counted as distinct and separate and can only take individual values within a range. Examples: number of threads in a sheet, customer name or row ID or State. Discrete values are shown as blue pills on the shelves and blue icons in the data window.

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Continuous data roles are used to measure continuous data and can take on any value within a finite or infinite interval. Examples: unit price, time and profit or order quantity. Continuous variables behave in a similar way in that they can take on any value. Continuous values are shown as green pills.

37.How to create stories in Tableau?

There are many ways to create story in Tableau. Each story point can be based on a different view or dashboard, or the entire story can be based on the same visualization, just seen at different stages, with different marks filtered and annotations added. You can use stories to make a business case or to simply narrate a sequence of events.

Click the New Story tab.

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In the lower-left corner of the screen, choose a size for your story. Choose from one of the predefined sizes, or set a custom size, in pixels.

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By default, your story gets its title from its sheet name. To edit it, double-click the title. You can also change your title’s font, color, and alignment. Click Apply to view your changes.

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To start building your story, drag a sheet from the Story tab on the left and drop it into the center of the view

Click Add a caption to summarize the story point.

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To highlight a key takeaway for your viewers, drag a text object over to the story worksheet and type your comment.

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To further highlight the main idea of this story point, you can change a filter or sort on a field in the view, then save your changes by clicking Update above the navigator box.

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What is the DRIVE Program Methodology?

Tableau Drive is a methodology for scaling out self-service analytics. Drive is based on best practices from successful enterprise deployments. The methodology relies on iterative, agile methods that are faster and more effective than traditional long-cycle deployment.

A cornerstone of this approach is a new model of partnership between business and IT.

39. 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.

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**Blend data using groups created in the secondary data source:** Only calculated groups can beused in data blending if the group was created in the secondary data source.

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**Use a group in another workbook.** You can easily replicate a group in another workbook bycopy and pasting a calculation.

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**Mention what is the difference between published data sources and embedded data sources in Tableau?**

The difference between published data source and embedded data source is that,

 **Published data source**: It contains connection information that is independent of any workbookand can be used by multiple workbooks.

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 **Embedded data source**: It contains connection information and is associated with a workbook.

**41. Mention what are different Tableau files?**

Different Tableau files include:

**Workbooks:** Workbooks hold one or more worksheets and dashboards

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**Bookmarks**: It contains a single worksheet and its an easy way to quickly share your work

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**Packaged Workbooks:** It contains a workbook along with any supporting local file data andbackground images

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**Data Extraction Files:** Extract files are a local copy of a subset or entire data source

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**Data Connection Files:** It’s a small XML file with various connection information

Expert level Tableau Interview Questions

**42. How to embed views onto Webpages?**

You can embed interactive Tableau views and dashboards into web pages, blogs, wiki pages, web applications, and intranet portals. Embedded views update as the underlying data changes, or as their workbooks are updated on Tableau Server. Embedded views follow the same licensing and permission restrictions used on Tableau Server. That is, to see a Tableau view that’s embedded in a web page, the person accessing the view must also have an account on Tableau Server.

Alternatively, if your organization uses a core-based license on Tableau Server, a Guest account is available. This allows people in your organization to view and interact with Tableau views embedded in web pages without having to sign in to the server. Contact your server or site administrator to find out if the Guest user is enabled for the site you publish to.

You can do the following to embed views and adjust their default appearance:

Get the embed code provided with a view:The Share button at the top of each view includes embed code that you can copy and paste into your webpage. (The Share button doesn’t appear in embedded views if you change the showShareOptions parameter to false in the code.)

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Customize the embed code: You can customize the embed code using parameters that control the toolbar, tabs, and more. For more information, see Parameters for Embed Code.

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Use the Tableau JavaScript API: Web developers can use Tableau JavaScript objects in web applications. To get access to the API, documentation, code examples, and the Tableau developer community, see the Tableau Developer Portal.

Design a view in a map such that if user selects any state, the cities under that state has to show profit and sales.

According to your question you must have state, city, profit and sales fields in your dataset.

**Step 1:** Double click on the state field

**Step 2:** Drag the city and drop it into Marks card.

**Step 3:** Drag the sales and drop it into size.

**Step 4:** Drag profit and drop it into color.

**Step 5:** Click on size legend and increase the size.

**Step 6:** Right click on state field and select show quick filter.

**Step 7:** Select any state now and check the view.

Think that I am using Tableau Desktop & have a live connection to Cloudera Hadoop data. I need to press F5 to refresh the visualization. Is there anyway to automatically refresh visualization every ‘x’ seconds instead of pressing F5?

Here is an example of refreshing the dashboard for every 5 seconds.

All you need to do is replace the api src and server url with yours.

**<!DOCTYPE html>**

**<html lang="en">**

**<head>**

**<title>Tableau JavaScript API </title>**

**<script type="text/javascript" src="http://servername/javascripts/api/tableau\_v8.js"></script>**

**</head>**

**<div id="tableau Viz"></div>**

**<script type='text/javascript'>**

**var placeholderDiv = document.getElementById("tableau Viz");**

**var url = "http://servername/t/311/views/Mayorscreenv5/Mayorscreenv2"; var options={**

**hideTabs:True,**

**width:"100%",**

**height:"1000px"**

**};**

**var viz= new tableauSoftware.Viz(placeholderDiv,url,options);**

**setInterval (function() {viz.refreshDataAsync()},5000);**

**</script>**

**</body>**

**</html>**

Some Additional Tricky Tableau Interview Questions

**Suppose my license expires today, will users be able to view dashboards or workbooks which I published in the server earlier?**

If your server license expires today, your username on the server will have the role ‘unlicensed’ which means you cannot access but others can. The site admin can change the ownership to another person so that the extracts do not fail.

**46. Is Tableau software good for strategic acquisition?**

Yes! For sure. It gives you data insight to the extent that other tools can’t. Moreover, it also helps you to plan and point the anomalies and improvise your process for betterment of your company.

**Can we place an excel file in a shared location and and use it to develop a report and refresh it in regular intervals?**

Yes, we can do it. But for better performance we should use Extract.

1. **Can Tableau be installed on MacOS?**

Yes, Tableau Desktop can be installed on both on Mac and Windows Operating System.

1. **What is the maximum no. of rows Tableau can utilize at one time?**

Tableau is not restricted by the no. of rows in the table. Customers use Tableau to access petabytes of data because it only retrieves the rows and columns needed to answer your questions.

**When publishing workbooks on Tableau online, sometimes a error about needing to extract appears. Why does it happen occasionally?**

This happens when a user is trying to publish a workbook that is connected to an internal server or a file stored on a local drive, such as a SQL server that is within a company’s network

## Tableau Interview Questions and Answers (Model -2)

**What do you mean by addressing and partitioning?**

When you add a table calculation, you must use all dimensions in the level of detail either for partitioning (scoping) or for addressing (direction):

The dimensions that define how to group the calculation, that is, define the scope of data it is performed on, are called partitioning fields. The table calculation is performed separately within  each partition.



The remaining dimensions, upon which the table calculation is performed, are called addressing fields, and



determine the direction of the calculation.

**What is the difference between sets and groups?**

Group- 1)group is category purpose 2) calculation field not a possible in group

Sets- 1)sets is a grouping purpose based on the some condition. 2) calculation field possible in sets.

**Can we create sets using measures** No

**What is the difference between Data blending and join?**

Joining is a SQL term that refers to combining two data sources into a single data source. Blending is a Tableau term that refers to combining two data sources into a single chart. The main difference between them is that a join is done once at the data source and used for every chart, while a blend is done individually for each chart.

**How to do performance testing?**

Performance testing is again an important part of implementing [tableau. T](https://onlineitguru.com/tableau-online-training-placement.html)his can be done by loading

Testing Tableau Server with TabJolt, which is a “Point and Run” load generator created to perform QA.

While TabJolt is not supported by tableau directly, it has to be installed using other open source products.

**What is the order of execution of table calculation, LOD, reference lines?**

Order of execution

LOD

Table Calculations

Reference lines

Can we draw 3 reference lines in a single chart?

No

**What are limitations of context filter?**

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.

**How do we select multiple values in parameters?** We cannot select multiple values in parameters

**Can we perform all kinds of joins using Data blending?**

No

**How can we combine database and flat file data in Tableau desktop??**

You can combine them by connecting 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.

**Define fact table?**

Fact table consists of the measurements, metrics or facts of a business process. It is located at the center of a star schema or a snowflake schema surrounded by dimension tables.

**How do you automate reports using** Tableau software?

Steps to automate the reports: while publishing the report to Tableau server, you will find the option to schedule reports. Click on this to select the time when you want to refresh the data.

**Can we display top five and last five sales in same view?**

Yes. Using sets and combined set.

**Can parameters have dropdown list?**

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

**What is the purpose of using page shelf?**

The Pages shelf lets you break a view into a series of pages so you can better analyze how a specific field affects the rest of the data in a view.

**Difference between scattere plot vs Tree map?**

Tree Maps – Display data in nested rectangles. We use dimensions to define structure of the tree maps and measures to design the size or color of the individual rectangle. We cannot add trend lines in Tree maps.

Scatter plot – provides an easy way to visualize relationships between numerical variables. We can add trend lines.

**How To remove the All options from a Tableau auto-filter?**

Edit the quick filter from the pull-down arrow. Go to “Customize” and uncheck the “Show “All” Value” checkbox.

**How do you optimize performance of dashboard?**

Minimize the number of fields based on the analysis being performed. Use the hide all unused fields option to

 remove unused columns from a data source.Minimize the number of records. Use extract filters to keep only the data you need.



Optimize extracts to speed up future queries by materializing calculations, removing columns and the use of



accelerated views.Remove unneeded dimension from the detail shelf



Reduce number of filters



Use context filter



Use Boolean calculations



**How to use group in calculations 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.

## Tableau Interview Questions and Answers (Model -3)

what is Tableau?

Tableau is a business intelligence software that allows anyone to connect to respective data, and then visualize and create interactive, sharable dashboards.

What is a data Source page?

A page where you can set up your data source. The Data Source page generally consists of four main areas: left pane, join area, preview area, and metadata area.

what is a extract is Tableau?

A saved subset of a data source that you can use to improve performance and analyze offline.

what is a format pane in Tableau?

A pane that contains formatting settings that control the entire worksheet, as well as individual fields in the view.

What is LOD expression in Tableau?

A syntax that supports aggregation at dimensionalities other than the view level. With level of detail expressions, you can attach one or more dimensions to any aggregate expression.

What is the difference between Quick Filter and Normal filter?

Normal Filter is used to restrict the data from database based on selected dimension or measure. But Quick Filters are used to give a chance to user for dynamically changing data members at run time. What is Tableau Reader?

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

Can we have multiple value selection in parameter?

No

Which join i sused 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.

What are the possible reasons for slow performance in Tableau?

More Extracts, filters and depends on data sources.

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. What is a Dimension?

Tableau treats any field containing qualitative, categorical information as a dimension. This includes any field with text or dates values.

What is a Measure?

A measure is a field that is a dependent on value of one or more dimensions. Tableau treats any field containing numeric (quantitative) information as a measure.

What does the extension .twbx represent in Tableau?

It is a file which represents Tableau Packaged Workbook, in which the .twb file grouped together with the datasources.

What are the types of filters in Tableau?

Custom Filters ,Context Filters, Normal Filters.

What is marks card in Tableau?

A card to the left of the view where you can drag fields to control mark properties such as type, color, size, shape, label, tooltip, and detail.

What are shelves in Tableau?

They are Named areas to the left and top of the view. You build views by placing fields onto the shelves. Some shelves are available only when you select certain mark types.

What is a Tableau workbook?

It is a file with a .twb extension that contains one or more worksheets (and possibly also dashboards and stories).

In Tableau what is a worksheet?

A sheet where you build views of your data by dragging fields onto shelves.

What is an alais in Tableau?

An alternative name that you can assign to a field or to a dimension member.

What is a context filter?

In a context filter the filter condition is applied first to the data source and then some other filters are applied only to the resulting records.

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.

What is a page shelf in Tableau?

The Pages shelf is used to control the display of output by choosing the sequence of display. What are the possible reasons for slow performance in Tableau?

More Extracts, filters and depends on data sources.

What is table calculation in Tableau?

These are inbuilt calculations in tableau which we normally use to calculate Percentange chages. What is data blending?

Data blending is used to blend data from multiple data sources on a single worksheet. The data is joined on common dimensions.

Can we have multiple value selection in parameter?

No

What is Connect live?

It Creates a direct connect to the data source and speed up access.

What is Import all data feature in Tableau?

It Imports the entire data source into Tableaus fast data engine as an extract and saves it in the workbook.

What are parameters and when do you use it?

Parameters are dynamic values that can replace constant values in calculations.

What is TDE file in Tableau?

It refers to the file that contains data extracted from external sources like MS Excel, MS Access or CSV file.

What is a story in Tableau?

A story is a sheet that contains a sequence of worksheets or dashboards that work together to convey information.

What is a Published data source?

It contains connection information that is independent of any workbook and can be used by multiple workbooks.

What is a Embedded data source?

It contains connection information and is associated with a workbook.

when to use Joins versus Blending in Tableau?

If data resides in a single source,we use Joins but when your data is not in one place blending is used. How to 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.

what is Tableau Show me?

Show Me is used to apply a required view to the existing data in the worksheet. Those views can be a pie chart, scatter plot or a line chart.

what is a Tableau data pane?

A pane on the left side of the workbook that displays the fields of the data sources to which Tableau is connected.

What is a calculated field in Tableau?

A new field that you create by using a formula to modify the existing fields in your data source. What is crosstab chart?

It is a text table view. Use text tables to display the numbers associated with dimension members. How to check the meatadata of a table?

In the menu Data -> New connection drag the table to the data pane to view its meatdata. How to create a column Alias?

In the menu Data -> New connection open the table metadata and click on the column name to create alias.

How to get current date and time?

Use the NOW() function.

Ho wto check if a data is a of type date?

BY using the ISDATE() function.

GIve an expression to add 4 months to the date 014-03-12?

DATEADD('month', 3, #2014-03-12#) = 2004-07-15 12:00:00 AM What does REPLACE function do in Tableau?

The REPLACE function searches a given string for a substring and replaces it with replacement string.

which function returns the number of items in a group?

The COUNT() function.

Which filter is used to get the top 10 values from a view?

TOP filter.

What is a Gannt Chart?

A Gantt chart shows the progress of the value of a task or resource over a period of time. So Gantt chart a time dimension is an essential field.

What is Forecasting in Tableau?

Forecasting is about predicting the future value of a measure. There are many mathematical models for forecasting. Tableau uses the model known as exponential smoothing.

What is a Trendline in tableau?

Trend lines are used to predict the continuation of certain trend of a variable. It also helps to identify the correlation between two variables by observing the trend in both of them simultaneously.

## Tableau Interview Questions & Answers (Model -4)

1. **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.

1. **What is Tableau Software?**

Tableau is business intelligence software that allows anyone to easily connect to data, then visualize and create interactive, sharable 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.

1. **What are the five main product offered by Tableau company?**

Tableau offers five main products: Tableau Desktop, Tableau Server, Tableau Online, Tableau reader and Tableau Public.

**What is the current latest version of Tableau Desktop(as of**

**Feb.2015)?** Current versions: Tableau Desktop version 9

**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.

1. **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.

1. **What is Tableau Server?**

Tableau Server 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.

1. **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.

1. **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 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.

1. **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

**What are the differences between Tableau Software GoodData and Traditional BI (Business Objects, etc.)?**

At high level there are four major differences.How to view sql which is generated by Tab

**What are Dimensions and Facts?**

Dimensions is nothing but the descriptive text columns and facts are nothing but measures (numerical values) dimension ex: Product Name, City. Facts:Sales, profit

**13) 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.

1. **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.

1. **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.

1. **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.

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 Introduced R script

1. **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

1. **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 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.

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

Parameters are dynamic values that can replace constant values in calculations and can serve as filters 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. Quick filter

Context filter Datasource filter

1. **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

1. **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 data source, or cubes, temporary tables are not crated, and context filters only defined which filters are independent and dependent. 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 filer is

Something you can limit the options from the list or use some conditions to limit the data by field or value.

1. **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.

1. **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.

1. **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.

1. **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-anddrop visual analytics environment.

1. **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.

1. **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

**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.

**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

**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 “ **What is dual axis?**

To display two measure in one graph

1. **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

Http://onlinehelp.tableau.com/current/pro/online/mac/en-

Us/multiplemeasures\_blendedaxes.html

1. **What is Data Visualization?**

A much advanced, direct, precise and ordered way of viewing large volumes of data is called data visualization. It is the visual representation of data in the form of graphs and charts, especially when you can’t define it textually. You can show trends, patters and correlations through various data visualization software and tools; Tableau is one such data visualization software used by businesses and corporates. **34) What are the differences between Tableau desktop and Tableau Server?**

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

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

1. **Define parameters in Tableau and their working.**

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

1. **Differentiate between parameters and filters in Tableau.**

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

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

1. **What are fact table and Dimension table in Tableau?**

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

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

1. **What are Quick Filters in Tableau?**

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

1. **State limitations of parameters in Tableau.**

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

1. **What is aggregation and disaggregation of data in Tableau?**

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

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

1. **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.

1. **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”.

1. **What are the limitations of context filters?**

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

1. **Name the file extensions in Tableau.**

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

Tableau Workbook (.twb)

Tableau Packaged Workbook (.twbx)

Tableau Datasource (.tds)

Tableau Packaged Datasource (.tdsx)

Tableau Data extract (.tde)

Tableau Bookmark (.tdm)

Tableau Map Source (.tms)

Tableau Preferences (.tps)

1. **Explain the difference between .twb and .twbx**

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

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

1. **What are Extracts and Schedules in Tableau server?**

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

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

1. **Name the components of a Dashboard**

Horizontal- Horizontal layout containers allow the designer to group worksheets and dashboard

components left to right across your page and edit the height of all elements at once.

Vertical- Vertical containers allow the user to group worksheets and dashboard components top to bottom down your page and edit the width of all elements at once.

Text

Image Extract: – A Tableau workbook is in XML format. In order to extracts images, Tableau applies some codes to extract an image which can be stored in XML.

Web [URL ACTION]:- A URL action is a hyperlink that points to a Web page, file, or other web-based resource outside of Tableau. You can use URL actions to link to more information about your data that may be hosted outside of your data source. To make the link relevant to your data, you can substitute field values of a selection into the URL as parameters.

1. **How to view underlying SQL Queries in Tableau?**

Viewing underlying SQL Queries in Tableau provides two options:

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

Help> Setting and Performance > Stop Performance Recording

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

1. **What is Page shelf?**

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

1. **How to do Performance Testing in Tableau?**

Performance testing is again an important part of implementing tableau. This can be done by loading

Testing Tableau Server with TabJolt, which is a “Point and Run” load generator created to perform QA. While TabJolt is not supported by tableau directly, it has to be installed using other open source products.

1. **Explain the concept of Dual Axis.**

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

1. **How many maximum tables can you join in Tableau?**

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

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

The auto-filter provides a feature of removing ‘All’ options by simply clicking the down arrow in the auto-filter heading. You can scroll down to ‘Customize’ in the dropdown and then uncheck the ‘Show

“All” Value’ attribute. It can be activated by checking the field again.

1. **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

1. **How can you display top five and last five sales in the same view?**

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

1. **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.

1. **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.

1. **Can parameters have dropdown list?**

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

**Tableau Interview Questions & Answers(Model-5)**

**Q1. What do you mean by Tableau?**

**Ans.** It connects easily to any data source, be it web-based data, warehouse or Microsoft excel. Moreover, this can help create appealing graphs, reports and dashboards using data.

**Q2. What is LOD expression?**

**Ans.** This offers a way to easily commute aggressions that are not at the level of detail of thevisualization. With this, you can attach more than one dimension to any aggregate expression.

**Q3. What are some of the new features introduced in Tableau 9.1?**

**Ans.**

Visual analytics

Mobile

Data

Enterprise

**Q4. Can you create relational joins in Tableau without creating a new table?**

**Ans.** Yes, you can create relational joins without creating a new table.

**Q5. What are the traits to differentiate data source?**

**Ans.** The data source are differentiated on the basis of following characteristics:

Connection type

Icon/Name

Connects to

Live or Last extract

**Q6. What is the difference between Tableau and Qlikview?**

**Ans. Tableau:**

More connectors

No coding is required

Interface is simple

Doesn’t render feature to search content across all your data

**Qlikview:**

Easy to use and discover the hidden trends

Offers a personal edition free

Data is stored in qvd form from the performance point of view

Great capabilities for processing data

**Q7. What are parameters?**

**Ans.** They are dynamic values that can change constant values in calculations, reference lines and filters.

**Q8. Mention whether you can have multiple value selection in parameter?**

**Ans.** No

**Q9. Name some of the types of filters?**

**Ans.** Normal filters, context filters and custom filters

**Q10. What are the four different kinds of shelves in Tableau?**

**Ans.** Rows, columns, filters and pages

**Q11. Name some file extensions in Tableau?**

**Ans.**

Tableau Datasource (.tds)

Tabelau Bookmark (.tdm)

Tableau preferences (.tps) Tableau workbook (.twb)

Tableau Mapsource (.tms)

**Q12. Explain Data blending?**

**Ans.** A method for coalescing data that supplements a table of data from one data source from columnsof table from another data source.

**Q13. How many tables can you join?**

**Ans.** One can join a maximum of 32 tables in Tableau

**Q14. What are the different components of a dashboard?**

**Ans.**

Web

Text

Image Extract

Horizontal

Vertical

**Q15. What is TDE file?**

**Ans.** TDE stands for Tableau data extract. It refers to the file that comprises data extracted from externalsources like CSV file, MS Excel or MS Access.

**Q16. Name different products tableau offer?**

Tableau Desktop

Tableau Reader

Tableau Public

Tableau Server

**Q17. How to get current date and time?**

**Ans.** By using the NOW () function.

**Q18. Explain Gantt chart?**

**Ans.** Used for visualizing project schedules, Gantt Chart demonstrates the progress of the value of a taskover a period of time.

**Q19. What are the reasons for slow performance in Tableau?**

**Ans.** One of the reasons is data source is slow in itself. This might be because your CSV file is too big oryour database is old for reading. You can improve Tableau experience by following ways:

Use extracts

Limit the amount of data you bring in – both rows and columns

Switch data source using the “extract function” Pre-aggregate your data before brining into Tableau.

**Q20. Which function is used to return the number of items in a group?**

**Ans.** The count () function

**Q21. Define sets?**

**Ans.** Sets are used to define a subset of data depending on certain conditions. There are oodles of waysto create a set based on a filter that you have already mentioned.

**Q22. How many types of Joins you can use in Tableau?**

**Ans.** There are four types of Joins in Tableau:

Left

Right

Inner

Full outer

**Q23. What do you mean by groups?**

**Ans.** A mixture of dimension member that makes higher level categories, Groups are used on calculatedfields.

**Q24. Explain Tableau Data Server?**

**Ans.** Enabling you to share and upload data extracts and reuse calculations and field metadata, TableauData Server makes connecting to data transparent and much easier.

**Q25. Difference between Measures and Dimensions?**

**Ans. Measures**

Generates axes when added to rows and columns shelves

Dependent variable

Stored in a table that has foreign keys Numeric units analyzed by dimension table

**Dimensions**

Descriptive attributes values defining multiple characteristics

Generate headers when added to rows and columns shelves

Independent variable

Considered more complex

**Tableau Interview Questions & Answers(Model-6)**

**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 data source, or cubes, temporary tables are not crated, and context filters only defined which filters are independent and dependent.

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

Tableau offers five main products: [Tableau Desktop,](https://mindmajix.com/tableau-desktop) [Tableau Server,](https://mindmajix.com/tableau-server-training) [Tableau Online, T](https://mindmajix.com/tableau-advanced-training)ableau reader and Tableau Public.

**Q. What is the current latest version of Tableau Desktop(as of Sep, 25th 2017)?** Current versions: Tableau Desktop version 10.4

**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. 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 of your data a](https://mindmajix.com/how-to-edit-views-in-tableau-server)nd 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. 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. Quick filter

Context filter

Datasource filter

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

Suppose I have data like

Eid Ename Salary Dept

1.abc 2000 java

2.bbc 3000 .net

3.Krishna 2500 java

Madhu 300

5.Vamshi 3000 mainframes

1.abc 1000 testing

2.bbc 3000 tableau

3.krishna 5000.net 4.Madhu 7000 testing vanshi 9000 tableau 1 abc 11000 Mainframes

1. bbc 13000testing
2. krishna 15000 java
3. Madhu 17000 .nte
4. vamshi 19000.net

Aggregation: to display aggregate data Sum/avg salary by each individual employee

drag ename on columna 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. How to remove the All options from a Tableau auto – filter?**

Right click filter>>customize>>uncheck show all option

**Q. Can we use non – used columns (Columns which are not used in reports but data source has columns) in Tableau Filters?**

Yes!

Ex. In data source I have column like empID, EmpName, EmpDept,EmpDsignation, EmpSalary In reports I am using empname on columns and empsalry on rows.

I can use empDesignation on Filters

**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. 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. What is the difference between joining and blending in Tableau? Joins in Tableau:**

For EX: your client is in Healthcare domain and using [SQL Server a](https://mindmajix.com/sql-server-training)s their database. In SQL server there may be many Tableau like Claims Tables, Rejected Claims Table, Customer Table. Now, client wants to know customer wise claims and customer wise rejected claims table using the joins. Join is a query that combines the data form 2 or more tables by making use of Join condition.

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

In Tableau the joins can perform in 2 ways.

By making use of common columns.

By making use of common data types.

If we create joins on the fields in Tableau all the table names are suffixing with $. While performing the joins on multiple tables, always go with the les amount of data tables, so that we can improve the performance.

In Tableau the joins are divided into 2 types.

1.Equi Join,

2.Non Equi Join

Equi Join: in the join condition if we are using Equality”=”operator then such a kind of join called as Equi join.

Non Equi Join: in the join condition apart from the Equality”=”if we use any other operator like <,>,<=,>= and=! Then such a kind of joins are called as Non Equi Join

Equi Join is divided into 3 types

Inner Join,

Outer Join, Self – Join.

**1.Inner Join:** Inner join will loads the only matching records from the both tables. Inner join condition: Tableaa.id = Tableb.id

**2.Outer Join:**

Again the outer join divided into 3 types.

a)Left Outer Join,

b)Right Outer Join,

c)Full Outer Join.

Left outer join: displays the complete data from the left + matching records from the left.

Condition: tablea.id(+).

Right Outer Join: displays the complete data from the right + matching records from the left. Condition: tablea.id(+)=tableb.id

Full outer join: full outer join load the complete data from the left table and right table. Condition: Table A full outer join Table B ON tablea.id= tableb.id

**3.Self-Join:** if we are performing join to the same table itself such a kind of join called as self-join Non Equi Join:

In the join condition if we are using the operators apart from the equality “=” then such a kind of joins are called as Non Equi join.

Data Blending in Tableau:

For ex: your client is same Healthcare Client. They are operating their services in Asia, Europe, NA and so on & the are maintaining Asia data in SQL, Europe Data in SQL Server and NA data in MY SQL.

Now, your client wants to analyze their business across the world in a single worksheet. So you can’t perform join here.

Now you have make use of Data Blending Concept.

Normally in the Tableau we can perform the analysis on the single data server. If we want to perform the analysis from the multiple data sources in a single sheet then we have to make use of a new concept called as data blending.

Data blending mix the data from the different data sources and allow the users to perform th analysis in a single sheet. Blending means mixing. If we are mixing the data sources then it is called as data blending.

**Rules to perform the data blending**

In order to perform data blending there are few rules.

If we are performing the data blending on 2 data source these 2 data sources should have at least 1 common dimension.

In that common dimension at least 1 value should match.

Automatic way

Custom way

Automatic way: In the automatic way Tableau automatically defines the relationship between the 2 data sources based on the common dimensions and based on the matching values and the relationship is indicated with Orange color.

Custom or Manual way: In the manual or custom way the user need to define the relationship manually.

**Data blending fuctionality**

All the primary data sources and the secondary data sources are linked by specific relationship

while performing the data blending each work sheet has a primary connection and optionally it might contains several secondary connections.

All the primary connections are indicated in the Blue in the work sheet and all the secondary data sources indicated with the Orange color tick mark.

In the data blending 1 sheet contains 1 primary data source and 1 sheet can contain end number of secondary data sources.

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

Dimensions is nothing but the descriptive text columns and facts are nothing but measures

(numerical values) dimention ex:productname city..facts:sales, profit

**Q. Can we place an excel file in a shared location and use it to develop a report and refresh it in regular intervals?**

Yes you can do it… but for the better performance use extract

**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 (](https://mindmajix.com/sap-bo/using-hierarchies)tree – structured) data and part – to – whole relationships.

**Q. What is the different between twb and twbx file extensions. Please explain.**

Twb is a live connection, it points to the data source; the user receiving twb needs permission to said data source and no data is included. .twbx takes data offline, stroes the data as a package or zip like file, thereby eradicating the need for permissions from end user, it’s now a snapshot in time of the data as of the time it was Saved as . twbx

**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 Us/multiplemeasures\_blendedaxes.html

**Q. What makes Tableau software stand out?**

In my view, Tableau stands out for several reasons:

First, most of the BI tools out there are pricey. However, Tableau has a free offering (Tableau Public) as well as a very popular (also free) academic distribution. Tableau is well recognized by firms like Forrester research to be one of the most easy to use, and agile products currently available. see here: Tableau Ranks #1 in The Forrester Wave: Advanced Data Visualization (ADV) Platforms That makes it easy to pick up and try new things with, which data visualization people love about it.

On the other hand, unlike some of the other BI tools, Tableau is not a complete technology stack, it is most useful for visualization and analytics. – you will need other products in addition to tableau for heavier enterprise data ETL, maintenance, and storage, etc.

**Q. How do we do testing in Tableau?**

You can’t test in Tableau as far as I know. It is a data visualization software.

**Q. Can you get values from two different sources as a single input into parameter?**

No you cannot. Each data source corresponds to a Tableau workbook. If you include both data variables in the same data source you can input them in the same workbook.

**Q. How many ways we use parameters in Tableau?**

We can use parameters with filters, calculated fields ,actions, measure-swap, changing views and auto updates

**Q. What is the use of new Custom SQL Query in tableau?**

Custom SQL Query written after connecting to data for pulling the data in a structured view, One simple example is you have 50 columns in a table, but we need just 10 columns only. So instead of taking 50 columns you can write a sql query. Performance will increase.

**Q. What are the differences between Tableau Software and Traditional BI tools?**

Tableau provides easy to use, best in class, Visual Analytic capabilities, but it does not help with the plumbing (data foundation). You could, for example, marry SQL Server with Tableau to get the complete package. Tableau licenses are relatively expensive if you are looking to scale.

Traditional BI can handle it all but with significant upfront costs. Higher consulting, hardware and software costs. Among the mega-vendors, only Microsoft can provide a reasonable value proposition. Open source vendors like Pentaho and JasperSoft do not have an abundant enough talent pool, yet.

**Q. What are the similarities and differences between Tableau software and Palantir?**

Palantir and Tableau are very different. Palantir has its roots in large data computer science problems involving security, payments, fraud detection and the likes. Customers/Investors include Paypal, CIA and others.

Tableau is a visualization player – with roots in Stanford U research. It’s Visual Query Language (VizQL) allows users to build visualizations on top of standard data warehouses or spreadsheets.

**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 INDIA and filter2 should display only INDIA states Choose options of Filter2 states :

select option of “Only relevant values “

**Q. Is Tableau Software good for a strategic acquisition?**

Yes for sure! It gives you data insight to the extend that others don’t.

Helps u plan and point the anomalies and improvise your process for betterment.

**Q. How to display top 5 and last 5 sales in same view?**

Using filters or calculated fields we can able to display the top 5 and last 5 sales in same view?

**Q. 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. How you will design and please explain?**

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

**Q. Design a view in a map such that if user selects any state the cities under that state has to show profit and sales.**

If you want to show the Sales and profit in each and every city under the states in the same work sheet. According to your question you should have State, City, Sales and Profit filed in your dataset.

Double click on the State filed.

Drag the City and drop into Marks card (under the State fied)

Drag the sales and drop into size.

Drag the profit and drop into color.

Click on Size legend and increase the size.(75%)

Right click on the State field and select show quick filter.

Select any state and check whether you got the required view or not. In this view size indicates the amount of sales and color indicates the Profit values.

**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. 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 disaggregation and aggregation of data?**

Suppose I have data like

Eid Ename Salary Dept

1.abc 2000 java

2.bbc 3000 .net

3.Krishna 2500 java

Madhu 300

5.Vamshi 3000 mainframes

1.abc 1000 testing

2.bbc 3000 tableau

3.krishna 5000.net 4.Madhu 7000 testing vamshi 9000 tableau 1 abc 11000 Mainframes

1. bbc 13000testing
2. krishna 15000 java
3. Madhu 17000 .nte
4. vamshi 19000.net

**Aggregation: to display aggregate data** Sum/avg salary by each individual employee

drag ename on columna 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 Does TABLEAU do?**

Our goal is to help people see and understand data. Our software products put the power of data into the hands of everyday people, allowing a broad population of business users to engage with their data, ask questions, solve problems and create value.

**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. What is data modelling?**

Data modelling is the analysis of data objects that are used in a business or other context and the identification of the relationships among these data objects. Data modelling is a first step in doing object-oriented programming

**Q. What is your daily work process in tableau?**

I think we all work on different projects using Tableau, so the work begins from understanding the requirement getting the required data, story boarding then creating visualizations in tableau and then presenting it to the client for review.

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

Parameters are dynamic values that can replace constant values in calculations and can serve as filters

**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. 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. Define the names for parameters ,filters etc…**

Parameters are dynamic values that can replace constant values in calculations and can serve as filters.Filters are used to restrict the data based on the condition u have mentioned in the filters shelf.

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

The Tableau Desktop Log files are located in C:UsersMy DocumentsMy 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. What is page shelf?**

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

**Q. What are the major differences between tableau version 7.0 and tableau version 8.0?**

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

**Q. How to create filled maps?**

Step 1: Build a Map View Double-click a geographic fields such as State, Area Code, Zip Code, etc. Step 2: Select the Fille Map Mark Type The Automatic mark type will show this type of view as circles over a map. On the Marks card, select Filled Map to color the geographic areas.

Step 3: Drag a Field to the Color Shelf Define how the locations are colored by dragging another field to the Color shelf.

**Q. Is Parameter have it’s dropdown list?**

Yes it may have its own drop down list, the entries which you make in the Parameter while creating it can be viewed as Dropdown list.

Tableau Dashboard Interview Questions:

**Q. How to rectify SQL Performance for developed Dashboards**

After creation of Dashboards if we get problem from sql side that means Custom Sql ….How to Rectify the sql performance from custom sql.

**Q. Suppose my license expires today, can users able to view the dashboards or workbook which i published in server earlier.**

If your server license expires today, your user name on the server will have the role ‘unlicensed’ which means you cannot access, but others can. The Site Admin can ‘Change Ownership’ to another person, so extracts if enabled do not fail.

**Q. Think that I am using Tableau desktop and have a live connection to Cloud era hadoop data. I need to press F5 to refresh the visualization. Is there anyway to automatically refresh the visualization every x minutes instead of pressing F5 every-time?**

Here is the example of refreshing dashboard in every 3 seconds, Replace api src and server url with yours. The interval below is for 3 seconds.

Tableau JavaScript API

**Q. What Tableau Desktop is?**

Tableau Desktop is based on breakthrough technology from Stanford University that lets you drag & drop to analyze data. It is great [data visualization t](https://mindmajix.com/data-visualization-and-dashboarding-fundamentals-training)ool, you can connect to data in a few clicks, then visualize and crate interactive dashboards with a few more.

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

You could talk feature – functionality for days, but at a high level there are four major differences.

**Speed:** How fast can you get up and running with the system, answer questions, design and sharedashboards and then change them? This is Where systems like Tableau and GoodData 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 visualizationengine based on some technology from Stanford. GoodData and 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. T](https://mindmajix.com/tableau/managing-tableau-server-in-the-cloud)raditional 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 andhigh scalability.

**Q. What is Tableau Software?**

Tableau is business intelligence software that allows anyone to easily connect to data, then visualize and create interactive, sharable 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 is Tableau Server?**

Tableau Server 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. Explain the integration of Tableau with R?**

R is a popular open-source environment for statistical analysis. [Tableau Desktop c](https://mindmajix.com/create-visual-analytics-tableau-desktop)an 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.

1. 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-anddrop [visual analytics e](https://mindmajix.com/tableau/employing-visual-analytics-to-aid-succession-planning-in-tableau)nvironment.

**Q. 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 filer is something you can limit the options from the list or use some conditions to limit the data by field or value.

**Q. How do I automate reports using Tableau software?**

You need to [publish report to tableau server, w](https://mindmajix.com/tableau/how-dashboard-facilitates-analysis-and-understanding-in-tableau)hile publishing you will find one option to schedule reports.You just need to select the time when you want to refresh data.

**Q. 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 enduser hardware. Tableau’s ability to push computation (queries) close to the data is increasingly important for large data sets, which may reside on a fast cluster and may be too large to bring in memory.Another factor in performance relates to data transfer, or in Tableau’s case resultset transfer. Since Tableau visualizations are designed for human consumption, they are tailored to the capabilities and limits of the human perception system. This generally means that the amount of data in a query result set is small relative to the size of the underlying data, and visualizations focus on aggregation and filtering to identify trends and outliers. The small result sets require little network bandwidth, so Tableau is able to fetch and render the result set very quickly. And, as Ross mentioned, Tableau will cache query results for fast reuse.The last factor 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.

**Q. 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.

**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 Office, printing to PDF or by using Tableau Server to publish or embed your views across your organization.

**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

**Q. Explain 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

**Tableau Interview Questions & Answers(Model-7)**

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.

What is Tableau Software?

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.

What are the five main product offered by Tableau company?

Tableau offers five main products: Tableau Desktop, Tableau Server, Tableau Online, Tableau reader and Tableau Public.

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

Current versions: Tableau Desktop version 9

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.

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.

What is Tableau Server?

Tableau Server 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.

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.

Our course design of tutorials is practical and informative. At TekSlate, we offer resources to help you learn various IT courses. We avail both written material and demo video tutorials. For in-depth knowledge and practical experience explore Tableau Desktop.

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 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.

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.

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

At high level there are four major differences.

What are Dimensions and Facts?

Dimensions is nothing but the descriptive text columns and facts are nothing but measures

(numerical values) dimension ex: Product Name, City. Facts:Sales, profit

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.

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.

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.

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.

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.

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

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

Introduced R script

What are the features of Tableau 8.3?

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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

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.

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 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.

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

Parameters are dynamic values that can replace constant values in calculations and can serve as filters

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.

Quick filter

Context filt

Data source filter

What is the difference between context filter to other filters?

Whenever we create 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

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 data source, or cubes, temporary tables are not crated, and context filters only defined which filters are independent and dependent.

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 filer is something you can limit the options from the list or use some conditions to limit the data by field or value.

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.

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?

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.

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-anddrop visual analytics environment.

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.

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.

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

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”

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.

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.

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

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 “

What is dual axis?

To display two measure in one graph

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

Http://onlinehelp.tableau.com/current/pro/online/mac/en-Us/multiplemeasures\_blendedaxes.html

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

What is disaggregation and aggregation of data?

Suppose I have data like

Eid Ename Salary Dept

EID ENAME Salary DEPT

1. SAM 1000 SALES
2. JOHN 1500 FINANCE
3. LISA 3000 ACCOUNTING
4. RAY 2000 OPERATIONS

SMITH 6000 MANUFACTURING

ASHLEY 25000 HR

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.

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.

Tableau Real Time Interview Questions:

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

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

Tableau offers five main products: Tableau Desktop, Tableau Server, Tableau Online, Tableau reader and Tableau Public.

Q. What is the current latest version of Tableau Desktop(as of Sep, 25th 2017)?

Current version: Tableau Desktop Version 10.4

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.

Interested in mastering Tableau Course? Enroll now for FREE demo on Tableau Training.

Q. Why tableau?

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Quick filter

Context filter

Datasource filter

Q. What is disaggregation and aggregation of data?

Suppose I have data like

Eid Ename Salary Dept

1.abc 2000 java

2.bbc 3000 .net

3.Krishna 2500 java

Madhu 300

5.Vamshi 3000 mainframes

1.abc 1000 testing

2.bbc 3000 tableau

3.krishna 5000.net

4.Madhu 7000 testing

vanshi 9000 tableau

1. abc 11000 Mainframes

1. bbc 13000testing

1. krishna 15000 java

1. Madhu 17000 .nte

1. vamshi 19000.net

Aggregation: to display aggregate data

Sum/avg salary by each individual employee

drag ename on columna and salary on rows we will get sum (salary) of each and individual employee

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Choose salary option – choose measure types as “Avg”

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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. How to remove the All options from a Tableau auto – filter?

Right click filter>>customize>>uncheck show all option

Q. Can we use non – used columns (Columns which are not used in reports but data source has columns) in Tableau Filters?

Yes!

Ex. In data source I have column like

empID, EmpName, EmpDept,EmpDsignation, EmpSalary

In reports I am using empname on columns and empsalry on rows.

I can use empDesignation on Filters

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)?

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Related Article: Employing Visual Analytics To Aid Succession Planning In Tableau

Q. 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. What is the difference between joining and blending in Tableau?

Joins in Tableau:

For Eg: your client is in Healthcare domain and using SQL Server as their database. In SQL server there may be many Tableau like Claims Tables, Rejected Claims Table, Customer Table. Now, client wants to

know customer wise claims and customer wise rejected claims table using the joins. Join is a query that combines the data form 2 or more tables by making use of Join condition.

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

In Tableau the joins can perform in 2 ways.

By making use of common columns.

By making use of common data types.

If we create joins on the fields in Tableau all the table names are suffixing with $. While performing the joins on multiple tables, always go with the les amount of data tables, so that we can improve the performance.

In Tableau the joins are divided into 2 types.

1.Equi Join,

2.Non Equi Join

Equi Join: in the join condition if we are using Equality”=”operator then such a kind of join called as

Equi join.

Non Equi Join: in the join condition apart from the Equality”=”if we use any other operator like <,>,<=,>= and=! Then such a kind of joins are called as Non Equi Join

Equi Join is divided into 3 types

Inner Join,

Outer Join,

Self – Join.

1.Inner Join: Inner join will loads the only matching records from the both tables. Inner join condition:

Tableaa.id = Tableb.id

2.Outer Join:

Again the outer join divided into 3 types.

a)Left Outer Join,

b)Right Outer Join,

c)Full Outer Join.

Left outer join: displays the complete data from the left + matching records from the left.

Condition: tablea.id(+).

Right Outer Join: displays the complete data from the right + matching records from the left.

Condition: tablea.id(+)=tableb.id

Full outer join: full outer join load the complete data from the left table and right table. Condition: Table A full outer join Table B ON tablea.id= tableb.id

3.Self-Join: if we are performing join to the same table itself such a kind of join called as self-join

Non Equi Join:

In the join condition if we are using the operators apart from the equality “=” then such a kind of joins are called as Non Equi join.

Data Blending in Tableau:

For ex: your client is same Healthcare Client. They are operating their services in Asia, Europe, NA and so on & the are maintaining Asia data in SQL, Europe Data in SQL Server and NA data in MY SQL.

Now, your client wants to analyze their business across the world in a single worksheet. So you can’t perform join here.

Now you have make use of Data Blending Concept.

Normally in the Tableau we can perform the analysis on the single data server. If we want to perform the analysis from the multiple data sources in a single sheet then we have to make use of a new concept called as data blending.

Data blending mix the data from the different data sources and allow the users to perform th analysis in a single sheet. Blending means mixing. If we are mixing the data sources then it is called as data blending.

Rules to perform the data blending

In order to perform data blending there are few rules.

If we are performing the data blending on 2 data source these 2 data sources should have at least 1 common dimension.

In that common dimension at least 1 value should match.

In Tableau we can perform the data blending in 2 ways.

Automatic way

Custom way

Automatic way: In the automatic way Tableau automatically defines the relationship between the 2 data sources based on the common dimensions and based on the matching values and the relationship is indicated with Orange color.

Custom or Manual way: In the manual or custom way the user need to define the relationship manually.

Data blending fuctionality

All the primary data sources and the secondary data sources are linked by specific relationship

while performing the data blending each work sheet has a primary connection and optionally it might contains several secondary connections.

All the primary connections are indicated in the Blue in the work sheet and all the secondary data sources indicated with the Orange color tick mark.

In the data blending 1 sheet contains 1 primary data source and 1 sheet can contain end number of secondary data sources.

Q. What are Dimensions and Facts?

Dimensions is nothing but the descriptive text columns and facts are nothing but measures

(numerical values) dimention ex:productname city..facts:sales, profit

Tableau Admin Interview Questions:

Q. Can we place an excel file in a shared location and use it to develop a report and refresh it in regular intervals?

Yes you can do it… but for the better performance use extract

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. What is the different between twb and twbx file extensions. Please explain.

Twb is a live connection, it points to the data source; the user receiving twb needs permission to said data source and no data is included. .twbx takes data offline, stroes the data as a package or zip like file,

thereby eradicating the need for permissions from end user, it’s now a snapshot in time of the data as of the time it was Saved as . twbx

Q. What is dual axis?

To display two measure in one graph

Related Article: How To Use Tabadmin For Administrative Task Automation In Tableau?

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

Us/multiplemeasures\_blendedaxes.html

Q. What makes Tableau software stand out?

In my view, Tableau stands out for several reasons:

First, most of the BI tools out there are pricey. However, Tableau has a free offering (Tableau Public) as well as a very popular (also free) academic distribution. Tableau is well recognized by firms like Forrester research to be one of the most easy to use, and agile products currently available. see here: Tableau Ranks #1 in The Forrester Wave: Advanced Data Visualization (ADV) Platforms That makes it easy to pick up and try new things with, which data visualization people love about it.

On the other hand, unlike some of the other BI tools, Tableau is not a complete technology stack, it is most useful for visualization and analytics. – you will need other products in addition to tableau for heavier enterprise data ETL, maintenance, and storage, etc.

https://www.tableau.com/about/blog/2012/7/tableau-ranks-1-forrester-wave-advanced-datavisualization-adv-platforms-1852

Q. How do we do testing in Tableau?

You can’t test in Tableau as far as I know. It is a data visualization software.

Q. Can you get values from two different sources as a single input into parameter?

No you cannot. Each data source corresponds to a Tableau workbook. If you include both data variables in the same data source you can input them in the same workbook.

Q. How many ways we use parameters in Tableau?

We can use parameters with filters, calculated fields ,actions, measure-swap, changing views and auto updates

Q. What is the use of new Custom SQL Query in tableau?

Custom SQL Query written after connecting to data for pulling the data in a structured view, One simple example is you have 50 columns in a table, but we need just 10 columns only. So instead of taking 50 columns you can write a sql query. Performance will increase.

Related Article: What Are The Common Use Cases For Tabcmd In Tableau?

Q. What are the differences between Tableau Software and Traditional BI tools?

Tableau provides easy to use, best in class, Visual Analytic capabilities, but it does not help with the plumbing (data foundation). You could, for example, marry SQL Server with Tableau to get the complete package. Tableau licenses are relatively expensive if you are looking to scale.

Traditional BI can handle it all but with significant upfront costs. Higher consulting, hardware and software costs. Among the mega-vendors, only Microsoft can provide a reasonable value proposition. Open source vendors like Pentaho and JasperSoft do not have an abundant enough talent pool, yet.

Q. What are the similarities and differences between Tableau software and Palantir?

Palantir and Tableau are very different. Palantir has its roots in large data computer science problems involving security, payments, fraud detection and the likes. Customers/Investors include Paypal, CIA and others.

Tableau is a visualization player – with roots in Stanford U research. It’s Visual Query Language (VizQL) allows users to build visualizations on top of standard data warehouses or spreadsheets.

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 INDIA and filter2 should display only INDIA states

Choose options of Filter2 states :

select option of “Only relevant values “

Q. Is Tableau Software good for a strategic acquisition?

Yes for sure! It gives you data insight to the extend that others don’t.

Helps u plan and point the anomalies and improvise your process for betterment.

Q. How to display top 5 and last 5 sales in same view?

Using filters or calculated fields we can able to display the top 5 and last 5 sales in same view?

Q. 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. How you will design and please explain?

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

Q. Design a view in a map such that if user selects any state the cities under that state has to show profit and sales.

If you want to show the Sales and profit in each and every city under the states in the same work sheet.

According to your question you should have State, City, Sales and Profit filed in your dataset.

Double click on the State filed.

Drag the City and drop into Marks card (under the State fied)

Drag the sales and drop into size.

Drag the profit and drop into color.

Click on Size legend and increase the size.(75%)

Right click on the State field and select show quick filter.

Select any state and check whether you got the required view or not. In this view size indicates the amount of sales and color indicates the Profit values.

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. 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 disaggregation and aggregation of data?

Suppose I have data like

Eid Ename Salary Dept

1.abc 2000 java

2.bbc 3000 .net

3.Krishna 2500 java

Madhu 300

5.Vamshi 3000 mainframes

1.abc 1000 testing

2.bbc 3000 tableau

3.krishna 5000.net

4.Madhu 7000 testing

vamshi 9000 tableau

1. abc 11000 Mainframes

1. bbc 13000testing

1. krishna 15000 java

1. Madhu 17000 .nte

1. vamshi 19000.net

Aggregation: to display aggregate data

Sum/avg salary by each individual employee

drag ename on columna 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 Does TABLEAU do?

Our goal is to help people see and understand data. Our software products put the power of data into the hands of everyday people, allowing a broad population of business users to engage with their data, ask questions, solve problems and create value.

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. What is data modelling?

Data modelling is the analysis of data objects that are used in a business or other context and the identification of the relationships among these data objects. Data modelling is a first step in doing object-oriented programming

Q. What is your daily work process in tableau?

I think we all work on different projects using Tableau, so the work begins from understanding the requirement getting the required data, story boarding then creating visualizations in tableau and then presenting it to the client for review.

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

Parameters are dynamic values that can replace constant values in calculations and can serve as filters 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. 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. Define the names for parameters ,filters etc…

Parameters are dynamic values that can replace constant values in calculations and can serve as filters.Filters are used to restrict the data based on the condition u have mentioned in the filters shelf.

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

The Tableau Desktop Log files are located in C:UsersMy DocumentsMy 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.

Related Article: What Kinds Of Tasks Can Be Done With Tabcmd In Tableau?

Q. What is page shelf?

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

Q. What are the major differences between tableau version 7.0 and tableau version 8.0?

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

Q. How to create filled maps?

Step 1: Build a Map View Double-click a geographic fields such as State, Area Code, Zip Code, etc.

Step 2: Select the Fille Map Mark Type The Automatic mark type will show this type of view as circles over a map. On the Marks card, select Filled Map to color the geographic areas.

Step 3: Drag a Field to the Color Shelf Define how the locations are colored by dragging another field to the Color shelf.

Q. Is Parameter have it’s dropdown list?

Yes it may have its own drop down list, the entries which you make in the Parameter while creating it can be viewed as Dropdown list.

**Tableau Dashboard Interview Questions:**

Q. How to rectify SQL Performance for developed Dashboards

After creation of Dashboards if we get problem from sql side that means Custom Sql ….How to Rectify

the sql performance from custom sql.

Q. Suppose my license expires today, can users able to view the dashboards or workbook which i published in server earlier.

If your server license expires today, your user name on the server will have the role ‘unlicensed’ which means you cannot access, but others can. The Site Admin can ‘Change Ownership’ to another person, so extracts if enabled do not fail.

Q. Think that I am using Tableau desktop and have a live connection to Cloud era hadoop data. I need to press F5 to refresh the visualization. Is there anyway to automatically refresh the visualization every x minutes instead of pressing F5 every-time?

Here is the example of refreshing dashboard in every 3 seconds, Replace api src and server url with yours. The interval below is for 3 seconds.

Tableau JavaScript API

Related Article: What Are The Rapid-fire Analysis At A Public Utility In Tableau?

Q. What Tableau Desktop is?

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 are the differences between Tableau Software, GoodData and Traditional BI (Business Objects, etc.)?

You could talk feature – functionality for days, but at a high level there are four major differences.

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 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. GoodData and 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.

Related Article: Aggregating Disparate Data Sources At A Large University In Tableau

Q. What is Tableau Software?

Tableau is business intelligence software that allows anyone to easily connect to data, then visualize and create interactive, sharable 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 is Tableau Server?

Tableau Server 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. Explain the integration of Tableau with R?

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-anddrop visual analytics environment.

Q. 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 filer is something you can limit the options from the list or use some conditions to limit the data by field or value.

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.

Q. 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 enduser hardware. Tableau’s ability to push computation (queries) close to the data is increasingly important for large data sets, which may reside on a fast cluster and may be too large to bring in memory.Another factor in performance relates to data transfer, or in Tableau’s case resultset transfer. Since Tableau visualizations are designed for human consumption, they are tailored to the capabilities and limits of the human perception system. This generally means that the amount of data in a query result set is small relative to the size of the underlying data, and visualizations focus on aggregation and filtering to identify trends and outliers. The small result sets require little network bandwidth, so Tableau is able to fetch and render the result set very quickly. And, as Ross mentioned, Tableau will cache query results for fast reuse.The last factor 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.

Related Article: How To Embed Tableau Reports Securely On The Web?

Q. 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.

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 Office, printing to PDF or by using Tableau Server to publish or embed your views across your organization.

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

Q. Explain 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.

1. 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.

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1. What are the five main product offered by Tableau company?

Tableau offers five main products: Tableau Desktop, Tableau Server, Tableau Online, Tableau reader and Tableau Public.

What is the current latest version of Tableau Desktop(as of

Feb.2015)? Current versions: Tableau Desktop version 9

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.

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1. 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 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.

1. 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

What are the differences between Tableau Software GoodData and Traditional BI (Business Objects, etc.)?

At high level there are four major differences.How to view sql which is generated by Tab

1. What are Dimensions and Facts?

Dimensions is nothing but the descriptive text columns and facts are nothing but measures

(numerical values) dimension ex: Product Name, City. Facts:Sales, profit

1. 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.

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Enterprise readiness.

1. What is a parameter in Tableau ? And how it works.?

Parameters are dynamic values that can replace constant values in calculations and can serve as filters

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.

Quick filter

Context filter

Datasource filter

1. 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

1. 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 data source, or cubes, temporary tables are not crated, and context filters only defined which filters are independent and dependent.

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 filer is something you can limit the options from the list or use some conditions to limit the data by field or value.

1. 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.

1. 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.

1. 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.

1. 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.

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

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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 “

1. What is dual axis?

To display two measure in one graph

1. 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

Http://onlinehelp.tableau.com/current/pro/online/mac/en-

Us/multiplemeasures\_blendedaxes.html

1. What is Data Visualization?

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

1. What are the differences between Tableau desktop and Tableau Server?

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

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

1. Define parameters in Tableau and their working.

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

1. Differentiate between parameters and filters in Tableau.

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

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

1. What are fact table and Dimension table in Tableau?

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

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

1. What are Quick Filters in Tableau?

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

1. State limitations of parameters in Tableau.

Parameters facilitate only four ways to represent data on a dashboard (which are seven in quick filters).

Further, parameters do not allow multiple selections in a filter.

1. What is aggregation and disaggregation of data in Tableau?

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

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

1. 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.

1. 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”.

1. What are the limitations of context filters?

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

1. Name the file extensions in Tableau.

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

Tableau Workbook (.twb)

Tableau Packaged Workbook (.twbx)

Tableau Datasource (.tds)

Tableau Packaged Datasource (.tdsx)

Tableau Data extract (.tde)

Tableau Bookmark (.tdm)

Tableau Map Source (.tms)

Tableau Preferences (.tps)

1. Explain the difference between .twb and .twbx

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

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

1. What are Extracts and Schedules in Tableau server?

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

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

1. Name the components of a Dashboard

Horizontal- Horizontal layout containers allow the designer to group worksheets and dashboard components left to right across your page and edit the height of all elements at once.

Vertical- Vertical containers allow the user to group worksheets and dashboard components top to bottom down your page and edit the width of all elements at once.

Text

Image Extract: – A Tableau workbook is in XML format. In order to extracts images, Tableau applies some codes to extract an image which can be stored in XML.

Web [URL ACTION]:- A URL action is a hyperlink that points to a Web page, file, or other web-based resource outside of Tableau. You can use URL actions to link to more information about your data that may be hosted outside of your data source. To make the link relevant to your data, you can substitute field values of a selection into the URL as parameters.

1. How to view underlying SQL Queries in Tableau?

Viewing underlying SQL Queries in Tableau provides two options:

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

Help> Settings and Performance> Start Performance Recording

Help> Setting and Performance > Stop Performance Recording

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

1. What is Page shelf?

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

1. How to do Performance Testing in Tableau?

Performance testing is again an important part of implementing tableau. This can be done by loading

Testing Tableau Server with TabJolt, which is a “Point and Run” load generator created to perform QA. While TabJolt is not supported by tableau directly, it has to be installed using other open source products.

1. Explain the concept of Dual Axis.

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

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

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

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

The auto-filter provides a feature of removing ‘All’ options by simply clicking the down arrow in the auto-filter heading. You can scroll down to ‘Customize’ in the dropdown and then uncheck the ‘Show

“All” Value’ attribute. It can be activated by checking the field again.

1. 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

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

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

1. 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.

1. 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.

1. Can parameters have dropdown list?

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

We will continuously update tableau interview questions and answers in this site with real time scenarios by tableau experts.You can request for tableau interview questions and answers pdf in the Contact us form.

## Tableau Interview Questions & Answers(Model-8)

1) Explain what is Tableau?

Tableau is a business intelligence software that allows anyone to connect to respective data, and then visualize and create interactive, sharable dashboards.

List out some of the new features introduced in Tableau

9.1? The new features introduced in Tableau 9.1 includes

Data: With new web data connector, it makes data accessible from anywhere

Mobile: The new tableau comes with a high-resolution thumbnails, taking screenshot offline and high-level security for the data

Enterprise: Easy enterprise deployment with active directory synchronization

Visual Analytics: View proximity in the radial selection tool, also provides features like creating filter formulas and Zoom control on your data

3) Explain what is Tableau public?

Tableau public is a free service that allow anyone to publish interactive data to the web. Once it is there on web, anyone can interact with the data, download it or create their own visualization.

Mention whether you can create relational joins in Tableau without creating a new table? Yes, one can create relational joins in tableau without creating a new table.

Mention what are different Tableau files?

Different Tableau files include

Workbooks: Workbooks hold one or more worksheets and dashboards

Bookmarks: It contains a single worksheet and its an easy way to quickly share your work

Packaged Workbooks: It contains a workbook along with any supporting local file data and background images

Data Extraction Files: Extract files are a local copy of a subset or entire data source

Data Connection Files: It’s a small XML file with various connection information

Mention what is the difference between published data sources and embedded data sources in Tableau?

The difference between published data source and embedded data source is that,

Published data source: It contains connection information that is independent of any workbook and can be used by multiple workbooks.

Embedded data source: It contains connection information and is associated with a workbook.

1. Mention what are the characteristics to distinguish data source?

The data source are distinguished on the basis of following characteristics

Icon/Name

Connection Type

Connects to

Live or Last extract

1. Mention when to use Joins vs. Blending in Tableau?

If data resides in a single source, it is always desirable to use Joins. When your data is not in one place blending is the most viable way to create a left join like the connection between your primary and secondary data sources.

1. Explain what is Tableau Data Extract?

A table data extract is a compressed snapshot of data stored on disk and loaded into memory as required to render a Tableau. A TDE is a columnar store and reduce the input/output required to access and aggregate the values.

10) Explain what is the difference between blending and joining in Tableau?

Joining term is used when you are combining data from the same source, for example, worksheet in an Excel file or tables in Oracle database

While blending requires two completely defined data sources in your report.