Interview Questions - Day 1

**1) Which one of the following is not a valid data type in Tableau?**

A. String

B. Integer

C. Boolean

D. Complex

Answer: D. Complex

**2) Which of the following statements is true about Tableau?**

A. Tableau is a relational database management system.

B. Tableau is a business intelligence and data visualization tool.

C. Tableau is a programming language used for statistical analysis.

D. Tableau is an operating system.

Answer: B. Tableau is a business intelligence and data visualization tool.

**3) Which one of the following is not a valid aggregation function in Tableau?**

A. Sum

B. Count

C. Average

D. Maximize

Answer: D. Maximize

**4) What is a dimension in Tableau?**

A. A measure that is computed based on the values of one or more dimensions.

B. A column in a data source that contains categorical data.

C. A data type used to represent numerical values.

D. A type of join used to combine data from multiple tables.

Answer: B. A column in a data source that contains categorical data.

**5) What is a measure in Tableau?**

A. A column in a data source that contains categorical data.

B. A data type used to represent numerical values.

C. A type of join used to combine data from multiple tables.

D. A value that can be aggregated or computed based on other measures.

Answer: D. A value that can be aggregated or computed based on other measures.

**6) What is the difference between a worksheet and a dashboard in Tableau?**

A. A worksheet is a single chart or table, while a dashboard is a collection of worksheets.

B. A worksheet is a collection of worksheets, while a dashboard is a single chart or table.

C. A worksheet is used for data exploration, while a dashboard is used for data analysis.

D. There is no difference between a worksheet and a dashboard in Tableau.

Answer: A. A worksheet is a single chart or table, while a dashboard is a collection of worksheets

**7) What is the difference between a measure and a dimension in Tableau?**

A. A measure is a type of chart, while a dimension is a type of data.

B. A measure is a numeric value that can be aggregated, while a dimension is a categorical value that cannot be aggregated.

C. A measure is a categorical value that cannot be aggregated, while a dimension is a numeric value that can be aggregated.

D. There is no difference between a measure and a dimension in Tableau

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Answer: B. A measure is a numeric value that can be aggregated, while a dimension is a categorical value that cannot be aggregated.

**8) What is the difference between a discrete and a continuous field in Tableau?**

A.A discrete field represents categorical data, while a continuous field represents numeric data.

B. A discrete field represents numeric data, while a continuous field represents categorical data.

C. A discrete field is represented by individual data points, while a continuous field is represented by a continuous range of values.

D. There is no difference between a discrete and a continuous field in Tableau.

Answer: C. A discrete field is represented by individual data points, while a continuous field is represented by a continuous range of values.

**9) What is a workbook in Tableau?**

A. A file that contains one or more visualizations and data sources.

B. A type of chart that displays data as a series of points.

C. A way to group related dimensions together.

D. A way to limit the data displayed in a chart or table.

Answer: A. A file that contains one or more visualizations and data sources

**10) Which connection shows the real-time data automatically when we open the workbook ?**

A. Live

B. Extract

Answer: A. Live

**1) What is Tableau?**

Tableau is the powerful and fastest visualization tool that is used in the Business Intelligence (BI) domain. It simplifies the raw data into actionable insights. We use Tableau to create the worksheets, dashboards and the stories and publish/save those either Tableau Server or Tableau Online.

**2) What is Data Visualization?**

Data visualization means showing the data in-hand in some meaningful charts. It is the way by using which we understand the data easily. The data visualization consists of creating bar chart, pie chart, line chart etc along with custom charts.

**3) What are the different file extensions available in Tableau?**

* Tableau Workbook (.twb)
  + When the tableau workbook is saved in .twb file and once it is shared with others, along with workbook the data, as well, is required to be given to others so that others can open and see the workbook contents.
* Tableau Packaged Workbook (.twbx)
  + When the tableau workbook is saved in .twbx file and once it is shared with others, the person at the other end can open it and modify as well. There is no need for the data source to be given to the other person.
* Tableau Data extract (.tde/.hyper)
  + A Tableau data extract is a compressed snapshot of data stored on disk and loaded into memory as required to render a tableau visualization.
* Tableau Datasource (.tds)
  + Data source files are shortcuts for quickly connecting to the original data that we use often.
* Tableau Packaged Datasource (.tdsx)
  + It is a zip file that contains data source files and also any local file data source such as Extract files, Excel files etc.
* Tableau Bookmark (.tbm)
  + It is used to save the different worksheets and share them with others so that others can use it in their workbooks without having to create a new worksheet from scratch.
* Tableau Preferences (.tps)
  + It is a basic XML file which is primarily used to create the custom colour palette in tableau desktop. This can be done by editing the .tps file which is present under My Tableau Repository folder under Documents and writing down the HTML colour code of those colours that we want in tableau colour marks card colour palette.

**4) What are the different types of Tableau Products available in the market?**

* Tableau Desktop:
  + Used to create the dashboards and stories
* Tableau Server:
  + Used to share the tableau work with organization by publishing/saving the tableau dashboards. It is on premise.
* Tableau Online:
  + Same as Tableau Server with only difference of the fact that it is cloud based service.
* Tableau Prep:
  + Tableau Prep refers to two products: Prep Builder, to help we build data flows, and Prep Conductor, to schedule, monitor, and manage flows across the organization. Prep’s main purpose is as an ETL (extract, transform, load) tool to get data ready for analysis.
* Tableau Reader:
  + Used to see the tableau workbook in read-only mode. We can’t edit the workbook. We can see the data source pane as well.
* Tableau Public:
  + Open-source website where we can publish the tableau work in tableau public website and anyone who is registered on that platform can see our work.

**5) What different data types are available in Tableau?**

* String (e.g. Customer Name, Emp ID etc.)
* Numerical (e.g. Sales, Quantity etc)
* Date (e.g. 01-01-2000)
* Date-time (e.g. 01-01-2000 09:00:00)
* Boolean (True|False)
* Geographical (e.g. Country, State)

**6) What is the difference between Dimensions and Measures?**

Dimensions are the descriptive data which are used to convey the discrete data information e.g. customer name, category, sub-category. Apart from COUNT and COUNTD functions we can’t apply any aggregations on discrete dimension data.

Measures are the information about numerical data which are continuous in nature. We can apply any aggregate functions on such continuous data. By default, all dimensions are discrete and all measures are continuous in nature.

Discrete dimensions are shown in blue colour and continuous measures are shown in green colour.

**7) Explain different connection types in Tableau?**

There are 2 connection types available in Tableau.

Extract: Extract is a snapshot of data that will be extracted from the data source and put into the Tableau repository. This snapshot can be refreshed periodically fully or incrementally. This can be scheduled in Tableau Server.

Live: It creates a direct connection to the data source and data will be fetched directly from tables. So, data will be up to date and consistent. But, this affects the tableau dashboard performance if the volume of data is large enough.

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

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

Continuous data roles consist of any value within the finite or infinite intervals. For Example – age, unit price, order quantity. Continuous values displayed as green icons in the data window and green pills on shelves.

**9) What is the difference between .twb and .twbx extensions?**

.twb: .twb means Tableau workbook. .twb is an XML sheet, it stores the data about documents, stories, and dashboards. This file is the reference to the source file such as Excel or tde. This file will be linked to source file when we save the TWB file. If we want to share workbook we need to send both the workbook and data source file. If we don’t send the underlying data to others then others can’t open the .twb file. Instead they get an error regarding the data source.

.twbx: It is a compressed file, where we have all files. It includes data source files, twb, and other files to produce the workbook. .twbx is used for reports and we can view using the tableau viewer. We are not supposed to send the data along with .twbx file with others.

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

Extract connection is better than live connection because extract connection can be used from anywhere, anytime without connecting to the database. We can construct our own visualizations on it irrespective of the database connection. In live connection everything depends on the original data source. If original data source is down then we cannot get the data using live connection and so no work in tableau is carried out.

**11) How to see the product key information in tableau?**

Product key is a necessary thing illustrating about the license purchased. For the student version it is given free to use for one year. We can see the information about the product key in Help 🡪 Manage Product Keys

**12) What is the default aggregate function in tableau?**

SUM() function is the default aggregate function in tableau.

**13) What operations can one do in data source pane in tableau?**

* Rename
* Copy Values
* Hide
* Aliases
* Create Calculated Field
* Create Groups
* Pivot Table
* Split
* Custom Split
* Describe
* Find top rows

**14) Explain the disaggregation and aggregation of data in Tableau?**

Aggregation → The process of summarizing the data and viewing a single numeric value is called aggregation. If we have three values and want to see the total of the three values then we use aggregate functions i.e. SUM(). So in aggregation we make use of aggregate functions. Example – SUM(Sales), AVG(Sales)

The default aggregation function in Tableau is SUM() function. Means if we use any measure in rows/columns shelf by default it is shown as SUM(measure name)

Disaggregation → It means no use of aggregate functions. For example, Sales, Quantity etc.

This is nothing but looking at the measure values individually i.e. in each row.

**15) What are the differences between Tableau Professional and Tableau Public?**

| Professional | Public |
| --- | --- |
| Can connect to servers | Can’t connect to servers |
| Can save the workbooks to local system | Can’t save the workbooks to local system |
| Licensed version | No license required. Free forever. |
| Connection information is present | No connection is shown |